

# CONEC<sup>®</sup>

TECHNOLOGY IN CONNECTORS<sup>™</sup>

I/O CONNECTORS



# CONEC<sup>®</sup>

TECHNOLOGY IN CONNECTORS<sup>™</sup>



GERMANY

As a leading manufacturer of connectors, CONEC develops, produces and markets its products around the world to customers in the machine-tool, electronics and communications industries.

CONEC has dedicated itself to make a contribution to progress in the connector industry and to satisfy its customers through innovation, quality and excellent service. Around the world, our organization operates as a customer-oriented team.

CONEC is present in numerous countries with its own branch offices and representatives. Our local sales consultants transmit all information directly to the responsible departments to keep the paths of communication short. This provides support in the local language, quick response and competent consulting.





CANADA



USA

CONEC designs and manufactures a wide variety of electronic connector products. CONEC provides reliable and effective solutions to problems faced by electronic equipment manufacturers, contract manufacturers and cable assembly operations.



OUR PHILOSOPHY – CUSTOMER SATISFACTION.



Quality is realized right from the beginning with Total Quality Management concept. Therefore our customers are included into all our processes, starting with design phase, first sampling, series production release and continuous sales support. The phases will be accompanied by drawings, samples and test reports. The entire quality process is documented and approved. CONEC is certified to ISO/TS16949:2002.



CONEC inhouse is equipped with modern test systems. We can verify the requirements and implement a continuous product improvement process to meet and exceed future requirements. To fulfill international and national requirements most of CONEC product series are registered by UL, CSA or VDE



## CONEC IS YOUR SPECIALIST FOR DESIGN AND PRODUCTION OF SPECIAL CUSTOMIZED PRODUCTS.

Flexibility, quality assurance and rapid response are required in today's market more than ever before. CONEC fulfills these demands with central order-processing and well implemented quality control systems. Statistical process control as well as just in time deliveries are a common practice. Numerous customers honored this performance by approving CONEC to a "Preferred Supplier" status.



Are you looking for application-specific solutions?  
Standard products do not meet your needs?  
The implementation deadline is tight?








CONEC experienced design team can create your solution for you:

- Special Interconnect solutions to customers specifications
- Prototypes and small series production batches
- Connectors with increased IP ratings for harsh environments.

Contact us to discuss your special requirements.



# TABLE OF CONTENTS

<b>SECTION 1</b>	<b>D-SUB CONNECTORS</b>	
	D-SUB Standard	1   2
	D-SUB Standard – Dual Port	1   24
	D-SUB High Density	1   32
	D-SUB Adapter	1   44
	Technical Data	1   48
<b>SECTION 2</b>	<b>COMBINATION D-SUB CONNECTORS</b>	
	Part Number Creator – Technical Data	2   2
	Combination D-SUB with signal contacts	2   10
	Combination D-SUB with signal contacts High Density	2   26
	Combination D-SUB Version 2W2/3W3/5W5/8W8	2   30
	Combination D-SUB Crimp body	2   36
	Combination D-SUB Crimp-/High power-/Coaxialcontacts	2   38
	Combination D-SUB Dual Port	2   54
<b>SECTION 3</b>	<b>FILTER D-SUB CONNECTORS</b>	
	Part Number Creator – Technical Data	3   2
	C-Filter D-SUB Standard and Dual Port	3   4
	LC-Filter D-SUB Standard	3   30
	$\pi$ -Filter D-SUB Standard	3   34
	C-Filter D-SUB High Density	3   40
	LC-Filter D-SUB High Density	3   50
	Filter D-SUB Adapter Standard and High Density	3   52
	Filter D-SUB Accessories	3   62
	Technical Data – PCB-Layout	3   64
<b>SECTION 4</b>	<b>C-FILTER COMBINATION D-SUB CONNECTORS</b>	
	Part Number Creator – Technical Data	4   2
	C-Filter Combination D-SUB	4   5
	C-Filter Combination D-SUB – Solder pin straight	4   10
	C-Filter Combination D-SUB – Solder pin angled	4   20
	C-Filter Combination D-SUB – Press-fit contact	4   25
<b>SECTION 5</b>	<b>MICROTCA POWER MODUL CONNECTORS</b>	
	Technical Data	5   2
	MicroTCA Power Modul Input Connectors	5   4
	Power Modul Input Connectors	5   10
	MicroTCA Power Input Connectors, Solder cup or Crimp body	5   14
	MicroTCA Hoods	5   16
<b>SECTION 6</b>	<b>RJ45 MODULAR JACK WITH MAGNETIC FILTER</b>	
	Part Number Creator – Technical Data	6   2
	RJ45 Modular Jack with Magnetic Filter 1 - 2 - 4 - 6 - 8 Ports	6   4
	PCB-Layout	6   16
<b>SECTION 7</b>	<b>D-SUB HOODS AND ACCESSORIES</b>	
	D-SUB Metal Hoods	7   2
	D-SUB Plastic Hoods	7   13
	D-SUB MicroTCA Metal Hoods	7   34
	IP67 D-SUB Plastic Hoods	7   36
	D-SUB Protection caps in Plastic or Metal	7   39
	D-SUB Hardware Accessories	7   48

<b>SECTION 8</b>	<b>IP67 D-SUB CONNECTORS</b>	 8   2 8   4 8   11 8   16 8   20 8   25
<b>SECTION 9</b>	<b>IP67 COMBINATION D-SUB CONNECTORS</b>	 9   2 9   8 9   23 9   29 9   32
<b>SECTION 10</b>	<b>IP67-FILTER D-SUB CONNECTORS</b>	 10   2 10   4 10   18 10   22
<b>SECTION 11</b>	<b>RJ45-IP67 INDUSTRIAL ETHERNET CONNECTOR SYSTEM</b>	 11   2 11   3 11   14 11   18 11   26
<b>SECTION 12</b>	<b>USB 2.0-IP67 CONNECTOR SYSTEM</b>	 12   2 12   3 12   5 12   10 12   12
<b>SECTION 13</b>	<b>FIBER OPTIC CONNECTORS</b>	 13   2 13   5 13   8
<b>SECTION 14</b>	<b>INSTALLATION AND ASSEMBLY TOOLS</b>	 14   2
<b>SECTION 15</b>	<b>PART NUMBERS</b>	 15   2

SECTION 1

# D-SUBMINIATURE CONNECTORS

CONEC D-Subminiature connector dimensions conform to IEC 60807-2 (formerly DIN 41652) or MIL-C-24308. These cable/device connectors each consist of a plug/jack mating pair which meets IEC Recommendation 48 B, deliverable in five standardized housing sizes with standard pole counts of 9, 15, 25, 37 and 50. In addition to this, we also have a high density series deliverable with pole counts of 15, 26, 44, 62 and 78.

These connectors are utilized in control, regulation and communications technology. The machined, precision contacts are hard-gold plated over a nickel barrier layer appropriate to the given application requirements.

The isolating body is made of polyester GF, self-extinguishing per UL 94 V0, and can also be adapted on an application-specific basis.







The trapezoid shaped housing (shell) provides mechanical protection, electrical shielding and ensures proper plug-in alignment. CONEC connectors are compatible with industry standards. Hoods and Backshells are configured for either straight or side cable entry.

An extensive assortment consisting of protective caps, hard ware and latches can be supplied.

Need a custom design? Please contact us.



# D-SUB STANDARD

Solder cup – Precision machined contacts – For wire size AWG 20



RoHS compliant – CSA listed, File No.: LR 115000-1 – UL listed, File No.: E202784

## DESCRIPTION

- Suitable for wire size AWG 20
- Mounting styles:
  - with through-hole,  $\varnothing .118''/3 \text{ mm}$
  - with M3 or 4-40 UNC threaded insert
- Quality class 3 (also available in quality class 1)
- Shell: Steel tin plated (brass tin plated or stainless steel available on request)

## SOCKET CONNECTOR

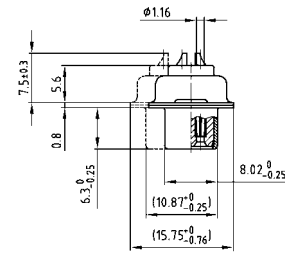


No. of pos.	A -0.76	B -0.25	C
09	31.19	16.46	25.00 $+0.12$
15	39.52	24.79	33.30 $+0.15$ $-0.10$
25	53.42	38.50	47.04 $+0.13$
37	69.70	54.96	63.50 $+0.13$
50	67.31	52.55	61.10 $+0.14$ $-0.11$

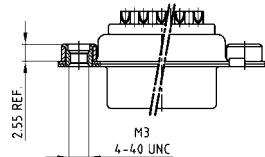
Mounting style: Through-hole



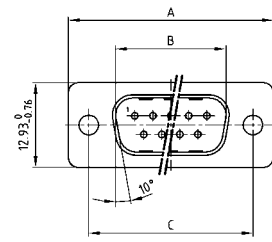
Mounting style: Threaded insert



50 pos. = Dim. in ( \_ )

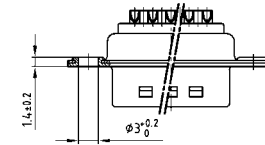


## PLUG CONNECTOR

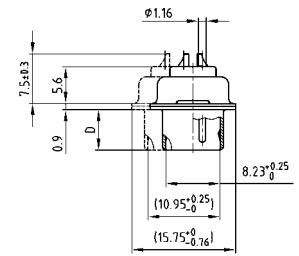


No. of pos.	A -0.76	B +0.25	C	D -0.3
09	31.19	16.79	25.00 $+0.12$	6.12
15	39.52	25.12	33.30 $+0.15$ $-0.10$	6.12
25	53.42	38.84	47.04 $+0.13$	5.99
37	69.70	55.30	63.50 $+0.13$	5.99
50	67.31	52.68	61.10 $+0.14$ $-0.11$	5.99

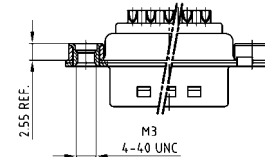
Mounting style: Through-hole



Mounting style: Threaded insert



50 pos. = Dim. in ( \_ )



## ORDER DATA

SOCKET CONNECTOR		
No. of pos.	Mounting style	Part Number
09	Through-hole	164A10019X
15	Through-hole	164A10029X
25	Through-hole	164A10039X
37	Through-hole	164A10049X
50	Through-hole	164A10059X
09	4-40 UNC Threaded insert	164A10219X
15	4-40 UNC Threaded insert	164A10229X
25	4-40 UNC Threaded insert	164A10239X
37	4-40 UNC Threaded insert	164A10249X
50	4-40 UNC Threaded insert	164A10259X
09	M3 Threaded insert	164A10269X
15	M3 Threaded insert	164A10279X
25	M3 Threaded insert	164A10289X
37	M3 Threaded insert	164A10299X
50	M3 Threaded insert	164A10309X

PLUG CONNECTOR		
No. of pos.	Mounting style	Part Number
09	Through-hole	163A11069X
15	Through-hole	163A11079X
25	Through-hole	163A11089X
37	Through-hole	163A11099X
50	Through-hole	163A11109X
09	4-40 UNC Threaded insert	163A11269X
15	4-40 UNC Threaded insert	163A11279X
25	4-40 UNC Threaded insert	163A11289X
37	4-40 UNC Threaded insert	163A11299X
50	4-40 UNC Threaded insert	163A11309X
09	M3 Threaded insert	163A11319X
15	M3 Threaded insert	163A11329X
25	M3 Threaded insert	163A11339X
37	M3 Threaded insert	163A11349X
50	M3 Threaded insert	163A11359X

# D-SUB STANDARD

Solder cup – Stamped contacts – For wire size AWG 20

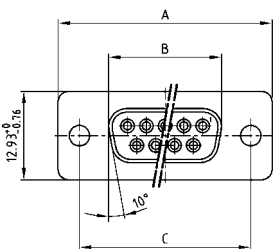


RoHS compliant – CSA listed, File No.: LR 115000-1 – UL listed, File No.: E202784

## DESCRIPTION

- Suitable for wire size AWG 20
- Mounting style: with through-hole, Ø .118" / 3 mm
- Quality class 3 (other quality classes on request)
- Shell: Steel tin plated

## SOCKET CONNECTOR



No. of pos.	A -0.76	B -0.25	C
09	31.19	16.46	25.00 +0.12
15	39.52	24.79	33.30 +0.15 -0.10
25	53.42	38.50	47.04 ±0.13
37	69.70	54.96	63.50 ±0.13
50	67.31	52.55	61.10 +0.14 -0.11

Mounting style: Through-hole



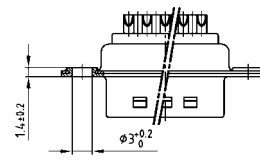
50 pos. = Dim. in ( \_ )

## PLUG CONNECTOR



No. of pos.	A -0.76	B -0.25	C	D -0.3
09	31.19	16.79	25.00 -0.12	6.12
15	39.52	25.12	33.30 +0.15 -0.10	6.12
25	53.42	38.84	47.04 ±0.13	5.99
37	69.70	55.30	63.50 ±0.13	5.99
50	67.31	52.68	61.10 -0.14 -0.11	5.99

Mounting style: Through-hole



50 pos. = Dim. in ( \_ )

## ORDER DATA

SOCKET CONNECTOR		
No. of pos.	Mounting style	Part Number
09	Through-hole	302A10019X
15	Through-hole	302A10029X
25	Through-hole	302A10059X
37	Through-hole	302A10069X
50	Through-hole	302A10079X

PLUG CONNECTOR		
No. of pos.	Mounting style	Part Number
09	Through-hole	301A10019X
15	Through-hole	301A10029X
25	Through-hole	301A10059X
37	Through-hole	301A10069X
50	Through-hole	301A10079X

# D-SUB STANDARD

Solder pin – Straight – Precision machined contacts



RoHS compliant – CSA listed, File No.: LR 115000-1 – UL listed, File No.: E202784

## SOCKET CONNECTOR



No. of pos.	A -0.76	B -0.25	C
09	31.19	16.46	25.00 +0.12
15	39.52	24.79	33.30 +0.15 -0.10
25	53.42	38.50	47.04 +0.13
37	69.70	54.96	63.50 +0.13
50	67.31	52.55	61.10 +0.14 -0.11

PCB-Layout: Kat1kFUA



50 pos. = Dim. in ( \_ )

## DESCRIPTION

- Mounting styles:
  - with through-hole, Ø .118"/3 mm
  - with 4-40 UNC or M3 threaded insert
  - with 4-40 UNC or M3 threaded rear spacer
  - with 4-40 UNC or M3 front and threaded rear spacer
  - with 4-40 UNC front/M3 threaded rear spacer
  - with M3 front/4-40 UNC or M3 threaded rear spacer with PCB clip
  - with 4-40 UNC or M3 Front/Threaded rear spacer with PCB clip
- Quality class 3 (also available in quality class 1)
- Shell: Steel tin plated (brass tin plated or stainless steel available on request)

## PLUG CONNECTOR



No. of pos.	A -0.76	B -0.25	C	D -0.3
09	31.19	16.79	25.00 +0.12	6.12
15	39.52	25.12	33.30 +0.15 -0.10	6.12
25	53.42	38.84	47.04 +0.13	5.99
37	69.70	55.30	63.50 +0.13	5.99
50	67.31	52.68	61.10 +0.14 -0.11	5.99

PCB-Layout: Kat1kFUA



50 pos. = Dim. in ( \_ )

## ORDER DATA



SOCKET CONNECTOR		
No. of pos.	Mounting style	Part Number
09	Through-hole	164A10069X
15	Through-hole	164A10079X
25	Through-hole	164A10089X
37	Through-hole	164A10099X
50	Through-hole	164A10109X

PLUG CONNECTOR		
No. of pos.	Mounting style	Part Number
09	Through-hole	163A11119X
15	Through-hole	163A11129X
25	Through-hole	163A11139X
37	Through-hole	163A11149X
50	Through-hole	163A11159X



SOCKET CONNECTOR		
No. of pos.	Mounting style	Part Number
09	4-40 UNC Threaded insert	164A10319X
15	4-40 UNC Threaded insert	164A10329X
25	4-40 UNC Threaded insert	164A10339X
37	4-40 UNC Threaded insert	164A10349X
50	4-40 UNC Threaded insert	164A10359X
09	M3 Threaded insert	164A10369X
15	M3 Threaded insert	164A10379X
25	M3 Threaded insert	164A10389X
37	M3 Threaded insert	164A10399X
50	M3 Threaded insert	164A10409X

PLUG CONNECTOR		
No. of pos.	Mounting style	Part Number
09	4-40 UNC Threaded insert	163A11369X
15	4-40 UNC Threaded insert	163A11379X
25	4-40 UNC Threaded insert	163A11389X
37	4-40 UNC Threaded insert	163A11399X
50	4-40 UNC Threaded insert	163A11409X
09	M3 Threaded insert	163A11419X
15	M3 Threaded insert	163A11429X
25	M3 Threaded insert	163A11439X
37	M3 Threaded insert	163A11449X
50	M3 Threaded insert	163A11459X

# D-SUB STANDARD – MOUNTING STYLES

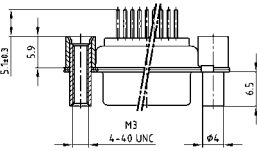
## Solder pin – Straight – Precision machined contacts

### ORDER DATA



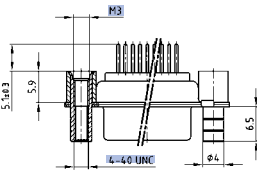
SOCKET CONNECTOR		
No. of pos.	Mounting style	Part Number
09	4-40 UNC Threaded rear spacer	164A12029X
15	4-40 UNC Threaded rear spacer	164A12039X
25	4-40 UNC Threaded rear spacer	164A12049X
37	4-40 UNC Threaded rear spacer	164A12059X
50	4-40 UNC Threaded rear spacer	164A12069X
09	M3 Threaded rear spacer	164A12079X
15	M3 Threaded rear spacer	164A12089X
25	M3 Threaded rear spacer	164A12099X
37	M3 Threaded rear spacer	164A12109X
50	M3 Threaded rear spacer	164A12119X

PLUG CONNECTOR		
No. of pos.	Mounting style	Part Number
09	4-40 UNC Threaded rear spacer	163A13629X
15	4-40 UNC Threaded rear spacer	163A13639X
25	4-40 UNC Threaded rear spacer	163A13649X
37	4-40 UNC Threaded rear spacer	163A13659X
50	4-40 UNC Threaded rear spacer	163A13669X
09	M3 Threaded rear spacer	163A13679X
15	M3 Threaded rear spacer	163A13689X
25	M3 Threaded rear spacer	163A13699X
37	M3 Threaded rear spacer	163A13709X
50	M3 Threaded rear spacer	163A13719X



SOCKET CONNECTOR		
No. of pos.	Mounting style	Part Number
09	4-40 UNC Front/Threaded rear spacer	164A12129X
15	4-40 UNC Front/Threaded rear spacer	164A12139X
25	4-40 UNC Front/Threaded rear spacer	164A12149X
37	4-40 UNC Front/Threaded rear spacer	164A12159X
50	4-40 UNC Front/Threaded rear spacer	164A12169X
09	M3 Front/Threaded rear spacer	164A12179X
15	M3 Front/Threaded rear spacer	164A12189X
25	M3 Front/Threaded rear spacer	164A12199X
37	M3 Front/Threaded rear spacer	164A12209X
50	M3 Front/Threaded rear spacer	164A12219X

PLUG CONNECTOR		
No. of pos.	Mounting style	Part Number
09	4-40 UNC Front/Threaded rear spacer	163A13729X
15	4-40 UNC Front/Threaded rear spacer	163A13739X
25	4-40 UNC Front/Threaded rear spacer	163A13749X
37	4-40 UNC Front/Threaded rear spacer	163A13759X
50	4-40 UNC Front/Threaded rear spacer	163A13769X
09	M3 Front/Threaded rear spacer	163A13779X
15	M3 Front/Threaded rear spacer	163A13789X
25	M3 Front/Threaded rear spacer	163A13799X
37	M3 Front/Threaded rear spacer	163A13809X
50	M3 Front/Threaded rear spacer	163A13819X



SOCKET CONNECTOR		
No. of pos.	Mounting style	Part Number
09	4-40 UNC Front /M3 Threaded rear spacer	164A12919X
15	4-40 UNC Front /M3 Threaded rear spacer	164A12929X
25	4-40 UNC Front /M3 Threaded rear spacer	164A12939X
37	4-40 UNC Front /M3 Threaded rear spacer	164A12949X
50	4-40 UNC Front /M3 Threaded rear spacer	164A12959X

PLUG CONNECTOR		
No. of pos.	Mounting style	Part Number
09	4-40 UNC Front /M3 Threaded rear spacer	163A14439X
15	4-40 UNC Front /M3 Threaded rear spacer	163A14449X
25	4-40 UNC Front /M3 Threaded rear spacer	163A14459X
37	4-40 UNC Front /M3 Threaded rear spacer	163A14469X
50	4-40 UNC Front /M3 Threaded rear spacer	163A14479X



SOCKET CONNECTOR		
No. of pos.	Mounting style	Part Number
09	4-40 UNC Threaded rear spacer PCB clip	164A16569X
15	4-40 UNC Threaded rear spacer PCB clip	164A16579X
25	4-40 UNC Threaded rear spacer PCB clip	164A16589X
37	4-40 UNC Threaded rear spacer PCB clip	164A16599X
50	4-40 UNC Threaded rear spacer PCB clip	164A16609X
09	M3 Threaded rear spacer PCB clip	164A16619X
15	M3 Threaded rear spacer PCB clip	164A16629X
25	M3 Threaded rear spacer PCB clip	164A16639X
37	M3 Threaded rear spacer PCB clip	164A16649X
50	M3 Threaded rear spacer PCB clip	164A16659X

PLUG CONNECTOR		
No. of pos.	Mounting style	Part Number
09	4-40 UNC Threaded rear spacer PCB clip	163A16159X
15	4-40 UNC Threaded rear spacer PCB clip	163A16169X
25	4-40 UNC Threaded rear spacer PCB clip	163A16179X
37	4-40 UNC Threaded rear spacer PCB clip	163A16189X
50	4-40 UNC Threaded rear spacer PCB clip	163A16199X
09	M3 Threaded rear spacer PCB clip	163A16209X
15	M3 Threaded rear spacer PCB clip	163A16219X
25	M3 Threaded rear spacer PCB clip	163A16229X
37	M3 Threaded rear spacer PCB clip	163A16239X
50	M3 Threaded rear spacer PCB clip	163A16249X



SOCKET CONNECTOR		
No. of pos.	Mounting style	Part Number
09	4-40 UNC Front/Threaded rear spacer PCB clip	164A16669X
15	4-40 UNC Front/Threaded rear spacer PCB clip	164A16679X
25	4-40 UNC Front/Threaded rear spacer PCB clip	164A16689X
37	4-40 UNC Front/Threaded rear spacer PCB clip	164A16699X
50	4-40 UNC Front/Threaded rear spacer PCB clip	164A16709X
09	M3 Front/Threaded rear spacer PCB clip	164A16719X
15	M3 Front/Threaded rear spacer PCB clip	164A16729X
25	M3 Front/Threaded rear spacer PCB clip	164A16739X
37	M3 Front/Threaded rear spacer PCB clip	164A16749X
50	M3 Front/Threaded rear spacer PCB clip	164A16759X

PLUG CONNECTOR		
No. of pos.	Mounting style	Part Number
09	4-40 UNC Front/Threaded rear spacer PCB clip	163A16259X
15	4-40 UNC Front/Threaded rear spacer PCB clip	163A16269X
25	4-40 UNC Front/Threaded rear spacer PCB clip	163A16279X
37	4-40 UNC Front/Threaded rear spacer PCB clip	163A16289X
50	4-40 UNC Front/Threaded rear spacer PCB clip	163A16299X
09	M3 Front/Threaded rear spacer PCB clip	163A16309X
15	M3 Front/Threaded rear spacer PCB clip	163A16319X
25	M3 Front/Threaded rear spacer PCB clip	163A16329X
37	M3 Front/Threaded rear spacer PCB clip	163A16339X
50	M3 Front/Threaded rear spacer PCB clip	163A16349X

PCB clip for .126"/3.2 ± .004"/0.10 mm hole diameter and .063"/1.6 mm circuit board thickness.

PCB-Layout: Kat1kFUA

PCB-Layout: Kat1kFUA

# D-SUB STANDARD

Solder pin – Straight – Stamped contacts



RoHS compliant – CSA listed, File No.: LR 115000-1 – UL listed, File No.: E202784

## SOCKET CONNECTOR

9-37 pos.

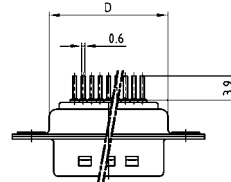
No. of pos.	A	B	C	D
09	30.80	16.30	25.00	19.20
15	39.20	24.60	33.30	27.70
25	53.10	38.30	47.04	41.10
37	69.40	54.80	63.50	57.30



## PLUG CONNECTOR

9-37 pos.

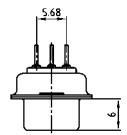
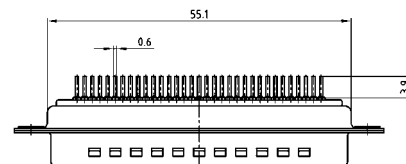
No. of pos.	A	B	C	D
09	30.80	16.92	25.00	19.20
15	39.20	25.25	33.30	27.70
25	53.10	38.96	47.04	41.10
37	69.40	55.42	63.50	57.30



50 pos.



50 pos.



# D-SUB STANDARD – MOUNTING STYLES

## Solder pin – Straight – Stamped contacts

ORDER DATA



SOCKET CONNECTOR		
No. of pos.	Mounting style	Part Number
09	Through-hole	DLS1XS4AD01X
15	Through-hole	DLS2XS4AD01X
25	Through-hole	DLS3XS4AD01X
37	Through-hole	DLS4XS4AD01X
50	Through-hole	DLS5XS4AD01X

PLUG CONNECTOR		
No. of pos.	Mounting style	Part Number
09	Through-hole	DLS1XP4AD01X
15	Through-hole	DLS2XP4AD01X
25	Through-hole	DLS3XP4AD01X
37	Through-hole	DLS4XP4AD01X
50	Through-hole	DLS5XP4AD01X



SOCKET CONNECTOR		
No. of pos.	Mounting style 4-40 UNC	Part Number
09	Threaded insert	DLS1XS4AG06X
15	Threaded insert	DLS2XS4AG06X
25	Threaded insert	DLS3XS4AG06X
37	Threaded insert	DLS4XS4AG06X
50	Threaded insert	DLS5XS4AG06X

PLUG CONNECTOR		
No. of pos.	Mounting style 4-40 UNC	Part Number
09	Threaded insert	DLS1XP4AG06X
15	Threaded insert	DLS2XP4AG06X
25	Threaded insert	DLS3XP4AG06X
37	Threaded insert	DLS4XP4AG06X
50	Threaded insert	DLS5XP4AG06X



SOCKET CONNECTOR		
No. of pos.	Mounting style 4-40 UNC	Part Number
09	Threaded rear spacer	DLS1XS4AA37X
15	Threaded rear spacer	DLS2XS4AA37X
25	Threaded rear spacer	DLS3XS4AA37X
37	Threaded rear spacer	DLS4XS4AA37X
50	Threaded rear spacer	DLS5XS4AA37X

PLUG CONNECTOR		
No. of pos.	Mounting style 4-40 UNC	Part Number
09	Threaded rear spacer	DLS1XP4AA37X
15	Threaded rear spacer	DLS2XP4AA37X
25	Threaded rear spacer	DLS3XP4AA37X
37	Threaded rear spacer	DLS4XP4AA37X
50	Threaded rear spacer	DLS5XP4AA37X



SOCKET CONNECTOR		
No. of pos.	Mounting style 4-40 UNC	Part Number
09	Threaded rear spacer PCB clip	DLS1XS4AA35X
15	Threaded rear spacer PCB clip	DLS2XS4AA35X
25	Threaded rear spacer PCB clip	DLS3XS4AA35X
37	Threaded rear spacer PCB clip	DLS4XS4AA35X
50	Threaded rear spacer PCB clip	DLS5XS4AA35X

PLUG CONNECTOR		
No. of pos.	Mounting style 4-40 UNC	Part Number
09	Threaded rear spacer PCB clip	DLS1XP4AA35X
15	Threaded rear spacer PCB clip	DLS2XP4AA35X
25	Threaded rear spacer PCB clip	DLS3XP4AA35X
37	Threaded rear spacer PCB clip	DLS4XP4AA35X
50	Threaded rear spacer PCB clip	DLS5XP4AA35X



SOCKET CONNECTOR		
No. of pos.	Mounting style 4-40 UNC	Part Number
09	Front/Threaded rear spacer PCB clip	DLS1XS4AA39X
15	Front/Threaded rear spacer PCB clip	DLS2XS4AA39X
25	Front/Threaded rear spacer PCB clip	DLS3XS4AA39X
37	Front/Threaded rear spacer PCB clip	DLS4XS4AA39X
50	Front/Threaded rear spacer PCB clip	DLS5XS4AA39X

PLUG CONNECTOR		
No. of pos.	Mounting style 4-40 UNC	Part Number
09	Front/Threaded rear spacer PCB clip	DLS1XP4AA39X
15	Front/Threaded rear spacer PCB clip	DLS2XP4AA39X
25	Front/Threaded rear spacer PCB clip	DLS3XP4AA39X
37	Front/Threaded rear spacer PCB clip	DLS4XP4AA39X
50	Front/Threaded rear spacer PCB clip	DLS5XP4AA39X

PCB clip for .126"/3.2 ± .004"/0.10 mm hole diameter and .063"/1.6 mm circuit board thickness.

# D-SUB STANDARD

## Press-fit contact – Straight – Precision machined contacts



RoHS compliant – CSA listed, File No.: LR 115000-1 – UL listed, File No.: E202784

### SOCKET CONNECTOR



No. of pos.	A -0.76	B -0.25	C
09	31.19	16.46	25.00 ±0.12
15	39.52	24.79	33.30 ±0.15 ±0.10
25	53.42	38.50	47.04 ±0.13
37	69.70	54.96	63.50 ±0.13

9-37 pos.



50 pos.



### ORDER DATA

SOCKET CONNECTOR		
No. of pos.	Mounting style	Part Number
09	4-40 UNC Threaded rear spacer	DSS1XSFAA49X
15	4-40 UNC Threaded rear spacer	DSS2XSFAA49X
25	4-40 UNC Threaded rear spacer	DSS3XSFAA49X
37	4-40 UNC Threaded rear spacer	DSS4XSFAA49X
50	4-40 UNC Threaded rear spacer	DSS5XSFAA49X
09	M3 Threaded rear spacer	DSS1XPF50X
15	M3 Threaded rear spacer	DSS2XPF50X
25	M3 Threaded rear spacer	DSS3XPF50X
37	M3 Threaded rear spacer	DSS4XPF50X
50	M3 Threaded rear spacer	DSS5XPF50X

### DESCRIPTION

- Mounting style:  
with M3 or 4-40 UNC threaded rear spacer
- For .040" / 1.0 mm ±  $\frac{0.003}{.002}$  /  $\frac{0.09}{0.06}$  mm finished through-hole diameter  
Refer to product drawing for details
- Quality class 3 (also available in quality class 1)
- Shell: Steel tin plated (brass tin plated or stainless steel available on request)
- Order press-fit tool separately

### PLUG CONNECTOR

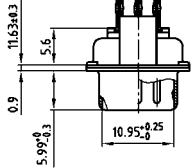
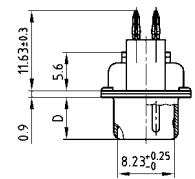


No. of pos.	A -0.76	B +0.25	C	D -0.3
09	31.19	16.79	25.00 ±0.12	6.12
15	39.52	25.12	33.30 ±0.15 ±0.10	6.12
25	53.42	38.84	47.04 ±0.13	5.99
37	69.70	55.30	63.50 ±0.13	5.99

9-37 pos.



50 pos.



PLUG CONNECTOR		
No. of pos.	Mounting style	Part Number
09	4-40 UNC Threaded rear spacer	DSS1XPFAA49X
15	4-40 UNC Threaded rear spacer	DSS2XPFAA49X
25	4-40 UNC Threaded rear spacer	DSS3XPFAA49X
37	4-40 UNC Threaded rear spacer	DSS4XPFAA49X
50	4-40 UNC Threaded rear spacer	DSS5XPFAA49X
09	M3 Threaded rear spacer	DSS1XPFAA50X
15	M3 Threaded rear spacer	DSS2XPFAA50X
25	M3 Threaded rear spacer	DSS3XPFAA50X
37	M3 Threaded rear spacer	DSS4XPFAA50X
50	M3 Threaded rear spacer	DSS5XPFAA50X



# D-SUB STANDARD

Press-fit contact – Straight – Precision machined contacts – Rear press-fit spacer



RoHS compliant – CSA listed, File No.: LR 115000-1 – UL listed, File No.: E202784

## SOCKET CONNECTOR



## DESCRIPTION

- Mounting style:  
with M3 or 4-40 UNC rear press-fit spacer
- For .040" / 1.0 mm ±  $\frac{0.003}{.002} / \frac{0.09}{0.06}$  mm finished through-hole diameter  
Refer to product drawing for details
- Quality class 3 (also available in quality class 1)
- Shell: Steel tin plated (brass tin plated or stainless steel available on request)
- Order press-fit tool separately

## PLUG CONNECTOR



## ORDER DATA

SOCKET CONNECTOR		
No. of pos.	Mounting style	Part Number
09	4-40 UNC Rear press-fit spacer	DSS1XSFAA54X
15	4-40 UNC Rear press-fit spacer	DSS2XSFAA54X
25	4-40 UNC Rear press-fit spacer	DSS3XSFAA54X
37	4-40 UNC Rear press-fit spacer	DSS4XSFAA54X
50	4-40 UNC Rear press-fit spacer	DSS5XSFAA54X
09	M3 Rear press-fit spacer	DSS1XPFAA53X
15	M3 Rear press-fit spacer	DSS2XPFAA53X
25	M3 Rear press-fit spacer	DSS3XPFAA53X
37	M3 Rear press-fit spacer	DSS4XPFAA53X
50	M3 Rear press-fit spacer	DSS5XPFAA53X

PLUG CONNECTOR		
No. of pos.	Mounting style	Part Number
09	4-40 UNC Rear press-fit spacer	DSS1XPFAA54X
15	4-40 UNC Rear press-fit spacer	DSS2XPFAA54X
25	4-40 UNC Rear press-fit spacer	DSS3XPFAA54X
37	4-40 UNC Rear press-fit spacer	DSS4XPFAA54X
50	4-40 UNC Rear press-fit spacer	DSS5XPFAA54X
09	M3 Rear press-fit spacer	DSS1XPFAA53X
15	M3 Rear press-fit spacer	DSS2XPFAA53X
25	M3 Rear press-fit spacer	DSS3XPFAA53X
37	M3 Rear press-fit spacer	DSS4XPFAA53X
50	M3 Rear press-fit spacer	DSS5XPFAA53X

Rear press-fit spacer for .122" / 3.1 ± .004" / 0.10 mm hole diameter and .063" / 1.6 mm circuit board thickness.

# D-SUB STANDARD

Wire wrap – Precision machined contacts

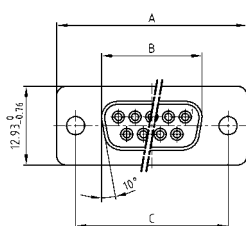


RoHS compliant – CSA listed, File No.: LR 115000-1 – UL listed, File No.: E202784

## DESCRIPTION

- Mounting styles:
  - with through-hole,  $\varnothing .118''/3 \text{ mm}$
  - with 4-40 UNC or M3 threaded insert
- Quality class 3 (also available in quality class 1)
- Shell: Steel tin plated (brass tin plated or stainless steel available on request)

### SOCKET CONNECTOR

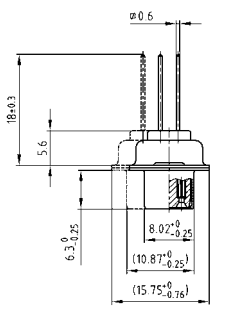


No. of pos.	A -0.76	B -0.25	C
09	31.19	16.46	25.00 $+0.12$
15	39.52	24.79	33.30 $+0.15$ $-0.10$
25	53.42	38.50	47.04 $+0.13$
37	69.70	54.96	63.50 $+0.13$
50	67.31	52.55	61.10 $+0.14$ $-0.11$

Mounting style: Through-hole

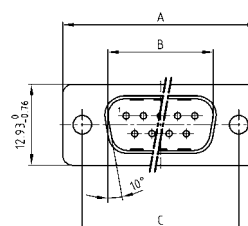


Mounting style: Threaded insert



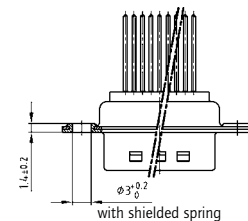
50 pos. = Dim. in ( \_ )

### PLUG CONNECTOR

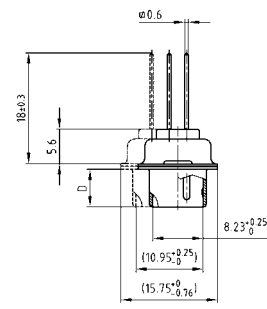


No. of pos.	A -0.76	B -0.25	C	D -0.3
09	31.19	16.79	25.00 $+0.12$	6.12
15	39.52	25.12	33.30 $+0.15$ $-0.10$	6.12
25	53.42	38.84	47.04 $+0.13$	5.99
37	69.70	55.30	63.50 $+0.13$	5.99
50	67.31	52.68	61.10 $+0.14$ $-0.11$	5.99

Mounting style: Through-hole



Mounting style: Threaded insert



50 pos. = Dim. in ( \_ )

## ORDER DATA

SOCKET CONNECTOR		
No. of pos.	Mounting style	Part Number
09	Through-hole	164A10119X
15	Through-hole	164A10129X
25	Through-hole	164A10139X
37	Through-hole	164A10149X
50	Through-hole	164A10159X
09	4-40 UNC Threaded insert	164A10419X
15	4-40 UNC Threaded insert	164A10429X
25	4-40 UNC Threaded insert	164A10439X
37	4-40 UNC Threaded insert	164A10449X
50	4-40 UNC Threaded insert	164A10459X
09	M3 Threaded insert	164A10469X
15	M3 Threaded insert	164A10479X
25	M3 Threaded insert	164A10489X
37	M3 Threaded insert	164A10499X
50	M3 Threaded insert	164A10509X

PLUG CONNECTOR		
No. of pos.	Mounting style	Part Number
09	Through-hole	163A11169X
15	Through-hole	163A11179X
25	Through-hole	163A11189X
37	Through-hole	163A11199X
50	Through-hole	163A11209X
09	4-40 UNC Threaded insert	163A11469X
15	4-40 UNC Threaded insert	163A11479X
25	4-40 UNC Threaded insert	163A11489X
37	4-40 UNC Threaded insert	163A11499X
50	4-40 UNC Threaded insert	163A11509X
09	M3 Threaded insert	163A11519X
15	M3 Threaded insert	163A11529X
25	M3 Threaded insert	163A11539X
37	M3 Threaded insert	163A11549X
50	M3 Threaded insert	163A11559X

# D-SUB STANDARD

IDC for flat cable – Stamped contacts – For wire size AWG 26...28

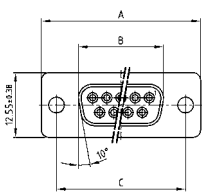


RoHS compliant – CSA listed, File No.: LR 115000-1 – UL listed, File No.: E202784

## DESCRIPTION

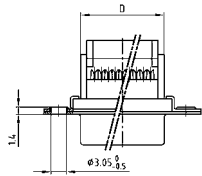
- For wire size AWG 26...28 flat cable
- Mounting style:  
with through-hole, Ø .118"/3 mm  
with 4-40 UNC threaded insert
- Connector includes strain relief
- Quality class 3 (other quality classes on request)
- Shell: Steel tin plated

## SOCKET CONNECTOR



No. of pos.	A ±0.25	B ±0.25	C ±0.13	D ±0.25
09	30.80	16.46	25.00	16.10
15	39.10	24.79	33.30	24.00
25	53.09	38.50	47.04	38.14
37	69.40	54.96	63.50	54.60

Mounting style: Through-hole



Upper part grouted with strain relief



Mounting style: Threaded insert



Strain relief



## PLUG CONNECTOR

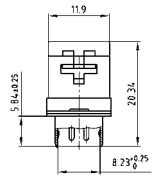


No. of pos.	A ±0.25	B ±0.25	C ±0.13	D ±0.25
09	30.80	16.79	25.00	16.10
15	39.10	25.12	33.30	24.00
25	53.09	83.84	47.04	38.14
37	69.40	55.30	63.50	54.60

Mounting style: Through-hole



Upper part grouted with strain relief



Mounting style: Threaded insert



Strain relief



## ORDER DATA

SOCKET CONNECTOR		
No. of pos.	Mounting style	Part Number
09	Through-hole	302A10089X
15	Through-hole	302A10099X
25	Through-hole	302A10109X
37	Through-hole	302A10119X
09	Threaded insert	DLS1XSSAG04X
15	Threaded insert	DLS2XSSAG04X
25	Threaded insert	DLS3XSSAG04X
37	Threaded insert	DLS4XSSAG04X

PLUG CONNECTOR		
No. of pos.	Mounting style	Part Number
09	Through-hole	301A10089X
15	Through-hole	301A10099X
25	Through-hole	301A10109X
37	Through-hole	301A10119X
09	Threaded insert	DLS1XPSAG04X
15	Threaded insert	DLS2XPSAG04X
25	Threaded insert	DLS3XPSAG04X
37	Threaded insert	DLS4XPSAG04X

# D-SUB STANDARD

Solder pin – Angled – .318" / 7.19 mm – Precision machined contacts – Metal bracket



RoHS compliant – CSA listed, File No.: LR 115000-1 – UL listed, File No.: E202784

## SOCKET CONNECTOR



No. of pos.	A -0.76	B -0.25	C
09	31.19	16.46	25.00 +0.12
15	39.52	24.79	33.30 +0.15 -0.10
25	53.42	38.50	47.04 +0.13
37	69.70	54.96	63.50 +0.13
50	67.31	52.55	61.10 +0.14 -0.11

PCB-Layout: Kat1kGEA

Mounting style: Threaded insert



50 pos. = Dim. in ( \_ )

## DESCRIPTION

- Mounting styles:
  - with mounting bracket and 4-40 UNC or M3 threaded insert
  - with mounting bracket and 4-40 UNC or M3 front spacer
  - with mounting bracket, PCB clip and 4-40 UNC or M3 threaded insert
  - with mounting bracket, PCB clip and 4-40 UNC or M3 front spacer
- Quality class 3 (also available in quality class 1)
- Shell: Steel tin plated (brass tin plated or stainless steel available on request)

## PLUG CONNECTOR



No. of pos.	A -0.76	B -0.25	C	D -0.3
09	31.19	16.79	25.00 +0.12	6.12
15	39.52	25.12	33.30 +0.15 -0.10	6.12
25	53.42	38.84	47.04 +0.13	5.99
37	69.70	55.30	63.50 +0.13	5.99
50	67.31	52.68	61.10 +0.14 -0.11	5.99

PCB-Layout: Kat1kGFA

Mounting style: Threaded insert



50 pos. = Dim. in ( \_ )

## ORDER DATA

SOCKET CONNECTOR		
No. of pos.	Mounting style	Part Number
09	4-40 UNC Threaded insert	164A11519X
15	4-40 UNC Threaded insert	164A11529X
25	4-40 UNC Threaded insert	164A11539X
37	4-40 UNC Threaded insert	164A11549X
50	4-40 UNC Threaded insert	164A18969X
09	M3 Threaded insert	164A13439X
15	M3 Threaded insert	164A13449X
25	M3 Threaded insert	164A13459X
37	M3 Threaded insert	164A13469X
50	M3 Threaded insert	164A18979X

PLUG CONNECTOR		
No. of pos.	Mounting style	Part Number
09	4-40 UNC Threaded insert	163A13069X
15	4-40 UNC Threaded insert	163A13079X
25	4-40 UNC Threaded insert	163A13089X
37	4-40 UNC Threaded insert	163A13099X
50	4-40 UNC Threaded insert	163A18549X
09	M3 Threaded insert	163A14959X
15	M3 Threaded insert	163A14969X
25	M3 Threaded insert	163A14979X
37	M3 Threaded insert	163A14989X
50	M3 Threaded insert	163A18559X



# D-SUB STANDARD

Solder pin – Angled – .318" / 7.19 mm – Precision machined contacts – Plastic bracket



RoHS compliant – CSA listed, File No.: LR 115000-1 – UL listed, File No.: E202784

## SOCKET CONNECTOR



No. of pos.	A -0.76	B -0.25	C
09	31.19	16.46	25.00 ±0.12
15	39.52	24.79	33.30 <sup>+0.15</sup> / <sub>-0.10</sub>
25	53.42	38.50	47.04 ±0.13
37	69.70	54.96	63.50 ±0.13

PCB-Layout: Kat1kGEA

Mounting style: PCB clip, threaded insert



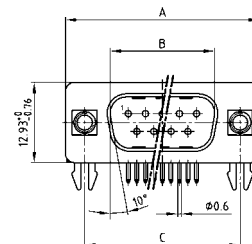
Mounting style: PCB clip, front spacer



## DESCRIPTION

- Mounting styles:
  - with mounting bracket, PCB clip and 4-40 UNC or M3 threaded insert
  - with mounting bracket, PCB clip and 4-40 UNC or M3 front spacer
- Quality class 3 (also available in quality class 1)
- Shell: Steel tin plated (brass tin plated or stainless steel available on request)

## PLUG CONNECTOR



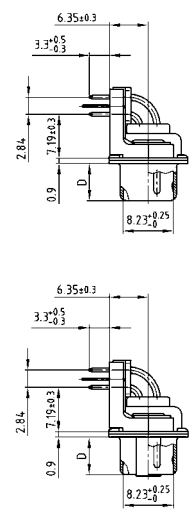
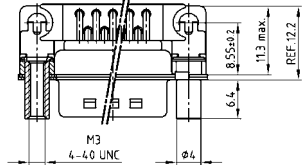
No. of pos.	A -0.76	B +0.25	C	D -0.3
09	31.19	16.79	25.00 ±0.12	6.12
15	39.52	25.12	33.30 <sup>+0.15</sup> / <sub>-0.10</sub>	6.12
25	53.42	38.84	47.04 ±0.13	5.99
37	69.70	55.30	63.50 ±0.13	5.99

PCB-Layout: Kat1kGFA

Mounting style: PCB clip, threaded insert



Mounting style: PCB clip, front spacer



## ORDER DATA

SOCKET CONNECTOR		
No. of pos.	Mounting style	Part Number
09	PCB clip / 4-40 UNC Threaded insert	164A18809X
15	PCB clip / 4-40 UNC Threaded insert	164A18819X
25	PCB clip / 4-40 UNC Threaded insert	164A18829X
37	PCB clip / 4-40 UNC Threaded insert	164A18839X
09	PCB clip / M3 Threaded insert	164A18849X
15	PCB clip / M3 Threaded insert	164A18859X
25	PCB clip / M3 Threaded insert	164A18869X
37	PCB clip / M3 Threaded insert	164A18879X
09	PCB clip / 4-40 UNC Front spacer	164A18889X
15	PCB clip / 4-40 UNC Front spacer	164A18899X
25	PCB clip / 4-40 UNC Front spacer	164A18909X
37	PCB clip / 4-40 UNC Front spacer	164A18919X
09	PCB clip / M3 Front spacer	164A18929X
15	PCB clip / M3 Front spacer	164A18939X
25	PCB clip / M3 Front spacer	164A18949X
37	PCB clip / M3 Front spacer	164A18959X

PLUG CONNECTOR		
No. of pos.	Mounting style	Part Number
09	PCB clip / 4-40 UNC Threaded insert	163A18389X
15	PCB clip / 4-40 UNC Threaded insert	163A18399X
25	PCB clip / 4-40 UNC Threaded insert	163A18409X
37	PCB clip / 4-40 UNC Threaded insert	163A18419X
09	PCB clip / M3 Threaded insert	163A18429X
15	PCB clip / M3 Threaded insert	163A18439X
25	PCB clip / M3 Threaded insert	163A18449X
37	PCB clip / M3 Threaded insert	163A18459X
09	PCB clip / 4-40 UNC Front spacer	163A18469X
15	PCB clip / 4-40 UNC Front spacer	163A18479X
25	PCB clip / 4-40 UNC Front spacer	163A18489X
37	PCB clip / 4-40 UNC Front spacer	163A18499X
09	PCB clip / M3 Front spacer	163A18509X
15	PCB clip / M3 Front spacer	163A18519X
25	PCB clip / M3 Front spacer	163A18529X
37	PCB clip / M3 Front spacer	163A18539X

PCB clip .122" / 3.1 ± .004" / 0.10 mm hole diameter and .063" / 1.6 mm circuit board thickness

# D-SUB STANDARD

Solder pin – Angled – .318" / 7.19 mm – Stamped contacts – Plastic bracket



RoHS compliant – CSA listed, File No.: LR 115000-1 – UL listed, File No.: E202784

## DESCRIPTION

- Mounting styles:
  - with mounting bracket, PCB clip and 4-40 UNC threaded insert
  - with mounting bracket, PCB clip and 4-40 UNC hex bolt
- Quality class 3 (other quality classes on request)
- Shell: Steel tin plated

## SOCKET CONNECTOR



No. of pos.	A -0.76	B -0.25	C
09	31.19	16.46	25.00 ±0.12
15	39.52	24.79	33.30 ±0.15 ±0.10
25	53.42	38.50	47.04 ±0.13
37	69.70	54.96	63.50 ±0.13

Mounting style: PCB clip, threaded insert



Mounting style: PCB clip, front spacer



## PLUG CONNECTOR



No. of pos.	A -0.76	B +0.25	C	D -0.3
09	31.19	16.79	25.00 ±0.12	6.12
15	39.52	25.12	33.30 ±0.15 ±0.10	6.12
25	53.42	38.84	47.04 ±0.13	5.99
37	69.70	55.30	63.50 ±0.13	5.99

Mounting style: PCB clip, threaded insert



Mounting style: PCB clip, front spacer



## ORDER DATA

SOCKET CONNECTOR		
No. of pos.	Mounting style 4-40 UNC	Part Number
09	PCB clip/Threaded insert	302A11339X
15	PCB clip/Threaded insert	302A11349X
25	PCB clip/Threaded insert	302A11359X
37	PCB clip/Threaded insert	302A11369X
09	PCB clip/Hex bolt	302A11249X
15	PCB clip/Hex bolt	302A11259X
25	PCB clip/Hex bolt	302A11269X
37	PCB clip/Hex bolt	302A11279X

PLUG CONNECTOR		
No. of pos.	Mounting style 4-40 UNC	Part Number
09	PCB clip/Threaded insert	301A11029X
15	PCB clip/Threaded insert	301A11039X
25	PCB clip/Threaded insert	301A11049X
37	PCB clip/Threaded insert	301A11059X
09	PCB clip/Front spacer	301A10939X
15	PCB clip/Front spacer	301A10949X
25	PCB clip/Front spacer	301A10959X
37	PCB clip/Front spacer	301A10969X

PCB clip .122" / 3.1 ± .004" / 0.10 mm hole diameter and .063" / 1.6 mm circuit board thickness

# D-SUB STANDARD

Solder pin – Angled – .370"/9.4 mm – Precision machined contacts – Plastic bracket



RoHS compliant – CSA listed, File No.: LR 115000-1 – UL listed, File No.: E202784

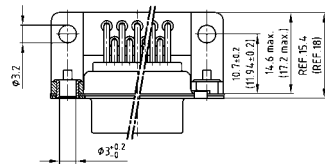
## SOCKET CONNECTOR



No. of pos.	A -0.76	B -0.25	C
09	31.19	16.46	25.00 +0.12
15	39.52	24.79	33.30 +0.15 -0.10
25	53.42	38.50	47.04 +0.13
37	69.70	54.96	63.50 +0.13
50	67.31	52.55	61.10 +0.14 -0.11

PCB-Layout: Kat1kGGA

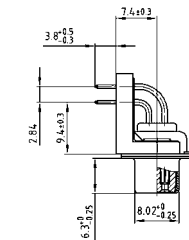
Mounting style: Through-hole



50 pos. = Dim. in ( \_ )



Mounting style: Threaded insert



## DESCRIPTION

- Mounting styles:
  - with mounting bracket and Ø .118"/3 mm through-hole
  - with mounting bracket, grounding strap and 4-40 UNC or M3 threaded insert
  - with mounting bracket, grounding strap and 4-40 UNC or M3 front spacer
  - with mounting bracket, PCB clip and 4-40 UNC or M3 threaded insert
  - with mounting bracket, PCB clip and 4-40 UNC or M3 front spacer
- Quality class 3 (also available in quality class 1)
- Shell: Steel tin plated (brass tin plated or stainless steel available on request)

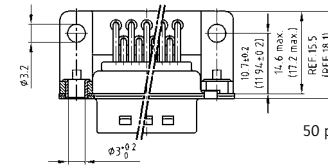
## PLUG CONNECTOR



No. of pos.	A -0.76	B -0.25	C	D -0.3
09	31.19	16.79	25.00 +0.12	6.12
15	39.52	25.12	33.30 +0.15 -0.10	6.12
25	53.42	38.84	47.04 +0.13	5.99
37	69.70	55.30	63.50 +0.13	5.99
50	67.31	52.68	61.10 +0.14 -0.11	5.99

PCB-Layout: Kat1kGHA

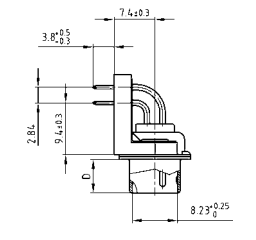
Mounting style: Through-hole



50 pos. = Dim. in ( \_ )



Mounting style: Threaded insert



## ORDER DATA

SOCKET CONNECTOR		
No. of pos.	Mounting style	Part Number
09	Through-hole	164A10669X
15	Through-hole	164A10679X
25	Through-hole	164A10689X
37	Through-hole	164A10699X
50	Through-hole	164A10709X
09	Grounding strap/4-40 UNC Threaded insert	164A12329X
15	Grounding strap/4-40 UNC Threaded insert	164A12339X
25	Grounding strap/4-40 UNC Threaded insert	164A12349X
37	Grounding strap/4-40 UNC Threaded insert	164A12359X
09	Grounding strap/M3 Threaded insert	164A12519X
15	Grounding strap/M3 Threaded insert	164A12529X
25	Grounding strap/M3 Threaded insert	164A12539X
37	Grounding strap/M3 Threaded insert	164A12549X

PLUG CONNECTOR		
No. of pos.	Mounting style	Part Number
09	Through-hole	163A11719X
15	Through-hole	163A11729X
25	Through-hole	163A11739X
37	Through-hole	163A11749X
50	Through-hole	163A11759X
09	Grounding strap/4-40 UNC Threaded insert	163A14119X
15	Grounding strap/4-40 UNC Threaded insert	163A14129X
25	Grounding strap/4-40 UNC Threaded insert	163A14139X
37	Grounding strap/4-40 UNC Threaded insert	163A14149X
09	Grounding strap/M3 Threaded insert	163A14169X
15	Grounding strap/M3 Threaded insert	163A14179X
25	Grounding strap/M3 Threaded insert	163A14189X
37	Grounding strap/M3 Threaded insert	163A14199X



# D-SUB STANDARD – MOUNTING STYLES

Solder pin – Angled – .370"/9.4 mm – Precision machined contacts – Plastic bracket

**ORDER DATA**



SOCKET CONNECTOR		
No. of pos.	Mounting style	Part Number
09	Grounding strap/4-40 UNC Front spacer	164A12229X
15	Grounding strap/4-40 UNC Front spacer	164A12239X
25	Grounding strap/4-40 UNC Front spacer	164A12249X
37	Grounding strap/4-40 UNC Front spacer	164A12259X
09	Grounding strap/M3 Front spacer	164A12279X
15	Grounding strap/M3 Front spacer	164A12289X
25	Grounding strap/M3 Front spacer	164A12299X
37	Grounding strap/M3 Front spacer	164A12309X

PLUG CONNECTOR		
No. of pos.	Mounting style	Part Number
09	Grounding strap/4-40 UNC Front spacer	163A13829X
15	Grounding strap/4-40 UNC Front spacer	163A13839X
25	Grounding strap/4-40 UNC Front spacer	163A13849X
37	Grounding strap/4-40 UNC Front spacer	163A13859X
09	Grounding strap/M3 Front spacer	163A13879X
15	Grounding strap/M3 Front spacer	163A13889X
25	Grounding strap/M3 Front spacer	163A13899X
37	Grounding strap/M3 Front spacer	163A13909X



SOCKET CONNECTOR		
No. of pos.	Mounting style	Part Number
09	PCB clip/4-40 UNC Threaded insert	164A12969X
15	PCB clip/4-40 UNC Threaded insert	164A12979X
25	PCB clip/4-40 UNC Threaded insert	164A12989X
37	PCB clip/4-40 UNC Threaded insert	164A12999X
50	PCB clip/4-40 UNC Threaded insert	164A19139X
09	PCB clip/M3 Threaded insert	164A13009X
15	PCB clip/M3 Threaded insert	164A13019X
25	PCB clip/M3 Threaded insert	164A13029X
37	PCB clip/M3 Threaded insert	164A13039X
50	PCB clip/M3 Threaded insert	164A19149X

PLUG CONNECTOR		
No. of pos.	Mounting style	Part Number
09	PCB clip/4-40 UNC Threaded insert	163A14489X
15	PCB clip/4-40 UNC Threaded insert	163A14499X
25	PCB clip/4-40 UNC Threaded insert	163A14509X
37	PCB clip/4-40 UNC Threaded insert	163A14519X
50	PCB clip/4-40 UNC Threaded insert	163A18709X
09	PCB clip/M3 Threaded insert	163A14529X
15	PCB clip/M3 Threaded insert	163A14539X
25	PCB clip/M3 Threaded insert	163A14549X
37	PCB clip/M3 Threaded insert	163A14559X
50	PCB clip/M3 Threaded insert	163A18719X

PCB clip .122"/3.1 ± .004"/0.10 mm hole diameter and .063"/1.6 mm circuit board thickness



SOCKET CONNECTOR		
No. of pos.	Mounting style	Part Number
09	PCB clip/4-40 UNC Front spacer	164A13089X
15	PCB clip/4-40 UNC Front spacer	164A13099X
25	PCB clip/4-40 UNC Front spacer	164A13109X
37	PCB clip/4-40 UNC Front spacer	164A13119X
50	PCB clip/4-40 UNC Front spacer	164A19159X
09	PCB clip/M3 Front spacer	164A13129X
15	PCB clip/M3 Front spacer	164A13139X
25	PCB clip/M3 Front spacer	164A13149X
37	PCB clip/M3 Front spacer	164A13159X
50	PCB clip/M3 Front spacer	164A19169X

PLUG CONNECTOR		
No. of pos.	Mounting style	Part Number
09	PCB clip/4-40 UNC Front spacer	163A14609X
15	PCB clip/4-40 UNC Front spacer	163A14619X
25	PCB clip/4-40 UNC Front spacer	163A14629X
37	PCB clip/4-40 UNC Front spacer	163A14639X
50	PCB clip/4-40 UNC Front spacer	163A18729X
09	PCB clip/M3 Front spacer	163A14649X
15	PCB clip/M3 Front spacer	163A14659X
25	PCB clip/M3 Front spacer	163A14669X
37	PCB clip/M3 Front spacer	163A14679X
50	PCB clip/M3 Front spacer	163A18739X

PCB clip .122"/3.1 ± .004"/0.10 mm hole diameter and .063"/1.6 mm circuit board thickness

PCB-Layout: Kat1kGGA

PCB-Layout: Kat1kGHA

# D-SUB STANDARD

Solder pin – Angled – .370"/9.4 mm – Precision machined contacts – Metal bracket



RoHS compliant – CSA listed, File No.: LR 115000-1 – UL listed, File No.: E202784

## DESCRIPTION

- Mounting styles:
  - with mounting bracket and 4-40 UNC or M3 threaded insert
  - with mounting bracket, PCB clip and 4-40 UNC or M3 threaded insert
- Quality class 3 (also available in quality class 1)
- Shell: Steel tin plated (brass tin plated or stainless steel available on request)

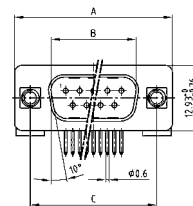
## SOCKET CONNECTOR



No. of pos.	A -0.76	B -0.25	C
09	31.19	16.46	25.00 +0.12
15	39.52	24.79	33.30 +0.15 -0.10
25	53.42	38.50	47.04 +0.13
37	69.70	54.96	63.50 +0.13
50	67.31	52.55	61.10 +0.14 -0.11

PCB-Layout: KAT1KGA

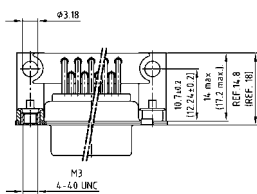
## PLUG CONNECTOR



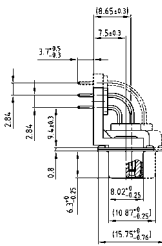
No. of pos.	A -0.76	B -0.25	C	D -0.3
09	31.19	16.79	25.00 +0.12	6.12
15	39.52	25.12	33.30 +0.15 -0.10	6.12
25	53.42	38.84	47.04 +0.13	5.99
37	69.70	55.30	63.50 +0.13	5.99
50	67.31	52.68	61.10 +0.14 -0.11	5.99

PCB-Layout: Kat1KHA

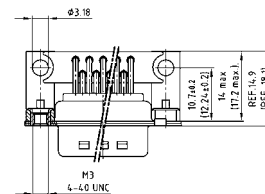
### Mounting style: Threaded insert



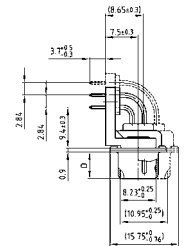
50 pos. = Dim. in ( \_ )



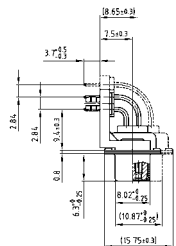
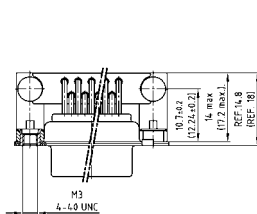
### Mounting style: Threaded insert



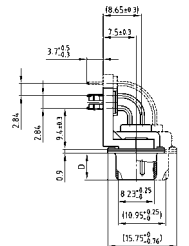
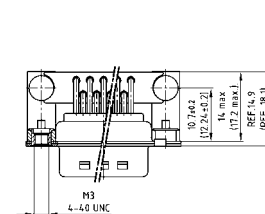
50 pos. = Dim. in ( \_ )



### Mounting style: PCB clip, threaded insert



### Mounting style: PCB clip, threaded insert



## ORDER DATA

### SOCKET CONNECTOR

No. of pos.	Mounting style	Part Number
09	4-40 UNC Threaded insert	164A10969X
15	4-40 UNC Threaded insert	164A10979X
25	4-40 UNC Threaded insert	164A10989X
37	4-40 UNC Threaded insert	164A10999X
50	4-40 UNC Threaded insert	164A18739X
09	M3 Threaded insert	164A11019X
15	M3 Threaded insert	164A11029X
25	M3 Threaded insert	164A11039X
37	M3 Threaded insert	164A11049X
50	M3 Threaded insert	164A18749X
09	PCB clip / 4-40 UNC Threaded insert	164A16769X
15	PCB clip / 4-40 UNC Threaded insert	164A16779X
25	PCB clip / 4-40 UNC Threaded insert	164A16789X
37	PCB clip / 4-40 UNC Threaded insert	164A16799X
50	PCB clip / 4-40 UNC Threaded insert	164A18759X
09	PCB clip / M3 Threaded insert	164A16809X
15	PCB clip / M3 Threaded insert	164A16819X
25	PCB clip / M3 Threaded insert	164A16829X
37	PCB clip / M3 Threaded insert	164A16839X
50	PCB clip / M3 Threaded insert	164A18769X

### PLUG CONNECTOR

No. of pos.	Mounting style	Part Number
09	4-40 UNC Threaded insert	163A12019X
15	4-40 UNC Threaded insert	163A12029X
25	4-40 UNC Threaded insert	163A12039X
37	4-40 UNC Threaded insert	163A12049X
50	4-40 UNC Threaded insert	163A18319X
09	M3 Threaded insert	163A12069X
15	M3 Threaded insert	163A12079X
25	M3 Threaded insert	163A12089X
37	M3 Threaded insert	163A12099X
50	M3 Threaded insert	163A18329X
09	PCB clip / 4-40 UNC Threaded insert	163A16359X
15	PCB clip / 4-40 UNC Threaded insert	163A16369X
25	PCB clip / 4-40 UNC Threaded insert	163A16379X
37	PCB clip / 4-40 UNC Threaded insert	163A16389X
50	PCB clip / 4-40 UNC Threaded insert	163A18339X
09	PCB clip / M3 Threaded insert	163A16399X
15	PCB clip / M3 Threaded insert	163A16409X
25	PCB clip / M3 Threaded insert	163A16419X
37	PCB clip / M3 Threaded insert	163A16429X
50	PCB clip / M3 Threaded insert	163A18349X

PCB clip .122"/3.1 ± .004"/0.10 mm hole diameter and .063"/1.6 mm circuit board thickness

# D-SUB STANDARD

Solder pin – Angled – .370"/9.4 mm – Stamped contacts



RoHS compliant – CSA listed, File No.: LR 115000-1 – UL listed, File No.: E202784

## DESCRIPTION

- Mounting style:  
with mounting bracket, PCB clip and 4-40 UNC hex bolt
- Quality class 3 (other quality classes on request)
- Shell: Steel tin plated

## SOCKET CONNECTOR



No. of pos.	A -0.76	B -0.25	C
09	31.19	16.46	25.00 ±0.12
15	39.52	24.79	33.30 ±0.15 ±0.10
25	53.42	38.50	47.04 ±0.13
37	69.70	54.96	63.50 ±0.13

Mounting style: PCB clip, front spacer



## PLUG CONNECTOR



No. of pos.	A -0.76	B +0.25	C	D -0.3
09	31.19	16.79	25.00 ±0.12	6.12
15	39.52	25.12	33.30 ±0.15 ±0.10	6.12
25	53.42	38.84	47.04 ±0.13	5.99
37	69.70	55.30	63.50 ±0.13	5.99

Mounting style: PCB clip, front spacer



## ORDER DATA

### SOCKET CONNECTOR

No. of pos.	Mounting style 4-40 UNC	Part Number
09	PCB clip/Hex bolt	302A10779X
15	PCB clip/Hex bolt	302A10789X
25	PCB clip/Hex bolt	302A10799X
37	PCB clip/Hex bolt	302A10809X

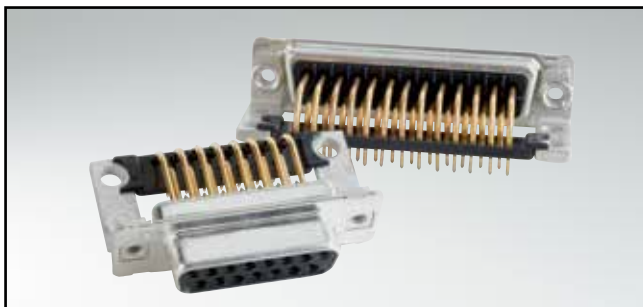
### PLUG CONNECTOR

No. of pos.	Mounting style 4-40 UNC	Part Number
09	PCB clip/Hex bolt	301A10679X
15	PCB clip/Hex bolt	301A10689X
25	PCB clip/Hex bolt	301A10699X
37	PCB clip/Hex bolt	301A10709X

PCB clip .122"/3.1 ± .004"/0.10 mm hole diameter and .063"/1.6 mm circuit board thickness

# D-SUB STANDARD

Solder pin – Angled – .590" / 14.19 mm – Precision machined contacts – Metal bracket

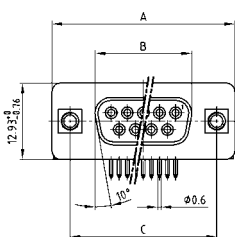


RoHS compliant – CSA listed, File No.: LR 115000-1 – UL listed, File No.: E202784

## DESCRIPTION

- Mounting styles:
  - with mounting bracket and 4-40 UNC threaded insert
  - with mounting bracket and 4-40 UNC front spacer
  - with mounting bracket, PCB clip and 4-40 UNC threaded insert
  - with mounting bracket, PCB clip and 4-40 UNC front spacer
- Quality class 3 (also available in quality class 1)
- Shell: Steel tin plated (brass tin plated or stainless steel available on request)

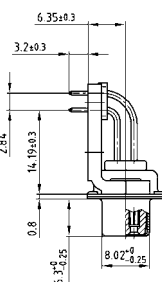
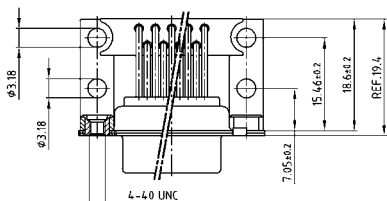
## SOCKET CONNECTOR



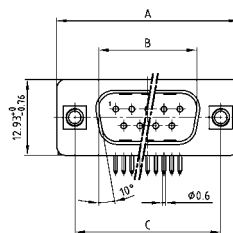
No. of pos.	A -0.76	B -0.25	C
09	31.19	16.46	25.00 ±0.12
15	39.52	24.79	33.30 <sup>+0.15</sup> / <sub>-0.10</sub>
25	53.42	38.50	47.04 ±0.13
37	69.70	54.96	63.50 ±0.13

PCB-Layout: Kat1kGIA

Mounting style: Threaded insert



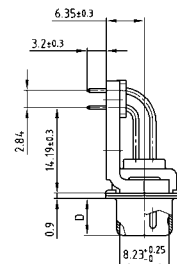
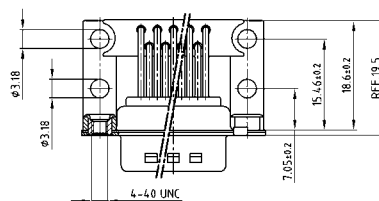
## PLUG CONNECTOR



No. of pos.	A -0.76	B +0.25	C	D -0.3
09	31.19	16.79	25.00 ±0.12	6.12
15	39.52	25.12	33.30 <sup>+0.15</sup> / <sub>-0.10</sub>	6.12
25	53.42	38.84	47.04 ±0.13	5.99
37	69.70	55.30	63.50 ±0.13	5.99

PCB-Layout: Kat1kGJA

Mounting style: Threaded insert



## ORDER DATA

SOCKET CONNECTOR		
No. of pos.	Mounting style 4-40 UNC	Part Number
09	Threaded insert	164A19599X
15	Threaded insert	164A19609X
25	Threaded insert	164A19619X
37	Threaded insert	164A19629X

PLUG CONNECTOR		
No. of pos.	Mounting style 4-40 UNC	Part Number
09	Threaded insert	163A19169X
15	Threaded insert	163A19179X
25	Threaded insert	163A19189X
37	Threaded insert	163A19199X



# D-SUB STANDARD

Solder pin – Angled – .590" / 14.19 mm – Precision machined contacts – Plastic bracket



RoHS compliant – CSA listed, File No.: LR 115000-1 – UL listed, File No.: E202784

## DESCRIPTION

- Mounting styles:
  - with mounting bracket and 4-40 UNC threaded insert
  - with mounting bracket and 4-40 UNC front spacer
- Quality class 3 (also available in quality class 1)
- Shell: Steel tin plated (brass tin plated or stainless steel available on request)

## SOCKET CONNECTOR



No. of pos.	A -0.76	B -0.25	C
09	31.19	16.46	25.00 ±0.12
15	39.52	24.79	33.30 <sup>+0.15</sup> / <sub>-0.10</sub>
25	53.42	38.50	47.04 ±0.13
37	69.70	54.96	63.50 ±0.13

PCB-Layout: Kat1kGKA

## PLUG CONNECTOR



No. of pos.	A -0.76	B +0.25	C	D -0.3
09	31.19	16.79	25.00 ±0.12	6.12
15	39.52	25.12	33.30 <sup>+0.15</sup> / <sub>-0.10</sub>	6.12
25	53.42	38.84	47.04 ±0.13	5.99
37	69.70	55.30	63.50 ±0.13	5.99

PCB-Layout: Kat1kGLA

### Mounting style: Threaded insert



### Mounting style: Threaded insert



### Mounting style: Front spacer



### Mounting style: Front spacer



## ORDER DATA

SOCKET CONNECTOR		
No. of pos.	Mounting style 4-40 UNC	Part Number
09	Threaded insert	164A19519X
15	Threaded insert	164A19529X
25	Threaded insert	164A19539X
37	Threaded insert	164A19549X
09	Front spacer	164A19559X
15	Front spacer	164A19569X
25	Front spacer	164A19579X
37	Front spacer	164A19589X

PLUG CONNECTOR		
No. of pos.	Mounting style 4-40 UNC	Part Number
09	Threaded insert	163A19089X
15	Threaded insert	163A19099X
25	Threaded insert	163A19109X
37	Threaded insert	163A19119X
09	Front spacer	163A19129X
15	Front spacer	163A19139X
25	Front spacer	163A19149X
37	Front spacer	163A19159X

# D-SUB STANDARD

Solder pin – Angled – .590" / 14.19 mm – Stamped contacts – Plastic bracket



RoHS compliant – CSA listed, File No.: LR 115000-1 – UL listed, File No.: E202784

## DESCRIPTION

- Mounting style:  
with mounting bracket, PCB clip and 4-40 UNC hex bolt
- Quality class 3 (other quality classes on request)
- Shell: Steel tin plated

## SOCKET CONNECTOR



No. of pos.	A -0.76	B -0.25	C
09	31.19	16.46	25.00 ±0.12
15	39.52	24.79	33.30 <sup>+0.15</sup> <sub>-0.10</sub>
25	53.42	38.50	47.04 ±0.13
37	69.70	54.96	63.50 ±0.13

## PLUG CONNECTOR



No. of pos.	A -0.76	B +0.25	C	D -0.3
09	31.19	16.79	25.00 ±0.12	6.12
15	39.52	25.12	33.30 <sup>+0.15</sup> <sub>-0.10</sub>	6.12
25	53.42	38.84	47.04 ±0.13	5.99
37	69.70	55.30	63.50 ±0.13	5.99

Mounting style: PCB clip, front spacer



Mounting style: PCB clip, front spacer



## ORDER DATA

SOCKET CONNECTOR		
No. of pos.	Mounting style 4-40 UNC	Part Number
09	PCB clip / Hex bolt	302A11289X
15	PCB clip / Hex bolt	302A11299X
25	PCB clip / Hex bolt	302A11309X
37	PCB clip / Hex bolt	302A11319X

PLUG CONNECTOR		
No. of pos.	Mounting style 4-40 UNC	Part Number
09	PCB clip / Hex bolt	301A10979X
15	PCB clip / Hex bolt	301A10989X
25	PCB clip / Hex bolt	301A10999X
37	PCB clip / Hex bolt	301A11009X

PCB clip .122"/3.1 ± .004"/0.10 mm hole diameter and .063"/1.6 mm circuit board thickness

# D-SUB STANDARD – DUAL PORT

Solder pin – Angled – Precision machined contacts – .625" / 15.88 mm Connector spacing



RoHS compliant – CSA listed, File No.: LR 115000-1 – UL listed, File No.: E202784

## DESCRIPTION

- Variations: pin – pin; socket – socket; pin – socket
- Mounting styles:
  - with mounting bracket and 4-40 UNC or M3 threaded insert
  - with mounting bracket and 4-40 UNC or M3 front spacer
  - with mounting bracket, PCB clip and 4-40 UNC or M3 threaded insert
  - with mounting bracket, PCB clip and 4-40 UNC or M3 front spacer
- Quality class 3 (also available in quality class 1)
- Shell: Steel tin plated (brass tin plated or stainless steel available on request)

## PRODUCT DRAWING

No. of pos.	A -0.76	B1 +0.25	B2 -0.25	C	D -0.30
2X 09	31.19	16.79	16.46	25.00 +0.12	6.12
2X 15	39.52	25.12	24.79	33.30 +0.15 -0.10	6.12
2X 25	53.42	38.84	38.50	47.04 +0.13	5.99
2X 37	69.70	55.30	54.96	63.50 +0.13	5.99

Graphical representation of only one variant!



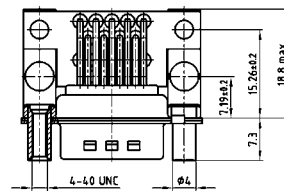
Mounting style: Threaded insert

Mounting style: Front spacer



Mounting style: PCB clip, threaded insert

Mounting style: PCB clip, front spacer





# D-SUB STANDARD – DUAL PORT VARIATIONS

Solder pin – Angled – Precision machined contacts – .625" / 15.88 mm Connector spacing

**ORDER DATA**

PCB-Layout: Kat1iU5A



Variation:  
plug upper –  
plug bottom

No. of pos.	Mounting style 4-40 UNC	Part Number
09 /09	Threaded insert	163A15199X
15 /15	Threaded insert	163A15209X
25 /25	Threaded insert	163A15219X
37 /37	Threaded insert	163A15229X
09 /09	Front spacer	163A15359X
15 /15	Front spacer	163A15369X
25 /25	Front spacer	163A15379X
37 /37	Front spacer	163A15389X
09 /09	PCB clip / Threaded insert	163A19969X
15 /15	PCB clip / Threaded insert	163A19979X
25 /25	PCB clip / Threaded insert	163A19989X
37 /37	PCB clip / Threaded insert	163A19999X
09 /09	PCB clip / Front spacer	163A19329X
15 /15	PCB clip / Front spacer	163A19339X
25 /25	PCB clip / Front spacer	163A19349X
37 /37	PCB clip / Front spacer	163A19359X

No. of pos.	Mounting style M3	Part Number
09 /09	Threaded insert	163A15279X
15 /15	Threaded insert	163A15289X
25 /25	Threaded insert	163A15299X
37 /37	Threaded insert	163A15309X
09 /09	Front spacer	163A15439X
15 /15	Front spacer	163A15449X
25 /25	Front spacer	163A15459X
37 /37	Front spacer	163A15469X
09 /09	PCB clip / Threaded insert	163A20049X
15 /15	PCB clip / Threaded insert	163A20059X
25 /25	PCB clip / Threaded insert	163A20069X
37 /37	PCB clip / Threaded insert	163A20079X
09 /09	PCB clip / Front spacer	163A19409X
15 /15	PCB clip / Front spacer	163A19419X
25 /25	PCB clip / Front spacer	163A19429X
37 /37	PCB clip / Front spacer	163A19439X

PCB-Layout: Kat1iU6A



Variation:  
plug upper –  
socket bottom

No. of pos.	Mounting style 4-40 UNC	Part Number
09 /09	Threaded insert	163A15239X
15 /15	Threaded insert	163A15249X
25 /25	Threaded insert	163A15259X
37 /37	Threaded insert	163A15269X
09 /09	Front spacer	163A15399X
15 /15	Front spacer	163A15409X
25 /25	Front spacer	163A15419X
37 /37	Front spacer	163A15429X
09 /09	PCB clip / Threaded insert	163A20009X
15 /15	PCB clip / Threaded insert	163A20019X
25 /25	PCB clip / Threaded insert	163A20029X
37 /37	PCB clip / Threaded insert	163A20039X
09 /09	PCB clip / Front spacer	163A19369X
15 /15	PCB clip / Front spacer	163A19379X
25 /25	PCB clip / Front spacer	163A19389X
37 /37	PCB clip / Front spacer	163A19399X

No. of pos.	Mounting style M3	Part Number
09 /09	Threaded insert	163A15319X
15 /15	Threaded insert	163A15329X
25 /25	Threaded insert	163A15339X
37 /37	Threaded insert	163A15349X
09 /09	Front spacer	163A15479X
15 /15	Front spacer	163A15489X
25 /25	Front spacer	163A15499X
37 /37	Front spacer	163A15509X
09 /09	PCB clip / Threaded insert	163A20089X
15 /15	PCB clip / Threaded insert	163A20099X
25 /25	PCB clip / Threaded insert	163A20109X
37 /37	PCB clip / Threaded insert	163A20119X
09 /09	PCB clip / Front spacer	163A19449X
15 /15	PCB clip / Front spacer	163A19459X
25 /25	PCB clip / Front spacer	163A19469X
37 /37	PCB clip / Front spacer	163A19479X

PCB-Layout: Kat1iU6A

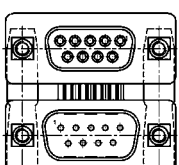


Variation:  
socket upper –  
socket bottom

No. of pos.	Mounting style 4-40 UNC	Part Number
09 /09	Threaded insert	164A15609X
15 /15	Threaded insert	164A15619X
25 /25	Threaded insert	164A15629X
37 /37	Threaded insert	164A15639X
09 /09	Front spacer	164A15769X
15 /15	Front spacer	164A15779X
25 /25	Front spacer	164A15789X
37 /37	Front spacer	164A15799X
09 /09	PCB clip / Threaded insert	164A20409X
15 /15	PCB clip / Threaded insert	164A20419X
25 /25	PCB clip / Threaded insert	164A20429X
37 /37	PCB clip / Threaded insert	164A20439X
09 /09	PCB clip / Front spacer	164A19759X
15 /15	PCB clip / Front spacer	164A19769X
25 /25	PCB clip / Front spacer	164A19779X
37 /37	PCB clip / Front spacer	164A19789X

No. of pos.	Mounting style M3	Part Number
09 /09	Threaded insert	164A15689X
15 /15	Threaded insert	164A15699X
25 /25	Threaded insert	164A15709X
37 /37	Threaded insert	164A15719X
09 /09	Front spacer	164A15849X
15 /15	Front spacer	164A15859X
25 /25	Front spacer	164A15869X
37 /37	Front spacer	164A15879X
09 /09	PCB clip / Threaded insert	164A20489X
15 /15	PCB clip / Threaded insert	164A20499X
25 /25	PCB clip / Threaded insert	164A20509X
37 /37	PCB clip / Threaded insert	164A20519X
09 /09	PCB clip / Front spacer	164A19839X
15 /15	PCB clip / Front spacer	164A19849X
25 /25	PCB clip / Front spacer	164A19859X
37 /37	PCB clip / Front spacer	164A19869X

PCB-Layout: Kat1iU5A



Variation:  
socket upper –  
plug bottom

No. of pos.	Mounting style 4-40 UNC	Part Number
09 /09	Threaded insert	164A15649X
15 /15	Threaded insert	164A15659X
25 /25	Threaded insert	164A15669X
37 /37	Threaded insert	164A15679X
09 /09	Front spacer	164A15809X
15 /15	Front spacer	164A15819X
25 /25	Front spacer	164A15829X
37 /37	Front spacer	164A15839X
09 /09	PCB clip / Threaded insert	164A20449X
15 /15	PCB clip / Threaded insert	164A20459X
25 /25	PCB clip / Threaded insert	164A20469X
37 /37	PCB clip / Threaded insert	164A20479X
09 /09	PCB clip / Front spacer	164A19799X
15 /15	PCB clip / Front spacer	164A19809X
25 /25	PCB clip / Front spacer	164A19819X
37 /37	PCB clip / Front spacer	164A19829X

No. of pos.	Mounting style M3	Part Number
09 /09	Threaded insert	164A15729X
15 /15	Threaded insert	164A15739X
25 /25	Threaded insert	164A15749X
37 /37	Threaded insert	164A15759X
09 /09	Front spacer	164A15889X
15 /15	Front spacer	164A15899X
25 /25	Front spacer	164A15909X
37 /37	Front spacer	164A15919X
09 /09	PCB clip / Threaded insert	164A20529X
15 /15	PCB clip / Threaded insert	164A20539X
25 /25	PCB clip / Threaded insert	164A20549X
37 /37	PCB clip / Threaded insert	164A20559X
09 /09	PCB clip / Front spacer	164A19879X
15 /15	PCB clip / Front spacer	164A19889X
25 /25	PCB clip / Front spacer	164A19899X
37 /37	PCB clip / Front spacer	164A19909X

PCB clip .122"/3.1 ± .004"/0.10 mm hole diameter and .063"/1.6 mm circuit board thickness

# D-SUB STANDARD – DUAL PORT

Solder pin – Angled – Precision machined contacts – .750" / 19.05 mm Connector spacing



RoHS compliant – CSA listed, File No.: LR 115000-1 – UL listed, File No.: E202784

## DESCRIPTION

- Variations: pin – pin; socket – socket; pin – socket
- Mounting styles:
  - with mounting bracket and 4-40 UNC or M3 threaded insert
  - with mounting bracket and 4-40 UNC or M3 front spacer
  - with mounting bracket, PCB clip and 4-40 UNC or M3 threaded insert
  - with mounting bracket, PCB clip and 4-40 UNC or M3 front spacer
- Quality class 3 (also available in quality class 1)
- Shell: Steel tin plated (brass tin plated or stainless steel available on request)

## PRODUCT DRAWING

No. of pos.	A -0.76	B1 +0.25	B2 -0.25	C	D -0.30
2X 09	31.19	16.79	16.46	25.00 +0.12	6.12
2X 15	39.52	25.12	24.79	33.30 +0.15 +0.10	6.12
2X 25	53.42	38.84	38.50	47.04 +0.13	5.99
2X 37	69.70	55.30	54.96	63.50 +0.13	5.99

Graphical representation of only one variant!



Mounting style: Threaded insert



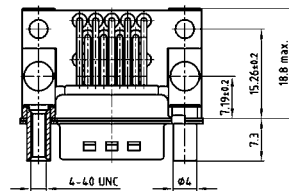
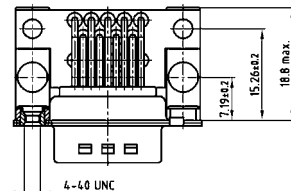
Mounting style: Front spacer



Mounting style: PCB clip, threaded insert



Mounting style: PCB clip, front spacer

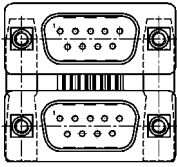


# D-SUB STANDARD – DUAL PORT VARIATIONS

Solder pin – Angled – Precision machined contacts – .750" / 19.05 mm Connector spacing

## ORDER DATA

PCB-Layout: Kat1iU5A

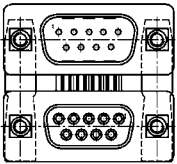


Variation:  
plug upper –  
plug bottom

No. of pos.	Mounting style 4-40 UNC	Part Number
09 / 09	Threaded insert	163A15519X
15 / 15	Threaded insert	163A15529X
25 / 25	Threaded insert	163A15539X
37 / 37	Threaded insert	163A15549X
09 / 09	Front spacer	163A15679X
15 / 15	Front spacer	163A15689X
25 / 25	Front spacer	163A15699X
37 / 37	Front spacer	163A15709X
09 / 09	PCB clip / Threaded insert	163A19489X
15 / 15	PCB clip / Threaded insert	163A19499X
25 / 25	PCB clip / Threaded insert	163A19509X
37 / 37	PCB clip / Threaded insert	163A19519X
09 / 09	PCB clip / Front spacer	163A19649X
15 / 15	PCB clip / Front spacer	163A19659X
25 / 25	PCB clip / Front spacer	163A19669X
37 / 37	PCB clip / Front spacer	163A19679X

No. of pos.	Mounting style M3	Part Number
09 / 09	Threaded insert	163A15599X
15 / 15	Threaded insert	163A15609X
25 / 25	Threaded insert	163A15619X
37 / 37	Threaded insert	163A15629X
09 / 09	Front spacer	163A15759X
15 / 15	Front spacer	163A15769X
25 / 25	Front spacer	163A15779X
37 / 37	Front spacer	163A15789X
09 / 09	PCB clip / Threaded insert	163A19569X
15 / 15	PCB clip / Threaded insert	163A19579X
25 / 25	PCB clip / Threaded insert	163A19589X
37 / 37	PCB clip / Threaded insert	163A19599X
09 / 09	PCB clip / Front spacer	163A19729X
15 / 15	PCB clip / Front spacer	163A19739X
25 / 25	PCB clip / Front spacer	163A19749X
37 / 37	PCB clip / Front spacer	163A19759X

PCB-Layout: Kat1iU6A

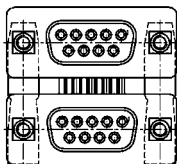


Variation:  
plug upper –  
socket bottom

No. of pos.	Mounting style 4-40 UNC	Part Number
09 / 09	Threaded insert	163A15559X
15 / 15	Threaded insert	163A15569X
25 / 25	Threaded insert	163A15579X
37 / 37	Threaded insert	163A15589X
09 / 09	Front spacer	163A15719X
15 / 15	Front spacer	163A15729X
25 / 25	Front spacer	163A15739X
37 / 37	Front spacer	163A15749X
09 / 09	PCB clip / Threaded insert	163A19529X
15 / 15	PCB clip / Threaded insert	163A19539X
25 / 25	PCB clip / Threaded insert	163A19549X
37 / 37	PCB clip / Threaded insert	163A19559X
09 / 09	PCB clip / Front spacer	163A19689X
15 / 15	PCB clip / Front spacer	163A19699X
25 / 25	PCB clip / Front spacer	163A19709X
37 / 37	PCB clip / Front spacer	163A19719X

No. of pos.	Mounting style M3	Part Number
09 / 09	Threaded insert	163A15639X
15 / 15	Threaded insert	163A15649X
25 / 25	Threaded insert	163A15659X
37 / 37	Threaded insert	163A15669X
09 / 09	Front spacer	163A15799X
15 / 15	Front spacer	163A15809X
25 / 25	Front spacer	163A15819X
37 / 37	Front spacer	163A15829X
09 / 09	PCB clip / Threaded insert	163A19609X
15 / 15	PCB clip / Threaded insert	163A19619X
25 / 25	PCB clip / Threaded insert	163A19629X
37 / 37	PCB clip / Threaded insert	163A19639X
09 / 09	PCB clip / Front spacer	163A19769X
15 / 15	PCB clip / Front spacer	163A19779X
25 / 25	PCB clip / Front spacer	163A19789X
37 / 37	PCB clip / Front spacer	163A19799X

PCB-Layout: Kat1iU6A

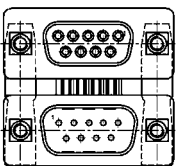


Variation:  
socket upper –  
socket bottom

No. of pos.	Mounting style 4-40 UNC	Part Number
09 / 09	Threaded insert	164A15929X
15 / 15	Threaded insert	164A15939X
25 / 25	Threaded insert	164A15949X
37 / 37	Threaded insert	164A15959X
09 / 09	Front spacer	164A16089X
15 / 15	Front spacer	164A16099X
25 / 25	Front spacer	164A16109X
37 / 37	Front spacer	164A16119X
09 / 09	PCB clip / Threaded insert	164A19919X
15 / 15	PCB clip / Threaded insert	164A19929X
25 / 25	PCB clip / Threaded insert	164A19939X
37 / 37	PCB clip / Threaded insert	164A19949X
09 / 09	PCB clip / Front spacer	164A20079X
15 / 15	PCB clip / Front spacer	164A20089X
25 / 25	PCB clip / Front spacer	164A20099X
37 / 37	PCB clip / Front spacer	164A20109X

No. of pos.	Mounting style M3	Part Number
09 / 09	Threaded insert	164A16009X
15 / 15	Threaded insert	164A16019X
25 / 25	Threaded insert	164A16029X
37 / 37	Threaded insert	164A16039X
09 / 09	Front spacer	164A16169X
15 / 15	Front spacer	164A16179X
25 / 25	Front spacer	164A16189X
37 / 37	Front spacer	164A16199X
09 / 09	PCB clip / Threaded insert	164A19999X
15 / 15	PCB clip / Threaded insert	164A20009X
25 / 25	PCB clip / Threaded insert	164A20019X
37 / 37	PCB clip / Threaded insert	164A20029X
09 / 09	PCB clip / Front spacer	164A20159X
15 / 15	PCB clip / Front spacer	164A20169X
25 / 25	PCB clip / Front spacer	164A20179X
37 / 37	PCB clip / Front spacer	164A20189X

PCB-Layout: Kat1iU5A



Variation:  
socket upper –  
plug bottom

No. of pos.	Mounting style 4-40 UNC	Part Number
09 / 09	Threaded insert	164A15969X
15 / 15	Threaded insert	164A15979X
25 / 25	Threaded insert	164A15989X
37 / 37	Threaded insert	164A15999X
09 / 09	Front spacer	164A16129X
15 / 15	Front spacer	164A16139X
25 / 25	Front spacer	164A16149X
37 / 37	Front spacer	164A16159X
09 / 09	PCB clip / Threaded insert	164A19959X
15 / 15	PCB clip / Threaded insert	164A19969X
25 / 25	PCB clip / Threaded insert	164A19979X
37 / 37	PCB clip / Threaded insert	164A19989X
09 / 09	PCB clip / Front spacer	164A20119X
15 / 15	PCB clip / Front spacer	164A20129X
25 / 25	PCB clip / Front spacer	164A20139X
37 / 37	PCB clip / Front spacer	164A20149X

No. of pos.	Mounting style M3	Part Number
09 / 09	Threaded insert	164A16049X
15 / 15	Threaded insert	164A16059X
25 / 25	Threaded insert	164A16069X
37 / 37	Threaded insert	164A16079X
09 / 09	Front spacer	164A16209X
15 / 15	Front spacer	164A16219X
25 / 25	Front spacer	164A16229X
37 / 37	Front spacer	164A16239X
09 / 09	PCB clip / Threaded insert	164A20039X
15 / 15	PCB clip / Threaded insert	164A20049X
25 / 25	PCB clip / Threaded insert	164A20059X
37 / 37	PCB clip / Threaded insert	164A20069X
09 / 09	PCB clip / Front spacer	164A20199X
15 / 15	PCB clip / Front spacer	164A20209X
25 / 25	PCB clip / Front spacer	164A20219X
37 / 37	PCB clip / Front spacer	164A20229X

PCB clip .122"/3.1 ± .004"/0.10 mm hole diameter and .063"/1.6 mm circuit board thickness

# D-SUB STANDARD – DUAL PORT

Solder pin – Angled – Stamped contacts –  
 .625" / 15.88 mm and .750" / 19.05 mm Connector spacing



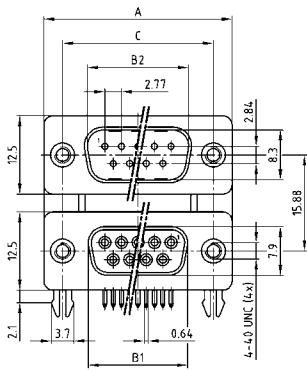
RoHS compliant – CSA listed, File No.: LR 115000-1 – UL listed, File No.: E202784

## DESCRIPTION

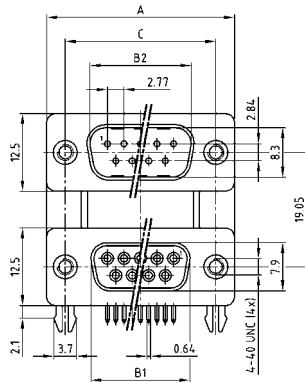
- Variations: pin – pin; socket – socket; pin – socket
- Mounting style:  
with mounting bracket, PCB clip and  
4-40 UNC threaded insert
- Quality class 3 (other quality classes on request)
- Shell: Steel tin plated

## PRODUCT DRAWING

Connector spacing 15.88 mm



Connector spacing 19.05 mm



Mounting style: PCB clip, threaded insert



No. of pos.	A	B1	B2	C
2X 09	30.80	16.30	16.92	25.00
2X 15	39.20	24.60	25.25	33.30
2X 25	53.10	38.30	38.96	47.04
2X 37	69.40	54.80	55.42	63.50

Graphical representation of only one variant!

# D-SUB STANDARD – DUAL PORT VARIATIONS

Solder pin – Angled – Stamped contacts –

.625" / 15.88 mm and .750" / 19.05 mm Connector spacing

**ORDER DATA**



Connector spacing .625" / 15.88 mm

No. of pos.	Mounting style 4-40 UNC	Part Number
09 / 09	PCB clip/Threaded insert	DLS1PP5AN21X
15 / 15	PCB clip/Threaded insert	DLS2PP5AN21X
25 / 25	PCB clip/Threaded insert	DLS3PP5AN21X
37 / 37	PCB clip/Threaded insert	DLS4PP5AN21X

Connector spacing .750" / 19.05 mm

No. of pos.	Mounting style 4-40 UNC	Part Number
09 / 09	PCB clip/Threaded insert	DLS1PP5AN23X
15 / 15	PCB clip/Threaded insert	DLS2PP5AN23X
25 / 25	PCB clip/Threaded insert	DLS3PP5AN23X
37 / 37	PCB clip/Threaded insert	DLS4PP5AN23X

Variation:  
plug upper –  
plug bottom



Connector spacing .625" / 15.88 mm

No. of pos.	Mounting style 4-40 UNC	Part Number
09 / 09	PCB clip/Threaded insert	DLS1PS5AN21X
15 / 15	PCB clip/Threaded insert	DLS2PS5AN21X
25 / 25	PCB clip/Threaded insert	DLS3PS5AN21X
37 / 37	PCB clip/Threaded insert	DLS4PS5AN21X

Connector spacing .750" / 19.05 mm

No. of pos.	Mounting style 4-40 UNC	Part Number
09 / 09	PCB clip/Threaded insert	DLS1PS5AN23X
15 / 15	PCB clip/Threaded insert	DLS2PS5AN23X
25 / 25	PCB clip/Threaded insert	DLS3PS5AN23X
37 / 37	PCB clip/Threaded insert	DLS4PS5AN23X

Variation:  
plug upper –  
socket bottom



Connector spacing .625" / 15.88 mm

No. of pos.	Mounting style 4-40 UNC	Part Number
09 / 09	PCB clip/Threaded insert	DLS1SS5AN21X
15 / 15	PCB clip/Threaded insert	DLS2SS5AN21X
25 / 25	PCB clip/Threaded insert	DLS3SS5AN21X
37 / 37	PCB clip/Threaded insert	DLS4SS5AN21X

Connector spacing .750" / 19.05 mm

No. of pos.	Mounting style 4-40 UNC	Part Number
09 / 09	PCB clip/Threaded insert	DLS1SS5AN23X
15 / 15	PCB clip/Threaded insert	DLS2SS5AN23X
25 / 25	PCB clip/Threaded insert	DLS3SS5AN23X
37 / 37	PCB clip/Threaded insert	DLS4SS5AN23X

Variation:  
socket upper –  
socket bottom



Connector spacing .625" / 15.88 mm

No. of pos.	Mounting style 4-40 UNC	Part Number
09 / 09	PCB clip/Threaded insert	DLS1SP5AN21X
15 / 15	PCB clip/Threaded insert	DLS2SP5AN21X
25 / 25	PCB clip/Threaded insert	DLS3SP5AN21X
37 / 37	PCB clip/Threaded insert	DLS4SP5AN21X

Connector spacing .750" / 19.05 mm

No. of pos.	Mounting style 4-40 UNC	Part Number
09 / 09	PCB clip/Threaded insert	DLS1SP5AN23X
15 / 15	PCB clip/Threaded insert	DLS2SP5AN23X
25 / 25	PCB clip/Threaded insert	DLS3SP5AN23X
37 / 37	PCB clip/Threaded insert	DLS4SP5AN23X

PCB clip .122" / 3.1 ± .004" / 0.10 mm hole diameter and .063" / 1.6 mm circuit board thickness

Variation:  
socket upper –  
plug bottom

# D-SUB STANDARD

Crimp body (without contacts) – For wire size AWG 24...20 and AWG 28...24

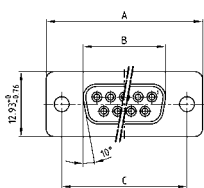


RoHS compliant – CSA listed, File No.: LR 115000-1 – UL listed, File No.: E202784

## DESCRIPTION

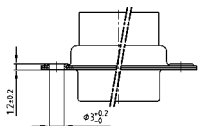
- For machined and stamped contacts, AWG 24...20 and AWG 28...24
- Mounting styles:
  - with through-hole,  $\varnothing .118''/3 \text{ mm}$
  - with 4-40 UNC or M3 threaded insert
- Shell: Steel tin plated (brass tin plated or stainless steel available on request)

## SOCKET CONNECTOR



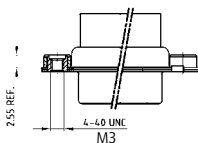
No. of pos.	A -0.76	B -0.25	C
09	31.19	16.46	25.00 $+0.12$
15	39.52	24.79	33.30 $+0.15$ $-0.10$
25	53.42	38.50	47.04 $+0.13$
37	69.70	54.96	63.50 $+0.13$
50	67.31	52.55	61.10 $+0.14$ $-0.11$

Mounting style: Through-hole

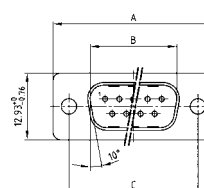


50 pos. = Dim. in ( \_ )

Mounting style: Threaded insert

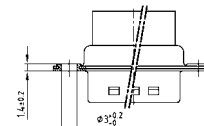


## PLUG CONNECTOR



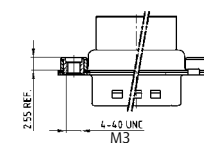
No. of pos.	A -0.76	B -0.25	C	D -0.3
09	31.19	16.79	25.00 $+0.12$	6.12
15	39.52	25.12	33.30 $+0.15$ $-0.10$	6.12
25	53.42	38.84	47.04 $+0.13$	5.99
37	69.70	55.30	63.50 $+0.13$	5.99
50	67.31	52.68	61.10 $+0.14$ $-0.11$	5.99

Mounting style: Through-hole



50 pos. = Dim. in ( \_ )

Mounting style: Threaded insert



## ORDER DATA

SOCKET CONNECTOR		
No. of pos.	Mounting style	Part Number
09	Through-hole	164X11769X
15	Through-hole	164X11779X
25	Through-hole	164X11789X
37	Through-hole	164X11799X
50	Through-hole	164X11809X
09	4-40 UNC Threaded insert	DSS1XSXXG04X
15	4-40 UNC Threaded insert	DSS2XSXXG04X
25	4-40 UNC Threaded insert	DSS3XSXXG04X
37	4-40 UNC Threaded insert	DSS4XSXXG04X
50	4-40 UNC Threaded insert	DSS5XSXXG04X
09	M3 Threaded insert	DSS1XSXXG03X
15	M3 Threaded insert	DSS2XSXXG03X
25	M3 Threaded insert	DSS3XSXXG03X
37	M3 Threaded insert	DSS4XSXXG03X
50	M3 Threaded insert	DSS5XSXXG03X

PLUG CONNECTOR		
No. of pos.	Mounting style	Part Number
09	Through-hole	163X10019X
15	Through-hole	163X10029X
25	Through-hole	163X10039X
37	Through-hole	163X10049X
50	Through-hole	163X10059X
09	4-40 UNC Threaded insert	DSS1XPXXG04X
15	4-40 UNC Threaded insert	DSS2XPXXG04X
25	4-40 UNC Threaded insert	DSS3XPXXG04X
37	4-40 UNC Threaded insert	DSS4XPXXG04X
50	4-40 UNC Threaded insert	DSS5XPXXG04X
09	M3 Threaded insert	DSS1XPXXG03X
15	M3 Threaded insert	DSS2XPXXG03X
25	M3 Threaded insert	DSS3XPXXG03X
37	M3 Threaded insert	DSS4XPXXG03X
50	M3 Threaded insert	DSS5XPXXG03X

# D-SUB STANDARD

Crimp Contacts – Machined or stamped – For wire size AWG 24...20 and AWG 28...24



RoHS compliant – CSA listed, File No.: LR 115000-1 – UL listed, File No.: E202784

## DESCRIPTION

- For wire size AWG 24...20 and AWG 28...24
- Stamped contacts with reel length of 500 or 10,000 contacts
- Loose contacts in poly bag (500/100 pieces)
- Quality class 3 (also available in quality class 1)

## FEMALE CONNECTOR



## MALE CONNECTOR



## Technical Data

Contact material Precision machined contacts	Brass
Contact material Stamped contacts	Phosphor bronze
Contact plating Precision machined contacts	Gold plated over nickel
Contact plating Stamped contacts	Selective gold plated
Temperature range	-55°C to +125°C
Rated current for AWG 24...20	7.5 A
Rated current for AWG 28...24	5 A
Contact resistance	≤ 10 mΩ

## ORDER DATA

FEMALE CONTACTS	
Contact type / AWG	Part Number
Stamped/24...20 / Big reel wheeled left (10.000)	162A11819X
Stamped/24...20 / Big reel wheeled right (10.000)	162A11829X
Stamped/24...20 / Small reel wheeled right (500)	162A11839X
Stamped/24...20 / Loose contacts (500)	162A11849X
Machined/24...20 / Loose contacts (500)	162A18709X
Machined/24...20 / Loose contacts (100)	16-001653
Stamped/28...24 / Big reel wheeled left (10.000)	162A11859X
Stamped/28...24 / Big reel wheeled right (10.000)	162A11869X
Stamped/28...24 / Small reel wheeled right (500)	162A11879X
Stamped/28...24 / Loose contacts (500)	162A11889X
Machined/28...24 / Loose contacts (500)	162A18719X
Machined/28...24 / Loose contacts (100)	16-001663

MALE CONTACTS	
Contact type / AWG	Part Number
Stamped/24...20 / Big reel wheeled left (10.000)	161A13369X
Stamped/24...20 / Big reel wheeled right (10.000)	161A13379X
Stamped/24...20 / Small reel wheeled right (500)	161A13389X
Stamped/24...20 / Loose contacts (500)	161A13399X
Machined/24...20 / Loose contacts (500)	161A18299X
Machined/24...20 / Loose contacts (100)	16-001673
Stamped/28...24 / Big reel wheeled left (10.000)	161A13409X
Stamped/28...24 / Big reel wheeled right (10.000)	161A13419X
Stamped/28...24 / Small reel wheeled right (500)	161A13429X
Stamped/28...24 / Loose contacts (500)	161A13439X
Machined/28...24 / Loose contacts (500)	161A18309X
Machined/28...24 / Loose contacts (100)	16-001683

# D-SUB HIGH DENSITY

Solder cup – Precision machined contacts – For wire size AWG 22



RoHS compliant – CSA listed, File No.: LR 115000-1 – UL listed, File No.: E202784

## SOCKET CONNECTOR



No. of pos.	A -0.76	B -0.25	C
15	31.19	16.46	25.00 +0.12
26	39.52	24.79	33.30 +0.15 -0.10
44	53.42	38.50	47.04 +0.13
62	69.70	54.96	63.50 +0.13
78	67.31	52.55	61.10 +0.14 -0.11

Mounting style: Through-hole



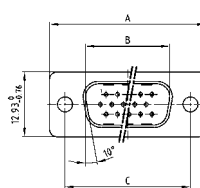
Mounting style: Threaded insert



## DESCRIPTION

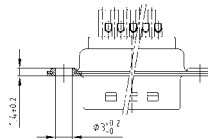
- Suitable for wire size AWG 22
- Mounting styles:
  - with through-hole, Ø .118" / 3 mm
  - with 4-40 UNC or M3 threaded insert
- Quality class 3 (also available in quality class 1)
- Shell: Steel tin plated (brass tin plated or stainless steel available on request)

## PLUG CONNECTOR

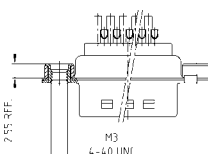


No. of pos.	A -0.76	B +0.25	C	D -0.3
15	31.19	16.79	25.00 +0.12	6.12
26	39.52	25.12	33.30 +0.15 -0.10	6.12
44	53.42	38.84	47.04 +0.13	5.99
62	69.70	55.30	63.50 +0.13	5.99
78	67.31	52.68	61.10 +0.14 -0.11	5.99

Mounting style: Through-hole



Mounting style: Threaded insert



78 pos. = Dim. in ( \_ \_ )

78 pos. = Dim. in ( \_ \_ )

## ORDER DATA

SOCKET CONNECTOR		
No. of pos.	Mounting style	Part Number
15	Through-hole	164A17009X
26	Through-hole	164A17019X
44	Through-hole	164A17029X
62	Through-hole	164A17039X
78	Through-hole	164A17049X
15	4-40 UNC Threaded insert	164A17059X
26	4-40 UNC Threaded insert	164A17069X
44	4-40 UNC Threaded insert	164A17079X
62	4-40 UNC Threaded insert	164A17089X
78	4-40 UNC Threaded insert	164A17099X
15	M3 Threaded insert	164A17109X
26	M3 Threaded insert	164A17119X
42	M3 Threaded insert	164A17129X
62	M3 Threaded insert	164A17139X
78	M3 Threaded insert	164A17149X

PLUG CONNECTOR		
No. of pos.	Mounting style	Part Number
15	Through-hole	163A16599X
26	Through-hole	163A16609X
44	Through-hole	163A16619X
62	Through-hole	163A16629X
78	Through-hole	163A16639X
15	4-40 UNC Threaded insert	163A16649X
26	4-40 UNC Threaded insert	163A16659X
44	4-40 UNC Threaded insert	163A16669X
62	4-40 UNC Threaded insert	163A16679X
78	4-40 UNC Threaded insert	163A16689X
15	M3 Threaded insert	163A16699X
26	M3 Threaded insert	163A16709X
44	M3 Threaded insert	163A16719X
62	M3 Threaded insert	163A16729X
78	M3 Threaded insert	163A16739X



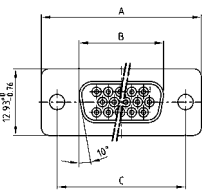
# D-SUB HIGH DENSITY

Solder cup – Stamped contacts – For wire size AWG 22



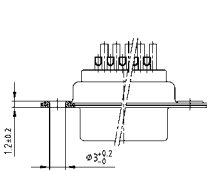
RoHS compliant – CSA listed, File No.: LR 115000-1 – UL listed, File No.: E202784

## SOCKET CONNECTOR



No. of pos.	A -0.76	B -0.25	C
15	31.19	16.46	25.00 <sup>+0.12</sup>
26	39.52	24.79	33.30 <sup>+0.15</sup> <sub>-0.10</sub>
44	53.42	38.50	47.04 <sup>+0.13</sup>
62	69.70	54.96	63.50 <sup>+0.13</sup>
78	67.31	52.55	61.10 <sup>+0.14</sup> <sub>-0.11</sub>

Mounting style: Through-hole



78 pos. = Dim. in ( \_ )

## DESCRIPTION

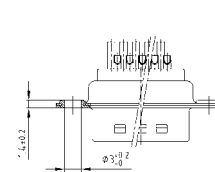
- Suitable for wire size AWG 22
- Mounting style: with through-hole Ø .118" / 3 mm
- Quality class 3 (other quality classes on request)
- Shell: Steel tin plated

## PLUG CONNECTOR



No. of pos.	A -0.76	B +0.25	C	D -0.3
15	31.19	16.79	25.00 <sup>+0.12</sup>	6.12
26	39.52	25.12	33.30 <sup>+0.15</sup> <sub>-0.10</sub>	6.12
44	53.42	38.84	47.04 <sup>+0.13</sup>	5.99
62	69.70	55.30	63.50 <sup>+0.13</sup>	5.99
78	67.31	52.68	61.10 <sup>+0.14</sup> <sub>-0.11</sub>	5.99

Mounting style: Through-hole



78 pos. = Dim. in ( \_ )

## ORDER DATA

SOCKET CONNECTOR		
No. of pos.	Mounting style	Part Number
15	Through-hole	302A10129X
26	Through-hole	302A10139X
44	Through-hole	302A10149X
62	Through-hole	302A10159X
78	Through-hole	302A11329X

PLUG CONNECTOR		
No. of pos.	Mounting style	Part Number
15	Through-hole	301A10129X
26	Through-hole	301A10139X
44	Through-hole	301A10149X
62	Through-hole	301A10159X
78	Through-hole	301A11019X

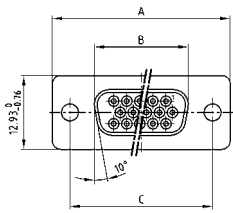
# D-SUB HIGH DENSITY

Solder pin – Straight – Precision machined contacts



RoHS compliant – CSA listed, File No.: LR 115000-1 – UL listed, File No.: E202784

## SOCKET CONNECTOR



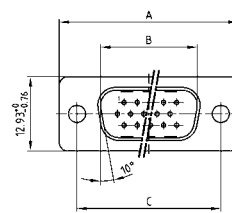
No. of pos.	A -0.76	B -0.25	C
15	31.19	16.46	25.00 <sup>+0.12</sup>
26	39.52	24.79	33.30 <sup>+0.15</sup> <sub>-0.10</sub>
44	53.42	38.50	47.04 <sup>+0.13</sup>
62	69.70	54.96	63.50 <sup>+0.13</sup>
78	67.31	52.55	61.10 <sup>+0.14</sup> <sub>-0.11</sub>

PCB-Layout: Kat1iI9A

## DESCRIPTION

- Mounting styles:
  - with through-hole, Ø .118" / 3 mm
  - with 4-40 UNC or M3 threaded insert
  - with 4-40 UNC front / M3 threaded rear spacer
  - with M3 front / 4-40 UNC or M3 threaded rear spacer with PCB clip
  - with 4-40 UNC or M3 front and threaded rear spacer with PCB clip
- Quality class 3 (also available in quality class 1)
- Shell: Steel tin plated (brass tin plated or stainless steel available on request)

## PLUG CONNECTOR



No. of pos.	A -0.76	B +0.25	C	D -0.3
15	31.19	16.79	25.00 <sup>+0.12</sup>	6.12
26	39.52	25.12	33.30 <sup>+0.15</sup> <sub>-0.10</sub>	6.12
44	53.42	38.84	47.04 <sup>+0.13</sup>	5.99
62	69.70	55.30	63.50 <sup>+0.13</sup>	5.99
78	67.31	52.68	61.10 <sup>+0.14</sup> <sub>-0.11</sub>	5.99

PCB-Layout: Kat1iU0A



78 pos. = Dim. in ( \_ \_ )



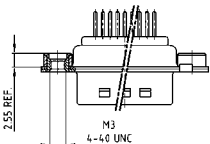
78 pos. = Dim. in ( \_ \_ )

## ORDER DATA



SOCKET CONNECTOR		
No. of pos.	Mounting style	Part Number
15	Through-hole	164A17159X
26	Through-hole	164A17169X
44	Through-hole	164A17179X
62	Through-hole	164A17189X
78	Through-hole	164A17199X

PLUG CONNECTOR		
No. of pos.	Mounting style	Part Number
15	Through-hole	163A16749X
26	Through-hole	163A16759X
44	Through-hole	163A16769X
62	Through-hole	163A16779X
78	Through-hole	163A16789X



SOCKET CONNECTOR		
No. of pos.	Mounting style	Part Number
15	4-40 UNC Threaded insert	164A17209X
26	4-40 UNC Threaded insert	164A17219X
44	4-40 UNC Threaded insert	164A17229X
62	4-40 UNC Threaded insert	164A17239X
78	4-40 UNC Threaded insert	164A17249X
15	M3 Threaded insert	164A17259X
26	M3 Threaded insert	164A17269X
44	M3 Threaded insert	164A17279X
62	M3 Threaded insert	164A17289X
78	M3 Threaded insert	164A17299X

PLUG CONNECTOR		
No. of pos.	Mounting style	Part Number
15	4-40 UNC Threaded insert	163A16799X
26	4-40 UNC Threaded insert	163A16809X
44	4-40 UNC Threaded insert	163A16819X
62	4-40 UNC Threaded insert	163A16829X
78	4-40 UNC Threaded insert	163A16839X
15	M3 Threaded insert	163A16849X
26	M3 Threaded insert	163A16859X
44	M3 Threaded insert	163A16869X
62	M3 Threaded insert	163A16879X
78	M3 Threaded insert	163A16889X

# D-SUB HIGH DENSITY – MOUNTING STYLES

Solder pin – Straight – Precision machined contacts

**ORDER DATA**



SOCKET CONNECTOR		
No. of pos.	Mounting style	Part Number
15	4-40 UNC Front/M3 Threaded rear spacer	164A17309X
26	4-40 UNC Front/M3 Threaded rear spacer	164A17319X
44	4-40 UNC Front/M3 Threaded rear spacer	164A17329X
62	4-40 UNC Front/M3 Threaded rear spacer	164A17339X
78	4-40 UNC Front/M3 Threaded rear spacer	164A17349X

PLUG CONNECTOR		
No. of pos.	Mounting style	Part Number
15	4-40 UNC Front/M3 Threaded rear spacer	163A16899X
26	4-40 UNC Front/M3 Threaded rear spacer	163A16909X
44	4-40 UNC Front/M3 Threaded rear spacer	163A16919X
62	4-40 UNC Front/M3 Threaded rear spacer	163A16929X
78	4-40 UNC Front/M3 Threaded rear spacer	163A16939X



SOCKET CONNECTOR		
No. of pos.	Mounting style	Part Number
15	4-40 UNC Threaded rear spacer PCB clip	164A17359X
26	4-40 UNC Threaded rear spacer PCB clip	164A17369X
44	4-40 UNC Threaded rear spacer PCB clip	164A17379X
62	4-40 UNC Threaded rear spacer PCB clip	164A17389X
78	4-40 UNC Threaded rear spacer PCB clip	164A17399X
15	M3 Threaded rear spacer PCB clip	164A17409X
26	M3 Threaded rear spacer PCB clip	164A17419X
44	M3 Threaded rear spacer PCB clip	164A17429X
62	M3 Threaded rear spacer PCB clip	164A17439X
78	M3 Threaded rear spacer PCB clip	164A17449X

PLUG CONNECTOR		
No. of pos.	Mounting style	Part Number
15	4-40 UNC Threaded rear spacer PCB clip	163A16949X
26	4-40 UNC Threaded rear spacer PCB clip	163A16959X
44	4-40 UNC Threaded rear spacer PCB clip	163A16969X
62	4-40 UNC Threaded rear spacer PCB clip	163A16979X
78	4-40 UNC Threaded rear spacer PCB clip	163A16989X
15	M3 Threaded rear spacer PCB clip	163A16999X
26	M3 Threaded rear spacer PCB clip	163A17009X
44	M3 Threaded rear spacer PCB clip	163A17019X
62	M3 Threaded rear spacer PCB clip	163A17029X
78	M3 Threaded rear spacer PCB clip	163A17039X

PCB clip .122"/3.1 ± .004"/0.10 mm hole diameter and .063"/1.6 mm circuit board thickness



SOCKET CONNECTOR		
No. of pos.	Mounting style	Part Number
15	4-40 UNC Front/Threaded rear spacer PCB clip	164A17459X
26	4-40 UNC Front/Threaded rear spacer PCB clip	164A17469X
44	4-40 UNC Front/Threaded rear spacer PCB clip	164A17479X
62	4-40 UNC Front/Threaded rear spacer PCB clip	164A17489X
78	4-40 UNC Front/Threaded rear spacer PCB clip	164A17499X
15	M3 Front/Threaded rear spacer PCB clip	164A17509X
26	M3 Front/Threaded rear spacer PCB clip	164A17519X
44	M3 Front/Threaded rear spacer PCB clip	164A17529X
62	M3 Front/Threaded rear spacer PCB clip	164A17539X
78	M3 Front/Threaded rear spacer PCB clip	164A17549X

PLUG CONNECTOR		
No. of pos.	Mounting style	Part Number
15	4-40 UNC Front/Threaded rear spacer PCB clip	163A17049X
26	4-40 UNC Front/Threaded rear spacer PCB clip	163A17059X
44	4-40 UNC Front/Threaded rear spacer PCB clip	163A17069X
62	4-40 UNC Front/Threaded rear spacer PCB clip	163A17079X
78	4-40 UNC Front/Threaded rear spacer PCB clip	163A17089X
15	M3 Front/Threaded rear spacer PCB clip	163A17099X
26	M3 Front/Threaded rear spacer PCB clip	163A17109X
44	M3 Front/Threaded rear spacer PCB clip	163A17119X
62	M3 Front/Threaded rear spacer PCB clip	163A17129X
78	M3 Front/Threaded rear spacer PCB clip	163A17139X

PCB clip .122"/3.1 ± .004"/0.10 mm hole diameter and .063"/1.6 mm circuit board thickness

PCB-Layout: Kat11T9A

PCB-Layout: Kat11U0A

# D-SUB HIGH DENSITY

Press-fit contact – Straight – Precision machined contacts

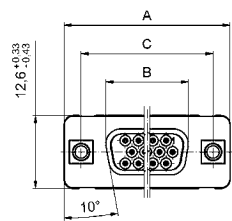


RoHS compliant – CSA listed, File No.: LR 115000-1 – UL listed, File No.: E202784

## DESCRIPTION

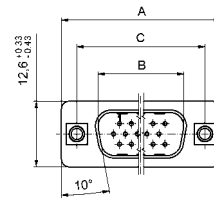
- Mounting styles:
  - with .268"/6.8 mm threaded rear spacer and 4-40 UNC
  - with .287"/7.3 mm threaded rear spacer and 4-40 UNC
- For .040"/1.0 mm  $\pm$  .003"/0.09 mm /  $\pm$  .002"/0.06 mm finished through-hole diameter  
Refer to product drawing for details
- Quality class 3 (also available in quality class 1)
- Shell: Steel tin plated (brass tin plated or stainless steel available on request)

## SOCKET CONNECTOR



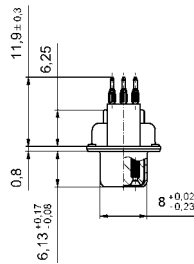
No. of pos.	A	B	C
15	30.88 $\pm$ 0.31 / -0.45	16.41 $\pm$ 0.05 / -0.20	24.99 $\pm$ 0.13 / -0.12
26	39.22 $\pm$ 0.30 / -0.46	24.74 $\pm$ 0.05 / -0.20	33.32 $\pm$ 0.13 / -0.12
44	53.09 $\pm$ 0.33 / -0.43	38.51 $\pm$ 0.05 / -0.26	47.04 $\pm$ 0.13 / -0.12
62	69.50 $\pm$ 0.20 / -0.56	54.94 $\pm$ 0.05 / -0.23	63.50 $\pm$ 0.13 / -0.12

## PLUG CONNECTOR

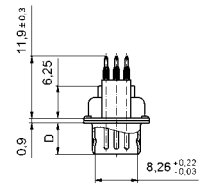
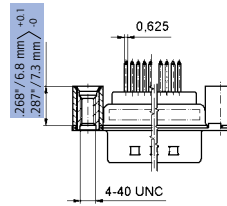


No. of pos.	A	B	C	D
15	30.88 $\pm$ 0.31 / -0.45	16.41 $\pm$ 0.05 / -0.20	24.99 $\pm$ 0.13 / -0.12	6.00 $\pm$ 0.12 / -0.18
26	39.22 $\pm$ 0.30 / -0.46	24.74 $\pm$ 0.05 / -0.20	33.32 $\pm$ 0.13 / -0.12	6.00 $\pm$ 0.12 / -0.18
44	53.09 $\pm$ 0.33 / -0.43	38.51 $\pm$ 0.05 / -0.26	47.04 $\pm$ 0.13 / -0.12	6.00 $\pm$ 0.12 / -0.30
62	69.50 $\pm$ 0.20 / -0.56	54.94 $\pm$ 0.05 / -0.23	63.50 $\pm$ 0.13 / -0.12	6.00 $\pm$ 0.12 / -0.30

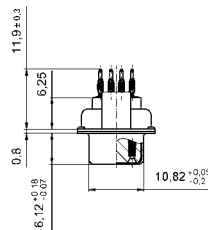
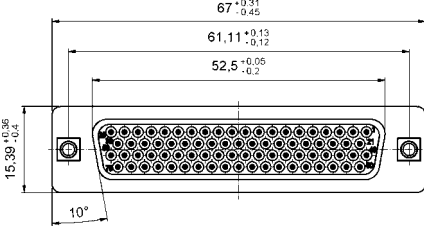
15-62 pos.



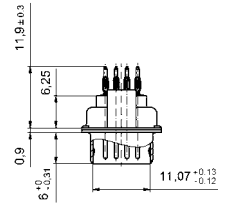
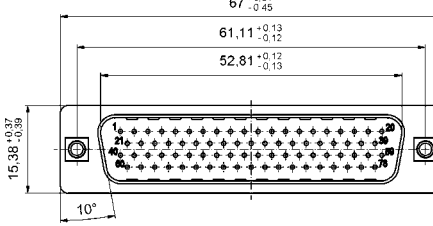
15-62 pos.



78 pos.



78 pos.



## ORDER DATA

SOCKET CONNECTOR		
No. of pos.	Mounting style 4-40 UNC thread	Part Number
15	Threaded rear spacer .268"/6.8 mm	DSH1XSGAA48X
26	Threaded rear spacer .268"/6.8 mm	DSH2XSGAA48X
44	Threaded rear spacer .268"/6.8 mm	DSH3XSGAA48X
62	Threaded rear spacer .268"/6.8 mm	DSH4XSGAA48X
78	Threaded rear spacer .268"/6.8 mm	DSH5XSGAA48X
15	Threaded rear spacer .287"/7.3 mm	DSH1XSHAA49X
26	Threaded rear spacer .287"/7.3 mm	DSH2XSHAA49X
44	Threaded rear spacer .287"/7.3 mm	DSH3XSHAA49X
62	Threaded rear spacer .287"/7.3 mm	DSH4XSHAA49X
78	Threaded rear spacer .287"/7.3 mm	DSH5XSHAA49X

PLUG CONNECTOR		
No. of pos.	Mounting style 4-40 UNC thread	Part Number
15	Threaded rear spacer .268"/6.8 mm	DSH1XPGAA48X
26	Threaded rear spacer .268"/6.8 mm	DSH2XPGAA48X
44	Threaded rear spacer .268"/6.8 mm	DSH3XPGAA48X
62	Threaded rear spacer .268"/6.8 mm	DSH4XPGAA48X
78	Threaded rear spacer .268"/6.8 mm	DSH5XPGAA48X
15	Threaded rear spacer .287"/7.3 mm	DSH1XPHAA49X
26	Threaded rear spacer .287"/7.3 mm	DSH2XPHAA49X
44	Threaded rear spacer .287"/7.3 mm	DSH3XPHAA49X
62	Threaded rear spacer .287"/7.3 mm	DSH4XPHAA49X
78	Threaded rear spacer .287"/7.3 mm	DSH5XPHAA49X

# D-SUB HIGH DENSITY

Press-fit contact – Straight – Precision machined contacts – Rear press-fit spacer



RoHS compliant – CSA listed, File No.: LR 115000-1 – UL listed, File No.: E202784

## SOCKET CONNECTOR



No. of pos.	A	B	C
15	30.88 <sup>+0.31</sup> <sub>-0.45</sub>	16.41 <sup>+0.05</sup> <sub>-0.20</sub>	24.99 <sup>+0.13</sup> <sub>-0.12</sub>
26	39.22 <sup>+0.30</sup> <sub>-0.46</sub>	24.74 <sup>+0.05</sup> <sub>-0.20</sub>	33.32 <sup>+0.13</sup> <sub>-0.12</sub>
44	53.09 <sup>+0.33</sup> <sub>-0.43</sub>	38.51 <sup>+0</sup> <sub>-0.26</sub>	47.04 <sup>+0.13</sup> <sub>-0.12</sub>
62	69.50 <sup>+0.20</sup> <sub>-0.56</sub>	54.94 <sup>+0.05</sup> <sub>-0.23</sub>	63.50 <sup>+0.13</sup> <sub>-0.12</sub>

15-62 pos.



78 pos.



## ORDER DATA

SOCKET CONNECTOR		
No. of pos.	Mounting style 4-40 UNC thread	Part Number
15	Rear press-fit spacer .268" / 6.8 mm	DSH1XSGAA58X
26	Rear press-fit spacer .268" / 6.8 mm	DSH2XSGAA58X
44	Rear press-fit spacer .268" / 6.8 mm	DSH3XSGAA58X
62	Rear press-fit spacer .268" / 6.8 mm	DSH4XSGAA58X
78	Rear press-fit spacer .268" / 6.8 mm	DSH5XSGAA58X
15	Rear press-fit spacer .287" / 7.3 mm	DSH1XSHAA54X
26	Rear press-fit spacer .287" / 7.3 mm	DSH2XSHAA54X
44	Rear press-fit spacer .287" / 7.3 mm	DSH3XSHAA54X
62	Rear press-fit spacer .287" / 7.3 mm	DSH4XSHAA54X
78	Rear press-fit spacer .287" / 7.3 mm	DSH5XSHAA54X

## DESCRIPTION

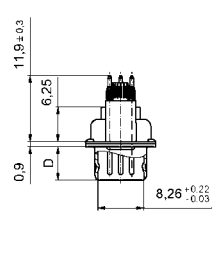
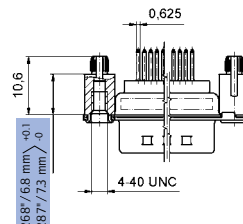
- Mounting styles:
  - with .268" / 6.8 mm rear press-fit spacer and 4-40 UNC
  - with .287" / 7.3 mm rear press-fit spacer and 4-40 UNC
- For .040" / 1.0 mm <sup>+0.003"/0.09mm</sup> / <sup>.002"/0.06mm</sup> finished through-hole diameter  
Refer to product drawing for details
- Quality class 3 (also available in quality class 1)
- Shell: Steel tin plated (brass tin plated or stainless steel available on request)

## PLUG CONNECTOR



No. of pos.	A	B	C	D
15	30.88 <sup>+0.31</sup> <sub>-0.45</sub>	16.41 <sup>+0.05</sup> <sub>-0.20</sub>	24.99 <sup>+0.13</sup> <sub>-0.12</sub>	6.00 <sup>+0.12</sup> <sub>-0.18</sub>
26	39.22 <sup>+0.30</sup> <sub>-0.46</sub>	24.74 <sup>+0.05</sup> <sub>-0.20</sub>	33.32 <sup>+0.13</sup> <sub>-0.12</sub>	6.00 <sup>+0.12</sup> <sub>-0.18</sub>
44	53.09 <sup>+0.33</sup> <sub>-0.43</sub>	38.51 <sup>+0</sup> <sub>-0.26</sub>	47.04 <sup>+0.13</sup> <sub>-0.12</sub>	6.00 <sup>+0.12</sup> <sub>-0.30</sub>
62	69.50 <sup>+0.20</sup> <sub>-0.56</sub>	54.94 <sup>+0.05</sup> <sub>-0.23</sub>	63.50 <sup>+0.13</sup> <sub>-0.12</sub>	6.00 <sup>+0.12</sup> <sub>-0.30</sub>

15-62 pos.



78 pos.



PLUG CONNECTOR		
No. of pos.	Mounting style 4-40 UNC thread	Part Number
15	Rear press-fit spacer .268" / 6.8 mm	DSH1XPGAA58X
26	Rear press-fit spacer .268" / 6.8 mm	DSH2XPGAA58X
44	Rear press-fit spacer .268" / 6.8 mm	DSH3XPGAA58X
62	Rear press-fit spacer .268" / 6.8 mm	DSH4XPGAA58X
78	Rear press-fit spacer .268" / 6.8 mm	DSH5XPGAA58X
15	Rear press-fit spacer .287" / 7.3 mm	DSH1XPHAA54X
26	Rear press-fit spacer .287" / 7.3 mm	DSH2XPHAA54X
44	Rear press-fit spacer .287" / 7.3 mm	DSH3XPHAA54X
62	Rear press-fit spacer .287" / 7.3 mm	DSH4XPHAA54X
78	Rear press-fit spacer .287" / 7.3 mm	DSH5XPHAA54X

# D-SUB HIGH DENSITY

Solder pin – Angled – .350" / 7.98 mm – Precision machined contacts – Plastic bracket

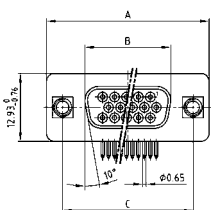


RoHS compliant – CSA listed, File No.: LR 115000-1 – UL listed, File No.: E202784

## DESCRIPTION

- Mounting styles:
  - with mounting and grounding strap, 4-40 UNC or M3 threaded insert
  - with mounting and grounding strap, 4-40 UNC or M3 front spacer
  - with mounting bracket, PCB clip and 4-40 UNC or M3 threaded insert
  - with mounting bracket, PCB clip and 4-40 UNC or M3 front spacer
- Quality class 3 (also available in quality class 1)
- Shell: Steel tin plated (brass tin plated or stainless steel available on request)

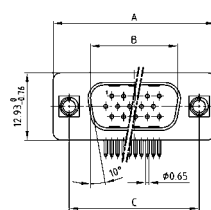
## SOCKET CONNECTOR



No. of pos.	A -0.76	B -0.25	C
15	31.19	16.46	25.00 +0.12
26	39.52	24.79	33.30 +0.15 -0.10
44	53.42	38.50	47.04 +0.13
62	69.70	54.96	63.50 +0.13

PCB-Layout: Kat1iU1A

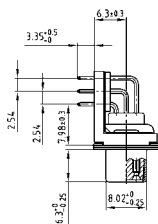
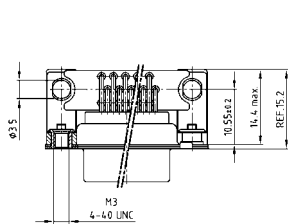
## PLUG CONNECTOR



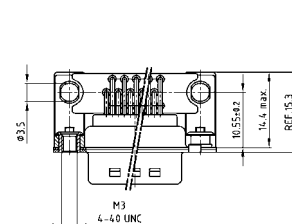
No. of pos.	A -0.76	B +0.25	C	D -0.3
15	31.19	16.79	25.00 +0.12	6.12
26	39.52	25.12	33.30 +0.15 -0.10	6.12
44	53.42	38.84	47.04 +0.13	5.99
62	69.70	55.30	63.50 +0.13	5.99

PCB-Layout: Kat1iU2A

Mounting style: Grounding strap, threaded insert



Mounting style: Grounding strap, threaded insert



## ORDER DATA

SOCKET CONNECTOR		
No. of pos.	Mounting style	Part Number
15	Grounding strap / 4-40 UNC Threaded insert	164A18019X
26	Grounding strap / 4-40 UNC Threaded insert	164A18029X
44	Grounding strap / 4-40 UNC Threaded insert	164A18039X
62	Grounding strap / 4-40 UNC Threaded insert	164A18049X
15	Grounding strap / M3 Threaded insert	164A18059X
26	Grounding strap / M3 Threaded insert	164A18069X
44	Grounding strap / M3 Threaded insert	164A18079X
62	Grounding strap / M3 Threaded insert	164A18089X

PLUG CONNECTOR		
No. of pos.	Mounting style	Part Number
15	Grounding strap / 4-40 UNC Threaded insert	163A17609X
26	Grounding strap / 4-40 UNC Threaded insert	163A17619X
44	Grounding strap / 4-40 UNC Threaded insert	163A17629X
62	Grounding strap / 4-40 UNC Threaded insert	163A17639X
15	Grounding strap / M3 Threaded insert	163A17649X
26	Grounding strap / M3 Threaded insert	163A17659X
44	Grounding strap / M3 Threaded insert	163A17669X
62	Grounding strap / M3 Threaded insert	163A17679X

# D-SUB HIGH DENSITY – MOUNTING STYLES

Solder pin – Angled – .350" / 7.98 mm – Precision machined contacts – Plastic bracket

**ORDER DATA**



SOCKET CONNECTOR		
No. of pos.	Mounting style	Part Number
15	Grounding strap / 4-40 UNC Front spacer	164A18099X
26	Grounding strap / 4-40 UNC Front spacer	164A18109X
44	Grounding strap / 4-40 UNC Front spacer	164A18119X
62	Grounding strap / 4-40 UNC Front spacer	164A18129X
15	Grounding strap / M3 Front spacer	164A18139X
26	Grounding strap / M3 Front spacer	164A18149X
44	Grounding strap / M3 Front spacer	164A18159X
62	Grounding strap / M3 Front spacer	164A18169X

PLUG CONNECTOR		
No. of pos.	Mounting style	Part Number
15	Grounding strap / 4-40 UNC Front spacer	163A17689X
26	Grounding strap / 4-40 UNC Front spacer	163A17699X
44	Grounding strap / 4-40 UNC Front spacer	163A17709X
62	Grounding strap / 4-40 UNC Front spacer	163A17719X
15	Grounding strap / M3 Front spacer	163A17729X
26	Grounding strap / M3 Front spacer	163A17739X
44	Grounding strap / M3 Front spacer	163A17749X
62	Grounding strap / M3 Front spacer	163A17759X



SOCKET CONNECTOR		
No. of pos.	Mounting style	Part Number
15	PCB clip / 4-40 UNC Threaded insert	164A20929X
26	PCB clip / 4-40 UNC Threaded insert	164A20939X
44	PCB clip / 4-40 UNC Threaded insert	164A20949X
62	PCB clip / 4-40 UNC Threaded insert	164A20959X
15	PCB clip / M3 Threaded insert	164A20969X
26	PCB clip / M3 Threaded insert	164A20979X
44	PCB clip / M3 Threaded insert	164A20989X
62	PCB clip / M3 Threaded insert	164A20999X

PLUG CONNECTOR		
No. of pos.	Mounting style	Part Number
15	PCB clip / 4-40 UNC Threaded insert	163A20489X
26	PCB clip / 4-40 UNC Threaded insert	163A20499X
44	PCB clip / 4-40 UNC Threaded insert	163A20509X
62	PCB clip / 4-40 UNC Threaded insert	163A20519X
15	PCB clip / M3 Threaded insert	163A20529X
26	PCB clip / M3 Threaded insert	163A20539X
44	PCB clip / M3 Threaded insert	163A20549X
62	PCB clip / M3 Threaded insert	163A20559X

PCB clip .122" / 3.1 ± .004" / 0.10 mm hole diameter and .063" / 1.6 mm circuit board thickness



SOCKET CONNECTOR		
No. of pos.	Mounting style	Part Number
15	PCB clip / 4-40 UNC Front spacer	164A21009X
26	PCB clip / 4-40 UNC Front spacer	164A21019X
44	PCB clip / 4-40 UNC Front spacer	164A21029X
62	PCB clip / 4-40 UNC Front spacer	164A21039X
15	PCB clip / M3 Front spacer	164A21049X
26	PCB clip / M3 Front spacer	164A21059X
44	PCB clip / M3 Front spacer	164A21069X
62	PCB clip / M3 Front spacer	164A21079X

PLUG CONNECTOR		
No. of pos.	Mounting style	Part Number
15	PCB clip / 4-40 UNC Front spacer	163A20569X
26	PCB clip / 4-40 UNC Front spacer	163A20579X
44	PCB clip / 4-40 UNC Front spacer	163A20589X
62	PCB clip / 4-40 UNC Front spacer	163A20599X
15	PCB clip / M3 Front spacer	163A20609X
26	PCB clip / M3 Front spacer	163A20619 X
44	PCB clip / M3 Front spacer	163A20629X
62	PCB clip / M3 Front spacer	163A20639X

PCB clip .122" / 3.1 ± .004" / 0.10 mm hole diameter and .063" / 1.6 mm circuit board thickness

PCB-Layout: Kat1iU1A

PCB-Layout: Kat1iU2A

# D-SUB HIGH DENSITY

Solder pin – Angled – .350"/7.98 mm – Precision machined contacts – Metal bracket



RoHS compliant – CSA listed, File No.: LR 115000-1 – UL listed, File No.: E202784

## SOCKET CONNECTOR



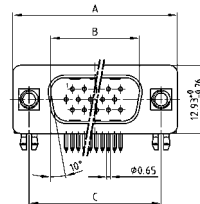
No. of pos.	A -0.76	B -0.25	C
15	31.19	16.46	25.00 +0.12
26	39.52	24.79	33.30 +0.15 -0.10
44	53.42	38.50	47.04 +0.13
62	69.70	54.96	63.50 +0.13
78	67.31	52.55	61.10 +0.14 -0.14

PCB-Layout: Kat1iU1A

## DESCRIPTION

- Mounting styles:
  - with mounting bracket, PCB clip and 4-40 UNC or M3 threaded insert
  - with mounting bracket, PCB clip and 4-40 UNC or M3 front spacer
- Quality class 3 (also available in quality class 1)
- Shell: Steel tin plated (brass tin plated or stainless steel available on request)

## PLUG CONNECTOR

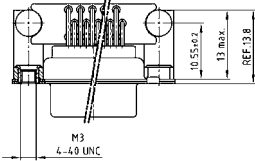


No. of pos.	A -0.76	B -0.25	C	D -0.3
15	31.19	16.79	25.00 +0.12	6.12
26	39.52	25.12	33.30 +0.15 -0.10	6.12
44	53.42	38.84	47.04 +0.13	5.99
62	69.70	55.30	63.50 +0.13	5.99
78	67.31	52.68	61.10 +0.14 -0.14	5.99

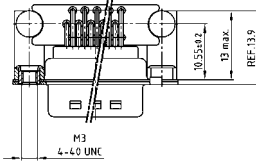
PCB-Layout: Kat1iU2A

15-62 pos.

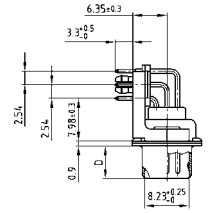
Mounting style: PCB clip, threaded insert



Mounting style: PCB clip, threaded insert

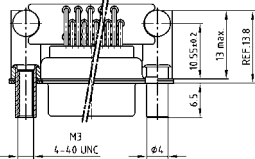


15-62 pos.

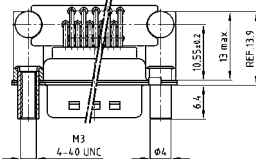


78 pos.

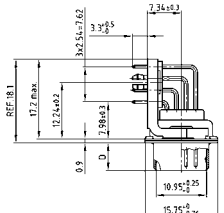
Mounting style: PCB clip, front spacer



Mounting style: PCB clip, front spacer



78 pos.



## ORDER DATA

### SOCKET CONNECTOR

No. of pos.	Mounting style	Part Number
15	PCB clip / 4-40 UNC Threaded insert	164A18179X
26	PCB clip / 4-40 UNC Threaded insert	164A18189X
44	PCB clip / 4-40 UNC Threaded insert	164A18199X
62	PCB clip / 4-40 UNC Threaded insert	164A18209X
78	PCB clip / 4-40 UNC Threaded insert	164A18629X
15	PCB clip / M3 Threaded insert	164A18219X
26	PCB clip / M3 Threaded insert	164A18229X
44	PCB clip / M3 Threaded insert	164A18239X
62	PCB clip / M3 Threaded insert	164A18249X
78	PCB clip / M3 Threaded insert	164A18639X
15	PCB clip / 4-40 UNC Front spacer	164A18259X
26	PCB clip / 4-40 UNC Front spacer	164A18269X
44	PCB clip / 4-40 UNC Front spacer	164A18279X
62	PCB clip / 4-40 UNC Front spacer	164A18289X
78	PCB clip / 4-40 UNC Front spacer	164A18649X
15	PCB clip / M3 Front spacer	164A18299X
26	PCB clip / M3 Front spacer	164A18309X
44	PCB clip / M3 Front spacer	164A18319X
62	PCB clip / M3 Front spacer	164A18329X
78	PCB clip / M3 Front spacer	164A18659X

### PLUG CONNECTOR

No. of pos.	Mounting style	Part Number
15	PCB clip / 4-40 UNC Threaded insert	163A17769X
26	PCB clip / 4-40 UNC Threaded insert	163A17779X
44	PCB clip / 4-40 UNC Threaded insert	163A17789X
62	PCB clip / 4-40 UNC Threaded insert	163A17799X
78	PCB clip / 4-40 UNC Threaded insert	163A18219X
15	PCB clip / M3 Threaded insert	163A17809X
26	PCB clip / M3 Threaded insert	163A17819X
44	PCB clip / M3 Threaded insert	163A17829X
62	PCB clip / M3 Threaded insert	163A17839X
78	PCB clip / M3 Threaded insert	163A18229X
15	PCB clip / 4-40 UNC Front spacer	163A17849X
26	PCB clip / 4-40 UNC Front spacer	163A17859X
44	PCB clip / 4-40 UNC Front spacer	163A17869X
62	PCB clip / 4-40 UNC Front spacer	163A17879X
78	PCB clip / 4-40 UNC Front spacer	163A18239X
15	PCB clip / M3 Front spacer	163A17889X
26	PCB clip / M3 Front spacer	163A17899X
44	PCB clip / M3 Front spacer	163A17909X
62	PCB clip / M3 Front spacer	163A17919X
78	PCB clip / M3 Front spacer	163A18249X

PCB clip .122"/3.1 ± .004"/0.10 mm hole diameter and .063"/1.6 mm circuit board thickness



# D-SUB HIGH DENSITY

Solder pin – Angled – .350"/7.98 mm – Stamped contacts – Plastic bracket



RoHS compliant – CSA listed, File No.: LR 115000-1 – UL listed, File No.: E202784

## DESCRIPTION

- Mounting styles:
  - with mounting bracket, PCB clip and 4-40 UNC hex bolt
  - with mounting bracket, PCB clip and 4-40 UNC threaded insert
- Quality class 3 (other quality classes on request)
- Shell: Steel tin plated

## SOCKET CONNECTOR



No. of pos.	A -0.76	B +0.25	C
15	31.19	16.46	25.00 +0.12
26	39.52	24.79	33.30 +0.15 -0.10
44	53.42	38.50	47.04 +0.13
62	69.70	54.96	63.50 +0.13
78	67.31	52.55	61.10 +0.14 -0.11

## PLUG CONNECTOR



No. of pos.	A -0.76	B +0.25	C	D -0.3
15	31.19	16.79	25.00 +0.12	6.12
26	39.52	25.12	33.30 +0.15 -0.10	6.12
44	53.42	38.84	47.04 +0.13	5.99
62	69.70	55.30	63.50 +0.13	5.99
78	67.31	52.68	61.10 +0.14 -0.11	5.99



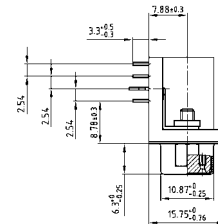
15-62 pos.



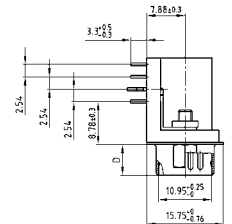
15-62 pos.



78 pos.



78 pos.



## ORDER DATA

SOCKET CONNECTOR		
No. of pos.	Mounting style 4-40 UNC	Part Number
15	PCB clip / Hex bolt	302A10869X
26	PCB clip / Hex bolt	302A10879X
44	PCB clip / Hex bolt	302A10889X
62	PCB clip / Hex bolt	302A10899X
78	PCB clip / Hex bolt	302A11629X

PLUG CONNECTOR		
No. of pos.	Mounting style 4-40 UNC	Part Number
15	PCB clip / Hex bolt	301A10869X
26	PCB clip / Hex bolt	301A10879X
44	PCB clip / Hex bolt	301A10889X
62	PCB clip / Hex bolt	301A10899X
78	PCB clip / Hex bolt	301A11369X

SOCKET CONNECTOR		
No. of pos.	Mounting style 4-40 UNC	Part Number
15	PCB clip / Threaded insert	DLH1XS8AK53X
26	PCB clip / Threaded insert	DLH2XS8AK53X
44	PCB clip / Threaded insert	DLH3XS8AK53X
62	PCB clip / Threaded insert	DLH4XS8AK53X
78	PCB clip / Threaded insert	DLH5XS8AK53X

PLUG CONNECTOR		
No. of pos.	Mounting style 4-40 UNC	Part Number
15	PCB clip / Threaded insert	DLH1XP8AK53X
26	PCB clip / Threaded insert	DLH2XP8AK53X
44	PCB clip / Threaded insert	DLH3XP8AK53X
62	PCB clip / Threaded insert	DLH4XP8AK53X
78	PCB clip / Threaded insert	DLH5XP8AK53X

PCB clip .122"/3.1 ± .004"/0.10 mm hole diameter and .063"/1.6 mm circuit board thickness

# D-SUB HIGH DENSITY

Crimp body (without contacts) – For wire size AWG 28 - 22



RoHS compliant – CSA listed, File No.: LR 115000-1 – UL listed, File No.: E202784

## DESCRIPTION

- For wire size AWG 22 precision machined contacts
- Mounting style:  
with through-hole  $\varnothing$  .118" / 3 mm
- Shell: Steel tin plated (brass tin plated or stainless steel available on request)

## SOCKET CONNECTOR



No. of pos.	A -0.76	B -0.25	C
15	31.19	16.46	25.00 $+0.12$
26	39.52	24.79	33.30 $+0.15$ $-0.10$
44	53.42	38.50	47.04 $+0.13$
62	69.70	54.96	63.50 $+0.13$
78	67.31	52.55	61.10 $+0.14$ $-0.11$

Mounting style: Through-hole



78 pos. = Dim. in ( \_ \_ )



## PLUG CONNECTOR



No. of pos.	A -0.76	B -0.25	C	D -0.3
15	31.19	16.79	25.00 $+0.12$	6.12
26	39.52	25.12	33.30 $+0.15$ $-0.10$	6.12
44	53.42	38.84	47.04 $+0.13$	5.99
62	69.70	55.30	63.50 $+0.13$	5.99
78	67.31	52.68	61.10 $+0.14$ $-0.11$	5.99

Mounting style: Through-hole



78 pos. = Dim. in ( \_ \_ )



## ORDER DATA

SOCKET CONNECTOR		
No. of pos.	Mounting style	Part Number
15	Through-hole	164X11949X
26	Through-hole	164X11959X
44	Through-hole	164X11969X
62	Through-hole	164X11979X
78	Through-hole	164X11989X

PLUG CONNECTOR		
No. of pos.	Mounting style	Part Number
15	Through-hole	163X10169X
26	Through-hole	163X10179X
44	Through-hole	163X10189X
62	Through-hole	163X10199X
78	Through-hole	163X10209X

# D-SUB HIGH DENSITY

Crimp Contacts – Screw machine design – For wire size AWG 28 - 22



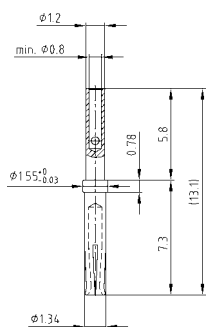
RoHS compliant – CSA listed, File No.: LR 115000-1 – UL listed, File No.: E202784

## DESCRIPTION

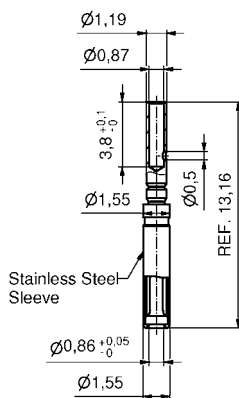
- For wire size AWG 28-22
- Loose contacts, in poly bag (500 pieces)
- Quality class 3 (also available in quality class 1)

## SOCKET CONNECTOR

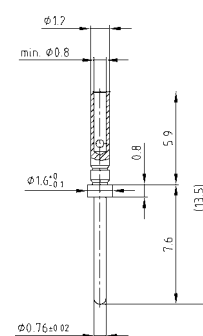
Standard version



Closed entry version



## PLUG CONNECTOR



## Technical Data

Contact material	Precision machined contacts	Brass
Contact plating		Gold plated over nickel
Temperature range		-55°C to +125°C
Rated current for AWG 24		3 A
Contact resistance		≤ 10 mΩ

## ORDER DATA

### FEMALE CONTACTS

Contact type	Part Number
AWG 22 / Loose contact	162A18419X
AWG 22 / Loose contact closed entry version	16-000693

### MALE CONTACTS

Contact type	Part Number
AWG 22 / Loose contact	161A18009X

# D-SUB HIGH DENSITY

## Interface adapter – Connector Saver



RoHS compliant – CSA listed, File No.: LR 115000-1 – UL listed, File No.: E202784

### DESCRIPTION

- Variation plug to socket
- Precision machined contacts
- Threaded lock, 4-40 UNC or M3, on the plug side
- Threaded lock on the socket side available on request
- Quality class 3 (also available in quality class 1)
- Shell: Steel tin plated

### PRODUCT DRAWING



### ORDER DATA

PLUG CONNECTOR – SOCKET CONNECTOR		
No. of pos.	Mounting style	Part Number
15	4-40 UNC Threaded lock	164A03399X
26	4-40 UNC Threaded lock	164A03919X
44	4-40 UNC Threaded lock	164A03929X
62	4-40 UNC Threaded lock	164A03939X
78	4-40 UNC Threaded lock	DAH5XAAAR04X

PLUG CONNECTOR – SOCKET CONNECTOR		
No. of pos.	Mounting style	Part Number
15	M3 Threaded lock	164A03949X
26	M3 Threaded lock	164A03959X
44	M3 Threaded lock	164A03969X
62	M3 Threaded lock	164A03979X
78	M3 Threaded lock	DAH5XAAAR03X

# D-SUB STANDARD

## Interface adapter – Connector Saver

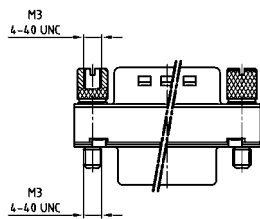
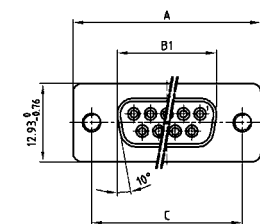


RoHS compliant – CSA listed, File No.: LR 115000-1 – UL listed, File No.: E202784

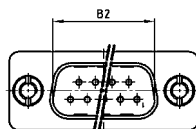
### DESCRIPTION

- Variation plug to socket
- Precision machined contacts
- Threaded lock, 4-40 UNC or M3, on the plug side
- Threaded lock on the socket side available on request
- Quality class 3 (also available in quality class 1)
- Shell: Steel tin plated

### PRODUCT DRAWING



50 pos. = Dim. in ( \_ \_ )



No. of pos.	A -0.76	B1 -0.25	B2 +0.25	C	D -0.30
09	31.19	16.46	16.79	25.00 ±0.12	6.12
15	39.52	24.79	25.12	33.30 <sup>+0.15</sup> / <sub>-0.10</sub>	6.12
25	53.42	38.50	38.84	47.04 ±0.13	5.99
37	69.70	54.96	55.30	63.50 ±0.13	5.99
50	67.31	52.55	52.68	61.10 <sup>+0.14</sup> / <sub>-0.1</sub>	5.99

### ORDER DATA

PLUG CONNECTOR – SOCKET CONNECTOR		
No. of pos.	Mounting style	Part Number
09	4-40 UNC Threaded lock	163A50009X
15	4-40 UNC Threaded lock	163A50019X
25	4-40 UNC Threaded lock	163A50029X
37	4-40 UNC Threaded lock	163A50039X
50	4-40 UNC Threaded lock	163A50049X

PLUG CONNECTOR – SOCKET CONNECTOR		
No. of pos.	Mounting style	Part Number
09	M3 Threaded lock	163A50059X
15	M3 Threaded lock	163A50069X
25	M3 Threaded lock	163A50079X
37	M3 Threaded lock	163A50089X
50	M3 Threaded lock	163A50099X

# D-SUB STANDARD

## Interface adapter – Gender Changer – Configuration of contacts 1:1



RoHS compliant – CSA listed, File No.: LR 115000-1 – UL listed, File No.: E202784

### DESCRIPTION

- Variation plug to plug and socket to socket
- Stamped contacts
- 4-40 UNC threaded lock
- Quality class 3 (other quality classes on request)
- Shell: Steel tin plated

### SOCKET CONNECTOR

Variation socket to socket



No. of pos.	A -0.76	B -0.25	C
09	31.19	16.46	25.00 ±0.12
15	39.52	24.79	33.30 <sup>+0.15</sup> <sub>-0.10</sub>
25	53.42	38.50	47.04 ±0.13
37	69.70	54.96	63.50 ±0.13

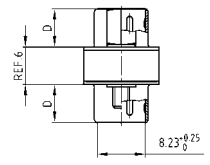


### PLUG CONNECTOR

Variation plug to plug



No. of pos.	A -0.76	B -0.25	C	D -0.30
09	31.19	16.79	25.00 ±0.12	16.46
15	39.52	25.12	33.30 <sup>+0.15</sup> <sub>-0.10</sub>	24.79
25	53.42	38.84	47.04 ±0.13	38.50
37	69.70	55.30	63.50 ±0.13	54.96



### ORDER DATA

SOCKET CONNECTOR – SOCKET CONNECTOR		
No. of pos.	Mounting style 4-40 UNC	Part Number
09	Threaded lock	320X12519X
15	Threaded lock	320X12539X
25	Threaded lock	320X10559X
37	Threaded lock	320X12559X

PLUG CONNECTOR – PLUG CONNECTOR		
No. of pos.	Mounting style 4-40 UNC	Part Number
09	Threaded lock	320X12509X
15	Threaded lock	320X12529X
25	Threaded lock	320X10549X
37	Threaded lock	320X12549X

# TECHNICAL DATA

Materials	D-Subminiature, Standard 9, 15, 25, 37 and 50 position	D-Subminiature, High Density 15, 26, 44, 62 and 78 position
Insulator	Polyester GF UL94 V-0	
Contacts	CU alloy	
Contact plating	Gold plated over nickel	
Shell	Steel tin plated (on request: brass tin plated / stainless steel)	
<b>Mechanical and electrical characteristics</b>		
Test voltage U eff / NN	1000 V	
Working voltage	125 V ≈ Depending on isolation coordination (refer to DIN VDE 0110 / IEC 664-1)	60 V ≈
Current rating	7,5 A (UL) / 5 A (CSA,VDE)	3 A (UL,VDE) / 2,5 A (CSA)
Contact resistance	Max. 10 mΩ prior to stressing, Δ R max. 10 mΩ after stressing per DIN 41652, Part 2	
Insulation resistance	≥5 GΩ	
Clearance and creepage distance	Contact – contact ≥ 0.04"/1.0 mm Contact – earth ≥ .047"/1.2 mm	≥ .024"/0,6 mm
Operating temperature	- 55 °C to + 125 °C	
Mating and unmating forces	9 pos. ≤ 30 N 15 pos. ≤ 50 N 25 pos. ≤ 83 N 37 pos. ≤ 123 N 50 pos. ≤ 167 N	15 pos. ≤ 50 N 26 pos. ≤ 84 N 44 pos. ≤ 120 N 62 pos. ≤ 170 N 78 pos. ≤ 200 N
Quality class	A = Quality class 3 = 50 mating cycles B = Quality class 2 = 200 mating cycles C = Quality class 1 = 500 mating cycles	

Technical specifications are subject to change without notice.

# MATING CONDITIONS

## Float mount tolerance guide



## Rigid mount vertical to tolerance guide



## Rigid mount tolerance guide



## PANEL CUT-OUT

### Rear panel mounting



### Front panel mounting



Shell size	A ± 0,13	B ± 0,13	C ± 0,13	D ± 0,13	E ± 0,13
9	15	20.50	22.20	25.00	11.40
15	26	28.80	30.50	33.30	11.40
25	44	42.50	44.30	47.04	11.40
37	62	59.10	60.70	63.50	11.40
50	78	56.30	61.10	61.10	11.40



# PCB LAYOUT D-SUB STANDARD

Solder pin, straight – Plug and Socket connector

9 POS.



37 POS.



15 POS.



50 POS.



25 POS.



# PCB LAYOUT D-SUB STANDARD

Solder pin, angled – .318" / 7.19 mm – Socket connector

9 POS.



37 POS.



15 POS.



25 POS.



50 POS.



PCB layout Kat1 kGEA (View: component side)

# PCB LAYOUT D-SUB STANDARD

Solder pin, angled – .318" / 7.19 mm – Plug connector

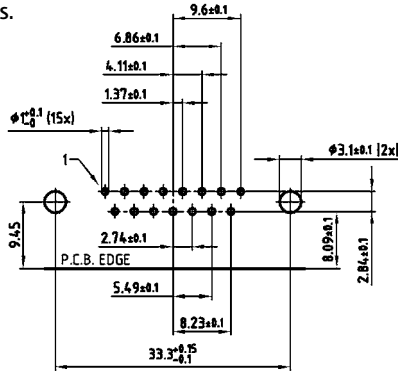
9 POS.



37 POS.



15 POS.



50 POS.



25 POS.



# PCB LAYOUT D-SUB STANDARD

Solder pin, angled – .370" / 9.4 mm – Socket connector

9 POS.



37 POS.



15 POS.



50 POS.



25 POS.



PCB layout Kat1 kGGA (View: component side)

# PCB LAYOUT D-SUB STANDARD

Solder pin, angled – .370" / 9.4 mm – Plug connector

9 POS.



37 POS.



15 POS.



50 POS.



25 POS.





# PCB LAYOUT – D-SUB STANDARD

Solder pin, angled – .590" / 14.19 mm – Metal bracket – Plug connector

9 POS.



25 POS.



15 POS.



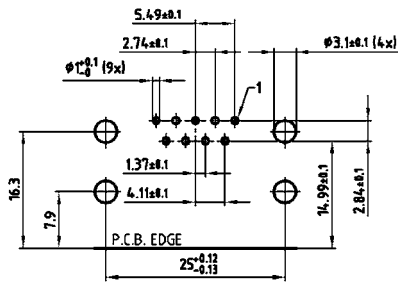
37 POS.



# PCB LAYOUT D-SUB STANDARD

Solder pin, angled – .590" / 14.19 mm – Plastic bracket – Socket connector

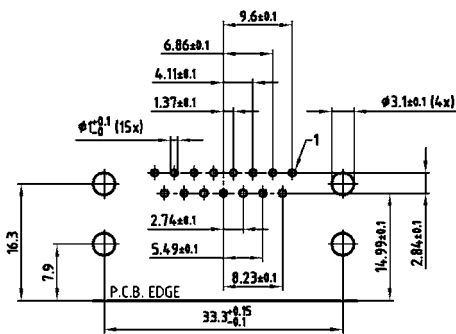
9 POS.



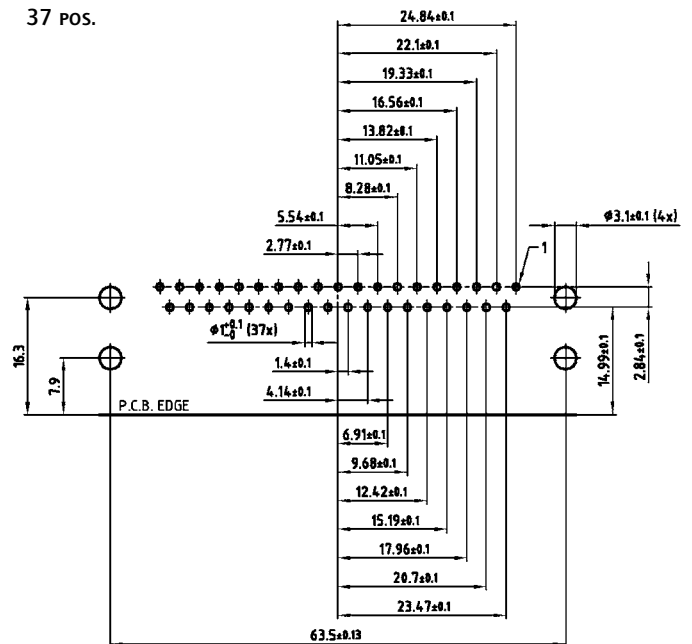
25 POS.



15 POS.



37 POS.



PCB layout Kat1 kGKA (View: component side)



# PCB LAYOUT D-SUB STANDARD

Solder pin, angled – .590" / 14.19 mm – Plastic bracket – Plug connector

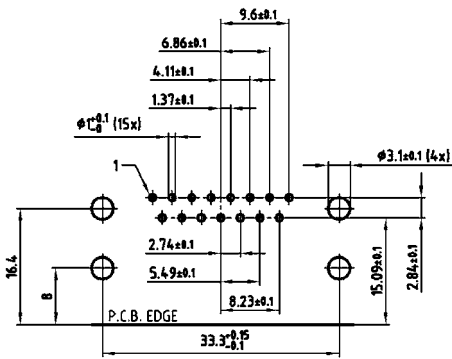
9 pos.



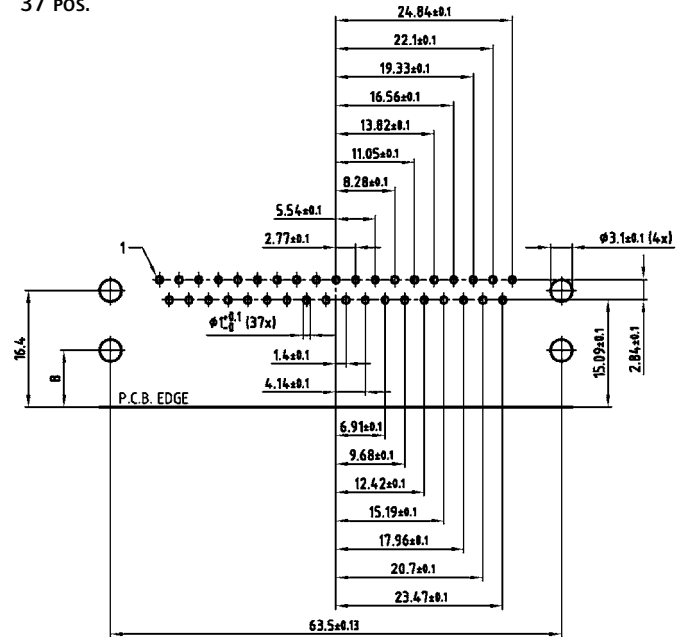
25 pos.



15 pos.



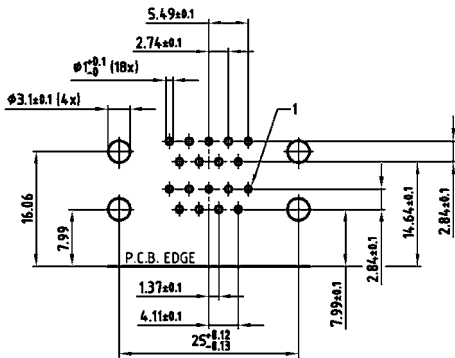
37 pos.



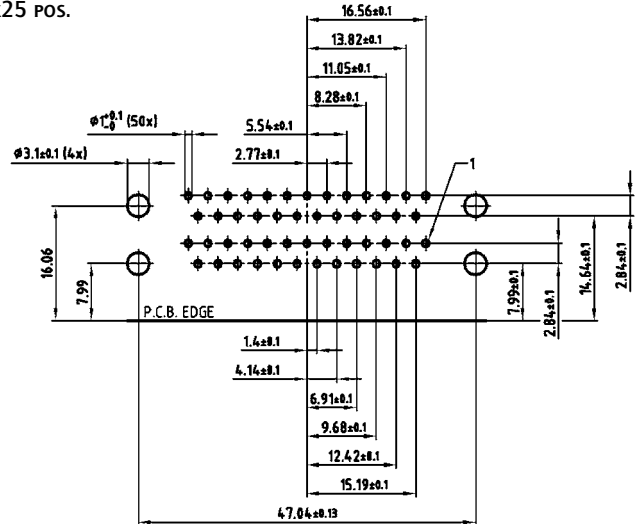
# PCB LAYOUT D-SUB STANDARD

Dual port style – Socket connector bottom

2x9 POS.



2x25 POS.



2x15 POS.



2x37 POS.



PCB layout Kat1iU6A (View: component side)

# PCB LAYOUT D-SUB STANDARD

Dual port style – Plug connector bottom

2x9 Pos.



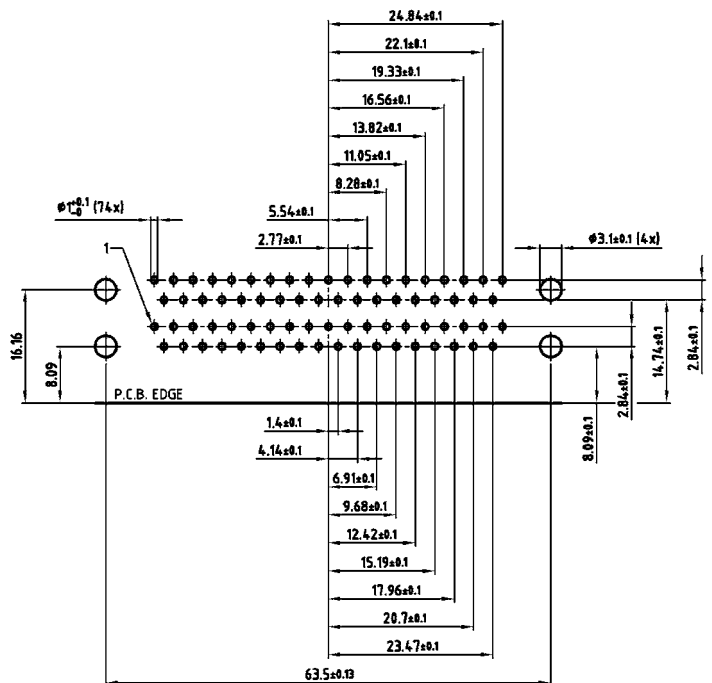
2x25 Pos.



2x15 Pos.



2x37 Pos.



PCB layout Kat1iU5A (View: component side)

# PCB LAYOUT D-SUB HIGH DENSITY

Solder pin, straight – Socket connector

15 POS.



62 POS.



26 POS.



78 POS.



44 POS.



PCB layout Kat1it9A (View: component side)

# PCB LAYOUT D-SUB HIGH DENSITY

Solder pin, straight – Plug connector

15 POS.



62 POS.



26 POS.



78 POS.



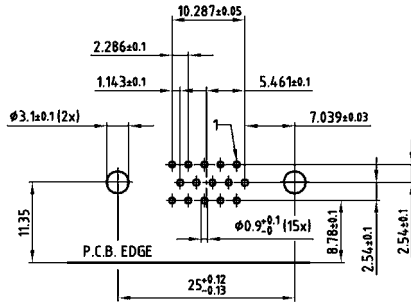
44 POS.



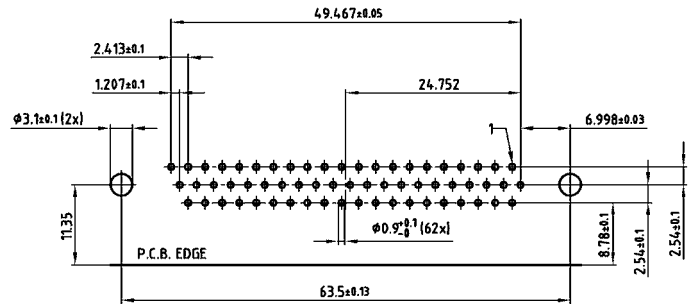
# PCB LAYOUT D-SUB HIGH DENSITY

Solder pin, angled – .350" / 7.98 mm – Socket connector

15 POS.



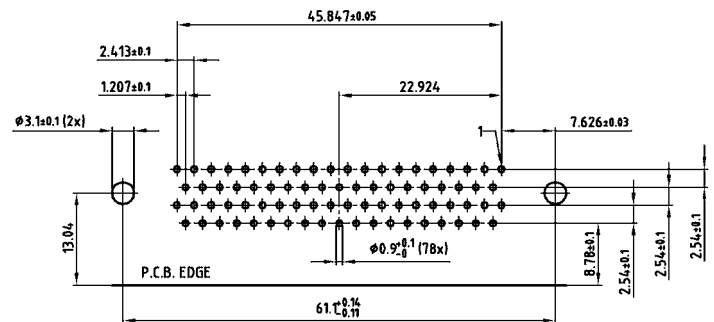
62 POS.



26 POS.



78 POS.



44 POS.



PCB layout Kat1iU1A (View: component side)



## SECTION 2

# COMBINATION D-SUB CONNECTORS

Combination D-SUB Connectors provide the ideal solution for applications to require power, signal and coaxial connections within one connector. This series of connectors achieves space saving on PCB's and I/O designs.

Within this product family are various pin out configurations possible. Almost endless selections can be created mixing power, signal and coaxial contacts.



Examples are coaxial contacts handling frequencies up to 2 GHz. Power contacts from 10 amp to 40 amp current handling. Signal contacts in various styles complete the product offering.





Industry standard terminations types, solder cup, PCB contacts in straight and angled pin configurations. Crimp types and wire wrap contacts.

**Here are just a few Product characteristics:**

- Space savings on the PCB
- Different wire terminations are possible in a single connector
- Cost savings - mixed layout
- Insertable and removable coaxial, power, high voltage and signal contacts
- Precision machined contacts
- Various quality classes are available
- Wide product range

A wide range of standard pin configurations fully loaded with signal contacts are available. Specially configured contacts with power, coaxial and signal contacts can be constructed. Please use the Part Number Creator on page 2|2 and 2|3 or contact technical support at your closest CONEC office.



# PART NUMBER CREATOR

for standard version

**3 003W3 S X X 6 1 A 1 0 X**

<b>Product Line</b> 3 = Shell steel tin plated 1 = Brass tin plated* 5 = Shell yellow chromated* (not RoHS compliant) A = Stainless steel*		*on request	
<b>Shell size and design</b> 1 = 5W1, 2W2C 2 = 3W3, 7W2, 11W1, 3W3C 3 = 5W5, 9W4, 13W3, 17W2, 21W1 4 = 8W8, 13W6, 17W5, 21WA4, 25W3, 27W2 5 = 24W7, 36W4, 43W2, 47W1		Empty positions ADD „0“ = 003W3	
<b>Contact type</b> P = Plug connector S = Socket connector			
<b>Surface/Quality class for SIGNAL contacts</b> A = Quality class 3 = 50 mating cycles B = Quality class 2 = 200 mating cycles* C = Quality class 1 = 500 mating cycles J = Special application = > 500 mating cycles (on request)* X = Crimp and 3W3, 5W5, 8W8, 2W2C, 3W3C (no contacts are supplied with the connector)		*on request	
<b>Termination only for SIGNAL contacts</b> K = Crimp without contacts M = Solder cup N = Wire wrap, .500" / 12.7 mm P = Press fit R = Solder pin, straight, .220" / 5.6 mm T = Solder pin, angled, .280" / 7.19 mm		U = Solder pin, angled, .370" / 9.40 mm W* = Solder pin, angled, .450" / 11.43 mm X = 3W3, 5W5, 8W8, 2W2C, 3W3C Z* = Solder pin, angled, .540" / 13.84 mm * = please contact us	
<b>Termination for HIGH POWER- or COAXIAL contacts</b>			
<b>Quality class 3 / Quality class 1</b> C1 = Solder/Crimp angled 10 A C2 = Solder/Crimp angled 20 A C3 = Solder/Crimp angled 30 A C4 = Solder/Crimp angled 40 A F2,61 / F1,41 = Solder cup 10 A F4,62 / F3,42 = Solder cup 20 A F6,63 / F5,43 = Solder cup 30 A F8,64 / F7,44 = Solder cup 40 A 68 / 48 = Solder pin, straight 20 A, D= .077" / 1.95 mm 69 / 49 = Solder pin, straight 20 A, D= .102" / 2.60 mm 70 / 50 = Solder pin, straight 20 A, D= .110" / 2.85 mm 71 / 51 = Solder pin, straight 30 A, D= .130" / 3.18 mm 72 / 52 = Solder pin, straight 40 A, D= .150" / 3.75 mm		<b>Quality class 3 / Quality class 1</b> 59 / 55 = Solder pin, angled 15 A 73 / 56 = Solder pin, angled 20 A 74 / 57 = Solder pin, angled 30 A 75 / 58 = Solder pin, angled 40 A 77 / 60 = Solder pin, angled 40 A 81 / 66 = Solder pin, angled 20 A 82 / 67 = Solder pin, angled 30 A 85 / 65 = Solder pin, angled 30 A G7 / 76 = 3 Solder pins Straight 50 Ω G9 / 78 = 3 Solder pins angled 50 Ω H1 / 79 = 3 Solder pins angled 50 Ω H4 / 80 = 5 Solder pins angled 50 Ω G8 / 86 = 3 Solder pins Straight 75 Ω	
		<b>Quality class 3 / Quality class 1</b> H2 / 88 = 3 Solder pins angled 75 Ω H3 / 89 = 3 Solder pins angled 75 Ω H5 / 90 = 5 Solder pins angled 75 Ω 91 = Screw termination 20 A / P1 = press fit 30A / P2 = press fit 30A / P4 = press fit 30A 99 = no high power, coax or crimp contacts loaded Coaxial contacts with cable termination must be ordered separately.	
<b>Mounting style</b> A1 = Riveted A2 = M3 threaded insert A3 = 4-40 UNC threaded insert A4 = M3 threaded rear spacer A5 = 4-40 UNC threaded rear spacer A6 = Float fastening A7 = Threaded rear spacer for M3 press fit A8 = Threaded rear spacer for 4-40 UNC press fit C1 = M3 threaded rear spacer with PCB clip, PCB .063" / 1.60 mm C2 = 4-40 UNC threaded rear spacer with PCB clip, PCB .063" / 1.60 mm C3 = M3 threaded rear spacer with PCB clip, PCB .091" / 2.30 mm C4 = 4-40 UNC threaded rear spacer with PCB clip, PCB .091" / 2.30 mm C5 = M3 threaded rear spacer with PCB clip, PCB .126" / 3.20 mm C6 = 4-40 UNC Threaded rear spacer with PCB clip, PCB .126" / 3.20 mm D1 = M3 clip and threaded rear spacer with PCB clip, PCB .063" / 1.60 mm D2 = 4-40 UNC clip and threaded rear spacer with PCB clip, PCB .063" / 1.60 mm D3 = M3 clip and threaded rear spacer with PCB clip, PCB .091" / 2.30 mm D4 = 4-40 UNC clip and threaded rear spacer with PCB clip, PCB .091" / 2.30 mm D5 = M3 clip and threaded rear spacer with PCB clip, PCB .126" / 3.20 mm D6 = 4-40 UNC clip and threaded rear spacer with PCB clip, PCB .126" / 3.20 mm E1 = M3 threaded rear spacer with PCB clip, PCB .063" / 1.60 mm E2 = 4-40 UNC threaded rear spacer with PCB clip, PCB .063" / 1.60 mm E3 = M3 threaded rear spacer with PCB clip, PCB .091" / 2.30 mm E4 = 4-40 UNC threaded rear spacer with PCB clip, PCB .091" / 2.30 mm E5 = M3 threaded rear spacer with PCB clip, PCB .126" / 3.20 mm		E6 = 4-40 UNC threaded rear spacer with PCB clip, PCB .126" / 3.20 mm F1 = M3 clip and threaded rear spacer with PCB clip, PCB .063" / 1.60 mm F2 = 4-40 UNC clip and threaded rear spacer with PCB clip, PCB .063" / 1.60 mm F3 = M3 clip and threaded rear spacer with PCB clip, PCB .091" / 2.30 mm F4 = 4-40 UNC clip and threaded rear spacer with PCB clip, PCB .091" / 2.30 mm F5 = M3 clip and threaded rear spacer with PCB clip, PCB .126" / 3.20 mm F6 = 4-40 UNC clip and threaded rear spacer with PCB clip, PCB .126" / 3.20 mm G1 = Metal bracket, M3 threaded insert for .370" / 9.40 mm G2 = Metal bracket, 4-40 UNC threaded insert for .370" / 9.40 mm G3 = Metal bracket, M3 threaded insert and clip for .370" / 9.40 mm G4 = Metal bracket, 4-40 UNC threaded insert and clip for .370" / 9.40 mm H1 = Metal bracket, M3 threaded lock for .370" / 9.40 mm H2 = Metal bracket, 4-40 UNC threaded lock for .370" / 9.40 mm H3 = Metal bracket, M3 threaded lock and clip for .370" / 9.40 mm H4 = Metal bracket, 4-40 UNC threaded lock and clip for .370" / 9.40 mm N1 = Metal bracket, M3 threaded insert for .280" / 7.19 mm N2 = Metal bracket, 4-40 UNC threaded insert for .280" / 7.19 mm N3 = Metal bracket, M3 threaded insert and clip for .280" / 7.19 mm N4 = Metal bracket, 4-40 UNC threaded insert and clip for .280" / 7.19 mm P1 = Metal bracket, M3 threaded lock for .280" / 7.19 mm P2 = Metal bracket, 4-40 UNC threaded lock for .280" / 7.19 mm P3 = Metal bracket, M3 threaded lock and clip for .280" / 7.19 mm P4 = Metal bracket, 4-40 UNC threaded lock and clip for .280" / 7.19 mm W1 = Threaded rear spacer with M3 press in pin W2 = Threaded rear spacer with 4-40 UNC press in pin	
OX = Standard			

# PART NUMBER CREATOR

## for High Density

**3 H19W1 S C M 4 1 A 1 O X**

### Product Line

- 1 = Shell brass tin plated
- 3 = Shell tin plated\*
- 5 = Shell yellow chromated\* (not RoHS compliant)
- A = Shell stainless steel\* \*on request

### Shell size and design

- 2 =19W1
- 3 =15W4
- 4 =45W2 H = High Density

### Contact type

- P = Plug connector
- S = Socket connector

### Quality class for SIGNAL contacts

- A = Quality class 3 = 50 mating cycles
- B = Quality class 2 = 200 mating cycles\*
- C = Quality class 1 = 500 mating cycles
- J = Special application = > 500 mating cycles\* \*on request

### Termination only for SIGNAL contacts

- M = Solder cup
- P = Press-fit\*
- R = Solder pin, straight
- W = Solder pin, angled .450" / 11,43 mm\*
- T = Solder pin, angled .350" / 7,98 mm \*on request

### Termination for HIGH POWER- or COAXIAL contacts

#### Quality class 3/Quality class 1

- F2,61/F1,41 = Solder cup 10 A
- F4,62/F3,42 = Solder cup 20 A
- F6,63/F5,43 = Solder cup 30 A
- F8,64/F7,44 = Solder cup 40 A
- 68/48 = Solder pin, straight 20 A, D= .077"/1.95 mm
- 69/49 = Solder pin, straight 20 A, D= .102"/2.60 mm
- 70/50 = Solder pin, straight 20 A, D= .110"/2.85 mm
- 71/51 = Solder pin, straight 30 A, D= .130"/3.18 mm
- 72/52 = Solder pin, straight 40 A, D= .150"/3.75 mm
- 59/55 = Solder pin, angled 15 A
- 73/56 = Solder pin, angled 20 A
- 74/57 = Solder pin, angled 30 A
- 75/58 = Solder pin, angled 40 A

#### Quality class 3/Quality class 1

- 77/60 = Solder pin, angled 40 A
- 81/66 = Solder pin, angled 20 A
- 82/67 = Solder pin, angled 30 A
- 85/65 = Solder pin, angled 30 A
- G7/76 = 3 Solder pins Straight 50 Ω
- G9/78 = 3 Solder pins angled 50 Ω
- H1/79 = 3 Solder pins angled 50 Ω
- H4/80 = 5 Solder pins angled 50 Ω
- G8/86 = 3 Solder pins Straight 75 Ω
- H2/88 = 3 Solder pins angled 75 Ω
- H3/89 = 3 Solder pins angled 75 Ω
- H5/90 = 5 Solder pins angled 75 Ω
- 91 = Screw termination 20 A

#### Quality class 1

- P1 = press fit 30A
  - P2 = press fit 30A
  - P4 = press fit 30A
  - 99 = no high power, coax or crimp contacts loaded
- Coaxial contacts with cable termination must be ordered separately.

### Mounting style

- |                                                                              |                                                                              |
|------------------------------------------------------------------------------|------------------------------------------------------------------------------|
| A1 = Riveted                                                                 | F3 = M3 clip and threaded rear spacer with PCB clip, PCB .091"/2.30 mm       |
| A2 = M3 threaded insert                                                      | F4 = 4-40 UNC clip and threaded rear spacer with PCB clip, PCB .091"/2.30 mm |
| A3 = 4-40 UNC threaded insert                                                | F5 = M3 clip and threaded rear spacer with PCB clip, PCB .126"/3.20 mm       |
| A4 = M3 threaded rear spacer                                                 | F6 = 4-40 UNC clip and threaded rear spacer with PCB clip, PCB .126"/3.20 mm |
| A5 = 4-40 UNC threaded rear spacer                                           | G5 = Metal bracket, M3 threaded insert for .350"/7,98 mm                     |
| A6 = Float fastening                                                         | G6 = Metal bracket, 4-40 UNC threaded insert for .350"/7,98 mm               |
| A7 = Threaded rear spacer for M3 press fit                                   | G7 = Metal bracket, M3 threaded insert and Clip for .350"/7,98 mm            |
| A8 = Threaded rear spacer for 4-40 UNC press fit                             | G8 = Metal bracket, 4-40 UNC threaded insert and Clip for .350"/7,98 mm      |
| E1 = M3 threaded rear spacer with PCB clip, PCB .063"/1.60 mm                | H5 = Metal bracket, M3 threaded lock for .350"/7,98 mm                       |
| E2 = 4-40 UNC threaded rear spacer with PCB clip, PCB .063"/1.60 mm          | H6 = Metal bracket, 4-40 UNC threaded lock for .350"/7,98 mm                 |
| E3 = M3 threaded rear spacer with PCB clip, PCB .091"/2.30 mm                | H7 = Metal bracket, M3 threaded lock and Clip for .350"/7,98 mm              |
| E4 = 4-40 UNC threaded rear spacer with PCB clip, PCB .091"/2.30 mm          | H8 = Metal bracket, 4-40 UNC threaded lock and Clip for .350"/7,98 mm        |
| E5 = M3 threaded rear spacer with PCB clip, PCB .126"/3.20 mm                | W1 = Threaded rear spacer with M3 press in pin                               |
| E6 = 4-40 UNC threaded rear spacer with PCB clip, PCB .126"/3.20 mm          | W2 = Threaded rear spacer with 4-40 UNC press in pin                         |
| F1 = M3 clip and threaded rear spacer with PCB clip, PCB .063"/1.60 mm       |                                                                              |
| F2 = 4-40 UNC clip and threaded rear spacer with PCB clip, PCB .063"/1.60 mm |                                                                              |

- OX = Standard

# TECHNICAL DATA

## Standard version

Materials	Connector with signal contacts	Coaxial contacts	High power contacts	High voltage contacts
Insulator Green standard / black crimp	PBTP, GV (UL94 V-0)			
Shell	steel tin plated brass tin / stainless steel on request			
Contact plating	Gold plated over nickel			
Contact material	CU alloy			
Retaining clip	CU alloy			
Insulator		PTFE/PBTP/PI		PTFE
<b>Mechanical and electrical characteristics</b>				
Current rating	7,5A (UL) / 5A (CSA, VDE)			
Test voltage between 2 contacts contact and shell	1000 V, 50Hz 1 min.		1000 V, 50Hz 1 min.	
Resistance between mated contacts	max. 8 mΩ	max. 2.7 mΩ	max. 1 mΩ	max. 2.7 mΩ
Insulation resistance	≥5 GΩ	≥ 10 GΩ	≥ 5 GΩ	≥ 2x10 <sup>7</sup> MΩ
Volume resistivity	10 <sup>16</sup> Ωcm			
Dielectric impedance	50KV/mm			
Characteristic impedance		50/75 Ω		
VSWR-value at according MIL-C-39012	1.2GHz 1.5GHz 2.0GHz	≤1,2 ≤1,3 ≤1,5		
Dielectric voltage		750V 50Hz		3.8kV
Frequency range		0-2GHz		
Working voltage	250 V	250 V	250 V	max. 2.8kV
Temperature range	-55°C to +125°C			
Insertion force per contact	3.4N	7N	7N	5N
Extraction force per contact	0.2N	7N	approx. 5N	approx. 2.5N
Mating cycles	A = Quality class 3 = 50 mating cycles, B = Quality class 2 = 200 mating cycles, C = Quality class 1 = 500 mating cycles			

Technical specifications are subject to change without notice.

# TECHNICAL DATA

## High Density

Materials	Connector with signal contacts	Coaxial contacts	High power contacts	High voltage contacts
Insulator Green standard / black crimp	PBTP, GV (UL94 V-0)			
Shell	steel tin plated brass tin / stainless steel on request			
Contact plating	Gold plated over nickel			
Contact material	CU alloy			
Retaining clip	CU alloy			
Insulator		PTFE/PBTP/PI		PTFE
<b>Mechanical and electrical characteristics</b>				
Current rating	3 A (ULVDE) / 2,5 A (CSA)			
Test voltage between 2 contacts contact and shell	1000 V, 50Hz 1 min.		1000 V, 50Hz 1 min.	
Resistance between mated contacts	max. 10mΩ	max. 2.7mΩ	max. 1mΩ	max. 2.7mΩ
Insulation resistance	≥5GΩ	≥10 GΩ	≥ 5GΩ	2x10 <sup>7</sup> MΩ
Volume resistivity	10 <sup>16</sup> Ωcm			
Dielectric impedance	50kV/mm			
Characteristic impedance		50/75 Ω		
VSWR-value at according MIL-C-39012	1.2GHz 1.5GHz 2.0GHz	≤ 1.2 ≤ 1.3 ≤ 1.5		
Dielectric voltage		750V 50Hz		3.8kV
Frequency range		0-2GHz		
Working voltage	60V	250 V	250 V	max. 2.8kV
Temperature range	-55°C to +125°C			
Insertion force per contact	3,4N	7N	7N	5N
Extraction force per contact	0,2N	7N	approx. 5N	approx. 2.5N
Mating cycles	A =Quality class 3 = 50 mating cycles, B =Quality class 2 = 200 mating cycles, C = Quality class 1 = 500 mating cycles			

Technical specifications are subject to change without notice.

# PIN CONFIGURATION – MATING SIDE OF SOCKET CONNECTOR

## SHELL SIZE 1



## SHELL SIZE 2



## SHELL SIZE 3



## SHELL SIZE 4



## SHELL SIZE 5



Connectors 3W3, 5W5 and 8W8 with female insulators: Socket contacts are fingerprobe safe according to UL 1950 and CSA 22.2.950.

# TECHNICAL INFORMATION

## SKIN EFFECT

Alternating currents do not uniformly occupy the entire cross section of the conductor, rather inductance effect in the conductor deflects the current towards the surface of the conductor, whereby this deflection increases with the frequency.

The resistive attenuation of a transmission line increases with the frequency as a result of this skin effect.

The skin depth (equivalent thickness of the layer in which current flows) can be determined using

$$\delta = \frac{1}{\sqrt{f \pi \sigma \mu_0 \mu_r}}$$

f = frequency

$\sigma$  = conductivity of the conductor material

$\sigma_{Ag} = 62 \times 10^6 \text{ S/m}$

$\sigma_{Cu} = 58 \times 10^6 \text{ S/m}$

$\mu_0 = 1,256 \cdot 10^{-6} \text{ Vs / Am}$

$\mu_r$  ... relative permeability constant for the employed material

## VSWR-VALUE

The ratio between the value of the largest and the smallest voltages on a loss-free line is known as the ripple or voltage standing wave ratio s (where  $1 \leq s < \infty$ ). The reciprocal value of the VSWR is known as the inverse voltage standing wave ratio m (where  $0 < m \leq 1$ ).

(VSWR = Voltage standing wave ratio)

The value of s is linked with the → reflection coefficient r on s transmission line according to the equation

$$s = \frac{(1 + |r|)}{(1 - |r|)}$$

## DERATING CURVE

Measurement is according to DIN 41640 part 3 whereas all power contacts are connected in series.

For test procedure – product-no. 3008W8SXX99A has been equipped with 132C11049X and 3008W8PXX99AA10X with 131C11049X.



# MATING CONDITIONS

Float mount tolerance guide



Rigid mount tolerance guide

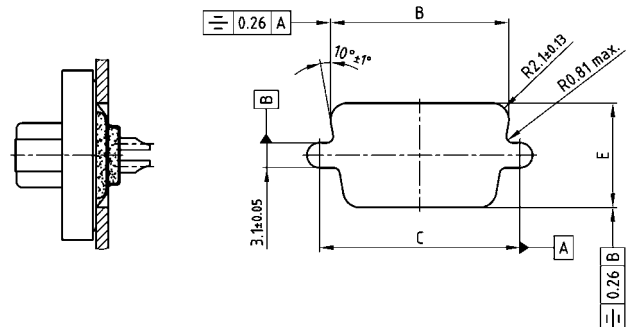


Rigid mount vertical to tolerance guide



PANEL CUT-OUT

Rear panel mounting	Front panel mounting
---------------------	----------------------



Shell size	A ± 0,13	B ± 0,13	C ± 0,13	D ± 0,13	E ± 0,13
1	20.50	22.20	25.00	11.40	13.00
2	28.80	30.50	33.30	11.40	13.00
3	42.50	44.30	47.04	11.40	13.00
4	59.10	60.70	63.50	11.40	13.00
5	56.30	58.30	61.10	14.10	15.80



# CRIMPING INSTRUCTIONS FOR COAX CONTACTS



Strip the wire  
Using dimensions shown on the  
individual product drawings



Slide sleeve over coax cable



Crimp the inner contact on the  
inner conductor



Snap the inner contact into  
the outer contact



Slide braid over outer contact



Crimp the sleeve on to outer  
contact

# COMBINATION D-SUB WITH SIGNAL CONTACTS

Solder cup – Precision machined contacts – For wire size AWG 20



RoHS compliant – CSA listed, File No.: LR 115000-1 – UL listed, File No.: E 228329

## DESCRIPTION

- Suitable for wire size AWG 20
- Mounting styles:
  - with through-hole,  $\varnothing .118''/3 \text{ mm}$
  - with 4-40 UNC or M3 threaded insert
  - with floating mount
- Quality class 3 (also available in quality class 1)
- Shell: Steel tin plated  
(brass tin plated or stainless steel available on request)
- recommended plastic hoods look at page 7 | 16, 7 | 17

## SOCKET CONNECTOR

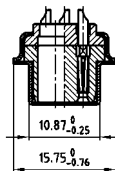


Shellsize	A -0.76	B -0.25	C
1	31.19	16.46	25.00 <sup>+0.12</sup> <sub>-0.13</sub>
2	39.52	24.79	33.30 <sup>+0.15</sup> <sub>-0.10</sub>
3	53.42	38.50	47.04 <sup>+0.13</sup>
4	69.70	54.96	63.50 <sup>+0.13</sup>
5	67.31	52.55	61.10 <sup>+0.14</sup> <sub>-0.11</sub>

Shell size 1-4



Shell size 5



## PLUG CONNECTOR

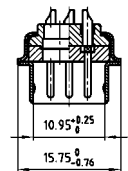


Shellsize	A -0.76	B -0.25	C	D -0.30
1	31.19	16.79	25.00 <sup>+0.12</sup> <sub>-0.13</sub>	6.12
2	39.52	25.12	33.30 <sup>+0.15</sup> <sub>-0.10</sub>	6.12
3	53.42	38.84	47.04 <sup>+0.13</sup>	5.99
4	69.70	55.30	63.50 <sup>+0.13</sup>	5.99
5	67.31	52.68	61.10 <sup>+0.14</sup> <sub>-0.11</sub>	5.99

Shell size 1-4



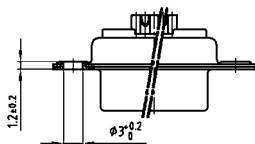
Shell size 5



## ORDER DATA

SOCKET CONNECTOR		
Design	Mounting style	Part Number
5W1	Through-hole	3005W1SAM99A10X
7W2	Through-hole	3007W2SAM99A10X
11W1	Through-hole	3011W1SAM99A10X
9W4	Through-hole	3009W4SAM99A10X
13W3	Through-hole	3013W3SAM99A10X
17W2	Through-hole	3017W2SAM99A10X
21W1	Through-hole	3021W1SAM99A10X
13W6	Through-hole	3013W6SAM99A10X
17W5	Through-hole	3017W5SAM99A10X
21WA4	Through-hole	321WA4SAM99A10X
25W3	Through-hole	3025W3SAM99A10X
27W2	Through-hole	3027W2SAM99A10X
24W7	Through-hole	3024W7SAM99A10X
36W4	Through-hole	3036W4SAM99A10X
43W2	Through-hole	3043W2SAM99A10X
47W1	Through-hole	3047W1SAM99A10X

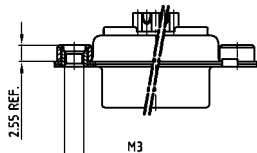
PLUG CONNECTOR		
Design	Mounting style	Part Number
5W1	Through-hole	3005W1PAM99A10X
7W2	Through-hole	3007W2PAM99A10X
11W1	Through-hole	3011W1PAM99A10X
9W4	Through-hole	3009W4PAM99A10X
13W3	Through-hole	3013W3PAM99A10X
17W2	Through-hole	3017W2PAM99A10X
21W1	Through-hole	3021W1PAM99A10X
13W6	Through-hole	3013W6PAM99A10X
17W5	Through-hole	3017W5PAM99A10X
21WA4	Through-hole	321WA4PAM99A10X
25W3	Through-hole	3025W3PAM99A10X
27W2	Through-hole	3027W2PAM99A10X
24W7	Through-hole	3024W7PAM99A10X
36W4	Through-hole	3036W4PAM99A10X
43W2	Through-hole	3043W2PAM99A10X
47W1	Through-hole	3047W1PAM99A10X



# COMBINATION D-SUB – MOUNTING STYLES

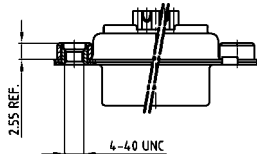
Solder cup – Precision machined contacts – For wire size AWG 20

ORDER DATA



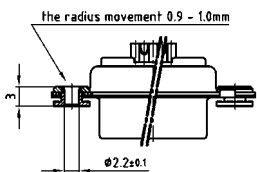
SOCKET CONNECTOR		
Design	Mounting style M3	Part Number
5W1	Threaded insert	3005W1SAM99A20X
7W2	Threaded insert	3007W2SAM99A20X
11W1	Threaded insert	3011W1SAM99A20X
9W4	Threaded insert	3009W4SAM99A20X
13W3	Threaded insert	3013W3SAM99A20X
17W2	Threaded insert	3017W2SAM99A20X
21W1	Threaded insert	3021W1SAM99A20X
13W6	Threaded insert	3013W6SAM99A20X
17W5	Threaded insert	3017W5SAM99A20X
21WA4	Threaded insert	321WA4SAM99A20X
25W3	Threaded insert	3025W3SAM99A20X
27W2	Threaded insert	3027W2SAM99A20X
24W7	Threaded insert	3024W7SAM99A20X
36W4	Threaded insert	3036W4SAM99A20X
43W2	Threaded insert	3043W2SAM99A20X
47W1	Threaded insert	3047W1SAM99A20X

PLUG CONNECTOR		
Design	Mounting style M3	Part Number
5W1	Threaded insert	3005W1PAM99A20X
7W2	Threaded insert	3007W2PAM99A20X
11W1	Threaded insert	3011W1PAM99A20X
9W4	Threaded insert	3009W4PAM99A20X
13W3	Threaded insert	3013W3PAM99A20X
17W2	Threaded insert	3017W2PAM99A20X
21W1	Threaded insert	3021W1PAM99A20X
13W6	Threaded insert	3013W6PAM99A20X
17W5	Threaded insert	3017W5PAM99A20X
21WA4	Threaded insert	321WA4PAM99A20X
25W3	Threaded insert	3025W3PAM99A20X
27W2	Threaded insert	3027W2PAM99A20X
24W7	Threaded insert	3024W7PAM99A20X
36W4	Threaded insert	3036W4PAM99A20X
43W2	Threaded insert	3043W2PAM99A20X
47W1	Threaded insert	3047W1PAM99A20X



SOCKET CONNECTOR		
Design	Mounting style 4-40 UNC	Part Number
5W1	Threaded insert	3005W1SAM99A30X
7W2	Threaded insert	3007W2SAM99A30X
11W1	Threaded insert	3011W1SAM99A30X
9W4	Threaded insert	3009W4SAM99A30X
13W3	Threaded insert	3013W3SAM99A30X
17W2	Threaded insert	3017W2SAM99A30X
21W1	Threaded insert	3021W1SAM99A30X
13W6	Threaded insert	3013W6SAM99A30X
17W5	Threaded insert	3017W5SAM99A30X
21WA4	Threaded insert	321WA4SAM99A30X
25W3	Threaded insert	3025W3SAM99A30X
27W2	Threaded insert	3027W2SAM99A30X
24W7	Threaded insert	3024W7SAM99A30X
36W4	Threaded insert	3036W4SAM99A30X
43W2	Threaded insert	3043W2SAM99A30X
47W1	Threaded insert	3047W1SAM99A30X

PLUG CONNECTOR		
Design	Mounting style 4-40 UNC	Part Number
5W1	Threaded insert	3005W1PAM99A30X
7W2	Threaded insert	3007W2PAM99A30X
11W1	Threaded insert	3011W1PAM99A30X
9W4	Threaded insert	3009W4PAM99A30X
13W3	Threaded insert	3013W3PAM99A30X
17W2	Threaded insert	3017W2PAM99A30X
21W1	Threaded insert	3021W1PAM99A30X
13W6	Threaded insert	3013W6PAM99A30X
17W5	Threaded insert	3017W5PAM99A30X
21WA4	Threaded insert	321WA4PAM99A30X
25W3	Threaded insert	3025W3PAM99A30X
27W2	Threaded insert	3027W2PAM99A30X
24W7	Threaded insert	3024W7PAM99A30X
36W4	Threaded insert	3036W4PAM99A30X
43W2	Threaded insert	3043W2PAM99A30X
47W1	Threaded insert	3047W1PAM99A30X



SOCKET CONNECTOR		
Design	Mounting style	Part Number
5W1	Floating mount	3005W1SAM99A60X
7W2	Floating mount	3007W2SAM99A60X
11W1	Floating mount	3011W1SAM99A60X
9W4	Floating mount	3009W4SAM99A60X
13W3	Floating mount	3013W3SAM99A60X
17W2	Floating mount	3017W2SAM99A60X
21W1	Floating mount	3021W1SAM99A60X
13W6	Floating mount	3013W6SAM99A60X
17W5	Floating mount	3017W5SAM99A60X
21WA4	Floating mount	321WA4SAM99A60X
25W3	Floating mount	3025W3SAM99A60X
27W2	Floating mount	3027W2SAM99A60X
24W7	Floating mount	3024W7SAM99A60X
36W4	Floating mount	3036W4SAM99A60X
43W2	Floating mount	3043W2SAM99A60X
47W1	Floating mount	3047W1SAM99A60X

PLUG CONNECTOR		
Design	Mounting style	Part Number
5W1	Floating mount	3005W1PAM99A60X
7W2	Floating mount	3007W2PAM99A60X
11W1	Floating mount	3011W1PAM99A60X
9W4	Floating mount	3009W4PAM99A60X
13W3	Floating mount	3013W3PAM99A60X
17W2	Floating mount	3017W2PAM99A60X
21W1	Floating mount	3021W1PAM99A60X
13W6	Floating mount	3013W6PAM99A60X
17W5	Floating mount	3017W5PAM99A60X
21WA4	Floating mount	321WA4PAM99A60X
25W3	Floating mount	3025W3PAM99A60X
27W2	Floating mount	3027W2PAM99A60X
24W7	Floating mount	3024W7PAM99A60X
36W4	Floating mount	3036W4PAM99A60X
43W2	Floating mount	3043W2PAM99A60X
47W1	Floating mount	3047W1PAM99A60X

# COMBINATION D-SUB WITH SIGNAL CONTACTS

Solder pin – Straight – Precision machined contacts

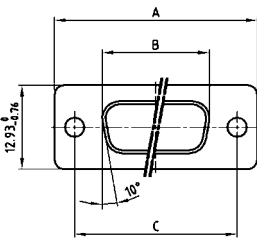


RoHS compliant – CSA listed, File No.: LR 115000-1 – UL listed, File No.: E 228329

## DESCRIPTION

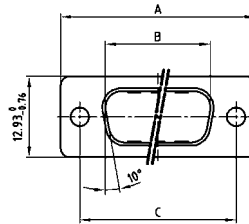
- Mounting styles:
  - with through-hole,  $\varnothing .118''/3 \text{ mm}$
  - with 4-40 UNC or M3 threaded insert
  - with 4-40 UNC or M3 threaded rear spacer
- Quality class 3 (also available in quality class 1)
- Shell: Steel tin plated  
(brass tin plated or stainless steel available on request)

## SOCKET CONNECTOR



Shellsize	A -0.76	B -0.25	C
1	31.19	16.46	25.00 $^{+0.12}_{-0.13}$
2	39.52	24.79	33.30 $^{+0.15}_{-0.10}$
3	53.42	38.50	47.04 $^{+0.13}$
4	69.70	54.96	63.50 $^{+0.13}$
5	67.31	52.55	61.10 $^{+0.14}_{-0.11}$

## PLUG CONNECTOR



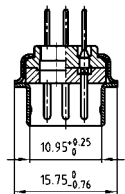
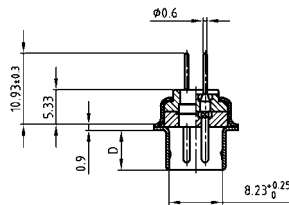
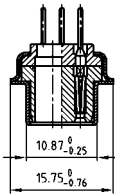
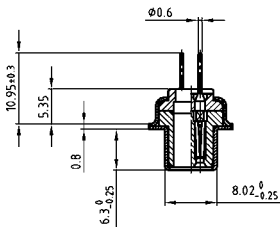
Shellsize	A -0.76	B -0.25	C	D -0.30
1	31.19	16.79	25.00 $^{+0.12}_{-0.13}$	6.12
2	39.52	25.12	33.30 $^{+0.15}_{-0.10}$	6.12
3	53.42	38.84	47.04 $^{+0.13}$	5.99
4	69.70	55.30	63.50 $^{+0.13}$	5.99
5	67.31	52.68	61.10 $^{+0.14}_{-0.11}$	5.99

Shell size 1-4

Shell size 5

Shell size 1-4

Shell size 5



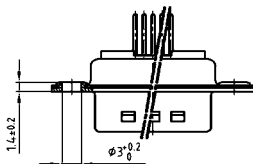
## ORDER DATA

### SOCKET CONNECTOR

Design	Mounting style	Part Number
5W1	Through-hole	3005W1SAR99A10X
7W2	Through-hole	3007W2SAR99A10X
11W1	Through-hole	3011W1SAR99A10X
9W4	Through-hole	3009W4SAR99A10X
13W3	Through-hole	3013W3SAR99A10X
17W2	Through-hole	3017W2SAR99A10X
21W1	Through-hole	3021W1SAR99A10X
13W6	Through-hole	3013W6SAR99A10X
17W5	Through-hole	3017W5SAR99A10X
21WA4	Through-hole	321WA4SAR99A10X
25W3	Through-hole	3025W3SAR99A10X
27W2	Through-hole	3027W2SAR99A10X
24W7	Through-hole	3024W7SAR99A10X
36W4	Through-hole	3036W4SAR99A10X
43W2	Through-hole	3043W2SAR99A10X
47W1	Through-hole	3047W1SAR99A10X

### PLUG CONNECTOR

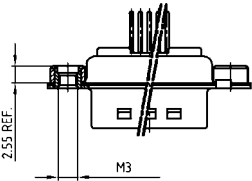
Design	Mounting style	Part Number
5W1	Through-hole	3005W1PAR99A10X
7W2	Through-hole	3007W2PAR99A10X
11W1	Through-hole	3011W1PAR99A10X
9W4	Through-hole	3009W4PAR99A10X
13W3	Through-hole	3013W3PAR99A10X
17W2	Through-hole	3017W2PAR99A10X
21W1	Through-hole	3021W1PAR99A10X
13W6	Through-hole	3013W6PAR99A10X
17W5	Through-hole	3017W5PAR99A10X
21WA4	Through-hole	321WA4PAR99A10X
25W3	Through-hole	3025W3PAR99A10X
27W2	Through-hole	3027W2PAR99A10X
24W7	Through-hole	3024W7PAR99A10X
36W4	Through-hole	3036W4PAR99A10X
43W2	Through-hole	3043W2PAR99A10X
47W1	Through-hole	3047W1PAR99A10X



# COMBINATION D-SUB – MOUNTING STYLES

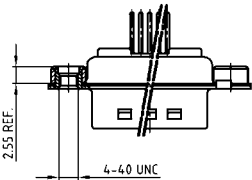
Solder pin – Straight – Precision machined contacts

ORDER DATA



SOCKET CONNECTOR		
Design	Mounting style M3	Part Number
5W1	Threaded insert	3005W1SAR99A20X
7W2	Threaded insert	3007W2SAR99A20X
11W1	Threaded insert	3011W1SAR99A20X
9W4	Threaded insert	3009W4SAR99A20X
13W3	Threaded insert	3013W3SAR99A20X
17W2	Threaded insert	3017W2SAR99A20X
21W1	Threaded insert	3021W1SAR99A20X
13W6	Threaded insert	3013W6SAR99A20X
17W5	Threaded insert	3017W5SAR99A20X
21WA4	Threaded insert	321WA4SAR99A20X
25W3	Threaded insert	3025W3SAR99A20X
27W2	Threaded insert	3027W2SAR99A20X
24W7	Threaded insert	3024W7SAR99A20X
36W4	Threaded insert	3036W4SAR99A20X
43W2	Threaded insert	3043W2SAR99A20X
47W1	Threaded insert	3047W1SAR99A20X

PLUG CONNECTOR		
Design	Mounting style M3	Part Number
5W1	Threaded insert	3005W1PAR99A20X
7W2	Threaded insert	3007W2PAR99A20X
11W1	Threaded insert	3011W1PAR99A20X
9W4	Threaded insert	3009W4PAR99A20X
13W3	Threaded insert	3013W3PAR99A20X
17W2	Threaded insert	3017W2PAR99A20X
21W1	Threaded insert	3021W1PAR99A20X
13W6	Threaded insert	3013W6PAR99A20X
17W5	Threaded insert	3017W5PAR99A20X
21WA4	Threaded insert	321WA4PAR99A20X
25W3	Threaded insert	3025W3PAR99A20X
27W2	Threaded insert	3027W2PAR99A20X
24W7	Threaded insert	3024W7PAR99A20X
36W4	Threaded insert	3036W4PAR99A20X
43W2	Threaded insert	3043W2PAR99A20X
47W1	Threaded insert	3047W1PAR99A20X



SOCKET CONNECTOR		
Design	Mounting style 4-40 UNC	Part Number
5W1	Threaded insert	3005W1SAR99A30X
7W2	Threaded insert	3007W2SAR99A30X
11W1	Threaded insert	3011W1SAR99A30X
9W4	Threaded insert	3009W4SAR99A30X
13W3	Threaded insert	3013W3SAR99A30X
17W2	Threaded insert	3017W2SAR99A30X
21W1	Threaded insert	3021W1SAR99A30X
13W6	Threaded insert	3013W6SAR99A30X
17W5	Threaded insert	3017W5SAR99A30X
21WA4	Threaded insert	321WA4SAR99A30X
25W3	Threaded insert	3025W3SAR99A30X
27W2	Threaded insert	3027W2SAR99A30X
24W7	Threaded insert	3024W7SAR99A30X
36W4	Threaded insert	3036W4SAR99A30X
43W2	Threaded insert	3043W2SAR99A30X
47W1	Threaded insert	3047W1SAR99A30X

PLUG CONNECTOR		
Design	Mounting style 4-40 UNC	Part Number
5W1	Threaded insert	3005W1PAR99A30X
7W2	Threaded insert	3007W2PAR99A30X
11W1	Threaded insert	3011W1PAR99A30X
9W4	Threaded insert	3009W4PAR99A30X
13W3	Threaded insert	3013W3PAR99A30X
17W2	Threaded insert	3017W2PAR99A30X
21W1	Threaded insert	3021W1PAR99A30X
13W6	Threaded insert	3013W6PAR99A30X
17W5	Threaded insert	3017W5PAR99A30X
21WA4	Threaded insert	321WA4PAR99A30X
25W3	Threaded insert	3025W3PAR99A30X
27W2	Threaded insert	3027W2PAR99A30X
24W7	Threaded insert	3024W7PAR99A30X
36W4	Threaded insert	3036W4PAR99A30X
43W2	Threaded insert	3043W2PAR99A30X
47W1	Threaded insert	3047W1PAR99A30X



SOCKET CONNECTOR		
Design	Mounting style M3	Part Number
5W1	Threaded rear spacer	3005W1SAR99A40X
7W2	Threaded rear spacer	3007W2SAR99A40X
11W1	Threaded rear spacer	3011W1SAR99A40X
9W4	Threaded rear spacer	3009W4SAR99A40X
13W3	Threaded rear spacer	3013W3SAR99A40X
17W2	Threaded rear spacer	3017W2SAR99A40X
21W1	Threaded rear spacer	3021W1SAR99A40X
13W6	Threaded rear spacer	3013W6SAR99A40X
17W5	Threaded rear spacer	3017W5SAR99A40X
21WA4	Threaded rear spacer	321WA4SAR99A40X
25W3	Threaded rear spacer	3025W3SAR99A40X
27W2	Threaded rear spacer	3027W2SAR99A40X
24W7	Threaded rear spacer	3024W7SAR99A40X
36W4	Threaded rear spacer	3036W4SAR99A40X
43W2	Threaded rear spacer	3043W2SAR99A40X
47W1	Threaded rear spacer	3047W1SAR99A40X

PLUG CONNECTOR		
Design	Mounting style M3	Part Number
5W1	Threaded rear spacer	3005W1PAR99A40X
7W2	Threaded rear spacer	3007W2PAR99A40X
11W1	Threaded rear spacer	3011W1PAR99A40X
9W4	Threaded rear spacer	3009W4PAR99A40X
13W3	Threaded rear spacer	3013W3PAR99A40X
17W2	Threaded rear spacer	3017W2PAR99A40X
21W1	Threaded rear spacer	3021W1PAR99A40X
13W6	Threaded rear spacer	3013W6PAR99A40X
17W5	Threaded rear spacer	3017W5PAR99A40X
21WA4	Threaded rear spacer	321WA4PAR99A40X
25W3	Threaded rear spacer	3025W3PAR99A40X
27W2	Threaded rear spacer	3027W2PAR99A40X
24W7	Threaded rear spacer	3024W7PAR99A40X
36W4	Threaded rear spacer	3036W4PAR99A40X
43W2	Threaded rear spacer	3043W2PAR99A40X
47W1	Threaded rear spacer	3047W1PAR99A40X



SOCKET CONNECTOR		
Design	Mounting style 4-40 UNC	Part Number
5W1	Threaded rear spacer	3005W1SAR99A50X
7W2	Threaded rear spacer	3007W2SAR99A50X
11W1	Threaded rear spacer	3011W1SAR99A50X
9W4	Threaded rear spacer	3009W4SAR99A50X
13W3	Threaded rear spacer	3013W3SAR99A50X
17W2	Threaded rear spacer	3017W2SAR99A50X
21W1	Threaded rear spacer	3021W1SAR99A50X
13W6	Threaded rear spacer	3013W6SAR99A50X
17W5	Threaded rear spacer	3017W5SAR99A50X
21WA4	Threaded rear spacer	321WA4SAR99A50X
25W3	Threaded rear spacer	3025W3SAR99A50X
27W2	Threaded rear spacer	3027W2SAR99A50X
24W7	Threaded rear spacer	3024W7SAR99A50X
36W4	Threaded rear spacer	3036W4SAR99A50X
43W2	Threaded rear spacer	3043W2SAR99A50X
47W1	Threaded rear spacer	3047W1SAR99A50X

PLUG CONNECTOR		
Design	Mounting style 4-40 UNC	Part Number
5W1	Threaded rear spacer	3005W1PAR99A50X
7W2	Threaded rear spacer	3007W2PAR99A50X
11W1	Threaded rear spacer	3011W1PAR99A50X
9W4	Threaded rear spacer	3009W4PAR99A50X
13W3	Threaded rear spacer	3013W3PAR99A50X
17W2	Threaded rear spacer	3017W2PAR99A50X
21W1	Threaded rear spacer	3021W1PAR99A50X
13W6	Threaded rear spacer	3013W6PAR99A50X
17W5	Threaded rear spacer	3017W5PAR99A50X
21WA4	Threaded rear spacer	321WA4PAR99A50X
25W3	Threaded rear spacer	3025W3PAR99A50X
27W2	Threaded rear spacer	3027W2PAR99A50X
24W7	Threaded rear spacer	3024W7PAR99A50X
36W4	Threaded rear spacer	3036W4PAR99A50X
43W2	Threaded rear spacer	3043W2PAR99A50X
47W1	Threaded rear spacer	3047W1PAR99A50X

# COMBINATION D-SUB WITH SIGNAL CONTACTS

Solder pin – Straight – Precision machined contacts



RoHS compliant – CSA listed, File No.: LR 115000-1 – UL listed, File No.: E 228329

## SOCKET CONNECTOR



Shellsize	A -0.76	B -0.25	C
1	31.19	16.46	25.00 <sup>+0.12</sup> <sub>-0.13</sub>
2	39.52	24.79	33.30 <sup>+0.15</sup> <sub>-0.10</sub>
3	53.42	38.50	47.04 <sup>+0.13</sup>
4	69.70	54.96	63.50 <sup>+0.13</sup>
5	67.31	52.55	61.10 <sup>+0.14</sup> <sub>-0.11</sub>

Shell size 1-4

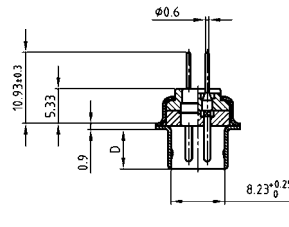
Shell size 5



Shellsize	A -0.76	B -0.25	C	D -0.30
1	31.19	16.79	25.00 <sup>+0.12</sup> <sub>-0.13</sub>	6.12
2	39.52	25.12	33.30 <sup>+0.15</sup> <sub>-0.10</sub>	6.12
3	53.42	38.84	47.04 <sup>+0.13</sup>	5.99
4	69.70	55.30	63.50 <sup>+0.13</sup>	5.99
5	67.31	52.68	61.10 <sup>+0.14</sup> <sub>-0.11</sub>	5.99

Shell size 1-4

Shell size 5



## ORDER DATA

### SOCKET CONNECTOR

Design	Mounting style 4-40 UNC	Part Number
5W1	Threaded rear spacer PCB clip	3005W1SAR99E20X
7W2	Threaded rear spacer PCB clip	3007W2SAR99E20X
11W1	Threaded rear spacer PCB clip	3011W1SAR99E20X
9W4	Threaded rear spacer PCB clip	3009W4SAR99E20X
13W3	Threaded rear spacer PCB clip	3013W3SAR99E20X
17W2	Threaded rear spacer PCB clip	3017W2SAR99E20X
21W1	Threaded rear spacer PCB clip	3021W1SAR99E20X
13W6	Threaded rear spacer PCB clip	3013W6SAR99E20X
17W5	Threaded rear spacer PCB clip	3017W5SAR99E20X
21WA4	Threaded rear spacer PCB clip	321WA4SAR99E20X
25W3	Threaded rear spacer PCB clip	3025W3SAR99E20X
27W2	Threaded rear spacer PCB clip	3027W2SAR99E20X
24W7	Threaded rear spacer PCB clip	3024W7SAR99E20X
36W4	Threaded rear spacer PCB clip	3036W4SAR99E20X
43W2	Threaded rear spacer PCB clip	3043W2SAR99E20X
47W1	Threaded rear spacer PCB clip	3047W1SAR99E20X

### PLUG CONNECTOR

Design	Mounting style 4-40 UNC	Part Number
5W1	Threaded rear spacer PCB clip	3005W1PAR99E20X
7W2	Threaded rear spacer PCB clip	3007W2PAR99E20X
11W1	Threaded rear spacer PCB clip	3011W1PAR99E20X
9W4	Threaded rear spacer PCB clip	3009W4PAR99E20X
13W3	Threaded rear spacer PCB clip	3013W3PAR99E20X
17W2	Threaded rear spacer PCB clip	3017W2PAR99E20X
21W1	Threaded rear spacer PCB clip	3021W1PAR99E20X
13W6	Threaded rear spacer PCB clip	3013W6PAR99E20X
17W5	Threaded rear spacer PCB clip	3017W5PAR99E20X
21WA4	Threaded rear spacer PCB clip	321WA4PAR99E20X
25W3	Threaded rear spacer PCB clip	3025W3PAR99E20X
27W2	Threaded rear spacer PCB clip	3027W2PAR99E20X
24W7	Threaded rear spacer PCB clip	3024W7PAR99E20X
36W4	Threaded rear spacer PCB clip	3036W4PAR99E20X
43W2	Threaded rear spacer PCB clip	3043W2PAR99E20X
47W1	Threaded rear spacer PCB clip	3047W1PAR99E20X

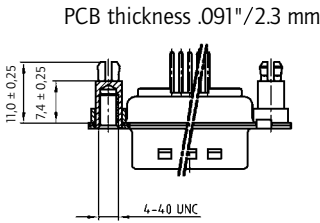


PCB clip .122" / 3.1 ± .004" / 0.10 mm hole diameter

# COMBINATION D-SUB – MOUNTING STYLES

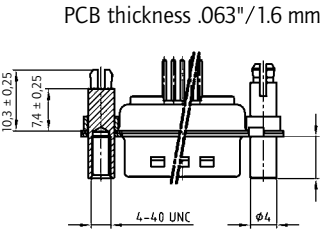
## Solder pin – Straight – Precision machined contacts

ORDER DATA



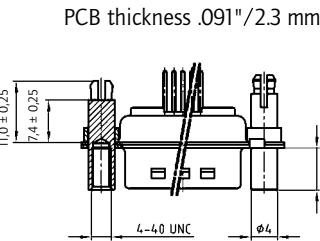
SOCKET CONNECTOR		
Design	Mounting style 4-40 UNC	Part Number
5W1	Threaded rear spacer PCB clip	3005W1SAR99E40X
7W2	Threaded rear spacer PCB clip	3007W2SAR99E40X
11W1	Threaded rear spacer PCB clip	3011W1SAR99E40X
9W4	Threaded rear spacer PCB clip	3009W4SAR99E40X
13W3	Threaded rear spacer PCB clip	3013W3SAR99E40X
17W2	Threaded rear spacer PCB clip	3017W2SAR99E40X
21W1	Threaded rear spacer PCB clip	3021W1SAR99E40X
13W6	Threaded rear spacer PCB clip	3013W6SAR99E40X
17W5	Threaded rear spacer PCB clip	3017W5SAR99E40X
21WA4	Threaded rear spacer PCB clip	321WA4SAR99E40X
25W3	Threaded rear spacer PCB clip	3025W3SAR99E40X
27W2	Threaded rear spacer PCB clip	3027W2SAR99E40X
24W7	Threaded rear spacer PCB clip	3024W7SAR99E40X
36W4	Threaded rear spacer PCB clip	3036W4SAR99E40X
43W2	Threaded rear spacer PCB clip	3043W2SAR99E40X
47W1	Threaded rear spacer PCB clip	3047W1SAR99E40X

PLUG CONNECTOR		
Design	Mounting style 4-40 UNC	Part Number
5W1	Threaded rear spacer PCB clip	3005W1PAR99E40X
7W2	Threaded rear spacer PCB clip	3007W2PAR99E40X
11W1	Threaded rear spacer PCB clip	3011W1PAR99E40X
9W4	Threaded rear spacer PCB clip	3009W4PAR99E40X
13W3	Threaded rear spacer PCB clip	3013W3PAR99E40X
17W2	Threaded rear spacer PCB clip	3017W2PAR99E40X
21W1	Threaded rear spacer PCB clip	3021W1PAR99E40X
13W6	Threaded rear spacer PCB clip	3013W6PAR99E40X
17W5	Threaded rear spacer PCB clip	3017W5PAR99E40X
21WA4	Threaded rear spacer PCB clip	321WA4PAR99E40X
25W3	Threaded rear spacer PCB clip	3025W3PAR99E40X
27W2	Threaded rear spacer PCB clip	3027W2PAR99E40X
24W7	Threaded rear spacer PCB clip	3024W7PAR99E40X
36W4	Threaded rear spacer PCB clip	3036W4PAR99E40X
43W2	Threaded rear spacer PCB clip	3043W2PAR99E40X
47W1	Threaded rear spacer PCB clip	3047W1PAR99E40X



SOCKET CONNECTOR		
Design	Mounting style 4-40 UNC	Part Number
5W1	Front/Threaded rear spacer PCB clip	3005W1SAR99F20X
7W2	Front/Threaded rear spacer PCB clip	3007W2SAR99F20X
11W1	Front/Threaded rear spacer PCB clip	3011W1SAR99F20X
9W4	Front/Threaded rear spacer PCB clip	3009W4SAR99F20X
13W3	Front/Threaded rear spacer PCB clip	3013W3SAR99F20X
17W2	Front/Threaded rear spacer PCB clip	3017W2SAR99F20X
21W1	Front/Threaded rear spacer PCB clip	3021W1SAR99F20X
13W6	Front/Threaded rear spacer PCB clip	3013W6SAR99F20X
17W5	Front/Threaded rear spacer PCB clip	3017W5SAR99F20X
21WA4	Front/Threaded rear spacer PCB clip	321WA4SAR99F20X
25W3	Front/Threaded rear spacer PCB clip	3025W3SAR99F20X
27W2	Front/Threaded rear spacer PCB clip	3027W2SAR99F20X
24W7	Front/Threaded rear spacer PCB clip	3024W7SAR99F20X
36W4	Front/Threaded rear spacer PCB clip	3036W4SAR99F20X
43W2	Front/Threaded rear spacer PCB clip	3043W2SAR99F20X
47W1	Front/Threaded rear spacer PCB clip	3047W1SAR99F20X

PLUG CONNECTOR		
Design	Mounting style 4-40 UNC	Part Number
5W1	Front/Threaded rear spacer PCB clip	3005W1PAR99F20X
7W2	Front/Threaded rear spacer PCB clip	3007W2PAR99F20X
11W1	Front/Threaded rear spacer PCB clip	3011W1PAR99F20X
9W4	Front/Threaded rear spacer PCB clip	3009W4PAR99F20X
13W3	Front/Threaded rear spacer PCB clip	3013W3PAR99F20X
17W2	Front/Threaded rear spacer PCB clip	3017W2PAR99F20X
21W1	Front/Threaded rear spacer PCB clip	3021W1PAR99F20X
13W6	Front/Threaded rear spacer PCB clip	3013W6PAR99F20X
17W5	Front/Threaded rear spacer PCB clip	3017W5PAR99F20X
21WA4	Front/Threaded rear spacer PCB clip	321WA4PAR99F20X
25W3	Front/Threaded rear spacer PCB clip	3025W3PAR99F20X
27W2	Front/Threaded rear spacer PCB clip	3027W2PAR99F20X
24W7	Front/Threaded rear spacer PCB clip	3024W7PAR99F20X
36W4	Front/Threaded rear spacer PCB clip	3036W4PAR99F20X
43W2	Front/Threaded rear spacer PCB clip	3043W2PAR99F20X
47W1	Front/Threaded rear spacer PCB clip	3047W1PAR99F20X



SOCKET CONNECTOR		
Design	Mounting style 4-40 UNC	Part Number
5W1	Front/Threaded rear spacer PCB clip	3005W1SAR99F40X
7W2	Front/Threaded rear spacer PCB clip	3007W2SAR99F40X
11W1	Front/Threaded rear spacer PCB clip	3011W1SAR99F40X
9W4	Front/Threaded rear spacer PCB clip	3009W4SAR99F40X
13W3	Front/Threaded rear spacer PCB clip	3013W3SAR99F40X
17W2	Front/Threaded rear spacer PCB clip	3017W2SAR99F40X
21W1	Front/Threaded rear spacer PCB clip	3021W1SAR99F40X
13W6	Front/Threaded rear spacer PCB clip	3013W6SAR99F40X
17W5	Front/Threaded rear spacer PCB clip	3017W5SAR99F40X
21WA4	Front/Threaded rear spacer PCB clip	321WA4SAR99F40X
25W3	Front/Threaded rear spacer PCB clip	3025W3SAR99F40X
27W2	Front/Threaded rear spacer PCB clip	3027W2SAR99F40X
24W7	Front/Threaded rear spacer PCB clip	3024W7SAR99F40X
36W4	Front/Threaded rear spacer PCB clip	3036W4SAR99F40X
43W2	Front/Threaded rear spacer PCB clip	3043W2SAR99F40X
47W1	Front/Threaded rear spacer PCB clip	3047W1SAR99F40X

PLUG CONNECTOR		
Design	Mounting style 4-40 UNC	Part Number
5W1	Front/Threaded rear spacer PCB clip	3005W1PAR99F40X
7W2	Front/Threaded rear spacer PCB clip	3007W2PAR99F40X
11W1	Front/Threaded rear spacer PCB clip	3011W1PAR99F40X
9W4	Front/Threaded rear spacer PCB clip	3009W4PAR99F40X
13W3	Front/Threaded rear spacer PCB clip	3013W3PAR99F40X
17W2	Front/Threaded rear spacer PCB clip	3017W2PAR99F40X
21W1	Front/Threaded rear spacer PCB clip	3021W1PAR99F40X
13W6	Front/Threaded rear spacer PCB clip	3013W6PAR99F40X
17W5	Front/Threaded rear spacer PCB clip	3017W5PAR99F40X
21WA4	Front/Threaded rear spacer PCB clip	321WA4PAR99F40X
25W3	Front/Threaded rear spacer PCB clip	3025W3PAR99F40X
27W2	Front/Threaded rear spacer PCB clip	3027W2PAR99F40X
24W7	Front/Threaded rear spacer PCB clip	3024W7PAR99F40X
36W4	Front/Threaded rear spacer PCB clip	3036W4PAR99F40X
43W2	Front/Threaded rear spacer PCB clip	3043W2PAR99F40X
47W1	Front/Threaded rear spacer PCB clip	3047W1PAR99F40X

PCB clip .122"/3.1 ± .004"/0.10 mm hole diameter

# COMBINATION D-SUB WITH SIGNAL CONTACTS

Solder pin – Straight – Precision machined contacts



RoHS compliant – CSA listed, File No.: LR 115000-1 – UL listed, File No.: E 228329

## SOCKET CONNECTOR



Shellsize	A -0.76	B -0.25	C
1	31.19	16.46	25.00 <sup>+0.12</sup> <sub>-0.13</sub>
2	39.52	24.79	33.30 <sup>+0.15</sup> <sub>-0.10</sub>
3	53.42	38.50	47.04 <sup>+0.13</sup>
4	69.70	54.96	63.50 <sup>+0.13</sup>
5	67.31	52.55	61.10 <sup>+0.14</sup> <sub>-0.11</sub>

Shell size 1-4



Shell size 5



## DESCRIPTION

- Threaded rear spacer .256"/6.5 mm
- Mounting style:
  - with 4-40 UNC threaded rear spacer with PCB clip
  - for PCB thickness .063"/1.6 mm
  - for PCB thickness .091"/2.3 mm
  - for PCB thickness .126"/3.2 mm
- M3 and PCB clip with front spacer available on request
- Quality class 3 (also available in quality class 1)
- Shell: Steel tin plated  
(brass tin plated or stainless steel available on request)

## PLUG CONNECTOR



Shellsize	A -0.76	B -0.25	C	D -0.30
1	31.19	16.79	25.00 <sup>+0.12</sup> <sub>-0.13</sub>	6.12
2	39.52	25.12	33.30 <sup>+0.15</sup> <sub>-0.10</sub>	6.12
3	53.42	38.84	47.04 <sup>+0.13</sup>	5.99
4	69.70	55.30	63.50 <sup>+0.13</sup>	5.99
5	67.31	52.68	61.10 <sup>+0.14</sup> <sub>-0.11</sub>	5.99

Shell size 1-4



Shell size 5



## ORDER DATA

### SOCKET CONNECTOR

Design	Mounting style 4-40 UNC	Part Number
5W1	Threaded rear spacer PCB clip	3005W1SAR99C20X
7W2	Threaded rear spacer PCB clip	3007W2SAR99C20X
11W1	Threaded rear spacer PCB clip	3011W1SAR99C20X
9W4	Threaded rear spacer PCB clip	3009W4SAR99C20X
13W3	Threaded rear spacer PCB clip	3013W3SAR99C20X
17W2	Threaded rear spacer PCB clip	3017W2SAR99C20X
21W1	Threaded rear spacer PCB clip	3021W1SAR99C20X
13W6	Threaded rear spacer PCB clip	3013W6SAR99C20X
17W5	Threaded rear spacer PCB clip	3017W5SAR99C20X
21WA4	Threaded rear spacer PCB clip	321WA4SAR99C20X
25W3	Threaded rear spacer PCB clip	3025W3SAR99C20X
27W2	Threaded rear spacer PCB clip	3027W2SAR99C20X
24W7	Threaded rear spacer PCB clip	3024W7SAR99C20X
36W4	Threaded rear spacer PCB clip	3036W4SAR99C20X
43W2	Threaded rear spacer PCB clip	3043W2SAR99C20X
47W1	Threaded rear spacer PCB clip	3047W1SAR99C20X

### PLUG CONNECTOR

Design	Mounting style 4-40 UNC	Part Number
5W1	Threaded rear spacer PCB clip	3005W1PAR99C20X
7W2	Threaded rear spacer PCB clip	3007W2PAR99C20X
11W1	Threaded rear spacer PCB clip	3011W1PAR99C20X
9W4	Threaded rear spacer PCB clip	3009W4PAR99C20X
13W3	Threaded rear spacer PCB clip	3013W3PAR99C20X
17W2	Threaded rear spacer PCB clip	3017W2PAR99C20X
21W1	Threaded rear spacer PCB clip	3021W1PAR99C20X
13W6	Threaded rear spacer PCB clip	3013W6PAR99C20X
17W5	Threaded rear spacer PCB clip	3017W5PAR99C20X
21WA4	Threaded rear spacer PCB clip	321WA4PAR99C20X
25W3	Threaded rear spacer PCB clip	3025W3PAR99C20X
27W2	Threaded rear spacer PCB clip	3027W2PAR99C20X
24W7	Threaded rear spacer PCB clip	3024W7PAR99C20X
36W4	Threaded rear spacer PCB clip	3036W4PAR99C20X
43W2	Threaded rear spacer PCB clip	3043W2PAR99C20X
47W1	Threaded rear spacer PCB clip	3047W1PAR99C20X

PCB thickness .063"/1.6 mm



PCB clip .122"/3.1 ± .004"/0.10 mm hole diameter



# COMBINATION D-SUB – MOUNTING STYLES

## Solder pin – Straight – Precision machined contacts

ORDER DATA

PCB thickness .091"/2.3 mm



SOCKET CONNECTOR		
Design	Mounting style 4-40 UNC	Part Number
5W1	Threaded rear spacer PCB clip	3005W1SAR99C40X
7W2	Threaded rear spacer PCB clip	3007W2SAR99C40X
11W1	Threaded rear spacer PCB clip	3011W1SAR99C40X
9W4	Threaded rear spacer PCB clip	3009W4SAR99C40X
13W3	Threaded rear spacer PCB clip	3013W3SAR99C40X
17W2	Threaded rear spacer PCB clip	3017W2SAR99C40X
21W1	Threaded rear spacer PCB clip	3021W1SAR99C40X
13W6	Threaded rear spacer PCB clip	3013W6SAR99C40X
17W5	Threaded rear spacer PCB clip	3017W5SAR99C40X
21WA4	Threaded rear spacer PCB clip	321WA4SAR99C40X
25W3	Threaded rear spacer PCB clip	3025W3SAR99C40X
27W2	Threaded rear spacer PCB clip	3027W2SAR99C40X
24W7	Threaded rear spacer PCB clip	3024W7SAR99C40X
36W4	Threaded rear spacer PCB clip	3036W4SAR99C40X
43W2	Threaded rear spacer PCB clip	3043W2SAR99C40X
47W1	Threaded rear spacer PCB clip	3047W1SAR99C40X

PLUG CONNECTOR		
Design	Mounting style 4-40 UNC	Part Number
5W1	Threaded rear spacer PCB clip	3005W1PAR99C40X
7W2	Threaded rear spacer PCB clip	3007W2PAR99C40X
11W1	Threaded rear spacer PCB clip	3011W1PAR99C40X
9W4	Threaded rear spacer PCB clip	3009W4PAR99C40X
13W3	Threaded rear spacer PCB clip	3013W3PAR99C40X
17W2	Threaded rear spacer PCB clip	3017W2PAR99C40X
21W1	Threaded rear spacer PCB clip	3021W1PAR99C40X
13W6	Threaded rear spacer PCB clip	3013W6PAR99C40X
17W5	Threaded rear spacer PCB clip	3017W5PAR99C40X
21WA4	Threaded rear spacer PCB clip	321WA4PAR99C40X
25W3	Threaded rear spacer PCB clip	3025W3PAR99C40X
27W2	Threaded rear spacer PCB clip	3027W2PAR99C40X
24W7	Threaded rear spacer PCB clip	3024W7PAR99C40X
36W4	Threaded rear spacer PCB clip	3036W4PAR99C40X
43W2	Threaded rear spacer PCB clip	3043W2PAR99C40X
47W1	Threaded rear spacer PCB clip	3047W1PAR99C40X

PCB thickness .126"/3.2 mm



SOCKET CONNECTOR		
Design	Mounting style 4-40 UNC	Part Number
5W1	Threaded rear spacer PCB clip	3005W1SAR99C60X
7W2	Threaded rear spacer PCB clip	3007W2SAR99C60X
11W1	Threaded rear spacer PCB clip	3011W1SAR99C60X
9W4	Threaded rear spacer PCB clip	3009W4SAR99C60X
13W3	Threaded rear spacer PCB clip	3013W3SAR99C60X
17W2	Threaded rear spacer PCB clip	3017W2SAR99C60X
21W1	Threaded rear spacer PCB clip	3021W1SAR99C60X
13W6	Threaded rear spacer PCB clip	3013W6SAR99C60X
17W5	Threaded rear spacer PCB clip	3017W5SAR99C60X
21WA4	Threaded rear spacer PCB clip	321WA4SAR99C60X
25W3	Threaded rear spacer PCB clip	3025W3SAR99C60X
27W2	Threaded rear spacer PCB clip	3027W2SAR99C60X
24W7	Threaded rear spacer PCB clip	3024W7SAR99C60X
36W4	Threaded rear spacer PCB clip	3036W4SAR99C60X
43W2	Threaded rear spacer PCB clip	3043W2SAR99C60X
47W1	Threaded rear spacer PCB clip	3047W1SAR99C60X

PLUG CONNECTOR		
Design	Mounting style 4-40 UNC	Part Number
5W1	Threaded rear spacer PCB clip	3005W1PAR99C60X
7W2	Threaded rear spacer PCB clip	3007W2PAR99C60X
11W1	Threaded rear spacer PCB clip	3011W1PAR99C60X
9W4	Threaded rear spacer PCB clip	3009W4PAR99C60X
13W3	Threaded rear spacer PCB clip	3013W3PAR99C60X
17W2	Threaded rear spacer PCB clip	3017W2PAR99C60X
21W1	Threaded rear spacer PCB clip	3021W1PAR99C60X
13W6	Threaded rear spacer PCB clip	3013W6PAR99C60X
17W5	Threaded rear spacer PCB clip	3017W5PAR99C60X
21WA4	Threaded rear spacer PCB clip	321WA4PAR99C60X
25W3	Threaded rear spacer PCB clip	3025W3PAR99C60X
27W2	Threaded rear spacer PCB clip	3027W2PAR99C60X
24W7	Threaded rear spacer PCB clip	3024W7PAR99C60X
36W4	Threaded rear spacer PCB clip	3036W4PAR99C60X
43W2	Threaded rear spacer PCB clip	3043W2PAR99C60X
47W1	Threaded rear spacer PCB clip	3047W1PAR99C60X

PCB clip .122" / 3.1 ± .004" / 0.10 mm hole diameter

# COMBINATION D-SUB WITH SIGNAL CONTACTS

Press-fit – Straight – Precision machined contacts



RoHS compliant – CSA listed, File No.: LR 115000-1 – UL listed, File No.: E 228329

## SOCKET CONNECTOR



Shellsize	A -0.76	B -0.25	C
1	31.19	16.46	25.00 <sup>+0.12</sup> <sub>-0.13</sub>
2	39.52	24.79	33.30 <sup>+0.15</sup> <sub>-0.10</sub>
3	53.42	38.50	47.04 <sup>+0.13</sup>
4	69.70	54.96	63.50 <sup>+0.13</sup>
5	67.31	52.55	61.10 <sup>+0.14</sup> <sub>-0.11</sub>

Shell size 1-4

Shell size 5

## DESCRIPTION

- Mounting styles:
  - with 4-40 UNC or M3 threaded rear spacer
  - with M3 or 4-40 UNC rear press-fit spacer
- For .040" / 1.0 mm<sup>+0.003"/0.09 mm</sup><sub>-.002"/0.06 mm</sub> finished through-hole diameter  
Refer to product drawing for details
- Quality class 3 (also available in quality class 1)
- Shell: Steel tin plated  
(brass tin plated or stainless steel available on request)
- For power contacts please contact factory

## PLUG CONNECTOR



Shellsize	A -0.76	B -0.25	C	D -0.30
1	31.19	16.79	25.00 <sup>+0.12</sup> <sub>-0.13</sub>	6.12
2	39.52	25.12	33.30 <sup>+0.15</sup> <sub>-0.10</sub>	6.12
3	53.42	38.84	47.04 <sup>+0.13</sup>	5.99
4	69.70	55.30	63.50 <sup>+0.13</sup>	5.99
5	67.31	52.68	61.10 <sup>+0.14</sup> <sub>-0.11</sub>	5.99

Shell size 1-4

Shell size 5



## ORDER DATA

### SOCKET CONNECTOR

Design	Mounting style M3	Part Number
5W1	Threaded rear spacer	3005W1SAP99A70X
7W2	Threaded rear spacer	3007W2SAP99A70X
11W1	Threaded rear spacer	3011W1SAP99A70X
9W4	Threaded rear spacer	3009W4SAP99A70X
13W3	Threaded rear spacer	3013W3SAP99A70X
17W2	Threaded rear spacer	3017W2SAP99A70X
21W1	Threaded rear spacer	3021W1SAP99A70X
13W6	Threaded rear spacer	3013W6SAP99A70X
17W5	Threaded rear spacer	3017W5SAP99A70X
21WA4	Threaded rear spacer	321WA4SAP99A70X
25W3	Threaded rear spacer	3025W3SAP99A70X
27W2	Threaded rear spacer	3027W2SAP99A70X
24W7	Threaded rear spacer	3024W7SAP99A70X
36W4	Threaded rear spacer	3036W4SAP99A70X
43W2	Threaded rear spacer	3043W2SAP99A70X
47W1	Threaded rear spacer	3047W1SAP99A70X

### PLUG CONNECTOR

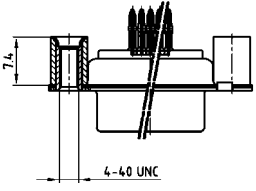
Design	Mounting style M3	Part Number
5W1	Threaded rear spacer	3005W1PAP99A70X
7W2	Threaded rear spacer	3007W2PAP99A70X
11W1	Threaded rear spacer	3011W1PAP99A70X
9W4	Threaded rear spacer	3009W4PAP99A70X
13W3	Threaded rear spacer	3013W3PAP99A70X
17W2	Threaded rear spacer	3017W2PAP99A70X
21W1	Threaded rear spacer	3021W1PAP99A70X
13W6	Threaded rear spacer	3013W6PAP99A70X
17W5	Threaded rear spacer	3017W5PAP99A70X
21WA4	Threaded rear spacer	321WA4PAP99A70X
25W3	Threaded rear spacer	3025W3PAP99A70X
27W2	Threaded rear spacer	3027W2PAP99A70X
24W7	Threaded rear spacer	3024W7PAP99A70X
36W4	Threaded rear spacer	3036W4PAP99A70X
43W2	Threaded rear spacer	3043W2PAP99A70X
47W1	Threaded rear spacer	3047W1PAP99A70X



# COMBINATION D-SUB – MOUNTING STYLES

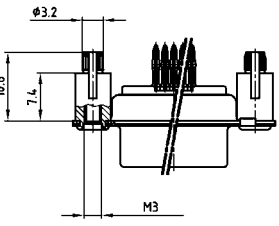
Press-fit – Straight – Precision machined contacts

ORDER DATA



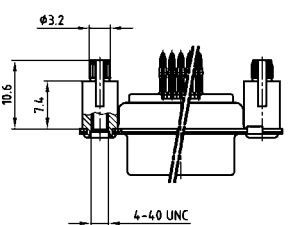
SOCKET CONNECTOR		
Design	Mounting style 4-40 UNC	Part Number
5W1	Threaded rear spacer	3005W1SAP99A80X
7W2	Threaded rear spacer	3007W2SAP99A80X
11W1	Threaded rear spacer	3011W1SAP99A80X
9W4	Threaded rear spacer	3009W4SAP99A80X
13W3	Threaded rear spacer	3013W3SAP99A80X
17W2	Threaded rear spacer	3017W2SAP99A80X
21W1	Threaded rear spacer	3021W1SAP99A80X
13W6	Threaded rear spacer	3013W6SAP99A80X
17W5	Threaded rear spacer	3017W5SAP99A80X
21WA4	Threaded rear spacer	321WA4SAP99A80X
25W3	Threaded rear spacer	3025W3SAP99A80X
27W2	Threaded rear spacer	3027W2SAP99A80X
24W7	Threaded rear spacer	3024W7SAP99A80X
36W4	Threaded rear spacer	3036W4SAP99A80X
43W2	Threaded rear spacer	3043W2SAP99A80X
47W1	Threaded rear spacer	3047W1SAP99A80X

PLUG CONNECTOR		
Design	Mounting style 4-40 UNC	Part Number
5W1	Threaded rear spacer	3005W1PAP99A80X
7W2	Threaded rear spacer	3007W2PAP99A80X
11W1	Threaded rear spacer	3011W1PAP99A80X
9W4	Threaded rear spacer	3009W4PAP99A80X
13W3	Threaded rear spacer	3013W3PAP99A80X
17W2	Threaded rear spacer	3017W2PAP99A80X
21W1	Threaded rear spacer	3021W1PAP99A80X
13W6	Threaded rear spacer	3013W6PAP99A80X
17W5	Threaded rear spacer	3017W5PAP99A80X
21WA4	Threaded rear spacer	321WA4PAP99A80X
25W3	Threaded rear spacer	3025W3PAP99A80X
27W2	Threaded rear spacer	3027W2PAP99A80X
24W7	Threaded rear spacer	3024W7PAP99A80X
36W4	Threaded rear spacer	3036W4PAP99A80X
43W2	Threaded rear spacer	3043W2PAP99A80X
47W1	Threaded rear spacer	3047W1PAP99A80X



SOCKET CONNECTOR		
Design	Mounting style M3	Part Number
5W1	Rear press-fit spacer	3005W1SAP99W10X
7W2	Rear press-fit spacer	3007W2SAP99W10X
11W1	Rear press-fit spacer	3011W1SAP99W10X
9W4	Rear press-fit spacer	3009W4SAP99W10X
13W3	Rear press-fit spacer	3013W3SAP99W10X
17W2	Rear press-fit spacer	3017W2SAP99W10X
21W1	Rear press-fit spacer	3021W1SAP99W10X
13W6	Rear press-fit spacer	3013W6SAP99W10X
17W5	Rear press-fit spacer	3017W5SAP99W10X
21WA4	Rear press-fit spacer	321WA4SAP99W10X
25W3	Rear press-fit spacer	3025W3SAP99W10X
27W2	Rear press-fit spacer	3027W2SAP99W10X
24W7	Rear press-fit spacer	3024W7SAP99W10X
36W4	Rear press-fit spacer	3036W4SAP99W10X
43W2	Rear press-fit spacer	3043W2SAP99W10X
47W1	Rear press-fit spacer	3047W1SAP99W10X

PLUG CONNECTOR		
Design	Mounting style M3	Part Number
5W1	Rear press-fit spacer	3005W1PAP99W10X
7W2	Rear press-fit spacer	3007W2PAP99W10X
11W1	Rear press-fit spacer	3011W1PAP99W10X
9W4	Rear press-fit spacer	3009W4PAP99W10X
13W3	Rear press-fit spacer	3013W3PAP99W10X
17W2	Rear press-fit spacer	3017W2PAP99W10X
21W1	Rear press-fit spacer	3021W1PAP99W10X
13W6	Rear press-fit spacer	3013W6PAP99W10X
17W5	Rear press-fit spacer	3017W5PAP99W10X
21WA4	Rear press-fit spacer	321WA4PAP99W10X
25W3	Rear press-fit spacer	3025W3PAP99W10X
27W2	Rear press-fit spacer	3027W2PAP99W10X
24W7	Rear press-fit spacer	3024W7PAP99W10X
36W4	Rear press-fit spacer	3036W4PAP99W10X
43W2	Rear press-fit spacer	3043W2PAP99W10X
47W1	Rear press-fit spacer	3047W1PAP99W10X



SOCKET CONNECTOR		
Design	Mounting style 4-40 UNC	Part Number
5W1	Rear press-fit spacer	3005W1SAP99W20X
7W2	Rear press-fit spacer	3007W2SAP99W20X
11W1	Rear press-fit spacer	3011W1SAP99W20X
9W4	Rear press-fit spacer	3009W4SAP99W20X
13W3	Rear press-fit spacer	3013W3SAP99W20X
17W2	Rear press-fit spacer	3017W2SAP99W20X
21W1	Rear press-fit spacer	3021W1SAP99W20X
13W6	Rear press-fit spacer	3013W6SAP99W20X
17W5	Rear press-fit spacer	3017W5SAP99W20X
21WA4	Rear press-fit spacer	321WA4SAP99W20X
25W3	Rear press-fit spacer	3025W3SAP99W20X
27W2	Rear press-fit spacer	3027W2SAP99W20X
24W7	Rear press-fit spacer	3024W7SAP99W20X
36W4	Rear press-fit spacer	3036W4SAP99W20X
43W2	Rear press-fit spacer	3043W2SAP99W20X
47W1	Rear press-fit spacer	3047W1SAP99W20X

PLUG CONNECTOR		
Design	Mounting style 4-40 UNC	Part Number
5W1	Rear press-fit spacer	3005W1PAP99W20X
7W2	Rear press-fit spacer	3007W2PAP99W20X
11W1	Rear press-fit spacer	3011W1PAP99W20X
9W4	Rear press-fit spacer	3009W4PAP99W20X
13W3	Rear press-fit spacer	3013W3PAP99W20X
17W2	Rear press-fit spacer	3017W2PAP99W20X
21W1	Rear press-fit spacer	3021W1PAP99W20X
13W6	Rear press-fit spacer	3013W6PAP99W20X
17W5	Rear press-fit spacer	3017W5PAP99W20X
21WA4	Rear press-fit spacer	321WA4PAP99W20X
25W3	Rear press-fit spacer	3025W3PAP99W20X
27W2	Rear press-fit spacer	3027W2PAP99W20X
24W7	Rear press-fit spacer	3024W7PAP99W20X
36W4	Rear press-fit spacer	3036W4PAP99W20X
43W2	Rear press-fit spacer	3043W2PAP99W20X
47W1	Rear press-fit spacer	3047W1PAP99W20X

Rear press-fit spacer (snap in) .122"/3.1 ± .004"/0.10 mm hole diameter and .063"/1.6 mm circuit board thickness

# COMBINATION D-SUB WITH SIGNAL CONTACTS

Wire wrap – Precision machined contacts



RoHS compliant – CSA listed, File No.: LR 115000-1 – UL listed, File No.: E 228329

## SOCKET CONNECTOR

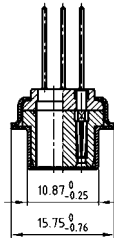


Shellsize	A -0.76	B -0.25	C
1	31.19	16.46	25.00 <sup>+0.12</sup> <sub>-0.13</sub>
2	39.52	24.79	33.30 <sup>+0.15</sup> <sub>-0.10</sub>
3	53.42	38.50	47.04 <sup>+0.13</sup>
4	69.70	54.96	63.50 <sup>+0.13</sup>
5	67.31	52.55	61.10 <sup>+0.14</sup> <sub>-0.11</sub>

Shell size 1-4



Shell size 5



## DESCRIPTION

- Mounting styles:
  - with through-hole, Ø .118"/3 mm
  - with 4-40 UNC or M3 threaded insert
- Quality class 3 (also available in quality class 1)
- Shell: Steel tin plated  
(brass tin plated or stainless steel available on request)

## PLUG CONNECTOR

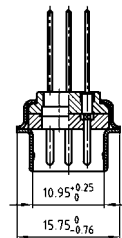


Shellsize	A -0.76	B +0.25	C	D -0.30
1	31.19	16.79	25.00 <sup>+0.12</sup> <sub>-0.13</sub>	6.12
2	39.52	25.12	33.30 <sup>+0.15</sup> <sub>-0.10</sub>	6.12
3	53.42	38.84	47.04 <sup>+0.13</sup>	5.99
4	69.70	55.30	63.50 <sup>+0.13</sup>	5.99
5	67.31	52.68	61.10 <sup>+0.14</sup> <sub>-0.11</sub>	5.99

Shell size 1-4



Shell size 5



## ORDER DATA

### SOCKET CONNECTOR

Design	Mounting style	Part Number
5W1	Through-hole	3005W1SAN99A10X
7W2	Through-hole	3007W2SAN99A10X
11W1	Through-hole	3011W1SAN99A10X
9W4	Through-hole	3009W4SAN99A10X
13W3	Through-hole	3013W3SAN99A10X
17W2	Through-hole	3017W2SAN99A10X
21W1	Through-hole	3021W1SAN99A10X
13W6	Through-hole	3013W6SAN99A10X
17W5	Through-hole	3017W5SAN99A10X
21WA4	Through-hole	321WA4SAN99A10X
25W3	Through-hole	3025W3SAN99A10X
27W2	Through-hole	3027W2SAN99A10X
24W7	Through-hole	3024W7SAN99A10X
36W4	Through-hole	3036W4SAN99A10X
43W2	Through-hole	3043W2SAN99A10X
47W1	Through-hole	3047W1SAN99A10X

### PLUG CONNECTOR

Design	Mounting style	Part Number
5W1	Through-hole	3005W1PAN99A10X
7W2	Through-hole	3007W2PAN99A10X
11W1	Through-hole	3011W1PAN99A10X
9W4	Through-hole	3009W4PAN99A10X
13W3	Through-hole	3013W3PAN99A10X
17W2	Through-hole	3017W2PAN99A10X
21W1	Through-hole	3021W1PAN99A10X
13W6	Through-hole	3013W6PAN99A10X
17W5	Through-hole	3017W5PAN99A10X
21WA4	Through-hole	321WA4PAN99A10X
25W3	Through-hole	3025W3PAN99A10X
27W2	Through-hole	3027W2PAN99A10X
24W7	Through-hole	3024W7PAN99A10X
36W4	Through-hole	3036W4PAN99A10X
43W2	Through-hole	3043W2PAN99A10X
47W1	Through-hole	3047W1PAN99A10X



# COMBINATION D-SUB – MOUNTING STYLES

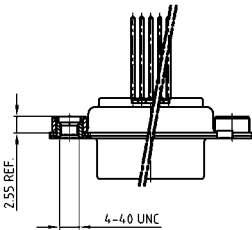
Wire wrap – Precision machined contacts

ORDER DATA



SOCKET CONNECTOR		
Design	Mounting style M3	Part Number
5W1	Threaded insert	3005W1SAN99A20X
7W2	Threaded insert	3007W2SAN99A20X
11W1	Threaded insert	3011W1SAN99A20X
9W4	Threaded insert	3009W4SAN99A20X
13W3	Threaded insert	3013W3SAN99A20X
17W2	Threaded insert	3017W2SAN99A20X
21W1	Threaded insert	3021W1SAN99A20X
13W6	Threaded insert	3013W6SAN99A20X
17W5	Threaded insert	3017W5SAN99A20X
21WA4	Threaded insert	321WA4SAN99A20X
25W3	Threaded insert	3025W3SAN99A20X
27W2	Threaded insert	3027W2SAN99A20X
24W7	Threaded insert	3024W7SAN99A20X
36W4	Threaded insert	3036W4SAN99A20X
43W2	Threaded insert	3043W2SAN99A20X
47W1	Threaded insert	3047W1SAN99A20X

PLUG CONNECTOR		
Design	Mounting style M3	Part Number
5W1	Threaded insert	3005W1PAN99A20X
7W2	Threaded insert	3007W2PAN99A20X
11W1	Threaded insert	3011W1PAN99A20X
9W4	Threaded insert	3009W4PAN99A20X
13W3	Threaded insert	3013W3PAN99A20X
17W2	Threaded insert	3017W2PAN99A20X
21W1	Threaded insert	3021W1PAN99A20X
13W6	Threaded insert	3013W6PAN99A20X
17W5	Threaded insert	3017W5PAN99A20X
21WA4	Threaded insert	321WA4PAN99A20X
25W3	Threaded insert	3025W3PAN99A20X
27W2	Threaded insert	3027W2PAN99A20X
24W7	Threaded insert	3024W7PAN99A20X
36W4	Threaded insert	3036W4PAN99A20X
43W2	Threaded insert	3043W2PAN99A20X
47W1	Threaded insert	3047W1PAN99A20X



SOCKET CONNECTOR		
Design	Mounting style 4-40 UNC	Part Number
5W1	Threaded insert	3005W1SAN99A30X
7W2	Threaded insert	3007W2SAN99A30X
11W1	Threaded insert	3011W1SAN99A30X
9W4	Threaded insert	3009W4SAN99A30X
13W3	Threaded insert	3013W3SAN99A30X
17W2	Threaded insert	3017W2SAN99A30X
21W1	Threaded insert	3021W1SAN99A30X
13W6	Threaded insert	3013W6SAN99A30X
17W5	Threaded insert	3017W5SAN99A30X
21WA4	Threaded insert	321WA4SAN99A30X
25W3	Threaded insert	3025W3SAN99A30X
27W2	Threaded insert	3027W2SAN99A30X
24W7	Threaded insert	3024W7SAN99A30X
36W4	Threaded insert	3036W4SAN99A30X
43W2	Threaded insert	3043W2SAN99A30X
47W1	Threaded insert	3047W1SAN99A30X

PLUG CONNECTOR		
Design	Mounting style 4-40 UNC	Part Number
5W1	Threaded insert	3005W1PAN99A30X
7W2	Threaded insert	3007W2PAN99A30X
11W1	Threaded insert	3011W1PAN99A30X
9W4	Threaded insert	3009W4PAN99A30X
13W3	Threaded insert	3013W3PAN99A30X
17W2	Threaded insert	3017W2PAN99A30X
21W1	Threaded insert	3021W1PAN99A30X
13W6	Threaded insert	3013W6PAN99A30X
17W5	Threaded insert	3017W5PAN99A30X
21WA4	Threaded insert	321WA4PAN99A30X
25W3	Threaded insert	3025W3PAN99A30X
27W2	Threaded insert	3027W2PAN99A30X
24W7	Threaded insert	3024W7PAN99A30X
36W4	Threaded insert	3036W4PAN99A30X
43W2	Threaded insert	3043W2PAN99A30X
47W1	Threaded insert	3047W1PAN99A30X

# COMBINATION D-SUB WITH SIGNAL CONTACTS

Solder pin – Angled – .318" / 7.19 mm – Precision machined contacts – Metal bracket



RoHS compliant – CSA listed, File No.: LR 115000-1 – UL listed, File No.: E 228329

## DESCRIPTION

- Mounting styles:
  - with mounting bracket and 4-40 UNC threaded insert
  - with mounting bracket and 4-40 UNC front spacer
  - with mounting bracket, PCB clip and 4-40 UNC threaded insert
  - with mounting bracket, PCB clip and 4-40 UNC front spacer
- M3 thread design available on request
- Quality class 3 (also available in quality class 1)
- Shell: Steel tin plated  
(brass tin plated or stainless steel available on request)

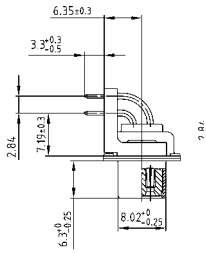
## SOCKET CONNECTOR



## PLUG CONNECTOR



Shell size 1-4



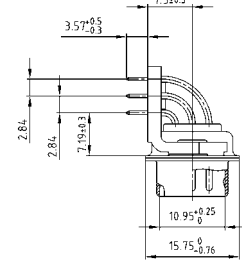
Shell size 5



Shell size 1-4



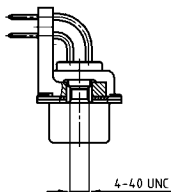
Shell size 5



## ORDER DATA

SOCKET CONNECTOR		
Design	Mounting style 4-40 UNC	Part Number
5W1	Threaded insert	3005W1SAT99N20X
7W2	Threaded insert	3007W2SAT99N20X
11W1	Threaded insert	3011W1SAT99N20X
9W4	Threaded insert	3009W4SAT99N20X
13W3	Threaded insert	3013W3SAT99N20X
17W2	Threaded insert	3017W2SAT99N20X
21W1	Threaded insert	3021W1SAT99N20X
13W6	Threaded insert	3013W6SAT99N20X
17W5	Threaded insert	3017W5SAT99N20X
21WA4	Threaded insert	321WA4SAT99N20X
25W3	Threaded insert	3025W3SAT99N20X
27W2	Threaded insert	3027W2SAT99N20X
24W7	Threaded insert	3024W7SAT99N20X
36W4	Threaded insert	3036W4SAT99N20X
43W2	Threaded insert	3043W2SAT99N20X
47W1	Threaded insert	3047W1SAT99N20X

PLUG CONNECTOR		
Design	Mounting style 4-40 UNC	Part Number
5W1	Threaded insert	3005W1PAT99N20X
7W2	Threaded insert	3007W2PAT99N20X
11W1	Threaded insert	3011W1PAT99N20X
9W4	Threaded insert	3009W4PAT99N20X
13W3	Threaded insert	3013W3PAT99N20X
17W2	Threaded insert	3017W2PAT99N20X
21W1	Threaded insert	3021W1PAT99N20X
13W6	Threaded insert	3013W6PAT99N20X
17W5	Threaded insert	3017W5PAT99N20X
21WA4	Threaded insert	321WA4PAT99N20X
25W3	Threaded insert	3025W3PAT99N20X
27W2	Threaded insert	3027W2PAT99N20X
24W7	Threaded insert	3024W7PAT99N20X
36W4	Threaded insert	3036W4PAT99N20X
43W2	Threaded insert	3043W2PAT99N20X
47W1	Threaded insert	3047W1PAT99N20X



# COMBINATION D-SUB – MOUNTING STYLES

Solder pin – Angled – .318" / 7.19 mm – Precision machined contacts – Metal bracket

ORDER DATA



SOCKET CONNECTOR		
Design	Mounting style 4-40 UNC	Part Number
5W1	Threaded insert / PCB clip	3005W1SAT99N40X
7W2	Threaded insert / PCB clip	3007W2SAT99N40X
11W1	Threaded insert / PCB clip	3011W1SAT99N40X
9W4	Threaded insert / PCB clip	3009W4SAT99N40X
13W3	Threaded insert / PCB clip	3013W3SAT99N40X
17W2	Threaded insert / PCB clip	3017W2SAT99N40X
21W1	Threaded insert / PCB clip	3021W1SAT99N40X
13W6	Threaded insert / PCB clip	3013W6SAT99N40X
17W5	Threaded insert / PCB clip	3017W5SAT99N40X
21WA4	Threaded insert / PCB clip	321WA4SAT99N40X
25W3	Threaded insert / PCB clip	3025W3SAT99N40X
27W2	Threaded insert / PCB clip	3027W2SAT99N40X
24W7	Threaded insert / PCB clip	3024W7SAT99N40X
36W4	Threaded insert / PCB clip	3036W4SAT99N40X
43W2	Threaded insert / PCB clip	3043W2SAT99N40X
47W1	Threaded insert / PCB clip	3047W1SAT99N40X

PLUG CONNECTOR		
Design	Mounting style 4-40 UNC	Part Number
5W1	Threaded insert / PCB clip	3005W1PAT99N40X
7W2	Threaded insert / PCB clip	3007W2PAT99N40X
11W1	Threaded insert / PCB clip	3011W1PAT99N40X
9W4	Threaded insert / PCB clip	3009W4PAT99N40X
13W3	Threaded insert / PCB clip	3013W3PAT99N40X
17W2	Threaded insert / PCB clip	3017W2PAT99N40X
21W1	Threaded insert / PCB clip	3021W1PAT99N40X
13W6	Threaded insert / PCB clip	3013W6PAT99N40X
17W5	Threaded insert / PCB clip	3017W5PAT99N40X
21WA4	Threaded insert / PCB clip	321WA4PAT99N40X
25W3	Threaded insert / PCB clip	3025W3PAT99N40X
27W2	Threaded insert / PCB clip	3027W2PAT99N40X
24W7	Threaded insert / PCB clip	3024W7PAT99N40X
36W4	Threaded insert / PCB clip	3036W4PAT99N40X
43W2	Threaded insert / PCB clip	3043W2PAT99N40X
47W1	Threaded insert / PCB clip	3047W1PAT99N40X



SOCKET CONNECTOR		
Design	Mounting style 4-40 UNC	Part Number
5W1	Front spacer	3005W1SAT99P20X
7W2	Front spacer	3007W2SAT99P20X
11W1	Front spacer	3011W1SAT99P20X
9W4	Front spacer	3009W4SAT99P20X
13W3	Front spacer	3013W3SAT99P20X
17W2	Front spacer	3017W2SAT99P20X
21W1	Front spacer	3021W1SAT99P20X
13W6	Front spacer	3013W6SAT99P20X
17W5	Front spacer	3017W5SAT99P20X
21WA4	Front spacer	321WA4SAT99P20X
25W3	Front spacer	3025W3SAT99P20X
27W2	Front spacer	3027W2SAT99P20X
24W7	Front spacer	3024W7SAT99P20X
36W4	Front spacer	3036W4SAT99P20X
43W2	Front spacer	3043W2SAT99P20X
47W1	Front spacer	3047W1SAT99P20X

PLUG CONNECTOR		
Design	Mounting style 4-40 UNC	Part Number
5W1	Front spacer	3005W1PAT99P20X
7W2	Front spacer	3007W2PAT99P20X
11W1	Front spacer	3011W1PAT99P20X
9W4	Front spacer	3009W4PAT99P20X
13W3	Front spacer	3013W3PAT99P20X
17W2	Front spacer	3017W2PAT99P20X
21W1	Front spacer	3021W1PAT99P20X
13W6	Front spacer	3013W6PAT99P20X
17W5	Front spacer	3017W5PAT99P20X
21WA4	Front spacer	321WA4PAT99P20X
25W3	Front spacer	3025W3PAT99P20X
27W2	Front spacer	3027W2PAT99P20X
24W7	Front spacer	3024W7PAT99P20X
36W4	Front spacer	3036W4PAT99P20X
43W2	Front spacer	3043W2PAT99P20X
47W1	Front spacer	3047W1PAT99P20X



SOCKET CONNECTOR		
Design	Mounting style 4-40 UNC	Part Number
5W1	Front spacer / PCB clip	3005W1SAT99P40X
7W2	Front spacer / PCB clip	3007W2SAT99P40X
11W1	Front spacer / PCB clip	3011W1SAT99P40X
9W4	Front spacer / PCB clip	3009W4SAT99P40X
13W3	Front spacer / PCB clip	3013W3SAT99P40X
17W2	Front spacer / PCB clip	3017W2SAT99P40X
21W1	Front spacer / PCB clip	3021W1SAT99P40X
13W6	Front spacer / PCB clip	3013W6SAT99P40X
17W5	Front spacer / PCB clip	3017W5SAT99P40X
21WA4	Front spacer / PCB clip	321WA4SAT99P40X
25W3	Front spacer / PCB clip	3025W3SAT99P40X
27W2	Front spacer / PCB clip	3027W2SAT99P40X
24W7	Front spacer / PCB clip	3024W7SAT99P40X
36W4	Front spacer / PCB clip	3036W4SAT99P40X
43W2	Front spacer / PCB clip	3043W2SAT99P40X
47W1	Front spacer / PCB clip	3047W1SAT99P40X

PLUG CONNECTOR		
Design	Mounting style 4-40 UNC	Part Number
5W1	Front spacer / PCB clip	3005W1PAT99P40X
7W2	Front spacer / PCB clip	3007W2PAT99P40X
11W1	Front spacer / PCB clip	3011W1PAT99P40X
9W4	Front spacer / PCB clip	3009W4PAT99P40X
13W3	Front spacer / PCB clip	3013W3PAT99P40X
17W2	Front spacer / PCB clip	3017W2PAT99P40X
21W1	Front spacer / PCB clip	3021W1PAT99P40X
13W6	Front spacer / PCB clip	3013W6PAT99P40X
17W5	Front spacer / PCB clip	3017W5PAT99P40X
21WA4	Front spacer / PCB clip	321WA4PAT99P40X
25W3	Front spacer / PCB clip	3025W3PAT99P40X
27W2	Front spacer / PCB clip	3027W2PAT99P40X
24W7	Front spacer / PCB clip	3024W7PAT99P40X
36W4	Front spacer / PCB clip	3036W4PAT99P40X
43W2	Front spacer / PCB clip	3043W2PAT99P40X
47W1	Front spacer / PCB clip	3047W1PAT99P40X

PCB clip .122" / 3.1 ± .004" / 0.10 mm hole diameter and .063" / 1.6 mm circuit board thickness

# COMBINATION D-SUB WITH SIGNAL CONTACTS

Solder pin – Angled – .370"/9.4 mm – Precision machined contacts – Metal bracket



RoHS compliant – CSA listed, File No.: LR 115000-1 – UL listed, File No.: E 228329

## SOCKET CONNECTOR



Shellsize	A -0.76	B -0.25	C
1	31.19	16.46	25.00 <sup>+0.12</sup> / <sub>-0.13</sub>
2	39.52	24.79	33.30 <sup>+0.15</sup> / <sub>-0.10</sub>
3	53.42	38.50	47.04 <sup>+0.13</sup> / <sub>-0.10</sub>
4	69.70	54.96	63.50 <sup>+0.13</sup> / <sub>-0.14</sub>
5	67.31	52.55	61.10 <sup>+0.14</sup> / <sub>-0.11</sub>

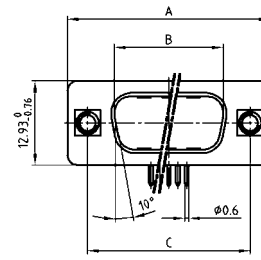


Dimensions in (---)  
= Shellsize 5

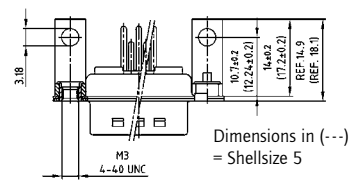
## DESCRIPTION

- Mounting styles:
  - with mounting bracket and threaded insert
  - with mounting bracket with 4-40 UNC front spacer
  - with mounting bracket, PCB clip and threaded insert
  - with mounting bracket, PCB clip and 4-40 UNC front spacer
- M3 thread design available on request
- Quality class 3 (also available in quality class 1)
- Shell: Steel tin plated  
(brass tin plated or stainless steel available on request)

## PLUG CONNECTOR

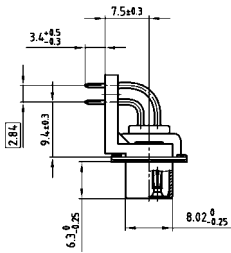


Shellsize	A -0.76	B -0.25	C	D -0.30
1	31.19	16.79	25.00 <sup>+0.12</sup> / <sub>-0.13</sub>	6.12
2	39.52	25.12	33.30 <sup>+0.15</sup> / <sub>-0.10</sub>	6.12
3	53.42	38.84	47.04 <sup>+0.13</sup> / <sub>-0.10</sub>	5.99
4	69.70	55.30	63.50 <sup>+0.13</sup> / <sub>-0.14</sub>	5.99
5	67.31	52.68	61.10 <sup>+0.14</sup> / <sub>-0.11</sub>	5.99

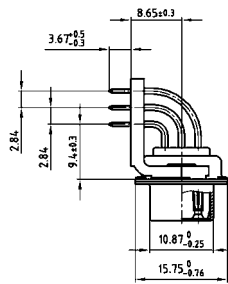


Dimensions in (---)  
= Shellsize 5

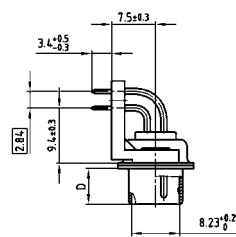
Shell size 1-4



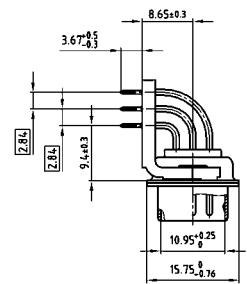
Shell size 5



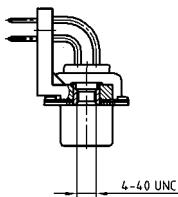
Shell size 1-4



Shell size 5



## ORDER DATA



SOCKET CONNECTOR		
Design	Mounting style 4-40 UNC	Part Number
5W1	Threaded insert	3005W1SAU99G20X
7W2	Threaded insert	3007W2SAU99G20X
11W1	Threaded insert	3011W1SAU99G20X
9W4	Threaded insert	3009W4SAU99G20X
13W3	Threaded insert	3013W3SAU99G20X
17W2	Threaded insert	3017W2SAU99G20X
21W1	Threaded insert	3021W1SAU99G20X
13W6	Threaded insert	3013W6SAU99G20X
17W5	Threaded insert	3017W5SAU99G20X
21WA4	Threaded insert	321WA4SAU99G20X
25W3	Threaded insert	3025W3SAU99G20X
27W2	Threaded insert	3027W2SAU99G20X
24W7	Threaded insert	3024W7SAU99G20X
36W4	Threaded insert	3036W4SAU99G20X
43W2	Threaded insert	3043W2SAU99G20X
47W1	Threaded insert	3047W1SAU99G20X

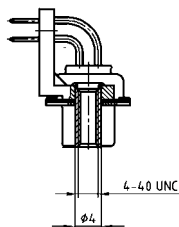
PLUG CONNECTOR		
Design	Mounting style 4-40 UNC	Part Number
5W1	Threaded insert	3005W1PAU99G20X
7W2	Threaded insert	3007W2PAU99G20X
11W1	Threaded insert	3011W1PAU99G20X
9W4	Threaded insert	3009W4PAU99G20X
13W3	Threaded insert	3013W3PAU99G20X
17W2	Threaded insert	3017W2PAU99G20X
21W1	Threaded insert	3021W1PAU99G20X
13W6	Threaded insert	3013W6PAU99G20X
17W5	Threaded insert	3017W5PAU99G20X
21WA4	Threaded insert	321WA4PAU99G20X
25W3	Threaded insert	3025W3PAU99G20X
27W2	Threaded insert	3027W2PAU99G20X
24W7	Threaded insert	3024W7PAU99G20X
36W4	Threaded insert	3036W4PAU99G20X
43W2	Threaded insert	3043W2PAU99G20X
47W1	Threaded insert	3047W1PAU99G20X



# COMBINATION D-SUB – MOUNTING STYLES

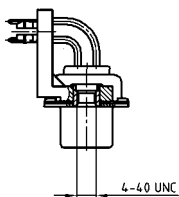
Solder pin – Angled – .370" / 9.4 mm – Precision machined contacts – Metal bracket

ORDER DATA



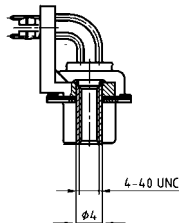
SOCKET CONNECTOR		
Design	Mounting style 4-40 UNC	Part Number
5W1	Front spacer	3005W1SAU99H20X
7W2	Front spacer	3007W2SAU99H20X
11W1	Front spacer	3011W1SAU99H20X
9W4	Front spacer	3009W4SAU99H20X
13W3	Front spacer	3013W3SAU99H20X
17W2	Front spacer	3017W2SAU99H20X
21W1	Front spacer	3021W1SAU99H20X
13W6	Front spacer	3013W6SAU99H20X
17W5	Front spacer	3017W5SAU99H20X
21WA4	Front spacer	321WA4SAU99H20X
25W3	Front spacer	3025W3SAU99H20X
27W2	Front spacer	3027W2SAU99H20X
24W7	Front spacer	3024W7SAU99H20X
36W4	Front spacer	3036W4SAU99H20X
43W2	Front spacer	3043W2SAU99H20X
47W1	Front spacer	3047W1SAU99H20X

PLUG CONNECTOR		
Design	Mounting style 4-40 UNC	Part Number
5W1	Front spacer	3005W1PAU99H20X
7W2	Front spacer	3007W2PAU99H20X
11W1	Front spacer	3011W1PAU99H20X
9W4	Front spacer	3009W4PAU99H20X
13W3	Front spacer	3013W3PAU99H20X
17W2	Front spacer	3017W2PAU99H20X
21W1	Front spacer	3021W1PAU99H20X
13W6	Front spacer	3013W6PAU99H20X
17W5	Front spacer	3017W5PAU99H20X
21WA4	Front spacer	321WA4PAU99H20X
25W3	Front spacer	3025W3PAU99H20X
27W2	Front spacer	3027W2PAU99H20X
24W7	Front spacer	3024W7PAU99H20X
36W4	Front spacer	3036W4PAU99H20X
43W2	Front spacer	3043W2PAU99H20X
47W1	Front spacer	3047W1PAU99H20X



SOCKET CONNECTOR		
Design	Mounting style 4-40 UNC	Part Number
5W1	Threaded insert / PCB clip	3005W1SAU99G40X
7W2	Threaded insert / PCB clip	3007W2SAU99G40X
11W1	Threaded insert / PCB clip	3011W1SAU99G40X
9W4	Threaded insert / PCB clip	3009W4SAU99G40X
13W3	Threaded insert / PCB clip	3013W3SAU99G40X
17W2	Threaded insert / PCB clip	3017W2SAU99G40X
21W1	Threaded insert / PCB clip	3021W1SAU99G40X
13W6	Threaded insert / PCB clip	3013W6SAU99G40X
17W5	Threaded insert / PCB clip	3017W5SAU99G40X
21WA4	Threaded insert / PCB clip	321WA4SAU99G40X
25W3	Threaded insert / PCB clip	3025W3SAU99G40X
27W2	Threaded insert / PCB clip	3027W2SAU99G40X
24W7	Threaded insert / PCB clip	3024W7SAU99G40X
36W4	Threaded insert / PCB clip	3036W4SAU99G40X
43W2	Threaded insert / PCB clip	3043W2SAU99G40X
47W1	Threaded insert / PCB clip	3047W1SAU99G40X

PLUG CONNECTOR		
Design	Mounting style 4-40 UNC	Part Number
5W1	Threaded insert / PCB clip	3005W1PAU99G40X
7W2	Threaded insert / PCB clip	3007W2PAU99G40X
11W1	Threaded insert / PCB clip	3011W1PAU99G40X
9W4	Threaded insert / PCB clip	3009W4PAU99G40X
13W3	Threaded insert / PCB clip	3013W3PAU99G40X
17W2	Threaded insert / PCB clip	3017W2PAU99G40X
21W1	Threaded insert / PCB clip	3021W1PAU99G40X
13W6	Threaded insert / PCB clip	3013W6PAU99G40X
17W5	Threaded insert / PCB clip	3017W5PAU99G40X
21WA4	Threaded insert / PCB clip	321WA4PAU99G40X
25W3	Threaded insert / PCB clip	3025W3PAU99G40X
27W2	Threaded insert / PCB clip	3027W2PAU99G40X
24W7	Threaded insert / PCB clip	3024W7PAU99G40X
36W4	Threaded insert / PCB clip	3036W4PAU99G40X
43W2	Threaded insert / PCB clip	3043W2PAU99G40X
47W1	Threaded insert / PCB clip	3047W1PAU99G40X



SOCKET CONNECTOR		
Design	Mounting style 4-40 UNC	Part Number
5W1	Front spacer / PCB clip	3005W1SAU99H40X
7W2	Front spacer / PCB clip	3007W2SAU99H40X
11W1	Front spacer / PCB clip	3011W1SAU99H40X
9W4	Front spacer / PCB clip	3009W4SAU99H40X
13W3	Front spacer / PCB clip	3013W3SAU99H40X
17W2	Front spacer / PCB clip	3017W2SAU99H40X
21W1	Front spacer / PCB clip	3021W1SAU99H40X
13W6	Front spacer / PCB clip	3013W6SAU99H40X
17W5	Front spacer / PCB clip	3017W5SAU99H40X
21WA4	Front spacer / PCB clip	321WA4SAU99H40X
25W3	Front spacer / PCB clip	3025W3SAU99H40X
27W2	Front spacer / PCB clip	3027W2SAU99H40X
24W7	Front spacer / PCB clip	3024W7SAU99H40X
36W4	Front spacer / PCB clip	3036W4SAU99H40X
43W2	Front spacer / PCB clip	3043W2SAU99H40X
47W1	Front spacer / PCB clip	3047W1SAU99H40X

PLUG CONNECTOR		
Design	Mounting style 4-40 UNC	Part Number
5W1	Front spacer / PCB clip	3005W1PAU99H40X
7W2	Front spacer / PCB clip	3007W2PAU99H40X
11W1	Front spacer / PCB clip	3011W1PAU99H40X
9W4	Front spacer / PCB clip	3009W4PAU99H40X
13W3	Front spacer / PCB clip	3013W3PAU99H40X
17W2	Front spacer / PCB clip	3017W2PAU99H40X
21W1	Front spacer / PCB clip	3021W1PAU99H40X
13W6	Front spacer / PCB clip	3013W6PAU99H40X
17W5	Front spacer / PCB clip	3017W5PAU99H40X
21WA4	Front spacer / PCB clip	321WA4PAU99H40X
25W3	Front spacer / PCB clip	3025W3PAU99H40X
27W2	Front spacer / PCB clip	3027W2PAU99H40X
24W7	Front spacer / PCB clip	3024W7PAU99H40X
36W4	Front spacer / PCB clip	3036W4PAU99H40X
43W2	Front spacer / PCB clip	3043W2PAU99H40X
47W1	Front spacer / PCB clip	3047W1PAU99H40X

PCB clip .122"/3.1 ± .004"/0.10 mm hole diameter and .063"/1.6 mm circuit board thickness

# COMBINATION D-SUB HIGH DENSITY WITH SIGNAL CONTACTS

Solder cup – Precision machined contacts – For wire size AWG 22



RoHS compliant

## DESCRIPTION

- Suitable for wire size AWG 22
- Mounting styles:
  - with through-hole,  $\varnothing$  .118"/3 mm
  - with 4-40 UNC or M3 threaded insert
- Quality class 3 (also available in quality class 1)
- Shell: Steel tin plated  
(brass tin plated or stainless steel available on request)

## SOCKET CONNECTOR



Shellsize	A -0.76	B -0.25	C
2	39.52	24.79	33.30 $^{+0.15}_{-0.10}$
3	53.42	38.50	47.04 $^{+0.13}$
4	69.70	54.96	63.50 $^{+0.13}$

Mounting style: Through-hole



Mounting style Threaded insert

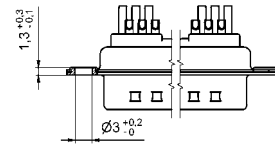


## PLUG CONNECTOR



Shellsize	A -0.76	B -0.25	C	D -0.30
2	39.52	25.12	33.30 $^{+0.15}_{-0.10}$	6.12
3	53.42	38.84	47.04 $^{+0.13}$	5.99
4	69.70	55.30	63.50 $^{+0.13}$	5.99

Mounting style: Through-hole



Mounting style Threaded insert



## ORDER DATA

SOCKET CONNECTOR		
Design	Mounting style	Part Number
19W1	Through-hole	3H19W1SAM99A10X
15W4	Through-hole	3H15W4SAM99A10X
45W2	Through-hole	3H45W2SAM99A10X
19W1	M3 threaded insert	3H19W1SAM99A20X
15W4	M3 threaded insert	3H15W4SAM99A20X
45W2	M3 threaded insert	3H45W2SAM99A20X
19W1	4-40 UNC threaded insert	3H19W1SAM99A30X
15W4	4-40 UNC threaded insert	3H15W4SAM99A30X
45W2	4-40 UNC threaded insert	3H45W2SAM99A30X

PLUG CONNECTOR		
Design	Mounting style	Part Number
19W1	Through-hole	3H19W1PAM99A10X
15W4	Through-hole	3H15W4PAM99A10X
45W2	Through-hole	3H45W2PAM99A10X
19W1	M3 threaded insert	3H19W1PAM99A20X
15W4	M3 threaded insert	3H15W4PAM99A20X
45W2	M3 threaded insert	3H45W2PAM99A20X
19W1	4-40 UNC threaded insert	3H19W1PAM99A30X
15W4	4-40 UNC threaded insert	3H15W4PAM99A30X
45W2	4-40 UNC threaded insert	3H45W2PAM99A30X

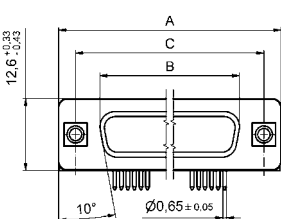
# COMBINATION D-SUB HIGH DENSITY WITH SIGNAL CONTACTS

Solder pin – angled – ,350"/7,98 mm – Precision machined contacts – Metal bracket



RoHS compliant

## SOCKET CONNECTOR

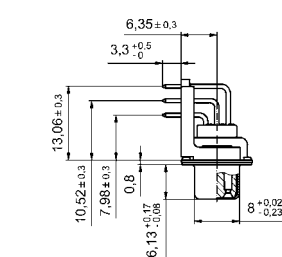
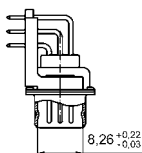


Shellsize	A -0.76	B -0.25	C
2	39.52	24.79	33.30 <sup>+0.15</sup> / <sub>-0.10</sub>
3	53.42	38.50	47.04 <sup>+0.13</sup>
4	69.70	54.96	63.50 <sup>+0.13</sup>

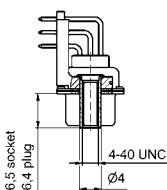
Mounting style: Through-hole



Mounting style: Threaded insert



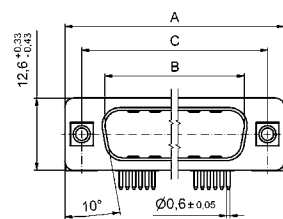
Mounting style: Front spacer



## DESCRIPTION

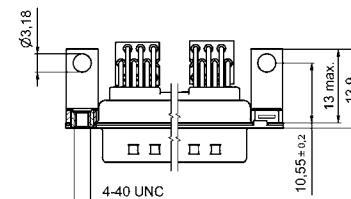
- Mounting styles:
  - mounting bracket and threaded insert 4-40 UNC
  - mounting bracket with front spacer 4-40 UNC
  - mounting bracket, PCB clip and threaded insert 4-40 UNC
  - mounting bracket, PCB clip and frontspacer 4-40 UNC
- Threaded lock M3 available on request
- Quality class 3 (also available in quality class 1)
- Shell: Steel tin plated  
(brass tin plated or stainless steel available on request)

## PLUG CONNECTOR

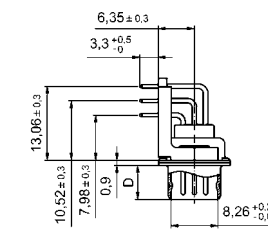
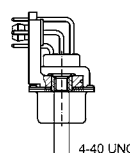


Shellsize	A -0.76	B -0.25	C	D -0.30
2	39.52	25.12	33.30 <sup>+0.15</sup> / <sub>-0.10</sub>	6.12
3	53.42	38.84	47.04 <sup>+0.13</sup>	5.99
4	69.70	55.30	63.50 <sup>+0.13</sup>	5.99

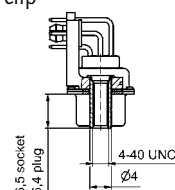
Mounting style: Through-hole



Mounting style: Threaded insert



Mounting style: Front spacer and PCB clip



## ORDER DATA

SOCKET CONNECTOR		
Design	Mounting style	Part Number
19W1	4-40 UNC threaded insert	3H19W1SAT99G60X
15W4	4-40 UNC threaded insert	3H15W4SAT99G60X
45W2	4-40 UNC threaded insert	3H45W2SAT99G60X
19W1	4-40 UNC threaded insert and PCB clip	3H19W1SAT99G80X
15W4	4-40 UNC threaded insert and PCB clip	3H15W4SAT99G80X
45W2	4-40 UNC threaded insert and PCB clip	3H45W2SAT99G80X
19W1	4-40 UNC front spacer	3H19W1SAT99H60X
15W4	4-40 UNC front spacer	3H15W4SAT99H60X
45W2	4-40 UNC front spacer	3H45W2SAT99H60X
19W1	4-40 UNC front spacer and PCB clip	3H19W1SAT99H80X
15W4	4-40 UNC front spacer and PCB clip	3H15W4SAT99H80X
45W2	4-40 UNC front spacer and PCB clip	3H45W2SAT99H80X

PLUG CONNECTOR		
Design	Mounting style	Part Number
19W1	4-40 UNC threaded insert	3H19W1PAT99G60X
15W4	4-40 UNC threaded insert	3H15W4PAT99G60X
45W2	4-40 UNC threaded insert	3H45W2PAT99G60X
19W1	4-40 UNC threaded insert and PCB clip	3H19W1PAT99G80X
15W4	4-40 UNC threaded insert and PCB clip	3H15W4PAT99G80X
45W2	4-40 UNC threaded insert and PCB clip	3H45W2PAT99G80X
19W1	4-40 UNC front spacer	3H19W1PAT99H60X
15W4	4-40 UNC front spacer	3H15W4PAT99H60X
45W2	4-40 UNC front spacer	3H45W2PAT99H60X
19W1	4-40 UNC front spacer and PCB clip	3H19W1PAT99H80X
15W4	4-40 UNC front spacer and PCB clip	3H15W4PAT99H80X
45W2	4-40 UNC front spacer and PCB clip	3H45W2PAT99H80X

# COMBINATION D-SUB HIGH DENSITY – WITH SIGNAL CONTACTS

Solder pin – Straight – Precision machined contacts



RoHS compliant – CSA listed, File No.: LR 115000-1 – UL listed, File No.: E 228329

## DESCRIPTION

- Mounting styles:
  - with through-hole,  $\varnothing .118''/3 \text{ mm}$
  - with 4-40 UNC threaded insert
  - with 4-40 UNC threaded rear spacer
  - with 4-40 UNC threaded lock and spacer clip
- M3 thread on request
- Quality class 3 (also available in quality class 1)
- Shell: Steel tin plated  
(brass tin plated or stainless steel available on request)

## SOCKET CONNECTOR



Shellsize	A -0.76	B -0.25	C	
2	39.52	24.79	33.30	$^{+0.15}_{-0.10}$
3	53.42	38.50	47.04	$\pm 0.13$
4	69.70	54.96	63.50	$\pm 0.13$

## PLUG CONNECTOR



Shellsize	A -0.76	B +0.25	C	D -0.30	
2	39.52	25.12	33.30	$^{+0.15}_{-0.10}$	6.12
3	53.42	38.84	47.04	$\pm 0.13$	5.99
4	69.70	55.30	63.50	$\pm 0.13$	5.99

Mounting style: Through-hole



Mounting style: Through-hole



## ORDER DATA

### SOCKET CONNECTOR

Design	Mounting style	Part Number
19W1	Through-hole	3H19W1SAR99A10X
15W4	Through-hole	3H15W4SAR99A10X
45W2	Through-hole	3H45W2SAR99A10X
19W1	4-40 UNC threaded insert	3H19W1SAR99A30X
15W4	4-40 UNC threaded insert	3H15W4SAR99A30X
45W2	4-40 UNC threaded insert	3H45W2SAR99A30X

### PLUG CONNECTOR

Design	Mounting style	Part Number
19W1	Through-hole	3H19W1PAR99A10X
15W4	Through-hole	3H15W4PAR99A10X
45W2	Through-hole	3H45W2PAR99A10X
19W1	4-40 UNC threaded insert	3H19W1PAR99A30X
15W4	4-40 UNC threaded insert	3H15W4PAR99A30X
45W2	4-40 UNC threaded insert	3H45W2PAR99A30X



# COMBINATION D-SUB HIGH DENSITY – MOUNTING STYLES

## Solder pin – Straight – Precision machined contacts

### ORDER DATA



SOCKET CONNECTOR		
Design	Mounting style	Part Number
19W1	4-40 UNC threaded rear spacer	3H19W1SAR99A50X
15W4	4-40 UNC threaded rear spacer	3H15W4SAR99A50X
45W2	4-40 UNC threaded rear spacer	3H45W2SAR99A50X

PLUG CONNECTOR		
Design	Mounting style	Part Number
19W1	4-40 UNC threaded rear spacer	3H19W1PAR99A50X
15W4	4-40 UNC threaded rear spacer	3H15W4PAR99A50X
45W2	4-40 UNC threaded rear spacer	3H45W2PAR99A50X

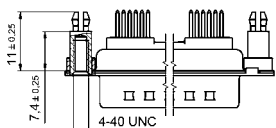
PCB thickness .063"/1,6 mm



SOCKET CONNECTOR		
Design	Mounting style	Part Number
19W1	4-40 UNC threaded rear spacer with PCB clip	3H19W1SAR99E20X
15W4	4-40 UNC threaded rear spacer with PCB clip	3H15W4SAR99E20X
45W2	4-40 UNC threaded rear spacer with PCB clip	3H45W2SAR99E20X

PLUG CONNECTOR		
Design	Mounting style	Part Number
19W1	4-40 UNC threaded rear spacer with PCB clip	3H19W1PAR99E20X
15W4	4-40 UNC threaded rear spacer with PCB clip	3H15W4PAR99E20X
45W2	4-40 UNC threaded rear spacer with PCB clip	3H45W2PAR99E20X

PCB thickness .091"/2,3 mm



SOCKET CONNECTOR		
Design	Mounting style	Part Number
19W1	4-40 UNC threaded rear spacer with PCB clip	3H19W1SAR99E40X
15W4	4-40 UNC threaded rear spacer with PCB clip	3H15W4SAR99E40X
45W2	4-40 UNC threaded rear spacer with PCB clip	3H45W2SAR99E40X

PLUG CONNECTOR		
Design	Mounting style	Part Number
19W1	4-40 UNC threaded rear spacer with PCB clip	3H19W1SAR99E40X
15W4	4-40 UNC threaded rear spacer with PCB clip	3H15W4SAR99E40X
45W2	4-40 UNC threaded rear spacer with PCB clip	3H45W2SAR99E40X

PCB thickness .063"/1,6 mm



SOCKET CONNECTOR		
Design	Mounting style	Part Number
19W1	4-40 UNC threaded lock and spacer clip	3H19W1SAR99F20X
15W4	4-40 UNC threaded lock and spacer clip	3H15W4SAR99F20X
45W2	4-40 UNC threaded lock and spacer clip	3H45W2SAR99F20X

PLUG CONNECTOR		
Design	Mounting style	Part Number
19W1	4-40 UNC threaded lock and spacer clip	3H19W1PAR99F20X
15W4	4-40 UNC threaded lock and spacer clip	3H15W4PAR99F20X
45W2	4-40 UNC threaded lock and spacer clip	3H45W2PAR99F20X

PCB thickness .091"/2,3 mm



SOCKET CONNECTOR		
Design	Mounting style	Part Number
19W1	4-40 UNC threaded lock and spacer clip	3H19W1SAR99F40X
15W4	4-40 UNC threaded lock and spacer clip	3H15W4SAR99F40X
45W2	4-40 UNC threaded lock and spacer clip	3H45W2SAR99F40X

PLUG CONNECTOR		
Design	Mounting style	Part Number
19W1	4-40 UNC threaded lock and spacer clip	3H19W1PAR99F40X
15W4	4-40 UNC threaded lock and spacer clip	3H15W4PAR99F40X
45W2	4-40 UNC threaded lock and spacer clip	3H45W2PAR99F40X

PCB clip .122" x 3.1 ± .004" / 0.10 mm hole diameter

# COMBINATION D-SUB WITHOUT CONTACTS

For straight high power, coaxial or high voltage contacts



RoHS compliant – CSA listed, File No.: LR 115000-1 – UL listed, File No.: E 228329

## SOCKET CONNECTOR



Shellsize	A -0.76	B -0.25	C
1	31.19	16.46	25.00 <sup>+0.12</sup> / <sub>-0.13</sub>
2	39.52	24.79	33.30 <sup>+0.15</sup> / <sub>-0.10</sub>
3	53.42	38.50	47.04 <sup>+0.13</sup>
4	69.70	54.96	63.50 <sup>+0.13</sup>

## DESCRIPTION

- Designs: 2W2C; 3W3; 3W3C; 5W5; 8W8
- Mounting styles:
  - with through-hole, Ø .118"/3 mm, with 4-40 UNC threaded insert, with 4-40 UNC threaded rear spacer,
  - with 4-40 UNC threaded rear spacer with PCB clip .291"/7.4 mm for PCB thickness .063"/1.6 mm, .091"/2.3 mm, .126"/3.2 mm
- On request: Threaded rear spacer with PCB clip .256"/6.5 mm available
- On request: M3 thread design available
- Shell: Steel tin plated (brass tin plated or stainless steel available on request)
- recommended plastic hoods look at page 7 | 16, 7 | 17

## PLUG CONNECTOR



Shellsize	A -0.76	B +0.25	C	D -0.30
1	31.19	16.79	25.00 <sup>+0.12</sup> / <sub>-0.13</sub>	6.12
2	39.52	25.12	33.30 <sup>+0.15</sup> / <sub>-0.10</sub>	6.12
3	53.42	38.84	47.04 <sup>+0.13</sup>	5.99
4	69.70	55.30	63.50 <sup>+0.13</sup>	5.99

## Coded socket connectors



2W2C = 1 Socket – 1 Plug



3W3C = 2 Sockets – 1 Plug

## Coded plug connectors



2W2C = 1 Plug – 1 Socket



3W3C = 2 Plugs – 1 Socket



## ORDER DATA



SOCKET CONNECTOR		
Design	Mounting style	Part Number
3W3	Through-hole	3003W3SXX99A10X
5W5	Through-hole	3005W5SXX99A10X
8W8	Through-hole	3008W8SXX99A10X
Coded version		
2W2C	Through-hole	302W2CSXX99A10X
3W3C	Through-hole	303W3CSXX99A10X

PLUG CONNECTOR		
Design	Mounting style	Part Number
3W3	Through-hole	3003W3PXX99A10X
5W5	Through-hole	3005W5PXX99A10X
8W8	Through-hole	3008W8PXX99A10X
Coded version		
2W2C	Through-hole	302W2CPXX99A10X
3W3C	Through-hole	303W3CPXX99A10X



SOCKET CONNECTOR		
Design	Mounting style 4-40 UNC	Part Number
3W3	Threaded insert	3003W3SXX99A30X
5W5	Threaded insert	3005W5SXX99A30X
8W8	Threaded insert	3008W8SXX99A30X
Coded version		
2W2C	Threaded insert	302W2CSXX99A30X
3W3C	Threaded insert	303W3CSXX99A30X

PLUG CONNECTOR		
Design	Mounting style 4-40 UNC	Part Number
3W3	Threaded insert	3003W3PXX99A30X
5W5	Threaded insert	3005W5PXX99A30X
8W8	Threaded insert	3008W8PXX99A30X
Coded version		
2W2C	Threaded insert	302W2CPXX99A30X
3W3C	Threaded insert	303W3CPXX99A30X

# COMBINATION D-SUB – MOUNTING STYLES

For straight high power, coaxial or high voltage contacts

ORDER DATA



SOCKET CONNECTOR		
Design	Mounting style 4-40 UNC	Part Number
3W3	Threaded rear spacer	3003W3SXX99A50X
5W5	Threaded rear spacer	3005W5SXX99A50X
8W8	Threaded rear spacer	3008W8SXX99A50X
Coded version		
2W2C	Threaded rear spacer	302W2CSXX99A50X
3W3C	Threaded rear spacer	303W3CSXX99A50X

PLUG CONNECTOR		
Design	Mounting style 4-40 UNC	Part Number
3W3	Threaded rear spacer	3003W3PXX99A50X
5W5	Threaded rear spacer	3005W5PXX99A50X
8W8	Threaded rear spacer	3008W8PXX99A50X
Coded version		
2W2C	Threaded rear spacer	302W2CPXX99A50X
3W3C	Threaded rear spacer	303W3CPXX99A50X

PCB thickness .063"/1.6 mm



SOCKET CONNECTOR		
Design	Mounting style 4-40 UNC	Part Number
3W3	Threaded rear spacer PCB clip	3003W3SXX99E20X
5W5	Threaded rear spacer PCB clip	3005W5SXX99E20X
8W8	Threaded rear spacer PCB clip	3008W8SXX99E20X
Coded version		
2W2C	Threaded rear spacer PCB clip	302W2CSXX99E20X
3W3C	Threaded rear spacer PCB clip	303W3CSXX99E20X

PLUG CONNECTOR		
Design	Mounting style 4-40 UNC	Part Number
3W3	Threaded rear spacer PCB clip	3003W3PXX99E20X
5W5	Threaded rear spacer PCB clip	3005W5PXX99E20X
8W8	Threaded rear spacer PCB clip	3008W8PXX99E20X
Coded version		
2W2C	Threaded rear spacer PCB clip	302W2CPXX99E20X
3W3C	Threaded rear spacer PCB clip	303W3CPXX99E20X

PCB thickness .091"/2.3 mm



SOCKET CONNECTOR		
Design	Mounting style 4-40 UNC	Part Number
3W3	Threaded rear spacer PCB clip	3003W3SXX99E40X
5W5	Threaded rear spacer PCB clip	3005W5SXX99E40X
8W8	Threaded rear spacer PCB clip	3008W8SXX99E40X
Coded version		
2W2C	Threaded rear spacer PCB clip	302W2CSXX99E40X
3W3C	Threaded rear spacer PCB clip	303W3CSXX99E40X

PLUG CONNECTOR		
Design	Mounting style 4-40 UNC	Part Number
3W3	Threaded rear spacer PCB clip	3003W3PXX99E40X
5W5	Threaded rear spacer PCB clip	3005W5PXX99E40X
8W8	Threaded rear spacer PCB clip	3008W8PXX99E40X
Coded version		
2W2C	Threaded rear spacer PCB clip	302W2CPXX99E40X
3W3C	Threaded rear spacer PCB clip	303W3CPXX99E40X

PCB thickness .126"/3.2 mm



SOCKET CONNECTOR		
Design	Mounting style 4-40 UNC	Part Number
3W3	Threaded rear spacer PCB clip	3003W3SXX99E60X
5W5	Threaded rear spacer PCB clip	3005W5SXX99E60X
8W8	Threaded rear spacer PCB clip	3008W8SXX99E60X
Coded version		
2W2C	Threaded rear spacer PCB clip	302W2CSXX99E60X
3W3C	Threaded rear spacer PCB clip	303W3CSXX99E60X

PLUG CONNECTOR		
Design	Mounting style 4-40 UNC	Part Number
3W3	Threaded rear spacer PCB clip	3003W3PXX99E60X
5W5	Threaded rear spacer PCB clip	3005W5PXX99E60X
8W8	Threaded rear spacer PCB clip	3008W8PXX99E60X
Coded version		
2W2C	Threaded rear spacer PCB clip	302W2CPXX99E60X
3W3C	Threaded rear spacer PCB clip	303W3CPXX99E60X

PCB clip .122" / 3.1 ± .004" / 0.10 mm hole diameter

# COMBINATION D-SUB WITHOUT CONTACTS

For angled high power or coaxial contacts – Short metal bracket



RoHS compliant – CSA listed, File No.: LR 115000-1 – UL listed, File No.: E 228329

## DESCRIPTION

- Designs: 2W2C; 3W3; 3W3C; 5W5; 8W8
- Mounting styles:
  - Mounting bracket and 4-40 UNC threaded insert
  - Mounting bracket with 4-40 UNC front spacer
  - Mounting bracket, PCB clip and 4-40 UNC threaded insert
  - Mounting bracket, PCB clip and 4-40 UNC front spacer
- M3 thread design available on request
- Shell: Steel tin plated  
(brass tin plated or stainless steel available on request)

## SOCKET CONNECTOR



Shellsize	A -0.76	B -0.25	C
1	31.19	16.46	25.00 <sup>+0.12</sup> / <sub>-0.13</sub>
2	39.52	24.79	33.30 <sup>+0.15</sup> / <sub>-0.10</sub>
3	53.42	38.50	47.04 <sup>+0.13</sup>
4	69.70	54.96	63.50 <sup>+0.13</sup>

## PLUG CONNECTOR



Shellsize	A -0.76	B +0.25	C	D -0.30
1	31.19	16.79	25.00 <sup>+0.12</sup> / <sub>-0.13</sub>	6.12
2	39.52	25.12	33.30 <sup>+0.15</sup> / <sub>-0.10</sub>	6.12
3	53.42	38.84	47.04 <sup>+0.13</sup>	5.99
4	69.70	55.30	63.50 <sup>+0.13</sup>	5.99

## Coded socket connectors



2W2C = 1 Socket – 1 Plug



3W3C = 2 Sockets – 1 Plug

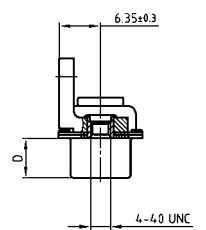
## Coded plug connectors



2W2C = 1 Plug – 1 Socket



3W3C = 2 Plugs – 1 Socket



## ORDER DATA



SOCKET CONNECTOR		
Design	Mounting style 4-40 UNC	Part Number
3W3	Threaded insert	3003W3SXX99N20X
5W5	Threaded insert	3005W5SXX99N20X
8W8	Threaded insert	3008W8SXX99N20X
Coded version		
2W2C	Threaded insert	302W2CSXX99N20X
3W3C	Threaded insert	303W3CSXX99N20X

PLUG CONNECTOR		
Design	Mounting style 4-40 UNC	Part Number
3W3	Threaded insert	3003W3PXX99N20X
5W5	Threaded insert	3005W5PXX99N20X
8W8	Threaded insert	3008W8PXX99N20X
Coded version		
2W2C	Threaded insert	302W2CPXX99N20X
3W3C	Threaded insert	303W3CPXX99N20X



# COMBINATION D-SUB – MOUNTING STYLES

For angled high power or coaxial contacts – Short metal bracket

ORDER DATA



SOCKET CONNECTOR		
Design	Mounting style 4-40 UNC	Part Number
3W3	Front spacer	3003W3SXX99P20X
5W5	Front spacer	3005W5SXX99P20X
8W8	Front spacer	3008W8SXX99P20X
Coded version		
2W2C	Front spacer	302W2CSXX99P20X
3W3C	Front spacer	303W3CSXX99P20X

PLUG CONNECTOR		
Design	Mounting style 4-40 UNC	Part Number
3W3	Front spacer	3003W3PXX99P20X
5W5	Front spacer	3005W5PXX99P20X
8W8	Front spacer	3008W8PXX99P20X
Coded version		
2W2C	Front spacer	302W2CPXX99P20X
3W3C	Front spacer	303W3CPXX99P20X



SOCKET CONNECTOR		
Design	Mounting style 4-40 UNC	Part Number
3W3	Threaded insert/PCB clip	3003W3SXX99N40X
5W5	Threaded insert/PCB clip	3005W5SXX99N40X
8W8	Threaded insert/PCB clip	3008W8SXX99N40X
Coded version		
2W2C	Threaded insert/PCB clip	302W2CSXX99N40X
3W3C	Threaded insert/PCB clip	303W3CSXX99N40X

PLUG CONNECTOR		
Design	Mounting style 4-40 UNC	Part Number
3W3	Threaded insert/PCB clip	3003W3PXX99N40X
5W5	Threaded insert/PCB clip	3005W5PXX99N40X
8W8	Threaded insert/PCB clip	3008W8PXX99N40X
Coded version		
2W2C	Threaded insert/PCB clip	302W2CPXX99N40X
3W3C	Threaded insert/PCB clip	303W3CPXX99N40X



SOCKET CONNECTOR		
Design	Mounting style 4-40 UNC	Part Number
3W3	Front spacer/PCB clip	3003W3SXX99P40X
5W5	Front spacer/PCB clip	3005W5SXX99P40X
8W8	Front spacer/PCB clip	3008W8SXX99P40X
Coded version		
2W2C	Front spacer/PCB clip	302W2CSXX99P40X
3W3C	Front spacer/PCB clip	303W3CSXX99P40X

PLUG CONNECTOR		
Design	Mounting style 4-40 UNC	Part Number
3W3	Front spacer/PCB clip	3003W3PXX99P40X
5W5	Front spacer/PCB clip	3005W5PXX99P40X
8W8	Front spacer/PCB clip	3008W8PXX99P40X
Coded version		
2W2C	Front spacer/PCB clip	302W2CPXX99P40X
3W3C	Front spacer/PCB clip	303W3CPXX99P40X

PCB clip .122"/3.1 ± .004"/0.10 mm hole diameter and .063"/1.6 mm circuit board thickness

# COMBINATION D-SUB WITHOUT CONTACTS

For angled high power or coaxial contacts – Long metal bracket



RoHS compliant – CSA listed, File No.: LR 115000-1-UL listed, File No.: E 228329

## DESCRIPTION

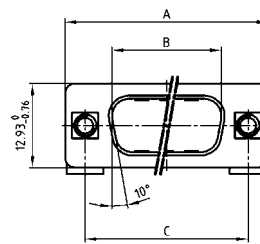
- Designs: 2W2C; 3W3; 3W3C; 5W5; 8W8
- Mounting styles:
  - with mounting bracket and 4-40 UNC threaded insert
  - with mounting bracket with 4-40 UNC front spacer
  - with mounting bracket, PCB clip and 4-40 UNC threaded insert
  - with mounting bracket, PCB clip and 4-40 UNC front spacer
- M3 thread design available on request
- Shell: Steel tin plated  
(brass tin plated or stainless steel available on request)

## SOCKET CONNECTOR



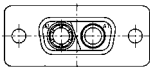
Shellsize	A -0.76	B -0.25	C
1	31.19	16.46	25.00 <sup>+0.12</sup> / <sub>-0.13</sub>
2	39.52	24.79	33.30 <sup>+0.15</sup> / <sub>-0.10</sub>
3	53.42	38.50	47.04 <sup>+0.13</sup>
4	69.70	54.96	63.50 <sup>+0.13</sup>

## PLUG CONNECTOR



Shellsize	A -0.76	B +0.25	C	D -0.30
1	31.19	16.79	25.00 <sup>+0.12</sup> / <sub>-0.13</sub>	6.12
2	39.52	25.12	33.30 <sup>+0.15</sup> / <sub>-0.10</sub>	6.12
3	53.42	38.84	47.04 <sup>+0.13</sup>	5.99
4	69.70	55.30	63.50 <sup>+0.13</sup>	5.99

## CODED SOCKET CONNECTORS

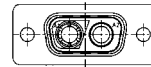


2W2C = 1 Socket – 1 Plug



3W3C = 2 Sockets – 1 Plug

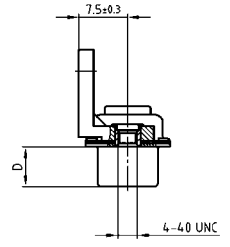
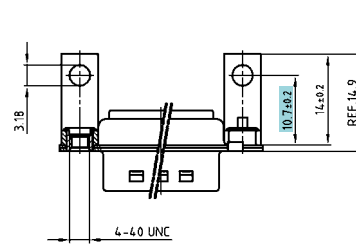
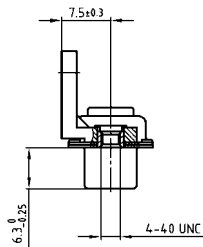
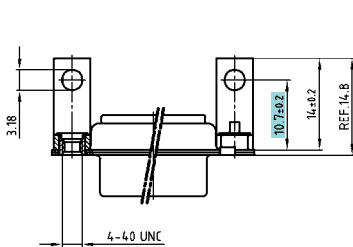
## CODED PLUG CONNECTORS



2W2C = 1 Plug – 1 Socket



3W3C = 2 Plugs – 1 Socket



## ORDER DATA



SOCKET CONNECTOR		
Design	Mounting style 4-40 UNC	Part Number
3W3	Threaded insert	3003W3SXX99G20X
5W5	Threaded insert	3005W5SXX99G20X
8W8	Threaded insert	3008W8SXX99G20X
Coded version		
2W2C	Threaded insert	302W2CSXX99G20X
3W3C	Threaded insert	303W3CSXX99G20X

PLUG CONNECTOR		
Design	Mounting style 4-40 UNC	Part Number
3W3	Threaded insert	3003W3PXX99G20X
5W5	Threaded insert	3005W5PXX99G20X
8W8	Threaded insert	3008W8PXX99G20X
Coded version		
2W2C	Threaded insert	302W2CPXX99G20X
3W3C	Threaded insert	303W3CPXX99G20X

# COMBINATION D-SUB – MOUNTING STYLES

For angled high power or coaxial contacts – Long metal bracket

ORDER DATA



SOCKET CONNECTOR		
Design	Mounting style 4-40 UNC	Part Number
3W3	Front spacer	3003W3SXX99H20X
5W5	Front spacer	3005W5SXX99H20X
8W8	Front spacer	3008W8SXX99H20X
Coded version		
2W2C	Front spacer	302W2CSXX99H20X
3W3C	Front spacer	303W3CSXX99H20X

PLUG CONNECTOR		
Design	Mounting style 4-40 UNC	Part Number
3W3	Front spacer	3003W3PXX99H20X
5W5	Front spacer	3005W5PXX99H20X
8W8	Front spacer	3008W8PXX99H20X
Coded version		
2W2C	Front spacer	302W2CPXX99H20X
3W3C	Front spacer	303W3CPXX99H20X



SOCKET CONNECTOR		
Design	Mounting style 4-40 UNC	Part Number
3W3	Threaded insert/PCB clip	3003W3SXX99G40X
5W5	Threaded insert/PCB clip	3005W5SXX99G40X
8W8	Threaded insert/PCB clip	3008W8SXX99G40X
Coded version		
2W2C	Threaded insert/PCB clip	302W2CSXX99G40X
3W3C	Threaded insert/PCB clip	303W3CSXX99G40X

PLUG CONNECTOR		
Design	Mounting style 4-40 UNC	Part Number
3W3	Threaded insert/PCB clip	3003W3PXX99G40X
5W5	Threaded insert/PCB clip	3005W5PXX99G40X
8W8	Threaded insert/PCB clip	3008W8PXX99G40X
Coded version		
2W2C	Threaded insert/PCB clip	302W2CPXX99G40X
3W3C	Threaded insert/PCB clip	303W3CPXX99G40X



SOCKET CONNECTOR		
Design	Mounting style 4-40 UNC	Part Number
3W3	Front spacer/PCB clip	3003W3SXX99H40X
5W5	Front spacer/PCB clip	3005W5SXX99H40X
8W8	Front spacer/PCB clip	3008W8SXX99H40X
Coded version		
2W2C	Front spacer/PCB clip	302W2CSXX99H40X
3W3C	Front spacer/PCB clip	303W3CSXX99H40X

PLUG CONNECTOR		
Design	Mounting style 4-40 UNC	Part Number
3W3	Front spacer/PCB clip	3003W3PXX99H40X
5W5	Front spacer/PCB clip	3005W5PXX99H40X
8W8	Front spacer/PCB clip	3008W8PXX99H40X
Coded version		
2W2C	Front spacer/PCB clip	302W2CPXX99H40X
3W3C	Front spacer/PCB clip	303W3CPXX99H40X

PCB clip .122"/3.1 ± .004"/0.10 mm hole diameter and .063"/1.6 mm circuit board thickness

# COMBINATION D-SUB WIHTOUT CONTACTS

Crimp body – For wire size AWG 20...24 and AWG 26...28

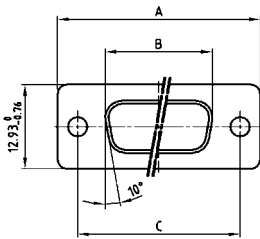


RoHS compliant – CSA listed, File No.: LR 115000-1 –UL listed, File No.: E 228329

## DESCRIPTION

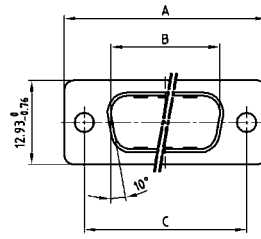
- For precision machined contacts for wire size AWG 20...24 and AWG 26...28
- Mounting styles:
  - with through-hole, Ø .118" / 3 mm
  - with 4-40 UNC or M3 threaded insert
- Shell: Steel tin plated (brass tin plated or stainless steel available on request)
- recommended plastic hoods look at page 7 | 16, 7 | 17

## SOCKET CONNECTOR

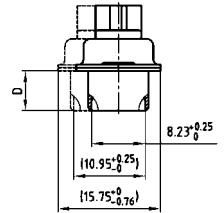
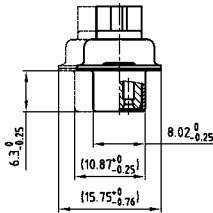


Shellsize	A -0.76	B -0.25	C
1	31.19	16.46	25.00 <sup>+0.12</sup> <sub>-0.13</sub>
2	39.52	24.79	33.30 <sup>+0.15</sup> <sub>-0.10</sub>
3	53.42	38.50	47.04 <sup>+0.13</sup>
4	69.70	54.96	63.50 <sup>+0.13</sup>
5	67.31	52.55	61.10 <sup>+0.14</sup> <sub>-0.11</sub>

## PLUG CONNECTOR



Shellsize	A -0.76	B +0.25	C	D -0.30
1	31.19	16.79	25.00 <sup>+0.12</sup> <sub>-0.13</sub>	6.12
2	39.52	25.12	33.30 <sup>+0.15</sup> <sub>-0.10</sub>	6.12
3	53.42	38.84	47.04 <sup>+0.13</sup>	5.99
4	69.70	55.30	63.50 <sup>+0.13</sup>	5.99
5	67.31	52.68	61.10 <sup>+0.14</sup> <sub>-0.11</sub>	5.99



Shell size 5 = Dim. in (.)

Shell size 5 = Dim. in (.)

## ORDER DATA



SOCKET CONNECTOR		
Design	Mounting style	Part Number
5W1	Through-hole	3005W1SXX99A10X
7W2	Through-hole	3007W2SXX99A10X
11W1	Through-hole	3011W1SXX99A10X
9W4	Through-hole	3009W4SXX99A10X
13W3	Through-hole	3013W3SXX99A10X
17W2	Through-hole	3017W2SXX99A10X
21W1	Through-hole	3021W1SXX99A10X
13W6	Through-hole	3013W6SXX99A10X
17W5	Through-hole	3017W5SXX99A10X
21WA4	Through-hole	321WA4SXX99A10X
25W3	Through-hole	3025W3SXX99A10X
27W2	Through-hole	3027W2SXX99A10X
24W7	Through-hole	3024W7SXX99A10X
36W4	Through-hole	3036W4SXX99A10X
43W2	Through-hole	3043W2SXX99A10X
47W1	Through-hole	3047W1SXX99A10X

PLUG CONNECTOR		
Design	Mounting style	Part Number
5W1	Through-hole	3005W1PXX99A10X
7W2	Through-hole	3007W2PXX99A10X
11W1	Through-hole	3011W1PXX99A10X
9W4	Through-hole	3009W4PXX99A10X
13W3	Through-hole	3013W3PXX99A10X
17W2	Through-hole	3017W2PXX99A10X
21W1	Through-hole	3021W1PXX99A10X
13W6	Through-hole	3013W6PXX99A10X
17W5	Through-hole	3017W5PXX99A10X
21WA4	Through-hole	321WA4PXX99A10X
25W3	Through-hole	3025W3PXX99A10X
27W2	Through-hole	3027W2PXX99A10X
24W7	Through-hole	3024W7PXX99A10X
36W4	Through-hole	3036W4PXX99A10X
43W2	Through-hole	3043W2PXX99A10X
47W1	Through-hole	3047W1PXX99A10X

# COMBINATION D-SUB – MOUNTING STYLES

Crimp body (without contacts) – For wire size AWG 20...24 and AWG 26...28

ORDER DATA



SOCKET CONNECTOR		
Design	Mounting style M3	Part Number
5W1	Threaded insert	3005W1SXX99A20X
7W2	Threaded insert	3007W2SXX99A20X
11W1	Threaded insert	3011W1SXX99A20X
9W4	Threaded insert	3009W4SXX99A20X
13W3	Threaded insert	3013W3SXX99A20X
17W2	Threaded insert	3017W2SXX99A20X
21W1	Threaded insert	3021W1SXX99A20X
13W6	Threaded insert	3013W6SXX99A20X
17W5	Threaded insert	3017W5SXX99A20X
21WA4	Threaded insert	321WA4SXX99A20X
25W3	Threaded insert	3025W3SXX99A20X
27W2	Threaded insert	3027W2SXX99A20X
24W7	Threaded insert	3024W7SXX99A20X
36W4	Threaded insert	3036W4SXX99A20X
43W2	Threaded insert	3043W2SXX99A20X
47W1	Threaded insert	3047W1SXX99A20X

PLUG CONNECTOR		
Design	Mounting style M3	Part Number
5W1	Threaded insert	3005W1PXX99A20X
7W2	Threaded insert	3007W2PXX99A20X
11W1	Threaded insert	3011W1PXX99A20X
9W4	Threaded insert	3009W4PXX99A20X
13W3	Threaded insert	3013W3PXX99A20X
17W2	Threaded insert	3017W2PXX99A20X
21W1	Threaded insert	3021W1PXX99A20X
13W6	Threaded insert	3013W6PXX99A20X
17W5	Threaded insert	3017W5PXX99A20X
21WA4	Threaded insert	321WA4PXX99A20X
25W3	Threaded insert	3025W3PXX99A20X
27W2	Threaded insert	3027W2PXX99A20X
24W7	Threaded insert	3024W7PXX99A20X
36W4	Threaded insert	3036W4PXX99A20X
43W2	Threaded insert	3043W2PXX99A20X
47W1	Threaded insert	3047W1PXX99A20X

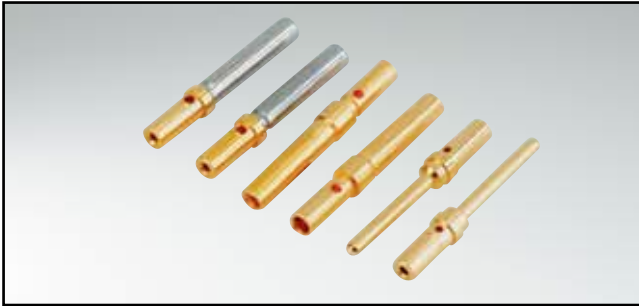


SOCKET CONNECTOR		
Design	Mounting style 4-40 UNC	Part Number
5W1	Threaded insert	3005W1SXX99A30X
7W2	Threaded insert	3007W2SXX99A30X
11W1	Threaded insert	3011W1SXX99A30X
9W4	Threaded insert	3009W4SXX99A30X
13W3	Threaded insert	3013W3SXX99A30X
17W2	Threaded insert	3017W2SXX99A30X
21W1	Threaded insert	3021W1SXX99A30X
13W6	Threaded insert	3013W6SXX99A30X
17W5	Threaded insert	3017W5SXX99A30X
21WA4	Threaded insert	321WA4SXX99A30X
25W3	Threaded insert	3025W3SXX99A30X
27W2	Threaded insert	3027W2SXX99A30X
24W7	Threaded insert	3024W7SXX99A30X
36W4	Threaded insert	3036W4SXX99A30X
43W2	Threaded insert	3043W2SXX99A30X
47W1	Threaded insert	3047W1SXX99A30X

PLUG CONNECTOR		
Design	Mounting style 4-40 UNC	Part Number
5W1	Threaded insert	3005W1PXX99A30X
7W2	Threaded insert	3007W2PXX99A30X
11W1	Threaded insert	3011W1PXX99A30X
9W4	Threaded insert	3009W4PXX99A30X
13W3	Threaded insert	3013W3PXX99A30X
17W2	Threaded insert	3017W2PXX99A30X
21W1	Threaded insert	3021W1PXX99A30X
13W6	Threaded insert	3013W6PXX99A30X
17W5	Threaded insert	3017W5PXX99A30X
21WA4	Threaded insert	321WA4PXX99A30X
25W3	Threaded insert	3025W3PXX99A30X
27W2	Threaded insert	3027W2PXX99A30X
24W7	Threaded insert	3024W7PXX99A30X
36W4	Threaded insert	3036W4PXX99A30X
43W2	Threaded insert	3043W2PXX99A30X
47W1	Threaded insert	3047W1PXX99A30X

# COMBINATION D-SUB CONTACTS

Crimp contacts – Precision machined – For wire size AWG 20...24 and AWG 26...28



RoHS compliant – CSA listed, File No.: LR 115000-1 – UL listed, File No.: E 228329

## DESCRIPTION

- For wire size AWG 20...24 and AWG 26–28
- Quality class 3
- Quality class 1 and another quality classes on request

## PRODUCT DRAWING

Signal socket crimp contact  
(Closed entry version)

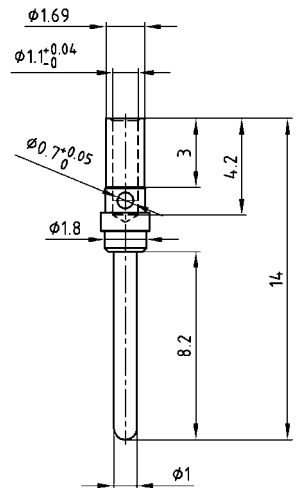


AWG	A +0.04
20-24	Ø 1.16
26-28	Ø 0.65

Signal socket crimp contact  
(Standard version)



Signal plug crimp contact  
(Standard version)



## Designs

Contact material Socket	Copper alloy
Closed entry version	Stainless steel sleeve
Contact material plug	Brass
Quality class 1	500 mating cycles
Quality class 3	50 mating cycles

## ORDER DATA

### SOCKET CONTACT

Contact type	AWG	Quality class	Part Number
Socket* / Closed entry	20...24	1	132C15019X
Socket* / Closed entry	26...28	1	132C15029X
Socket / Standard	20...24	3	162A18709X
Socket / Standard	26...28	3	162A18719X

\*Preferred type

### PLUG CONTACT

Contact type	AWG	Quality class	Part Number
Plug / Standard	20...24	1	131C15019X
Plug / Standard	26...28	1	131C15029X
Plug / Standard	20...24	3	131A15019X
Plug / Standard	26...28	3	131A15029X

# COMBINATION D-SUB CONTACTS

High power contacts – Solder cup – Straight



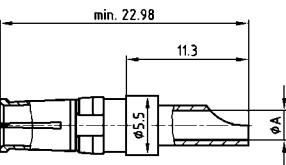
RoHS compliant – CSA listed, File No.: LR 115000-1-UL listed, File No.: E 228329

**DESCRIPTION**

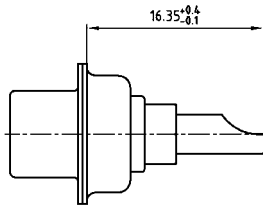
- Precision machined contacts
- Quality class 3: 50 mating cycles
- Quality class 1: 500 mating cycles
- Mating side gold plated
- Termination side gold or tin plated
- Other quality classes on request
- To order these preassembled in the connector, use the termination code shown below, in the part number creator at the front of this section

**PRODUCT DRAWING**

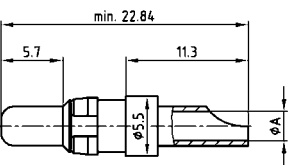
Socket contact



Installation dimension

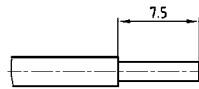


Plug contact

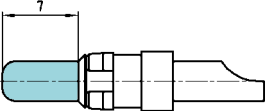


AWG	Current rating	ØA <sup>+0.15</sup>
16-20	10A	1.80
12-14	20A	2.70
10-12	30A	3.50
8-10	40A	4.80

Wire stripping



Premating contact



**ORDER DATA**

SOCKET CONTACT					
AWG	Quality class	Code* tin plated	Part Number tin plated	Code* gold plated	Part Number gold plated
16...20	1	F1	13-003501	41	132C10019X
16...20	3	F2	13-003503	61	132A10019X
12...14	1	F3	13-003511	42	132C10029X
12...14	3	F4	13-003513	62	132A10029X
10...12	1	F5	13-003521	43	132C10039X
10...12	3	F6	13-003523	63	132A10039X
8...10	1	F7	13-003531	44	132C10049X
8...10	3	F8	13-003533	64	132A10049X

PLUG CONTACT					
AWG	Quality class	Code* tin plated	Part Number tin plated	Code* gold plated	Part Number gold plated
16...20	1	F1	13-003541	41	131C10019X
16...20	3	F2	13-003543	61	131A10019X
12...14	1	F3	13-003551	42	131C10029X
12...14	3	F4	13-003553	62	131A10029X
10...12	1	F5	13-003561	43	131C10039X
10...12	3	F6	13-003563	63	131A10039X
8...10	1	F7	13-003571	44	131C10049X
8...10	3	F8	13-003573	64	131A10049X

PREMATING CONTACT					
AWG	Ampere	Quality class	Part Number tin plated	Quality class	Part Number gold plated
16-20	10 A	1	13-003581	1	131C10119X
12-14	20 A	1	13-003591	1	131C10129X
10-12	30 A	1	13-003601	1	131C10139X
8-10	40 A	1	13-003611	1	131C10149X

\*Code use with part number creator

# COMBINATION D-SUB CONTACTS

High power contacts – Screw termination – Straight – For wire size AWG 14



RoHS compliant – CSA listed, File No.: LR 115000-1 – UL listed, File No.: E 228329

## DESCRIPTION

- Precision machined contacts for wire size **AWG 14**, max. 20 A
- Quality class 3: 50 mating cycles (gold plated)
- Quality class 1: 500 mating cycles (gold plated)
- Other quality classes on request
- For field attachable applications

## PRODUCT DRAWING

Socket contact



Installation dimension

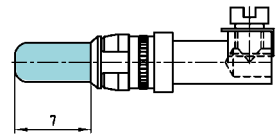


Plug contact



AWG	Current rating	ØA <sup>+0.15</sup>
16-20	10A	1.80
12-14	20A	2.70
10-12	30A	3.50
8-10	40A	4.80

Premating contact



## ORDER DATA

SOCKET CONTACT				
Contact type	AWG	Ampere	Quality class	Part Number
Socket	14	20 A	1	132C36009X
Socket	14	20 A	3	132A36009X

PLUG CONTACT				
Contact type	AWG	Ampere	Quality class	Part Number
Plug	14	20 A	1	131C36009X
Plug	14	20 A	3	131A36009X
Plug premating	14	20 A	1	131C36109X



# COMBINATION D-SUB CONTACTS

## High power contacts – Crimp – Straight



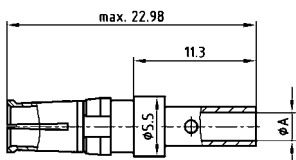
RoHS compliant – CSA listed, File No.: LR 115000-1-UL listed, File No.: E 228329

### DESCRIPTION

- Precision machined contacts
- Quality class 3: 50 mating cycles
- Quality class 1: 500 mating cycles
- Mating side gold plated
- Termination side gold or tin plated
- Other quality classes on request

### PRODUCT DRAWING

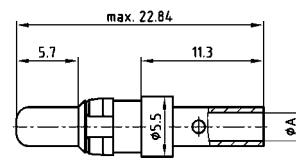
Socket contact



Installation dimension



Plug contact



AWG	Current rating	ØA <sup>+0.15</sup>
16-20	10A	1.70
12-14	20A	2.60
10-12	30A	3.70
8-10	40A	4.60

Wire stripping



Premating contact



### ORDER DATA

SOCKET CONTACT					
AWG	Ampere	Quality class	Part Number tin plated	Quality class	Part Number gold plated
16-20	10 A	1	13-003621	1	132C11019X
16-20	10 A	3	13-003623	3	132A11019X
12-14	20 A	1	13-003631	1	132C11029X
12-14	20 A	3	13-003633	3	132A11029X
10-12	30 A	1	13-003641	1	132C11039X
10-12	30 A	3	13-003643	3	132A11039X
8-10	40 A	1	13-003651	1	132C11049X
8-10	40 A	3	13-003653	3	132A11049X

PLUG CONTACT					
AWG	Ampere	Quality class	Part Number tin plated	Quality class	Part Number gold plated
16-20	10 A	1	13-003661	1	131C11019X
16-20	10 A	3	13-003663	3	131A11019X
12-14	20 A	1	13-003671	1	131C11029X
12-14	20 A	3	13-003673	3	131A11029X
10-12	30 A	1	13-003681	1	131C11039X
10-12	30 A	3	13-003683	3	131A11039X
8-10	40 A	1	13-003691	1	131C11049X
8-10	40 A	3	13-003693	3	131A11049X

PREMATING CONTACT					
AWG	Ampere	Quality class	Part Number tin plated	Quality class	Part Number tin plated
16-20	10 A	1	13-003701	1	131C11119X
12-14	20 A	1	13-003711	1	131C11129X
10-12	30 A	1	13-003721	1	131C11139X
8-10	40 A	1	13-003731	1	131C11149X

# COMBINATION D-SUB CONTACTS

High power contacts – Solder cup or crimp – angled



RoHS compliant – CSA listed, File No.: LR 115000-1 – UL listed, File No.: E 228329

## DESCRIPTION

- Precision machined contacts
- Quality class 3: 50 mating cycles (gold plated)
- Quality class 1: 500 mating cycles (gold plated)
- Other quality classes on request

## PRODUCT DRAWING

Socket contact



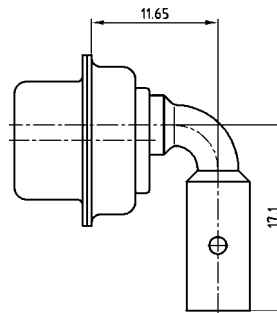
Installation dimension  
Shell size 1-4



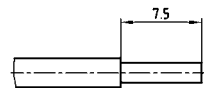
Plug contact



Installation dimension  
Shell size 5



Wire stripping



Premating contact



AWG	Current rating	Ø A +0.15	Crimp Plier Part.no. 360X12269X
16-20	10A	1.70	1.40/1.25
12-14	20A	2.60	1.85/1.65
10-12	30A	3.70	2.30/2.05
8-10	40A	4.60	2.30/2.05

## ORDER DATA

SOCKET CONTACT				
Contact type	AWG	Ampere	Quality class	Part Number
Socket	16...20	10 A	1	132C16019X
Socket	16...20	10 A	3	132A16019X
Socket	12...14	20 A	1	132C16029X
Socket	12...14	20 A	3	132A16029X
Socket	10...12	30 A	1	132C16039X
Socket	10...12	30 A	3	132A16039X
Socket	8...10	40 A	1	132C16049X
Socket	8...10	40 A	3	132A16049X

PLUG CONTACT				
Contact type	AWG	Ampere	Quality class	Part Number
Plug	16...20	10 A	1	131C16019X
Plug	16...20	10 A	3	131A16019X
Plug	12...14	20 A	1	131C16029X
Plug	12...14	20 A	3	131A16029X
Plug	10...12	30 A	1	131C16039X
Plug	10...12	30 A	3	131A16039X
Plug	8...10	40 A	1	131C16049X
Plug	8...10	40 A	3	131A16049X

PREMATING CONTACT				
Contact type	AWG	Ampere	Quality class	Part Number
Plug premating	16...20	10 A	1	131C16119X
Plug premating	12...14	20 A	1	131C16129X
Plug premating	10...12	30 A	1	131C16139X
Plug premating	8...10	40 A	1	131C16149X

# COMBINATION D-SUB CONTACTS

High power contacts – Solder pin – angled



RoHS compliant – CSA listed, File No.: LR 115000-1-UL listed, File No.: E 228329

## DESCRIPTION

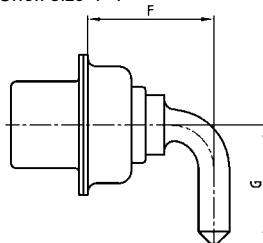
- Precision machined contacts
- Quality class 3: 50 mating cycles
- Quality class 1: 500 mating cycles
- Mating side gold plated
- Termination side tin plated
- Other quality classes on request
- To order these preassembled in the connector, use the termination code shown below, in the part number creator at the front of this section

## PRODUCT DRAWING

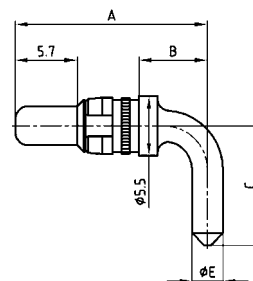
Socket contact



Installation dimension Shell size 1-4

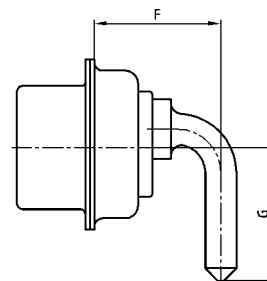


Plug contact

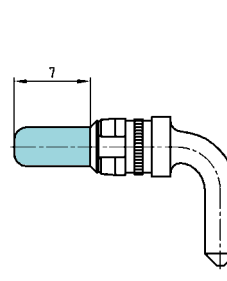


Shellsize	Current rating	Termination	A	B	C	D	ØE	F	G
1-4	15A	55/59	14.54	3.00	10.50	14.68	1.90	8.35	10.50
1-4	20A	56/73	17.84	6.30	11.00	17.98	2.85	11.65	11.00
1-4	30A	57/74	26.54	15.00	9.50	26.68	3.20	20.35	9.50
1-4	40A	58/75	17.84	6.30	11.00	17.98	3.75	11.65	11.00
5	20A	66/81	20.39	8.85	14.00	20.53	2.85	14.20	12.58
5	30A	67/82	20.39	8.85	14.00	20.53	3.20	14.20	12.58
5	30A	65/85	26.54	15.00	13.50	26.68	3.20	20.35	12.08
5	40A	60/77	20.39	8.85	14.00	20.53	3.75	14.20	12.58

Installation dimension Shell size 5



Premating contact



**hole diameter of PCB:**

- 1.95 = 2.30 ± 0.1
- 2.60 = 3.00 ± 0.1
- 2.85 = 3.20 ± 0.1
- 3.18 = 3.60 ± 0.1
- 3.75 = 4.10 ± 0.1

## ORDER DATA

SOCKET CONTACT				
Contact type	Shell size	Quality class	Termination*	Part Number
Socket	1-4	1	55	132C13009X
Socket	1-4	3	59	132A13009X
Socket	1-4	1	56	132C13019X
Socket	1-4	3	73	132A13019X
Socket	1-4	1	57	132C13029X
Socket	1-4	3	74	132A13029X
Socket	1-4	1	58	132C13039X
Socket	1-4	3	75	132A13039X
Socket	5	1	66	132C13060X
Socket	5	3	81	132A13060X
Socket	5	1	67	132C13070X
Socket	5	3	82	132A13070X
Socket	5	1	65	132C13059X
Socket	5	3	85	132A13059X
Socket	5	1	60	132C13049X
Socket	5	3	77	132A13049X

PLUG CONTACT				
Contact type	Shell size	Quality class	Termination*	Part Number
Plug	1-4	1	55	131C13009X
Plug	1-4	3	59	131A13009X
Plug	1-4	1	56	131C13019X
Plug	1-4	3	73	131A13019X
Plug	1-4	1	57	131C13029X
Plug	1-4	3	74	131A13029X
Plug	1-4	1	58	131C13039X
Plug	1-4	3	75	131A13039X
Plug	5	1	66	131C13060X
Plug	5	3	81	131A13060X
Plug	5	1	67	131C13070X
Plug	5	3	82	131A13070X
Plug	5	1	65	131C13059X
Plug	5	3	85	131A13059X
Plug	5	1	60	131C13049X
Plug	5	3	77	131A13049X
Plug premating	1-4	1		131C13109X
Plug premating	1-4	1		131C13119X
Plug premating	1-4	1		131C13129X
Plug premating	1-4	1		131C13139X
Plug premating	5	1		131C13160X
Plug premating	5	1		131C13170X
Plug premating	5	1		131C13159X
Plug premating	5	1		131C13149X

\*Code use with part number creator

# COMBINATION D-SUB CONTACTS

## High power contacts – Solder pin – Straight



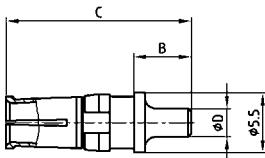
RoHS compliant – CSA listed, File No.: LR 115000-1 – UL listed, File No.: E 228329

### DESCRIPTION

- Precision machined contacts
- Quality class 3: 50 mating cycles (gold plated)
- Quality class 1: 500 mating cycles (gold plated)
- Mating side gold plated
- Termination side tin plated
- Other quality classes on request
- To order these preassembled in the connector, use the termination code shown below, in the part number creator at the front of this section

### PRODUCT DRAWING

Socket contact



Installation dimension



Plug contact



Current rating	Termination	A	B	C	Ø D	E	F
20A	48/68**	15.84	4.60	15.98	1.95	9.65	3.80
20A	49/69	16.84	5.30	16.98	2.60	10.65	4.30
20A	50/70**	16.24	4.70	16.38	2.85	10.05	3.70
30A	51/71	19.04	7.50	19.18	3.18	12.85	6.70
40A	52/72	17.29	5.75	17.43	3.75	11.10	4.75

Premating contact



**PCB hole diameter at:**

- 1.95 = 2.30 ± 0.1
- 2.60 = 3.00 ± 0.1
- 2.85 = 3.20 ± 0.1
- 3.18 = 3.60 ± 0.1
- 3.75 = 4.10 ± 0.1

### ORDER DATA

SOCKET CONTACT				
Contact type	Ampere	Quality class	Termination*	Part Number
Socket	20 A	1	48**	132C12019X
Socket	20 A	3	68**	132A12019X
Socket	20 A	1	49	132C12029X
Socket	20 A	3	69	132A12029X
Socket	20 A	1	50**	132C12039X
Socket	20 A	3	70**	132A12039X
Socket	30 A	1	51	132C12049X
Socket	30 A	3	71	132A12049X
Socket	40 A	1	52	132C12059X
Socket	40 A	3	72	132A12059X

PLUG CONTACT				
Contact type	Ampere	Quality class	Termination*	Part Number
Plug	20 A	1	48**	131C12019X
Plug	20 A	3	68**	131A12019X
Plug	20 A	1	49	131C12029X
Plug	20 A	3	69	131A12029X
Plug	20 A	1	50**	131C12039X
Plug	20 A	3	70**	131A12039X
Plug	30 A	1	51	131C12049X
Plug	30 A	3	71	131A12049X
Plug	40 A	1	52	131C12059X
Plug	40 A	3	72	131A12059X

PREMATING CONTACT			
Contact type	Ampere	Quality class	Part Number
Plug premating	20A/ Ø .077"/1.95	1	131C12119X
Plug premating	20A/ Ø .102"/2.60	1	131C12129X
Plug premating	20A/ Ø .112"/2.85	1	131C12139X
Plug premating	30A/ Ø .125"/3.18	1	131C12149X
Plug premating	40A/ Ø .148"/3.75	1	131C12159X

\*Code use with part number creator  
 \*\*not suitable for PCB 2.3 + 3.2 mm

# COMBINATION D-SUB CONTACTS

## High power contacts – Press-fit version – Straight



RoHS compliant

### DESCRIPTION

- Precision machined contacts
- Quality class 1: 500 mating cycles
- Mating area gold plated
- Press-fit area tin plated
- Other quality classes on request
- To order these preassembled in the connector, use the termination code shown below, in the part number creator at the front of this section

### PRODUCT DRAWING

Socket contact



Installation dimension



Plug contact



Termination Type	Ampere	A	B	C	D +0.03	E min.	E max.
P1	30A	16.34	4.8	16.48	3.13	2.96	3.11
P2	30A	16.34	4.8	16.48	3.27	3.10	3.25
P4	30A	15.94	4.4	16.08	3.22	3.02	3.20

PCB hole drilling for high power pressfit contact



### ORDER DATA

SOCKET CONTACT				
Contact type	Ampere	Quality class	Termination*	Part Number
Socket	30 A	1	P1	132C00229A
Socket	30 A	1	P2	132C00299A
Socket	30 A	1	P4	132C19019X

PLUG CONTACT				
Contact type	Ampere	Quality class	Termination*	Part Number
Plug	30 A	1	P1	131C00319A
Plug	30 A	1	P2	131C00389A
Plug	30 A	1	P4	131C19019X

# COMBINATION D-SUB CONTACTS

High voltage contacts – Solder termination – Straight and angled – For wire size AWG 20



RoHS compliant – CSA listed, File No.: LR 115000-1 – UL listed, File No.: E 228329

## DESCRIPTION

- Precision machined contacts for wire size **AWG 20**, max. 2,8 kV
- Quality class 1: 500 mating cycles (gold plated)
- Other quality classes on request

## PRODUCT DRAWING

Socket contact straight



Installation dimension straight



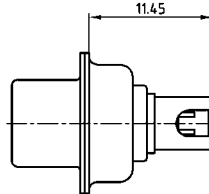
Plug contact straight



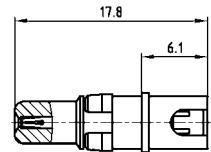
Socket contact angled



Installation dimension angled



Plug contact angled



Wire stripping



Wire stripping



## ORDER DATA

SOCKET CONTACT			PLUG CONTACT		
Contact type	AWG	Part Number	Contact type	AWG	Part Number
Socket/Straight	20	132J14019X	Plug/Straight	20	131J14019X
Socket/Angled	20	132J14519X	Plug/Angled	20	131J14519X

# COMBINATION D-SUB CONTACTS

Coaxial contacts – Straight – Inner conductor solder-, outer conductor crimp- / solder termination



RoHS compliant – CSA listed, File No.: LR 115000-1-UL listed, File No.: E 228329

## DESCRIPTION

- 50 Ω and 75 Ω-design
- Contact platings mating area:
  - .051 μm / 1.3 μm Au inner conductor /
  - .032 μm / 0.8 μm Au outer conductor
  - .008 μm / 0.2 μm Au inner and outer conductor
- Contact platings termination area:
  - .008 μm / 0.2 μm Au
  - tin plated
- Other platings on request
- Delivery includes: contacts and sleeve supplied loose

## PRODUCT DRAWING

### 50 Ω version

Socket contact



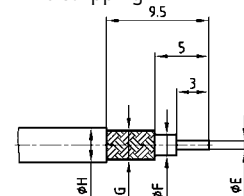
Installation dimension



Plug contact



Wire stripping



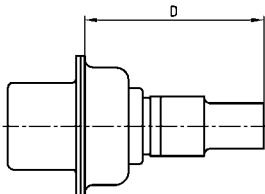
Usable Cables RG	A	B	C	D max.	Ø E max.	Ø F max.	Ø G max.	Ø H max.
178BU, 196AU, 404 U	22.50	11.20	23.00	17.55	0.85	1.20	1.40	2.30
174U, 188AU, 316U	22.50	11.20	23.00	17.55	0.85	1.90	2.30	3.20
180BU	22.50	11.20	23.00	17.55	0.85	2.80	3.10	4.50
58CU, 141AU	26.30	14.80	26.80	20.15	1.00	3.00	3.60	5.20
316U double braided	23.50	12.20	24.00	17.55	0.85	1.90	2.70	3.20

### 75 Ω version

Socket contact



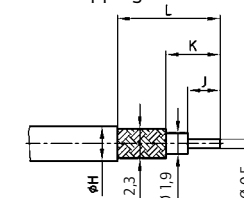
Installation dimension



Plug contact



Wire stripping



Usable Cables RG	A	B	C	D max.	Ø H max.	J	K	L
179BU, 187AU	18.55	7.30	19.05	12.80	3.20	2.00	3.10	6.00
179BU, 187AU	22.50	11.20	23.00	16.70	3.20	3.00	5.00	9.50

## ORDER DATA

SOCKET CONTACT			
Imp.	Cable	Part Number 1,3 μm / tin plated	Part Number 1,3 μm / 0,2 μm
50 Ω	178BU, 196AU, 404U	13-003004	132J20019X
50 Ω	174U, 188AU, 316U	13-003014	132J20029X
50 Ω	180BU	13-003024	132J20039X
50 Ω	58CU, 141AU	13-003034	132J20049X
50 Ω	316U double braided	13-003044	132J20059X
75 Ω	179BU, 187AU (B=.287"/7.3mm)	13-003054	132J30019X
75 Ω	179BU, 187 AU (B=.441"/11.2 mm)	13-003064	132J30029X

PLUG CONTACT			
Imp.	Cable	Part Number 1,3 μm / tin plated	Part Number 1,3 μm / 0,2 μm
50 Ω	178BU, 196AU, 404U	13-003074	131J20019X
50 Ω	174U, 188AU, 316U	13-003084	131J20029X
50 Ω	180BU	13-003094	131J20039X
50 Ω	58CU, 141AU	13-003104	131J20049X
50 Ω	316U double braided	13-003114	131J20059X
75 Ω	179BU, 187AU (B=.287"/7.3mm)	13-003124	131J30019X
75 Ω	179BU, 187 AU (B=.441"/11.2 mm)	13-003134	131J30029X

SOCKET CONTACT			
Imp.	Cable	Part Number 0,2 μm / tin plated	Part Number 0,2 μm / 0,2 μm
50 Ω	178BU, 196AU, 404U	13-003003	132A20019X
50 Ω	174U, 188AU, 316U	13-003013	132A20029X
50 Ω	180BU	13-003023	132A20039X
50 Ω	58CU, 141AU	13-003033	132A20049X
50 Ω	316U double braided	13-003043	132A20059X
75 Ω	179BU, 187AU (B=.287"/7.3mm)	13-003053	132A30019X
75 Ω	179BU, 187 AU (B=.441"/11.2 mm)	13-003063	132A30029X

PLUG CONTACT			
Imp.	Cable	Part Number 0,2 μm / tin plated	Part Number 0,2 μm / 0,2 μm
50 Ω	178BU, 196AU, 404U	13-003073	131A20019X
50 Ω	174U, 188AU, 316U	13-003083	131A20029X
50 Ω	180BU	13-003093	131A20039X
50 Ω	58CU, 141AU	13-003103	131A20049X
50 Ω	316U double braided	13-003113	131A20059X
75 Ω	179BU, 187AU (B=.287"/7.3mm)	13-003123	131A30019X
75 Ω	179BU, 187 AU (B=.441"/11.2 mm)	13-003133	131A30029X

# COMBINATION D-SUB CONTACTS

Coaxial contacts – Straight – Inner and outer conductor crimp termination



RoHS compliant – CSA listed, File No.: LR 115000-1 – UL listed, File No.: E 228329

## DESCRIPTION

- 50 Ω and 75 Ω-design
- Contact platings mating area:
  - .051 μm / 1.3 μm Au inner conductor /
  - .032 μm / 0.8 μm Au outer conductor
  - .008 μm / 0.2 μm Au inner and outer conductor
- Contact platings termination area:
  - .008 μm / 0.2 μm Au
  - tin plated
- Other platings on request
- Delivery includes: contacts and sleeve supplied loose

## PRODUCT DRAWING

### 50 Ω version

Socket contact



Installation dimension



Plug contact



Wire stripping



Usable Cables RG	A	B	C	D max.	Ø E max.	Ø F max.	Ø G max.	Ø H max.
174Bu, 188AU, 316U	22.50	11.20	23.00	16.60	0.60	1.90	2.30	3.20
316U double braided	22.50	11.20	23.00	16.60	0.60	1.90	3.00	3.80
58CU, 141AU	22.20	10.90	22.70	16.30	1.30	3.70	4.30	5.20

### 75 Ω version

Socket contact



Installation dimension



Plug contact



Wire stripping



Usable Cables RG	A	B	C	D	Ø F max.	Ø G max.	Ø H max.	L
179BU, 187AU	22.45	11.20	22.95	16.70	1.90	2.30	3.20	9.30
180BU	21.65	10.40	22.15	15.90	2.80	3.20	4.50	8.80

## ORDER DATA

### SOCKET CONTACT

Imp.	Cable	Part Number 1,3 μm / tin plated	Part Number 1,3 μm / 0,2 μm
50 Ω	174U, 188AU, 316U	13-003144	132J21019X
50 Ω	316U double braided	13-003154	132J21029X
50 Ω	58CU, 141AU	13-003164	132J21039X
75 Ω	179BU, 187AU	13-003174	132J31019X
75 Ω	180BU	13-003184	132J31029X

### PLUG CONTACT

Imp.	Cable	Part Number 1,3 μm / tin plated	Part Number 1,3 μm / 0,2 μm
50 Ω	174U, 188AU, 316U	13-003194	131J21019X
50 Ω	316U double braided	13-003204	131J21029X
50 Ω	58CU, 141AU	13-003214	131J21039X
75 Ω	179BU, 187AU	13-003224	131J31019X
75 Ω	180BU	13-003234	131J31029X

### BUCHSENKONTAKT

Imp.	Cable	Part Number 0,2 μm / tin plated	Part Number 0,2 μm / 0,2 μm
50 Ω	174U, 188AU, 316U	13-003143	132A21019X
50 Ω	316U double braided	13-003153	132A21029X
50 Ω	58CU, 141AU	13-003163	132A21039X
75 Ω	179BU, 187AU	13-003173	132A31019X
75 Ω	180BU	13-003183	132A31029X

### PLUG CONTACT

Imp.	Cable	Part Number 0,2 μm / tin plated	Part Number 0,2 μm / 0,2 μm
50 Ω	174U, 188AU, 316U	13-003193	131A21019X
50 Ω	316U double braided	13-003203	131A21029X
50 Ω	58CU, 141AU	13-003213	131A21039X
75 Ω	179BU, 187AU	13-003223	131A31019X
75 Ω	180BU	13-003233	131A31029X



# COMBINATION D-SUB CONTACTS

Coaxial contacts – Angled – Inner conductor solder-, outer conductor crimp- / Solder termination



RoHS compliant – CSA listed, File No.: LR 115000-1-UL listed, File No.: E 228329

## DESCRIPTION

- 50 Ω design
- Contact platings mating area:
  - .051 μ" / 1.3 μm Au inner conductor /
  - .032 μ" / 0.8 μm Au outer conductor
  - .008 μ" / 0.2 μm Au inner and outer conductor
- Contact platings termination area:
  - .008 μ" / 0.2 μm Au
  - tin plated
- Other platings on request
- Delivery includes: contacts and sleeve supplied loose

## PRODUCT DRAWING

### 50 Ω version

Socket contact



Installation dimension



Plug contact



Wire stripping



Usable Cables RG	A	B	C	D	E	Ø F max.	Ø G max.	Ø H max.	Ø J max.
174U, 188AU, 316U	18.50	8.20	19.30	19.80	15.70	0.85	1.90	2.30	3.20
178BU, 196AU, 404U	18.50	8.20	19.30	19.80	15.70	0.85	1.20	1.40	2.30
316U double braided	19.50	8.20	19.30	19.80	16.70	0.85	1.90	2.70	3.50

## ORDER DATA

SOCKET CONTACT			
Imp.	Cable	Part Number 1,3 μm / tin plated	Part Number 1,3 μm / 0,2 μm
50 Ω	178BU, 196AU, 404U	13-003244	132J22029X
50 Ω	174U, 188AU, 316U	13-003254	132J22019X
50 Ω	316U double braided	13-003264	132J22039X

PLUG CONTACT			
Imp.	Cable	Part Number 1,3 μm / tin plated	Part Number 1,3 μm / 0,2 μm
50 Ω	178BU, 196AU, 404U	13-003274	131J22029X
50 Ω	174U, 188AU, 316U	13-003284	131J22019X
50 Ω	316U double braided	13-003294	131J22039X

SOCKET CONTACT			
Imp.	Cable	Part Number 0,2 μm / tin plated	Part Number 0,2 μm / 0,2 μm
50 Ω	178BU, 196AU, 404U	13-003243	132A22029X
50 Ω	174U, 188AU, 316U	13-003253	132A22019X
50 Ω	316U double braided	13-003263	132A22039X

PLUG CONTACT			
Imp.	Cable	Part Number 0,2 μm / tin plated	Part Number 0,2 μm / 0,2 μm
50 Ω	178BU, 196AU, 404U	13-003273	131A22029X
50 Ω	174U, 188AU, 316U	13-003283	131A22019X
50 Ω	316U double braided	13-003293	131A22039X

# COMBINATION D-SUB CONTACTS

## Coaxial contacts – Angled – Inner- and outer conductor crimp termination



RoHS compliant – CSA listed, File No.: LR 115000-1 – UL listed, File No.: E 228329

### DESCRIPTION

- 50 Ω and 75 Ω-design
- Contact platings mating area:
  - .051 μ"/1.3 μm Au inner conductor / .032 μ"/0.8 μm Au outer conductor
  - .008 μ"/0.2 μm Au inner and outer conductor
- Contact platings termination area:
  - .008 μ"/0.2 μm Au
  - tin plated
- Other platings on request
- Delivery includes: contacts and sleeve supplied loose

### PRODUCT DRAWING

#### 50 Ω version

Socket contact



Installation dimension



Plug contact



#### 75 Ω version

Socket contact



Wire stripping



verwendbare Kabel: RG- 174U, 188AU, 316U  
Usable Cables

Plug contact



### ORDER DATA

#### SOCKET CONTACT

Imp.	Cable	Part Number 1,3 μm / tin plated	Part Number 1,3 μm / 0,2 μm
50 Ω	174U, 188AU, 316U	13-003304	132J23019X
75 Ω	179BU, 187AU	13-003314	132J33019X

#### PLUG CONTACT

Imp.	Cable	Part Number 1,3 μm / tin plated	Part Number 1,3 μm / 0,2 μm
50 Ω	174U, 188AU, 316U	13-003324	131J23019X
75 Ω	179BU, 187AU	13-003334	131J33019X

#### SOCKET CONTACT

Imp.	Cable	Part Number 0,2 μm / tin plated	Part Number 0,2 μm / 0,2 μm
50 Ω	174U, 188AU, 316U	13-003303	132A23019X
75 Ω	179BU, 187AU	13-003313	132A33019X

#### PLUG CONTACT

Imp.	Cable	Part Number 0,2 μm / tin plated	Part Number 0,2 μm / 0,2 μm
50 Ω	174U, 188AU, 316U	13-003323	131A23019X
75 Ω	179BU, 187AU	13-003333	131A33019X

# COMBINATION D-SUB CONTACTS

Coaxial contacts – Straight – PCB termination – 3 solder pins



RoHS compliant – CSA listed, File No.: LR 115000-1-UL listed, File No.: E 228329

## DESCRIPTION

- 50 and 75 Ω-design
- Contact platings mating area:
  - .051 μ" / 1.3 μm Au inner conductor /
  - .032 μ" / 0.8 μm Au outer conductor
  - .008 μ" / 0.2 μm Au inner and outer conductor
- Contact platings termination area:
  - .008 μ" / 0.2 μm Au
  - tin plated
- Other platings on request
- Delivery includes: contacts and sleeve supplied loose

## PRODUCT DRAWING

### 50 Ω version

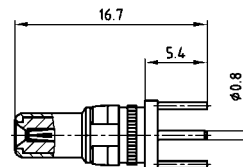
Socket contact



Installation dimension



Plug contact

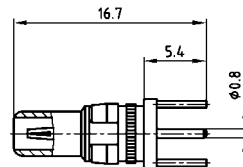


### 75 Ω version

Socket contact



Plug contact



## ORDER DATA

SOCKET CONTACT				
Imp.	Termination*	Part Number 1,3 μm / tin plated	Termination*	Part Number 1,3 μm / 0,2 μm
50 Ω	L1	13-003344	76	132J24019X
75 Ω	L2	13-003354	86	132J34019X

PLUG CONTACT				
Imp.	Termination*	Part Number 1,3 μm / tin plated	Termination*	Part Number 1,3 μm / 0,2 μm
50 Ω	L1	13-003364	76	131J24019X
75 Ω	L2	13-003374	86	131J34019X

SOCKET CONTACT				
Imp.	Termination*	Part Number 0,2 μm / tin plated	Termination*	Part Number 0,2 μm / 0,2 μm
50 Ω	L3	13-003343	G7	132A24019X
75 Ω	L4	13-003353	G8	132A34019X

PLUG CONTACT				
Imp.	Termination*	Part Number 0,2 μm / tin plated	Termination*	Part Number 0,2 μm / 0,2 μm
50 Ω	L3	13-003363	G7	131A24019X
75 Ω	L4	13-003373	G8	131A34019X

\*Code use with part number creator

# COMBINATION D-SUB CONTACTS

Coaxial contacts – Angled – PCB termination – 3 solder pins



RoHS compliant – CSA listed, File No.: LR 115000-1 – UL listed, File No.: E 228329

## DESCRIPTION

- 50 Ω and 75 Ω-design
- Contact platings mating area:
  - .051 μm / 1.3 μm Au inner conductor /
  - .032 μm / 0.8 μm Au outer conductor
  - .008 μm / 0.2 μm Au inner and outer conductor
- Contact platings termination area:
  - .008 μm / 0.2 μm Au
  - tin plated
- Other platings on request
- Delivery includes: contacts and sleeve supplied loose

## PRODUCT DRAWING

### 50 Ω version

Socket contact

Installation dimension

Plug contact



### 75 Ω version

Socket contact

Plug contact



Shellsize	A	B	C	D	E	F
1-4	13.80	9.30	20.70	21.20	11.00	9.30
5	16.80	11.80	23.20	23.70	14.00	11.80

## ORDER DATA

SOCKET CONTACT					
Imp.	Shell size	Termination*	Part Number 1,3 μm / tin plated	Termination*	Part Number 1,3 μm / 0,2 μm
50 Ω	1-4	L5	13-003384	78	132J25019X
50 Ω	5	L6	13-003394	79	132J25029X
75 Ω	1-4	L7	13-003404	88	132J35019X
75 Ω	5	L8	13-003414	89	132J35029X

PLUG CONTACT					
Imp.	Shell size	Termination*	Part Number 1,3 μm / tin plated	Termination*	Part Number 1,3 μm / 0,2 μm
50 Ω	1-4	L5	13-003424	78	131J25019X
50 Ω	5	L6	13-003434	79	131J25029X
75 Ω	1-4	L7	13-003444	88	131J35019X
75 Ω	5	L8	13-003454	89	131J35029X

SOCKET CONTACT					
Imp.	Shell size	Termination*	Part Number 0,2 μm / tin plated	Termination*	Part Number 0,2 μm / 0,2 μm
50 Ω	1-4	L9	13-003383	G9	132A25019X
50 Ω	5	M1	13-003393	H1	132A25029X
75 Ω	1-4	M2	13-003403	H2	132A35019X
75 Ω	5	M3	13-003413	H3	132A35029X

PLUG CONTACT					
Imp.	Shell size	Termination*	Part Number 0,2 μm / tin plated	Termination*	Part Number 0,2 μm / 0,2 μm
50 Ω	1-4	L9	13-003423	G9	131A25019X
50 Ω	5	M1	13-003433	H1	131A25029X
75 Ω	1-4	M2	13-003443	H2	131A35019X
75 Ω	5	M3	13-003453	H3	131A35029X

\*Code use with part number creator

# COMBINATION D-SUB CONTACTS

Coaxial contacts – Angled – PCB termination – 5 solder pins



RoHS compliant – CSA listed, File No.: LR 115000-1–UL listed, File No.: E 228329

## DESCRIPTION

- 50 and 75 Ω-design
- Contact platings mating area:
  - .051 μ"/1.3 μm Au inner conductor /
  - .032 μ"/0.8 μm Au outer conductor
  - .008μ"/0.2 μm Au inner and outer conductor
- Contact platings termination area:
  - .008 μ"/0.2 μm Au
  - tin plated
- Other platings on request

## PRODUCT DRAWING

### 50 Ω version

Socket contact



Installation dimension



Plug contact



### 75 Ω version

Socket contact



For mounting connector on edge of PCB without metal bracket



Plug contact



## ORDER DATA

SOCKET CONTACT				
Imp.	Termination*	Part Number 1,3 μm / tin plated	Termination*	Part Number 1,3 μm / 0,2 μm
50 Ω	M4	13-003464	80	132J25519X
75 Ω	M5	13-003474	90	132J35519X

PLUG CONTACT				
Imp.	Termination*	Part Number 1,3 μm / tin plated	Termination*	Part Number 1,3 μm / 0,2 μm
50 Ω	M4	13-003484	80	131J25519X
75 Ω	M5	13-003494	90	131J35519X

SOCKET CONTACT				
Imp.	Termination*	Part Number 0,2 μm / tin plated	Termination*	Part Number 0,2 μm / 0,2 μm
50 Ω	M6	13-003463	H4	132A25519X
75 Ω	M7	13-003473	H5	132A35519X

PLUG CONTACT				
Imp.	Termination*	Part Number 0,2 μm / tin plated	Termination*	Part Number 0,2 μm / 0,2 μm
50 Ω	M6	13-003483	H4	131A25519X
75 Ω	M7	13-003493	H5	131A35519X

\*Code use with part number creator

# COMBINATION D-SUB – DUAL PORT WITH SIGNAL AND POWER CONTACTS

Solder pin – Angled – Precision machined contacts – Connector spacing .750" / 19,05 mm



RoHS compliant

## DESCRIPTION

- Designs: 5W1/ 7W2/ 13W3/ 17W2/ 17W5
- Mounting styles:
  - with mounting bracket and 4-40 UNC threaded insert
  - with mounting bracket, PCB clip and 4-40 UNC threaded insert
- Quality class 3 (also available in quality class 1)
- Shell: Steel tin plated (brass tin plated or stainless steel available on request)
- Other variations on request
- Upper connector is rotated 180 degrees

## PRODUCT DRAWING

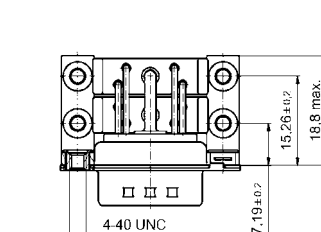
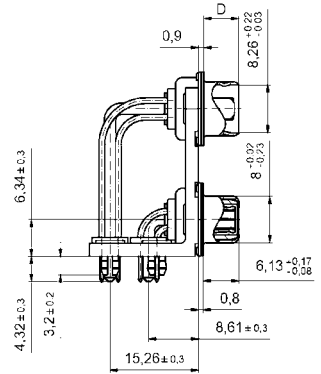
Type	A <sup>+0</sup> / <sub>-0.76</sub>	B1 <sup>+0.25</sup> / <sub>-0</sub>	B2 <sup>+0</sup> / <sub>-0.25</sub>	C	D <sup>+0</sup> / <sub>-0.3</sub>
5W1	31.19	16.79	16.46	25.00 <sup>+0.02</sup> / <sub>-0.02</sub>	6.12
7W2	39.52	25.12	24.79	33.30 <sup>+0.02</sup> / <sub>-0.02</sub>	6.12
13W3	53.42	38.84	38.50	47.04 <sup>+0.02</sup> / <sub>-0.02</sub>	5.99
17W2	53.42	38.84	38.50	47.04 <sup>+0.02</sup> / <sub>-0.02</sub>	5.99
17W5	69.70	55.30	54.96	63.50 <sup>+0.02</sup> / <sub>-0.02</sub>	5.99

Graphical representation of only one variant!

Mounting style: 4-40 UNC threaded insert



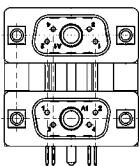
Mounting style: PCB clip and 4-40 UNC threaded insert



# COMBINATION D-SUB – DUAL PORT VARIATIONS

Solder pin – Angled – Precision machined contacts – Connector spacing .750" / 19,05 mm

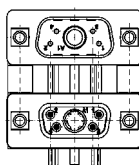
**ORDER DATA**



Variation:  
plug upper –  
plug bottom

Design	Mounting style 4-40 UNC	Part Number
2 x 5W1	Threaded insert	13-001013
2 X 7W2	Threaded insert	13-001023
2 X 13W3	Threaded insert	13-001033
2 X 17W2	Threaded insert	13-001043
2 X 17W5	Threaded insert	13-001053

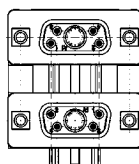
Design	Mounting style 4-40 UNC	Part Number
2 x 5W1	Threaded insert/PCB clip	13-001213
2 X 7W2	Threaded insert/PCB clip	13-001223
2 X 13W3	Threaded insert/PCB clip	13-001233
2 X 17W2	Threaded insert/PCB clip	13-001243
2 X 17W5	Threaded insert/PCB clip	13-001253



Variation:  
plug upper –  
socket bottom

Design	Mounting style 4-40 UNC	Part Number
2 x 5W1	Threaded insert	13-001063
2 X 7W2	Threaded insert	13-001073
2 X 13W3	Threaded insert	13-001083
2 X 17W2	Threaded insert	13-001093
2 X 17W5	Threaded insert	13-001103

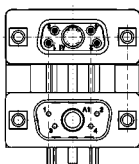
Design	Mounting style 4-40 UNC	Part Number
2 x 5W1	Threaded insert/PCB clip	13-001263
2 X 7W2	Threaded insert/PCB clip	13-001273
2 X 13W3	Threaded insert/PCB clip	13-001283
2 X 17W2	Threaded insert/PCB clip	13-001293
2 X 17W5	Threaded insert/PCB clip	13-001303



Variation:  
socket upper –  
socket bottom

Design	Mounting style 4-40 UNC	Part Number
2 x 5W1	Threaded insert	13-001113
2 X 7W2	Threaded insert	13-001123
2 X 13W3	Threaded insert	13-001133
2 X 17W2	Threaded insert	13-001143
2 X 17W5	Threaded insert	13-001153

Design	Mounting style 4-40 UNC	Part Number
2 x 5W1	Threaded insert/PCB clip	13-001313
2 X 7W2	Threaded insert/PCB clip	13-001323
2 X 13W3	Threaded insert/PCB clip	13-001333
2 X 17W2	Threaded insert/PCB clip	13-001343
2 X 17W5	Threaded insert/PCB clip	13-001353



Variation:  
socket upper –  
plug bottom

Design	Mounting style 4-40 UNC	Part Number
2 x 5W1	Threaded insert	13-001163
2 X 7W2	Threaded insert	13-001173
2 X 13W3	Threaded insert	13-001183
2 X 17W2	Threaded insert	13-001193
2 X 17W5	Threaded insert	13-001203

Design	Mounting style 4-40 UNC	Part Number
2 x 5W1	Threaded insert/PCB clip	13-001363
2 X 7W2	Threaded insert/PCB clip	13-001373
2 X 13W3	Threaded insert/PCB clip	13-001383
2 X 17W2	Threaded insert/PCB clip	13-001393
2 X 17W5	Threaded insert/PCB clip	13-001403

PCB clip .122" / 3.1 ± .004" / 0.10 mm hole diameter and .063" / 1.6 mm circuit board thickness

# COMBINATION D-SUB – DUAL PORT WITH POWER CONTACTS

Solder pin – Angled – Precision machined contacts – Connector spacing .750" / 19,05 mm



RoHS compliant

## DESCRIPTION

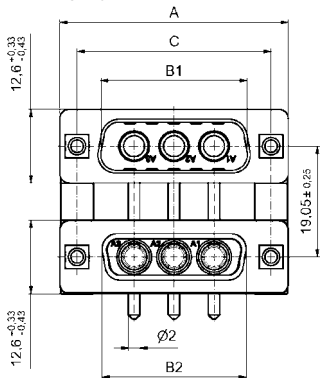
- Designs: 2W2C/3W3/3W3C/5W5/8W8
- Mounting styles:
  - with mounting bracket and 4-40 UNC threaded insert
  - with mounting bracket, PCB clip and 4-40 UNC threaded insert
- Quality class 3 (also available in quality class 1)
- Shell: Steel tin plated (brass tin plated or stainless steel available on request)
- Upper connector is rotated 180 degrees

## PRODUCT DRAWING

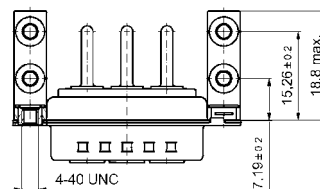
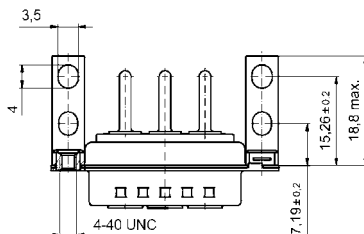
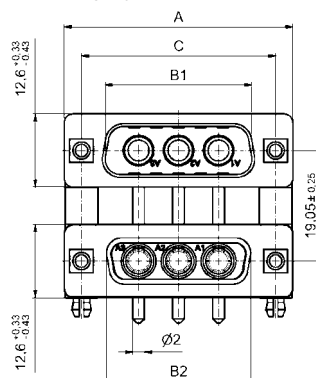
Type	A <sup>+0</sup> / <sub>-0.76</sub>	B1 <sup>+0.25</sup> / <sub>-0</sub>	B2 <sup>+0</sup> / <sub>-0.25</sub>	C	D <sup>+0</sup> / <sub>-0.3</sub>
2W2C	31.19	16.79	16.46	25.00 <sup>+0.12</sup> / <sub>-0.13</sub>	6.12
3W3	39.52	25.12	24.79	33.30 <sup>+0.15</sup> / <sub>-0.16</sub>	6.12
3W3C	39.52	25.12	24.79	33.30 <sup>+0.15</sup> / <sub>-0.16</sub>	6.12
5W5	53.42	38.84	38.50	47.04 <sup>+0.13</sup> / <sub>-0.13</sub>	5.99
8W8	69.70	55.30	54.96	63.50 <sup>+0.13</sup> / <sub>-0.13</sub>	5.99

Graphical representation of only one variant!

Mounting style: 4-40 UNC threaded insert



Mounting style: PCB clip and 4-40 UNC threaded insert





# COMBINATION D-SUB – DUAL PORT VARIATIONS

Solder pin – Angled – Precision machined contacts – Connector spacing .750" / 19,05 mm

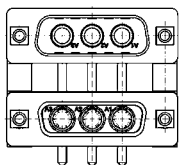
**ORDER DATA**



Design	Mounting style 4-40 UNC	Part Number
2 X 3W3	Threaded insert	13-001413
2 X 3W3	Threaded insert	13-001423
2 X 3W3C	Threaded insert	13-001433
2 X 5W5	Threaded insert	13-001443
2 X 8W8	Threaded insert	13-001453

Design	Mounting style 4-40 UNC	Part Number
2 X 2W2C	Threaded insert/PCB clip	13-001613
2 X 3W3	Threaded insert/PCB clip	13-001623
2 X 3W3C	Threaded insert/PCB clip	13-001633
2 X 5W5	Threaded insert/PCB clip	13-001643
2 X 8W8	Threaded insert/PCB clip	13-001653

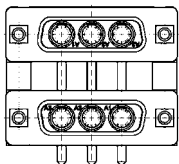
Variation:  
plug upper –  
plug bottom



Design	Mounting style 4-40 UNC	Part Number
2 X 2W2C	Threaded insert	13-001463
2 X 3W3	Threaded insert	13-001473
2 X 3W3C	Threaded insert	13-001483
2 X 5W5	Threaded insert	13-001493
2 X 8W8	Threaded insert	13-001503

Design	Mounting style 4-40 UNC	Part Number
2 X 2W2C	Threaded insert/PCB clip	13-001663
2 X 3W3	Threaded insert/PCB clip	13-001673
2 X 3W3C	Threaded insert/PCB clip	13-001683
2 X 5W5	Threaded insert/PCB clip	13-001693
2 X 8W8	Threaded insert/PCB clip	13-001703

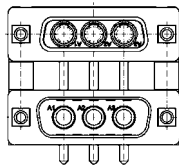
Variation:  
plug upper –  
socket bottom



Design	Mounting style 4-40 UNC	Part Number
2 X 2W2C	Threaded insert	13-001513
2 X 3W3	Threaded insert	13-001523
2 X 3W3C	Threaded insert	13-001533
2 X 5W5	Threaded insert	13-001543
2 X 8W8	Threaded insert	13-001553

Design	Mounting style 4-40 UNC	Part Number
2 X 2W2C	Threaded insert/PCB clip	13-001713
2 X 3W3	Threaded insert/PCB clip	13-001723
2 X 3W3C	Threaded insert/PCB clip	13-001733
2 X 5W5	Threaded insert/PCB clip	13-001743
2 X 8W8	Threaded insert/PCB clip	13-001753

Variation:  
socket upper –  
socket bottom



Design	Mounting style 4-40 UNC	Part Number
2 X 2W2C	Threaded insert	13-001563
2 X 3W3	Threaded insert	13-001573
2 X 3W3C	Threaded insert	13-001583
2 X 5W5	Threaded insert	13-001593
2 X 8W8	Threaded insert	13-001603

Design	Mounting style 4-40 UNC	Part Number
2 X 2W2C	Threaded insert/PCB clip	13-001763
2 X 3W3	Threaded insert/PCB clip	13-001773
2 X 3W3C	Threaded insert/PCB clip	13-001783
2 X 5W5	Threaded insert/PCB clip	13-001793
2 X 8W8	Threaded insert/PCB clip	13-001803

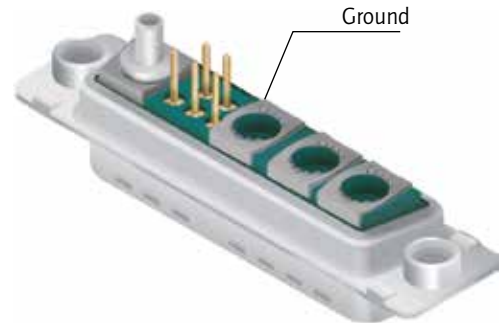
Variation:  
socket upper –  
plug bottom

PCB clip .122" / 3.1 ± .004" / 0.10 mm hole diameter and .063" / 1.6 mm circuit board thickness

## COMBINATION D-SUB ACCESSORIES

### Grounding for coaxial contacts

To optimize a perfect ground connection from the coaxial contact (outer conductor) to the metal shell. (Factory installed)..



### Guide post

For safe mating of male and female connectors with contact loss. Guide post made for metal can be installed after connector is mounted.



### Part Number

Guide post      160X11279X

### Hole plug

The hole plug can be used for both male and female connector. The assembly is implemented from the mating side. The hole plug is used to plug un wanted holes in the insulator.

Material: Polyester GF UL 94 V-0

Colour: black



### Part Number

Hole plug      160X0939X

## CONVERSION TABLE

$\mu\text{m}$ 1/1000 mm	$\mu\text{inch}$ 1/1000 inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch
0,10	4	3,30	.130	10,16	.400	19,50	.768	30,90	1.217	49,50	1.949
0,20	8	3,40	.134	10,26	.402	19,70	.776	31,00	1.220	49,90	1.965
0,25	10	3,50	.138	10,36	.406	19,80	.780	31,20	1.228	50,10	1.972
0,30	12	3,60	.142	10,56	.413	19,90	.783	31,50	1.240	50,30	1.980
0,50	20	3,70	.146	10,66	.417	20,00	.787	31,70	1.248	50,50	1.988
0,70	28	3,80	.150	10,76	.421	20,10	.791	32,00	1.260	50,70	1.996
0,75	30	3,81	.150	11,00	.433	20,30	.799	32,20	1.268	50,80	2.000
0,80	32	3,90	.154	11,20	.441	20,32	.800	32,30	1.272	51,40	2.024
1,00	39	4,00	.158	11,40	.449	20,50	.807	32,50	1.280	51,50	2.028
1,27	50	4,10	.161	11,50	.453	21,00	.827	32,80	1.291	52,00	2.047
2,00	79	4,20	.165	11,60	.457	21,10	.831	33,00	1.299	52,30	2.059
2,50	98	4,30	.169	11,90	.469	21,70	.854	33,10	1.303	52,80	2.079
3,00	118	4,50	.177	12,00	.472	22,00	.866	33,30	1.311	53,00	2.087
4,00	157	4,70	.185	12,20	.480	22,10	.870	33,80	1.331	53,20	2.095
5,00	197	4,90	.193	12,30	.484	22,20	.874	34,00	1.339	53,80	2.118
<b>mm</b>	<b>inch</b>	5,00	.197	12,40	.488	22,30	.878	34,20	1.346	54,00	2.126
0,10	.004	5,08	.200	12,50	.492	22,40	.882	34,40	1.354	54,20	2.134
0,20	.008	5,10	.201	12,70	.500	22,50	.886	35,00	1.378	54,90	2.161
0,25	.012	5,20	.205	12,90	.508	22,60	.890	35,40	1.394	55,00	2.165
0,35	.014	5,30	.209	13,00	.512	22,80	.898	35,50	1.398	55,40	2.181
0,40	.016	5,40	.213	13,10	.516	22,86	.900	35,56	1.400	55,70	2.193
0,45	.018	5,50	.217	13,20	.520	22,90	.902	35,60	1.402	56,60	2.228
0,50	.020	5,60	.220	13,50	.532	23,00	.906	36,00	1.417	57,40	2.260
0,55	.022	5,70	.224	13,60	.535	23,10	.909	36,50	1.437	57,80	2.276
0,60	.024	5,80	.228	13,70	.539	23,30	.917	36,60	1.441	57,90	2.280
0,64	.025	6,00	.236	13,90	.547	23,50	.925	36,70	1.445	58,42	2.300
0,65	.026	6,10	.240	14,00	.551	24,00	.945	37,00	1.457	59,00	2.323
0,70	.028	6,40	.252	14,30	.563	24,30	.957	37,30	1.469	59,20	2.331
0,75	.030	6,50	.256	14,40	.567	24,60	.969	37,50	1.476	59,80	2.354
0,80	.032	6,60	.260	14,50	.571	24,90	.980	37,60	1.480	59,90	2.358
0,85	.034	6,70	.264	14,70	.579	25,00	.984	37,70	1.484	60,00	2.362
0,90	.035	6,80	.268	14,80	.583	25,10	.998	37,90	1.492	60,96	2.400
1,00	.039	6,90	.272	14,90	.587	25,40	1.000	38,00	1.496	61,10	2.406
1,20	.047	7,00	.276	14,98	.590	25,60	1.008	38,10	1.500	62,00	2.441
1,25	.049	7,10	.280	15,00	.591	25,90	1.020	39,00	1.535	63,00	2.480
1,27	.050	7,20	.283	15,20	.598	26,00	1.024	39,20	1.543	63,50	2.500
1,30	.051	7,40	.291	15,24	.600	26,30	1.035	39,30	1.547	64,00	2.520
1,35	.053	7,50	.295	15,40	.606	26,60	1.047	39,90	1.571	65,00	2.560
1,40	.055	7,60	.299	15,50	.610	26,70	1.051	40,00	1.575	67,00	2.638
1,45	.057	7,62	.300	15,60	.614	27,00	1.063	40,30	1.587	68,00	2.677
1,50	.059	7,70	.303	15,90	.626	27,20	1.071	40,40	1.591	69,00	2.717
1,60	.063	7,80	.307	16,00	.630	27,40	1.079	40,60	1.598	70,00	2.756
1,70	.067	7,98	.314	16,20	.638	27,50	1.093	41,00	1.614	71,00	2.795
1,80	.071	8,00	.315	16,50	.650	27,90	1.098	41,60	1.638	74,00	2.913
1,85	.073	8,18	.318	16,60	.654	27,94	1.100	42,70	1.681	75,00	2.953
1,90	.075	8,20	.323	16,80	.661	28,00	1.102	43,18	1.700	76,20	3.000
2,00	.079	8,30	.327	17,00	.669	28,20	1.110	44,20	1.740	77,00	3.032
2,10	.083	8,40	.331	17,20	.677	28,50	1.122	44,80	1.764	78,74	3.100
2,20	.087	8,50	.335	17,30	.681	28,70	1.130	45,80	1.803	80,00	3.150
2,30	.091	8,60	.339	17,50	.689	29,00	1.142	46,30	1.823	81,28	3.200
2,40	.095	8,90	.350	17,60	.693	29,20	1.150	46,70	1.839	84,00	3.307
2,50	.098	9,00	.354	17,70	.697	29,40	1.158	47,00	1.850	85,00	3.346
2,54	.100	9,10	.358	17,78	.700	29,50	1.161	47,20	1.858	86,36	3.400
2,60	.102	9,20	.362	17,80	.701	29,70	1.169	47,30	1.862	88,90	3.500
2,70	.106	9,30	.366	17,90	.705	29,90	1.177	47,50	1.870	90,00	3.543
2,80	.110	9,40	.370	18,00	.709	30,00	1.181	47,80	1.882	91,44	3.600
2,84	.112	9,50	.374	18,10	.713	30,20	1.189	48,00	1.890	94,00	3.701
2,90	.114	9,60	.378	18,30	.721	30,40	1.197	48,10	1.894	95,00	3.740
3,00	.118	9,70	.382	18,60	.732	30,48	1.200	48,26	1.900	100,00	3.937
3,10	.122	9,90	.390	19,00	.748	30,50	1.201	48,80	1.921	110,00	4.331
3,20	.126	10,00	.395	19,20	.756	30,80	1.213	49,10	1.933	120,00	4.724

## SECTION 2

# COMBINATION D-SUB CONNECTORS

Combination D-SUB Connectors provide the ideal solution for applications to require power, signal and coaxial connections within one connector. This series of connectors achieves space saving on PCB's and I/O designs.

Within this product family are various pin out configurations possible. Almost endless selections can be created mixing power, signal and coaxial contacts.



Examples are coaxial contacts handling frequencies up to 2 GHz. Power contacts from 10 amp to 40 amp current handling. Signal contacts in various styles complete the product offering.



Industry standard terminations types, solder cup, PCB contacts in straight and angled pin configurations. Crimp types and wire wrap contacts.

**Here are just a few Product characteristics:**

- Space savings on the PCB
- Different wire terminations are possible in a single connector
- Cost savings - mixed layout
- Insertable and removable coaxial, power, high voltage and signal contacts
- Precision machined contacts
- Various quality classes are available
- Wide product range

A wide range of standard pin configurations fully loaded with signal contacts are available. Specially configured contacts with power, coaxial and signal contacts can be constructed. Please use the Part Number Creator on page 2 | 2 and 2 | 3 or contact technical support at your closest CONEC office.



# PART NUMBER CREATOR

for standard version

**3 003W3 S X X 6 1 A 1 0 X**

**Product Line**

- 3 = Shell steel tin plated
- 1 = Brass tin plated\*
- 5 = Shell yellow chromated\* (not RoHS compliant)
- A = Stainless steel\* \*on request

**Shell size and design**

- 1 = 5W1, 2W2C
  - 2 = 3W3, 7W2, 11W1, 3W3C
  - 3 = 5W5, 9W4, 13W3, 17W2, 21W1
  - 4 = 8W8, 13W6, 17W5, 21WA4, 25W3, 27W2
  - 5 = 24W7, 36W4, 43W2, 47W1
- Empty positions ADD „0“ = 003W3

**Contact type**

- P = Plug connector
- S = Socket connector

**Surface/Quality class for SIGNAL contacts**

- A = Quality class 3 = 50 mating cycles
- B = Quality class 2 = 200 mating cycles\*
- C = Quality class 1 = 500 mating cycles
- J = Special application = > 500 mating cycles (on request)\*
- X = Crimp and 3W3, 5W5, 8W8, 2W2C, 3W3C (no contacts are supplied with the connector) \*on request

**Termination only for SIGNAL contacts**

- |                                                                                                                                                                                                                                                                        |                                                                                                                                                                                                                                                                       |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <ul style="list-style-type: none"> <li>K = Crimp without contacts</li> <li>M = Solder cup</li> <li>N = Wire wrap, .500" / 12.7 mm</li> <li>P = Press fit</li> <li>R = Solder pin, straight, .220" / 5.6 mm</li> <li>T = Solder pin, angled, .280" / 7.19 mm</li> </ul> | <ul style="list-style-type: none"> <li>U = Solder pin, angled, .370" / 9.40 mm</li> <li>W* = Solder pin, angled, .450" / 11.43 mm</li> <li>X = 3W3, 5W5, 8W8, 2W2C, 3W3C</li> <li>Z* = Solder pin, angled, .540" / 13.84 mm</li> <li>* = please contact us</li> </ul> |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

**Termination for HIGH POWER- or COAXIAL contacts**

- |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p><b>Quality class 3 / Quality class 1</b></p> <ul style="list-style-type: none"> <li>C1 = Solder/Crimp angled 10 A</li> <li>C2 = Solder/Crimp angled 20 A</li> <li>C3 = Solder/Crimp angled 30 A</li> <li>C4 = Solder/Crimp angled 40 A</li> <li>F2,61 / F1,41 = Solder cup 10 A</li> <li>F4,62 / F3,42 = Solder cup 20 A</li> <li>F6,63 / F5,43 = Solder cup 30 A</li> <li>F8,64 / F7,44 = Solder cup 40 A</li> <li>68 / 48 = Solder pin, straight 20 A, D= .077" / 1.95 mm</li> <li>69 / 49 = Solder pin, straight 20 A, D= .102" / 2.60 mm</li> <li>70 / 50 = Solder pin, straight 20 A, D= .110" / 2.85 mm</li> <li>71 / 51 = Solder pin, straight 30 A, D= .130" / 3.18 mm</li> <li>72 / 52 = Solder pin, straight 40 A, D= .150" / 3.75 mm</li> </ul> | <p><b>Quality class 3 / Quality class 1</b></p> <ul style="list-style-type: none"> <li>59 / 55 = Solder pin, angled 15 A</li> <li>73 / 56 = Solder pin, angled 20 A</li> <li>74 / 57 = Solder pin, angled 30 A</li> <li>75 / 58 = Solder pin, angled 40 A</li> <li>77 / 60 = Solder pin, angled 40 A</li> <li>81 / 66 = Solder pin, angled 20 A</li> <li>82 / 67 = Solder pin, angled 30 A</li> <li>85 / 65 = Solder pin, angled 30 A</li> <li>G7 / 76 = 3 Solder pins Straight 50 Ω</li> <li>G9 / 78 = 3 Solder pins angled 50 Ω</li> <li>H1 / 79 = 3 Solder pins angled 50 Ω</li> <li>H4 / 80 = 5 Solder pins angled 50 Ω</li> <li>G8 / 86 = 3 Solder pins Straight 75 Ω</li> </ul> | <p><b>Quality class 3 / Quality class 1</b></p> <ul style="list-style-type: none"> <li>H2 / 88 = 3 Solder pins angled 75 Ω</li> <li>H3 / 89 = 3 Solder pins angled 75 Ω</li> <li>H5 / 90 = 5 Solder pins angled 75 Ω</li> <li>91 = Screw termination 20 A</li> <li>/P1 = press fit 30A</li> <li>/P2 = press fit 30A</li> <li>/P4 = press fit 30A</li> <li>99 = no high power, coax or crimp contacts loaded<br/>Coaxial contacts with cable termination must be ordered separately.</li> </ul> |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

**Mounting style**

- |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <ul style="list-style-type: none"> <li>A1 = Riveted</li> <li>A2 = M3 threaded insert</li> <li>A3 = 4-40 UNC threaded insert</li> <li>A4 = M3 threaded rear spacer</li> <li>A5 = 4-40 UNC threaded rear spacer</li> <li>A6 = Float fastening</li> <li>A7 = Threaded rear spacer for M3 press fit</li> <li>A8 = Threaded rear spacer for 4-40 UNC press fit</li> <li>C1 = M3 threaded rear spacer with PCB clip, PCB .063" / 1.60 mm</li> <li>C2 = 4-40 UNC threaded rear spacer with PCB clip, PCB .063" / 1.60 mm</li> <li>C3 = M3 threaded rear spacer with PCB clip, PCB .091" / 2.30 mm</li> <li>C4 = 4-40 UNC threaded rear spacer with PCB clip, PCB .091" / 2.30 mm</li> <li>C5 = M3 threaded rear spacer with PCB clip, PCB .126" / 3.20 mm</li> <li>C6 = 4-40 UNC Threaded rear spacer with PCB clip, PCB .126" / 3.20 mm</li> <li>D1 = M3 clip and threaded rear spacer with PCB clip, PCB .063" / 1.60 mm</li> <li>D2 = 4-40 UNC clip and threaded rear spacer with PCB clip, PCB .063" / 1.60 mm</li> <li>D3 = M3 clip and threaded rear spacer with PCB clip, PCB .091" / 2.30 mm</li> <li>D4 = 4-40 UNC clip and threaded rear spacer with PCB clip, PCB .091" / 2.30 mm</li> <li>D5 = M3 clip and threaded rear spacer with PCB clip, PCB .126" / 3.20 mm</li> <li>D6 = 4-40 UNC clip and threaded rear spacer with PCB clip, PCB .126" / 3.20 mm</li> <li>E1 = M3 threaded rear spacer with PCB clip, PCB .063" / 1.60 mm</li> <li>E2 = 4-40 UNC threaded rear spacer with PCB clip, PCB .063" / 1.60 mm</li> <li>E3 = M3 threaded rear spacer with PCB clip, PCB .091" / 2.30 mm</li> <li>E4 = 4-40 UNC threaded rear spacer with PCB clip, PCB .091" / 2.30 mm</li> <li>E5 = M3 threaded rear spacer with PCB clip, PCB .126" / 3.20 mm</li> </ul> | <ul style="list-style-type: none"> <li>E6 = 4-40 UNC threaded rear spacer with PCB clip, PCB .126" / 3.20 mm</li> <li>F1 = M3 clip and threaded rear spacer with PCB clip, PCB .063" / 1.60 mm</li> <li>F2 = 4-40 UNC clip and threaded rear spacer with PCB clip, PCB .063" / 1.60 mm</li> <li>F3 = M3 clip and threaded rear spacer with PCB clip, PCB .091" / 2.30 mm</li> <li>F4 = 4-40 UNC clip and threaded rear spacer with PCB clip, PCB .091" / 2.30 mm</li> <li>F5 = M3 clip and threaded rear spacer with PCB clip, PCB .126" / 3.20 mm</li> <li>F6 = 4-40 UNC clip and threaded rear spacer with PCB clip, PCB .126" / 3.20 mm</li> <li>G1 = Metal bracket, M3 threaded insert for .370" / 9.40 mm</li> <li>G2 = Metal bracket, 4-40 UNC threaded insert for .370" / 9.40 mm</li> <li>G3 = Metal bracket, M3 threaded insert and clip for .370" / 9.40 mm</li> <li>G4 = Metal bracket, 4-40 UNC threaded insert and clip for .370" / 9.40 mm</li> <li>H1 = Metal bracket, M3 threaded lock for .370" / 9.40 mm</li> <li>H2 = Metal bracket, 4-40 UNC threaded lock for .370" / 9.40 mm</li> <li>H3 = Metal bracket, M3 threaded lock and clip for .370" / 9.40 mm</li> <li>H4 = Metal bracket, 4-40 UNC threaded lock and clip for .370" / 9.40 mm</li> <li>N1 = Metal bracket, M3 threaded insert for .280" / 7.19 mm</li> <li>N2 = Metal bracket, 4-40 UNC threaded insert for .280" / 7.19 mm</li> <li>N3 = Metal bracket, M3 threaded insert and clip for .280" / 7.19 mm</li> <li>N4 = Metal bracket, 4-40 UNC threaded insert and clip for .280" / 7.19 mm</li> <li>P1 = Metal bracket, M3 threaded lock for .280" / 7.19 mm</li> <li>P2 = Metal bracket, 4-40 UNC threaded lock for .280" / 7.19 mm</li> <li>P3 = Metal bracket, M3 threaded lock and clip for .280" / 7.19 mm</li> <li>P4 = Metal bracket, 4-40 UNC threaded lock and clip for .280" / 7.19 mm</li> <li>W1 = Threaded rear spacer with M3 press in pin</li> <li>W2 = Threaded rear spacer with 4-40 UNC press in pin</li> </ul> |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

OX = Standard

# PART NUMBER CREATOR

for High Density

**3 H19W1 S C M 4 1 A 1 O X**

**Product Line**

- 1 = Shell brass tin plated
- 3 = Shell tin plated\*
- 5 = Shell yellow chromated\* (not RoHS compliant)
- A = Shell stainless steel\* \*on request

**Shell size and design**

- 2 =19W1
- 3 =15W4
- 4 =45W2 H = High Density

**Contact type**

- P = Plug connector
- S = Socket connector

**Quality class for SIGNAL contacts**

- A = Quality class 3 = 50 mating cycles
- B = Quality class 2 = 200 mating cycles\*
- C = Quality class 1 = 500 mating cycles
- J = Special application => 500 mating cycles\* \*on request

**Termination only for SIGNAL contacts**

- M = Solder cup
- P = Press-fit\*
- R = Solder pin, straight
- W = Solder pin, angled .450" / 11,43 mm\*
- T = Solder pin, angled .350" / 7,98 mm \*on request

**Termination for HIGH POWER- or COAXIAL contacts**

**Quality class 3/Quality class 1**

- F2,61/F1,41 = Solder cup 10 A
- F4,62/F3,42 = Solder cup 20 A
- F6,63/F5,43 = Solder cup 30 A
- F8,64/F7,44 = Solder cup 40 A
- 68/48 = Solder pin, straight 20 A, D= .077"/1.95 mm
- 69/49 = Solder pin, straight 20 A, D= .102"/2.60 mm
- 70/50 = Solder pin, straight 20 A, D= .110"/2.85 mm
- 71/51 = Solder pin, straight 30 A, D= .130"/3.18 mm
- 72/52 = Solder pin, straight 40 A, D= .150"/3.75 mm
- 59/55 = Solder pin, angled 15 A
- 73/56 = Solder pin, angled 20 A
- 74/57 = Solder pin, angled 30 A
- 75/58 = Solder pin, angled 40 A

**Quality class 3/Quality class 1**

- 77/60 = Solder pin, angled 40 A
- 81/66 = Solder pin, angled 20 A
- 82/67 = Solder pin, angled 30 A
- 85/65 = Solder pin, angled 30 A
- G7/76 = 3 Solder pins Straight 50 Ω
- G9/78 = 3 Solder pins angled 50 Ω
- H1/79 = 3 Solder pins angled 50 Ω
- H4/80 = 5 Solder pins angled 50 Ω
- G8/86 = 3 Solder pins Straight 75 Ω
- H2/88 = 3 Solder pins angled 75 Ω
- H3/89 = 3 Solder pins angled 75 Ω
- H5/90 = 5 Solder pins angled 75 Ω
- 91 = Screw termination 20 A

**Quality class 1**

- P1 = press fit 30A
  - P2 = press fit 30A
  - P4 = press fit 30A
  - 99 = no high power, coax or crimp contacts loaded
- Coaxial contacts with cable termination must be ordered separately.

**Mounting style**

- A1 = Riveted
- A2 = M3 threaded insert
- A3 = 4-40 UNC threaded insert
- A4 = M3 threaded rear spacer
- A5 = 4-40 UNC threaded rear spacer
- A6 = Float fastening
- A7 = Threaded rear spacer for M3 press fit
- A8 = Threaded rear spacer for 4-40 UNC press fit
- E1 = M3 threaded rear spacer with PCB clip, PCB .063"/1.60 mm
- E2 = 4-40 UNC threaded rear spacer with PCB clip, PCB .063"/1.60 mm
- E3 = M3 threaded rear spacer with PCB clip, PCB .091"/2.30 mm
- E4 = 4-40 UNC threaded rear spacer with PCB clip, PCB .091"/2.30 mm
- E5 = M3 threaded rear spacer with PCB clip, PCB .126"/3.20 mm
- E6 = 4-40 UNC threaded rear spacer with PCB clip, PCB .126"/3.20 mm
- F1 = M3 clip and threaded rear spacer with PCB clip, PCB .063"/1.60 mm
- F2 = 4-40 UNC clip and threaded rear spacer with PCB clip, PCB .063"/1.60 mm
- F3 = M3 clip and threaded rear spacer with PCB clip, PCB .091"/2.30 mm
- F4 = 4-40 UNC clip and threaded rear spacer with PCB clip, PCB .091"/2.30 mm
- F5 = M3 clip and threaded rear spacer with PCB clip, PCB .126"/3.20 mm
- F6 = 4-40 UNC clip and threaded rear spacer with PCB clip, PCB .126"/3.20 mm
- G5 = Metal bracket, M3 threaded insert for .350"/7,98 mm
- G6 = Metal bracket, 4-40 UNC threaded insert for .350"/7,98 mm
- G7 = Metal bracket, M3 threaded insert and Clip for .350"/7,98 mm
- G8 = Metal bracket, 4-40 UNC threaded insert and Clip for .350"/7,98 mm
- H5 = Metal bracket, M3 threaded lock for .350"/7,98 mm
- H6 = Metal bracket, 4-40 UNC threaded lock for .350"/7,98 mm
- H7 = Metal bracket, M3 threaded lock and Clip for .350"/7,98 mm
- H8 = Metal bracket, 4-40 UNC threaded lock and Clip for .350"/7,98 mm
- W1 = Threaded rear spacer with M3 press in pin
- W2 = Threaded rear spacer with 4-40 UNC press in pin

OX = Standard

# TECHNICAL DATA

## Standard version

Materials	Connector with signal contacts	Coaxial contacts	High power contacts	High voltage contacts
Insulator Green standard / black crimp	PBTP, GV (UL94 V-0)			
Shell	steel tin plated brass tin / stainless steel on request			
Contact plating	Gold plated over nickel			
Contact material	CU alloy			
Retaining clip	CU alloy			
Insulator		PTFE/PBTP/PI		PTFE
<b>Mechanical and electrical characteristics</b>				
Current rating	7,5A (UL) / 5A (CSA, VDE)			
Test voltage between 2 contacts contact and shell	1000 V, 50Hz 1 min.		1000 V, 50Hz 1 min.	
Resistance between mated contacts	max. 8 mΩ	max. 2.7 mΩ	max. 1 mΩ	max. 2.7 mΩ
Insulation resistance	≥5 GΩ	≥ 10 GΩ	≥ 5 GΩ	≥ 2x10 <sup>7</sup> MΩ
Volume resistivity	10 <sup>16</sup> Ωcm			
Dielectric impedance	50KV/mm			
Characteristic impedance		50/75 Ω		
VSWR-value at according MIL-C-39012	1.2GHz 1.5GHz 2.0GHz	≤1,2 ≤1,3 ≤1,5		
Dielectric voltage		750V 50Hz		3.8kV
Frequency range		0-2GHz		
Working voltage	250 V	250 V	250 V	max. 2.8kV
Temperature range	-55°C to +125°C			
Insertion force per contact	3.4N	7N	7N	5N
Extraction force per contact	0.2N	7N	approx. 5N	approx. 2.5N
Mating cycles	A = Quality class 3 = 50 mating cycles, B = Quality class 2 = 200 mating cycles, C = Quality class 1 = 500 mating cycles			

Technical specifications are subject to change without notice.



# TECHNICAL DATA

## High Density

Materials	Connector with signal contacts	Coaxial contacts	High power contacts	High voltage contacts
Insulator Green standard / black crimp	PBTP, GV (UL94 V-0)			
Shell	steel tin plated brass tin / stainless steel on request			
Contact plating	Gold plated over nickel			
Contact material	CU alloy			
Retaining clip	CU alloy			
Insulator		PTFE/PBTP/PI		PTFE
<b>Mechanical and electrical characteristics</b>				
Current rating	3 A (ULVDE) / 2,5 A (CSA)			
Test voltage between 2 contacts contact and shell	1000 V, 50Hz 1 min.		1000 V, 50Hz 1 min.	
Resistance between mated contacts	max. 10m $\Omega$	max. 2.7m $\Omega$	max. 1m $\Omega$	max. 2.7m $\Omega$
Insulation resistance	$\geq 5G\Omega$	$\geq 10G\Omega$	$\geq 5G\Omega$	$2 \times 10^7 M\Omega$
Volume resistivity	$10^{16} \Omega \text{cm}$			
Dielectric impedance	50kV/mm			
Characteristic impedance		50/75 $\Omega$		
VSWR-value at according MIL-C-39012	1.2GHz 1.5GHz 2.0GHz	$\leq 1.2$ $\leq 1.3$ $\leq 1.5$		
Dielectric voltage		750V 50Hz		3.8kV
Frequency range		0-2GHz		
Working voltage	60V	250 V	250 V	max. 2.8kV
Temperature range	-55°C to +125°C			
Insertion force per contact	3,4N	7N	7N	5N
Extraction force per contact	0,2N	7N	approx. 5N	approx. 2.5N
Mating cycles	A =Quality class 3 = 50 mating cycles, B =Quality class 2 = 200 mating cycles, C = Quality class 1 = 500 mating cycles			

Technical specifications are subject to change without notice.

# PIN CONFIGURATION – MATING SIDE OF SOCKET CONNECTOR

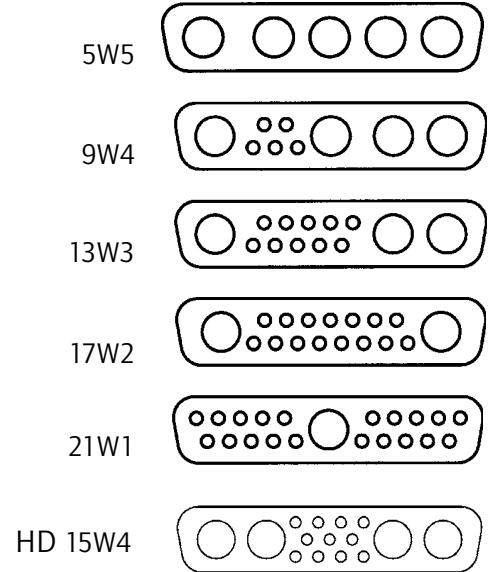
## SHELL SIZE 1



## SHELL SIZE 2



## SHELL SIZE 3



## SHELL SIZE 4



## SHELL SIZE 5



Connectors 3W3, 5W5 and 8W8 with female insulators: Socket contacts are fingerprobe safe according to UL 1950 and CSA 22.2.950.

# TECHNICAL INFORMATION

## SKIN EFFECT

Alternating currents do not uniformly occupy the entire cross section of the conductor, rather inductance effect in the conductor deflects the current towards the surface of the conductor, whereby this deflection increases with the frequency.

The resistive attenuation of a transmission line increases with the frequency as a result of this skin effect.

The skin depth (equivalent thickness of the layer in which current flows) can be determined using

$$\delta = \frac{1}{\sqrt{f \pi \sigma \mu_0 \mu_r}}$$

f = frequency

$\sigma$  = conductivity of the conductor material

$\sigma_{Ag} = 62 \times 10^6 \text{ S/m}$

$\sigma_{Cu} = 58 \times 10^6 \text{ S/m}$

$\mu_0 = 1,256 \cdot 10^{-6} \text{ Vs / Am}$

$\mu_r$  ... relative permeability constant for the employed material

## VSWR-VALUE

The ratio between the value of the largest and the smallest voltages on a loss-free line is known as the ripple or voltage standing wave ratio s (where  $1 \leq s < \infty$ ). The reciprocal value of the VSWR is known as the inverse voltage standing wave ratio m (where  $0 < m \leq 1$ ).

(VSWR = Voltage standing wave ratio)

The value of s is linked with the → reflection coefficient r on s transmission line according to the equation

$$s = \frac{(1 + |r|)}{(1 - |r|)}$$

## DERATING CURVE

Measurement is according to DIN 41640 part 3 whereas all power contacts are connected in series.

For test procedure – product-no. 3008W8SXX99A has been equipped with 132C11049X and 3008W8PXX99AA10X with 131C11049X.



# MATING CONDITIONS

Float mount tolerance guide



Rigid mount tolerance guide



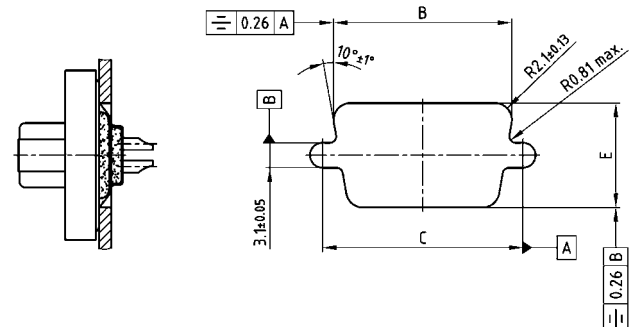
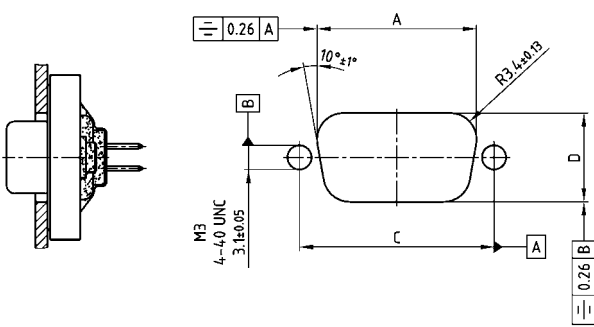
Rigid mount vertical to tolerance guide



PANEL CUT-OUT

Rear panel mounting

Front panel mounting



Shell size	A $\pm 0,13$	B $\pm 0,13$	C $\pm 0,13$	D $\pm 0,13$	E $\pm 0,13$
1	20.50	22.20	25.00	11.40	13.00
2	28.80	30.50	33.30	11.40	13.00
3	42.50	44.30	47.04	11.40	13.00
4	59.10	60.70	63.50	11.40	13.00
5	56.30	58.30	61.10	14.10	15.80

# CRIMPING INSTRUCTIONS FOR COAX CONTACTS



Strip the wire  
Using dimensions shown on the  
individual product drawings



Slide sleeve over coax cable



Crimp the inner contact on the  
inner conductor



Snap the inner contact into  
the outer contact



Slide braid over outer contact



Crimp the sleeve on to outer  
contact

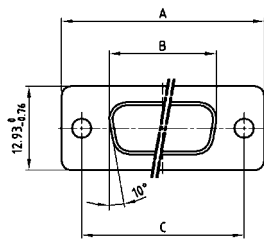
# COMBINATION D-SUB WITH SIGNAL CONTACTS

Solder cup – Precision machined contacts – For wire size AWG 20



RoHS compliant – CSA listed, File No.: LR 115000-1 – UL listed, File No.: E 228329

## SOCKET CONNECTOR

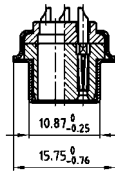


Shellsize	A -0.76	B -0.25	C
1	31.19	16.46	25.00 <sup>+0.12</sup> <sub>-0.13</sub>
2	39.52	24.79	33.30 <sup>+0.15</sup> <sub>-0.10</sub>
3	53.42	38.50	47.04 <sup>+0.13</sup>
4	69.70	54.96	63.50 <sup>+0.13</sup>
5	67.31	52.55	61.10 <sup>+0.14</sup> <sub>-0.11</sub>

Shell size 1-4



Shell size 5



## DESCRIPTION

- Suitable for wire size AWG 20
- Mounting styles:
  - with through-hole, Ø .118" / 3 mm
  - with 4-40 UNC or M3 threaded insert
  - with floating mount
- Quality class 3 (also available in quality class 1)
- Shell: Steel tin plated  
(brass tin plated or stainless steel available on request)
- recommended plastic hoods look at page 7 | 16, 7 | 17

## PLUG CONNECTOR

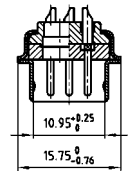


Shellsize	A -0.76	B -0.25	C	D -0.30
1	31.19	16.79	25.00 <sup>+0.12</sup> <sub>-0.13</sub>	6.12
2	39.52	25.12	33.30 <sup>+0.15</sup> <sub>-0.10</sub>	6.12
3	53.42	38.84	47.04 <sup>+0.13</sup>	5.99
4	69.70	55.30	63.50 <sup>+0.13</sup>	5.99
5	67.31	52.68	61.10 <sup>+0.14</sup> <sub>-0.11</sub>	5.99

Shell size 1-4



Shell size 5



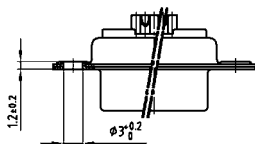
## ORDER DATA

### SOCKET CONNECTOR

Design	Mounting style	Part Number
5W1	Through-hole	3005W1SAM99A10X
7W2	Through-hole	3007W2SAM99A10X
11W1	Through-hole	3011W1SAM99A10X
9W4	Through-hole	3009W4SAM99A10X
13W3	Through-hole	3013W3SAM99A10X
17W2	Through-hole	3017W2SAM99A10X
21W1	Through-hole	3021W1SAM99A10X
13W6	Through-hole	3013W6SAM99A10X
17W5	Through-hole	3017W5SAM99A10X
21WA4	Through-hole	321WA4SAM99A10X
25W3	Through-hole	3025W3SAM99A10X
27W2	Through-hole	3027W2SAM99A10X
24W7	Through-hole	3024W7SAM99A10X
36W4	Through-hole	3036W4SAM99A10X
43W2	Through-hole	3043W2SAM99A10X
47W1	Through-hole	3047W1SAM99A10X

### PLUG CONNECTOR

Design	Mounting style	Part Number
5W1	Through-hole	3005W1PAM99A10X
7W2	Through-hole	3007W2PAM99A10X
11W1	Through-hole	3011W1PAM99A10X
9W4	Through-hole	3009W4PAM99A10X
13W3	Through-hole	3013W3PAM99A10X
17W2	Through-hole	3017W2PAM99A10X
21W1	Through-hole	3021W1PAM99A10X
13W6	Through-hole	3013W6PAM99A10X
17W5	Through-hole	3017W5PAM99A10X
21WA4	Through-hole	321WA4PAM99A10X
25W3	Through-hole	3025W3PAM99A10X
27W2	Through-hole	3027W2PAM99A10X
24W7	Through-hole	3024W7PAM99A10X
36W4	Through-hole	3036W4PAM99A10X
43W2	Through-hole	3043W2PAM99A10X
47W1	Through-hole	3047W1PAM99A10X



# COMBINATION D-SUB – MOUNTING STYLES

Solder cup – Precision machined contacts – For wire size AWG 20

ORDER DATA



SOCKET CONNECTOR		
Design	Mounting style M3	Part Number
5W1	Threaded insert	3005W1SAM99A20X
7W2	Threaded insert	3007W2SAM99A20X
11W1	Threaded insert	3011W1SAM99A20X
9W4	Threaded insert	3009W4SAM99A20X
13W3	Threaded insert	3013W3SAM99A20X
17W2	Threaded insert	3017W2SAM99A20X
21W1	Threaded insert	3021W1SAM99A20X
13W6	Threaded insert	3013W6SAM99A20X
17W5	Threaded insert	3017W5SAM99A20X
21WA4	Threaded insert	321WA4SAM99A20X
25W3	Threaded insert	3025W3SAM99A20X
27W2	Threaded insert	3027W2SAM99A20X
24W7	Threaded insert	3024W7SAM99A20X
36W4	Threaded insert	3036W4SAM99A20X
43W2	Threaded insert	3043W2SAM99A20X
47W1	Threaded insert	3047W1SAM99A20X

PLUG CONNECTOR		
Design	Mounting style M3	Part Number
5W1	Threaded insert	3005W1PAM99A20X
7W2	Threaded insert	3007W2PAM99A20X
11W1	Threaded insert	3011W1PAM99A20X
9W4	Threaded insert	3009W4PAM99A20X
13W3	Threaded insert	3013W3PAM99A20X
17W2	Threaded insert	3017W2PAM99A20X
21W1	Threaded insert	3021W1PAM99A20X
13W6	Threaded insert	3013W6PAM99A20X
17W5	Threaded insert	3017W5PAM99A20X
21WA4	Threaded insert	321WA4PAM99A20X
25W3	Threaded insert	3025W3PAM99A20X
27W2	Threaded insert	3027W2PAM99A20X
24W7	Threaded insert	3024W7PAM99A20X
36W4	Threaded insert	3036W4PAM99A20X
43W2	Threaded insert	3043W2PAM99A20X
47W1	Threaded insert	3047W1PAM99A20X



SOCKET CONNECTOR		
Design	Mounting style 4-40 UNC	Part Number
5W1	Threaded insert	3005W1SAM99A30X
7W2	Threaded insert	3007W2SAM99A30X
11W1	Threaded insert	3011W1SAM99A30X
9W4	Threaded insert	3009W4SAM99A30X
13W3	Threaded insert	3013W3SAM99A30X
17W2	Threaded insert	3017W2SAM99A30X
21W1	Threaded insert	3021W1SAM99A30X
13W6	Threaded insert	3013W6SAM99A30X
17W5	Threaded insert	3017W5SAM99A30X
21WA4	Threaded insert	321WA4SAM99A30X
25W3	Threaded insert	3025W3SAM99A30X
27W2	Threaded insert	3027W2SAM99A30X
24W7	Threaded insert	3024W7SAM99A30X
36W4	Threaded insert	3036W4SAM99A30X
43W2	Threaded insert	3043W2SAM99A30X
47W1	Threaded insert	3047W1SAM99A30X

PLUG CONNECTOR		
Design	Mounting style 4-40 UNC	Part Number
5W1	Threaded insert	3005W1PAM99A30X
7W2	Threaded insert	3007W2PAM99A30X
11W1	Threaded insert	3011W1PAM99A30X
9W4	Threaded insert	3009W4PAM99A30X
13W3	Threaded insert	3013W3PAM99A30X
17W2	Threaded insert	3017W2PAM99A30X
21W1	Threaded insert	3021W1PAM99A30X
13W6	Threaded insert	3013W6PAM99A30X
17W5	Threaded insert	3017W5PAM99A30X
21WA4	Threaded insert	321WA4PAM99A30X
25W3	Threaded insert	3025W3PAM99A30X
27W2	Threaded insert	3027W2PAM99A30X
24W7	Threaded insert	3024W7PAM99A30X
36W4	Threaded insert	3036W4PAM99A30X
43W2	Threaded insert	3043W2PAM99A30X
47W1	Threaded insert	3047W1PAM99A30X



SOCKET CONNECTOR		
Design	Mounting style	Part Number
5W1	Floating mount	3005W1SAM99A60X
7W2	Floating mount	3007W2SAM99A60X
11W1	Floating mount	3011W1SAM99A60X
9W4	Floating mount	3009W4SAM99A60X
13W3	Floating mount	3013W3SAM99A60X
17W2	Floating mount	3017W2SAM99A60X
21W1	Floating mount	3021W1SAM99A60X
13W6	Floating mount	3013W6SAM99A60X
17W5	Floating mount	3017W5SAM99A60X
21WA4	Floating mount	321WA4SAM99A60X
25W3	Floating mount	3025W3SAM99A60X
27W2	Floating mount	3027W2SAM99A60X
24W7	Floating mount	3024W7SAM99A60X
36W4	Floating mount	3036W4SAM99A60X
43W2	Floating mount	3043W2SAM99A60X
47W1	Floating mount	3047W1SAM99A60X

PLUG CONNECTOR		
Design	Mounting style	Part Number
5W1	Floating mount	3005W1PAM99A60X
7W2	Floating mount	3007W2PAM99A60X
11W1	Floating mount	3011W1PAM99A60X
9W4	Floating mount	3009W4PAM99A60X
13W3	Floating mount	3013W3PAM99A60X
17W2	Floating mount	3017W2PAM99A60X
21W1	Floating mount	3021W1PAM99A60X
13W6	Floating mount	3013W6PAM99A60X
17W5	Floating mount	3017W5PAM99A60X
21WA4	Floating mount	321WA4PAM99A60X
25W3	Floating mount	3025W3PAM99A60X
27W2	Floating mount	3027W2PAM99A60X
24W7	Floating mount	3024W7PAM99A60X
36W4	Floating mount	3036W4PAM99A60X
43W2	Floating mount	3043W2PAM99A60X
47W1	Floating mount	3047W1PAM99A60X

# COMBINATION D-SUB WITH SIGNAL CONTACTS

Solder pin – Straight – Precision machined contacts



RoHS compliant – CSA listed, File No.: LR 115000-1 – UL listed, File No.: E 228329

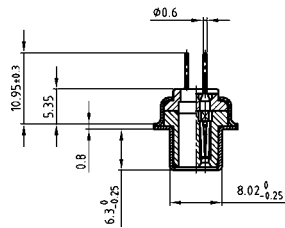
## SOCKET CONNECTOR



Shellsize	A -0.76	B -0.25	C
1	31.19	16.46	25.00 <sup>+0.12</sup> <sub>-0.13</sub>
2	39.52	24.79	33.30 <sup>+0.15</sup> <sub>-0.10</sub>
3	53.42	38.50	47.04 <sup>+0.13</sup>
4	69.70	54.96	63.50 <sup>+0.13</sup>
5	67.31	52.55	61.10 <sup>+0.14</sup> <sub>-0.11</sub>

Shell size 1-4

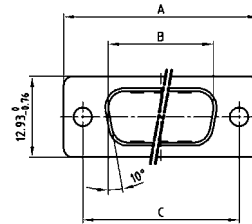
Shell size 5



## DESCRIPTION

- Mounting styles:
  - with through-hole, Ø .118"/3 mm
  - with 4-40 UNC or M3 threaded insert
  - with 4-40 UNC or M3 threaded rear spacer
- Quality class 3 (also available in quality class 1)
- Shell: Steel tin plated  
(brass tin plated or stainless steel available on request)

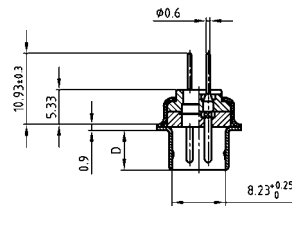
## PLUG CONNECTOR



Shellsize	A -0.76	B -0.25	C	D -0.30
1	31.19	16.79	25.00 <sup>+0.12</sup> <sub>-0.13</sub>	6.12
2	39.52	25.12	33.30 <sup>+0.15</sup> <sub>-0.10</sub>	6.12
3	53.42	38.84	47.04 <sup>+0.13</sup>	5.99
4	69.70	55.30	63.50 <sup>+0.13</sup>	5.99
5	67.31	52.68	61.10 <sup>+0.14</sup> <sub>-0.11</sub>	5.99

Shell size 1-4

Shell size 5



## ORDER DATA

### SOCKET CONNECTOR

Design	Mounting style	Part Number
5W1	Through-hole	3005W1SAR99A10X
7W2	Through-hole	3007W2SAR99A10X
11W1	Through-hole	3011W1SAR99A10X
9W4	Through-hole	3009W4SAR99A10X
13W3	Through-hole	3013W3SAR99A10X
17W2	Through-hole	3017W2SAR99A10X
21W1	Through-hole	3021W1SAR99A10X
13W6	Through-hole	3013W6SAR99A10X
17W5	Through-hole	3017W5SAR99A10X
21WA4	Through-hole	321WA4SAR99A10X
25W3	Through-hole	3025W3SAR99A10X
27W2	Through-hole	3027W2SAR99A10X
24W7	Through-hole	3024W7SAR99A10X
36W4	Through-hole	3036W4SAR99A10X
43W2	Through-hole	3043W2SAR99A10X
47W1	Through-hole	3047W1SAR99A10X

### PLUG CONNECTOR

Design	Mounting style	Part Number
5W1	Through-hole	3005W1PAR99A10X
7W2	Through-hole	3007W2PAR99A10X
11W1	Through-hole	3011W1PAR99A10X
9W4	Through-hole	3009W4PAR99A10X
13W3	Through-hole	3013W3PAR99A10X
17W2	Through-hole	3017W2PAR99A10X
21W1	Through-hole	3021W1PAR99A10X
13W6	Through-hole	3013W6PAR99A10X
17W5	Through-hole	3017W5PAR99A10X
21WA4	Through-hole	321WA4PAR99A10X
25W3	Through-hole	3025W3PAR99A10X
27W2	Through-hole	3027W2PAR99A10X
24W7	Through-hole	3024W7PAR99A10X
36W4	Through-hole	3036W4PAR99A10X
43W2	Through-hole	3043W2PAR99A10X
47W1	Through-hole	3047W1PAR99A10X

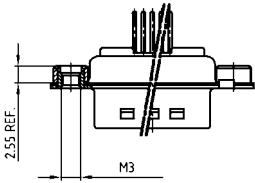




# COMBINATION D-SUB – MOUNTING STYLES

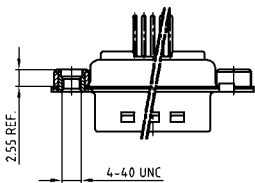
Solder pin – Straight – Precision machined contacts

ORDER DATA



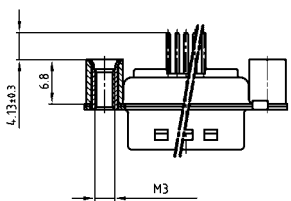
SOCKET CONNECTOR		
Design	Mounting style M3	Part Number
5W1	Threaded insert	3005W1SAR99A20X
7W2	Threaded insert	3007W2SAR99A20X
11W1	Threaded insert	3011W1SAR99A20X
9W4	Threaded insert	3009W4SAR99A20X
13W3	Threaded insert	3013W3SAR99A20X
17W2	Threaded insert	3017W2SAR99A20X
21W1	Threaded insert	3021W1SAR99A20X
13W6	Threaded insert	3013W6SAR99A20X
17W5	Threaded insert	3017W5SAR99A20X
21WA4	Threaded insert	321WA4SAR99A20X
25W3	Threaded insert	3025W3SAR99A20X
27W2	Threaded insert	3027W2SAR99A20X
24W7	Threaded insert	3024W7SAR99A20X
36W4	Threaded insert	3036W4SAR99A20X
43W2	Threaded insert	3043W2SAR99A20X
47W1	Threaded insert	3047W1SAR99A20X

PLUG CONNECTOR		
Design	Mounting style M3	Part Number
5W1	Threaded insert	3005W1PAR99A20X
7W2	Threaded insert	3007W2PAR99A20X
11W1	Threaded insert	3011W1PAR99A20X
9W4	Threaded insert	3009W4PAR99A20X
13W3	Threaded insert	3013W3PAR99A20X
17W2	Threaded insert	3017W2PAR99A20X
21W1	Threaded insert	3021W1PAR99A20X
13W6	Threaded insert	3013W6PAR99A20X
17W5	Threaded insert	3017W5PAR99A20X
21WA4	Threaded insert	321WA4PAR99A20X
25W3	Threaded insert	3025W3PAR99A20X
27W2	Threaded insert	3027W2PAR99A20X
24W7	Threaded insert	3024W7PAR99A20X
36W4	Threaded insert	3036W4PAR99A20X
43W2	Threaded insert	3043W2PAR99A20X
47W1	Threaded insert	3047W1PAR99A20X



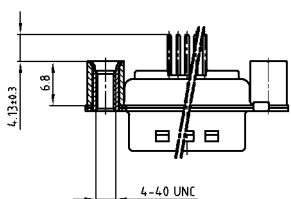
SOCKET CONNECTOR		
Design	Mounting style 4-40 UNC	Part Number
5W1	Threaded insert	3005W1SAR99A30X
7W2	Threaded insert	3007W2SAR99A30X
11W1	Threaded insert	3011W1SAR99A30X
9W4	Threaded insert	3009W4SAR99A30X
13W3	Threaded insert	3013W3SAR99A30X
17W2	Threaded insert	3017W2SAR99A30X
21W1	Threaded insert	3021W1SAR99A30X
13W6	Threaded insert	3013W6SAR99A30X
17W5	Threaded insert	3017W5SAR99A30X
21WA4	Threaded insert	321WA4SAR99A30X
25W3	Threaded insert	3025W3SAR99A30X
27W2	Threaded insert	3027W2SAR99A30X
24W7	Threaded insert	3024W7SAR99A30X
36W4	Threaded insert	3036W4SAR99A30X
43W2	Threaded insert	3043W2SAR99A30X
47W1	Threaded insert	3047W1SAR99A30X

PLUG CONNECTOR		
Design	Mounting style 4-40 UNC	Part Number
5W1	Threaded insert	3005W1PAR99A30X
7W2	Threaded insert	3007W2PAR99A30X
11W1	Threaded insert	3011W1PAR99A30X
9W4	Threaded insert	3009W4PAR99A30X
13W3	Threaded insert	3013W3PAR99A30X
17W2	Threaded insert	3017W2PAR99A30X
21W1	Threaded insert	3021W1PAR99A30X
13W6	Threaded insert	3013W6PAR99A30X
17W5	Threaded insert	3017W5PAR99A30X
21WA4	Threaded insert	321WA4PAR99A30X
25W3	Threaded insert	3025W3PAR99A30X
27W2	Threaded insert	3027W2PAR99A30X
24W7	Threaded insert	3024W7PAR99A30X
36W4	Threaded insert	3036W4PAR99A30X
43W2	Threaded insert	3043W2PAR99A30X
47W1	Threaded insert	3047W1PAR99A30X



SOCKET CONNECTOR		
Design	Mounting style M3	Part Number
5W1	Threaded rear spacer	3005W1SAR99A40X
7W2	Threaded rear spacer	3007W2SAR99A40X
11W1	Threaded rear spacer	3011W1SAR99A40X
9W4	Threaded rear spacer	3009W4SAR99A40X
13W3	Threaded rear spacer	3013W3SAR99A40X
17W2	Threaded rear spacer	3017W2SAR99A40X
21W1	Threaded rear spacer	3021W1SAR99A40X
13W6	Threaded rear spacer	3013W6SAR99A40X
17W5	Threaded rear spacer	3017W5SAR99A40X
21WA4	Threaded rear spacer	321WA4SAR99A40X
25W3	Threaded rear spacer	3025W3SAR99A40X
27W2	Threaded rear spacer	3027W2SAR99A40X
24W7	Threaded rear spacer	3024W7SAR99A40X
36W4	Threaded rear spacer	3036W4SAR99A40X
43W2	Threaded rear spacer	3043W2SAR99A40X
47W1	Threaded rear spacer	3047W1SAR99A40X

PLUG CONNECTOR		
Design	Mounting style M3	Part Number
5W1	Threaded rear spacer	3005W1PAR99A40X
7W2	Threaded rear spacer	3007W2PAR99A40X
11W1	Threaded rear spacer	3011W1PAR99A40X
9W4	Threaded rear spacer	3009W4PAR99A40X
13W3	Threaded rear spacer	3013W3PAR99A40X
17W2	Threaded rear spacer	3017W2PAR99A40X
21W1	Threaded rear spacer	3021W1PAR99A40X
13W6	Threaded rear spacer	3013W6PAR99A40X
17W5	Threaded rear spacer	3017W5PAR99A40X
21WA4	Threaded rear spacer	321WA4PAR99A40X
25W3	Threaded rear spacer	3025W3PAR99A40X
27W2	Threaded rear spacer	3027W2PAR99A40X
24W7	Threaded rear spacer	3024W7PAR99A40X
36W4	Threaded rear spacer	3036W4PAR99A40X
43W2	Threaded rear spacer	3043W2PAR99A40X
47W1	Threaded rear spacer	3047W1PAR99A40X



SOCKET CONNECTOR		
Design	Mounting style 4-40 UNC	Part Number
5W1	Threaded rear spacer	3005W1SAR99A50X
7W2	Threaded rear spacer	3007W2SAR99A50X
11W1	Threaded rear spacer	3011W1SAR99A50X
9W4	Threaded rear spacer	3009W4SAR99A50X
13W3	Threaded rear spacer	3013W3SAR99A50X
17W2	Threaded rear spacer	3017W2SAR99A50X
21W1	Threaded rear spacer	3021W1SAR99A50X
13W6	Threaded rear spacer	3013W6SAR99A50X
17W5	Threaded rear spacer	3017W5SAR99A50X
21WA4	Threaded rear spacer	321WA4SAR99A50X
25W3	Threaded rear spacer	3025W3SAR99A50X
27W2	Threaded rear spacer	3027W2SAR99A50X
24W7	Threaded rear spacer	3024W7SAR99A50X
36W4	Threaded rear spacer	3036W4SAR99A50X
43W2	Threaded rear spacer	3043W2SAR99A50X
47W1	Threaded rear spacer	3047W1SAR99A50X

PLUG CONNECTOR		
Design	Mounting style 4-40 UNC	Part Number
5W1	Threaded rear spacer	3005W1PAR99A50X
7W2	Threaded rear spacer	3007W2PAR99A50X
11W1	Threaded rear spacer	3011W1PAR99A50X
9W4	Threaded rear spacer	3009W4PAR99A50X
13W3	Threaded rear spacer	3013W3PAR99A50X
17W2	Threaded rear spacer	3017W2PAR99A50X
21W1	Threaded rear spacer	3021W1PAR99A50X
13W6	Threaded rear spacer	3013W6PAR99A50X
17W5	Threaded rear spacer	3017W5PAR99A50X
21WA4	Threaded rear spacer	321WA4PAR99A50X
25W3	Threaded rear spacer	3025W3PAR99A50X
27W2	Threaded rear spacer	3027W2PAR99A50X
24W7	Threaded rear spacer	3024W7PAR99A50X
36W4	Threaded rear spacer	3036W4PAR99A50X
43W2	Threaded rear spacer	3043W2PAR99A50X
47W1	Threaded rear spacer	3047W1PAR99A50X

# COMBINATION D-SUB WITH SIGNAL CONTACTS

Solder pin – Straight – Precision machined contacts



RoHS compliant – CSA listed, File No.: LR 115000-1 – UL listed, File No.: E 228329

## SOCKET CONNECTOR



Shellsize	A -0.76	B -0.25	C
1	31.19	16.46	25.00 <sup>+0.12</sup> <sub>-0.13</sub>
2	39.52	24.79	33.30 <sup>+0.15</sup> <sub>-0.10</sub>
3	53.42	38.50	47.04 <sup>+0.13</sup>
4	69.70	54.96	63.50 <sup>+0.13</sup>
5	67.31	52.55	61.10 <sup>+0.14</sup> <sub>-0.11</sub>

Shell size 1-4

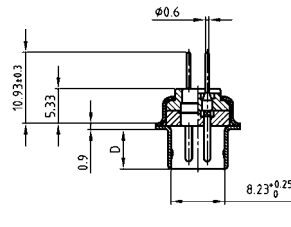
Shell size 5



Shellsize	A -0.76	B -0.25	C	D -0.30
1	31.19	16.79	25.00 <sup>+0.12</sup> <sub>-0.13</sub>	6.12
2	39.52	25.12	33.30 <sup>+0.15</sup> <sub>-0.10</sub>	6.12
3	53.42	38.84	47.04 <sup>+0.13</sup>	5.99
4	69.70	55.30	63.50 <sup>+0.13</sup>	5.99
5	67.31	52.68	61.10 <sup>+0.14</sup> <sub>-0.11</sub>	5.99

Shell size 1-4

Shell size 5



## ORDER DATA

### SOCKET CONNECTOR

Design	Mounting style 4-40 UNC	Part Number
5W1	Threaded rear spacer PCB clip	3005W1SAR99E20X
7W2	Threaded rear spacer PCB clip	3007W2SAR99E20X
11W1	Threaded rear spacer PCB clip	3011W1SAR99E20X
9W4	Threaded rear spacer PCB clip	3009W4SAR99E20X
13W3	Threaded rear spacer PCB clip	3013W3SAR99E20X
17W2	Threaded rear spacer PCB clip	3017W2SAR99E20X
21W1	Threaded rear spacer PCB clip	3021W1SAR99E20X
13W6	Threaded rear spacer PCB clip	3013W6SAR99E20X
17W5	Threaded rear spacer PCB clip	3017W5SAR99E20X
21WA4	Threaded rear spacer PCB clip	321WA4SAR99E20X
25W3	Threaded rear spacer PCB clip	3025W3SAR99E20X
27W2	Threaded rear spacer PCB clip	3027W2SAR99E20X
24W7	Threaded rear spacer PCB clip	3024W7SAR99E20X
36W4	Threaded rear spacer PCB clip	3036W4SAR99E20X
43W2	Threaded rear spacer PCB clip	3043W2SAR99E20X
47W1	Threaded rear spacer PCB clip	3047W1SAR99E20X

### PLUG CONNECTOR

Design	Mounting style 4-40 UNC	Part Number
5W1	Threaded rear spacer PCB clip	3005W1PAR99E20X
7W2	Threaded rear spacer PCB clip	3007W2PAR99E20X
11W1	Threaded rear spacer PCB clip	3011W1PAR99E20X
9W4	Threaded rear spacer PCB clip	3009W4PAR99E20X
13W3	Threaded rear spacer PCB clip	3013W3PAR99E20X
17W2	Threaded rear spacer PCB clip	3017W2PAR99E20X
21W1	Threaded rear spacer PCB clip	3021W1PAR99E20X
13W6	Threaded rear spacer PCB clip	3013W6PAR99E20X
17W5	Threaded rear spacer PCB clip	3017W5PAR99E20X
21WA4	Threaded rear spacer PCB clip	321WA4PAR99E20X
25W3	Threaded rear spacer PCB clip	3025W3PAR99E20X
27W2	Threaded rear spacer PCB clip	3027W2PAR99E20X
24W7	Threaded rear spacer PCB clip	3024W7PAR99E20X
36W4	Threaded rear spacer PCB clip	3036W4PAR99E20X
43W2	Threaded rear spacer PCB clip	3043W2PAR99E20X
47W1	Threaded rear spacer PCB clip	3047W1PAR99E20X

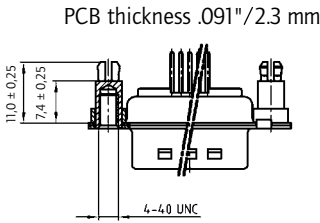


PCB clip .122" / 3.1 ± .004" / 0.10 mm hole diameter

# COMBINATION D-SUB – MOUNTING STYLES

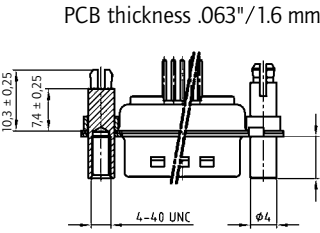
## Solder pin – Straight – Precision machined contacts

ORDER DATA



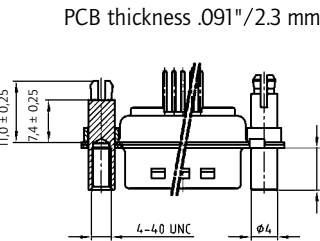
SOCKET CONNECTOR		
Design	Mounting style 4-40 UNC	Part Number
5W1	Threaded rear spacer PCB clip	3005W1SAR99E40X
7W2	Threaded rear spacer PCB clip	3007W2SAR99E40X
11W1	Threaded rear spacer PCB clip	3011W1SAR99E40X
9W4	Threaded rear spacer PCB clip	3009W4SAR99E40X
13W3	Threaded rear spacer PCB clip	3013W3SAR99E40X
17W2	Threaded rear spacer PCB clip	3017W2SAR99E40X
21W1	Threaded rear spacer PCB clip	3021W1SAR99E40X
13W6	Threaded rear spacer PCB clip	3013W6SAR99E40X
17W5	Threaded rear spacer PCB clip	3017W5SAR99E40X
21WA4	Threaded rear spacer PCB clip	321WA4SAR99E40X
25W3	Threaded rear spacer PCB clip	3025W3SAR99E40X
27W2	Threaded rear spacer PCB clip	3027W2SAR99E40X
24W7	Threaded rear spacer PCB clip	3024W7SAR99E40X
36W4	Threaded rear spacer PCB clip	3036W4SAR99E40X
43W2	Threaded rear spacer PCB clip	3043W2SAR99E40X
47W1	Threaded rear spacer PCB clip	3047W1SAR99E40X

PLUG CONNECTOR		
Design	Mounting style 4-40 UNC	Part Number
5W1	Threaded rear spacer PCB clip	3005W1PAR99E40X
7W2	Threaded rear spacer PCB clip	3007W2PAR99E40X
11W1	Threaded rear spacer PCB clip	3011W1PAR99E40X
9W4	Threaded rear spacer PCB clip	3009W4PAR99E40X
13W3	Threaded rear spacer PCB clip	3013W3PAR99E40X
17W2	Threaded rear spacer PCB clip	3017W2PAR99E40X
21W1	Threaded rear spacer PCB clip	3021W1PAR99E40X
13W6	Threaded rear spacer PCB clip	3013W6PAR99E40X
17W5	Threaded rear spacer PCB clip	3017W5PAR99E40X
21WA4	Threaded rear spacer PCB clip	321WA4PAR99E40X
25W3	Threaded rear spacer PCB clip	3025W3PAR99E40X
27W2	Threaded rear spacer PCB clip	3027W2PAR99E40X
24W7	Threaded rear spacer PCB clip	3024W7PAR99E40X
36W4	Threaded rear spacer PCB clip	3036W4PAR99E40X
43W2	Threaded rear spacer PCB clip	3043W2PAR99E40X
47W1	Threaded rear spacer PCB clip	3047W1PAR99E40X



SOCKET CONNECTOR		
Design	Mounting style 4-40 UNC	Part Number
5W1	Front/Threaded rear spacer PCB clip	3005W1SAR99F20X
7W2	Front/Threaded rear spacer PCB clip	3007W2SAR99F20X
11W1	Front/Threaded rear spacer PCB clip	3011W1SAR99F20X
9W4	Front/Threaded rear spacer PCB clip	3009W4SAR99F20X
13W3	Front/Threaded rear spacer PCB clip	3013W3SAR99F20X
17W2	Front/Threaded rear spacer PCB clip	3017W2SAR99F20X
21W1	Front/Threaded rear spacer PCB clip	3021W1SAR99F20X
13W6	Front/Threaded rear spacer PCB clip	3013W6SAR99F20X
17W5	Front/Threaded rear spacer PCB clip	3017W5SAR99F20X
21WA4	Front/Threaded rear spacer PCB clip	321WA4SAR99F20X
25W3	Front/Threaded rear spacer PCB clip	3025W3SAR99F20X
27W2	Front/Threaded rear spacer PCB clip	3027W2SAR99F20X
24W7	Front/Threaded rear spacer PCB clip	3024W7SAR99F20X
36W4	Front/Threaded rear spacer PCB clip	3036W4SAR99F20X
43W2	Front/Threaded rear spacer PCB clip	3043W2SAR99F20X
47W1	Front/Threaded rear spacer PCB clip	3047W1SAR99F20X

PLUG CONNECTOR		
Design	Mounting style 4-40 UNC	Part Number
5W1	Front/Threaded rear spacer PCB clip	3005W1PAR99F20X
7W2	Front/Threaded rear spacer PCB clip	3007W2PAR99F20X
11W1	Front/Threaded rear spacer PCB clip	3011W1PAR99F20X
9W4	Front/Threaded rear spacer PCB clip	3009W4PAR99F20X
13W3	Front/Threaded rear spacer PCB clip	3013W3PAR99F20X
17W2	Front/Threaded rear spacer PCB clip	3017W2PAR99F20X
21W1	Front/Threaded rear spacer PCB clip	3021W1PAR99F20X
13W6	Front/Threaded rear spacer PCB clip	3013W6PAR99F20X
17W5	Front/Threaded rear spacer PCB clip	3017W5PAR99F20X
21WA4	Front/Threaded rear spacer PCB clip	321WA4PAR99F20X
25W3	Front/Threaded rear spacer PCB clip	3025W3PAR99F20X
27W2	Front/Threaded rear spacer PCB clip	3027W2PAR99F20X
24W7	Front/Threaded rear spacer PCB clip	3024W7PAR99F20X
36W4	Front/Threaded rear spacer PCB clip	3036W4PAR99F20X
43W2	Front/Threaded rear spacer PCB clip	3043W2PAR99F20X
47W1	Front/Threaded rear spacer PCB clip	3047W1PAR99F20X



SOCKET CONNECTOR		
Design	Mounting style 4-40 UNC	Part Number
5W1	Front/Threaded rear spacer PCB clip	3005W1SAR99F40X
7W2	Front/Threaded rear spacer PCB clip	3007W2SAR99F40X
11W1	Front/Threaded rear spacer PCB clip	3011W1SAR99F40X
9W4	Front/Threaded rear spacer PCB clip	3009W4SAR99F40X
13W3	Front/Threaded rear spacer PCB clip	3013W3SAR99F40X
17W2	Front/Threaded rear spacer PCB clip	3017W2SAR99F40X
21W1	Front/Threaded rear spacer PCB clip	3021W1SAR99F40X
13W6	Front/Threaded rear spacer PCB clip	3013W6SAR99F40X
17W5	Front/Threaded rear spacer PCB clip	3017W5SAR99F40X
21WA4	Front/Threaded rear spacer PCB clip	321WA4SAR99F40X
25W3	Front/Threaded rear spacer PCB clip	3025W3SAR99F40X
27W2	Front/Threaded rear spacer PCB clip	3027W2SAR99F40X
24W7	Front/Threaded rear spacer PCB clip	3024W7SAR99F40X
36W4	Front/Threaded rear spacer PCB clip	3036W4SAR99F40X
43W2	Front/Threaded rear spacer PCB clip	3043W2SAR99F40X
47W1	Front/Threaded rear spacer PCB clip	3047W1SAR99F40X

PLUG CONNECTOR		
Design	Mounting style 4-40 UNC	Part Number
5W1	Front/Threaded rear spacer PCB clip	3005W1PAR99F40X
7W2	Front/Threaded rear spacer PCB clip	3007W2PAR99F40X
11W1	Front/Threaded rear spacer PCB clip	3011W1PAR99F40X
9W4	Front/Threaded rear spacer PCB clip	3009W4PAR99F40X
13W3	Front/Threaded rear spacer PCB clip	3013W3PAR99F40X
17W2	Front/Threaded rear spacer PCB clip	3017W2PAR99F40X
21W1	Front/Threaded rear spacer PCB clip	3021W1PAR99F40X
13W6	Front/Threaded rear spacer PCB clip	3013W6PAR99F40X
17W5	Front/Threaded rear spacer PCB clip	3017W5PAR99F40X
21WA4	Front/Threaded rear spacer PCB clip	321WA4PAR99F40X
25W3	Front/Threaded rear spacer PCB clip	3025W3PAR99F40X
27W2	Front/Threaded rear spacer PCB clip	3027W2PAR99F40X
24W7	Front/Threaded rear spacer PCB clip	3024W7PAR99F40X
36W4	Front/Threaded rear spacer PCB clip	3036W4PAR99F40X
43W2	Front/Threaded rear spacer PCB clip	3043W2PAR99F40X
47W1	Front/Threaded rear spacer PCB clip	3047W1PAR99F40X

PCB clip .122"/3.1 ± .004"/0.10 mm hole diameter

# COMBINATION D-SUB WITH SIGNAL CONTACTS

Solder pin – Straight – Precision machined contacts



RoHS compliant – CSA listed, File No.: LR 115000-1 – UL listed, File No.: E 228329

## SOCKET CONNECTOR



Shellsize	A -0.76	B -0.25	C
1	31.19	16.46	25.00 <sup>+0.12</sup> <sub>-0.13</sub>
2	39.52	24.79	33.30 <sup>+0.15</sup> <sub>-0.10</sub>
3	53.42	38.50	47.04 <sup>+0.13</sup>
4	69.70	54.96	63.50 <sup>+0.13</sup>
5	67.31	52.55	61.10 <sup>+0.14</sup> <sub>-0.11</sub>

Shell size 1-4



Shell size 5



## DESCRIPTION

- Threaded rear spacer .256"/6.5 mm
- Mounting style:
  - with 4-40 UNC threaded rear spacer with PCB clip
  - for PCB thickness .063"/1.6 mm
  - for PCB thickness .091"/2.3 mm
  - for PCB thickness .126"/3.2 mm
- M3 and PCB clip with front spacer available on request
- Quality class 3 (also available in quality class 1)
- Shell: Steel tin plated  
(brass tin plated or stainless steel available on request)

## PLUG CONNECTOR



Shellsize	A -0.76	B -0.25	C	D -0.30
1	31.19	16.79	25.00 <sup>+0.12</sup> <sub>-0.13</sub>	6.12
2	39.52	25.12	33.30 <sup>+0.15</sup> <sub>-0.10</sub>	6.12
3	53.42	38.84	47.04 <sup>+0.13</sup>	5.99
4	69.70	55.30	63.50 <sup>+0.13</sup>	5.99
5	67.31	52.68	61.10 <sup>+0.14</sup> <sub>-0.11</sub>	5.99

Shell size 1-4



Shell size 5



## ORDER DATA

### SOCKET CONNECTOR

Design	Mounting style 4-40 UNC	Part Number
5W1	Threaded rear spacer PCB clip	3005W1SAR99C20X
7W2	Threaded rear spacer PCB clip	3007W2SAR99C20X
11W1	Threaded rear spacer PCB clip	3011W1SAR99C20X
9W4	Threaded rear spacer PCB clip	3009W4SAR99C20X
13W3	Threaded rear spacer PCB clip	3013W3SAR99C20X
17W2	Threaded rear spacer PCB clip	3017W2SAR99C20X
21W1	Threaded rear spacer PCB clip	3021W1SAR99C20X
13W6	Threaded rear spacer PCB clip	3013W6SAR99C20X
17W5	Threaded rear spacer PCB clip	3017W5SAR99C20X
21WA4	Threaded rear spacer PCB clip	321WA4SAR99C20X
25W3	Threaded rear spacer PCB clip	3025W3SAR99C20X
27W2	Threaded rear spacer PCB clip	3027W2SAR99C20X
24W7	Threaded rear spacer PCB clip	3024W7SAR99C20X
36W4	Threaded rear spacer PCB clip	3036W4SAR99C20X
43W2	Threaded rear spacer PCB clip	3043W2SAR99C20X
47W1	Threaded rear spacer PCB clip	3047W1SAR99C20X

### PLUG CONNECTOR

Design	Mounting style 4-40 UNC	Part Number
5W1	Threaded rear spacer PCB clip	3005W1PAR99C20X
7W2	Threaded rear spacer PCB clip	3007W2PAR99C20X
11W1	Threaded rear spacer PCB clip	3011W1PAR99C20X
9W4	Threaded rear spacer PCB clip	3009W4PAR99C20X
13W3	Threaded rear spacer PCB clip	3013W3PAR99C20X
17W2	Threaded rear spacer PCB clip	3017W2PAR99C20X
21W1	Threaded rear spacer PCB clip	3021W1PAR99C20X
13W6	Threaded rear spacer PCB clip	3013W6PAR99C20X
17W5	Threaded rear spacer PCB clip	3017W5PAR99C20X
21WA4	Threaded rear spacer PCB clip	321WA4PAR99C20X
25W3	Threaded rear spacer PCB clip	3025W3PAR99C20X
27W2	Threaded rear spacer PCB clip	3027W2PAR99C20X
24W7	Threaded rear spacer PCB clip	3024W7PAR99C20X
36W4	Threaded rear spacer PCB clip	3036W4PAR99C20X
43W2	Threaded rear spacer PCB clip	3043W2PAR99C20X
47W1	Threaded rear spacer PCB clip	3047W1PAR99C20X

PCB thickness .063"/1.6 mm



PCB clip .122"/3.1 ± .004"/0.10 mm hole diameter

# COMBINATION D-SUB – MOUNTING STYLES

## Solder pin – Straight – Precision machined contacts

ORDER DATA

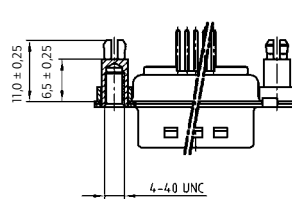
PCB thickness .091"/2.3 mm



SOCKET CONNECTOR		
Design	Mounting style 4-40 UNC	Part Number
5W1	Threaded rear spacer PCB clip	3005W1SAR99C40X
7W2	Threaded rear spacer PCB clip	3007W2SAR99C40X
11W1	Threaded rear spacer PCB clip	3011W1SAR99C40X
9W4	Threaded rear spacer PCB clip	3009W4SAR99C40X
13W3	Threaded rear spacer PCB clip	3013W3SAR99C40X
17W2	Threaded rear spacer PCB clip	3017W2SAR99C40X
21W1	Threaded rear spacer PCB clip	3021W1SAR99C40X
13W6	Threaded rear spacer PCB clip	3013W6SAR99C40X
17W5	Threaded rear spacer PCB clip	3017W5SAR99C40X
21WA4	Threaded rear spacer PCB clip	321WA4SAR99C40X
25W3	Threaded rear spacer PCB clip	3025W3SAR99C40X
27W2	Threaded rear spacer PCB clip	3027W2SAR99C40X
24W7	Threaded rear spacer PCB clip	3024W7SAR99C40X
36W4	Threaded rear spacer PCB clip	3036W4SAR99C40X
43W2	Threaded rear spacer PCB clip	3043W2SAR99C40X
47W1	Threaded rear spacer PCB clip	3047W1SAR99C40X

PLUG CONNECTOR		
Design	Mounting style 4-40 UNC	Part Number
5W1	Threaded rear spacer PCB clip	3005W1PAR99C40X
7W2	Threaded rear spacer PCB clip	3007W2PAR99C40X
11W1	Threaded rear spacer PCB clip	3011W1PAR99C40X
9W4	Threaded rear spacer PCB clip	3009W4PAR99C40X
13W3	Threaded rear spacer PCB clip	3013W3PAR99C40X
17W2	Threaded rear spacer PCB clip	3017W2PAR99C40X
21W1	Threaded rear spacer PCB clip	3021W1PAR99C40X
13W6	Threaded rear spacer PCB clip	3013W6PAR99C40X
17W5	Threaded rear spacer PCB clip	3017W5PAR99C40X
21WA4	Threaded rear spacer PCB clip	321WA4PAR99C40X
25W3	Threaded rear spacer PCB clip	3025W3PAR99C40X
27W2	Threaded rear spacer PCB clip	3027W2PAR99C40X
24W7	Threaded rear spacer PCB clip	3024W7PAR99C40X
36W4	Threaded rear spacer PCB clip	3036W4PAR99C40X
43W2	Threaded rear spacer PCB clip	3043W2PAR99C40X
47W1	Threaded rear spacer PCB clip	3047W1PAR99C40X

PCB thickness .126"/3.2 mm



SOCKET CONNECTOR		
Design	Mounting style 4-40 UNC	Part Number
5W1	Threaded rear spacer PCB clip	3005W1SAR99C60X
7W2	Threaded rear spacer PCB clip	3007W2SAR99C60X
11W1	Threaded rear spacer PCB clip	3011W1SAR99C60X
9W4	Threaded rear spacer PCB clip	3009W4SAR99C60X
13W3	Threaded rear spacer PCB clip	3013W3SAR99C60X
17W2	Threaded rear spacer PCB clip	3017W2SAR99C60X
21W1	Threaded rear spacer PCB clip	3021W1SAR99C60X
13W6	Threaded rear spacer PCB clip	3013W6SAR99C60X
17W5	Threaded rear spacer PCB clip	3017W5SAR99C60X
21WA4	Threaded rear spacer PCB clip	321WA4SAR99C60X
25W3	Threaded rear spacer PCB clip	3025W3SAR99C60X
27W2	Threaded rear spacer PCB clip	3027W2SAR99C60X
24W7	Threaded rear spacer PCB clip	3024W7SAR99C60X
36W4	Threaded rear spacer PCB clip	3036W4SAR99C60X
43W2	Threaded rear spacer PCB clip	3043W2SAR99C60X
47W1	Threaded rear spacer PCB clip	3047W1SAR99C60X

PLUG CONNECTOR		
Design	Mounting style 4-40 UNC	Part Number
5W1	Threaded rear spacer PCB clip	3005W1PAR99C60X
7W2	Threaded rear spacer PCB clip	3007W2PAR99C60X
11W1	Threaded rear spacer PCB clip	3011W1PAR99C60X
9W4	Threaded rear spacer PCB clip	3009W4PAR99C60X
13W3	Threaded rear spacer PCB clip	3013W3PAR99C60X
17W2	Threaded rear spacer PCB clip	3017W2PAR99C60X
21W1	Threaded rear spacer PCB clip	3021W1PAR99C60X
13W6	Threaded rear spacer PCB clip	3013W6PAR99C60X
17W5	Threaded rear spacer PCB clip	3017W5PAR99C60X
21WA4	Threaded rear spacer PCB clip	321WA4PAR99C60X
25W3	Threaded rear spacer PCB clip	3025W3PAR99C60X
27W2	Threaded rear spacer PCB clip	3027W2PAR99C60X
24W7	Threaded rear spacer PCB clip	3024W7PAR99C60X
36W4	Threaded rear spacer PCB clip	3036W4PAR99C60X
43W2	Threaded rear spacer PCB clip	3043W2PAR99C60X
47W1	Threaded rear spacer PCB clip	3047W1PAR99C60X

PCB clip .122" / 3.1 ± .004" / 0.10 mm hole diameter

# COMBINATION D-SUB WITH SIGNAL CONTACTS

Press-fit – Straight – Precision machined contacts



RoHS compliant – CSA listed, File No.: LR 115000-1 – UL listed, File No.: E 228329

## SOCKET CONNECTOR



Shellsize	A -0.76	B -0.25	C
1	31.19	16.46	25.00 <sup>+0.12</sup> <sub>-0.13</sub>
2	39.52	24.79	33.30 <sup>+0.15</sup> <sub>-0.10</sub>
3	53.42	38.50	47.04 <sup>+0.13</sup>
4	69.70	54.96	63.50 <sup>+0.13</sup>
5	67.31	52.55	61.10 <sup>+0.14</sup> <sub>-0.11</sub>

Shell size 1-4

Shell size 5

## DESCRIPTION

- Mounting styles:
  - with 4-40 UNC or M3 threaded rear spacer
  - with M3 or 4-40 UNC rear press-fit spacer
- For .040" / 1.0 mm<sup>+0.003"/0.09 mm</sup><sub>-.002"/0.06 mm</sub> finished through-hole diameter  
Refer to product drawing for details
- Quality class 3 (also available in quality class 1)
- Shell: Steel tin plated  
(brass tin plated or stainless steel available on request)
- For power contacts please contact factory

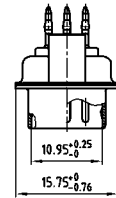
## PLUG CONNECTOR



Shellsize	A -0.76	B -0.25	C	D -0.30
1	31.19	16.79	25.00 <sup>+0.12</sup> <sub>-0.13</sub>	6.12
2	39.52	25.12	33.30 <sup>+0.15</sup> <sub>-0.10</sub>	6.12
3	53.42	38.84	47.04 <sup>+0.13</sup>	5.99
4	69.70	55.30	63.50 <sup>+0.13</sup>	5.99
5	67.31	52.68	61.10 <sup>+0.14</sup> <sub>-0.11</sub>	5.99

Shell size 1-4

Shell size 5



## ORDER DATA

### SOCKET CONNECTOR

Design	Mounting style M3	Part Number
5W1	Threaded rear spacer	3005W1SAP99A70X
7W2	Threaded rear spacer	3007W2SAP99A70X
11W1	Threaded rear spacer	3011W1SAP99A70X
9W4	Threaded rear spacer	3009W4SAP99A70X
13W3	Threaded rear spacer	3013W3SAP99A70X
17W2	Threaded rear spacer	3017W2SAP99A70X
21W1	Threaded rear spacer	3021W1SAP99A70X
13W6	Threaded rear spacer	3013W6SAP99A70X
17W5	Threaded rear spacer	3017W5SAP99A70X
21WA4	Threaded rear spacer	321WA4SAP99A70X
25W3	Threaded rear spacer	3025W3SAP99A70X
27W2	Threaded rear spacer	3027W2SAP99A70X
24W7	Threaded rear spacer	3024W7SAP99A70X
36W4	Threaded rear spacer	3036W4SAP99A70X
43W2	Threaded rear spacer	3043W2SAP99A70X
47W1	Threaded rear spacer	3047W1SAP99A70X

### PLUG CONNECTOR

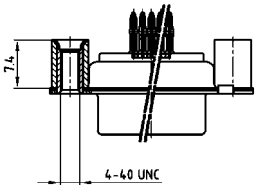
Design	Mounting style M3	Part Number
5W1	Threaded rear spacer	3005W1PAP99A70X
7W2	Threaded rear spacer	3007W2PAP99A70X
11W1	Threaded rear spacer	3011W1PAP99A70X
9W4	Threaded rear spacer	3009W4PAP99A70X
13W3	Threaded rear spacer	3013W3PAP99A70X
17W2	Threaded rear spacer	3017W2PAP99A70X
21W1	Threaded rear spacer	3021W1PAP99A70X
13W6	Threaded rear spacer	3013W6PAP99A70X
17W5	Threaded rear spacer	3017W5PAP99A70X
21WA4	Threaded rear spacer	321WA4PAP99A70X
25W3	Threaded rear spacer	3025W3PAP99A70X
27W2	Threaded rear spacer	3027W2PAP99A70X
24W7	Threaded rear spacer	3024W7PAP99A70X
36W4	Threaded rear spacer	3036W4PAP99A70X
43W2	Threaded rear spacer	3043W2PAP99A70X
47W1	Threaded rear spacer	3047W1PAP99A70X



# COMBINATION D-SUB – MOUNTING STYLES

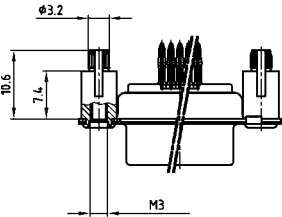
Press-fit – Straight – Precision machined contacts

ORDER DATA



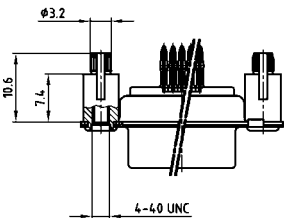
SOCKET CONNECTOR		
Design	Mounting style 4-40 UNC	Part Number
5W1	Threaded rear spacer	3005W1SAP99A80X
7W2	Threaded rear spacer	3007W2SAP99A80X
11W1	Threaded rear spacer	3011W1SAP99A80X
9W4	Threaded rear spacer	3009W4SAP99A80X
13W3	Threaded rear spacer	3013W3SAP99A80X
17W2	Threaded rear spacer	3017W2SAP99A80X
21W1	Threaded rear spacer	3021W1SAP99A80X
13W6	Threaded rear spacer	3013W6SAP99A80X
17W5	Threaded rear spacer	3017W5SAP99A80X
21WA4	Threaded rear spacer	321WA4SAP99A80X
25W3	Threaded rear spacer	3025W3SAP99A80X
27W2	Threaded rear spacer	3027W2SAP99A80X
24W7	Threaded rear spacer	3024W7SAP99A80X
36W4	Threaded rear spacer	3036W4SAP99A80X
43W2	Threaded rear spacer	3043W2SAP99A80X
47W1	Threaded rear spacer	3047W1SAP99A80X

PLUG CONNECTOR		
Design	Mounting style 4-40 UNC	Part Number
5W1	Threaded rear spacer	3005W1PAP99A80X
7W2	Threaded rear spacer	3007W2PAP99A80X
11W1	Threaded rear spacer	3011W1PAP99A80X
9W4	Threaded rear spacer	3009W4PAP99A80X
13W3	Threaded rear spacer	3013W3PAP99A80X
17W2	Threaded rear spacer	3017W2PAP99A80X
21W1	Threaded rear spacer	3021W1PAP99A80X
13W6	Threaded rear spacer	3013W6PAP99A80X
17W5	Threaded rear spacer	3017W5PAP99A80X
21WA4	Threaded rear spacer	321WA4PAP99A80X
25W3	Threaded rear spacer	3025W3PAP99A80X
27W2	Threaded rear spacer	3027W2PAP99A80X
24W7	Threaded rear spacer	3024W7PAP99A80X
36W4	Threaded rear spacer	3036W4PAP99A80X
43W2	Threaded rear spacer	3043W2PAP99A80X
47W1	Threaded rear spacer	3047W1PAP99A80X



SOCKET CONNECTOR		
Design	Mounting style M3	Part Number
5W1	Rear press-fit spacer	3005W1SAP99W10X
7W2	Rear press-fit spacer	3007W2SAP99W10X
11W1	Rear press-fit spacer	3011W1SAP99W10X
9W4	Rear press-fit spacer	3009W4SAP99W10X
13W3	Rear press-fit spacer	3013W3SAP99W10X
17W2	Rear press-fit spacer	3017W2SAP99W10X
21W1	Rear press-fit spacer	3021W1SAP99W10X
13W6	Rear press-fit spacer	3013W6SAP99W10X
17W5	Rear press-fit spacer	3017W5SAP99W10X
21WA4	Rear press-fit spacer	321WA4SAP99W10X
25W3	Rear press-fit spacer	3025W3SAP99W10X
27W2	Rear press-fit spacer	3027W2SAP99W10X
24W7	Rear press-fit spacer	3024W7SAP99W10X
36W4	Rear press-fit spacer	3036W4SAP99W10X
43W2	Rear press-fit spacer	3043W2SAP99W10X
47W1	Rear press-fit spacer	3047W1SAP99W10X

PLUG CONNECTOR		
Design	Mounting style M3	Part Number
5W1	Rear press-fit spacer	3005W1PAP99W10X
7W2	Rear press-fit spacer	3007W2PAP99W10X
11W1	Rear press-fit spacer	3011W1PAP99W10X
9W4	Rear press-fit spacer	3009W4PAP99W10X
13W3	Rear press-fit spacer	3013W3PAP99W10X
17W2	Rear press-fit spacer	3017W2PAP99W10X
21W1	Rear press-fit spacer	3021W1PAP99W10X
13W6	Rear press-fit spacer	3013W6PAP99W10X
17W5	Rear press-fit spacer	3017W5PAP99W10X
21WA4	Rear press-fit spacer	321WA4PAP99W10X
25W3	Rear press-fit spacer	3025W3PAP99W10X
27W2	Rear press-fit spacer	3027W2PAP99W10X
24W7	Rear press-fit spacer	3024W7PAP99W10X
36W4	Rear press-fit spacer	3036W4PAP99W10X
43W2	Rear press-fit spacer	3043W2PAP99W10X
47W1	Rear press-fit spacer	3047W1PAP99W10X



SOCKET CONNECTOR		
Design	Mounting style 4-40 UNC	Part Number
5W1	Rear press-fit spacer	3005W1SAP99W20X
7W2	Rear press-fit spacer	3007W2SAP99W20X
11W1	Rear press-fit spacer	3011W1SAP99W20X
9W4	Rear press-fit spacer	3009W4SAP99W20X
13W3	Rear press-fit spacer	3013W3SAP99W20X
17W2	Rear press-fit spacer	3017W2SAP99W20X
21W1	Rear press-fit spacer	3021W1SAP99W20X
13W6	Rear press-fit spacer	3013W6SAP99W20X
17W5	Rear press-fit spacer	3017W5SAP99W20X
21WA4	Rear press-fit spacer	321WA4SAP99W20X
25W3	Rear press-fit spacer	3025W3SAP99W20X
27W2	Rear press-fit spacer	3027W2SAP99W20X
24W7	Rear press-fit spacer	3024W7SAP99W20X
36W4	Rear press-fit spacer	3036W4SAP99W20X
43W2	Rear press-fit spacer	3043W2SAP99W20X
47W1	Rear press-fit spacer	3047W1SAP99W20X

PLUG CONNECTOR		
Design	Mounting style 4-40 UNC	Part Number
5W1	Rear press-fit spacer	3005W1PAP99W20X
7W2	Rear press-fit spacer	3007W2PAP99W20X
11W1	Rear press-fit spacer	3011W1PAP99W20X
9W4	Rear press-fit spacer	3009W4PAP99W20X
13W3	Rear press-fit spacer	3013W3PAP99W20X
17W2	Rear press-fit spacer	3017W2PAP99W20X
21W1	Rear press-fit spacer	3021W1PAP99W20X
13W6	Rear press-fit spacer	3013W6PAP99W20X
17W5	Rear press-fit spacer	3017W5PAP99W20X
21WA4	Rear press-fit spacer	321WA4PAP99W20X
25W3	Rear press-fit spacer	3025W3PAP99W20X
27W2	Rear press-fit spacer	3027W2PAP99W20X
24W7	Rear press-fit spacer	3024W7PAP99W20X
36W4	Rear press-fit spacer	3036W4PAP99W20X
43W2	Rear press-fit spacer	3043W2PAP99W20X
47W1	Rear press-fit spacer	3047W1PAP99W20X

Rear press-fit spacer (snap in) .122"/3.1 ± .004"/0.10 mm hole diameter and .063"/1.6 mm circuit board thickness

# COMBINATION D-SUB WITH SIGNAL CONTACTS

Wire wrap – Precision machined contacts



RoHS compliant – CSA listed, File No.: LR 115000-1 – UL listed, File No.: E 228329

## SOCKET CONNECTOR



Shellsize	A -0.76	B -0.25	C
1	31.19	16.46	25.00 <sup>+0.12</sup> <sub>-0.13</sub>
2	39.52	24.79	33.30 <sup>+0.15</sup> <sub>-0.10</sub>
3	53.42	38.50	47.04 <sup>+0.13</sup>
4	69.70	54.96	63.50 <sup>+0.13</sup>
5	67.31	52.55	61.10 <sup>+0.14</sup> <sub>-0.11</sub>

Shell size 1-4



Shell size 5



## DESCRIPTION

- Mounting styles:
  - with through-hole, Ø .118"/3 mm
  - with 4-40 UNC or M3 threaded insert
- Quality class 3 (also available in quality class 1)
- Shell: Steel tin plated  
(brass tin plated or stainless steel available on request)

## PLUG CONNECTOR



Shellsize	A -0.76	B +0.25	C	D -0.30
1	31.19	16.79	25.00 <sup>+0.12</sup> <sub>-0.13</sub>	6.12
2	39.52	25.12	33.30 <sup>+0.15</sup> <sub>-0.10</sub>	6.12
3	53.42	38.84	47.04 <sup>+0.13</sup>	5.99
4	69.70	55.30	63.50 <sup>+0.13</sup>	5.99
5	67.31	52.68	61.10 <sup>+0.14</sup> <sub>-0.11</sub>	5.99

Shell size 1-4



Shell size 5



## ORDER DATA

### SOCKET CONNECTOR

Design	Mounting style	Part Number
5W1	Through-hole	3005W1SAN99A10X
7W2	Through-hole	3007W2SAN99A10X
11W1	Through-hole	3011W1SAN99A10X
9W4	Through-hole	3009W4SAN99A10X
13W3	Through-hole	3013W3SAN99A10X
17W2	Through-hole	3017W2SAN99A10X
21W1	Through-hole	3021W1SAN99A10X
13W6	Through-hole	3013W6SAN99A10X
17W5	Through-hole	3017W5SAN99A10X
21WA4	Through-hole	321WA4SAN99A10X
25W3	Through-hole	3025W3SAN99A10X
27W2	Through-hole	3027W2SAN99A10X
24W7	Through-hole	3024W7SAN99A10X
36W4	Through-hole	3036W4SAN99A10X
43W2	Through-hole	3043W2SAN99A10X
47W1	Through-hole	3047W1SAN99A10X

### PLUG CONNECTOR

Design	Mounting style	Part Number
5W1	Through-hole	3005W1PAN99A10X
7W2	Through-hole	3007W2PAN99A10X
11W1	Through-hole	3011W1PAN99A10X
9W4	Through-hole	3009W4PAN99A10X
13W3	Through-hole	3013W3PAN99A10X
17W2	Through-hole	3017W2PAN99A10X
21W1	Through-hole	3021W1PAN99A10X
13W6	Through-hole	3013W6PAN99A10X
17W5	Through-hole	3017W5PAN99A10X
21WA4	Through-hole	321WA4PAN99A10X
25W3	Through-hole	3025W3PAN99A10X
27W2	Through-hole	3027W2PAN99A10X
24W7	Through-hole	3024W7PAN99A10X
36W4	Through-hole	3036W4PAN99A10X
43W2	Through-hole	3043W2PAN99A10X
47W1	Through-hole	3047W1PAN99A10X





# COMBINATION D-SUB – MOUNTING STYLES

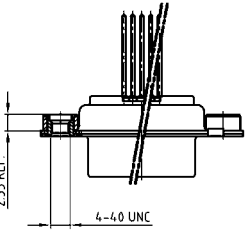
Wire wrap – Precision machined contacts

ORDER DATA



SOCKET CONNECTOR		
Design	Mounting style M3	Part Number
5W1	Threaded insert	3005W1SAN99A20X
7W2	Threaded insert	3007W2SAN99A20X
11W1	Threaded insert	3011W1SAN99A20X
9W4	Threaded insert	3009W4SAN99A20X
13W3	Threaded insert	3013W3SAN99A20X
17W2	Threaded insert	3017W2SAN99A20X
21W1	Threaded insert	3021W1SAN99A20X
13W6	Threaded insert	3013W6SAN99A20X
17W5	Threaded insert	3017W5SAN99A20X
21WA4	Threaded insert	321WA4SAN99A20X
25W3	Threaded insert	3025W3SAN99A20X
27W2	Threaded insert	3027W2SAN99A20X
24W7	Threaded insert	3024W7SAN99A20X
36W4	Threaded insert	3036W4SAN99A20X
43W2	Threaded insert	3043W2SAN99A20X
47W1	Threaded insert	3047W1SAN99A20X

PLUG CONNECTOR		
Design	Mounting style M3	Part Number
5W1	Threaded insert	3005W1PAN99A20X
7W2	Threaded insert	3007W2PAN99A20X
11W1	Threaded insert	3011W1PAN99A20X
9W4	Threaded insert	3009W4PAN99A20X
13W3	Threaded insert	3013W3PAN99A20X
17W2	Threaded insert	3017W2PAN99A20X
21W1	Threaded insert	3021W1PAN99A20X
13W6	Threaded insert	3013W6PAN99A20X
17W5	Threaded insert	3017W5PAN99A20X
21WA4	Threaded insert	321WA4PAN99A20X
25W3	Threaded insert	3025W3PAN99A20X
27W2	Threaded insert	3027W2PAN99A20X
24W7	Threaded insert	3024W7PAN99A20X
36W4	Threaded insert	3036W4PAN99A20X
43W2	Threaded insert	3043W2PAN99A20X
47W1	Threaded insert	3047W1PAN99A20X



SOCKET CONNECTOR		
Design	Mounting style 4-40 UNC	Part Number
5W1	Threaded insert	3005W1SAN99A30X
7W2	Threaded insert	3007W2SAN99A30X
11W1	Threaded insert	3011W1SAN99A30X
9W4	Threaded insert	3009W4SAN99A30X
13W3	Threaded insert	3013W3SAN99A30X
17W2	Threaded insert	3017W2SAN99A30X
21W1	Threaded insert	3021W1SAN99A30X
13W6	Threaded insert	3013W6SAN99A30X
17W5	Threaded insert	3017W5SAN99A30X
21WA4	Threaded insert	321WA4SAN99A30X
25W3	Threaded insert	3025W3SAN99A30X
27W2	Threaded insert	3027W2SAN99A30X
24W7	Threaded insert	3024W7SAN99A30X
36W4	Threaded insert	3036W4SAN99A30X
43W2	Threaded insert	3043W2SAN99A30X
47W1	Threaded insert	3047W1SAN99A30X

PLUG CONNECTOR		
Design	Mounting style 4-40 UNC	Part Number
5W1	Threaded insert	3005W1PAN99A30X
7W2	Threaded insert	3007W2PAN99A30X
11W1	Threaded insert	3011W1PAN99A30X
9W4	Threaded insert	3009W4PAN99A30X
13W3	Threaded insert	3013W3PAN99A30X
17W2	Threaded insert	3017W2PAN99A30X
21W1	Threaded insert	3021W1PAN99A30X
13W6	Threaded insert	3013W6PAN99A30X
17W5	Threaded insert	3017W5PAN99A30X
21WA4	Threaded insert	321WA4PAN99A30X
25W3	Threaded insert	3025W3PAN99A30X
27W2	Threaded insert	3027W2PAN99A30X
24W7	Threaded insert	3024W7PAN99A30X
36W4	Threaded insert	3036W4PAN99A30X
43W2	Threaded insert	3043W2PAN99A30X
47W1	Threaded insert	3047W1PAN99A30X

# COMBINATION D-SUB WITH SIGNAL CONTACTS

Solder pin – Angled – .318" / 7.19 mm – Precision machined contacts – Metal bracket



RoHS compliant – CSA listed, File No.: LR 115000-1 – UL listed, File No.: E 228329

## DESCRIPTION

- Mounting styles:
  - with mounting bracket and 4-40 UNC threaded insert
  - with mounting bracket and 4-40 UNC front spacer
  - with mounting bracket, PCB clip and 4-40 UNC threaded insert
  - with mounting bracket, PCB clip and 4-40 UNC front spacer
- M3 thread design available on request
- Quality class 3 (also available in quality class 1)
- Shell: Steel tin plated  
(brass tin plated or stainless steel available on request)

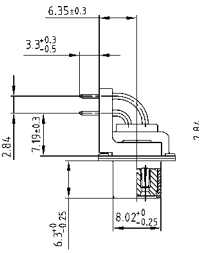
## SOCKET CONNECTOR



## PLUG CONNECTOR



Shell size 1-4



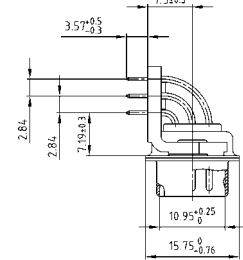
Shell size 5



Shell size 1-4



Shell size 5



## ORDER DATA

SOCKET CONNECTOR		
Design	Mounting style 4-40 UNC	Part Number
5W1	Threaded insert	3005W1SAT99N20X
7W2	Threaded insert	3007W2SAT99N20X
11W1	Threaded insert	3011W1SAT99N20X
9W4	Threaded insert	3009W4SAT99N20X
13W3	Threaded insert	3013W3SAT99N20X
17W2	Threaded insert	3017W2SAT99N20X
21W1	Threaded insert	3021W1SAT99N20X
13W6	Threaded insert	3013W6SAT99N20X
17W5	Threaded insert	3017W5SAT99N20X
21WA4	Threaded insert	321WA4SAT99N20X
25W3	Threaded insert	3025W3SAT99N20X
27W2	Threaded insert	3027W2SAT99N20X
24W7	Threaded insert	3024W7SAT99N20X
36W4	Threaded insert	3036W4SAT99N20X
43W2	Threaded insert	3043W2SAT99N20X
47W1	Threaded insert	3047W1SAT99N20X

PLUG CONNECTOR		
Design	Mounting style 4-40 UNC	Part Number
5W1	Threaded insert	3005W1PAT99N20X
7W2	Threaded insert	3007W2PAT99N20X
11W1	Threaded insert	3011W1PAT99N20X
9W4	Threaded insert	3009W4PAT99N20X
13W3	Threaded insert	3013W3PAT99N20X
17W2	Threaded insert	3017W2PAT99N20X
21W1	Threaded insert	3021W1PAT99N20X
13W6	Threaded insert	3013W6PAT99N20X
17W5	Threaded insert	3017W5PAT99N20X
21WA4	Threaded insert	321WA4PAT99N20X
25W3	Threaded insert	3025W3PAT99N20X
27W2	Threaded insert	3027W2PAT99N20X
24W7	Threaded insert	3024W7PAT99N20X
36W4	Threaded insert	3036W4PAT99N20X
43W2	Threaded insert	3043W2PAT99N20X
47W1	Threaded insert	3047W1PAT99N20X



# COMBINATION D-SUB – MOUNTING STYLES

Solder pin – Angled – .318" / 7.19 mm – Precision machined contacts – Metal bracket

ORDER DATA



SOCKET CONNECTOR		
Design	Mounting style 4-40 UNC	Part Number
5W1	Threaded insert / PCB clip	3005W1SAT99N40X
7W2	Threaded insert / PCB clip	3007W2SAT99N40X
11W1	Threaded insert / PCB clip	3011W1SAT99N40X
9W4	Threaded insert / PCB clip	3009W4SAT99N40X
13W3	Threaded insert / PCB clip	3013W3SAT99N40X
17W2	Threaded insert / PCB clip	3017W2SAT99N40X
21W1	Threaded insert / PCB clip	3021W1SAT99N40X
13W6	Threaded insert / PCB clip	3013W6SAT99N40X
17W5	Threaded insert / PCB clip	3017W5SAT99N40X
21WA4	Threaded insert / PCB clip	321WA4SAT99N40X
25W3	Threaded insert / PCB clip	3025W3SAT99N40X
27W2	Threaded insert / PCB clip	3027W2SAT99N40X
24W7	Threaded insert / PCB clip	3024W7SAT99N40X
36W4	Threaded insert / PCB clip	3036W4SAT99N40X
43W2	Threaded insert / PCB clip	3043W2SAT99N40X
47W1	Threaded insert / PCB clip	3047W1SAT99N40X

PLUG CONNECTOR		
Design	Mounting style 4-40 UNC	Part Number
5W1	Threaded insert / PCB clip	3005W1PAT99N40X
7W2	Threaded insert / PCB clip	3007W2PAT99N40X
11W1	Threaded insert / PCB clip	3011W1PAT99N40X
9W4	Threaded insert / PCB clip	3009W4PAT99N40X
13W3	Threaded insert / PCB clip	3013W3PAT99N40X
17W2	Threaded insert / PCB clip	3017W2PAT99N40X
21W1	Threaded insert / PCB clip	3021W1PAT99N40X
13W6	Threaded insert / PCB clip	3013W6PAT99N40X
17W5	Threaded insert / PCB clip	3017W5PAT99N40X
21WA4	Threaded insert / PCB clip	321WA4PAT99N40X
25W3	Threaded insert / PCB clip	3025W3PAT99N40X
27W2	Threaded insert / PCB clip	3027W2PAT99N40X
24W7	Threaded insert / PCB clip	3024W7PAT99N40X
36W4	Threaded insert / PCB clip	3036W4PAT99N40X
43W2	Threaded insert / PCB clip	3043W2PAT99N40X
47W1	Threaded insert / PCB clip	3047W1PAT99N40X



SOCKET CONNECTOR		
Design	Mounting style 4-40 UNC	Part Number
5W1	Front spacer	3005W1SAT99P20X
7W2	Front spacer	3007W2SAT99P20X
11W1	Front spacer	3011W1SAT99P20X
9W4	Front spacer	3009W4SAT99P20X
13W3	Front spacer	3013W3SAT99P20X
17W2	Front spacer	3017W2SAT99P20X
21W1	Front spacer	3021W1SAT99P20X
13W6	Front spacer	3013W6SAT99P20X
17W5	Front spacer	3017W5SAT99P20X
21WA4	Front spacer	321WA4SAT99P20X
25W3	Front spacer	3025W3SAT99P20X
27W2	Front spacer	3027W2SAT99P20X
24W7	Front spacer	3024W7SAT99P20X
36W4	Front spacer	3036W4SAT99P20X
43W2	Front spacer	3043W2SAT99P20X
47W1	Front spacer	3047W1SAT99P20X

PLUG CONNECTOR		
Design	Mounting style 4-40 UNC	Part Number
5W1	Front spacer	3005W1PAT99P20X
7W2	Front spacer	3007W2PAT99P20X
11W1	Front spacer	3011W1PAT99P20X
9W4	Front spacer	3009W4PAT99P20X
13W3	Front spacer	3013W3PAT99P20X
17W2	Front spacer	3017W2PAT99P20X
21W1	Front spacer	3021W1PAT99P20X
13W6	Front spacer	3013W6PAT99P20X
17W5	Front spacer	3017W5PAT99P20X
21WA4	Front spacer	321WA4PAT99P20X
25W3	Front spacer	3025W3PAT99P20X
27W2	Front spacer	3027W2PAT99P20X
24W7	Front spacer	3024W7PAT99P20X
36W4	Front spacer	3036W4PAT99P20X
43W2	Front spacer	3043W2PAT99P20X
47W1	Front spacer	3047W1PAT99P20X



SOCKET CONNECTOR		
Design	Mounting style 4-40 UNC	Part Number
5W1	Front spacer / PCB clip	3005W1SAT99P40X
7W2	Front spacer / PCB clip	3007W2SAT99P40X
11W1	Front spacer / PCB clip	3011W1SAT99P40X
9W4	Front spacer / PCB clip	3009W4SAT99P40X
13W3	Front spacer / PCB clip	3013W3SAT99P40X
17W2	Front spacer / PCB clip	3017W2SAT99P40X
21W1	Front spacer / PCB clip	3021W1SAT99P40X
13W6	Front spacer / PCB clip	3013W6SAT99P40X
17W5	Front spacer / PCB clip	3017W5SAT99P40X
21WA4	Front spacer / PCB clip	321WA4SAT99P40X
25W3	Front spacer / PCB clip	3025W3SAT99P40X
27W2	Front spacer / PCB clip	3027W2SAT99P40X
24W7	Front spacer / PCB clip	3024W7SAT99P40X
36W4	Front spacer / PCB clip	3036W4SAT99P40X
43W2	Front spacer / PCB clip	3043W2SAT99P40X
47W1	Front spacer / PCB clip	3047W1SAT99P40X

PLUG CONNECTOR		
Design	Mounting style 4-40 UNC	Part Number
5W1	Front spacer / PCB clip	3005W1PAT99P40X
7W2	Front spacer / PCB clip	3007W2PAT99P40X
11W1	Front spacer / PCB clip	3011W1PAT99P40X
9W4	Front spacer / PCB clip	3009W4PAT99P40X
13W3	Front spacer / PCB clip	3013W3PAT99P40X
17W2	Front spacer / PCB clip	3017W2PAT99P40X
21W1	Front spacer / PCB clip	3021W1PAT99P40X
13W6	Front spacer / PCB clip	3013W6PAT99P40X
17W5	Front spacer / PCB clip	3017W5PAT99P40X
21WA4	Front spacer / PCB clip	321WA4PAT99P40X
25W3	Front spacer / PCB clip	3025W3PAT99P40X
27W2	Front spacer / PCB clip	3027W2PAT99P40X
24W7	Front spacer / PCB clip	3024W7PAT99P40X
36W4	Front spacer / PCB clip	3036W4PAT99P40X
43W2	Front spacer / PCB clip	3043W2PAT99P40X
47W1	Front spacer / PCB clip	3047W1PAT99P40X

PCB clip .122" / 3.1 ± .004" / 0.10 mm hole diameter and .063" / 1.6 mm circuit board thickness

# COMBINATION D-SUB WITH SIGNAL CONTACTS

Solder pin – Angled – .370"/9.4 mm – Precision machined contacts – Metal bracket



RoHS compliant – CSA listed, File No.: LR 115000-1 – UL listed, File No.: E 228329

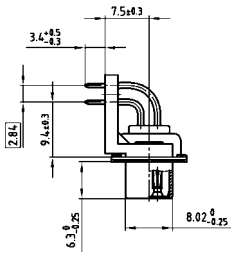
## SOCKET CONNECTOR



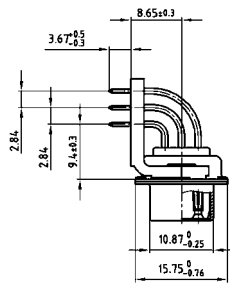
Shellsize	A -0.76	B -0.25	C
1	31.19	16.46	25.00 <sup>+0.12</sup> / <sub>-0.13</sub>
2	39.52	24.79	33.30 <sup>+0.15</sup> / <sub>-0.10</sub>
3	53.42	38.50	47.04 <sup>+0.13</sup> / <sub>-0.10</sub>
4	69.70	54.96	63.50 <sup>+0.13</sup> / <sub>-0.14</sub>
5	67.31	52.55	61.10 <sup>+0.14</sup> / <sub>-0.11</sub>



Shell size 1-4



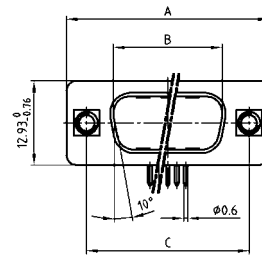
Shell size 5



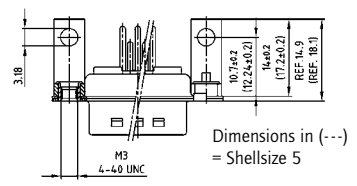
## DESCRIPTION

- Mounting styles:
  - with mounting bracket and threaded insert
  - with mounting bracket with 4-40 UNC front spacer
  - with mounting bracket, PCB clip and threaded insert
  - with mounting bracket, PCB clip and 4-40 UNC front spacer
- M3 thread design available on request
- Quality class 3 (also available in quality class 1)
- Shell: Steel tin plated  
(brass tin plated or stainless steel available on request)

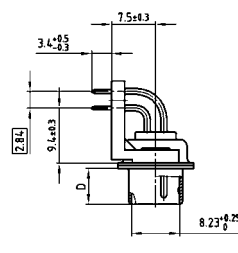
## PLUG CONNECTOR



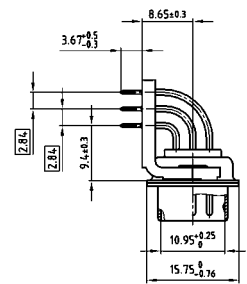
Shellsize	A -0.76	B -0.25	C	D -0.30
1	31.19	16.79	25.00 <sup>+0.12</sup> / <sub>-0.13</sub>	6.12
2	39.52	25.12	33.30 <sup>+0.15</sup> / <sub>-0.10</sub>	6.12
3	53.42	38.84	47.04 <sup>+0.13</sup> / <sub>-0.10</sub>	5.99
4	69.70	55.30	63.50 <sup>+0.13</sup> / <sub>-0.14</sub>	5.99
5	67.31	52.68	61.10 <sup>+0.14</sup> / <sub>-0.11</sub>	5.99



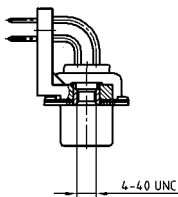
Shell size 1-4



Shell size 5



## ORDER DATA



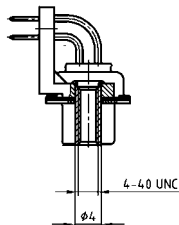
SOCKET CONNECTOR		
Design	Mounting style 4-40 UNC	Part Number
5W1	Threaded insert	3005W1SAU99G20X
7W2	Threaded insert	3007W2SAU99G20X
11W1	Threaded insert	3011W1SAU99G20X
9W4	Threaded insert	3009W4SAU99G20X
13W3	Threaded insert	3013W3SAU99G20X
17W2	Threaded insert	3017W2SAU99G20X
21W1	Threaded insert	3021W1SAU99G20X
13W6	Threaded insert	3013W6SAU99G20X
17W5	Threaded insert	3017W5SAU99G20X
21WA4	Threaded insert	321WA4SAU99G20X
25W3	Threaded insert	3025W3SAU99G20X
27W2	Threaded insert	3027W2SAU99G20X
24W7	Threaded insert	3024W7SAU99G20X
36W4	Threaded insert	3036W4SAU99G20X
43W2	Threaded insert	3043W2SAU99G20X
47W1	Threaded insert	3047W1SAU99G20X

PLUG CONNECTOR		
Design	Mounting style 4-40 UNC	Part Number
5W1	Threaded insert	3005W1PAU99G20X
7W2	Threaded insert	3007W2PAU99G20X
11W1	Threaded insert	3011W1PAU99G20X
9W4	Threaded insert	3009W4PAU99G20X
13W3	Threaded insert	3013W3PAU99G20X
17W2	Threaded insert	3017W2PAU99G20X
21W1	Threaded insert	3021W1PAU99G20X
13W6	Threaded insert	3013W6PAU99G20X
17W5	Threaded insert	3017W5PAU99G20X
21WA4	Threaded insert	321WA4PAU99G20X
25W3	Threaded insert	3025W3PAU99G20X
27W2	Threaded insert	3027W2PAU99G20X
24W7	Threaded insert	3024W7PAU99G20X
36W4	Threaded insert	3036W4PAU99G20X
43W2	Threaded insert	3043W2PAU99G20X
47W1	Threaded insert	3047W1PAU99G20X

# COMBINATION D-SUB – MOUNTING STYLES

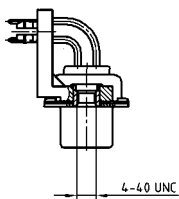
Solder pin – Angled – .370" / 9.4 mm – Precision machined contacts – Metal bracket

ORDER DATA



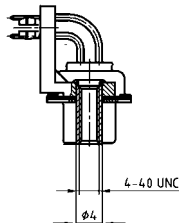
SOCKET CONNECTOR		
Design	Mounting style 4-40 UNC	Part Number
5W1	Front spacer	3005W1SAU99H20X
7W2	Front spacer	3007W2SAU99H20X
11W1	Front spacer	3011W1SAU99H20X
9W4	Front spacer	3009W4SAU99H20X
13W3	Front spacer	3013W3SAU99H20X
17W2	Front spacer	3017W2SAU99H20X
21W1	Front spacer	3021W1SAU99H20X
13W6	Front spacer	3013W6SAU99H20X
17W5	Front spacer	3017W5SAU99H20X
21WA4	Front spacer	321WA4SAU99H20X
25W3	Front spacer	3025W3SAU99H20X
27W2	Front spacer	3027W2SAU99H20X
24W7	Front spacer	3024W7SAU99H20X
36W4	Front spacer	3036W4SAU99H20X
43W2	Front spacer	3043W2SAU99H20X
47W1	Front spacer	3047W1SAU99H20X

PLUG CONNECTOR		
Design	Mounting style 4-40 UNC	Part Number
5W1	Front spacer	3005W1PAU99H20X
7W2	Front spacer	3007W2PAU99H20X
11W1	Front spacer	3011W1PAU99H20X
9W4	Front spacer	3009W4PAU99H20X
13W3	Front spacer	3013W3PAU99H20X
17W2	Front spacer	3017W2PAU99H20X
21W1	Front spacer	3021W1PAU99H20X
13W6	Front spacer	3013W6PAU99H20X
17W5	Front spacer	3017W5PAU99H20X
21WA4	Front spacer	321WA4PAU99H20X
25W3	Front spacer	3025W3PAU99H20X
27W2	Front spacer	3027W2PAU99H20X
24W7	Front spacer	3024W7PAU99H20X
36W4	Front spacer	3036W4PAU99H20X
43W2	Front spacer	3043W2PAU99H20X
47W1	Front spacer	3047W1PAU99H20X



SOCKET CONNECTOR		
Design	Mounting style 4-40 UNC	Part Number
5W1	Threaded insert / PCB clip	3005W1SAU99G40X
7W2	Threaded insert / PCB clip	3007W2SAU99G40X
11W1	Threaded insert / PCB clip	3011W1SAU99G40X
9W4	Threaded insert / PCB clip	3009W4SAU99G40X
13W3	Threaded insert / PCB clip	3013W3SAU99G40X
17W2	Threaded insert / PCB clip	3017W2SAU99G40X
21W1	Threaded insert / PCB clip	3021W1SAU99G40X
13W6	Threaded insert / PCB clip	3013W6SAU99G40X
17W5	Threaded insert / PCB clip	3017W5SAU99G40X
21WA4	Threaded insert / PCB clip	321WA4SAU99G40X
25W3	Threaded insert / PCB clip	3025W3SAU99G40X
27W2	Threaded insert / PCB clip	3027W2SAU99G40X
24W7	Threaded insert / PCB clip	3024W7SAU99G40X
36W4	Threaded insert / PCB clip	3036W4SAU99G40X
43W2	Threaded insert / PCB clip	3043W2SAU99G40X
47W1	Threaded insert / PCB clip	3047W1SAU99G40X

PLUG CONNECTOR		
Design	Mounting style 4-40 UNC	Part Number
5W1	Threaded insert / PCB clip	3005W1PAU99G40X
7W2	Threaded insert / PCB clip	3007W2PAU99G40X
11W1	Threaded insert / PCB clip	3011W1PAU99G40X
9W4	Threaded insert / PCB clip	3009W4PAU99G40X
13W3	Threaded insert / PCB clip	3013W3PAU99G40X
17W2	Threaded insert / PCB clip	3017W2PAU99G40X
21W1	Threaded insert / PCB clip	3021W1PAU99G40X
13W6	Threaded insert / PCB clip	3013W6PAU99G40X
17W5	Threaded insert / PCB clip	3017W5PAU99G40X
21WA4	Threaded insert / PCB clip	321WA4PAU99G40X
25W3	Threaded insert / PCB clip	3025W3PAU99G40X
27W2	Threaded insert / PCB clip	3027W2PAU99G40X
24W7	Threaded insert / PCB clip	3024W7PAU99G40X
36W4	Threaded insert / PCB clip	3036W4PAU99G40X
43W2	Threaded insert / PCB clip	3043W2PAU99G40X
47W1	Threaded insert / PCB clip	3047W1PAU99G40X



SOCKET CONNECTOR		
Design	Mounting style 4-40 UNC	Part Number
5W1	Front spacer / PCB clip	3005W1SAU99H40X
7W2	Front spacer / PCB clip	3007W2SAU99H40X
11W1	Front spacer / PCB clip	3011W1SAU99H40X
9W4	Front spacer / PCB clip	3009W4SAU99H40X
13W3	Front spacer / PCB clip	3013W3SAU99H40X
17W2	Front spacer / PCB clip	3017W2SAU99H40X
21W1	Front spacer / PCB clip	3021W1SAU99H40X
13W6	Front spacer / PCB clip	3013W6SAU99H40X
17W5	Front spacer / PCB clip	3017W5SAU99H40X
21WA4	Front spacer / PCB clip	321WA4SAU99H40X
25W3	Front spacer / PCB clip	3025W3SAU99H40X
27W2	Front spacer / PCB clip	3027W2SAU99H40X
24W7	Front spacer / PCB clip	3024W7SAU99H40X
36W4	Front spacer / PCB clip	3036W4SAU99H40X
43W2	Front spacer / PCB clip	3043W2SAU99H40X
47W1	Front spacer / PCB clip	3047W1SAU99H40X

PLUG CONNECTOR		
Design	Mounting style 4-40 UNC	Part Number
5W1	Front spacer / PCB clip	3005W1PAU99H40X
7W2	Front spacer / PCB clip	3007W2PAU99H40X
11W1	Front spacer / PCB clip	3011W1PAU99H40X
9W4	Front spacer / PCB clip	3009W4PAU99H40X
13W3	Front spacer / PCB clip	3013W3PAU99H40X
17W2	Front spacer / PCB clip	3017W2PAU99H40X
21W1	Front spacer / PCB clip	3021W1PAU99H40X
13W6	Front spacer / PCB clip	3013W6PAU99H40X
17W5	Front spacer / PCB clip	3017W5PAU99H40X
21WA4	Front spacer / PCB clip	321WA4PAU99H40X
25W3	Front spacer / PCB clip	3025W3PAU99H40X
27W2	Front spacer / PCB clip	3027W2PAU99H40X
24W7	Front spacer / PCB clip	3024W7PAU99H40X
36W4	Front spacer / PCB clip	3036W4PAU99H40X
43W2	Front spacer / PCB clip	3043W2PAU99H40X
47W1	Front spacer / PCB clip	3047W1PAU99H40X

PCB clip .122"/3.1 ± .004"/0.10 mm hole diameter and .063"/1.6 mm circuit board thickness

# COMBINATION D-SUB HIGH DENSITY WITH SIGNAL CONTACTS

Solder cup – Precision machined contacts – For wire size AWG 22



RoHS compliant

## DESCRIPTION

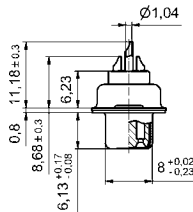
- Suitable for wire size AWG 22
- Mounting styles:
  - with through-hole,  $\varnothing$  .118"/3 mm
  - with 4-40 UNC or M3 threaded insert
- Quality class 3 (also available in quality class 1)
- Shell: Steel tin plated  
(brass tin plated or stainless steel available on request)

## SOCKET CONNECTOR

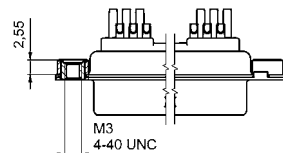


Shellsize	A -0.76	B -0.25	C
2	39.52	24.79	33.30 <sup>+0.15</sup> / <sub>-0.10</sub>
3	53.42	38.50	47.04 <sup>+0.13</sup> / <sub>-0.13</sub>
4	69.70	54.96	63.50 <sup>+0.13</sup> / <sub>-0.13</sub>

Mounting style: Through-hole



Mounting style Threaded insert

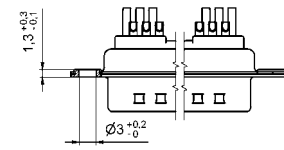


## PLUG CONNECTOR

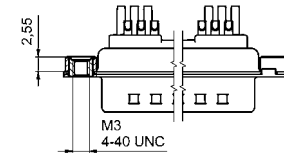


Shellsize	A -0.76	B -0.25	C	D -0.30
2	39.52	25.12	33.30 <sup>+0.15</sup> / <sub>-0.10</sub>	6.12
3	53.42	38.84	47.04 <sup>+0.13</sup> / <sub>-0.13</sub>	5.99
4	69.70	55.30	63.50 <sup>+0.13</sup> / <sub>-0.13</sub>	5.99

Mounting style: Through-hole



Mounting style Threaded insert



## ORDER DATA

SOCKET CONNECTOR		
Design	Mounting style	Part Number
19W1	Through-hole	3H19W1SAM99A10X
15W4	Through-hole	3H15W4SAM99A10X
45W2	Through-hole	3H45W2SAM99A10X
19W1	M3 threaded insert	3H19W1SAM99A20X
15W4	M3 threaded insert	3H15W4SAM99A20X
45W2	M3 threaded insert	3H45W2SAM99A20X
19W1	4-40 UNC threaded insert	3H19W1SAM99A30X
15W4	4-40 UNC threaded insert	3H15W4SAM99A30X
45W2	4-40 UNC threaded insert	3H45W2SAM99A30X

PLUG CONNECTOR		
Design	Mounting style	Part Number
19W1	Through-hole	3H19W1PAM99A10X
15W4	Through-hole	3H15W4PAM99A10X
45W2	Through-hole	3H45W2PAM99A10X
19W1	M3 threaded insert	3H19W1PAM99A20X
15W4	M3 threaded insert	3H15W4PAM99A20X
45W2	M3 threaded insert	3H45W2PAM99A20X
19W1	4-40 UNC threaded insert	3H19W1PAM99A30X
15W4	4-40 UNC threaded insert	3H15W4PAM99A30X
45W2	4-40 UNC threaded insert	3H45W2PAM99A30X

# COMBINATION D-SUB HIGH DENSITY WITH SIGNAL CONTACTS

Solder pin – angled – ,350"/7,98 mm – Precision machined contacts – Metal bracket



RoHS compliant

## DESCRIPTION

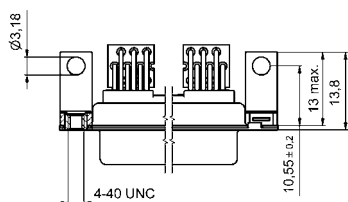
- Mounting styles:
  - mounting bracket and threaded insert 4-40 UNC
  - mounting bracket with front spacer 4-40 UNC
  - mounting bracket, PCB clip and threaded insert 4-40 UNC
  - mounting bracket, PCB clip and frontspacer 4-40 UNC
- Threaded lock M3 available on request
- Quality class 3 (also available in quality class 1)
- Shell: Steel tin plated  
(brass tin plated or stainless steel available on request)

## SOCKET CONNECTOR

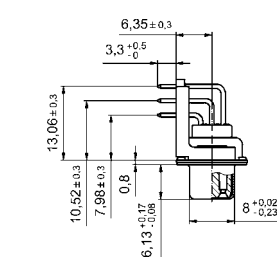


Shellsize	A -0.76	B -0.25	C
2	39.52	24.79	33.30 <sup>+0.15</sup> / <sub>-0.10</sub>
3	53.42	38.50	47.04 <sup>+0.13</sup>
4	69.70	54.96	63.50 <sup>+0.13</sup>

Mounting style: Through-hole



Mounting style: Threaded insert



Mounting style: Front spacer

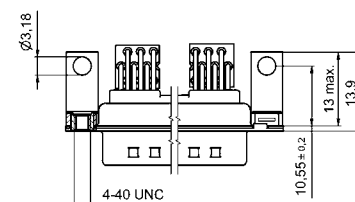


## PLUG CONNECTOR

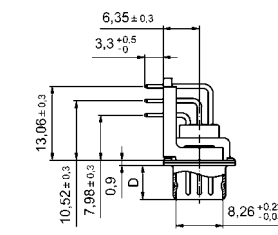
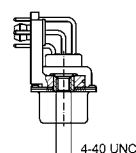


Shellsize	A -0.76	B -0.25	C	D -0.30
2	39.52	25.12	33.30 <sup>+0.15</sup> / <sub>-0.10</sub>	6.12
3	53.42	38.84	47.04 <sup>+0.13</sup>	5.99
4	69.70	55.30	63.50 <sup>+0.13</sup>	5.99

Mounting style: Through-hole



Mounting style: Threaded insert



Mounting style: Front spacer and PCB clip



## ORDER DATA

SOCKET CONNECTOR		
Design	Mounting style	Part Number
19W1	4-40 UNC threaded insert	3H19W1SAT99G60X
15W4	4-40 UNC threaded insert	3H15W4SAT99G60X
45W2	4-40 UNC threaded insert	3H45W2SAT99G60X
19W1	4-40 UNC threaded insert and PCB clip	3H19W1SAT99G80X
15W4	4-40 UNC threaded insert and PCB clip	3H15W4SAT99G80X
45W2	4-40 UNC threaded insert and PCB clip	3H45W2SAT99G80X
19W1	4-40 UNC front spacer	3H19W1SAT99H60X
15W4	4-40 UNC front spacer	3H15W4SAT99H60X
45W2	4-40 UNC front spacer	3H45W2SAT99H60X
19W1	4-40 UNC front spacer and PCB clip	3H19W1SAT99H80X
15W4	4-40 UNC front spacer and PCB clip	3H15W4SAT99H80X
45W2	4-40 UNC front spacer and PCB clip	3H45W2SAT99H80X

PLUG CONNECTOR		
Design	Mounting style	Part Number
19W1	4-40 UNC threaded insert	3H19W1PAT99G60X
15W4	4-40 UNC threaded insert	3H15W4PAT99G60X
45W2	4-40 UNC threaded insert	3H45W2PAT99G60X
19W1	4-40 UNC threaded insert and PCB clip	3H19W1PAT99G80X
15W4	4-40 UNC threaded insert and PCB clip	3H15W4PAT99G80X
45W2	4-40 UNC threaded insert and PCB clip	3H45W2PAT99G80X
19W1	4-40 UNC front spacer	3H19W1PAT99H60X
15W4	4-40 UNC front spacer	3H15W4PAT99H60X
45W2	4-40 UNC front spacer	3H45W2PAT99H60X
19W1	4-40 UNC front spacer and PCB clip	3H19W1PAT99H80X
15W4	4-40 UNC front spacer and PCB clip	3H15W4PAT99H80X
45W2	4-40 UNC front spacer and PCB clip	3H45W2PAT99H80X

# COMBINATION D-SUB HIGH DENSITY – WITH SIGNAL CONTACTS

Solder pin – Straight – Precision machined contacts



RoHS compliant – CSA listed, File No.: LR 115000-1 – UL listed, File No.: E 228329

## DESCRIPTION

- Mounting styles:
  - with through-hole,  $\varnothing .118''/3 \text{ mm}$
  - with 4-40 UNC threaded insert
  - with 4-40 UNC threaded rear spacer
  - with 4-40 UNC threaded lock and spacer clip
- M3 thread on request
- Quality class 3 (also available in quality class 1)
- Shell: Steel tin plated  
(brass tin plated or stainless steel available on request)

## SOCKET CONNECTOR



Shellsize	A -0.76	B -0.25	C	
2	39.52	24.79	33.30	$^{+0.15}_{-0.10}$
3	53.42	38.50	47.04	$\pm 0.13$
4	69.70	54.96	63.50	$\pm 0.13$

## PLUG CONNECTOR



Shellsize	A -0.76	B +0.25	C	D -0.30	
2	39.52	25.12	33.30	$^{+0.15}_{-0.10}$	6.12
3	53.42	38.84	47.04	$\pm 0.13$	5.99
4	69.70	55.30	63.50	$\pm 0.13$	5.99

Mounting style: Through-hole



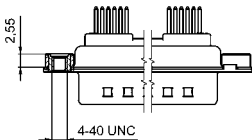
Mounting style: Through-hole



## ORDER DATA

SOCKET CONNECTOR		
Design	Mounting style	Part Number
19W1	Through-hole	3H19W1SAR99A10X
15W4	Through-hole	3H15W4SAR99A10X
45W2	Through-hole	3H45W2SAR99A10X
19W1	4-40 UNC threaded insert	3H19W1SAR99A30X
15W4	4-40 UNC threaded insert	3H15W4SAR99A30X
45W2	4-40 UNC threaded insert	3H45W2SAR99A30X

PLUG CONNECTOR		
Design	Mounting style	Part Number
19W1	Through-hole	3H19W1PAR99A10X
15W4	Through-hole	3H15W4PAR99A10X
45W2	Through-hole	3H45W2PAR99A10X
19W1	4-40 UNC threaded insert	3H19W1PAR99A30X
15W4	4-40 UNC threaded insert	3H15W4PAR99A30X
45W2	4-40 UNC threaded insert	3H45W2PAR99A30X

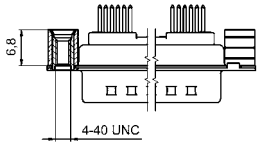




# COMBINATION D-SUB HIGH DENSITY – MOUNTING STYLES

## Solder pin – Straight – Precision machined contacts

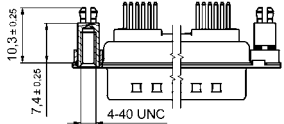
**ORDER DATA**



SOCKET CONNECTOR		
Design	Mounting style	Part Number
19W1	4-40 UNC threaded rear spacer	3H19W1SAR99A50X
15W4	4-40 UNC threaded rear spacer	3H15W4SAR99A50X
45W2	4-40 UNC threaded rear spacer	3H45W2SAR99A50X

PLUG CONNECTOR		
Design	Mounting style	Part Number
19W1	4-40 UNC threaded rear spacer	3H19W1PAR99A50X
15W4	4-40 UNC threaded rear spacer	3H15W4PAR99A50X
45W2	4-40 UNC threaded rear spacer	3H45W2PAR99A50X

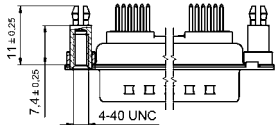
PCB thickness .063"/1,6 mm



SOCKET CONNECTOR		
Design	Mounting style	Part Number
19W1	4-40 UNC threaded rear spacer with PCB clip	3H19W1SAR99E20X
15W4	4-40 UNC threaded rear spacer with PCB clip	3H15W4SAR99E20X
45W2	4-40 UNC threaded rear spacer with PCB clip	3H45W2SAR99E20X

PLUG CONNECTOR		
Design	Mounting style	Part Number
19W1	4-40 UNC threaded rear spacer with PCB clip	3H19W1PAR99E20X
15W4	4-40 UNC threaded rear spacer with PCB clip	3H15W4PAR99E20X
45W2	4-40 UNC threaded rear spacer with PCB clip	3H45W2PAR99E20X

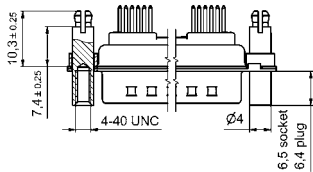
PCB thickness .091"/2,3 mm



SOCKET CONNECTOR		
Design	Mounting style	Part Number
19W1	4-40 UNC threaded rear spacer with PCB clip	3H19W1SAR99E40X
15W4	4-40 UNC threaded rear spacer with PCB clip	3H15W4SAR99E40X
45W2	4-40 UNC threaded rear spacer with PCB clip	3H45W2SAR99E40X

PLUG CONNECTOR		
Design	Mounting style	Part Number
19W1	4-40 UNC threaded rear spacer with PCB clip	3H19W1SAR99E40X
15W4	4-40 UNC threaded rear spacer with PCB clip	3H15W4SAR99E40X
45W2	4-40 UNC threaded rear spacer with PCB clip	3H45W2SAR99E40X

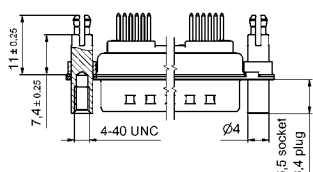
PCB thickness .063"/1,6 mm



SOCKET CONNECTOR		
Design	Mounting style	Part Number
19W1	4-40 UNC threaded lock and spacer clip	3H19W1SAR99F20X
15W4	4-40 UNC threaded lock and spacer clip	3H15W4SAR99F20X
45W2	4-40 UNC threaded lock and spacer clip	3H45W2SAR99F20X

PLUG CONNECTOR		
Design	Mounting style	Part Number
19W1	4-40 UNC threaded lock and spacer clip	3H19W1PAR99F20X
15W4	4-40 UNC threaded lock and spacer clip	3H15W4PAR99F20X
45W2	4-40 UNC threaded lock and spacer clip	3H45W2PAR99F20X

PCB thickness .091"/2,3 mm



SOCKET CONNECTOR		
Design	Mounting style	Part Number
19W1	4-40 UNC threaded lock and spacer clip	3H19W1SAR99F40X
15W4	4-40 UNC threaded lock and spacer clip	3H15W4SAR99F40X
45W2	4-40 UNC threaded lock and spacer clip	3H45W2SAR99F40X

PLUG CONNECTOR		
Design	Mounting style	Part Number
19W1	4-40 UNC threaded lock and spacer clip	3H19W1PAR99F40X
15W4	4-40 UNC threaded lock and spacer clip	3H15W4PAR99F40X
45W2	4-40 UNC threaded lock and spacer clip	3H45W2PAR99F40X

PCB clip .122"/3.1 ± .004"/0.10 mm hole diameter

# COMBINATION D-SUB WITHOUT CONTACTS

For straight high power, coaxial or high voltage contacts



RoHS compliant – CSA listed, File No.: LR 115000-1 –UL listed, File No.: E 228329

## SOCKET CONNECTOR



Shellsize	A -0.76	B -0.25	C
1	31.19	16.46	25.00 <sup>+0.12</sup> / <sub>-0.13</sub>
2	39.52	24.79	33.30 <sup>+0.15</sup> / <sub>-0.10</sub>
3	53.42	38.50	47.04 <sup>+0.13</sup>
4	69.70	54.96	63.50 <sup>+0.13</sup>

## DESCRIPTION

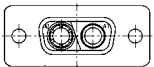
- Designs: 2W2C; 3W3; 3W3C; 5W5; 8W8
- Mounting styles:
  - with through-hole, Ø .118"/3 mm, with 4-40 UNC threaded insert, with 4-40 UNC threaded rear spacer,
  - with 4-40 UNC threaded rear spacer with PCB clip .291"/7.4 mm for PCB thickness .063"/1.6 mm, .091"/2.3 mm, .126"/3.2 mm
- On request: Threaded rear spacer with PCB clip .256"/6.5 mm available
- On request: M3 thread design available
- Shell: Steel tin plated (brass tin plated or stainless steel available on request)
- recommended plastic hoods look at page 7 | 16, 7 | 17

## PLUG CONNECTOR



Shellsize	A -0.76	B +0.25	C	D -0.30
1	31.19	16.79	25.00 <sup>+0.12</sup> / <sub>-0.13</sub>	6.12
2	39.52	25.12	33.30 <sup>+0.15</sup> / <sub>-0.10</sub>	6.12
3	53.42	38.84	47.04 <sup>+0.13</sup>	5.99
4	69.70	55.30	63.50 <sup>+0.13</sup>	5.99

## Coded socket connectors

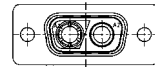


2W2C = 1 Socket – 1 Plug



3W3C = 2 Sockets – 1 Plug

## Coded plug connectors



2W2C = 1 Plug – 1 Socket



3W3C = 2 Plugs – 1 Socket



## ORDER DATA



SOCKET CONNECTOR		
Design	Mounting style	Part Number
3W3	Through-hole	3003W3SXX99A10X
5W5	Through-hole	3005W5SXX99A10X
8W8	Through-hole	3008W8SXX99A10X
Coded version		
2W2C	Through-hole	302W2CSXX99A10X
3W3C	Through-hole	303W3CSXX99A10X

PLUG CONNECTOR		
Design	Mounting style	Part Number
3W3	Through-hole	3003W3PXX99A10X
5W5	Through-hole	3005W5PXX99A10X
8W8	Through-hole	3008W8PXX99A10X
Coded version		
2W2C	Through-hole	302W2CPXX99A10X
3W3C	Through-hole	303W3CPXX99A10X



SOCKET CONNECTOR		
Design	Mounting style 4-40 UNC	Part Number
3W3	Threaded insert	3003W3SXX99A30X
5W5	Threaded insert	3005W5SXX99A30X
8W8	Threaded insert	3008W8SXX99A30X
Coded version		
2W2C	Threaded insert	302W2CSXX99A30X
3W3C	Threaded insert	303W3CSXX99A30X

PLUG CONNECTOR		
Design	Mounting style 4-40 UNC	Part Number
3W3	Threaded insert	3003W3PXX99A30X
5W5	Threaded insert	3005W5PXX99A30X
8W8	Threaded insert	3008W8PXX99A30X
Coded version		
2W2C	Threaded insert	302W2CPXX99A30X
3W3C	Threaded insert	303W3CPXX99A30X

# COMBINATION D-SUB – MOUNTING STYLES

For straight high power, coaxial or high voltage contacts

ORDER DATA



SOCKET CONNECTOR		
Design	Mounting style 4-40 UNC	Part Number
3W3	Threaded rear spacer	3003W3SXX99A50X
5W5	Threaded rear spacer	3005W5SXX99A50X
8W8	Threaded rear spacer	3008W8SXX99A50X
Coded version		
2W2C	Threaded rear spacer	302W2CSXX99A50X
3W3C	Threaded rear spacer	303W3CSXX99A50X

PLUG CONNECTOR		
Design	Mounting style 4-40 UNC	Part Number
3W3	Threaded rear spacer	3003W3PXX99A50X
5W5	Threaded rear spacer	3005W5PXX99A50X
8W8	Threaded rear spacer	3008W8PXX99A50X
Coded version		
2W2C	Threaded rear spacer	302W2CPXX99A50X
3W3C	Threaded rear spacer	303W3CPXX99A50X

PCB thickness .063"/1.6 mm



SOCKET CONNECTOR		
Design	Mounting style 4-40 UNC	Part Number
3W3	Threaded rear spacer PCB clip	3003W3SXX99E20X
5W5	Threaded rear spacer PCB clip	3005W5SXX99E20X
8W8	Threaded rear spacer PCB clip	3008W8SXX99E20X
Coded version		
2W2C	Threaded rear spacer PCB clip	302W2CSXX99E20X
3W3C	Threaded rear spacer PCB clip	303W3CSXX99E20X

PLUG CONNECTOR		
Design	Mounting style 4-40 UNC	Part Number
3W3	Threaded rear spacer PCB clip	3003W3PXX99E20X
5W5	Threaded rear spacer PCB clip	3005W5PXX99E20X
8W8	Threaded rear spacer PCB clip	3008W8PXX99E20X
Coded version		
2W2C	Threaded rear spacer PCB clip	302W2CPXX99E20X
3W3C	Threaded rear spacer PCB clip	303W3CPXX99E20X

PCB thickness .091"/2.3 mm



SOCKET CONNECTOR		
Design	Mounting style 4-40 UNC	Part Number
3W3	Threaded rear spacer PCB clip	3003W3SXX99E40X
5W5	Threaded rear spacer PCB clip	3005W5SXX99E40X
8W8	Threaded rear spacer PCB clip	3008W8SXX99E40X
Coded version		
2W2C	Threaded rear spacer PCB clip	302W2CSXX99E40X
3W3C	Threaded rear spacer PCB clip	303W3CSXX99E40X

PLUG CONNECTOR		
Design	Mounting style 4-40 UNC	Part Number
3W3	Threaded rear spacer PCB clip	3003W3PXX99E40X
5W5	Threaded rear spacer PCB clip	3005W5PXX99E40X
8W8	Threaded rear spacer PCB clip	3008W8PXX99E40X
Coded version		
2W2C	Threaded rear spacer PCB clip	302W2CPXX99E40X
3W3C	Threaded rear spacer PCB clip	303W3CPXX99E40X

PCB thickness .126"/3.2 mm



SOCKET CONNECTOR		
Design	Mounting style 4-40 UNC	Part Number
3W3	Threaded rear spacer PCB clip	3003W3SXX99E60X
5W5	Threaded rear spacer PCB clip	3005W5SXX99E60X
8W8	Threaded rear spacer PCB clip	3008W8SXX99E60X
Coded version		
2W2C	Threaded rear spacer PCB clip	302W2CSXX99E60X
3W3C	Threaded rear spacer PCB clip	303W3CSXX99E60X

PLUG CONNECTOR		
Design	Mounting style 4-40 UNC	Part Number
3W3	Threaded rear spacer PCB clip	3003W3PXX99E60X
5W5	Threaded rear spacer PCB clip	3005W5PXX99E60X
8W8	Threaded rear spacer PCB clip	3008W8PXX99E60X
Coded version		
2W2C	Threaded rear spacer PCB clip	302W2CPXX99E60X
3W3C	Threaded rear spacer PCB clip	303W3CPXX99E60X

PCB clip .122"/3.1 ± .004"/0.10 mm hole diameter

# COMBINATION D-SUB WITHOUT CONTACTS

For angled high power or coaxial contacts – Short metal bracket

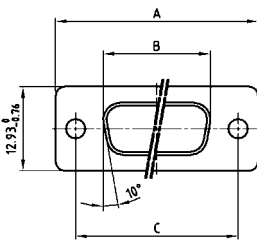


RoHS compliant – CSA listed, File No.: LR 115000-1 – UL listed, File No.: E 228329

## DESCRIPTION

- Designs: 2W2C; 3W3; 3W3C; 5W5; 8W8
- Mounting styles:
  - Mounting bracket and 4-40 UNC threaded insert
  - Mounting bracket with 4-40 UNC front spacer
  - Mounting bracket, PCB clip and 4-40 UNC threaded insert
  - Mounting bracket, PCB clip and 4-40 UNC front spacer
- M3 thread design available on request
- Shell: Steel tin plated  
(brass tin plated or stainless steel available on request)

## SOCKET CONNECTOR



Shellsize	A -0.76	B -0.25	C
1	31.19	16.46	25.00 <sup>+0.12</sup> / <sub>-0.13</sub>
2	39.52	24.79	33.30 <sup>+0.15</sup> / <sub>-0.10</sub>
3	53.42	38.50	47.04 <sup>+0.13</sup>
4	69.70	54.96	63.50 <sup>+0.13</sup>

## PLUG CONNECTOR



Shellsize	A -0.76	B +0.25	C	D -0.30
1	31.19	16.79	25.00 <sup>+0.12</sup> / <sub>-0.13</sub>	6.12
2	39.52	25.12	33.30 <sup>+0.15</sup> / <sub>-0.10</sub>	6.12
3	53.42	38.84	47.04 <sup>+0.13</sup>	5.99
4	69.70	55.30	63.50 <sup>+0.13</sup>	5.99

## Coded socket connectors



2W2C = 1 Socket – 1 Plug



3W3C = 2 Sockets – 1 Plug

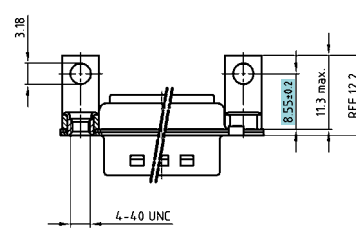
## Coded plug connectors



2W2C = 1 Plug – 1 Socket



3W3C = 2 Plugs – 1 Socket



## ORDER DATA



### SOCKET CONNECTOR

Design	Mounting style 4-40 UNC	Part Number
3W3	Threaded insert	3003W3SXX99N20X
5W5	Threaded insert	3005W5SXX99N20X
8W8	Threaded insert	3008W8SXX99N20X
Coded version		
2W2C	Threaded insert	302W2CSXX99N20X
3W3C	Threaded insert	303W3CSXX99N20X

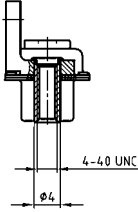
### PLUG CONNECTOR

Design	Mounting style 4-40 UNC	Part Number
3W3	Threaded insert	3003W3PXX99N20X
5W5	Threaded insert	3005W5PXX99N20X
8W8	Threaded insert	3008W8PXX99N20X
Coded version		
2W2C	Threaded insert	302W2CPXX99N20X
3W3C	Threaded insert	303W3CPXX99N20X

# COMBINATION D-SUB – MOUNTING STYLES

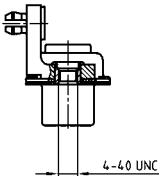
For angled high power or coaxial contacts – Short metal bracket

ORDER DATA



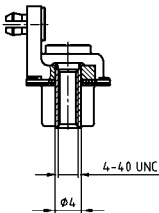
SOCKET CONNECTOR		
Design	Mounting style 4-40 UNC	Part Number
3W3	Front spacer	3003W3SXX99P20X
5W5	Front spacer	3005W5SXX99P20X
8W8	Front spacer	3008W8SXX99P20X
Coded version		
2W2C	Front spacer	302W2CSXX99P20X
3W3C	Front spacer	303W3CSXX99P20X

PLUG CONNECTOR		
Design	Mounting style 4-40 UNC	Part Number
3W3	Front spacer	3003W3PXX99P20X
5W5	Front spacer	3005W5PXX99P20X
8W8	Front spacer	3008W8PXX99P20X
Coded version		
2W2C	Front spacer	302W2CPXX99P20X
3W3C	Front spacer	303W3CPXX99P20X



SOCKET CONNECTOR		
Design	Mounting style 4-40 UNC	Part Number
3W3	Threaded insert / PCB clip	3003W3SXX99N40X
5W5	Threaded insert / PCB clip	3005W5SXX99N40X
8W8	Threaded insert / PCB clip	3008W8SXX99N40X
Coded version		
2W2C	Threaded insert / PCB clip	302W2CSXX99N40X
3W3C	Threaded insert / PCB clip	303W3CSXX99N40X

PLUG CONNECTOR		
Design	Mounting style 4-40 UNC	Part Number
3W3	Threaded insert / PCB clip	3003W3PXX99N40X
5W5	Threaded insert / PCB clip	3005W5PXX99N40X
8W8	Threaded insert / PCB clip	3008W8PXX99N40X
Coded version		
2W2C	Threaded insert / PCB clip	302W2CPXX99N40X
3W3C	Threaded insert / PCB clip	303W3CPXX99N40X



SOCKET CONNECTOR		
Design	Mounting style 4-40 UNC	Part Number
3W3	Front spacer / PCB clip	3003W3SXX99P40X
5W5	Front spacer / PCB clip	3005W5SXX99P40X
8W8	Front spacer / PCB clip	3008W8SXX99P40X
Coded version		
2W2C	Front spacer / PCB clip	302W2CSXX99P40X
3W3C	Front spacer / PCB clip	303W3CSXX99P40X

PLUG CONNECTOR		
Design	Mounting style 4-40 UNC	Part Number
3W3	Front spacer / PCB clip	3003W3PXX99P40X
5W5	Front spacer / PCB clip	3005W5PXX99P40X
8W8	Front spacer / PCB clip	3008W8PXX99P40X
Coded version		
2W2C	Front spacer / PCB clip	302W2CPXX99P40X
3W3C	Front spacer / PCB clip	303W3CPXX99P40X

PCB clip .122" / 3.1 ± .004" / 0.10 mm hole diameter and .063" / 1.6 mm circuit board thickness

# COMBINATION D-SUB WITHOUT CONTACTS

For angled high power or coaxial contacts – Long metal bracket



RoHS compliant – CSA listed, File No.: LR 115000-1-UL listed, File No.: E 228329

## DESCRIPTION

- Designs: 2W2C; 3W3; 3W3C; 5W5; 8W8
- Mounting styles:
  - with mounting bracket and 4-40 UNC threaded insert
  - with mounting bracket with 4-40 UNC front spacer
  - with mounting bracket, PCB clip and 4-40 UNC threaded insert
  - with mounting bracket, PCB clip and 4-40 UNC front spacer
- M3 thread design available on request
- Shell: Steel tin plated  
(brass tin plated or stainless steel available on request)

## SOCKET CONNECTOR



Shellsize	A -0.76	B -0.25	C
1	31.19	16.46	25.00 <sup>+0.12</sup> / <sub>-0.13</sub>
2	39.52	24.79	33.30 <sup>+0.15</sup> / <sub>-0.10</sub>
3	53.42	38.50	47.04 <sup>+0.13</sup>
4	69.70	54.96	63.50 <sup>+0.13</sup>

## PLUG CONNECTOR



Shellsize	A -0.76	B +0.25	C	D -0.30
1	31.19	16.79	25.00 <sup>+0.12</sup> / <sub>-0.13</sub>	6.12
2	39.52	25.12	33.30 <sup>+0.15</sup> / <sub>-0.10</sub>	6.12
3	53.42	38.84	47.04 <sup>+0.13</sup>	5.99
4	69.70	55.30	63.50 <sup>+0.13</sup>	5.99

## CODED SOCKET CONNECTORS



2W2C = 1 Socket – 1 Plug



3W3C = 2 Sockets – 1 Plug

## CODED PLUG CONNECTORS



2W2C = 1 Plug – 1 Socket



3W3C = 2 Plugs – 1 Socket



## ORDER DATA



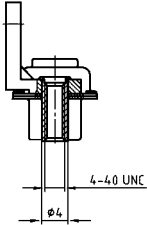
SOCKET CONNECTOR		
Design	Mounting style 4-40 UNC	Part Number
3W3	Threaded insert	3003W3SXX99G20X
5W5	Threaded insert	3005W5SXX99G20X
8W8	Threaded insert	3008W8SXX99G20X
Coded version		
2W2C	Threaded insert	302W2CSXX99G20X
3W3C	Threaded insert	303W3CSXX99G20X

PLUG CONNECTOR		
Design	Mounting style 4-40 UNC	Part Number
3W3	Threaded insert	3003W3PXX99G20X
5W5	Threaded insert	3005W5PXX99G20X
8W8	Threaded insert	3008W8PXX99G20X
Coded version		
2W2C	Threaded insert	302W2CPXX99G20X
3W3C	Threaded insert	303W3CPXX99G20X

# COMBINATION D-SUB – MOUNTING STYLES

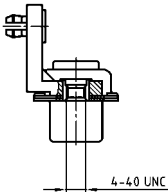
For angled high power or coaxial contacts – Long metal bracket

**ORDER DATA**



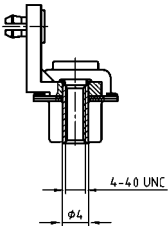
SOCKET CONNECTOR		
Design	Mounting style 4-40 UNC	Part Number
3W3	Front spacer	3003W3SXX99H20X
5W5	Front spacer	3005W5SXX99H20X
8W8	Front spacer	3008W8SXX99H20X
Coded version		
2W2C	Front spacer	302W2CSXX99H20X
3W3C	Front spacer	303W3CSXX99H20X

PLUG CONNECTOR		
Design	Mounting style 4-40 UNC	Part Number
3W3	Front spacer	3003W3PXX99H20X
5W5	Front spacer	3005W5PXX99H20X
8W8	Front spacer	3008W8PXX99H20X
Coded version		
2W2C	Front spacer	302W2CPXX99H20X
3W3C	Front spacer	303W3CPXX99H20X



SOCKET CONNECTOR		
Design	Mounting style 4-40 UNC	Part Number
3W3	Threaded insert/PCB clip	3003W3SXX99G40X
5W5	Threaded insert/PCB clip	3005W5SXX99G40X
8W8	Threaded insert/PCB clip	3008W8SXX99G40X
Coded version		
2W2C	Threaded insert/PCB clip	302W2CSXX99G40X
3W3C	Threaded insert/PCB clip	303W3CSXX99G40X

PLUG CONNECTOR		
Design	Mounting style 4-40 UNC	Part Number
3W3	Threaded insert/PCB clip	3003W3PXX99G40X
5W5	Threaded insert/PCB clip	3005W5PXX99G40X
8W8	Threaded insert/PCB clip	3008W8PXX99G40X
Coded version		
2W2C	Threaded insert/PCB clip	302W2CPXX99G40X
3W3C	Threaded insert/PCB clip	303W3CPXX99G40X



SOCKET CONNECTOR		
Design	Mounting style 4-40 UNC	Part Number
3W3	Front spacer/PCB clip	3003W3SXX99H40X
5W5	Front spacer/PCB clip	3005W5SXX99H40X
8W8	Front spacer/PCB clip	3008W8SXX99H40X
Coded version		
2W2C	Front spacer/PCB clip	302W2CSXX99H40X
3W3C	Front spacer/PCB clip	303W3CSXX99H40X

PLUG CONNECTOR		
Design	Mounting style 4-40 UNC	Part Number
3W3	Front spacer/PCB clip	3003W3PXX99H40X
5W5	Front spacer/PCB clip	3005W5PXX99H40X
8W8	Front spacer/PCB clip	3008W8PXX99H40X
Coded version		
2W2C	Front spacer/PCB clip	302W2CPXX99H40X
3W3C	Front spacer/PCB clip	303W3CPXX99H40X

PCB clip .122"/3.1 ± .004"/0.10 mm hole diameter and .063"/1.6 mm circuit board thickness

# COMBINATION D-SUB WIHTOUT CONTACTS

Crimp body – For wire size AWG 20...24 and AWG 26...28

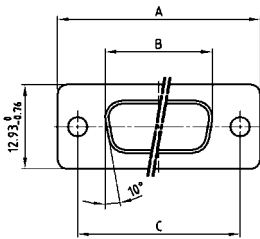


RoHS compliant – CSA listed, File No.: LR 115000-1 –UL listed, File No.: E 228329

## DESCRIPTION

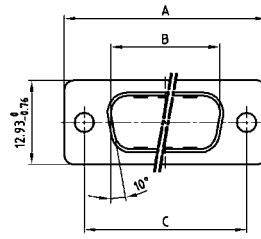
- For precision machined contacts for wire size AWG 20...24 and AWG 26...28
- Mounting styles:
  - with through-hole, Ø .118" / 3 mm
  - with 4-40 UNC or M3 threaded insert
- Shell: Steel tin plated  
(brass tin plated or stainless steel available on request)
- recommended plastic hoods look at page 7 | 16, 7 | 17

## SOCKET CONNECTOR

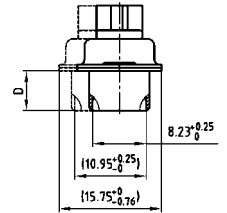
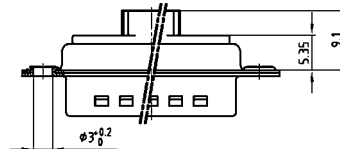
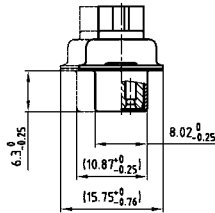


Shellsize	A -0.76	B -0.25	C
1	31.19	16.46	25.00 <sup>+0.12</sup> <sub>-0.13</sub>
2	39.52	24.79	33.30 <sup>+0.15</sup> <sub>-0.10</sub>
3	53.42	38.50	47.04 <sup>+0.13</sup>
4	69.70	54.96	63.50 <sup>+0.13</sup>
5	67.31	52.55	61.10 <sup>+0.14</sup> <sub>-0.11</sub>

## PLUG CONNECTOR



Shellsize	A -0.76	B +0.25	C	D -0.30
1	31.19	16.79	25.00 <sup>+0.12</sup> <sub>-0.13</sub>	6.12
2	39.52	25.12	33.30 <sup>+0.15</sup> <sub>-0.10</sub>	6.12
3	53.42	38.84	47.04 <sup>+0.13</sup>	5.99
4	69.70	55.30	63.50 <sup>+0.13</sup>	5.99
5	67.31	52.68	61.10 <sup>+0.14</sup> <sub>-0.11</sub>	5.99



Shell size 5 = Dim. in (.)

Shell size 5 = Dim. in (.)

## ORDER DATA



SOCKET CONNECTOR		
Design	Mounting style	Part Number
5W1	Through-hole	3005W1SXX99A10X
7W2	Through-hole	3007W2SXX99A10X
11W1	Through-hole	3011W1SXX99A10X
9W4	Through-hole	3009W4SXX99A10X
13W3	Through-hole	3013W3SXX99A10X
17W2	Through-hole	3017W2SXX99A10X
21W1	Through-hole	3021W1SXX99A10X
13W6	Through-hole	3013W6SXX99A10X
17W5	Through-hole	3017W5SXX99A10X
21WA4	Through-hole	321WA4SXX99A10X
25W3	Through-hole	3025W3SXX99A10X
27W2	Through-hole	3027W2SXX99A10X
24W7	Through-hole	3024W7SXX99A10X
36W4	Through-hole	3036W4SXX99A10X
43W2	Through-hole	3043W2SXX99A10X
47W1	Through-hole	3047W1SXX99A10X

PLUG CONNECTOR		
Design	Mounting style	Part Number
5W1	Through-hole	3005W1PXX99A10X
7W2	Through-hole	3007W2PXX99A10X
11W1	Through-hole	3011W1PXX99A10X
9W4	Through-hole	3009W4PXX99A10X
13W3	Through-hole	3013W3PXX99A10X
17W2	Through-hole	3017W2PXX99A10X
21W1	Through-hole	3021W1PXX99A10X
13W6	Through-hole	3013W6PXX99A10X
17W5	Through-hole	3017W5PXX99A10X
21WA4	Through-hole	321WA4PXX99A10X
25W3	Through-hole	3025W3PXX99A10X
27W2	Through-hole	3027W2PXX99A10X
24W7	Through-hole	3024W7PXX99A10X
36W4	Through-hole	3036W4PXX99A10X
43W2	Through-hole	3043W2PXX99A10X
47W1	Through-hole	3047W1PXX99A10X



# COMBINATION D-SUB – MOUNTING STYLES

Crimp body (without contacts) – For wire size AWG 20...24 and AWG 26...28

## ORDER DATA



SOCKET CONNECTOR		
Design	Mounting style M3	Part Number
5W1	Threaded insert	3005W1SXX99A20X
7W2	Threaded insert	3007W2SXX99A20X
11W1	Threaded insert	3011W1SXX99A20X
9W4	Threaded insert	3009W4SXX99A20X
13W3	Threaded insert	3013W3SXX99A20X
17W2	Threaded insert	3017W2SXX99A20X
21W1	Threaded insert	3021W1SXX99A20X
13W6	Threaded insert	3013W6SXX99A20X
17W5	Threaded insert	3017W5SXX99A20X
21WA4	Threaded insert	321WA4SXX99A20X
25W3	Threaded insert	3025W3SXX99A20X
27W2	Threaded insert	3027W2SXX99A20X
24W7	Threaded insert	3024W7SXX99A20X
36W4	Threaded insert	3036W4SXX99A20X
43W2	Threaded insert	3043W2SXX99A20X
47W1	Threaded insert	3047W1SXX99A20X

PLUG CONNECTOR		
Design	Mounting style M3	Part Number
5W1	Threaded insert	3005W1PXX99A20X
7W2	Threaded insert	3007W2PXX99A20X
11W1	Threaded insert	3011W1PXX99A20X
9W4	Threaded insert	3009W4PXX99A20X
13W3	Threaded insert	3013W3PXX99A20X
17W2	Threaded insert	3017W2PXX99A20X
21W1	Threaded insert	3021W1PXX99A20X
13W6	Threaded insert	3013W6PXX99A20X
17W5	Threaded insert	3017W5PXX99A20X
21WA4	Threaded insert	321WA4PXX99A20X
25W3	Threaded insert	3025W3PXX99A20X
27W2	Threaded insert	3027W2PXX99A20X
24W7	Threaded insert	3024W7PXX99A20X
36W4	Threaded insert	3036W4PXX99A20X
43W2	Threaded insert	3043W2PXX99A20X
47W1	Threaded insert	3047W1PXX99A20X



SOCKET CONNECTOR		
Design	Mounting style 4-40 UNC	Part Number
5W1	Threaded insert	3005W1SXX99A30X
7W2	Threaded insert	3007W2SXX99A30X
11W1	Threaded insert	3011W1SXX99A30X
9W4	Threaded insert	3009W4SXX99A30X
13W3	Threaded insert	3013W3SXX99A30X
17W2	Threaded insert	3017W2SXX99A30X
21W1	Threaded insert	3021W1SXX99A30X
13W6	Threaded insert	3013W6SXX99A30X
17W5	Threaded insert	3017W5SXX99A30X
21WA4	Threaded insert	321WA4SXX99A30X
25W3	Threaded insert	3025W3SXX99A30X
27W2	Threaded insert	3027W2SXX99A30X
24W7	Threaded insert	3024W7SXX99A30X
36W4	Threaded insert	3036W4SXX99A30X
43W2	Threaded insert	3043W2SXX99A30X
47W1	Threaded insert	3047W1SXX99A30X

PLUG CONNECTOR		
Design	Mounting style 4-40 UNC	Part Number
5W1	Threaded insert	3005W1PXX99A30X
7W2	Threaded insert	3007W2PXX99A30X
11W1	Threaded insert	3011W1PXX99A30X
9W4	Threaded insert	3009W4PXX99A30X
13W3	Threaded insert	3013W3PXX99A30X
17W2	Threaded insert	3017W2PXX99A30X
21W1	Threaded insert	3021W1PXX99A30X
13W6	Threaded insert	3013W6PXX99A30X
17W5	Threaded insert	3017W5PXX99A30X
21WA4	Threaded insert	321WA4PXX99A30X
25W3	Threaded insert	3025W3PXX99A30X
27W2	Threaded insert	3027W2PXX99A30X
24W7	Threaded insert	3024W7PXX99A30X
36W4	Threaded insert	3036W4PXX99A30X
43W2	Threaded insert	3043W2PXX99A30X
47W1	Threaded insert	3047W1PXX99A30X

# COMBINATION D-SUB CONTACTS

Crimp contacts – Precision machined – For wire size AWG 20...24 and AWG 26...28



RoHS compliant – CSA listed, File No.: LR 115000-1 – UL listed, File No.: E 228329

## DESCRIPTION

- For wire size AWG 20...24 and AWG 26–28
- Quality class 3
- Quality class 1 and another quality classes on request

## PRODUCT DRAWING

Signal socket crimp contact  
(Closed entry version)

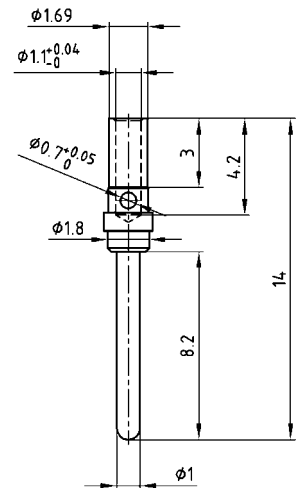


AWG	A +0.04
20-24	Ø 1.16
26-28	Ø 0.65

Signal socket crimp contact  
(Standard version)



Signal plug crimp contact  
(Standard version)



## Designs

Contact material Socket	Copper alloy
Closed entry version	Stainless steel sleeve
Contact material plug	Brass
Quality class 1	500 mating cycles
Quality class 3	50 mating cycles

## ORDER DATA

### SOCKET CONTACT

Contact type	AWG	Quality class	Part Number
Socket* / Closed entry	20...24	1	132C15019X
Socket* / Closed entry	26...28	1	132C15029X
Socket / Standard	20...24	3	162A18709X
Socket / Standard	26...28	3	162A18719X

\*Preferred type

### PLUG CONTACT

Contact type	AWG	Quality class	Part Number
Plug / Standard	20...24	1	131C15019X
Plug / Standard	26...28	1	131C15029X
Plug / Standard	20...24	3	131A15019X
Plug / Standard	26...28	3	131A15029X

# COMBINATION D-SUB CONTACTS

High power contacts – Solder cup – Straight



RoHS compliant – CSA listed, File No.: LR 115000-1-UL listed, File No.: E 228329

## DESCRIPTION

- Precision machined contacts
- Quality class 3: 50 mating cycles
- Quality class 1: 500 mating cycles
- Mating side gold plated
- Termination side gold or tin plated
- Other quality classes on request
- To order these preassembled in the connector, use the termination code shown below, in the part number creator at the front of this section

## PRODUCT DRAWING

Socket contact



Installation dimension



Plug contact



AWG	Current rating	ØA <sup>+0.15</sup>
16-20	10A	1.80
12-14	20A	2.70
10-12	30A	3.50
8-10	40A	4.80

Wire stripping



Premating contact



## ORDER DATA

SOCKET CONTACT					
AWG	Quality class	Code* tin plated	Part Number tin plated	Code* gold plated	Part Number gold plated
16...20	1	F1	13-003501	41	132C10019X
16...20	3	F2	13-003503	61	132A10019X
12...14	1	F3	13-003511	42	132C10029X
12...14	3	F4	13-003513	62	132A10029X
10...12	1	F5	13-003521	43	132C10039X
10...12	3	F6	13-003523	63	132A10039X
8...10	1	F7	13-003531	44	132C10049X
8...10	3	F8	13-003533	64	132A10049X

PLUG CONTACT					
AWG	Quality class	Code* tin plated	Part Number tin plated	Code* gold plated	Part Number gold plated
16...20	1	F1	13-003541	41	131C10019X
16...20	3	F2	13-003543	61	131A10019X
12...14	1	F3	13-003551	42	131C10029X
12...14	3	F4	13-003553	62	131A10029X
10...12	1	F5	13-003561	43	131C10039X
10...12	3	F6	13-003563	63	131A10039X
8...10	1	F7	13-003571	44	131C10049X
8...10	3	F8	13-003573	64	131A10049X

PREMATING CONTACT					
AWG	Ampere	Quality class	Part Number tin plated	Quality class	Part Number gold plated
16-20	10 A	1	13-003581	1	131C10119X
12-14	20 A	1	13-003591	1	131C10129X
10-12	30 A	1	13-003601	1	131C10139X
8-10	40 A	1	13-003611	1	131C10149X

\*Code use with part number creator

# COMBINATION D-SUB CONTACTS

High power contacts – Screw termination – Straight – For wire size AWG 14



RoHS compliant – CSA listed, File No.: LR 115000-1 – UL listed, File No.: E 228329

## DESCRIPTION

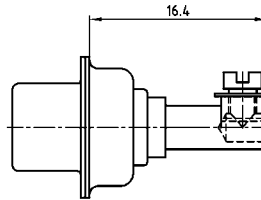
- Precision machined contacts for wire size **AWG 14**, max. 20 A
- Quality class 3: 50 mating cycles (gold plated)
- Quality class 1: 500 mating cycles (gold plated)
- Other quality classes on request
- For field attachable applications

## PRODUCT DRAWING

Socket contact



Installation dimension



Plug contact



AWG	Current rating	ØA <sup>+0.15</sup>
16-20	10A	1.80
12-14	20A	2.70
10-12	30A	3.50
8-10	40A	4.80

Premating contact



## ORDER DATA

SOCKET CONTACT				
Contact type	AWG	Ampere	Quality class	Part Number
Socket	14	20 A	1	132C36009X
Socket	14	20 A	3	132A36009X

PLUG CONTACT				
Contact type	AWG	Ampere	Quality class	Part Number
Plug	14	20 A	1	131C36009X
Plug	14	20 A	3	131A36009X
Plug premating	14	20 A	1	131C36109X

# COMBINATION D-SUB CONTACTS

## High power contacts – Crimp – Straight



RoHS compliant – CSA listed, File No.: LR 115000-1 – UL listed, File No.: E 228329

### DESCRIPTION

- Precision machined contacts
- Quality class 3: 50 mating cycles
- Quality class 1: 500 mating cycles
- Mating side gold plated
- Termination side gold or tin plated
- Other quality classes on request

### PRODUCT DRAWING

Socket contact



Installation dimension



Plug contact



AWG	Current rating	ØA <sup>+0.15</sup>
16-20	10A	1.70
12-14	20A	2.60
10-12	30A	3.70
8-10	40A	4.60

Wire stripping



Premating contact



### ORDER DATA

SOCKET CONTACT					
AWG	Ampere	Quality class	Part Number tin plated	Quality class	Part Number gold plated
16-20	10 A	1	13-003621	1	132C11019X
16-20	10 A	3	13-003623	3	132A11019X
12-14	20 A	1	13-003631	1	132C11029X
12-14	20 A	3	13-003633	3	132A11029X
10-12	30 A	1	13-003641	1	132C11039X
10-12	30 A	3	13-003643	3	132A11039X
8-10	40 A	1	13-003651	1	132C11049X
8-10	40 A	3	13-003653	3	132A11049X

PLUG CONTACT					
AWG	Ampere	Quality class	Part Number tin plated	Quality class	Part Number gold plated
16-20	10 A	1	13-003661	1	131C11019X
16-20	10 A	3	13-003663	3	131A11019X
12-14	20 A	1	13-003671	1	131C11029X
12-14	20 A	3	13-003673	3	131A11029X
10-12	30 A	1	13-003681	1	131C11039X
10-12	30 A	3	13-003683	3	131A11039X
8-10	40 A	1	13-003691	1	131C11049X
8-10	40 A	3	13-003693	3	131A11049X

PREMATING CONTACT					
AWG	Ampere	Quality class	Part Number tin plated	Quality class	Part Number tin plated
16-20	10 A	1	13-003701	1	131C11119X
12-14	20 A	1	13-003711	1	131C11129X
10-12	30 A	1	13-003721	1	131C11139X
8-10	40 A	1	13-003731	1	131C11149X

# COMBINATION D-SUB CONTACTS

High power contacts – Solder cup or crimp – angled



RoHS compliant – CSA listed, File No.: LR 115000-1 – UL listed, File No.: E 228329

## DESCRIPTION

- Precision machined contacts
- Quality class 3: 50 mating cycles (gold plated)
- Quality class 1: 500 mating cycles (gold plated)
- Other quality classes on request

## PRODUCT DRAWING

Socket contact



Installation dimension  
Shell size 1-4



Plug contact



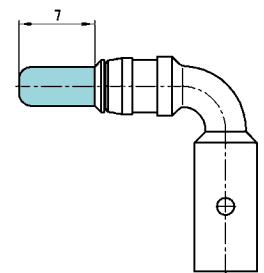
Wire stripping



Installation dimension  
Shell size 5



Premating contact



AWG	Current rating	Ø A +0.15	Crimp Plier Part.no. 360X12269X
16-20	10A	1.70	1.40/1.25
12-14	20A	2.60	1.85/1.65
10-12	30A	3.70	2.30/2.05
8-10	40A	4.60	2.30/2.05

## ORDER DATA

SOCKET CONTACT				
Contact type	AWG	Ampere	Quality class	Part Number
Socket	16...20	10 A	1	132C16019X
Socket	16...20	10 A	3	132A16019X
Socket	12...14	20 A	1	132C16029X
Socket	12...14	20 A	3	132A16029X
Socket	10...12	30 A	1	132C16039X
Socket	10...12	30 A	3	132A16039X
Socket	8...10	40 A	1	132C16049X
Socket	8...10	40 A	3	132A16049X

PLUG CONTACT				
Contact type	AWG	Ampere	Quality class	Part Number
Plug	16...20	10 A	1	131C16019X
Plug	16...20	10 A	3	131A16019X
Plug	12...14	20 A	1	131C16029X
Plug	12...14	20 A	3	131A16029X
Plug	10...12	30 A	1	131C16039X
Plug	10...12	30 A	3	131A16039X
Plug	8...10	40 A	1	131C16049X
Plug	8...10	40 A	3	131A16049X

PREMATING CONTACT				
Contact type	AWG	Ampere	Quality class	Part Number
Plug premating	16...20	10 A	1	131C16119X
Plug premating	12...14	20 A	1	131C16129X
Plug premating	10...12	30 A	1	131C16139X
Plug premating	8...10	40 A	1	131C16149X

# COMBINATION D-SUB CONTACTS

High power contacts – Solder pin – angled



RoHS compliant – CSA listed, File No.: LR 115000-1-UL listed, File No.: E 228329

**DESCRIPTION**

- Precision machined contacts
- Quality class 3: 50 mating cycles
- Quality class 1: 500 mating cycles
- Mating side gold plated
- Termination side tin plated
- Other quality classes on request
- To order these preassembled in the connector, use the termination code shown below, in the part number creator at the front of this section

**PRODUCT DRAWING**

Socket contact



Installation dimension Shell size 1-4



Plug contact



Shellsize	Current rating	Termination	A	B	C	D	ØE	F	G
1-4	15A	55/59	14.54	3.00	10.50	14.68	1.90	8.35	10.50
1-4	20A	56/73	17.84	6.30	11.00	17.98	2.85	11.65	11.00
1-4	30A	57/74	26.54	15.00	9.50	26.68	3.20	20.35	9.50
1-4	40A	58/75	17.84	6.30	11.00	17.98	3.75	11.65	11.00
5	20A	66/81	20.39	8.85	14.00	20.53	2.85	14.20	12.58
5	30A	67/82	20.39	8.85	14.00	20.53	3.20	14.20	12.58
5	30A	65/85	26.54	15.00	13.50	26.68	3.20	20.35	12.08
5	40A	60/77	20.39	8.85	14.00	20.53	3.75	14.20	12.58

Installation dimension Shell size 5



Premating contact



**hole diameter of PCB:**

1.95 = 2.30 ± 0.1
2.60 = 3.00 ± 0.1
2.85 = 3.20 ± 0.1
3.18 = 3.60 ± 0.1
3.75 = 4.10 ± 0.1

**ORDER DATA**

SOCKET CONTACT				
Contact type	Shell size	Quality class	Termination*	Part Number
Socket	1-4	1	55	132C13009X
Socket	1-4	3	59	132A13009X
Socket	1-4	1	56	132C13019X
Socket	1-4	3	73	132A13019X
Socket	1-4	1	57	132C13029X
Socket	1-4	3	74	132A13029X
Socket	1-4	1	58	132C13039X
Socket	1-4	3	75	132A13039X
Socket	5	1	66	132C13060X
Socket	5	3	81	132A13060X
Socket	5	1	67	132C13070X
Socket	5	3	82	132A13070X
Socket	5	1	65	132C13059X
Socket	5	3	85	132A13059X
Socket	5	1	60	132C13049X
Socket	5	3	77	132A13049X

PLUG CONTACT				
Contact type	Shell size	Quality class	Termination*	Part Number
Plug	1-4	1	55	131C13009X
Plug	1-4	3	59	131A13009X
Plug	1-4	1	56	131C13019X
Plug	1-4	3	73	131A13019X
Plug	1-4	1	57	131C13029X
Plug	1-4	3	74	131A13029X
Plug	1-4	1	58	131C13039X
Plug	1-4	3	75	131A13039X
Plug	5	1	66	131C13060X
Plug	5	3	81	131A13060X
Plug	5	1	67	131C13070X
Plug	5	3	82	131A13070X
Plug	5	1	65	131C13059X
Plug	5	3	85	131A13059X
Plug	5	1	60	131C13049X
Plug	5	3	77	131A13049X
Plug premating	1-4	1		131C13109X
Plug premating	1-4	1		131C13119X
Plug premating	1-4	1		131C13129X
Plug premating	1-4	1		131C13139X
Plug premating	5	1		131C13160X
Plug premating	5	1		131C13170X
Plug premating	5	1		131C13159X
Plug premating	5	1		131C13149X

\*Code use with part number creator

# COMBINATION D-SUB CONTACTS

## High power contacts – Solder pin – Straight



RoHS compliant – CSA listed, File No.: LR 115000-1 – UL listed, File No.: E 228329

### DESCRIPTION

- Precision machined contacts
- Quality class 3: 50 mating cycles (gold plated)
- Quality class 1: 500 mating cycles (gold plated)
- Mating side gold plated
- Termination side tin plated
- Other quality classes on request
- To order these preassembled in the connector, use the termination code shown below, in the part number creator at the front of this section

### PRODUCT DRAWING

Socket contact



Installation dimension



Plug contact



Current rating	Termination	A	B	C	Ø D	E	F
20A	48/68**	15.84	4.60	15.98	1.95	9.65	3.80
20A	49/69	16.84	5.30	16.98	2.60	10.65	4.30
20A	50/70**	16.24	4.70	16.38	2.85	10.05	3.70
30A	51/71	19.04	7.50	19.18	3.18	12.85	6.70
40A	52/72	17.29	5.75	17.43	3.75	11.10	4.75

Premating contact



**PCB hole diameter at:**

- 1.95 = 2.30 ± 0.1
- 2.60 = 3.00 ± 0.1
- 2.85 = 3.20 ± 0.1
- 3.18 = 3.60 ± 0.1
- 3.75 = 4.10 ± 0.1

### ORDER DATA

SOCKET CONTACT				
Contact type	Ampere	Quality class	Termination*	Part Number
Socket	20 A	1	48**	132C12019X
Socket	20 A	3	68**	132A12019X
Socket	20 A	1	49	132C12029X
Socket	20 A	3	69	132A12029X
Socket	20 A	1	50**	132C12039X
Socket	20 A	3	70**	132A12039X
Socket	30 A	1	51	132C12049X
Socket	30 A	3	71	132A12049X
Socket	40 A	1	52	132C12059X
Socket	40 A	3	72	132A12059X

PLUG CONTACT				
Contact type	Ampere	Quality class	Termination*	Part Number
Plug	20 A	1	48**	131C12019X
Plug	20 A	3	68**	131A12019X
Plug	20 A	1	49	131C12029X
Plug	20 A	3	69	131A12029X
Plug	20 A	1	50**	131C12039X
Plug	20 A	3	70**	131A12039X
Plug	30 A	1	51	131C12049X
Plug	30 A	3	71	131A12049X
Plug	40 A	1	52	131C12059X
Plug	40 A	3	72	131A12059X

PREMATING CONTACT			
Contact type	Ampere	Quality class	Part Number
Plug premating	20A/ Ø .077"/1.95	1	131C12119X
Plug premating	20A/ Ø .102"/2.60	1	131C12129X
Plug premating	20A/ Ø .112"/2.85	1	131C12139X
Plug premating	30A/ Ø .125"/3.18	1	131C12149X
Plug premating	40A/ Ø .148"/3.75	1	131C12159X

\*Code use with part number creator  
 \*\*not suitable for PCB 2.3 + 3.2 mm



# COMBINATION D-SUB CONTACTS

## High power contacts – Press-fit version – Straight



RoHS compliant

### DESCRIPTION

- Precision machined contacts
- Quality class 1: 500 mating cycles
- Mating area gold plated
- Press-fit area tin plated
- Other quality classes on request
- To order these preassembled in the connector, use the termination code shown below, in the part number creator at the front of this section

### PRODUCT DRAWING

Socket contact



Installation dimension



Plug contact



Termination Type	Ampere	A	B	C	D +0.03	E min.	E max.
P1	30A	16.34	4.8	16.48	3.13	2.96	3.11
P2	30A	16.34	4.8	16.48	3.27	3.10	3.25
P4	30A	15.94	4.4	16.08	3.22	3.02	3.20

PCB hole drilling for high power pressfit contact



### ORDER DATA

SOCKET CONTACT				
Contact type	Ampere	Quality class	Termination*	Part Number
Socket	30 A	1	P1	132C00229A
Socket	30 A	1	P2	132C00299A
Socket	30 A	1	P4	132C19019X

PLUG CONTACT				
Contact type	Ampere	Quality class	Termination*	Part Number
Plug	30 A	1	P1	131C00319A
Plug	30 A	1	P2	131C00389A
Plug	30 A	1	P4	131C19019X

# COMBINATION D-SUB CONTACTS

High voltage contacts – Solder termination – Straight and angled – For wire size AWG 20



RoHS compliant – CSA listed, File No.: LR 115000-1 – UL listed, File No.: E 228329

## DESCRIPTION

- Precision machined contacts for wire size **AWG 20**, max. 2,8 kV
- Quality class 1: 500 mating cycles (gold plated)
- Other quality classes on request

## PRODUCT DRAWING

Socket contact straight



Installation dimension straight



Plug contact straight



Socket contact angled



Installation dimension angled



Plug contact angled



Wire stripping



Wire stripping



## ORDER DATA

SOCKET CONTACT			PLUG CONTACT		
Contact type	AWG	Part Number	Contact type	AWG	Part Number
Socket/Straight	20	132J14019X	Plug/Straight	20	131J14019X
Socket/Angled	20	132J14519X	Plug/Angled	20	131J14519X

# COMBINATION D-SUB CONTACTS

Coaxial contacts – Straight – Inner conductor solder-, outer conductor crimp- / solder termination



RoHS compliant – CSA listed, File No.: LR 115000-1-UL listed, File No.: E 228329

## DESCRIPTION

- 50 Ω and 75 Ω-design
- Contact platings mating area:
  - .051 μm / 1.3 μm Au inner conductor /
  - .032 μm / 0.8 μm Au outer conductor
  - .008 μm / 0.2 μm Au inner and outer conductor
- Contact platings termination area:
  - .008 μm / 0.2 μm Au
  - tin plated
- Other platings on request
- Delivery includes: contacts and sleeve supplied loose

## PRODUCT DRAWING

### 50 Ω version

Socket contact



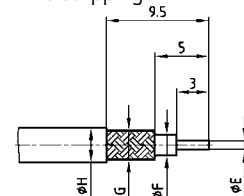
Installation dimension



Plug contact



Wire stripping



Usable Cables RG	A	B	C	D max.	Ø E max.	Ø F max.	Ø G max.	Ø H max.
178BU, 196AU, 404 U	22.50	11.20	23.00	17.55	0.85	1.20	1.40	2.30
174U, 188AU, 316U	22.50	11.20	23.00	17.55	0.85	1.90	2.30	3.20
180BU	22.50	11.20	23.00	17.55	0.85	2.80	3.10	4.50
58CU, 141AU	26.30	14.80	26.80	20.15	1.00	3.00	3.60	5.20
316U double braided	23.50	12.20	24.00	17.55	0.85	1.90	2.70	3.20

### 75 Ω version

Socket contact



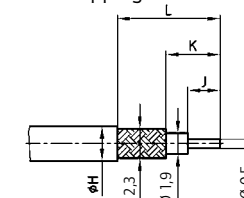
Installation dimension



Plug contact



Wire stripping



Usable Cables RG	A	B	C	D max.	Ø H max.	J	K	L
179BU, 187AU	18.55	7.30	19.05	12.80	3.20	2.00	3.10	6.00
179BU, 187AU	22.50	11.20	23.00	16.70	3.20	3.00	5.00	9.50

## ORDER DATA

SOCKET CONTACT			
Imp.	Cable	Part Number 1,3 μm / tin plated	Part Number 1,3 μm / 0,2 μm
50 Ω	178BU, 196AU, 404U	13-003004	132J20019X
50 Ω	174U, 188AU, 316U	13-003014	132J20029X
50 Ω	180BU	13-003024	132J20039X
50 Ω	58CU, 141AU	13-003034	132J20049X
50 Ω	316U double braided	13-003044	132J20059X
75 Ω	179BU, 187AU (B=.287"/7.3mm)	13-003054	132J30019X
75 Ω	179BU, 187 AU (B=.441"/11.2 mm)	13-003064	132J30029X

PLUG CONTACT			
Imp.	Cable	Part Number 1,3 μm / tin plated	Part Number 1,3 μm / 0,2 μm
50 Ω	178BU, 196AU, 404U	13-003074	131J20019X
50 Ω	174U, 188AU, 316U	13-003084	131J20029X
50 Ω	180BU	13-003094	131J20039X
50 Ω	58CU, 141AU	13-003104	131J20049X
50 Ω	316U double braided	13-003114	131J20059X
75 Ω	179BU, 187AU (B=.287"/7.3mm)	13-003124	131J30019X
75 Ω	179BU, 187 AU (B=.441"/11.2 mm)	13-003134	131J30029X

SOCKET CONTACT			
Imp.	Cable	Part Number 0,2 μm / tin plated	Part Number 0,2 μm / 0,2 μm
50 Ω	178BU, 196AU, 404U	13-003003	132A20019X
50 Ω	174U, 188AU, 316U	13-003013	132A20029X
50 Ω	180BU	13-003023	132A20039X
50 Ω	58CU, 141AU	13-003033	132A20049X
50 Ω	316U double braided	13-003043	132A20059X
75 Ω	179BU, 187AU (B=.287"/7.3mm)	13-003053	132A30019X
75 Ω	179BU, 187 AU (B=.441"/11.2 mm)	13-003063	132A30029X

PLUG CONTACT			
Imp.	Cable	Part Number 0,2 μm / tin plated	Part Number 0,2 μm / 0,2 μm
50 Ω	178BU, 196AU, 404U	13-003073	131A20019X
50 Ω	174U, 188AU, 316U	13-003083	131A20029X
50 Ω	180BU	13-003093	131A20039X
50 Ω	58CU, 141AU	13-003103	131A20049X
50 Ω	316U double braided	13-003113	131A20059X
75 Ω	179BU, 187AU (B=.287"/7.3mm)	13-003123	131A30019X
75 Ω	179BU, 187 AU (B=.441"/11.2 mm)	13-003133	131A30029X

# COMBINATION D-SUB CONTACTS

Coaxial contacts – Straight – Inner and outer conductor crimp termination



RoHS compliant – CSA listed, File No.: LR 115000-1 – UL listed, File No.: E 228329

## DESCRIPTION

- 50 Ω and 75 Ω-design
- Contact platings mating area:
  - .051 μm / 1.3 μm Au inner conductor /
  - .032 μm / 0.8 μm Au outer conductor
  - .008 μm / 0.2 μm Au inner and outer conductor
- Contact platings termination area:
  - .008 μm / 0.2 μm Au
  - tin plated
- Other platings on request
- Delivery includes: contacts and sleeve supplied loose

## PRODUCT DRAWING

### 50 Ω version

Socket contact



Installation dimension



Plug contact



Wire stripping



Usable Cables RG	A	B	C	D max.	Ø E max.	Ø F max.	Ø G max.	Ø H max.
174Bu, 188AU, 316U	22.50	11.20	23.00	16.60	0.60	1.90	2.30	3.20
316U double braided	22.50	11.20	23.00	16.60	0.60	1.90	3.00	3.80
58CU, 141AU	22.20	10.90	22.70	16.30	1.30	3.70	4.30	5.20

### 75 Ω version

Socket contact



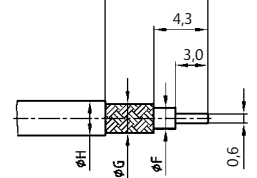
Installation dimension



Plug contact



Wire stripping



Usable Cables RG	A	B	C	D	Ø F max.	Ø G max.	Ø H max.	L
179BU, 187AU	22.45	11.20	22.95	16.70	1.90	2.30	3.20	9.30
180BU	21.65	10.40	22.15	15.90	2.80	3.20	4.50	8.80

## ORDER DATA

### SOCKET CONTACT

Imp.	Cable	Part Number 1,3 μm / tin plated	Part Number 1,3 μm / 0,2 μm
50 Ω	174U, 188AU, 316U	13-003144	132J21019X
50 Ω	316U double braided	13-003154	132J21029X
50 Ω	58CU, 141AU	13-003164	132J21039X
75 Ω	179BU, 187AU	13-003174	132J31019X
75 Ω	180BU	13-003184	132J31029X

### PLUG CONTACT

Imp.	Cable	Part Number 1,3 μm / tin plated	Part Number 1,3 μm / 0,2 μm
50 Ω	174U, 188AU, 316U	13-003194	131J21019X
50 Ω	316U double braided	13-003204	131J21029X
50 Ω	58CU, 141AU	13-003214	131J21039X
75 Ω	179BU, 187AU	13-003224	131J31019X
75 Ω	180BU	13-003234	131J31029X

### BUCHSENKONTAKT

Imp.	Cable	Part Number 0,2 μm / tin plated	Part Number 0,2 μm / 0,2 μm
50 Ω	174U, 188AU, 316U	13-003143	132A21019X
50 Ω	316U double braided	13-003153	132A21029X
50 Ω	58CU, 141AU	13-003163	132A21039X
75 Ω	179BU, 187AU	13-003173	132A31019X
75 Ω	180BU	13-003183	132A31029X

### PLUG CONTACT

Imp.	Cable	Part Number 0,2 μm / tin plated	Part Number 0,2 μm / 0,2 μm
50 Ω	174U, 188AU, 316U	13-003193	131A21019X
50 Ω	316U double braided	13-003203	131A21029X
50 Ω	58CU, 141AU	13-003213	131A21039X
75 Ω	179BU, 187AU	13-003223	131A31019X
75 Ω	180BU	13-003233	131A31029X

# COMBINATION D-SUB CONTACTS

Coaxial contacts – Angled – Inner conductor solder-, outer conductor crimp- / Solder termination



RoHS compliant – CSA listed, File No.: LR 115000-1-UL listed, File No.: E 228329

## DESCRIPTION

- 50 Ω design
- Contact platings mating area:
  - .051 μ" / 1.3 μm Au inner conductor /
  - .032 μ" / 0.8 μm Au outer conductor
  - .008 μ" / 0.2 μm Au inner and outer conductor
- Contact platings termination area:
  - .008 μ" / 0.2 μm Au
  - tin plated
- Other platings on request
- Delivery includes: contacts and sleeve supplied loose

## PRODUCT DRAWING

### 50 Ω version

Socket contact



Installation dimension



Plug contact



Wire stripping



Usable Cables RG	A	B	C	D	E	Ø F max.	Ø G max.	Ø H max.	Ø J max.
174U, 188AU, 316U	18.50	8.20	19.30	19.80	15.70	0.85	1.90	2.30	3.20
178BU, 196AU, 404U	18.50	8.20	19.30	19.80	15.70	0.85	1.20	1.40	2.30
316U double braided	19.50	8.20	19.30	19.80	16.70	0.85	1.90	2.70	3.50

## ORDER DATA

SOCKET CONTACT			
Imp.	Cable	Part Number 1,3 μm / tin plated	Part Number 1,3 μm / 0,2 μm
50 Ω	178BU, 196AU, 404U	13-003244	132J22029X
50 Ω	174U, 188AU, 316U	13-003254	132J22019X
50 Ω	316U double braided	13-003264	132J22039X

PLUG CONTACT			
Imp.	Cable	Part Number 1,3 μm / tin plated	Part Number 1,3 μm / 0,2 μm
50 Ω	178BU, 196AU, 404U	13-003274	131J22029X
50 Ω	174U, 188AU, 316U	13-003284	131J22019X
50 Ω	316U double braided	13-003294	131J22039X

SOCKET CONTACT			
Imp.	Cable	Part Number 0,2 μm / tin plated	Part Number 0,2 μm / 0,2 μm
50 Ω	178BU, 196AU, 404U	13-003243	132A22029X
50 Ω	174U, 188AU, 316U	13-003253	132A22019X
50 Ω	316U double braided	13-003263	132A22039X

PLUG CONTACT			
Imp.	Cable	Part Number 0,2 μm / tin plated	Part Number 0,2 μm / 0,2 μm
50 Ω	178BU, 196AU, 404U	13-003273	131A22029X
50 Ω	174U, 188AU, 316U	13-003283	131A22019X
50 Ω	316U double braided	13-003293	131A22039X

# COMBINATION D-SUB CONTACTS

## Coaxial contacts – Angled – Inner- and outer conductor crimp termination



RoHS compliant – CSA listed, File No.: LR 115000-1–UL listed, File No.: E 228329

### DESCRIPTION

- 50 and 75 Ω-design
- Contact platings mating area:
  - .051 μ"/1.3 μm Au inner conductor / .032 μ"/0.8 μm Au outer conductor
  - .008 μ"/0.2 μm Au inner and outer conductor
- Contact platings termination area:
  - .008 μ"/0.2 μm Au
  - tin plated
- Other platings on request
- Delivery includes: contacts and sleeve supplied loose

### PRODUCT DRAWING

#### 50 Ω version

Socket contact



Installation dimension

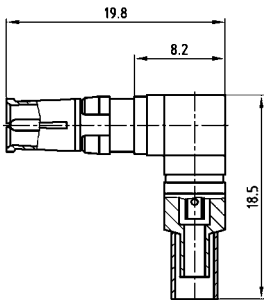


Plug contact

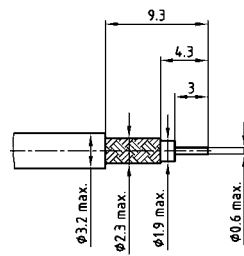


#### 75 Ω version

Socket contact

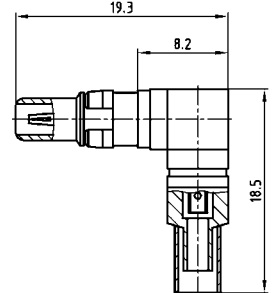


Wire stripping



verwendbare Kabel: RG- 174U, 188AU, 316U  
Usable Cables

Plug contact



### ORDER DATA

#### SOCKET CONTACT

Imp.	Cable	Part Number 1,3 μm / tin plated	Part Number 1,3 μm / 0,2 μm
50 Ω	174U, 188AU, 316U	13-003304	132J23019X
75 Ω	179BU, 187AU	13-003314	132J33019X

#### PLUG CONTACT

Imp.	Cable	Part Number 1,3 μm / tin plated	Part Number 1,3 μm / 0,2 μm
50 Ω	174U, 188AU, 316U	13-003324	131J23019X
75 Ω	179BU, 187AU	13-003334	131J33019X

#### SOCKET CONTACT

Imp.	Cable	Part Number 0,2 μm / tin plated	Part Number 0,2 μm / 0,2 μm
50 Ω	174U, 188AU, 316U	13-003303	132A23019X
75 Ω	179BU, 187AU	13-003313	132A33019X

#### PLUG CONTACT

Imp.	Cable	Part Number 0,2 μm / tin plated	Part Number 0,2 μm / 0,2 μm
50 Ω	174U, 188AU, 316U	13-003323	131A23019X
75 Ω	179BU, 187AU	13-003333	131A33019X

# COMBINATION D-SUB CONTACTS

Coaxial contacts – Straight – PCB termination – 3 solder pins



RoHS compliant – CSA listed, File No.: LR 115000-1-UL listed, File No.: E 228329

## DESCRIPTION

- 50 and 75 Ω-design
- Contact platings mating area:
  - .051 μ" / 1.3 μm Au inner conductor /
  - .032 μ" / 0.8 μm Au outer conductor
  - .008 μ" / 0.2 μm Au inner and outer conductor
- Contact platings termination area:
  - .008 μ" / 0.2 μm Au
  - tin plated
- Other platings on request
- Delivery includes: contacts and sleeve supplied loose

## PRODUCT DRAWING

### 50 Ω version

Socket contact



Installation dimension



Plug contact



### 75 Ω version

Socket contact



Plug contact



## ORDER DATA

SOCKET CONTACT				
Imp.	Termination*	Part Number 1,3 μm / tin plated	Termination*	Part Number 1,3 μm / 0,2 μm
50 Ω	L1	13-003344	76	132J24019X
75 Ω	L2	13-003354	86	132J34019X

PLUG CONTACT				
Imp.	Termination*	Part Number 1,3 μm / tin plated	Termination*	Part Number 1,3 μm / 0,2 μm
50 Ω	L1	13-003364	76	131J24019X
75 Ω	L2	13-003374	86	131J34019X

SOCKET CONTACT				
Imp.	Termination*	Part Number 0,2 μm / tin plated	Termination*	Part Number 0,2 μm / 0,2 μm
50 Ω	L3	13-003343	G7	132A24019X
75 Ω	L4	13-003353	G8	132A34019X

PLUG CONTACT				
Imp.	Termination*	Part Number 0,2 μm / tin plated	Termination*	Part Number 0,2 μm / 0,2 μm
50 Ω	L3	13-003363	G7	131A24019X
75 Ω	L4	13-003373	G8	131A34019X

\*Code use with part number creator

# COMBINATION D-SUB CONTACTS

Coaxial contacts – Angled – PCB termination – 3 solder pins



RoHS compliant – CSA listed, File No.: LR 115000-1 – UL listed, File No.: E 228329

## DESCRIPTION

- 50 Ω and 75 Ω-design
- Contact platings mating area:
  - .051 μm / 1.3 μm Au inner conductor /
  - .032 μm / 0.8 μm Au outer conductor
  - .008 μm / 0.2 μm Au inner and outer conductor
- Contact platings termination area:
  - .008 μm / 0.2 μm Au
  - tin plated
- Other platings on request
- Delivery includes: contacts and sleeve supplied loose

## PRODUCT DRAWING

### 50 Ω version

Socket contact

Installation dimension

Plug contact



### 75 Ω version

Socket contact

Plug contact



Shellsize	A	B	C	D	E	F
1-4	13.80	9.30	20.70	21.20	11.00	9.30
5	16.80	11.80	23.20	23.70	14.00	11.80

## ORDER DATA

SOCKET CONTACT					
Imp.	Shell size	Termination*	Part Number 1,3 μm / tin plated	Termination*	Part Number 1,3 μm / 0,2 μm
50 Ω	1-4	L5	13-003384	78	132J25019X
50 Ω	5	L6	13-003394	79	132J25029X
75 Ω	1-4	L7	13-003404	88	132J35019X
75 Ω	5	L8	13-003414	89	132J35029X

PLUG CONTACT					
Imp.	Shell size	Termination*	Part Number 1,3 μm / tin plated	Termination*	Part Number 1,3 μm / 0,2 μm
50 Ω	1-4	L5	13-003424	78	131J25019X
50 Ω	5	L6	13-003434	79	131J25029X
75 Ω	1-4	L7	13-003444	88	131J35019X
75 Ω	5	L8	13-003454	89	131J35029X

SOCKET CONTACT					
Imp.	Shell size	Termination*	Part Number 0,2 μm / tin plated	Termination*	Part Number 0,2 μm / 0,2 μm
50 Ω	1-4	L9	13-003383	G9	132A25019X
50 Ω	5	M1	13-003393	H1	132A25029X
75 Ω	1-4	M2	13-003403	H2	132A35019X
75 Ω	5	M3	13-003413	H3	132A35029X

PLUG CONTACT					
Imp.	Shell size	Termination*	Part Number 0,2 μm / tin plated	Termination*	Part Number 0,2 μm / 0,2 μm
50 Ω	1-4	L9	13-003423	G9	131A25019X
50 Ω	5	M1	13-003433	H1	131A25029X
75 Ω	1-4	M2	13-003443	H2	131A35019X
75 Ω	5	M3	13-003453	H3	131A35029X

\*Code use with part number creator



# COMBINATION D-SUB CONTACTS

Coaxial contacts – Angled – PCB termination – 5 solder pins



RoHS compliant – CSA listed, File No.: LR 115000-1 – UL listed, File No.: E 228329

## DESCRIPTION

- 50 and 75 Ω-design
- Contact platings mating area:
  - .051 μ" / 1.3 μm Au inner conductor /
  - .032 μ" / 0.8 μm Au outer conductor
  - .008 μ" / 0.2 μm Au inner and outer conductor
- Contact platings termination area:
  - .008 μ" / 0.2 μm Au
  - tin plated
- Other platings on request

## PRODUCT DRAWING

### 50 Ω version

Socket contact



Installation dimension



Plug contact



### 75 Ω version

Socket contact



For mounting connector on edge of PCB without metal bracket



Plug contact



## ORDER DATA

SOCKET CONTACT				
Imp.	Termination*	Part Number 1,3 μm / tin plated	Termination*	Part Number 1,3 μm / 0,2 μm
50 Ω	M4	13-003464	80	132J25519X
75 Ω	M5	13-003474	90	132J35519X

PLUG CONTACT				
Imp.	Termination*	Part Number 1,3 μm / tin plated	Termination*	Part Number 1,3 μm / 0,2 μm
50 Ω	M4	13-003484	80	131J25519X
75 Ω	M5	13-003494	90	131J35519X

SOCKET CONTACT				
Imp.	Termination*	Part Number 0,2 μm / tin plated	Termination*	Part Number 0,2 μm / 0,2 μm
50 Ω	M6	13-003463	H4	132A25519X
75 Ω	M7	13-003473	H5	132A35519X

PLUG CONTACT				
Imp.	Termination*	Part Number 0,2 μm / tin plated	Termination*	Part Number 0,2 μm / 0,2 μm
50 Ω	M6	13-003483	H4	131A25519X
75 Ω	M7	13-003493	H5	131A35519X

\*Code use with part number creator

# COMBINATION D-SUB – DUAL PORT WITH SIGNAL AND POWER CONTACTS

Solder pin – Angled – Precision machined contacts – Connector spacing .750" / 19,05 mm



RoHS compliant

## DESCRIPTION

- Designs: 5W1/ 7W2/ 13W3/ 17W2/ 17W5
- Mounting styles:
  - with mounting bracket and 4-40 UNC threaded insert
  - with mounting bracket, PCB clip and 4-40 UNC threaded insert
- Quality class 3 (also available in quality class 1)
- Shell: Steel tin plated (brass tin plated or stainless steel available on request)
- Other variations on request
- Upper connector is rotated 180 degrees

## PRODUCT DRAWING

Type	A <sup>+0</sup> / <sub>-0.76</sub>	B1 <sup>+0.25</sup> / <sub>-0</sub>	B2 <sup>+0</sup> / <sub>-0.25</sub>	C	D <sup>+0</sup> / <sub>-0.3</sub>
5W1	31.19	16.79	16.46	25.00 <sup>+0.02</sup> / <sub>-0.02</sub>	6.12
7W2	39.52	25.12	24.79	33.30 <sup>+0.02</sup> / <sub>-0.02</sub>	6.12
13W3	53.42	38.84	38.50	47.04 <sup>+0.02</sup> / <sub>-0.02</sub>	5.99
17W2	53.42	38.84	38.50	47.04 <sup>+0.02</sup> / <sub>-0.02</sub>	5.99
17W5	69.70	55.30	54.96	63.50 <sup>+0.02</sup> / <sub>-0.02</sub>	5.99

Graphical representation of only one variant!

Mounting style: 4-40 UNC threaded insert



Mounting style: PCB clip and 4-40 UNC threaded insert



# COMBINATION D-SUB – DUAL PORT VARIATIONS

Solder pin – Angled – Precision machined contacts – Connector spacing .750" / 19,05 mm

**ORDER DATA**



Variation:  
plug upper –  
plug bottom

Design	Mounting style 4-40 UNC	Part Number
2 x 5W1	Threaded insert	13-001013
2 X 7W2	Threaded insert	13-001023
2 X 13W3	Threaded insert	13-001033
2 X 17W2	Threaded insert	13-001043
2 X 17W5	Threaded insert	13-001053

Design	Mounting style 4-40 UNC	Part Number
2 x 5W1	Threaded insert/PCB clip	13-001213
2 X 7W2	Threaded insert/PCB clip	13-001223
2 X 13W3	Threaded insert/PCB clip	13-001233
2 X 17W2	Threaded insert/PCB clip	13-001243
2 X 17W5	Threaded insert/PCB clip	13-001253



Variation:  
plug upper –  
socket bottom

Design	Mounting style 4-40 UNC	Part Number
2 x 5W1	Threaded insert	13-001063
2 X 7W2	Threaded insert	13-001073
2 X 13W3	Threaded insert	13-001083
2 X 17W2	Threaded insert	13-001093
2 X 17W5	Threaded insert	13-001103

Design	Mounting style 4-40 UNC	Part Number
2 x 5W1	Threaded insert/PCB clip	13-001263
2 X 7W2	Threaded insert/PCB clip	13-001273
2 X 13W3	Threaded insert/PCB clip	13-001283
2 X 17W2	Threaded insert/PCB clip	13-001293
2 X 17W5	Threaded insert/PCB clip	13-001303



Variation:  
socket upper –  
socket bottom

Design	Mounting style 4-40 UNC	Part Number
2 x 5W1	Threaded insert	13-001113
2 X 7W2	Threaded insert	13-001123
2 X 13W3	Threaded insert	13-001133
2 X 17W2	Threaded insert	13-001143
2 X 17W5	Threaded insert	13-001153

Design	Mounting style 4-40 UNC	Part Number
2 x 5W1	Threaded insert/PCB clip	13-001313
2 X 7W2	Threaded insert/PCB clip	13-001323
2 X 13W3	Threaded insert/PCB clip	13-001333
2 X 17W2	Threaded insert/PCB clip	13-001343
2 X 17W5	Threaded insert/PCB clip	13-001353



Variation:  
socket upper –  
plug bottom

Design	Mounting style 4-40 UNC	Part Number
2 x 5W1	Threaded insert	13-001163
2 X 7W2	Threaded insert	13-001173
2 X 13W3	Threaded insert	13-001183
2 X 17W2	Threaded insert	13-001193
2 X 17W5	Threaded insert	13-001203

Design	Mounting style 4-40 UNC	Part Number
2 x 5W1	Threaded insert/PCB clip	13-001363
2 X 7W2	Threaded insert/PCB clip	13-001373
2 X 13W3	Threaded insert/PCB clip	13-001383
2 X 17W2	Threaded insert/PCB clip	13-001393
2 X 17W5	Threaded insert/PCB clip	13-001403

PCB clip .122" / 3.1 ± .004" / 0.10 mm hole diameter and .063" / 1.6 mm circuit board thickness

# COMBINATION D-SUB – DUAL PORT WITH POWER CONTACTS

Solder pin – Angled – Precision machined contacts – Connector spacing .750" / 19,05 mm



RoHS compliant

## DESCRIPTION

- Designs: 2W2C/3W3/3W3C/5W5/8W8
- Mounting styles:
  - with mounting bracket and 4-40 UNC threaded insert
  - with mounting bracket, PCB clip and 4-40 UNC threaded insert
- Quality class 3 (also available in quality class 1)
- Shell: Steel tin plated (brass tin plated or stainless steel available on request)
- Upper connector is rotated 180 degrees

## PRODUCT DRAWING

Type	A <sup>+0</sup> / <sub>-0.76</sub>	B1 <sup>+0.25</sup> / <sub>-0</sub>	B2 <sup>+0</sup> / <sub>-0.25</sub>	C	D <sup>+0</sup> / <sub>-0.3</sub>
2W2C	31.19	16.79	16.46	25.00 <sup>+0.12</sup> / <sub>-0.13</sub>	6.12
3W3	39.52	25.12	24.79	33.30 <sup>+0.15</sup> / <sub>-0.16</sub>	6.12
3W3C	39.52	25.12	24.79	33.30 <sup>+0.15</sup> / <sub>-0.16</sub>	6.12
5W5	53.42	38.84	38.50	47.04 <sup>+0.13</sup> / <sub>-0.13</sub>	5.99
8W8	69.70	55.30	54.96	63.50 <sup>+0.13</sup> / <sub>-0.13</sub>	5.99

Graphical representation of only one variant!

Mounting style: 4-40 UNC threaded insert



Mounting style: PCB clip and 4-40 UNC threaded insert



# COMBINATION D-SUB – DUAL PORT VARIATIONS

Solder pin – Angled – Precision machined contacts – Connector spacing .750" / 19,05 mm

**ORDER DATA**



Design	Mounting style 4-40 UNC	Part Number
2 X 3W3	Threaded insert	13-001413
2 X 3W3	Threaded insert	13-001423
2 X 3W3C	Threaded insert	13-001433
2 X 5W5	Threaded insert	13-001443
2 X 8W8	Threaded insert	13-001453

Design	Mounting style 4-40 UNC	Part Number
2 X 2W2C	Threaded insert/PCB clip	13-001613
2 X 3W3	Threaded insert/PCB clip	13-001623
2 X 3W3C	Threaded insert/PCB clip	13-001633
2 X 5W5	Threaded insert/PCB clip	13-001643
2 X 8W8	Threaded insert/PCB clip	13-001653

Variation:  
plug upper –  
plug bottom



Design	Mounting style 4-40 UNC	Part Number
2 X 2W2C	Threaded insert	13-001463
2 X 3W3	Threaded insert	13-001473
2 X 3W3C	Threaded insert	13-001483
2 X 5W5	Threaded insert	13-001493
2 X 8W8	Threaded insert	13-001503

Design	Mounting style 4-40 UNC	Part Number
2 X 2W2C	Threaded insert/PCB clip	13-001663
2 X 3W3	Threaded insert/PCB clip	13-001673
2 X 3W3C	Threaded insert/PCB clip	13-001683
2 X 5W5	Threaded insert/PCB clip	13-001693
2 X 8W8	Threaded insert/PCB clip	13-001703

Variation:  
plug upper –  
socket bottom



Design	Mounting style 4-40 UNC	Part Number
2 X 2W2C	Threaded insert	13-001513
2 X 3W3	Threaded insert	13-001523
2 X 3W3C	Threaded insert	13-001533
2 X 5W5	Threaded insert	13-001543
2 X 8W8	Threaded insert	13-001553

Design	Mounting style 4-40 UNC	Part Number
2 X 2W2C	Threaded insert/PCB clip	13-001713
2 X 3W3	Threaded insert/PCB clip	13-001723
2 X 3W3C	Threaded insert/PCB clip	13-001733
2 X 5W5	Threaded insert/PCB clip	13-001743
2 X 8W8	Threaded insert/PCB clip	13-001753

Variation:  
socket upper –  
socket bottom



Design	Mounting style 4-40 UNC	Part Number
2 X 2W2C	Threaded insert	13-001563
2 X 3W3	Threaded insert	13-001573
2 X 3W3C	Threaded insert	13-001583
2 X 5W5	Threaded insert	13-001593
2 X 8W8	Threaded insert	13-001603

Design	Mounting style 4-40 UNC	Part Number
2 X 2W2C	Threaded insert/PCB clip	13-001763
2 X 3W3	Threaded insert/PCB clip	13-001773
2 X 3W3C	Threaded insert/PCB clip	13-001783
2 X 5W5	Threaded insert/PCB clip	13-001793
2 X 8W8	Threaded insert/PCB clip	13-001803

Variation:  
socket upper –  
plug bottom

PCB clip .122" / 3.1 ± .004" / 0.10 mm hole diameter and .063" / 1.6 mm circuit board thickness

## COMBINATION D-SUB ACCESSORIES

### Grounding for coaxial contacts

To optimize a perfect ground connection from the coaxial contact (outer conductor) to the metal shell. (Factory installed)..



### Guide post

For safe mating of male and female connectors with contact loss. Guide post made for metal can be installed after connector is mounted.



### Part Number

Guide post      160X11279X

### Hole plug

The hole plug can be used for both male and female connector. The assembly is implemented from the mating side. The hole plug is used to plug un wanted holes in the insulator.

Material: Polyester GF UL 94 V-0  
 Colour: black



### Part Number

Hole plug      160X0939X

## CONVERSION TABLE

$\mu\text{m}$ 1/1000 mm	$\mu\text{inch}$ 1/1000 inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch
0,10	4	3,30	.130	10,16	.400	19,50	.768	30,90	1.217	49,50	1.949
0,20	8	3,40	.134	10,26	.402	19,70	.776	31,00	1.220	49,90	1.965
0,25	10	3,50	.138	10,36	.406	19,80	.780	31,20	1.228	50,10	1.972
0,30	12	3,60	.142	10,56	.413	19,90	.783	31,50	1.240	50,30	1.980
0,50	20	3,70	.146	10,66	.417	20,00	.787	31,70	1.248	50,50	1.988
0,70	28	3,80	.150	10,76	.421	20,10	.791	32,00	1.260	50,70	1.996
0,75	30	3,81	.150	11,00	.433	20,30	.799	32,20	1.268	50,80	2.000
0,80	32	3,90	.154	11,20	.441	20,32	.800	32,30	1.272	51,40	2.024
1,00	39	4,00	.158	11,40	.449	20,50	.807	32,50	1.280	51,50	2.028
1,27	50	4,10	.161	11,50	.453	21,00	.827	32,80	1.291	52,00	2.047
2,00	79	4,20	.165	11,60	.457	21,10	.831	33,00	1.299	52,30	2.059
2,50	98	4,30	.169	11,90	.469	21,70	.854	33,10	1.303	52,80	2.079
3,00	118	4,50	.177	12,00	.472	22,00	.866	33,30	1.311	53,00	2.087
4,00	157	4,70	.185	12,20	.480	22,10	.870	33,80	1.331	53,20	2.095
5,00	197	4,90	.193	12,30	.484	22,20	.874	34,00	1.339	53,80	2.118
<b>mm</b>	<b>inch</b>	5,00	.197	12,40	.488	22,30	.878	34,20	1.346	54,00	2.126
0,10	.004	5,08	.200	12,50	.492	22,40	.882	34,40	1.354	54,20	2.134
0,20	.008	5,10	.201	12,70	.500	22,50	.886	35,00	1.378	54,90	2.161
0,25	.012	5,20	.205	12,90	.508	22,60	.890	35,40	1.394	55,00	2.165
0,35	.014	5,30	.209	13,00	.512	22,80	.898	35,50	1.398	55,40	2.181
0,40	.016	5,40	.213	13,10	.516	22,86	.900	35,56	1.400	55,70	2.193
0,45	.018	5,50	.217	13,20	.520	22,90	.902	35,60	1.402	56,60	2.228
0,50	.020	5,60	.220	13,50	.532	23,00	.906	36,00	1.417	57,40	2.260
0,55	.022	5,70	.224	13,60	.535	23,10	.909	36,50	1.437	57,80	2.276
0,60	.024	5,80	.228	13,70	.539	23,30	.917	36,60	1.441	57,90	2.280
0,64	.025	6,00	.236	13,90	.547	23,50	.925	36,70	1.445	58,42	2.300
0,65	.026	6,10	.240	14,00	.551	24,00	.945	37,00	1.457	59,00	2.323
0,70	.028	6,40	.252	14,30	.563	24,30	.957	37,30	1.469	59,20	2.331
0,75	.030	6,50	.256	14,40	.567	24,60	.969	37,50	1.476	59,80	2.354
0,80	.032	6,60	.260	14,50	.571	24,90	.980	37,60	1.480	59,90	2.358
0,85	.034	6,70	.264	14,70	.579	25,00	.984	37,70	1.484	60,00	2.362
0,90	.035	6,80	.268	14,80	.583	25,10	.998	37,90	1.492	60,96	2.400
1,00	.039	6,90	.272	14,90	.587	25,40	1.000	38,00	1.496	61,10	2.406
1,20	.047	7,00	.276	14,98	.590	25,60	1.008	38,10	1.500	62,00	2.441
1,25	.049	7,10	.280	15,00	.591	25,90	1.020	39,00	1.535	63,00	2.480
1,27	.050	7,20	.283	15,20	.598	26,00	1.024	39,20	1.543	63,50	2.500
1,30	.051	7,40	.291	15,24	.600	26,30	1.035	39,30	1.547	64,00	2.520
1,35	.053	7,50	.295	15,40	.606	26,60	1.047	39,90	1.571	65,00	2.560
1,40	.055	7,60	.299	15,50	.610	26,70	1.051	40,00	1.575	67,00	2.638
1,45	.057	7,62	.300	15,60	.614	27,00	1.063	40,30	1.587	68,00	2.677
1,50	.059	7,70	.303	15,90	.626	27,20	1.071	40,40	1.591	69,00	2.717
1,60	.063	7,80	.307	16,00	.630	27,40	1.079	40,60	1.598	70,00	2.756
1,70	.067	7,98	.314	16,20	.638	27,50	1.093	41,00	1.614	71,00	2.795
1,80	.071	8,00	.315	16,50	.650	27,90	1.098	41,60	1.638	74,00	2.913
1,85	.073	8,18	.318	16,60	.654	27,94	1.100	42,70	1.681	75,00	2.953
1,90	.075	8,20	.323	16,80	.661	28,00	1.102	43,18	1.700	76,20	3.000
2,00	.079	8,30	.327	17,00	.669	28,20	1.110	44,20	1.740	77,00	3.032
2,10	.083	8,40	.331	17,20	.677	28,50	1.122	44,80	1.764	78,74	3.100
2,20	.087	8,50	.335	17,30	.681	28,70	1.130	45,80	1.803	80,00	3.150
2,30	.091	8,60	.339	17,50	.689	29,00	1.142	46,30	1.823	81,28	3.200
2,40	.095	8,90	.350	17,60	.693	29,20	1.150	46,70	1.839	84,00	3.307
2,50	.098	9,00	.354	17,70	.697	29,40	1.158	47,00	1.850	85,00	3.346
2,54	.100	9,10	.358	17,78	.700	29,50	1.161	47,20	1.858	86,36	3.400
2,60	.102	9,20	.362	17,80	.701	29,70	1.169	47,30	1.862	88,90	3.500
2,70	.106	9,30	.366	17,90	.705	29,90	1.177	47,50	1.870	90,00	3.543
2,80	.110	9,40	.370	18,00	.709	30,00	1.181	47,80	1.882	91,44	3.600
2,84	.112	9,50	.374	18,10	.713	30,20	1.189	48,00	1.890	94,00	3.701
2,90	.114	9,60	.378	18,30	.721	30,40	1.197	48,10	1.894	95,00	3.740
3,00	.118	9,70	.382	18,60	.732	30,48	1.200	48,26	1.900	100,00	3.937
3,10	.122	9,90	.390	19,00	.748	30,50	1.201	48,80	1.921	110,00	4.331
3,20	.126	10,00	.395	19,20	.756	30,80	1.213	49,10	1.933	120,00	4.724

## SECTION 3

# FILTER D-SUB CONNECTORS

At increasing data transfer rates and operating frequencies it becomes increasingly important to safeguard the function of electrical devices and systems in their interactive relationship so that operation can be free of interference. This is also the clear objective of the EMC law.

In applications where connectors penetrate shielded enclosures commonly represent a breakdown in shielding since the connector's plastic isolating body provides no shielding against any interference signals that may be present.

Therefore high frequency interference signals can be passed in or out of the system without hindrance.

The connector's contacts act as antennas that receive and transmit interference signals because filtering is typically implemented on the PCB board.

Interface connectors with integrated filters can be of benefit in these cases.

CONEC filter D-subminiature connectors contribute to the protection of EMC zones. The integrated filter inside the connector saves PCB-space and can be installed into an existing PCB layout. To replace an unfiltered connector into filtered one is simple and effective.

One of the standard filters offered by CONEC is the so-called "C filter".

Depending on the problem situations, other possible variations can be employed; a two-stage LC filter and a three stage PI filter (C-L-C) are also available in various connector configurations within the standard product line.







In some cases EMC problems do not become apparent until after a device has been put into service where it is exposed to interference in its installed location. Ambient conditions and the device influence one another mutually. Where EMC problems arise under certain operating conditions, CONEC's broad product line of standardized D-SUB filter adapters with a myriad of filter capacities and different filter technologies represents a quick and effective solution.

Retrofit to the existing D-SUB interface connector, this can prove to be the solution to many different EMC problems.

The CONEC team will be glad to help you select the right product.



# PART NUMBER CREATOR

2 4 1 A 1011 O X

**Product Line**

**Design**

- 1 = Plug connector, standard DWV
- 2 = Socket connector, standard DWV
- 3 = Adapter, standard DWV
- 4 = Adapter, high DWV
- 5 = Plug connector, high DWV
- 6 = Socket connector, high DWV
- 7\* = Plug connector, ultra high DWV
- 8\* = Socket connector, ultra high DWV
- 9\* = Adapter, ultra high DWV

\*on request

**Quality class for contacts**

- A = Quality class 3 / 50 mating cycles
- B = Quality class 2 / 200 mating cycles
- C = Quality class 1 / 500 mating cycles

**Serial number**

**Design**

- OX = Standard design

**Filter connectors for higher DWV**

Increasing requirements, with respect to higher DWV for filter connectors, have induced us to carry out advanced development in this direction. CONEC is capable of delivering filter connectors with DWV of 1500 VDC.

The various DWV ratings are as follows:

- 1 Standard DWV .....300/424 VDC
- 2 High DWV.....707 VDC
- 3 Ultra high DWV.....1000/1500 VDC (on request)

Furthermore, the filter connector can be designed for ultra high DWV of up to 2500 VDC at 10/700 pulse voltage. Filter connectors so designed fulfill the standards established according to CE requirements, i.e. 1414 VDC. For example, capacity ratings range from 180 pF to 1300 pF for standard series.

For special capacitance values consult factory.

# TECHNICAL DATA

Materials	Filter D-SUB Standard 9, 15, 25, 37 and 50 position	Filter D-SUB High Density 15, 25, 44, 62 and 78 position		
Insulator	Polyester GF UL94 V-0			
Contacts	CU alloy			
Contact plating	Gold plated over nickel, solder area tin plated only at PCB version			
Shell	Steel tin plated (on request: brass tin plated)			
Mechanical and electrical characteristics				
Dielectric with standing voltage	<ul style="list-style-type: none"> <li>• Standard 424 VDC</li> <li>• Standard 300 VDC (for .T-Filter)</li> <li>• High DWV 707 VDC</li> <li>• Ultra high DWV 1500 VDC*</li> <li>• Ultra high DWV 1000 VDC* (for .T-Filter) *on request</li> </ul>	<ul style="list-style-type: none"> <li>• Standard 300 VDC</li> </ul>		
Working voltage	<ul style="list-style-type: none"> <li>• Standard 100 VDC*</li> <li>• High DWV 100 VDC*</li> <li>• Ultra high DWV 200 VDC*</li> </ul> *Depending on isolation coordination (refer to DIN VDE 0110/IEC 664-1)	<ul style="list-style-type: none"> <li>• Standard 100 VDC*</li> </ul>		
Contact resistance	Max. 10 mΩ prior to stressing, Δ R max. 10 mΩ after stressing per DIN 41652, Part 2			
Insulation resistance	≥ 1GΩ			
Current rating	7.5 A (UL) / 5 A (CSA,VDE)	3 A (UL,VDE) / 2.5 A (CSA)		
Voltage surge 10/700μs	Standard 300 V High Voltage 500 V	Standard 300 V		
Mating and unmating forces	9 pos. ≤ 30 N 15 pos. ≤ 50 N 25 pos. ≤ 83 N 37 pos. ≤ 123 N 50 pos. ≤ 167 N	15 pos. ≤ 50 N 26 pos. ≤ 83 N 44 pos. ≤ 110 N 62 pos. ≤ 170 N		
Temperature working range	-25°C to +105°C	-25°C to +85°C		
Humidity	40°C / 85% relative humidity/RH			
Capacitor values For other capacitance values please contact the factory.	180 pF ± 20% tolerance 370 pF ± 20% tolerance 830 pF ± 20% tolerance 1300 pF ± 20% tolerance other capacitor values on request	180 pF ± 20% tolerance 370 pF ± 20% tolerance 830 pF ± 20% tolerance		
Quality class	A= Quality class 3 = 50 cycles, B = Quality class 2=200 cycles, C = Quality class 1 = 500 cycles			
Solder parameter	Preheating		Solder terminal dipping parameters	
	max. Temperature	Duration	max. Solder bath Temperature	max. Terminal Immersion Time
Recommended wave-solder parameters	100°C	30s	260°C	5s

Technical specifications are subject to change without notice.

# C-FILTER D-SUB STANDARD

Solder cup – Precision machined contacts – For wire size AWG 26

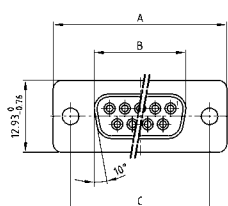


RoHS compliant – CSA listed, File No.: LR 115000-1 – UL listed, File No.: E202784

## DESCRIPTION

- Suitable for wire size AWG 26
- Mounting styles:
  - with through-hole,  $\varnothing .118"/3 \text{ mm}$
  - with 4-40 UNC or M3 threaded insert
- Quality class 3 (also available in quality class 1)
- Shell: Steel tin plated (brass tin plated on request)

## SOCKET CONNECTOR



No. of pos.	A -0.76	B -0.25	C
09	31.19	16.46	25.00 $^{+0.12}_{-0.13}$
15	39.52	24.79	33.30 $^{+0.15}_{-0.10}$
25	53.42	38.50	47.04 $\pm 0.13$
37	69.70	54.96	63.50 $\pm 0.13$
50	67.31	52.55	61.10 $^{+0.14}_{-0.11}$

Mounting style: Through-hole



Mounting style: Threaded insert



## PLUG CONNECTOR



No. of pos.	A -0.76	B -0.25	C	D -0.3
09	31.19	16.79	25.00 $^{+0.12}_{-0.13}$	6.12
15	39.52	25.12	33.30 $^{+0.15}_{-0.10}$	6.12
25	53.42	38.84	47.04 $\pm 0.13$	5.99
37	69.70	55.30	63.50 $\pm 0.13$	5.99
50	67.31	52.68	61.10 $^{+0.14}_{-0.11}$	5.99

Mounting style: Through-hole



Mounting style: Threaded insert



## ORDER DATA

Capacitance 180 pF

SOCKET CONNECTOR		
No. of pos.	Mounting style	Part Number
09	Through-hole	242A15910X
15	Through-hole	242A15920X
25	Through-hole	242A15930X
37	Through-hole	242A15940X
50	Through-hole	242A15950X
09	4-40 UNC Threaded insert	242A15960X
15	4-40 UNC Threaded insert	242A15970X
25	4-40 UNC Threaded insert	242A15980X
37	4-40 UNC Threaded insert	242A15990X
50	4-40 UNC Threaded insert	242A16000X
09	M3 Threaded insert	242A16010X
15	M3 Threaded insert	242A16020X
25	M3 Threaded insert	242A16030X
37	M3 Threaded insert	242A16040X
50	M3 Threaded insert	242A16050X

PLUG CONNECTOR		
No. of pos.	Mounting style	Part Number
09	Through-hole	241A18530X
15	Through-hole	241A18540X
25	Through-hole	241A18550X
37	Through-hole	241A18560X
50	Through-hole	241A18570X
09	4-40 UNC Threaded insert	241A18580X
15	4-40 UNC Threaded insert	241A18590X
25	4-40 UNC Threaded insert	241A18600X
37	4-40 UNC Threaded insert	241A18610X
50	4-40 UNC Threaded insert	241A18620X
09	M3 Threaded insert	241A18630X
15	M3 Threaded insert	241A18640X
25	M3 Threaded insert	241A18650X
37	M3 Threaded insert	241A18660X
50	M3 Threaded insert	241A18670X

# C-FILTER D-SUB STANDARD

Solder cup – Precision machined contacts – For wire size AWG 26

**ORDER DATA**

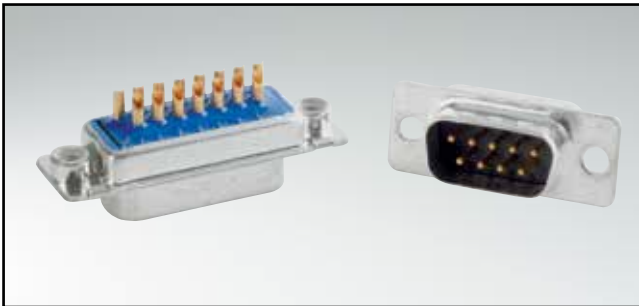
Capacitance 370 pF					
SOCKET CONNECTOR			PLUG CONNECTOR		
No. of pos.	Mounting style	Part Number	No. of pos.	Mounting style	Part Number
09	Through-hole	242A11610X	09	Through-hole	241A11600X
15	Through-hole	242A11620X	15	Through-hole	241A11610X
25	Through-hole	242A11630X	25	Through-hole	241A11620X
37	Through-hole	242A11640X	37	Through-hole	241A11630X
50	Through-hole	242A15820X	50	Through-hole	241A15930X
09	4-40 UNC Threaded insert	242A11730X	09	4-40 UNC Threaded insert	241A11720X
15	4-40 UNC Threaded insert	242A11740X	15	4-40 UNC Threaded insert	241A11730X
25	4-40 UNC Threaded insert	242A11750X	25	4-40 UNC Threaded insert	241A11740X
37	4-40 UNC Threaded insert	242A11760X	37	4-40 UNC Threaded insert	241A11750X
50	4-40 UNC Threaded insert	242A15850X	50	4-40 UNC Threaded insert	241A15960X
09	M3 Threaded insert	242A11850X	09	M3 Threaded insert	241A11840X
15	M3 Threaded insert	242A11860X	15	M3 Threaded insert	241A11850X
25	M3 Threaded insert	242A11870X	25	M3 Threaded insert	241A11860X
37	M3 Threaded insert	242A11880X	37	M3 Threaded insert	241A11870X
50	M3 Threaded insert	242A15880X	50	M3 Threaded insert	241A15990X

Capacitance 830 pF					
SOCKET CONNECTOR			PLUG CONNECTOR		
No. of pos.	Mounting style	Part Number	No. of pos.	Mounting style	Part Number
09	Through-hole	242A11690X	09	Through-hole	241A11680X
15	Through-hole	242A11700X	15	Through-hole	241A11690X
25	Through-hole	242A11710X	25	Through-hole	241A11700X
37	Through-hole	242A11720X	37	Through-hole	241A11710X
50	Through-hole	242A15840X	50	Through-hole	241A15950X
09	4-40 UNC Threaded insert	242A11810X	09	4-40 UNC Threaded insert	241A11800X
15	4-40 UNC Threaded insert	242A11820X	15	4-40 UNC Threaded insert	241A11810X
25	4-40 UNC Threaded insert	242A11830X	25	4-40 UNC Threaded insert	241A11820X
37	4-40 UNC Threaded insert	242A11840X	37	4-40 UNC Threaded insert	241A11830X
50	4-40 UNC Threaded insert	242A15870X	50	4-40 UNC Threaded insert	241A15980X
09	M3 Threaded insert	242A11930X	09	M3 Threaded insert	241A11920X
15	M3 Threaded insert	242A11940X	15	M3 Threaded insert	241A11930X
25	M3 Threaded insert	242A11950X	25	M3 Threaded insert	241A11940X
37	M3 Threaded insert	242A11960X	37	M3 Threaded insert	241A11950X
50	M3 Threaded insert	242A15900X	50	M3 Threaded insert	241A16010X

Capacitance 1300 pF					
SOCKET CONNECTOR			PLUG CONNECTOR		
No. of pos.	Mounting style	Part Number	No. of pos.	Mounting style	Part Number
09	Through-hole	242A11650X	09	Through-hole	241A11640X
15	Through-hole	242A11660X	15	Through-hole	241A11650X
25	Through-hole	242A11670X	25	Through-hole	241A11660X
37	Through-hole	242A11680X	37	Through-hole	241A11670X
50	Through-hole	242A15830X	50	Through-hole	241A15940X
09	4-40 UNC Threaded insert	242A11770X	09	4-40 UNC Threaded insert	241A11760X
15	4-40 UNC Threaded insert	242A11780X	15	4-40 UNC Threaded insert	241A11770X
25	4-40 UNC Threaded insert	242A11790X	25	4-40 UNC Threaded insert	241A11780X
37	4-40 UNC Threaded insert	242A11800X	37	4-40 UNC Threaded insert	241A11790X
50	4-40 UNC Threaded insert	242A15860X	50	4-40 UNC Threaded insert	241A15970X
09	M3 Threaded insert	242A11890X	09	M3 Threaded insert	241A11880X
15	M3 Threaded insert	242A11900X	15	M3 Threaded insert	241A11890X
25	M3 Threaded insert	242A11910X	25	M3 Threaded insert	241A11900X
37	M3 Threaded insert	242A11920X	37	M3 Threaded insert	241A11910X
50	M3 Threaded insert	242A15890X	50	M3 Threaded insert	241A16000X

# C-FILTER D-SUB STANDARD

Solder cup – Precision machined contacts – For wire size AWG 20

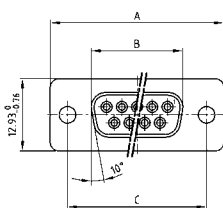


RoHS compliant – CSA listed, File No.: LR 115000-1 – UL listed, File No.: E202784

## DESCRIPTION

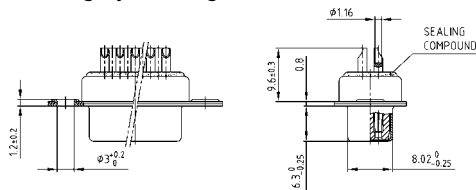
- Suitable for wire size AWG 20
- Mounting styles:
  - with through-hole,  $\varnothing .118"/3 \text{ mm}$
  - with 4-40 UNC or M3 threaded insert
- Quality class 3 (also available in quality class 1)
- Shell: Steel tin plated (brass tin plated on request)

## SOCKET CONNECTOR

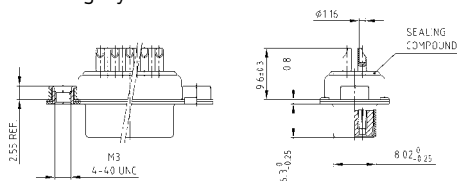


No. of pos.	A -0.76	B -0.25	C
09	31.19	16.46	25.00 $^{+0.12}_{-0.13}$
15	39.52	24.79	33.30 $^{+0.15}_{-0.10}$
25	53.42	38.50	47.04 $\pm 0.13$
37	69.70	54.96	63.50 $\pm 0.13$

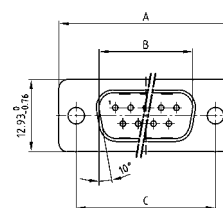
Mounting style: Through-hole



Mounting style: Threaded insert

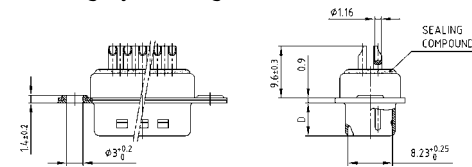


## PLUG CONNECTOR

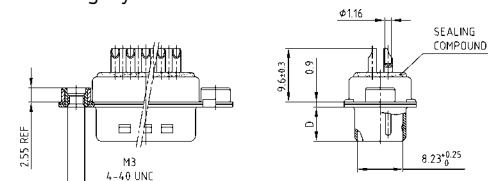


No. of pos.	A -0.76	B +0.25	C	D -0.3
09	31.19	16.79	25.00 $^{+0.12}_{-0.13}$	6.12
15	39.52	25.12	33.30 $^{+0.15}_{-0.10}$	6.12
25	53.42	38.84	47.04 $\pm 0.13$	5.99
37	69.70	55.30	63.50 $\pm 0.13$	5.99

Mounting style: Through-hole



Mounting style: Threaded insert



## ORDER DATA

### Capacitance 180 pF

SOCKET CONNECTOR		
No. of pos.	Mounting style	Part Number
09	Through-hole	242A26740X
15	Through-hole	242A26750X
25	Through-hole	242A26760X
37	Through-hole	242A26770X
09	4-40 UNC Threaded insert	242A26900X
15	4-40 UNC Threaded insert	242A26910X
25	4-40 UNC Threaded insert	242A26920X
37	4-40 UNC Threaded insert	242A26930X
09	M3 Threaded insert	242A27060X
15	M3 Threaded insert	242A27070X
25	M3 Threaded insert	242A27080X
37	M3 Threaded insert	242A27090X

PLUG CONNECTOR		
No. of pos.	Mounting style	Part Number
09	Through-hole	241A26840X
15	Through-hole	241A26850X
25	Through-hole	241A26860X
37	Through-hole	241A26870X
09	4-40 UNC Threaded insert	241A27000X
15	4-40 UNC Threaded insert	241A27010X
25	4-40 UNC Threaded insert	241A27020X
37	4-40 UNC Threaded insert	241A27030X
09	M3 Threaded insert	241A27160X
15	M3 Threaded insert	241A27170X
25	M3 Threaded insert	241A27180X
37	M3 Threaded insert	241A27190X

# C-FILTER D-SUB STANDARD

Solder cup – Precision machined contacts – For wire size AWG 20

**ORDER DATA**

**Capacitance 370 pF**

SOCKET CONNECTOR			PLUG CONNECTOR		
No. of pos.	Mounting style	Part Number	No. of pos.	Mounting style	Part Number
09	Through-hole	242A26780X	09	Through-hole	241A26880X
15	Through-hole	242A26790X	15	Through-hole	241A26890X
25	Through-hole	242A26800X	25	Through-hole	241A26900X
37	Through-hole	242A26810X	37	Through-hole	241A26910X
09	4-40 UNC Threaded insert	242A26940X	09	4-40 UNC Threaded insert	241A27040X
15	4-40 UNC Threaded insert	242A26950X	15	4-40 UNC Threaded insert	241A27050X
25	4-40 UNC Threaded insert	242A26960X	25	4-40 UNC Threaded insert	241A27060X
37	4-40 UNC Threaded insert	242A26970X	37	4-40 UNC Threaded insert	241A27070X
09	M3 Threaded insert	242A27100X	09	M3 Threaded insert	241A27200X
15	M3 Threaded insert	242A27110X	15	M3 Threaded insert	241A27210X
25	M3 Threaded insert	242A27120X	25	M3 Threaded insert	241A27220X
37	M3 Threaded insert	242A27130X	37	M3 Threaded insert	241A27230X

**Capacitance 830 pF**

SOCKET CONNECTOR			PLUG CONNECTOR		
No. of pos.	Mounting style	Part Number	No. of pos.	Mounting style	Part Number
09	Through-hole	242A26820X	09	Through-hole	241A26920X
15	Through-hole	242A26830X	15	Through-hole	241A26930X
25	Through-hole	242A26840X	25	Through-hole	241A26940X
37	Through-hole	242A26850X	37	Through-hole	241A26950X
09	4-40 UNC Threaded insert	242A26980X	09	4-40 UNC Threaded insert	241A27080X
15	4-40 UNC Threaded insert	242A26990X	15	4-40 UNC Threaded insert	241A27090X
25	4-40 UNC Threaded insert	242A27000X	25	4-40 UNC Threaded insert	241A27100X
37	4-40 UNC Threaded insert	242A27010X	37	4-40 UNC Threaded insert	241A27110X
09	M3 Threaded insert	242A27140X	09	M3 Threaded insert	241A27240X
15	M3 Threaded insert	242A27150X	15	M3 Threaded insert	241A27250X
25	M3 Threaded insert	242A27160X	25	M3 Threaded insert	241A27260X
37	M3 Threaded insert	242A27170X	37	M3 Threaded insert	241A27270X

**Capacitance 1300 pF**

SOCKET CONNECTOR			PLUG CONNECTOR		
No. of pos.	Mounting style	Part Number	No. of pos.	Mounting style	Part Number
09	Through-hole	242A26860X	09	Through-hole	241A26960X
15	Through-hole	242A26870X	15	Through-hole	241A26970X
25	Through-hole	242A26880X	25	Through-hole	241A26980X
37	Through-hole	242A26890X	37	Through-hole	241A26990X
09	4-40 UNC Threaded insert	242A27020X	09	4-40 UNC Threaded insert	241A27120X
15	4-40 UNC Threaded insert	242A27030X	15	4-40 UNC Threaded insert	241A27130X
25	4-40 UNC Threaded insert	242A27040X	25	4-40 UNC Threaded insert	241A27140X
37	4-40 UNC Threaded insert	242A27050X	37	4-40 UNC Threaded insert	241A27150X
09	M3 Threaded insert	242A27180X	09	M3 Threaded insert	241A27280X
15	M3 Threaded insert	242A27190X	15	M3 Threaded insert	241A27290X
25	M3 Threaded insert	242A27200X	25	M3 Threaded insert	241A27300X
37	M3 Threaded insert	242A27210X	37	M3 Threaded insert	241A27310X

# C-FILTER D-SUB STANDARD

Solder pin – Straight – Precision machined contacts



RoHS compliant – CSA listed, File No.: LR 115000-1 – UL listed, File No.: E202784

## DESCRIPTION

- Mounting styles:
  - with through-hole,  $\varnothing .118"/3 \text{ mm}$
  - with 4-40 UNC or M3 threaded insert
- Quality class 3 (also available in quality class 1)
- Shell: Steel tin plated (brass tin plated on request)

## SOCKET CONNECTOR



No. of pos.	A -0.76	B -0.25	C
09	31.19	16.46	25.00 $^{+0.12}_{-0.13}$
15	39.52	24.79	33.30 $^{+0.15}_{-0.10}$
25	53.42	38.50	47.04 $^{+0.13}$
37	69.70	54.96	63.50 $^{+0.13}$
50	67.31	52.55	61.10 $^{+0.14}_{-0.11}$

PCB-Layout: Kat1kFUA

Mounting style: Through-hole



Mounting style: Threaded insert



50 pos. = Dim. in ( \_ )

## PLUG CONNECTOR



No. of pos.	A -0.76	B -0.25	C	D -0.3
09	31.19	16.79	25.00 $^{+0.12}_{-0.13}$	6.12
15	39.52	25.12	33.30 $^{+0.15}_{-0.10}$	6.12
25	53.42	38.84	47.04 $^{+0.13}$	5.99
37	69.70	55.30	63.50 $^{+0.13}$	5.99
50	67.31	52.68	61.10 $^{+0.14}_{-0.11}$	5.99

PCB-Layout: Kat1kFUA

Mounting style: Through-hole



Mounting style: Threaded insert



50 pos. = Dim. in ( \_ )

## ORDER DATA

### Capacitance 180 pF

#### SOCKET CONNECTOR

No. of pos.	Mounting style	Part Number
09	Through-hole	242A16060X
15	Through-hole	242A16070X
25	Through-hole	242A16080X
37	Through-hole	242A16090X
50	Through-hole	242A16100X
09	4-40 UNC Threaded insert	242A16110X
15	4-40 UNC Threaded insert	242A16120X
25	4-40 UNC Threaded insert	242A16130X
37	4-40 UNC Threaded insert	242A16140X
50	4-40 UNC Threaded insert	242A16150X
09	M3 Threaded insert	242A16160X
15	M3 Threaded insert	242A16170X
25	M3 Threaded insert	242A16180X
37	M3 Threaded insert	242A16190X
50	M3 Threaded insert	242A16200X

#### PLUG CONNECTOR

No. of pos.	Mounting style	Part Number
09	Through-hole	241A18680X
15	Through-hole	241A18690X
25	Through-hole	241A18700X
37	Through-hole	241A18710X
50	Through-hole	241A18720X
09	4-40 UNC Threaded insert	241A18730X
15	4-40 UNC Threaded insert	241A18740X
25	4-40 UNC Threaded insert	241A18750X
37	4-40 UNC Threaded insert	241A18760X
50	4-40 UNC Threaded insert	241A18770X
09	M3 Threaded insert	241A18780X
15	M3 Threaded insert	241A18790X
25	M3 Threaded insert	241A18800X
37	M3 Threaded insert	241A18810X
50	M3 Threaded insert	241A18820X



# C-FILTER D-SUB STANDARD

Solder pin – Straight – Precision machined contacts

**ORDER DATA**

**Capacitance 370 pF**

SOCKET CONNECTOR			PLUG CONNECTOR		
No. of pos.	Mounting style	Part Number	No. of pos.	Mounting style	Part Number
09	Through-hole	242A10010X	09	Through-hole	241A10010X
15	Through-hole	242A10020X	15	Through-hole	241A10020X
25	Through-hole	242A10030X	25	Through-hole	241A10030X
37	Through-hole	242A10040X	37	Through-hole	241A10040X
50	Through-hole	242A15580X	50	Through-hole	241A15690X
09	4-40 UNC Threaded insert	242A10130X	09	4-40 UNC Threaded insert	241A10130X
15	4-40 UNC Threaded insert	242A10140X	15	4-40 UNC Threaded insert	241A10140X
25	4-40 UNC Threaded insert	242A10150X	25	4-40 UNC Threaded insert	241A10150X
37	4-40 UNC Threaded insert	242A10160X	37	4-40 UNC Threaded insert	241A10160X
50	4-40 UNC Threaded insert	242A15610X	50	4-40 UNC Threaded insert	241A15720X
09	M3 Threaded insert	242A10250X	09	M3 Threaded insert	241A10250X
15	M3 Threaded insert	242A10260X	15	M3 Threaded insert	241A10260X
25	M3 Threaded insert	242A10270X	25	M3 Threaded insert	241A10270X
37	M3 Threaded insert	242A10280X	37	M3 Threaded insert	241A10280X
50	M3 Threaded insert	242A15640X	50	M3 Threaded insert	241A15750X

**Capacitance 830 pF**

SOCKET CONNECTOR			PLUG CONNECTOR		
No. of pos.	Mounting style	Part Number	No. of pos.	Mounting style	Part Number
09	Through-hole	242A10090X	09	Through-hole	241A10090X
15	Through-hole	242A10100X	15	Through-hole	241A10100X
25	Through-hole	242A10110X	25	Through-hole	241A10110X
37	Through-hole	242A10120X	37	Through-hole	241A10120X
50	Through-hole	242A15600X	50	Through-hole	241A15710X
09	4-40 UNC Threaded insert	242A10210X	09	4-40 UNC Threaded insert	241A10210X
15	4-40 UNC Threaded insert	242A10220X	15	4-40 UNC Threaded insert	241A10220X
25	4-40 UNC Threaded insert	242A10230X	25	4-40 UNC Threaded insert	241A10230X
37	4-40 UNC Threaded insert	242A10240X	37	4-40 UNC Threaded insert	241A10240X
50	4-40 UNC Threaded insert	242A15630X	50	4-40 UNC Threaded insert	241A15740X
09	M3 Threaded insert	242A10330X	09	M3 Threaded insert	241A10330X
15	M3 Threaded insert	242A10340X	15	M3 Threaded insert	241A10340X
25	M3 Threaded insert	242A10350X	25	M3 Threaded insert	241A10350X
37	M3 Threaded insert	242A10360X	37	M3 Threaded insert	241A10360X
50	M3 Threaded insert	242A15660X	50	M3 Threaded insert	241A15770X

**Capacitance 1300 pF**

SOCKET CONNECTOR			PLUG CONNECTOR		
No. of pos.	Mounting style	Part Number	No. of pos.	Mounting style	Part Number
09	Through-hole	242A10050X	09	Through-hole	241A10050X
15	Through-hole	242A10060X	15	Through-hole	241A10060X
25	Through-hole	242A10070X	25	Through-hole	241A10070X
37	Through-hole	242A10080X	37	Through-hole	241A10080X
50	Through-hole	242A15590X	50	Through-hole	241A15700X
09	4-40 UNC Threaded insert	242A10170X	09	4-40 UNC Threaded insert	241A10170X
15	4-40 UNC Threaded insert	242A10180X	15	4-40 UNC Threaded insert	241A10180X
25	4-40 UNC Threaded insert	242A10190X	25	4-40 UNC Threaded insert	241A10190X
37	4-40 UNC Threaded insert	242A10200X	37	4-40 UNC Threaded insert	241A10200X
50	4-40 UNC Threaded insert	242A15620X	50	4-40 UNC Threaded insert	241A15730X
09	M3 Threaded insert	242A10290X	09	M3 Threaded insert	241A10290X
15	M3 Threaded insert	242A10300X	15	M3 Threaded insert	241A10300X
25	M3 Threaded insert	242A10310X	25	M3 Threaded insert	241A10310X
37	M3 Threaded insert	242A10320X	37	M3 Threaded insert	241A10320X
50	M3 Threaded insert	242A15650X	50	M3 Threaded insert	241A15760X

# C-FILTER D-SUB STANDARD

Solder pin – Straight – Precision machined contacts



RoHS compliant – CSA listed, File No.: LR 115000-1 – UL listed, File No.: E202784

## SOCKET CONNECTOR



No. of pos.	A -0.76	B -0.25	C
09	31.19	16.46	25.00 <sup>+0.12</sup> <sub>-0.13</sub>
15	39.52	24.79	33.30 <sup>+0.15</sup> <sub>-0.10</sub>
25	53.42	38.50	47.04 <sup>+0.13</sup>
37	69.70	54.96	63.50 <sup>+0.13</sup>
50	67.31	52.55	61.10 <sup>+0.14</sup> <sub>-0.11</sub>

PCB-Layout: Kat1kFUA

Mounting style: Threaded rear spacer



Mounting style: Threaded rear spacer, front spacer



## DESCRIPTION

- Mounting styles:
  - with 4-40 UNC or M3 threaded rear spacer
  - with 4-40 UNC or M3 front and threaded rear spacer
- Quality class 3 (also available in quality class 1)
- Shell: Steel tin plated (brass tin plated on request)

## PLUG CONNECTOR



No. of pos.	A -0.76	B -0.25	C	D -0.3
09	31.19	16.79	25.00 <sup>+0.12</sup> <sub>-0.13</sub>	6.12
15	39.52	25.12	33.30 <sup>+0.15</sup> <sub>-0.10</sub>	6.12
25	53.42	38.84	47.04 <sup>+0.13</sup>	5.99
37	69.70	55.30	63.50 <sup>+0.13</sup>	5.99
50	67.31	52.68	61.10 <sup>+0.14</sup> <sub>-0.11</sub>	5.99

PCB-Layout: Kat1kFUA

Mounting style: Threaded rear spacer



Mounting style: Threaded rear spacer, front spacer



## ORDER DATA

### Capacitance 180 pF

SOCKET CONNECTOR		
No. of pos.	Mounting style	Part Number
09	4-40 UNC Threaded rear spacer	242A16210X
15	4-40 UNC Threaded rear spacer	242A16220X
25	4-40 UNC Threaded rear spacer	242A16230X
37	4-40 UNC Threaded rear spacer	242A16240X
50	4-40 UNC Threaded rear spacer	242A16250X
09	M3 Threaded rear spacer	242A16260X
15	M3 Threaded rear spacer	242A16270X
25	M3 Threaded rear spacer	242A16280X
37	M3 Threaded rear spacer	242A16290X
50	M3 Threaded rear spacer	242A16300X
09	4-40 UNC Front / Threaded rear spacer	242A16310X
15	4-40 UNC Front / Threaded rear spacer	242A16320X
25	4-40 UNC Front / Threaded rear spacer	242A16330X
37	4-40 UNC Front / Threaded rear spacer	242A16340X
50	4-40 UNC Front / Threaded rear spacer	242A16350X
09	M3 Front / Threaded rear spacer	242A16360X
15	M3 Front / Threaded rear spacer	242A16370X
25	M3 Front / Threaded rear spacer	242A16380X
37	M3 Front / Threaded rear spacer	242A16390X
50	M3 Front / Threaded rear spacer	242A16400X

PLUG CONNECTOR		
No. of pos.	Mounting style	Part Number
09	4-40 UNC Threaded rear spacer	241A18830X
15	4-40 UNC Threaded rear spacer	241A18840X
25	4-40 UNC Threaded rear spacer	241A18850X
37	4-40 UNC Threaded rear spacer	241A18860X
50	4-40 UNC Threaded rear spacer	241A18870X
09	M3 Threaded rear spacer	241A18880X
15	M3 Threaded rear spacer	241A18890X
25	M3 Threaded rear spacer	241A18900X
37	M3 Threaded rear spacer	241A18910X
50	M3 Threaded rear spacer	241A18920X
09	4-40 UNC Front / Threaded rear spacer	241A18930X
15	4-40 UNC Front / Threaded rear spacer	241A18940X
25	4-40 UNC Front / Threaded rear spacer	241A18950X
37	4-40 UNC Front / Threaded rear spacer	241A18960X
50	4-40 UNC Front / Threaded rear spacer	241A18970X
09	M3 Front / Threaded rear spacer	241A18980X
15	M3 Front / Threaded rear spacer	241A18990X
25	M3 Front / Threaded rear spacer	241A19000X
37	M3 Front / Threaded rear spacer	241A19010X
50	M3 Front / Threaded rear spacer	241A19020X

# C-FILTER D-SUB STANDARD

Solder pin – Straight – Precision machined contacts

**ORDER DATA**

**Capacitance 370 pF**

SOCKET CONNECTOR			PLUG CONNECTOR		
No. of pos.	Mounting style	Part Number	No. of pos.	Mounting style	Part Number
09	4-40 UNC Threaded rear spacer	242A10370X	09	4-40 UNC Threaded rear spacer	241A10370X
15	4-40 UNC Threaded rear spacer	242A10380X	15	4-40 UNC Threaded rear spacer	241A10380X
25	4-40 UNC Threaded rear spacer	242A10390X	25	4-40 UNC Threaded rear spacer	241A10390X
37	4-40 UNC Threaded rear spacer	242A10400X	37	4-40 UNC Threaded rear spacer	241A10400X
50	4-40 UNC Threaded rear spacer	242A15670X	50	4-40 UNC Threaded rear spacer	241A15780X
09	M3 Threaded rear spacer	242A10490X	09	M3 Threaded rear spacer	241A10490X
15	M3 Threaded rear spacer	242A10500X	15	M3 Threaded rear spacer	241A10500X
25	M3 Threaded rear spacer	242A10510X	25	M3 Threaded rear spacer	241A10510X
37	M3 Threaded rear spacer	242A10520X	37	M3 Threaded rear spacer	241A10520X
50	M3 Threaded rear spacer	242A15700X	50	M3 Threaded rear spacer	241A15810X
09	4-40 UNC Front / Threaded rear spacer	242A10610X	09	4-40 UNC Front / Threaded rear spacer	241A10610X
15	4-40 UNC Front / Threaded rear spacer	242A10620X	15	4-40 UNC Front / Threaded rear spacer	241A10620X
25	4-40 UNC Front / Threaded rear spacer	242A10630X	25	4-40 UNC Front / Threaded rear spacer	241A10630X
37	4-40 UNC Front / Threaded rear spacer	242A10640X	37	4-40 UNC Front / Threaded rear spacer	241A10640X
50	4-40 UNC Front / Threaded rear spacer	242A15730X	50	4-40 UNC Front / Threaded rear spacer	241A15840X
09	M3 Front / Threaded rear spacer	242A10730X	09	M3 Front / Threaded rear spacer	241A10730X
15	M3 Front / Threaded rear spacer	242A10740X	15	M3 Front / Threaded rear spacer	241A10740X
25	M3 Front / Threaded rear spacer	242A10750X	25	M3 Front / Threaded rear spacer	241A10750X
37	M3 Front / Threaded rear spacer	242A10760X	37	M3 Front / Threaded rear spacer	241A10760X
50	M3 Front / Threaded rear spacer	242A15760X	50	M3 Front / Threaded rear spacer	241A15870X

**Capacitance 830 pF**

SOCKET CONNECTOR			PLUG CONNECTOR		
No. of pos.	Mounting style	Part Number	No. of pos.	Mounting style	Part Number
09	4-40 UNC Threaded rear spacer	242A10450X	09	4-40 UNC Threaded rear spacer	241A10450X
15	4-40 UNC Threaded rear spacer	242A10460X	15	4-40 UNC Threaded rear spacer	241A10460X
25	4-40 UNC Threaded rear spacer	242A10470X	25	4-40 UNC Threaded rear spacer	241A10470X
37	4-40 UNC Threaded rear spacer	242A10480X	37	4-40 UNC Threaded rear spacer	241A10480X
50	4-40 UNC Threaded rear spacer	242A15690X	50	4-40 UNC Threaded rear spacer	241A15800X
09	M3 Threaded rear spacer	242A10570X	09	M3 Threaded rear spacer	241A10570X
15	M3 Threaded rear spacer	242A10580X	15	M3 Threaded rear spacer	241A10580X
25	M3 Threaded rear spacer	242A10590X	25	M3 Threaded rear spacer	241A10590X
37	M3 Threaded rear spacer	242A10600X	37	M3 Threaded rear spacer	241A10600X
50	M3 Threaded rear spacer	242A15720X	50	M3 Threaded rear spacer	241A15830X
09	4-40 UNC Front / Threaded rear spacer	242A10690X	09	4-40 UNC Front / Threaded rear spacer	241A10690X
15	4-40 UNC Front / Threaded rear spacer	242A10700X	15	4-40 UNC Front / Threaded rear spacer	241A10700X
25	4-40 UNC Front / Threaded rear spacer	242A10710X	25	4-40 UNC Front / Threaded rear spacer	241A10710X
37	4-40 UNC Front / Threaded rear spacer	242A10720X	37	4-40 UNC Front / Threaded rear spacer	241A10720X
50	4-40 UNC Front / Threaded rear spacer	242A15750X	50	4-40 UNC Front / Threaded rear spacer	241A15860X
09	M3 Front / Threaded rear spacer	242A10810X	09	M3 Front / Threaded rear spacer	241A10810X
15	M3 Front / Threaded rear spacer	242A10820X	15	M3 Front / Threaded rear spacer	241A10820X
25	M3 Front / Threaded rear spacer	242A10830X	25	M3 Front / Threaded rear spacer	241A10830X
37	M3 Front / Threaded rear spacer	242A10840X	37	M3 Front / Threaded rear spacer	241A10840X
50	M3 Front / Threaded rear spacer	242A15780X	50	M3 Front / Threaded rear spacer	241A15890X

**Capacitance 1300 pF**

SOCKET CONNECTOR			PLUG CONNECTOR		
No. of pos.	Mounting style	Part Number	No. of pos.	Mounting style	Part Number
09	4-40 UNC Threaded rear spacer	242A10410X	09	4-40 UNC Threaded rear spacer	241A10410X
15	4-40 UNC Threaded rear spacer	242A10420X	15	4-40 UNC Threaded rear spacer	241A10420X
25	4-40 UNC Threaded rear spacer	242A10430X	25	4-40 UNC Threaded rear spacer	241A10430X
37	4-40 UNC Threaded rear spacer	242A10440X	37	4-40 UNC Threaded rear spacer	241A10440X
50	4-40 UNC Threaded rear spacer	242A15680X	50	4-40 UNC Threaded rear spacer	241A15790X
09	M3 Threaded rear spacer	242A10530X	09	M3 Threaded rear spacer	241A10530X
15	M3 Threaded rear spacer	242A10540X	15	M3 Threaded rear spacer	241A10540X
25	M3 Threaded rear spacer	242A10550X	25	M3 Threaded rear spacer	241A10550X
37	M3 Threaded rear spacer	242A10560X	37	M3 Threaded rear spacer	241A10560X
50	M3 Threaded rear spacer	242A15710X	50	M3 Threaded rear spacer	241A15820X
09	4-40 UNC Front / Threaded rear spacer	242A10650X	09	4-40 UNC Front / Threaded rear spacer	241A10650X
15	4-40 UNC Front / Threaded rear spacer	242A10660X	15	4-40 UNC Front / Threaded rear spacer	241A10660X
25	4-40 UNC Front / Threaded rear spacer	242A10670X	25	4-40 UNC Front / Threaded rear spacer	241A10670X
37	4-40 UNC Front / Threaded rear spacer	242A10680X	37	4-40 UNC Front / Threaded rear spacer	241A10680X
50	4-40 UNC Front / Threaded rear spacer	242A15740X	50	4-40 UNC Front / Threaded rear spacer	241A15850X
09	M3 Front / Threaded rear spacer	242A10770X	09	M3 Front / Threaded rear spacer	241A10770X
15	M3 Front / Threaded rear spacer	242A10780X	15	M3 Front / Threaded rear spacer	241A10780X
25	M3 Front / Threaded rear spacer	242A10790X	25	M3 Front / Threaded rear spacer	241A10790X
37	M3 Front / Threaded rear spacer	242A10800X	37	M3 Front / Threaded rear spacer	241A10800X
50	M3 Front / Threaded rear spacer	242A15770X	50	M3 Front / Threaded rear spacer	241A15880X

# C-FILTER D-SUB STANDARD

Solder pin – Straight – Precision machined contacts



RoHS compliant – CSA listed, File No.: LR 115000-1 – UL listed, File No.: E202784

## DESCRIPTION

- Mounting styles:
  - with 4-40 UNC or M3 threaded rear spacer with PCB clip
  - with 4-40 UNC or M3 front and threaded rear spacer with PCB clip
- Quality class 3 (also available in quality class 1)
- Shell: Steel tin plated (brass tin plated on request)

## SOCKET CONNECTOR



No. of pos.	A -0.76	B -0.25	C
09	31.19	16.46	25.00 <sup>+0.12</sup> / <sub>-0.13</sub>
15	39.52	24.79	33.30 <sup>+0.15</sup> / <sub>-0.10</sub>
25	53.42	38.50	47.04 <sup>+0.13</sup>
37	69.70	54.96	63.50 <sup>+0.13</sup>
50	67.31	52.55	61.10 <sup>+0.14</sup> / <sub>-0.11</sub>

PCB-Layout: Kat1kFUA

Mounting style: Threaded rear spacer with PCB clip



Mounting style: Front and threaded rear spacer with PCB clip



50 pos. = Dim. in ( \_ )

## PLUG CONNECTOR



No. of pos.	A -0.76	B -0.25	C	D -0.3
09	31.19	16.79	25.00 <sup>+0.12</sup> / <sub>-0.13</sub>	6.12
15	39.52	25.12	33.30 <sup>+0.15</sup> / <sub>-0.10</sub>	6.12
25	53.42	38.84	47.04 <sup>+0.13</sup>	5.99
37	69.70	55.30	63.50 <sup>+0.13</sup>	5.99
50	67.31	52.68	61.10 <sup>+0.14</sup> / <sub>-0.11</sub>	5.99

PCB-Layout: Kat1kFUA

Mounting style: Threaded rear spacer with PCB clip



Mounting style: Front and threaded rear spacer with PCB clip



50 pos. = Dim. in ( \_ )

## ORDER DATA

Capacitance 180 pF

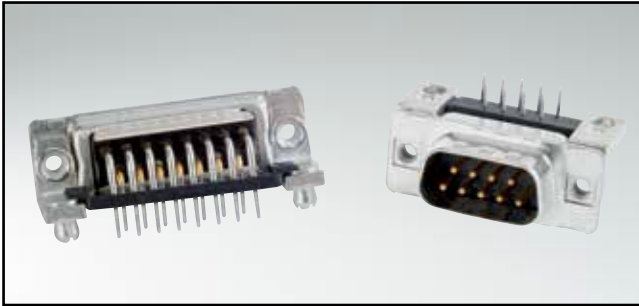
SOCKET CONNECTOR			PLUG CONNECTOR		
No. of pos.	Mounting style	Part Number	No. of pos.	Mounting style	Part Number
09	4-40 UNC Threaded rear spacer PCB clip	242A16460X	09	4-40 UNC Threaded rear spacer PCB clip	241A19080X
15	4-40 UNC Threaded rear spacer PCB clip	242A16470X	15	4-40 UNC Threaded rear spacer PCB clip	241A19090X
25	4-40 UNC Threaded rear spacer PCB clip	242A16480X	25	4-40 UNC Threaded rear spacer PCB clip	241A19100X
37	4-40 UNC Threaded rear spacer PCB clip	242A16490X	37	4-40 UNC Threaded rear spacer PCB clip	241A19110X
50	4-40 UNC Threaded rear spacer PCB clip	242A16500X	50	4-40 UNC Threaded rear spacer PCB clip	241A19120X
09	M3 Threaded rear spacer PCB clip	242A16510X	09	M3 Threaded rear spacer PCB clip	241A19130X
15	M3 Threaded rear spacer PCB clip	242A16520X	15	M3 Threaded rear spacer PCB clip	241A19140X
25	M3 Threaded rear spacer PCB clip	242A16530X	25	M3 Threaded rear spacer PCB clip	241A19150X
37	M3 Threaded rear spacer PCB clip	242A16540X	37	M3 Threaded rear spacer PCB clip	241A19160X
50	M3 Threaded rear spacer PCB clip	242A16550X	50	M3 Threaded rear spacer PCB clip	241A19170X
09	4-40 UNC Front / Threaded rear spacer PCB clip	242A16560X	09	4-40 UNC Front / Threaded rear spacer PCB clip	241A19180X
15	4-40 UNC Front / Threaded rear spacer PCB clip	242A16570X	15	4-40 UNC Front / Threaded rear spacer PCB clip	241A19190X
25	4-40 UNC Front / Threaded rear spacer PCB clip	242A16580X	25	4-40 UNC Front / Threaded rear spacer PCB clip	241A19200X
37	4-40 UNC Front / Threaded rear spacer PCB clip	242A16590X	37	4-40 UNC Front / Threaded rear spacer PCB clip	241A19210X
50	4-40 UNC Front / Threaded rear spacer PCB clip	242A16600X	50	4-40 UNC Front / Threaded rear spacer PCB clip	241A19220X
09	M3 Front / Threaded rear spacer PCB clip	242A16610X	09	M3 Front / Threaded rear spacer PCB clip	241A19230X
15	M3 Front / Threaded rear spacer PCB clip	242A16620X	15	M3 Front / Threaded rear spacer PCB clip	241A19240X
25	M3 Front / Threaded rear spacer PCB clip	242A16630X	25	M3 Front / Threaded rear spacer PCB clip	241A19250X
37	M3 Front / Threaded rear spacer PCB clip	242A16640X	37	M3 Front / Threaded rear spacer PCB clip	241A19260X
50	M3 Front / Threaded rear spacer PCB clip	242A16650X	50	M3 Front / Threaded rear spacer PCB clip	241A19270X

PCB clip .122"/3.1 ± .004"/0.10 mm hole diameter and .063"/1.6 mm circuit board thickness



# C-FILTER D-SUB STANDARD

Solder pin – Angled – .318" / 7.19 mm – Precision machined contacts – Metal Bracket

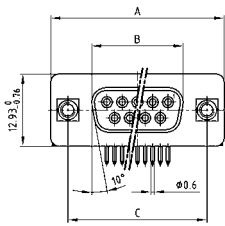


RoHS compliant – CSA listed, File No.: LR 115000-1 – UL listed, File No.: E202784

## DESCRIPTION

- Mounting styles:
  - with mounting bracket and 4-40 UNC threaded insert
  - with mounting bracket, PCB clip and 4-40 UNC threaded insert
- Quality class 3 (also available in quality class 1)
- Shell: Steel tin plated (brass tin plated on request)

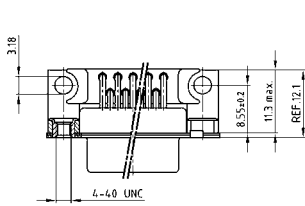
## SOCKET CONNECTOR



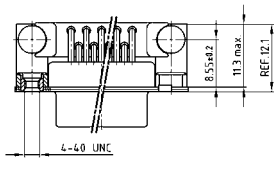
No. of pos.	A -0.76	B -0.25	C
09	31.19	16.46	25.00 <sup>+0.12</sup> / <sub>-0.13</sub>
15	39.52	24.79	33.30 <sup>+0.15</sup> / <sub>-0.10</sub>
25	53.42	38.50	47.04 <sup>+0.13</sup> / <sub>-0.13</sub>
37	69.70	54.96	63.50 <sup>+0.13</sup> / <sub>-0.13</sub>

PCB-Layout: Kat1kGEA

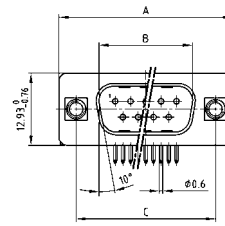
Mounting style: Threaded insert



Mounting style: PCB clip, threaded insert



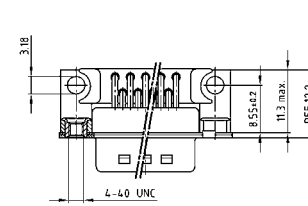
## PLUG CONNECTOR



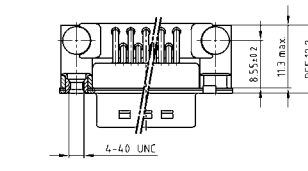
No. of pos.	A -0.76	B +0.25	C	D -0.3
09	31.19	16.79	25.00 <sup>+0.12</sup> / <sub>-0.13</sub>	6.12
15	39.52	25.12	33.30 <sup>+0.15</sup> / <sub>-0.10</sub>	6.12
25	53.42	38.84	47.04 <sup>+0.13</sup> / <sub>-0.13</sub>	5.99
37	69.70	55.30	63.50 <sup>+0.13</sup> / <sub>-0.13</sub>	5.99

PCB-Layout: Kat1kGFA

Mounting style: Threaded insert



Mounting style: PCB clip, threaded insert



## ORDER DATA

### Capacitance 180 pF

#### SOCKET CONNECTOR

No. of pos.	Mounting style 4-40 UNC	Part Number
09	Threaded insert	242A17180X
15	Threaded insert	242A17190X
25	Threaded insert	242A17200X
37	Threaded insert	242A17210X
09	PCB clip / Threaded insert	242A17780X
15	PCB clip / Threaded insert	242A17790X
25	PCB clip / Threaded insert	242A17800X
37	PCB clip / Threaded insert	242A17810X

#### PLUG CONNECTOR

No. of pos.	Mounting style 4-40 UNC	Part Number
09	Threaded insert	241A19800X
15	Threaded insert	241A19810X
25	Threaded insert	241A19820X
37	Threaded insert	241A19830X
09	PCB clip / Threaded insert	241A16180X
15	PCB clip / Threaded insert	241A16190X
25	PCB clip / Threaded insert	241A16200X
37	PCB clip / Threaded insert	241A16210X

PCB clip .122" / 3.1 ± .004" / 0.10 mm hole diameter and .063" / 1.6 mm circuit board thickness

# C-FILTER D-SUB STANDARD

Solder pin – Angled – .318" / 7.19 mm – Precision machined contacts – Metal Bracket

**ORDER DATA**

**Capacitance 370 pF**

SOCKET CONNECTOR			PLUG CONNECTOR		
No. of pos.	Mounting style 4-40 UNC	Part Number	No. of pos.	Mounting style 4-40 UNC	Part Number
09	Threaded insert	242A12340X	09	Threaded insert	241A12320X
15	Threaded insert	242A12350X	15	Threaded insert	241A12330X
25	Threaded insert	242A12360X	25	Threaded insert	241A12340X
37	Threaded insert	242A12370X	37	Threaded insert	241A12350X
09	PCB clip / Threaded insert	242A17740X	09	PCB clip / Threaded insert	241A16140X
15	PCB clip / Threaded insert	242A17750X	15	PCB clip / Threaded insert	241A16150X
25	PCB clip / Threaded insert	242A17760X	25	PCB clip / Threaded insert	241A16160X
37	PCB clip / Threaded insert	242A17770X	37	PCB clip / Threaded insert	241A16170X

**Capacitance 830 pF**

SOCKET CONNECTOR			PLUG CONNECTOR		
No. of pos.	Mounting style 4-40 UNC	Part Number	No. of pos.	Mounting style 4-40 UNC	Part Number
09	Threaded insert	242A12420X	09	Threaded insert	241A12400X
15	Threaded insert	242A12430X	15	Threaded insert	241A12410X
25	Threaded insert	242A12440X	25	Threaded insert	241A12420X
37	Threaded insert	242A12450X	37	Threaded insert	241A12430X
09	PCB clip / Threaded insert	242A17700X	09	PCB clip / Threaded insert	241A16100X
15	PCB clip / Threaded insert	242A17710X	15	PCB clip / Threaded insert	241A16110X
25	PCB clip / Threaded insert	242A17720X	25	PCB clip / Threaded insert	241A16120X
37	PCB clip / Threaded insert	242A17730X	37	PCB clip / Threaded insert	241A16130X

**Capacitance 1300 pF**

SOCKET CONNECTOR			PLUG CONNECTOR		
No. of pos.	Mounting style 4-40 UNC	Part Number	No. of pos.	Mounting style 4-40 UNC	Part Number
09	Threaded insert	242A12380X	09	Threaded insert	241A12360X
15	Threaded insert	242A12390X	15	Threaded insert	241A12370X
25	Threaded insert	242A12400X	25	Threaded insert	241A12380X
37	Threaded insert	242A12410X	37	Threaded insert	241A12390X
09	PCB clip / Threaded insert	242A17660X	09	PCB clip / Threaded insert	241A16060X
15	PCB clip / Threaded insert	242A17670X	15	PCB clip / Threaded insert	241A16070X
25	PCB clip / Threaded insert	242A17680X	25	PCB clip / Threaded insert	241A16080X
37	PCB clip / Threaded insert	242A17690X	37	PCB clip / Threaded insert	241A16090X

PCB clip .122" / 3.1 ± .004" / 0.10 mm hole diameter and .063" / 1.6 mm circuit board thickness

# C-FILTER D-SUB STANDARD

Solder pin – Angled – .370"/9.4 mm – Precision machined contacts – Plastic bracket



RoHS compliant – CSA listed, File No.: LR 115000-1 – UL listed, File No.: E202784

## DESCRIPTION

- Mounting styles:
  - Mounting bracket, grounding strap with through-hole  $\varnothing$  .118"/3.0 mm
  - Mounting bracket, grounding strap with 4-40 UNC or M3 threaded insert
- Quality class 3 (also available in quality class 1)
- Shell: Steel tin plated (brass tin plated on request)

## SOCKET CONNECTOR



No. of pos.	A -0.76	B -0.25	C
09	31.19	16.46	25.00 $^{+0.12}_{-0.13}$
15	39.52	24.79	33.30 $^{+0.15}_{-0.10}$
25	53.42	38.50	47.04 $^{+0.13}$
37	69.70	54.96	63.50 $^{+0.13}$

PCB-Layout: Kat1kGGA

Mounting style: Through-hole



Mounting style: Threaded insert



## PLUG CONNECTOR



No. of pos.	A -0.76	B +0.25	C	D -0.3
09	31.19	16.79	25.00 $^{+0.12}_{-0.13}$	6.12
15	39.52	25.12	33.30 $^{+0.15}_{-0.10}$	6.12
25	53.42	38.84	47.04 $^{+0.13}$	5.99
37	69.70	55.30	63.50 $^{+0.13}$	5.99

PCB-Layout: Kat1kGHA

Mounting style: Through-hole



Mounting style: Threaded insert



## ORDER DATA

### Capacitance 180 pF

SOCKET CONNECTOR		
No. of pos.	Mounting style	Part Number
09	Through-hole	242A16780X
15	Through-hole	242A16790X
25	Through-hole	242A16800X
37	Through-hole	242A16810X
09	Grounding strap/4-40 UNC Threaded insert	242A16820X
15	Grounding strap/4-40 UNC Threaded insert	242A16830X
25	Grounding strap/4-40 UNC Threaded insert	242A16840X
37	Grounding strap/4-40 UNC Threaded insert	242A16850X
09	Grounding strap/M3 Threaded insert	242A16860X
15	Grounding strap/M3 Threaded insert	242A16870X
25	Grounding strap/M3 Threaded insert	242A16880X
37	Grounding strap/M3 Threaded insert	242A16890X

PLUG CONNECTOR		
No. of pos.	Mounting style	Part Number
09	Through-hole	241A19400X
15	Through-hole	241A19410X
25	Through-hole	241A19420X
37	Through-hole	241A19430X
09	Grounding strap/4-40 UNC Threaded insert	241A19440X
15	Grounding strap/4-40 UNC Threaded insert	241A19450X
25	Grounding strap/4-40 UNC Threaded insert	241A19460X
37	Grounding strap/4-40 UNC Threaded insert	241A19470X
09	Grounding strap/M3 Threaded insert	241A19480X
15	Grounding strap/M3 Threaded insert	241A19490X
25	Grounding strap/M3 Threaded insert	241A19500X
37	Grounding strap/M3 Threaded insert	241A19510X



# C-FILTER D-SUB STANDARD

Solder pin – Angled – .370"/9.4 mm – Precision machined contacts – Plastic bracket

**ORDER DATA**

**Capacitance 370 pF**

SOCKET CONNECTOR			PLUG CONNECTOR		
No. of pos.	Mounting style	Part Number	No. of pos.	Mounting style	Part Number
09	Through-hole	242A10970X	09	Through-hole	241A10970X
15	Through-hole	242A10980X	15	Through-hole	241A10980X
25	Through-hole	242A10990X	25	Through-hole	241A10990X
37	Through-hole	242A11000X	37	Through-hole	241A11000X
09	Grounding strap/4-40 UNC Threaded insert	242A11090X	09	Grounding strap/4-40 UNC Threaded insert	241A11090X
15	Grounding strap/4-40 UNC Threaded insert	242A11100X	15	Grounding strap/4-40 UNC Threaded insert	241A11100X
25	Grounding strap/4-40 UNC Threaded insert	242A11110X	25	Grounding strap/4-40 UNC Threaded insert	241A11110X
37	Grounding strap/4-40 UNC Threaded insert	242A11120X	37	Grounding strap/4-40 UNC Threaded insert	241A11120X
09	Grounding strap/M3 Threaded insert	242A11210X	09	Grounding strap/M3 Threaded insert	241A11210X
15	Grounding strap/M3 Threaded insert	242A11220X	15	Grounding strap/M3 Threaded insert	241A11220X
25	Grounding strap/M3 Threaded insert	242A11230X	25	Grounding strap/M3 Threaded insert	241A11230X
37	Grounding strap/M3 Threaded insert	242A11240X	37	Grounding strap/M3 Threaded insert	241A11240X

**Capacitance 830 pF**

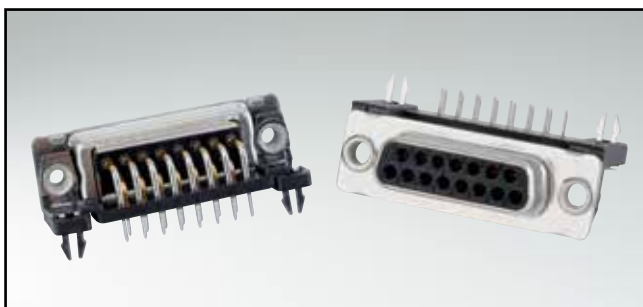
SOCKET CONNECTOR			PLUG CONNECTOR		
No. of pos.	Mounting style	Part Number	No. of pos.	Mounting style	Part Number
09	Through-hole	242A11050X	09	Through-hole	241A11050X
15	Through-hole	242A11060X	15	Through-hole	241A11060X
25	Through-hole	242A11070X	25	Through-hole	241A11070X
37	Through-hole	242A11080X	37	Through-hole	241A11080X
09	Grounding strap/4-40 UNC Threaded insert	242A11170X	09	Grounding strap/4-40 UNC Threaded insert	241A11170X
15	Grounding strap/4-40 UNC Threaded insert	242A11180X	15	Grounding strap/4-40 UNC Threaded insert	241A11180X
25	Grounding strap/4-40 UNC Threaded insert	242A11190X	25	Grounding strap/4-40 UNC Threaded insert	241A11190X
37	Grounding strap/4-40 UNC Threaded insert	242A11200X	37	Grounding strap/4-40 UNC Threaded insert	241A11200X
09	Grounding strap/M3 Threaded insert	242A11290X	09	Grounding strap/M3 Threaded insert	241A11290X
15	Grounding strap/M3 Threaded insert	242A11300X	15	Grounding strap/M3 Threaded insert	241A11300X
25	Grounding strap/M3 Threaded insert	242A11310X	25	Grounding strap/M3 Threaded insert	241A11310X
37	Grounding strap/M3 Threaded insert	242A11320X	37	Grounding strap/M3 Threaded insert	241A11320X

**Capacitance 1300 pF**

SOCKET CONNECTOR			PLUG CONNECTOR		
No. of pos.	Mounting style	Part Number	No. of pos.	Mounting style	Part Number
09	Through-hole	242A11010X	09	Through-hole	241A11010X
15	Through-hole	242A11020X	15	Through-hole	241A11020X
25	Through-hole	242A11030X	25	Through-hole	241A11030X
37	Through-hole	242A11040X	37	Through-hole	241A11040X
09	Grounding strap/4-40 UNC Threaded insert	242A11130X	09	Grounding strap/4-40 UNC Threaded insert	241A11130X
15	Grounding strap/4-40 UNC Threaded insert	242A11140X	15	Grounding strap/4-40 UNC Threaded insert	241A11140X
25	Grounding strap/4-40 UNC Threaded insert	242A11150X	25	Grounding strap/4-40 UNC Threaded insert	241A11150X
37	Grounding strap/4-40 UNC Threaded insert	242A11160X	37	Grounding strap/4-40 UNC Threaded insert	241A11160X
09	Grounding strap/M3 Threaded insert	242A11250X	09	Grounding strap/M3 Threaded insert	241A11250X
15	Grounding strap/M3 Threaded insert	242A11260X	15	Grounding strap/M3 Threaded insert	241A11260X
25	Grounding strap/M3 Threaded insert	242A11270X	25	Grounding strap/M3 Threaded insert	241A11270X
37	Grounding strap/M3 Threaded insert	242A11280X	37	Grounding strap/M3 Threaded insert	241A11280X

# C-FILTER D-SUB STANDARD

Solder pin – Angled – .370"/9.4 mm – Precision machined contacts – Plastic bracket



RoHS compliant – CSA listed, File No.: LR 115000-1 – UL listed, File No.: E202784

## DESCRIPTION

- Mounting styles:
  - Mounting bracket with PCB clip and 4-40 UNC or M3 threaded insert
  - Mounting bracket with PCB clip and through-hole  $\varnothing .118"/3.0$  mm
- Quality class 3 (also available in quality class 1)
- Shell: Steel tin plated (brass tin plated on request)

## SOCKET CONNECTOR



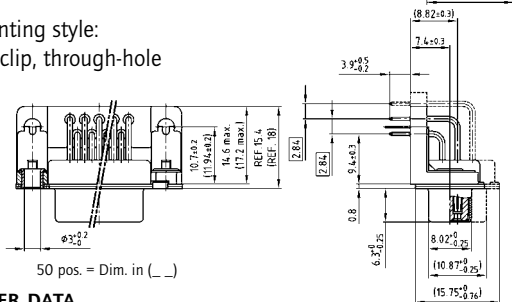
No. of pos.	A -0.76	B -0.25	C
09	31.19	16.46	25.00 $^{+0.12}_{-0.13}$
15	39.52	24.79	33.30 $^{+0.15}_{-0.10}$
25	53.42	38.50	47.04 $\pm 0.13$
37	69.70	54.96	63.50 $\pm 0.13$
50	67.31	52.55	61.10 $^{+0.14}_{-0.11}$

PCB-Layout: Kat1kGGA

Mounting style:  
PCB clip, threaded insert

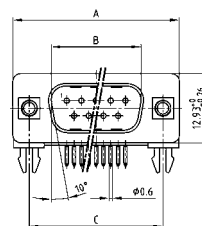


Mounting style:  
PCB clip, through-hole



50 pos. = Dim. in ( \_ )

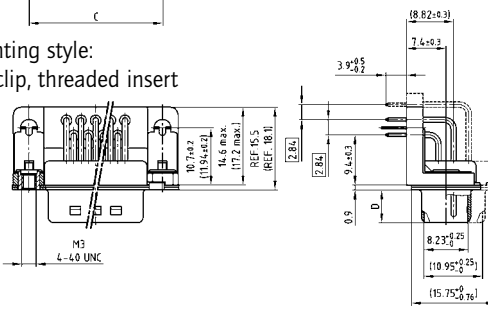
## PLUG CONNECTOR



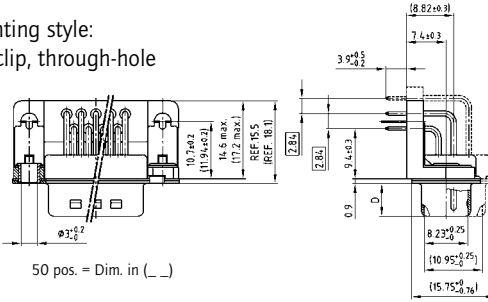
No. of pos.	A -0.76	B -0.25	C	D -0.3
09	31.19	16.79	25.00 $^{+0.12}_{-0.13}$	6.12
15	39.52	25.12	33.30 $^{+0.15}_{-0.10}$	6.12
25	53.42	38.84	47.04 $\pm 0.13$	5.99
37	69.70	55.30	63.50 $\pm 0.13$	5.99
50	67.31	52.68	61.10 $^{+0.14}_{-0.11}$	5.99

PCB-Layout: Kat1kGHA

Mounting style:  
PCB clip, threaded insert



Mounting style:  
PCB clip, through-hole



50 pos. = Dim. in ( \_ )

## ORDER DATA

### Capacitance 180 pF

#### SOCKET CONNECTOR

No. of pos.	Mounting style	Part Number
09	PCB clip / 4-40 UNC Threaded insert	242A17020X
15	PCB clip / 4-40 UNC Threaded insert	242A17030X
25	PCB clip / 4-40 UNC Threaded insert	242A17040X
37	PCB clip / 4-40 UNC Threaded insert	242A17050X
50	PCB clip / 4-40 UNC Threaded insert	242A24020X
09	PCB clip / M3 Threaded insert	242A17060X
15	PCB clip / M3 Threaded insert	242A17070X
25	PCB clip / M3 Threaded insert	242A17080X
37	PCB clip / M3 Threaded insert	242A17090X
50	PCB clip / M3 Threaded insert	242A24060X
09	PCB clip / Through-hole	242A16980X
15	PCB clip / Through-hole	242A16990X
25	PCB clip / Through-hole	242A17000X
37	PCB clip / Through-hole	242A17010X
50	PCB clip / Through-hole	242A23980X

#### PLUG CONNECTOR

No. of pos.	Mounting style	Part Number
09	PCB clip / 4-40 UNC Threaded insert	241A19640X
15	PCB clip / 4-40 UNC Threaded insert	241A19650X
25	PCB clip / 4-40 UNC Threaded insert	241A19660X
37	PCB clip / 4-40 UNC Threaded insert	241A19670X
50	PCB clip / 4-40 UNC Threaded insert	241A24120X
09	PCB clip / M3 Threaded insert	241A19680X
15	PCB clip / M3 Threaded insert	241A19690X
25	PCB clip / M3 Threaded insert	241A19700X
37	PCB clip / M3 Threaded insert	241A19710X
50	PCB clip / M3 Threaded insert	241A24160X
09	PCB clip / Through-hole	241A19600X
15	PCB clip / Through-hole	241A19610X
25	PCB clip / Through-hole	241A19620X
37	PCB clip / Through-hole	241A19630X
50	PCB clip / Through-hole	241A24080X

PCB clip .122"/3.1 ± .004"/0.10 mm hole diameter and .063"/1.6 mm circuit board thickness

# C-FILTER D-SUB STANDARD

Solder pin – Angled – .370"/9.4 mm – Precision machined contacts – Plastic bracket

**ORDER DATA**

**Capacitance 370 pF**

SOCKET CONNECTOR			PLUG CONNECTOR		
No. of pos.	Mounting style	Part Number	No. of pos.	Mounting style	Part Number
09	PCB clip / 4-40 UNC Threaded insert	242A12820X	09	PCB clip / 4-40 UNC Threaded insert	241A12800X
15	PCB clip / 4-40 UNC Threaded insert	242A12830X	15	PCB clip / 4-40 UNC Threaded insert	241A12810X
25	PCB clip / 4-40 UNC Threaded insert	242A12840X	25	PCB clip / 4-40 UNC Threaded insert	241A12820X
37	PCB clip / 4-40 UNC Threaded insert	242A12850X	37	PCB clip / 4-40 UNC Threaded insert	241A12830X
50	PCB clip / 4-40 UNC Threaded insert	242A24030X	50	PCB clip / 4-40 UNC Threaded insert	241A24130X
09	PCB clip / M3 Threaded insert	242A12940X	09	PCB clip / M3 Threaded insert	241A12920X
15	PCB clip / M3 Threaded insert	242A12950X	15	PCB clip / M3 Threaded insert	241A12930X
25	PCB clip / M3 Threaded insert	242A12960X	25	PCB clip / M3 Threaded insert	241A12940X
37	PCB clip / M3 Threaded insert	242A12970X	37	PCB clip / M3 Threaded insert	241A12950X
50	PCB clip / M3 Threaded insert	242A24070X	50	PCB clip / M3 Threaded insert	241A24170X
09	PCB clip / Through-hole	242A12700X	09	PCB clip / Through-hole	241A12680X
15	PCB clip / Through-hole	242A12710X	15	PCB clip / Through-hole	241A12690X
25	PCB clip / Through-hole	242A12720X	25	PCB clip / Through-hole	241A12700X
37	PCB clip / Through-hole	242A12730X	37	PCB clip / Through-hole	241A12710X
50	PCB clip / Through-hole	242A23990X	50	PCB clip / Through-hole	241A24090X

**Capacitance 830 pF**

SOCKET CONNECTOR			PLUG CONNECTOR		
No. of pos.	Mounting style	Part Number	No. of pos.	Mounting style	Part Number
09	PCB clip / 4-40 UNC Threaded insert	242A12900X	09	PCB clip / 4-40 UNC Threaded insert	241A12880X
15	PCB clip / 4-40 UNC Threaded insert	242A12910X	15	PCB clip / 4-40 UNC Threaded insert	241A12890X
25	PCB clip / 4-40 UNC Threaded insert	242A12920X	25	PCB clip / 4-40 UNC Threaded insert	241A12900X
37	PCB clip / 4-40 UNC Threaded insert	242A12930X	37	PCB clip / 4-40 UNC Threaded insert	241A12910X
50	PCB clip / 4-40 UNC Threaded insert	242A24040X	50	PCB clip / 4-40 UNC Threaded insert	241A24140X
09	PCB clip / M3 Threaded insert	242A13020X	09	PCB clip / M3 Threaded insert	241A13000X
15	PCB clip / M3 Threaded insert	242A13030X	15	PCB clip / M3 Threaded insert	241A13010X
25	PCB clip / M3 Threaded insert	242A13040X	25	PCB clip / M3 Threaded insert	241A13020X
37	PCB clip / M3 Threaded insert	242A13050X	37	PCB clip / M3 Threaded insert	241A13030X
50	PCB clip / M3 Threaded insert	242A24080X	50	PCB clip / M3 Threaded insert	241A24180X
09	PCB clip / Through-hole	242A12780X	09	PCB clip / Through-hole	241A12760X
15	PCB clip / Through-hole	242A12790X	15	PCB clip / Through-hole	241A12770X
25	PCB clip / Through-hole	242A12800X	25	PCB clip / Through-hole	241A12780X
37	PCB clip / Through-hole	242A12810X	37	PCB clip / Through-hole	241A12790X
50	PCB clip / Through-hole	242A24000X	50	PCB clip / Through-hole	241A24100X

**Capacitance 1300 pF**

SOCKET CONNECTOR			PLUG CONNECTOR		
No. of pos.	Mounting style	Part Number	No. of pos.	Mounting style	Part Number
09	PCB clip / 4-40 UNC Threaded insert	242A12860X	09	PCB clip / 4-40 UNC Threaded insert	241A12840X
15	PCB clip / 4-40 UNC Threaded insert	242A12870X	15	PCB clip / 4-40 UNC Threaded insert	241A12850X
25	PCB clip / 4-40 UNC Threaded insert	242A12880X	25	PCB clip / 4-40 UNC Threaded insert	241A12860X
37	PCB clip / 4-40 UNC Threaded insert	242A12890X	37	PCB clip / 4-40 UNC Threaded insert	241A12870X
50	PCB clip / 4-40 UNC Threaded insert	242A24050X	50	PCB clip / 4-40 UNC Threaded insert	241A24150X
09	PCB clip / M3 Threaded insert	242A12980X	09	PCB clip / M3 Threaded insert	241A12960X
15	PCB clip / M3 Threaded insert	242A12990X	15	PCB clip / M3 Threaded insert	241A12970X
25	PCB clip / M3 Threaded insert	242A13000X	25	PCB clip / M3 Threaded insert	241A12980X
37	PCB clip / M3 Threaded insert	242A13010X	37	PCB clip / M3 Threaded insert	241A12990X
50	PCB clip / M3 Threaded insert	242A24090X	50	PCB clip / M3 Threaded insert	241A24190X
09	PCB clip / Through-hole	242A12740X	09	PCB clip / Through-hole	241A12720X
15	PCB clip / Through-hole	242A12750X	15	PCB clip / Through-hole	241A12730X
25	PCB clip / Through-hole	242A12760X	25	PCB clip / Through-hole	241A12740X
37	PCB clip / Through-hole	242A12770X	37	PCB clip / Through-hole	241A12750X
50	PCB clip / Through-hole	242A24010X	50	PCB clip / Through-hole	241A24110X

PCB clip .122"/3.1 ± .004"/0.10 mm hole diameter and .063"/1.6 mm circuit board thickness

# C-FILTER D-SUB STANDARD

Solder pin – Angled – .370"/9.4 mm – Precision machined contacts – Metal bracket



RoHS compliant – CSA listed, File No.: LR 115000-1 – UL listed, File No.: E202784

## DESCRIPTION

- Mounting styles:
  - Mounting bracket with PCB clip and 4-40 UNC or M3 threaded insert
  - Mounting bracket with PCB clip and 4-40 UNC or M3 front spacer
- Quality class 3 (also available in quality class 1)
- Shell: Steel tin plated (brass tin plated on request)

## SOCKET CONNECTOR



No. of pos.	A -0.76	B -0.25	C
09	31.19	16.46	25.00 <sup>+0.12</sup> / <sub>-0.13</sub>
15	39.52	24.79	33.30 <sup>+0.15</sup> / <sub>-0.10</sub>
25	53.42	38.50	47.04 <sup>+0.13</sup> / <sub>-0.13</sub>
37	69.70	54.96	63.50 <sup>+0.13</sup> / <sub>-0.13</sub>
50	67.31	52.55	61.10 <sup>+0.14</sup> / <sub>-0.11</sub>

PCB-Layout: Kat1kGGA

Mounting style:  
PCB clip, threaded insert



Mounting style:  
PCB clip, front spacer



50 pos. = Dim. in ( \_ )

## ORDER DATA

### Capacitance 180 pF

#### SOCKET CONNECTOR

No. of pos.	Mounting style	Part Number
09	PCB clip / 4-40 UNC Threaded insert	242A21410X
15	PCB clip / 4-40 UNC Threaded insert	242A21420X
25	PCB clip / 4-40 UNC Threaded insert	242A21430X
37	PCB clip / 4-40 UNC Threaded insert	242A21440X
50	PCB clip / 4-40 UNC Threaded insert	242A27220X
09	PCB clip / M3 Threaded insert	242A21570X
15	PCB clip / M3 Threaded insert	242A21580X
25	PCB clip / M3 Threaded insert	242A21590X
37	PCB clip / M3 Threaded insert	242A21600X
50	PCB clip / M3 Threaded insert	242A27260X
09	PCB clip / 4-40 UNC Front spacer	242A22400X
15	PCB clip / 4-40 UNC Front spacer	242A22410X
25	PCB clip / 4-40 UNC Front spacer	242A22420X
37	PCB clip / 4-40 UNC Front spacer	242A22430X
50	PCB clip / 4-40 UNC Front spacer	242A27300X
09	PCB clip / M3 Front spacer	242A22560X
15	PCB clip / M3 Front spacer	242A22570X
25	PCB clip / M3 Front spacer	242A22580X
37	PCB clip / M3 Front spacer	242A22590X
50	PCB clip / M3 Front spacer	242A27340X

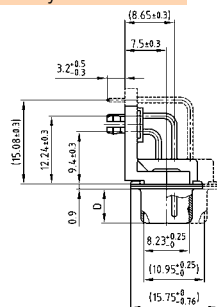
## PLUG CONNECTOR



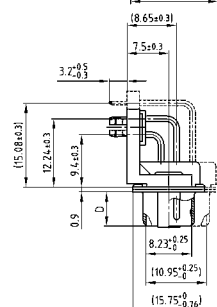
No. of pos.	A -0.76	B -0.25	C	D -0.3
09	31.19	16.79	25.00 <sup>+0.12</sup> / <sub>-0.13</sub>	6.12
15	39.52	25.12	33.30 <sup>+0.15</sup> / <sub>-0.10</sub>	6.12
25	53.42	38.84	47.04 <sup>+0.13</sup> / <sub>-0.13</sub>	5.99
37	69.70	55.30	63.50 <sup>+0.13</sup> / <sub>-0.13</sub>	5.99
50	67.31	52.68	61.10 <sup>+0.14</sup> / <sub>-0.11</sub>	5.99

PCB-Layout: Kat1kGHA

Mounting style:  
PCB clip, threaded insert



Mounting style:  
PCB clip, front spacer



50 pos. = Dim. in ( \_ )

#### PLUG CONNECTOR

No. of pos.	Mounting style	Part Number
09	PCB clip / 4-40 UNC Threaded insert	241A21560X
15	PCB clip / 4-40 UNC Threaded insert	241A21570X
25	PCB clip / 4-40 UNC Threaded insert	241A21580X
37	PCB clip / 4-40 UNC Threaded insert	241A21590X
50	PCB clip / 4-40 UNC Threaded insert	241A27320X
09	PCB clip / M3 Threaded insert	241A21720X
15	PCB clip / M3 Threaded insert	241A21730X
25	PCB clip / M3 Threaded insert	241A21740X
37	PCB clip / M3 Threaded insert	241A21750X
50	PCB clip / M3 Threaded insert	241A27360X
09	PCB clip / 4-40 UNC Front spacer	241A22500X
15	PCB clip / 4-40 UNC Front spacer	241A22510X
25	PCB clip / 4-40 UNC Front spacer	241A22520X
37	PCB clip / 4-40 UNC Front spacer	241A22530X
50	PCB clip / 4-40 UNC Front spacer	241A27400X
09	PCB clip / M3 Front spacer	241A22660X
15	PCB clip / M3 Front spacer	241A22670X
25	PCB clip / M3 Front spacer	241A22680X
37	PCB clip / M3 Front spacer	241A22690X
50	PCB clip / M3 Front spacer	241A27440X

PCB clip .122"/3.1 ± .004"/0.10 mm hole diameter and .063"/1.6 mm circuit board thickness

# C-FILTER D-SUB STANDARD

Solder pin – Angled – .370"/9.4 mm – Precision machined contacts – Metal bracket

**ORDER DATA**

**Capacitance 370 pF**

SOCKET CONNECTOR			PLUG CONNECTOR		
No. of pos.	Mounting style	Part Number	No. of pos.	Mounting style	Part Number
09	PCB clip / 4-40 UNC Threaded insert	242A21450X	09	PCB clip / 4-40 UNC Threaded insert	241A21600X
15	PCB clip / 4-40 UNC Threaded insert	242A21460X	15	PCB clip / 4-40 UNC Threaded insert	241A21610X
25	PCB clip / 4-40 UNC Threaded insert	242A21470X	25	PCB clip / 4-40 UNC Threaded insert	241A21620X
37	PCB clip / 4-40 UNC Threaded insert	242A21480X	37	PCB clip / 4-40 UNC Threaded insert	241A21630X
50	PCB clip / 4-40 UNC Threaded insert	242A27230X	50	PCB clip / 4-40 UNC Threaded insert	241A27330X
09	PCB clip / M3 Threaded insert	242A21610X	09	PCB clip / M3 Threaded insert	241A21760X
15	PCB clip / M3 Threaded insert	242A21620X	15	PCB clip / M3 Threaded insert	241A21770X
25	PCB clip / M3 Threaded insert	242A21630X	25	PCB clip / M3 Threaded insert	241A21780X
37	PCB clip / M3 Threaded insert	242A21640X	37	PCB clip / M3 Threaded insert	241A21790X
50	PCB clip / M3 Threaded insert	242A27270X	50	PCB clip / M3 Threaded insert	241A27370X
09	PCB clip / 4-40 UNC Front spacer	242A22440X	09	PCB clip / 4-40 UNC Front spacer	241A22540X
15	PCB clip / 4-40 UNC Front spacer	242A22450X	15	PCB clip / 4-40 UNC Front spacer	241A22550X
25	PCB clip / 4-40 UNC Front spacer	242A22460X	25	PCB clip / 4-40 UNC Front spacer	241A22560X
37	PCB clip / 4-40 UNC Front spacer	242A22470X	37	PCB clip / 4-40 UNC Front spacer	241A22570X
50	PCB clip / 4-40 UNC Front spacer	242A27310X	50	PCB clip / 4-40 UNC Front spacer	241A27410X
09	PCB clip / M3 Front spacer	242A22600X	09	PCB clip / M3 Front spacer	241A22700X
15	PCB clip / M3 Front spacer	242A22610X	15	PCB clip / M3 Front spacer	241A22710X
25	PCB clip / M3 Front spacer	242A22620X	25	PCB clip / M3 Front spacer	241A22720X
37	PCB clip / M3 Front spacer	242A22630X	37	PCB clip / M3 Front spacer	241A22730X
50	PCB clip / M3 Front spacer	242A27350X	50	PCB clip / M3 Front spacer	241A27450X

**Capacitance 830 pF**

SOCKET CONNECTOR			PLUG CONNECTOR		
No. of pos.	Mounting style	Part Number	No. of pos.	Mounting style	Part Number
09	PCB clip / 4-40 UNC Threaded insert	242A21490X	09	PCB clip / 4-40 UNC Threaded insert	241A21640X
15	PCB clip / 4-40 UNC Threaded insert	242A21500X	15	PCB clip / 4-40 UNC Threaded insert	241A21650X
25	PCB clip / 4-40 UNC Threaded insert	242A21510X	25	PCB clip / 4-40 UNC Threaded insert	241A21660X
37	PCB clip / 4-40 UNC Threaded insert	242A21520X	37	PCB clip / 4-40 UNC Threaded insert	241A21670X
50	PCB clip / 4-40 UNC Threaded insert	242A27240X	50	PCB clip / 4-40 UNC Threaded insert	241A27340X
09	PCB clip / M3 Threaded insert	242A21650X	09	PCB clip / M3 Threaded insert	241A21800X
15	PCB clip / M3 Threaded insert	242A21660X	15	PCB clip / M3 Threaded insert	241A21810X
25	PCB clip / M3 Threaded insert	242A21670X	25	PCB clip / M3 Threaded insert	241A21820X
37	PCB clip / M3 Threaded insert	242A21680X	37	PCB clip / M3 Threaded insert	241A21830X
50	PCB clip / M3 Threaded insert	242A27280X	50	PCB clip / M3 Threaded insert	241A27380X
09	PCB clip / 4-40 UNC Front spacer	242A22480X	09	PCB clip / 4-40 UNC Front spacer	241A22580X
15	PCB clip / 4-40 UNC Front spacer	242A22490X	15	PCB clip / 4-40 UNC Front spacer	241A22590X
25	PCB clip / 4-40 UNC Front spacer	242A22500X	25	PCB clip / 4-40 UNC Front spacer	241A22600X
37	PCB clip / 4-40 UNC Front spacer	242A22510X	37	PCB clip / 4-40 UNC Front spacer	241A22610X
50	PCB clip / 4-40 UNC Front spacer	242A27320X	50	PCB clip / 4-40 UNC Front spacer	241A27420X
09	PCB clip / M3 Front spacer	242A22640X	09	PCB clip / M3 Front spacer	241A22740X
15	PCB clip / M3 Front spacer	242A22650X	15	PCB clip / M3 Front spacer	241A22750X
25	PCB clip / M3 Front spacer	242A22660X	25	PCB clip / M3 Front spacer	241A22760X
37	PCB clip / M3 Front spacer	242A22670X	37	PCB clip / M3 Front spacer	241A22770X
50	PCB clip / M3 Front spacer	242A27360X	50	PCB clip / M3 Front spacer	241A27460X

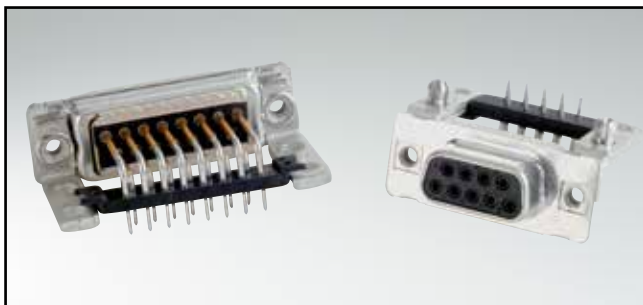
**Capacitance 1300 pF**

SOCKET CONNECTOR			PLUG CONNECTOR		
No. of pos.	Mounting style	Part Number	No. of pos.	Mounting style	Part Number
09	PCB clip / 4-40 UNC Threaded insert	242A21530X	09	PCB clip / 4-40 UNC Threaded insert	241A21680X
15	PCB clip / 4-40 UNC Threaded insert	242A21540X	15	PCB clip / 4-40 UNC Threaded insert	241A21690X
25	PCB clip / 4-40 UNC Threaded insert	242A21550X	25	PCB clip / 4-40 UNC Threaded insert	241A21700X
37	PCB clip / 4-40 UNC Threaded insert	242A21560X	37	PCB clip / 4-40 UNC Threaded insert	241A21710X
50	PCB clip / 4-40 UNC Threaded insert	242A27250X	50	PCB clip / 4-40 UNC Threaded insert	241A27350X
09	PCB clip / M3 Threaded insert	242A21690X	09	PCB clip / M3 Threaded insert	241A21840X
15	PCB clip / M3 Threaded insert	242A21700X	15	PCB clip / M3 Threaded insert	241A21850X
25	PCB clip / M3 Threaded insert	242A21710X	25	PCB clip / M3 Threaded insert	241A21860X
37	PCB clip / M3 Threaded insert	242A21720X	37	PCB clip / M3 Threaded insert	241A21870X
50	PCB clip / M3 Threaded insert	242A27290X	50	PCB clip / M3 Threaded insert	241A27390X
09	PCB clip / 4-40 UNC Front spacer	242A22520X	09	PCB clip / 4-40 UNC Front spacer	241A22620X
15	PCB clip / 4-40 UNC Front spacer	242A22530X	15	PCB clip / 4-40 UNC Front spacer	241A22630X
25	PCB clip / 4-40 UNC Front spacer	242A22540X	25	PCB clip / 4-40 UNC Front spacer	241A22640X
37	PCB clip / 4-40 UNC Front spacer	242A22550X	37	PCB clip / 4-40 UNC Front spacer	241A22650X
50	PCB clip / 4-40 UNC Front spacer	242A27330X	50	PCB clip / 4-40 UNC Front spacer	241A27430X
09	PCB clip / M3 Front spacer	242A22680X	09	PCB clip / M3 Front spacer	241A22780X
15	PCB clip / M3 Front spacer	242A22690X	15	PCB clip / M3 Front spacer	241A22790X
25	PCB clip / M3 Front spacer	242A22700X	25	PCB clip / M3 Front spacer	241A22800X
37	PCB clip / M3 Front spacer	242A22710X	37	PCB clip / M3 Front spacer	241A22810X
50	PCB clip / M3 Front spacer	242A27370X	50	PCB clip / M3 Front spacer	241A27470X

PCB clip .122"/3.1 ± .004"/0.10 mm hole diameter and .063"/1.6 mm circuit board thickness

# C-FILTER D-SUB STANDARD

Solder pin – Angled – .590" / 14.19 mm – Precision machined contacts – Metal Bracket

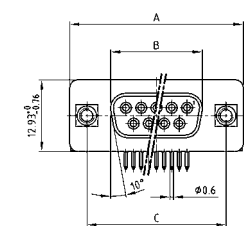


RoHS compliant – CSA listed, File No.: LR 115000-1 – UL listed, File No.: E202784

## DESCRIPTION

- Mounting styles:
  - with mounting bracket and 4-40 UNC threaded insert
  - with mounting bracket, PCB clip and 4-40 UNC threaded insert
- Quality class 3 (also available in quality class 1)
- Shell: Steel tin plated (brass tin plated on request)

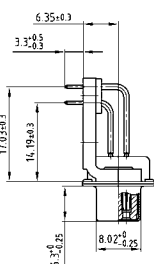
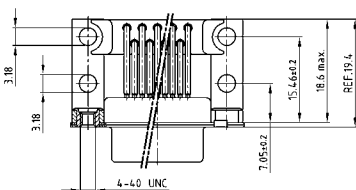
## SOCKET CONNECTOR



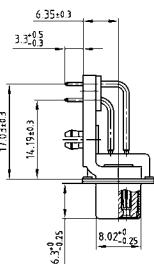
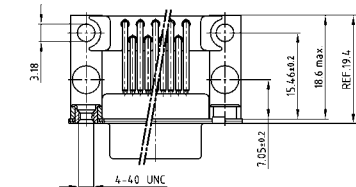
No. of pos.	A -0.76	B -0.25	C
09	31.19	16.46	25.00 <sup>+0.12</sup> / <sub>-0.13</sub>
15	39.52	24.79	33.30 <sup>+0.15</sup> / <sub>-0.10</sub>
25	53.42	38.50	47.04 <sup>+0.13</sup> / <sub>-0.13</sub>
37	69.70	54.96	63.50 <sup>+0.13</sup> / <sub>-0.13</sub>

PCB-Layout: Kat1kGIA

Mounting style: Threaded insert



Mounting style: PCB clip, threaded insert

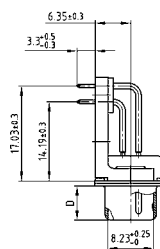
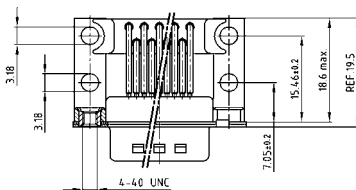


## PLUG CONNECTOR

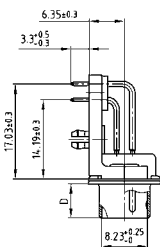
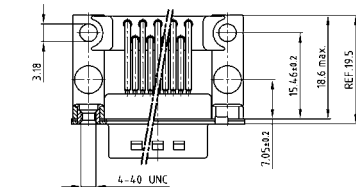
No. of pos.	A -0.76	B +0.25	C	D -0.3
09	31.19	16.79	25.00 <sup>+0.12</sup> / <sub>-0.13</sub>	6.12
15	39.52	25.12	33.30 <sup>+0.15</sup> / <sub>-0.10</sub>	6.12
25	53.42	38.84	47.04 <sup>+0.13</sup> / <sub>-0.13</sub>	5.99
37	69.70	55.30	63.50 <sup>+0.13</sup> / <sub>-0.13</sub>	5.99

PCB-Layout: Kat1kGJA

Mounting style: Threaded insert



Mounting style: PCB clip, threaded insert



## ORDER DATA

### Capacitance 180 pF

#### SOCKET CONNECTOR

No. of pos.	Mounting style 4-40 UNC	Part Number
09	Threaded insert	242A17260X
15	Threaded insert	242A17270X
25	Threaded insert	242A17280X
37	Threaded insert	242A17290X
09	PCB clip / Threaded insert	242A19290X
15	PCB clip / Threaded insert	242A19300X
25	PCB clip / Threaded insert	242A19310X
37	PCB clip / Threaded insert	242A19320X

#### PLUG CONNECTOR

No. of pos.	Mounting style 4-40 UNC	Part Number
09	Threaded insert	241A19880X
15	Threaded insert	241A19890X
25	Threaded insert	241A19900X
37	Threaded insert	241A19910X
09	PCB clip / Threaded insert	241A17700X
15	PCB clip / Threaded insert	241A17710X
25	PCB clip / Threaded insert	241A17720X
37	PCB clip / Threaded insert	241A17730X

PCB clip .122"/3.1 ± .004"/0.10 mm hole diameter and .063"/1.6 mm circuit board thickness

# C-FILTER D-SUB STANDARD

Solder pin – Angled – .590" / 14.19 mm – Precision machined contacts – Metal Bracket

**ORDER DATA**

## Capacitance 370 pF

SOCKET CONNECTOR			PLUG CONNECTOR		
No. of pos.	Mounting style 4-40 UNC	Part Number	No. of pos.	Mounting style 4-40 UNC	Part Number
09	Threaded insert	242A12580X	09	Threaded insert	241A12560X
15	Threaded insert	242A12590X	15	Threaded insert	241A12570X
25	Threaded insert	242A12600X	25	Threaded insert	241A12580X
37	Threaded insert	242A12610X	37	Threaded insert	241A12590X
09	PCB clip / Threaded insert	242A19250X	09	PCB clip / Threaded insert	241A17660X
15	PCB clip / Threaded insert	242A19260X	15	PCB clip / Threaded insert	241A17670X
25	PCB clip / Threaded insert	242A19270X	25	PCB clip / Threaded insert	241A17680X
37	PCB clip / Threaded insert	242A19280X	37	PCB clip / Threaded insert	241A17690X

## Capacitance 830 pF

SOCKET CONNECTOR			PLUG CONNECTOR		
No. of pos.	Mounting style 4-40 UNC	Part Number	No. of pos.	Mounting style 4-40 UNC	Part Number
09	Threaded insert	242A12660X	09	Threaded insert	241A12640X
15	Threaded insert	242A12670X	15	Threaded insert	241A12650X
25	Threaded insert	242A12680X	25	Threaded insert	241A12660X
37	Threaded insert	242A12690X	37	Threaded insert	241A12670X
09	PCB clip / Threaded insert	242A19210X	09	PCB clip / Threaded insert	241A17620X
15	PCB clip / Threaded insert	242A19220X	15	PCB clip / Threaded insert	241A17630X
25	PCB clip / Threaded insert	242A19230X	25	PCB clip / Threaded insert	241A17640X
37	PCB clip / Threaded insert	242A19240X	37	PCB clip / Threaded insert	241A17650X

## Capacitance 1300 pF

SOCKET CONNECTOR			PLUG CONNECTOR		
No. of pos.	Mounting style 4-40 UNC	Part Number	No. of pos.	Mounting style 4-40 UNC	Part Number
09	Threaded insert	242A12620X	09	Threaded insert	241A12600X
15	Threaded insert	242A12630X	15	Threaded insert	241A12610X
25	Threaded insert	242A12640X	25	Threaded insert	241A12620X
37	Threaded insert	242A12650X	37	Threaded insert	241A12630X
09	PCB clip / Threaded insert	242A19170X	09	PCB clip / Threaded insert	241A17580X
15	PCB clip / Threaded insert	242A19180X	15	PCB clip / Threaded insert	241A17590X
25	PCB clip / Threaded insert	242A19190X	25	PCB clip / Threaded insert	241A17600X
37	PCB clip / Threaded insert	242A19200X	37	PCB clip / Threaded insert	241A17610X

PCB clip .122" / 3.1 ± .004" / 0.10 mm hole diameter and .063" / 1.6 mm circuit board thickness

# C-FILTER D-SUB STANDARD

Solder pin – Angled – .590"/14.19 mm – Precision machined contacts – Short metal bracket



RoHS compliant – CSA listed, File No.: LR 115000-1 – UL listed, File No.: E202784

## DESCRIPTION

- Mounting styles:
  - Mounting bracket, 4-40 UNC threaded insert
  - Mounting bracket, PCB clip and 4-40 UNC threaded insert
- Quality class 3 (also available in quality class 1)
- Shell: Steel tin plated (brass tin plated on request)

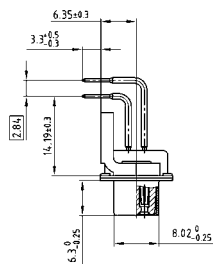
## SOCKET CONNECTOR



No. of pos.	A -0.76	B -0.25	C
09	31.19	16.46	25.00 <sup>+0.12</sup> / <sub>-0.13</sub>
15	39.52	24.79	33.30 <sup>+0.15</sup> / <sub>-0.10</sub>
25	53.42	38.50	47.04 <sup>+0.13</sup> / <sub>-0.13</sub>
37	69.70	54.96	63.50 <sup>+0.13</sup> / <sub>-0.13</sub>

PCB-Layout: Kat1kGXA

Mounting style: Threaded insert



Mounting style: PCB clip, threaded insert



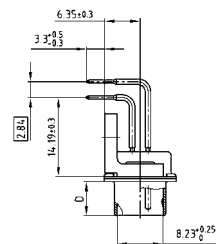
## PLUG CONNECTOR



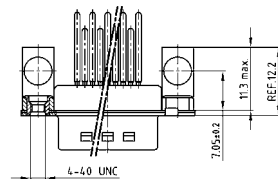
No. of pos.	A -0.76	B +0.25	C	D -0.3
09	31.19	16.79	25.00 <sup>+0.12</sup> / <sub>-0.13</sub>	6.12
15	39.52	25.12	33.30 <sup>+0.15</sup> / <sub>-0.10</sub>	6.12
25	53.42	38.84	47.04 <sup>+0.13</sup> / <sub>-0.13</sub>	5.99
37	69.70	55.30	63.50 <sup>+0.13</sup> / <sub>-0.13</sub>	5.99

PCB-Layout: Kat1kGYA

Mounting style: Threaded insert



Mounting style: PCB clip, threaded insert



## ORDER DATA

### Capacitance 180 pF

SOCKET CONNECTOR		
No. of pos.	Mounting style 4-40 UNC	Part Number
09	Threaded insert	242A20290X
15	Threaded insert	242A20300X
25	Threaded insert	242A20310X
37	Threaded insert	242A20320X
09	PCB clip / Threaded insert	242A20450X
15	PCB clip / Threaded insert	242A20460X
25	PCB clip / Threaded insert	242A20470X
37	PCB clip / Threaded insert	242A20480X

PLUG CONNECTOR		
No. of pos.	Mounting style 4-40 UNC	Part Number
09	Threaded insert	241A20440X
15	Threaded insert	241A20450X
25	Threaded insert	241A20460X
37	Threaded insert	241A20470X
09	PCB clip / Threaded insert	241A20600X
15	PCB clip / Threaded insert	241A20610X
25	PCB clip / Threaded insert	241A20620X
37	PCB clip / Threaded insert	241A20630X

PCB clip .122"/3.1 ± .004"/0.10 mm hole diameter and .063"/1.6 mm circuit board thickness



# C-FILTER D-SUB STANDARD

Solder pin – Angled – .590"/14.19 mm – Precision machined contacts – Short metal bracket

**ORDER DATA**

**Capacitance 370 pF**

SOCKET CONNECTOR			PLUG CONNECTOR		
No. of pos.	Mounting style 4-40 UNC	Part Number	No. of pos.	Mounting style 4-40 UNC	Part Number
09	Threaded insert	242A20330X	09	Threaded insert	241A20480X
15	Threaded insert	242A20340X	15	Threaded insert	241A20490X
25	Threaded insert	242A20350X	25	Threaded insert	241A20500X
37	Threaded insert	242A20360X	37	Threaded insert	241A20510X
09	PCB clip / Threaded insert	242A20490X	09	PCB clip / Threaded insert	241A20640X
15	PCB clip / Threaded insert	242A20500X	15	PCB clip / Threaded insert	241A20650X
25	PCB clip / Threaded insert	242A20510X	25	PCB clip / Threaded insert	241A20660X
37	PCB clip / Threaded insert	242A20520X	37	PCB clip / Threaded insert	241A20670X

**Capacitance 830 pF**

SOCKET CONNECTOR			PLUG CONNECTOR		
No. of pos.	Mounting style 4-40 UNC	Part Number	No. of pos.	Mounting style 4-40 UNC	Part Number
09	Threaded insert	242A20370X	09	Threaded insert	241A20520X
15	Threaded insert	242A20380X	15	Threaded insert	241A20530X
25	Threaded insert	242A20390X	25	Threaded insert	241A20540X
37	Threaded insert	242A20400X	37	Threaded insert	241A20550X
09	PCB clip / Threaded insert	242A20530X	09	PCB clip / Threaded insert	241A20680X
15	PCB clip / Threaded insert	242A20540X	15	PCB clip / Threaded insert	241A20690X
25	PCB clip / Threaded insert	242A20550X	25	PCB clip / Threaded insert	241A20700X
37	PCB clip / Threaded insert	242A20560X	37	PCB clip / Threaded insert	241A20710X

**Capacitance 1300 pF**

SOCKET CONNECTOR			PLUG CONNECTOR		
No. of pos.	Mounting style 4-40 UNC	Part Number	No. of pos.	Mounting style 4-40 UNC	Part Number
09	Threaded insert	242A20410X	09	Threaded insert	241A20560X
15	Threaded insert	242A20420X	15	Threaded insert	241A20570X
25	Threaded insert	242A20430X	25	Threaded insert	241A20580X
37	Threaded insert	242A20440X	37	Threaded insert	241A20590X
09	PCB clip / Threaded insert	242A20570X	09	PCB clip / Threaded insert	241A20720X
15	PCB clip / Threaded insert	242A20580X	15	PCB clip / Threaded insert	241A20730X
25	PCB clip / Threaded insert	242A20590X	25	PCB clip / Threaded insert	241A20740X
37	PCB clip / Threaded insert	242A20600X	37	PCB clip / Threaded insert	241A20750X

PCB clip .122"/3.1 ± .004"/0.10 mm hole diameter and .063"/1.6 mm circuit board thickness



# C-FILTER D-SUB STANDARD – DUAL PORT

Solder pin – Angled – Precision machined contacts – .625" / 15.88 mm connector spacing

ORDER DATA

## Capacitance 370 pF



VERSION WITH 4-40 UNC THREADED INSERT		
No. of pos.	Design	Part Number
09/09	Plug upper / Plug bottom	241A14130X
15/15	Plug upper / Plug bottom	241A14140X
25/25	Plug upper / Plug bottom	241A14150X
37/37	Plug upper / Plug bottom	241A14160X
09/09	Plug upper / Socket bottom	241A14250X
15/15	Plug upper / Socket bottom	241A14260X
25/25	Plug upper / Socket bottom	241A14270X
37/37	Plug upper / Socket bottom	241A14280X
09/09	Socket upper / Socket bottom	242A14020X
15/15	Socket upper / Socket bottom	242A14030X
25/25	Socket upper / Socket bottom	242A14040X
37/37	Socket upper / Socket bottom	242A14050X
09/09	Socket upper / Plug bottom	242A14140X
15/15	Socket upper / Plug bottom	242A14150X
25/25	Socket upper / Plug bottom	242A14160X
37/37	Socket upper / Plug bottom	242A14170X

VERSION WITH 4-40 UNC FRONT SPACER		
No. of pos.	Design	Part Number
09/09	Plug upper / Plug bottom	241A14370X
15/15	Plug upper / Plug bottom	241A14380X
25/25	Plug upper / Plug bottom	241A14390X
37/37	Plug upper / Plug bottom	241A14400X
09/09	Plug upper / Socket bottom	241A14490X
15/15	Plug upper / Socket bottom	241A14500X
25/25	Plug upper / Socket bottom	241A14510X
37/37	Plug upper / Socket bottom	241A14520X
09/09	Socket upper / Socket bottom	242A14260X
15/15	Socket upper / Socket bottom	242A14270X
25/25	Socket upper / Socket bottom	242A14280X
37/37	Socket upper / Socket bottom	242A14290X
09/09	Socket upper / Plug bottom	242A14380X
15/15	Socket upper / Plug bottom	242A14390X
25/25	Socket upper / Plug bottom	242A14400X
37/37	Socket upper / Plug bottom	242A14410X

## Capacitance 830 pF



VERSION WITH 4-40 UNC THREADED INSERT		
No. of pos.	Design	Part Number
09/09	Plug upper / Plug bottom	241A14210X
15/15	Plug upper / Plug bottom	241A14220X
25/25	Plug upper / Plug bottom	241A14230X
37/37	Plug upper / Plug bottom	241A14240X
09/09	Plug upper / Socket bottom	241A14330X
15/15	Plug upper / Socket bottom	241A14340X
25/25	Plug upper / Socket bottom	241A14350X
37/37	Plug upper / Socket bottom	241A14360X
09/09	Socket upper / Socket bottom	242A14100X
15/15	Socket upper / Socket bottom	242A14110X
25/25	Socket upper / Socket bottom	242A14120X
37/37	Socket upper / Socket bottom	242A14130X
09/09	Socket upper / Plug bottom	242A14220X
15/15	Socket upper / Plug bottom	242A14230X
25/25	Socket upper / Plug bottom	242A14240X
37/37	Socket upper / Plug bottom	242A14250X

VERSION WITH 4-40 UNC FRONT SPACER		
No. of pos.	Design	Part Number
09/09	Plug upper / Plug bottom	241A14450X
15/15	Plug upper / Plug bottom	241A14460X
25/25	Plug upper / Plug bottom	241A14470X
37/37	Plug upper / Plug bottom	241A14480X
09/09	Plug upper / Socket bottom	241A14570X
15/15	Plug upper / Socket bottom	241A14580X
25/25	Plug upper / Socket bottom	241A14590X
37/37	Plug upper / Socket bottom	241A14600X
09/09	Socket upper / Socket bottom	242A14340X
15/15	Socket upper / Socket bottom	242A14350X
25/25	Socket upper / Socket bottom	242A14360X
37/37	Socket upper / Socket bottom	242A14370X
09/09	Socket upper / Plug bottom	242A14460X
15/15	Socket upper / Plug bottom	242A14470X
25/25	Socket upper / Plug bottom	242A14480X
37/37	Socket upper / Plug bottom	242A14490X

## Capacitance 1300 pF



VERSION WITH 4-40 UNC THREADED INSERT		
No. of pos.	Design	Part Number
09/09	Plug upper / Plug bottom	241A14170X
15/15	Plug upper / Plug bottom	241A14180X
25/25	Plug upper / Plug bottom	241A14190X
37/37	Plug upper / Plug bottom	241A14200X
09/09	Plug upper / Socket bottom	241A14290X
15/15	Plug upper / Socket bottom	241A14300X
25/25	Plug upper / Socket bottom	241A14310X
37/37	Plug upper / Socket bottom	241A14320X
09/09	Socket upper / Socket bottom	242A14060X
15/15	Socket upper / Socket bottom	242A14070X
25/25	Socket upper / Socket bottom	242A14080X
37/37	Socket upper / Socket bottom	242A14090X
09/09	Socket upper / Plug bottom	242A14180X
15/15	Socket upper / Plug bottom	242A14190X
25/25	Socket upper / Plug bottom	242A14200X
37/37	Socket upper / Plug bottom	242A14210X

VERSION WITH 4-40 UNC FRONT SPACER		
No. of pos.	Design	Part Number
09/09	Plug upper / Plug bottom	241A14410X
15/15	Plug upper / Plug bottom	241A14420X
25/25	Plug upper / Plug bottom	241A14430X
37/37	Plug upper / Plug bottom	241A14440X
09/09	Plug upper / Socket bottom	241A14530X
15/15	Plug upper / Socket bottom	241A14540X
25/25	Plug upper / Socket bottom	241A14550X
37/37	Plug upper / Socket bottom	241A14560X
09/09	Socket upper / Socket bottom	242A14300X
15/15	Socket upper / Socket bottom	242A14310X
25/25	Socket upper / Socket bottom	242A14320X
37/37	Socket upper / Socket bottom	242A14330X
09/09	Socket upper / Plug bottom	242A14420X
15/15	Socket upper / Plug bottom	242A14430X
25/25	Socket upper / Plug bottom	242A14440X
37/37	Socket upper / Plug bottom	242A14450X

# C-FILTER D-SUB STANDARD – DUAL PORT

Solder pin – Angled – Precision machined contacts – .750" / 19.05 mm connector spacing



RoHS compliant – CSA listed, File No.: LR 115000-1 – UL listed, File No.: E202784

## DESCRIPTION

- Variations: plug – plug; socket – socket; plug – socket
- Mounting styles:
  - with mounting bracket and 4-40 UNC threaded insert
  - with mounting bracket and 4-40 UNC front spacer
- Quality class 3 (also available in quality class 1)
- Shell: Steel tin plated (brass tin plated on request)

## PRODUCT DRAWING



No. of pos.	A -0.76	B1 +0.25	B2 -0.25	C	D ±0.30
2X 09	31.19	16.79	16.46	25.00 <sup>+0.12</sup> / <sub>-0.13</sub>	6.12
2X 15	39.52	25.12	24.79	33.30 <sup>+0.15</sup> / <sub>-0.10</sub>	6.12
2X 25	53.42	38.84	38.50	47.04 <sup>+0.13</sup> / <sub>-0.13</sub>	5.99
2X 37	69.70	55.30	54.96	63.50 <sup>+0.13</sup> / <sub>-0.13</sub>	5.99

Graphically representation of only one variant!

PCB-Layout: Kat1iU5A / Kat1iU6A

Mounting style: Threaded insert



Mounting style: Front spacer



## ORDER DATA

Capacitance 180 pF

VERSION WITH 4-40 UNC THREADED INSERT				VERSION WITH 4-40 UNC FRONT SPACER			
No. of pos.	Design	Part Number		No. of pos.	Design	Part Number	
	09/09 Plug upper / Plug bottom	241A17500X			09/09 Plug upper / Plug bottom	241A22380X	
	15/15 Plug upper / Plug bottom	241A17510X			15/15 Plug upper / Plug bottom	241A22390X	
	25/25 Plug upper / Plug bottom	241A17520X			25/25 Plug upper / Plug bottom	241A22400X	
	37/37 Plug upper / Plug bottom	241A17530X			37/37 Plug upper / Plug bottom	241A22410X	
	09/09 Plug upper / Socket bottom	241A17540X			09/09 Plug upper / Socket bottom	241A22420X	
	15/15 Plug upper / Socket bottom	241A17550X			15/15 Plug upper / Socket bottom	241A22430X	
	25/25 Plug upper / Socket bottom	241A17560X			25/25 Plug upper / Socket bottom	241A22440X	
	37/37 Plug upper / Socket bottom	241A17570X			37/37 Plug upper / Socket bottom	241A22450X	
	09/09 Socket upper / Socket bottom	242A22160X			09/09 Socket upper / Socket bottom	242A22240X	
	15/15 Socket upper / Socket bottom	242A22170X			15/15 Socket upper / Socket bottom	242A22250X	
	25/25 Socket upper / Socket bottom	242A22180X			25/25 Socket upper / Socket bottom	242A22260X	
	37/37 Socket upper / Socket bottom	242A22190X			37/37 Socket upper / Socket bottom	242A22270X	
	09/09 Socket upper / Plug bottom	242A22200X			09/09 Socket upper / Plug bottom	242A22280X	
	15/15 Socket upper / Plug bottom	242A22210X			15/15 Socket upper / Plug bottom	242A22290X	
	25/25 Socket upper / Plug bottom	242A22220X			25/25 Socket upper / Plug bottom	242A22300X	
	37/37 Socket upper / Plug bottom	242A22230X			37/37 Socket upper / Plug bottom	242A22310X	

# C-FILTER D-SUB STANDARD – DUAL PORT

Solder pin – Angled – Precision machined contacts – .750" / 19.05 mm connector spacing

ORDER DATA

Capacitance 370 pF



VERSION WITH 4-40 UNC THREADED INSERT		
No. of pos.	Design	Part Number
09/09	Plug upper / Plug bottom	241A14610X
15/15	Plug upper / Plug bottom	241A14620X
25/25	Plug upper / Plug bottom	241A14630X
37/37	Plug upper / Plug bottom	241A14640X
09/09	Plug upper / Socket bottom	241A14730X
15/15	Plug upper / Socket bottom	241A14740X
25/25	Plug upper / Socket bottom	241A14750X
37/37	Plug upper / Socket bottom	241A14760X
09/09	Socket upper / Socket bottom	242A14500X
15/15	Socket upper / Socket bottom	242A14510X
25/25	Socket upper / Socket bottom	242A14520X
37/37	Socket upper / Socket bottom	242A14530X
09/09	Socket upper / Plug bottom	242A14620X
15/15	Socket upper / Plug bottom	242A14630X
25/25	Socket upper / Plug bottom	242A14640X
37/37	Socket upper / Plug bottom	242A14650X

VERSION WITH 4-40 UNC FRONT SPACER		
No. of pos.	Design	Part Number
09/09	Plug upper / Plug bottom	241A14850X
15/15	Plug upper / Plug bottom	241A14860X
25/25	Plug upper / Plug bottom	241A14870X
37/37	Plug upper / Plug bottom	241A14880X
09/09	Plug upper / Socket bottom	241A14970X
15/15	Plug upper / Socket bottom	241A14980X
25/25	Plug upper / Socket bottom	241A14990X
37/37	Plug upper / Socket bottom	241A15000X
09/09	Socket upper / Socket bottom	242A14740X
15/15	Socket upper / Socket bottom	242A14750X
25/25	Socket upper / Socket bottom	242A14760X
37/37	Socket upper / Socket bottom	242A14770X
09/09	Socket upper / Plug bottom	242A14860X
15/15	Socket upper / Plug bottom	242A14870X
25/25	Socket upper / Plug bottom	242A14880X
37/37	Socket upper / Plug bottom	242A14890X

Capacitance 830 pF



VERSION WITH 4-40 UNC THREADED INSERT		
No. of pos.	Design	Part Number
09/09	Plug upper / Plug bottom	241A14690X
15/15	Plug upper / Plug bottom	241A14700X
25/25	Plug upper / Plug bottom	241A14710X
37/37	Plug upper / Plug bottom	241A14720X
09/09	Plug upper / Socket bottom	241A14810X
15/15	Plug upper / Socket bottom	241A14820X
25/25	Plug upper / Socket bottom	241A14830X
37/37	Plug upper / Socket bottom	241A14840X
09/09	Socket upper / Socket bottom	242A14580X
15/15	Socket upper / Socket bottom	242A14590X
25/25	Socket upper / Socket bottom	242A14600X
37/37	Socket upper / Socket bottom	242A14610X
09/09	Socket upper / Plug bottom	242A14700X
15/15	Socket upper / Plug bottom	242A14710X
25/25	Socket upper / Plug bottom	242A14720X
37/37	Socket upper / Plug bottom	242A14730X

VERSION WITH 4-40 UNC FRONT SPACER		
No. of pos.	Design	Part Number
09/09	Plug upper / Plug bottom	241A14930X
15/15	Plug upper / Plug bottom	241A14940X
25/25	Plug upper / Plug bottom	241A14950X
37/37	Plug upper / Plug bottom	241A14960X
09/09	Plug upper / Socket bottom	241A15050X
15/15	Plug upper / Socket bottom	241A15060X
25/25	Plug upper / Socket bottom	241A15070X
37/37	Plug upper / Socket bottom	241A15080X
09/09	Socket upper / Socket bottom	242A14820X
15/15	Socket upper / Socket bottom	242A14830X
25/25	Socket upper / Socket bottom	242A14840X
37/37	Socket upper / Socket bottom	242A14850X
09/09	Socket upper / Plug bottom	242A14940X
15/15	Socket upper / Plug bottom	242A14950X
25/25	Socket upper / Plug bottom	242A14960X
37/37	Socket upper / Plug bottom	242A14970X

Capacitance 1300 pF



VERSION WITH 4-40 UNC THREADED INSERT		
No. of pos.	Design	Part Number
09/09	Plug upper / Plug bottom	241A14650X
15/15	Plug upper / Plug bottom	241A14660X
25/25	Plug upper / Plug bottom	241A14670X
37/37	Plug upper / Plug bottom	241A14680X
09/09	Plug upper / Socket bottom	241A14770X
15/15	Plug upper / Socket bottom	241A14780X
25/25	Plug upper / Socket bottom	241A14790X
37/37	Plug upper / Socket bottom	241A14800X
09/09	Socket upper / Socket bottom	242A14540X
15/15	Socket upper / Socket bottom	242A14550X
25/25	Socket upper / Socket bottom	242A14560X
37/37	Socket upper / Socket bottom	242A14570X
09/09	Socket upper / Plug bottom	242A14660X
15/15	Socket upper / Plug bottom	242A14670X
25/25	Socket upper / Plug bottom	242A14680X
37/37	Socket upper / Plug bottom	242A14690X

VERSION WITH 4-40 UNC FRONT SPACER		
No. of pos.	Design	Part Number
09/09	Plug upper / Plug bottom	241A14890X
15/15	Plug upper / Plug bottom	241A14900X
25/25	Plug upper / Plug bottom	241A14910X
37/37	Plug upper / Plug bottom	241A14920X
09/09	Plug upper / Socket bottom	241A15010X
15/15	Plug upper / Socket bottom	241A15020X
25/25	Plug upper / Socket bottom	241A15030X
37/37	Plug upper / Socket bottom	241A15040X
09/09	Socket upper / Socket bottom	242A14780X
15/15	Socket upper / Socket bottom	242A14790X
25/25	Socket upper / Socket bottom	242A14800X
37/37	Socket upper / Socket bottom	242A14810X
09/09	Socket upper / Plug bottom	242A14900X
15/15	Socket upper / Plug bottom	242A14910X
25/25	Socket upper / Plug bottom	242A14920X
37/37	Socket upper / Plug bottom	242A14930X

# LC-FILTER D-SUB STANDARD

Solder pin – Angled – .283"/7.19 mm – Precision machined contacts – Metal bracket



RoHS compliant – CSA listed, File No.: LR 115000-1 – UL listed, File No.: E202784

## DESCRIPTION

- Mounting styles:
  - Mounting bracket with 4-40 UNC threaded insert
  - Mounting bracket with PCB clip and 4-40 UNC threaded insert
- Quality class 3 (also available in quality class 1)
- Shell: Steel tin plated (brass tin plated on request)

## SOCKET CONNECTOR



No. of pos.	A -0.76	B -0.25	C
09	31.19	16.46	25.00 <sup>+0.12</sup> / <sub>-0.13</sub>
15	39.52	24.79	33.30 <sup>+0.15</sup> / <sub>-0.10</sub>
25	53.42	38.50	47.04 <sup>+0.13</sup> / <sub>-0.10</sub>
37	69.70	54.96	63.50 <sup>+0.13</sup> / <sub>-0.10</sub>

PCB-Layout: Kat1kGEA

Mounting style: Threaded insert



Mounting style: PCB clip, threaded insert



## PLUG CONNECTOR



No. of pos.	A -0.76	B +0.25	C	D -0.3
09	31.19	16.79	25.00 <sup>+0.12</sup> / <sub>-0.13</sub>	6.12
15	39.52	25.12	33.30 <sup>+0.15</sup> / <sub>-0.10</sub>	6.12
25	53.42	38.84	47.04 <sup>+0.13</sup> / <sub>-0.10</sub>	5.99
37	69.70	55.30	63.50 <sup>+0.13</sup> / <sub>-0.10</sub>	5.99

PCB-Layout: Kat1kGFA

Mounting style: Threaded insert



Mounting style: PCB clip, threaded insert



## ORDER DATA

**Capacitance 180 pF**

SOCKET CONNECTOR		
No. of pos.	Mounting style 4-40 UNC	Part Number
09	Threaded insert	242A24660X
15	Threaded insert	242A24670X
25	Threaded insert	242A24680X
37	Threaded insert	242A24690X
09	PCB clip / Threaded insert	242A24820X
15	PCB clip / Threaded insert	242A24830X
25	PCB clip / Threaded insert	242A24840X
37	PCB clip / Threaded insert	242A24850X

PLUG CONNECTOR		
No. of pos.	Mounting style 4-40 UNC	Part Number
09	Threaded insert	241A24760X
15	Threaded insert	241A24770X
25	Threaded insert	241A24780X
37	Threaded insert	241A24790X
09	PCB clip / Threaded insert	241A24920X
15	PCB clip / Threaded insert	241A24930X
25	PCB clip / Threaded insert	241A24940X
37	PCB clip / Threaded insert	241A24950X

PCB clip .122"/3.1 ± .004"/0.10 mm hole diameter and .063"/1.6 mm circuit board thickness

# LC-FILTER D-SUB STANDARD

Solder pin – Angled – .283"/7.19 mm – Precision machined contacts – Metal bracket

**ORDER DATA**

**Capacitance 370 pF**

SOCKET CONNECTOR			PLUG CONNECTOR		
No. of pos.	Mounting style 4-40 UNC	Part Number	No. of pos.	Mounting style 4-40 UNC	Part Number
09	Threaded insert	242A24700X	09	Threaded insert	241A24800X
15	Threaded insert	242A24710X	15	Threaded insert	241A24810X
25	Threaded insert	242A24720X	25	Threaded insert	241A24820X
37	Threaded insert	242A24730X	37	Threaded insert	241A24830X
09	PCB clip / Threaded insert	242A24860X	09	PCB clip / Threaded insert	241A24960X
15	PCB clip / Threaded insert	242A24870X	15	PCB clip / Threaded insert	241A24970X
25	PCB clip / Threaded insert	242A24880X	25	PCB clip / Threaded insert	241A24980X
37	PCB clip / Threaded insert	242A24890X	37	PCB clip / Threaded insert	241A24990X

**Capacitance 830 pF**

SOCKET CONNECTOR			PLUG CONNECTOR		
No. of pos.	Mounting style 4-40 UNC	Part Number	No. of pos.	Mounting style 4-40 UNC	Part Number
09	Threaded insert	242A24740X	09	Threaded insert	241A24840X
15	Threaded insert	242A24750X	15	Threaded insert	241A24850X
25	Threaded insert	242A24760X	25	Threaded insert	241A24860X
37	Threaded insert	242A24770X	37	Threaded insert	241A24870X
09	PCB clip / Threaded insert	242A24900X	09	PCB clip / Threaded insert	241A25000X
15	PCB clip / Threaded insert	242A24910X	15	PCB clip / Threaded insert	241A25010X
25	PCB clip / Threaded insert	242A24920X	25	PCB clip / Threaded insert	241A25020X
37	PCB clip / Threaded insert	242A24930X	37	PCB clip / Threaded insert	241A25030X

**Capacitance 1300 pF**

SOCKET CONNECTOR			PLUG CONNECTOR		
No. of pos.	Mounting style 4-40 UNC	Part Number	No. of pos.	Mounting style 4-40 UNC	Part Number
09	Threaded insert	242A24780X	09	Threaded insert	241A24880X
15	Threaded insert	242A24790X	15	Threaded insert	241A24890X
25	Threaded insert	242A24800X	25	Threaded insert	241A24900X
37	Threaded insert	242A24810X	37	Threaded insert	241A24910X
09	PCB clip / Threaded insert	242A24940X	09	PCB clip / Threaded insert	241A25040X
15	PCB clip / Threaded insert	242A24950X	15	PCB clip / Threaded insert	241A25050X
25	PCB clip / Threaded insert	242A24960X	25	PCB clip / Threaded insert	241A25060X
37	PCB clip / Threaded insert	242A24970X	37	PCB clip / Threaded insert	241A25070X

PCB clip .122"/3.1 ± .004"/0.10 mm hole diameter and .063"/1.6 mm circuit board thickness

# LC-FILTER D-SUB STANDARD

Solder pin – Angled – .370"/9.4 mm – Precision machined contacts – Metal bracket



RoHS compliant – CSA listed, File No.: LR 115000-1 – UL listed, File No.: E202784

## DESCRIPTION

- Mounting styles:
  - Mounting bracket with 4-40 UNC or M3 threaded insert
  - Mounting bracket with PCB clip and 4-40 UNC or M3 threaded insert
- Quality class 3 (also available in quality class 1)
- Shell: Steel tin plated (brass tin plated on request)

## SOCKET CONNECTOR



No. of pos.	A -0.76	B -0.25	C
09	31.19	16.46	25.00 <sup>+0.12</sup> / <sub>-0.13</sub>
15	39.52	24.79	33.30 <sup>+0.15</sup> / <sub>-0.10</sub>
25	53.42	38.50	47.04 <sup>+0.13</sup> / <sub>-0.10</sub>
37	69.70	54.96	63.50 <sup>+0.13</sup> / <sub>-0.10</sub>

PCB-Layout: Kat1kGGA

Mounting style: Threaded insert



Mounting style: PCB clip, threaded insert



## PLUG CONNECTOR



No. of pos.	A -0.76	B +0.25	C	D -0.3
09	31.19	16.79	25.00 <sup>+0.12</sup> / <sub>-0.13</sub>	6.12
15	39.52	25.12	33.30 <sup>+0.15</sup> / <sub>-0.10</sub>	6.12
25	53.42	38.84	47.04 <sup>+0.13</sup> / <sub>-0.10</sub>	5.99
37	69.70	55.30	63.50 <sup>+0.13</sup> / <sub>-0.10</sub>	5.99

PCB-Layout: Kat1kGHA

Mounting style: Threaded insert



Mounting style: PCB clip, threaded insert



## ORDER DATA

### Capacitance 180 pF

#### SOCKET CONNECTOR

No. of pos.	Mounting style	Part Number
09	4-40 UNC Threaded insert	242A24980X
15	4-40 UNC Threaded insert	242A24990X
25	4-40 UNC Threaded insert	242A25000X
37	4-40 UNC Threaded insert	242A25010X
09	M3 Threaded insert	242A25140X
15	M3 Threaded insert	242A25150X
25	M3 Threaded insert	242A25160X
37	M3 Threaded insert	242A25170X
09	PCB clip / 4-40 UNC Threaded insert	242A25300X
15	PCB clip / 4-40 UNC Threaded insert	242A25310X
25	PCB clip / 4-40 UNC Threaded insert	242A25320X
37	PCB clip / 4-40 UNC Threaded insert	242A25330X
09	PCB clip / M3 Threaded insert	242A25460X
15	PCB clip / M3 Threaded insert	242A25470X
25	PCB clip / M3 Threaded insert	242A25480X
37	PCB clip / M3 Threaded insert	242A25490X

#### PLUG CONNECTOR

No. of pos.	Mounting style	Part Number
09	4-40 UNC Threaded insert	241A25080X
15	4-40 UNC Threaded insert	241A25090X
25	4-40 UNC Threaded insert	241A25100X
37	4-40 UNC Threaded insert	241A25110X
09	M3 Threaded insert	241A25240X
15	M3 Threaded insert	241A25250X
25	M3 Threaded insert	241A25260X
37	M3 Threaded insert	241A25270X
09	PCB clip / 4-40 UNC Threaded insert	241A25400X
15	PCB clip / 4-40 UNC Threaded insert	241A25410X
25	PCB clip / 4-40 UNC Threaded insert	241A25420X
37	PCB clip / 4-40 UNC Threaded insert	241A25430X
09	PCB clip / M3 Threaded insert	241A25560X
15	PCB clip / M3 Threaded insert	241A25570X
25	PCB clip / M3 Threaded insert	241A25580X
37	PCB clip / M3 Threaded insert	241A25590X

PCB clip .122"/3.1 ± .004"/0.10 mm hole diameter and .063"/1.6 mm circuit board thickness



# LC-FILTER D-SUB STANDARD

Solder pin – Angled – .370"/9.4 mm – Precision machined contacts – Metal bracket

## ORDER DATA

### Capacitance 370 pF

SOCKET CONNECTOR			PLUG CONNECTOR		
No. of pos.	Mounting style	Part Number	No. of pos.	Mounting style	Part Number
09	4-40 UNC Threaded insert	242A25020X	09	4-40 UNC Threaded insert	241A25120X
15	4-40 UNC Threaded insert	242A25030X	15	4-40 UNC Threaded insert	241A25130X
25	4-40 UNC Threaded insert	242A25040X	25	4-40 UNC Threaded insert	241A25140X
37	4-40 UNC Threaded insert	242A25050X	37	4-40 UNC Threaded insert	241A25150X
09	M3 Threaded insert	242A25180X	09	M3 Threaded insert	241A25280X
15	M3 Threaded insert	242A25190X	15	M3 Threaded insert	241A25290X
25	M3 Threaded insert	242A25200X	25	M3 Threaded insert	241A25300X
37	M3 Threaded insert	242A25210X	37	M3 Threaded insert	241A25310X
09	PCB clip / 4-40 UNC Threaded insert	242A25340X	09	PCB clip / 4-40 UNC Threaded insert	241A25440X
15	PCB clip / 4-40 UNC Threaded insert	242A25350X	15	PCB clip / 4-40 UNC Threaded insert	241A25450X
25	PCB clip / 4-40 UNC Threaded insert	242A25360X	25	PCB clip / 4-40 UNC Threaded insert	241A25460X
37	PCB clip / 4-40 UNC Threaded insert	242A25370X	37	PCB clip / 4-40 UNC Threaded insert	241A25470X
09	PCB clip / M3 Threaded insert	242A25500X	09	PCB clip / M3 Threaded insert	241A25600X
15	PCB clip / M3 Threaded insert	242A25510X	15	PCB clip / M3 Threaded insert	241A25610X
25	PCB clip / M3 Threaded insert	242A25520X	25	PCB clip / M3 Threaded insert	241A25620X
37	PCB clip / M3 Threaded insert	242A25530X	37	PCB clip / M3 Threaded insert	241A25630X

### Capacitance 830 pF

SOCKET CONNECTOR			PLUG CONNECTOR		
No. of pos.	Mounting style	Part Number	No. of pos.	Mounting style	Part Number
09	4-40 UNC Threaded insert	242A25060X	09	4-40 UNC Threaded insert	241A25160X
15	4-40 UNC Threaded insert	242A25070X	15	4-40 UNC Threaded insert	241A25170X
25	4-40 UNC Threaded insert	242A25080X	25	4-40 UNC Threaded insert	241A25180X
37	4-40 UNC Threaded insert	242A25090X	37	4-40 UNC Threaded insert	241A25190X
09	M3 Threaded insert	242A25220X	09	M3 Threaded insert	241A25320X
15	M3 Threaded insert	242A25230X	15	M3 Threaded insert	241A25330X
25	M3 Threaded insert	242A25240X	25	M3 Threaded insert	241A25340X
37	M3 Threaded insert	242A25250X	37	M3 Threaded insert	241A25350X
09	PCB clip / 4-40 UNC Threaded insert	242A25380X	09	PCB clip / 4-40 UNC Threaded insert	241A25480X
15	PCB clip / 4-40 UNC Threaded insert	242A25390X	15	PCB clip / 4-40 UNC Threaded insert	241A25490X
25	PCB clip / 4-40 UNC Threaded insert	242A25400X	25	PCB clip / 4-40 UNC Threaded insert	241A25500X
37	PCB clip / 4-40 UNC Threaded insert	242A25410X	37	PCB clip / 4-40 UNC Threaded insert	241A25510X
09	PCB clip / M3 Threaded insert	242A25540X	09	PCB clip / M3 Threaded insert	241A25640X
15	PCB clip / M3 Threaded insert	242A25550X	15	PCB clip / M3 Threaded insert	241A25650X
25	PCB clip / M3 Threaded insert	242A25560X	25	PCB clip / M3 Threaded insert	241A25660X
37	PCB clip / M3 Threaded insert	242A25570X	37	PCB clip / M3 Threaded insert	241A25670X

### Capacitance 1300 pF

SOCKET CONNECTOR			PLUG CONNECTOR		
No. of pos.	Mounting style	Part Number	No. of pos.	Mounting style	Part Number
09	4-40 UNC Threaded insert	242A25100X	09	4-40 UNC Threaded insert	241A25200X
15	4-40 UNC Threaded insert	242A25110X	15	4-40 UNC Threaded insert	241A25210X
25	4-40 UNC Threaded insert	242A25120X	25	4-40 UNC Threaded insert	241A25220X
37	4-40 UNC Threaded insert	242A25130X	37	4-40 UNC Threaded insert	241A25230X
09	M3 Threaded insert	242A25260X	09	M3 Threaded insert	241A25360X
15	M3 Threaded insert	242A25270X	15	M3 Threaded insert	241A25370X
25	M3 Threaded insert	242A25280X	25	M3 Threaded insert	241A25380X
37	M3 Threaded insert	242A25290X	37	M3 Threaded insert	241A25390X
09	PCB clip / 4-40 UNC Threaded insert	242A25420X	09	PCB clip / 4-40 UNC Threaded insert	241A25520X
15	PCB clip / 4-40 UNC Threaded insert	242A25430X	15	PCB clip / 4-40 UNC Threaded insert	241A25530X
25	PCB clip / 4-40 UNC Threaded insert	242A25440X	25	PCB clip / 4-40 UNC Threaded insert	241A25540X
37	PCB clip / 4-40 UNC Threaded insert	242A25450X	37	PCB clip / 4-40 UNC Threaded insert	241A25550X
09	PCB clip / M3 Threaded insert	242A25580X	09	PCB clip / M3 Threaded insert	241A25680X
15	PCB clip / M3 Threaded insert	242A25590X	15	PCB clip / M3 Threaded insert	241A25690X
25	PCB clip / M3 Threaded insert	242A25600X	25	PCB clip / M3 Threaded insert	241A25700X
37	PCB clip / M3 Threaded insert	242A25610X	37	PCB clip / M3 Threaded insert	241A25710X

PCB clip .122"/3.1 ± .004"/0.10 mm hole diameter and .063"/1.6 mm circuit board thickness

# π-FILTER D-SUB STANDARD

Solder cup – Precision machined contacts – For wire size AWG 20



RoHS compliant – CSA listed, File No.: LR 115000-1 – UL listed, File No.: E202784

## DESCRIPTION

- Suitable for wire size AWG 20
- Mounting styles:
  - with through-hole, Ø .118"/3 mm
  - with 4-40 UNC or M3 threaded insert
- Quality class 3 (also available in quality class 1)
- Shell: Steel tin plated (brass tin plated on request)

## SOCKET CONNECTOR



No. of pos.	A -0.76	B -0.25	C
09	31.19	16.46	25.00 <sup>+0.12</sup> / <sub>-0.13</sub>
15	39.52	24.79	33.30 <sup>+0.15</sup> / <sub>-0.10</sub>
25	53.42	38.50	47.04 <sup>+0.13</sup> / <sub>-0.13</sub>
37	69.70	54.96	63.50 <sup>+0.13</sup> / <sub>-0.13</sub>

Mounting style: Through-hole



Mounting style: Threaded insert



## PLUG CONNECTOR



No. of pos.	A -0.76	B +0.25	C	D -0.3
09	31.19	16.79	25.00 <sup>+0.12</sup> / <sub>-0.13</sub>	6.12
15	39.52	25.12	33.30 <sup>+0.15</sup> / <sub>-0.10</sub>	6.12
25	53.42	38.84	47.04 <sup>+0.13</sup> / <sub>-0.13</sub>	5.99
37	69.70	55.30	63.50 <sup>+0.13</sup> / <sub>-0.13</sub>	5.99

Mounting style: Through-hole



Mounting style: Threaded insert



## ORDER DATA

### Capacitance 2 x 180 pF

#### SOCKET CONNECTOR

No. of pos.	Mounting style	Part Number
09	Through-hole	242A28980X
15	Through-hole	242A28990X
25	Through-hole	242A29000X
37	Through-hole	242A29010X
09	4-40 UNC Threaded insert	242A29140X
15	4-40 UNC Threaded insert	242A29150X
25	4-40 UNC Threaded insert	242A29160X
37	4-40 UNC Threaded insert	242A29170X
09	M3 Threaded insert	242A29300X
15	M3 Threaded insert	242A29310X
25	M3 Threaded insert	242A29320X
37	M3 Threaded insert	242A29330X

#### PLUG CONNECTOR

No. of pos.	Mounting style	Part Number
09	Through-hole	241A29080X
15	Through-hole	241A29090X
25	Through-hole	241A29100X
37	Through-hole	241A29110X
09	4-40 UNC Threaded insert	241A29240X
15	4-40 UNC Threaded insert	241A29250X
25	4-40 UNC Threaded insert	241A29260X
37	4-40 UNC Threaded insert	241A29270X
09	M3 Threaded insert	241A29400X
15	M3 Threaded insert	241A29410X
25	M3 Threaded insert	241A29420X
37	M3 Threaded insert	241A29430X

# π-FILTER D-SUB STANDARD

Solder cup – Precision machined contacts – For wire size AWG 20

**ORDER DATA**

**Capacitance 2 x 370 pF**

SOCKET CONNECTOR			PLUG CONNECTOR		
No. of pos.	Mounting style	Part Number	No. of pos.	Mounting style	Part Number
09	Through-hole	242A29020X	09	Through-hole	241A29120X
15	Through-hole	242A29030X	15	Through-hole	241A29130X
25	Through-hole	242A29040X	25	Through-hole	241A29140X
37	Through-hole	242A29050X	37	Through-hole	241A29150X
09	4-40 UNC Threaded insert	242A29180X	09	4-40 UNC Threaded insert	241A29280X
15	4-40 UNC Threaded insert	242A29190X	15	4-40 UNC Threaded insert	241A29290X
25	4-40 UNC Threaded insert	242A29200X	25	4-40 UNC Threaded insert	241A29300X
37	4-40 UNC Threaded insert	242A29210X	37	4-40 UNC Threaded insert	241A29310X
09	M3 Threaded insert	242A29340X	09	M3 Threaded insert	241A29440X
15	M3 Threaded insert	242A29350X	15	M3 Threaded insert	241A29450X
25	M3 Threaded insert	242A29360X	25	M3 Threaded insert	241A29460X
37	M3 Threaded insert	242A29370X	37	M3 Threaded insert	241A29470X

**Capacitance 2 x 830 pF**

SOCKET CONNECTOR			PLUG CONNECTOR		
No. of pos.	Mounting style	Part Number	No. of pos.	Mounting style	Part Number
09	Through-hole	242A29060X	09	Through-hole	241A29160X
15	Through-hole	242A29070X	15	Through-hole	241A29170X
25	Through-hole	242A29080X	25	Through-hole	241A29180X
37	Through-hole	242A29090X	37	Through-hole	241A29190X
09	4-40 UNC Threaded insert	242A29220X	09	4-40 UNC Threaded insert	241A29320X
15	4-40 UNC Threaded insert	242A29230X	15	4-40 UNC Threaded insert	241A29330X
25	4-40 UNC Threaded insert	242A29240X	25	4-40 UNC Threaded insert	241A29340X
37	4-40 UNC Threaded insert	242A29250X	37	4-40 UNC Threaded insert	241A29350X
09	M3 Threaded insert	242A29380X	09	M3 Threaded insert	241A29480X
15	M3 Threaded insert	242A29390X	15	M3 Threaded insert	241A29490X
25	M3 Threaded insert	242A29400X	25	M3 Threaded insert	241A29500X
37	M3 Threaded insert	242A29410X	37	M3 Threaded insert	241A29510X

**Capacitance 2 x 1300 pF**

SOCKET CONNECTOR			PLUG CONNECTOR		
No. of pos.	Mounting style	Part Number	No. of pos.	Mounting style	Part Number
09	Through-hole	242A29100X	09	Through-hole	241A29200X
15	Through-hole	242A29110X	15	Through-hole	241A29210X
25	Through-hole	242A29120X	25	Through-hole	241A29220X
37	Through-hole	242A29130X	37	Through-hole	241A29230X
09	4-40 UNC Threaded insert	242A29260X	09	4-40 UNC Threaded insert	241A29360X
15	4-40 UNC Threaded insert	242A29270X	15	4-40 UNC Threaded insert	241A29370X
25	4-40 UNC Threaded insert	242A29280X	25	4-40 UNC Threaded insert	241A29380X
37	4-40 UNC Threaded insert	242A29290X	37	4-40 UNC Threaded insert	241A29390X
09	M3 Threaded insert	242A29420X	09	M3 Threaded insert	241A29520X
15	M3 Threaded insert	242A29430X	15	M3 Threaded insert	241A29530X
25	M3 Threaded insert	242A29440X	25	M3 Threaded insert	241A29540X
37	M3 Threaded insert	242A29450X	37	M3 Threaded insert	241A29550X

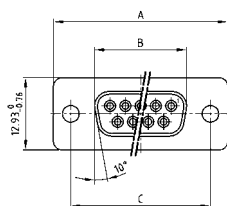
# π-FILTER D-SUB STANDARD

Solder pin – Straight – Precision machined contacts



RoHS compliant – CSA listed, File No.: LR 115000-1 – UL listed, File No.: E202784

## SOCKET CONNECTOR



No. of pos.	A -0.76	B -0.25	C
09	31.19	16.46	25.00 <sup>+0.12</sup> / <sub>-0.13</sub>
15	39.52	24.79	33.30 <sup>+0.15</sup> / <sub>-0.10</sub>
25	53.42	38.50	47.04 <sup>+0.13</sup> / <sub>-0.10</sub>
37	69.70	54.96	63.50 <sup>+0.13</sup> / <sub>-0.10</sub>

PCB-Layout: Kat1kFUA

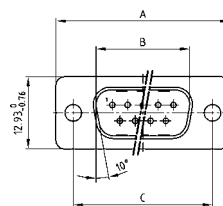
Mounting style: Threaded rear spacer with PCB clip



## DESCRIPTION

- Mounting style: with 4-40 UNC or M3 threaded rear spacer with PCB clip
- Quality class 3 (also available in quality class 1)
- Shell: Steel tin plated (brass tin plated on request)

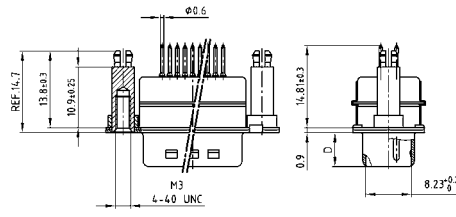
## PLUG CONNECTOR



No. of pos.	A -0.76	B +0.25	C	D -0.3
09	31.19	16.79	25.00 <sup>+0.12</sup> / <sub>-0.13</sub>	6.12
15	39.52	25.12	33.30 <sup>+0.15</sup> / <sub>-0.10</sub>	6.12
25	53.42	38.84	47.04 <sup>+0.13</sup> / <sub>-0.10</sub>	5.99
37	69.70	55.30	63.50 <sup>+0.13</sup> / <sub>-0.10</sub>	5.99

PCB-Layout: Kat1kFUA

Mounting style: Threaded rear spacer with PCB clip



## ORDER DATA

Capacitance 2 x 180 pF

### SOCKET CONNECTOR

No. of pos.	Mounting style	Part Number
09	4-40 UNC Threaded rear spacer PCB clip	242A26260X
15	4-40 UNC Threaded rear spacer PCB clip	242A26270X
25	4-40 UNC Threaded rear spacer PCB clip	242A26280X
37	4-40 UNC Threaded rear spacer PCB clip	242A26290X
09	M3 Threaded rear spacer PCB clip	242A26420X
15	M3 Threaded rear spacer PCB clip	242A26430X
25	M3 Threaded rear spacer PCB clip	242A26440X
37	M3 Threaded rear spacer PCB clip	242A26450X

### PLUG CONNECTOR

No. of pos.	Mounting style	Part Number
09	4-40 UNC Threaded rear spacer PCB clip	241A26360X
15	4-40 UNC Threaded rear spacer PCB clip	241A26370X
25	4-40 UNC Threaded rear spacer PCB clip	241A26380X
37	4-40 UNC Threaded rear spacer PCB clip	241A26390X
09	M3 Threaded rear spacer PCB clip	241A26520X
15	M3 Threaded rear spacer PCB clip	241A26530X
25	M3 Threaded rear spacer PCB clip	241A26540X
37	M3 Threaded rear spacer PCB clip	241A26550X

PCB clip .122"/3.1 ± .004"/0.10 mm hole diameter and .063"/1.6 mm circuit board thickness

# π-FILTER D-SUB STANDARD

Solder pin – Straight – Precision machined contacts

**ORDER DATA**

**Capacitance 2 x 370 pF**

SOCKET CONNECTOR			PLUG CONNECTOR		
No. of pos.	Mounting style	Part Number	No. of pos.	Mounting style	Part Number
09	4-40 UNC Threaded rear spacer PCB clip	242A26300X	09	4-40 UNC Threaded rear spacer PCB clip	241A26400X
15	4-40 UNC Threaded rear spacer PCB clip	242A26310X	15	4-40 UNC Threaded rear spacer PCB clip	241A26410X
25	4-40 UNC Threaded rear spacer PCB clip	242A26320X	25	4-40 UNC Threaded rear spacer PCB clip	241A26420X
37	4-40 UNC Threaded rear spacer PCB clip	242A26330X	37	4-40 UNC Threaded rear spacer PCB clip	241A26430X
09	M3 Threaded rear spacer PCB clip	242A26460X	09	M3 Threaded rear spacer PCB clip	241A26560X
15	M3 Threaded rear spacer PCB clip	242A26470X	15	M3 Threaded rear spacer PCB clip	241A26570X
25	M3 Threaded rear spacer PCB clip	242A26480X	25	M3 Threaded rear spacer PCB clip	241A26580X
37	M3 Threaded rear spacer PCB clip	242A26490X	37	M3 Threaded rear spacer PCB clip	241A26590X

**Capacitance 2 x 830 pF**

SOCKET CONNECTOR			PLUG CONNECTOR		
No. of pos.	Mounting style	Part Number	No. of pos.	Mounting style	Part Number
09	4-40 UNC Threaded rear spacer PCB clip	242A26340X	09	4-40 UNC Threaded rear spacer PCB clip	241A26440X
15	4-40 UNC Threaded rear spacer PCB clip	242A26350X	15	4-40 UNC Threaded rear spacer PCB clip	241A26450X
25	4-40 UNC Threaded rear spacer PCB clip	242A26360X	25	4-40 UNC Threaded rear spacer PCB clip	241A26460X
37	4-40 UNC Threaded rear spacer PCB clip	242A26370X	37	4-40 UNC Threaded rear spacer PCB clip	241A26470X
09	M3 Threaded rear spacer PCB clip	242A26500X	09	M3 Threaded rear spacer PCB clip	241A26600X
15	M3 Threaded rear spacer PCB clip	242A26510X	15	M3 Threaded rear spacer PCB clip	241A26610X
25	M3 Threaded rear spacer PCB clip	242A26520X	25	M3 Threaded rear spacer PCB clip	241A26620X
37	M3 Threaded rear spacer PCB clip	242A26530X	37	M3 Threaded rear spacer PCB clip	241A26630X

**Capacitance 2 x 1300 pF**

SOCKET CONNECTOR			PLUG CONNECTOR		
No. of pos.	Mounting style	Part Number	No. of pos.	Mounting style	Part Number
09	4-40 UNC Threaded rear spacer PCB clip	242A26380X	09	4-40 UNC Threaded rear spacer PCB clip	241A26480X
15	4-40 UNC Threaded rear spacer PCB clip	242A26390X	15	4-40 UNC Threaded rear spacer PCB clip	241A26490X
25	4-40 UNC Threaded rear spacer PCB clip	242A26400X	25	4-40 UNC Threaded rear spacer PCB clip	241A26500X
37	4-40 UNC Threaded rear spacer PCB clip	242A26410X	37	4-40 UNC Threaded rear spacer PCB clip	241A26510X
09	M3 Threaded rear spacer PCB clip	242A26540X	09	M3 Threaded rear spacer PCB clip	241A26640X
15	M3 Threaded rear spacer PCB clip	242A26550X	15	M3 Threaded rear spacer PCB clip	241A26650X
25	M3 Threaded rear spacer PCB clip	242A26560X	25	M3 Threaded rear spacer PCB clip	241A26660X
37	M3 Threaded rear spacer PCB clip	242A26570X	37	M3 Threaded rear spacer PCB clip	241A26670X

PCB clip .122"/3.1 ± .004"/0.10 mm hole diameter and .063"/1.6 mm circuit board thickness

# π-FILTER D-SUB STANDARD

Solder pin – Angled – .590" / 14.19 mm – Precision machined contacts – Metal Bracket



RoHS compliant – CSA listed, File No.: LR 115000-1 – UL listed, File No.: E202784

## DESCRIPTION

- Mounting styles:
  - Mounting bracket with 4-40 UNC threaded insert
  - Mounting bracket with PCB clip and 4-40 UNC threaded insert
- Quality class 3 (also available in quality class 1)
- Shell: Steel tin plated (brass tin plated on request)

## SOCKET CONNECTOR



No. of pos.	A -0.76	B -0.25	C
09	31.19	16.46	25.00 <sup>+0.12</sup> / <sub>-0.13</sub>
15	39.52	24.79	33.30 <sup>+0.15</sup> / <sub>-0.10</sub>
25	53.42	38.50	47.04 <sup>+0.13</sup> / <sub>-0.13</sub>
37	69.70	54.96	63.50 <sup>+0.13</sup> / <sub>-0.13</sub>

PCB-Layout: Kat1kGXA

Mounting style: Threaded insert



Mounting style: PCB clip, threaded insert



## PLUG CONNECTOR



No. of pos.	A -0.76	B +0.25	C	D -0.3
09	31.19	16.79	25.00 <sup>+0.12</sup> / <sub>-0.13</sub>	6.12
15	39.52	25.12	33.30 <sup>+0.15</sup> / <sub>-0.10</sub>	6.12
25	53.42	38.84	47.04 <sup>+0.13</sup> / <sub>-0.13</sub>	5.99
37	69.70	55.30	63.50 <sup>+0.13</sup> / <sub>-0.13</sub>	5.99

PCB-Layout: Kat1kGYA

Mounting style: Threaded insert



Mounting style: PCB clip, threaded insert



## ORDER DATA

### Capacitance 2 x 180 pF

#### SOCKET CONNECTOR

No. of pos.	Mounting style 4-40 UNC	Part Number
09	Threaded insert	242A25940X
15	Threaded insert	242A25950X
25	Threaded insert	242A25960X
37	Threaded insert	242A25970X
09	PCB clip / Threaded insert	242A26100X
15	PCB clip / Threaded insert	242A26110X
25	PCB clip / Threaded insert	242A26120X
37	PCB clip / Threaded insert	242A26130X

#### PLUG CONNECTOR

No. of pos.	Mounting style 4-40 UNC	Part Number
09	Threaded insert	241A26040X
15	Threaded insert	241A26050X
25	Threaded insert	241A26060X
37	Threaded insert	241A26070X
09	PCB clip / Threaded insert	241A26200X
15	PCB clip / Threaded insert	241A26210X
25	PCB clip / Threaded insert	241A26220X
37	PCB clip / Threaded insert	241A26230X

PCB clip .122"/3.1 ± .004"/0.10 mm hole diameter and .063"/1.6 mm circuit board thickness

# π-FILTER D-SUB STANDARD

Solder pin – Angled – .590" / 14.19 mm – Precision machined contacts – Metal Bracket

**ORDER DATA**

**Capacitance 2 x 370 pF**

SOCKET CONNECTOR			PLUG CONNECTOR		
No. of pos.	Mounting style 4-40 UNC	Part Number	No. of pos.	Mounting style 4-40 UNC	Part Number
09	Threaded insert	242A25980X	09	Threaded insert	241A26080X
15	Threaded insert	242A25990X	15	Threaded insert	241A26090X
25	Threaded insert	242A26000X	25	Threaded insert	241A26100X
37	Threaded insert	242A26010X	37	Threaded insert	241A26110X
09	PCB clip / Threaded insert	242A26140X	09	PCB clip / Threaded insert	241A26240X
15	PCB clip / Threaded insert	242A26150X	15	PCB clip / Threaded insert	241A26250X
25	PCB clip / Threaded insert	242A26160X	25	PCB clip / Threaded insert	241A26260X
37	PCB clip / Threaded insert	242A26170X	37	PCB clip / Threaded insert	241A26270X

**Capacitance 2 x 830 pF**

SOCKET CONNECTOR			PLUG CONNECTOR		
No. of pos.	Mounting style 4-40 UNC	Part Number	No. of pos.	Mounting style 4-40 UNC	Part Number
09	Threaded insert	242A26020X	09	Threaded insert	241A26120X
15	Threaded insert	242A26030X	15	Threaded insert	241A26130X
25	Threaded insert	242A26040X	25	Threaded insert	241A26140X
37	Threaded insert	242A26050X	37	Threaded insert	241A26150X
09	PCB clip / Threaded insert	242A26180X	09	PCB clip / Threaded insert	241A26280X
15	PCB clip / Threaded insert	242A26190X	15	PCB clip / Threaded insert	241A26290X
25	PCB clip / Threaded insert	242A26200X	25	PCB clip / Threaded insert	241A26300X
37	PCB clip / Threaded insert	242A26210X	37	PCB clip / Threaded insert	241A26310X

**Capacitance 2 x 1300 pF**

SOCKET CONNECTOR			PLUG CONNECTOR		
No. of pos.	Mounting style 4-40 UNC	Part Number	No. of pos.	Mounting style 4-40 UNC	Part Number
09	Threaded insert	242A26060X	09	Threaded insert	241A26160X
15	Threaded insert	242A26070X	15	Threaded insert	241A26170X
25	Threaded insert	242A26080X	25	Threaded insert	241A26180X
37	Threaded insert	242A26090X	37	Threaded insert	241A26190X
09	PCB clip / Threaded insert	242A26220X	09	PCB clip / Threaded insert	241A26320X
15	PCB clip / Threaded insert	242A26230X	15	PCB clip / Threaded insert	241A26330X
25	PCB clip / Threaded insert	242A26240X	25	PCB clip / Threaded insert	241A26340X
37	PCB clip / Threaded insert	242A26250X	37	PCB clip / Threaded insert	241A26350X

PCB clip .122"/3.1 ± .004"/0.10 mm hole diameter and .063"/1.6 mm circuit board thickness

# C-FILTER D-SUB HIGH DENSITY

Solder pin – Straight – Precision machined contacts



RoHS compliant – CSA listed, File No.: LR 115000-1 – UL listed, File No.: E202784

## DESCRIPTION

- Mounting styles:
  - with through-hole,  $\varnothing .118"/3 \text{ mm}$
  - with 4-40 UNC or M3 threaded insert
- Quality class 3 (also available in quality class 1)
- Shell: Steel tin plated (brass tin plated on request)

## SOCKET CONNECTOR



No. of pos.	A -0.76	B -0.25	C	
15	31.19	16.46	25.00	+0.12 -0.13
26	39.52	24.79	33.30	+0.15 -0.10
44	53.42	38.50	47.04	$\pm 0.13$
62	69.70	54.96	63.50	$\pm 0.13$

PCB-Layout: Kat1iI9A

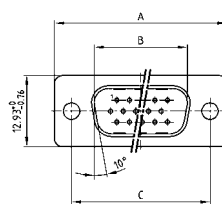
Mounting style: Through-hole



Mounting style: Threaded insert



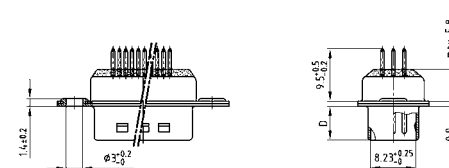
## PLUG CONNECTOR



No. of pos.	A -0.76	B -0.25	C	D -0.3
15	31.19	16.79	25.00	+0.12 -0.13
26	39.52	25.12	33.30	+0.15 -0.10
44	53.42	38.84	47.04	$\pm 0.13$
62	69.70	55.30	63.50	$\pm 0.13$

PCB-Layout: Kat1iU0A

Mounting style: Through-hole



Mounting style: Threaded insert



## ORDER DATA

Capacitance 180 pF

SOCKET CONNECTOR		
No. of pos.	Mounting style	Part Number
15	Through-hole	242A27380X
26	Through-hole	242A27390X
44	Through-hole	242A27400X
62	Through-hole	242A27410X
15	4-40 UNC Threaded insert	242A27420X
26	4-40 UNC Threaded insert	242A27430X
44	4-40 UNC Threaded insert	242A27440X
62	4-40 UNC Threaded insert	242A27450X
15	M3 Threaded insert	242A27460X
26	M3 Threaded insert	242A27470X
44	M3 Threaded insert	242A27480X
62	M3 Threaded insert	242A27490X

PLUG CONNECTOR		
No. of pos.	Mounting style	Part Number
15	Through-hole	241A27480X
26	Through-hole	241A27490X
44	Through-hole	241A27500X
62	Through-hole	241A27510X
15	4-40 UNC Threaded insert	241A27520X
26	4-40 UNC Threaded insert	241A27530X
44	4-40 UNC Threaded insert	241A27540X
62	4-40 UNC Threaded insert	241A27550X
15	M3 Threaded insert	241A27560X
26	M3 Threaded insert	241A27570X
44	M3 Threaded insert	241A27580X
62	M3 Threaded insert	241A27590X



# C-FILTER D-SUB HIGH DENSITY

Solder pin – Straight – Precision machined contacts

**ORDER DATA**

**Capacitance 370 pF**

SOCKET CONNECTOR			PLUG CONNECTOR		
No. of pos.	Mounting style	Part Number	No. of pos.	Mounting style	Part Number
15	Through-hole	242A17980X	15	Through-hole	241A16380X
26	Through-hole	242A17990X	26	Through-hole	241A16390X
44	Through-hole	242A18000X	44	Through-hole	241A16400X
62	Through-hole	242A18010X	62	Through-hole	241A16410X
15	4-40 UNC Threaded insert	242A18060X	15	4-40 UNC Threaded insert	241A16460X
26	4-40 UNC Threaded insert	242A18070X	26	4-40 UNC Threaded insert	241A16470X
44	4-40 UNC Threaded insert	242A18080X	44	4-40 UNC Threaded insert	241A16480X
62	4-40 UNC Threaded insert	242A18090X	62	4-40 UNC Threaded insert	241A16490X
15	M3 Threaded insert	242A18140X	15	M3 Threaded insert	241A16540X
26	M3 Threaded insert	242A18150X	26	M3 Threaded insert	241A16550X
44	M3 Threaded insert	242A18160X	44	M3 Threaded insert	241A16560X
62	M3 Threaded insert	242A18170X	62	M3 Threaded insert	241A16570X

**Capacitance 830 pF**

SOCKET CONNECTOR			PLUG CONNECTOR		
No. of pos.	Mounting style	Part Number	No. of pos.	Mounting style	Part Number
15	Through-hole	242A18020X	15	Through-hole	241A16420X
26	Through-hole	242A18030X	26	Through-hole	241A16430X
44	Through-hole	242A18040X	44	Through-hole	241A16440X
62	Through-hole	242A18050X	62	Through-hole	241A16450X
15	4-40 UNC Threaded insert	242A18100X	15	4-40 UNC Threaded insert	241A16500X
26	4-40 UNC Threaded insert	242A18110X	26	4-40 UNC Threaded insert	241A16510X
44	4-40 UNC Threaded insert	242A18120X	44	4-40 UNC Threaded insert	241A16520X
62	4-40 UNC Threaded insert	242A18130X	62	4-40 UNC Threaded insert	241A16530X
15	M3 Threaded insert	242A18180X	15	M3 Threaded insert	241A16580X
26	M3 Threaded insert	242A18190X	26	M3 Threaded insert	241A16590X
44	M3 Threaded insert	242A18200X	44	M3 Threaded insert	241A16600X
62	M3 Threaded insert	242A18210X	62	M3 Threaded insert	241A16610X

# C-FILTER D-SUB HIGH DENSITY

Solder pin – Straight – Precision machined contacts



RoHS compliant – CSA listed, File No.: LR 115000-1 – UL listed, File No.: E202784

## DESCRIPTION

- Mounting styles:
  - with 4-40 UNC or M3 threaded rear spacer
  - with 4-40 UNC or M3 front and threaded rear spacer
- Quality class 3 (also available in quality class 1)
- Shell: Steel tin plated (brass tin plated on request)

## SOCKET CONNECTOR



No. of pos.	A -0.76	B -0.25	C
15	31.19	16.46	25.00 <sup>+0.12</sup> / <sub>-0.13</sub>
26	39.52	24.79	33.30 <sup>+0.15</sup> / <sub>-0.10</sub>
44	53.42	38.50	47.04 <sup>+0.13</sup> / <sub>-0.10</sub>
62	69.70	54.96	63.50 <sup>+0.13</sup> / <sub>-0.10</sub>

PCB-Layout: Kat1iI9A

Mounting style: Threaded rear spacer



Mounting style: Front and threaded rear spacer



## PLUG CONNECTOR



No. of pos.	A -0.76	B -0.25	C	D -0.3
15	31.19	16.79	25.00 <sup>+0.12</sup> / <sub>-0.13</sub>	6.12
26	39.52	25.12	33.30 <sup>+0.15</sup> / <sub>-0.10</sub>	6.12
44	53.42	38.84	47.04 <sup>+0.13</sup> / <sub>-0.10</sub>	5.99
62	69.70	55.30	63.50 <sup>+0.13</sup> / <sub>-0.10</sub>	5.99

PCB-Layout: Kat1iU0A

Mounting style: Threaded rear spacer



Mounting style: Front and threaded rear spacer



## ORDER DATA

### Capacitance 180 pF

SOCKET CONNECTOR		
No. of pos.	Mounting style	Part Number
15	4-40 UNC Threaded rear spacer	242A27500X
26	4-40 UNC Threaded rear spacer	242A27510X
44	4-40 UNC Threaded rear spacer	242A27520X
62	4-40 UNC Threaded rear spacer	242A27530X
15	M3 Threaded rear spacer	242A27540X
26	M3 Threaded rear spacer	242A27550X
44	M3 Threaded rear spacer	242A27560X
62	M3 Threaded rear spacer	242A27570X
15	4-40 UNC Front/Threaded rear spacer	242A27580X
26	4-40 UNC Front/Threaded rear spacer	242A27590X
44	4-40 UNC Front/Threaded rear spacer	242A27600X
62	4-40 UNC Front/Threaded rear spacer	242A27610X
15	M3 Front/Threaded rear spacer	242A27620X
26	M3 Front/Threaded rear spacer	242A27630X
44	M3 Front/Threaded rear spacer	242A27640X
62	M3 Front/Threaded rear spacer	242A27650X

PLUG CONNECTOR		
No. of pos.	Mounting style	Part Number
15	4-40 UNC Threaded rear spacer	241A27600X
26	4-40 UNC Threaded rear spacer	241A27610X
44	4-40 UNC Threaded rear spacer	241A27620X
62	4-40 UNC Threaded rear spacer	241A27630X
15	M3 Threaded rear spacer	241A27640X
26	M3 Threaded rear spacer	241A27650X
44	M3 Threaded rear spacer	241A27660X
62	M3 Threaded rear spacer	241A27670X
15	4-40 UNC Front/Threaded rear spacer	241A27680X
26	4-40 UNC Front/Threaded rear spacer	241A27690X
44	4-40 UNC Front/Threaded rear spacer	241A27700X
62	4-40 UNC Front/Threaded rear spacer	241A27710X
15	M3 Front/Threaded rear spacer	241A27720X
26	M3 Front/Threaded rear spacer	241A27730X
44	M3 Front/Threaded rear spacer	241A27740X
62	M3 Front/Threaded rear spacer	241A27750X

# C-FILTER D-SUB HIGH DENSITY

Solder pin – Straight – Precision machined contacts

**ORDER DATA**

**Capacitance 370 pF**

SOCKET CONNECTOR			PLUG CONNECTOR		
No. of pos.	Mounting style	Part Number	No. of pos.	Mounting style	Part Number
15	4-40 UNC Threaded rear spacer	242A18220X	15	4-40 UNC Threaded rear spacer	241A16620X
26	4-40 UNC Threaded rear spacer	242A18230X	26	4-40 UNC Threaded rear spacer	241A16630X
44	4-40 UNC Threaded rear spacer	242A18240X	44	4-40 UNC Threaded rear spacer	241A16640X
62	4-40 UNC Threaded rear spacer	242A18250X	62	4-40 UNC Threaded rear spacer	241A16650X
15	M3 Threaded rear spacer	242A18300X	15	M3 Threaded rear spacer	241A16700X
26	M3 Threaded rear spacer	242A18310X	26	M3 Threaded rear spacer	241A16710X
44	M3 Threaded rear spacer	242A18320X	44	M3 Threaded rear spacer	241A16720X
62	M3 Threaded rear spacer	242A18330X	62	M3 Threaded rear spacer	241A16730X
15	4-40 UNC Front/Threaded rear spacer	242A18380X	15	4-40 UNC Front/Threaded rear spacer	241A16780X
26	4-40 UNC Front/Threaded rear spacer	242A18390X	26	4-40 UNC Front/Threaded rear spacer	241A16790X
44	4-40 UNC Front/Threaded rear spacer	242A18400X	44	4-40 UNC Front/Threaded rear spacer	241A16800X
62	4-40 UNC Front/Threaded rear spacer	242A18410X	62	4-40 UNC Front/Threaded rear spacer	241A16810X
15	M3 Front/Threaded rear spacer	242A18460X	15	M3 Front/Threaded rear spacer	241A16860X
26	M3 Front/Threaded rear spacer	242A18470X	26	M3 Front/Threaded rear spacer	241A16870X
44	M3 Front/Threaded rear spacer	242A18480X	44	M3 Front/Threaded rear spacer	241A16880X
62	M3 Front/Threaded rear spacer	242A18490X	62	M3 Front/Threaded rear spacer	241A16890X

**Capacitance 830 pF**

SOCKET CONNECTOR			PLUG CONNECTOR		
No. of pos.	Mounting style	Part Number	No. of pos.	Mounting style	Part Number
15	4-40 UNC Threaded rear spacer	242A18260X	15	4-40 UNC Threaded rear spacer	241A16660X
26	4-40 UNC Threaded rear spacer	242A18270X	26	4-40 UNC Threaded rear spacer	241A16670X
44	4-40 UNC Threaded rear spacer	242A18280X	44	4-40 UNC Threaded rear spacer	241A16680X
62	4-40 UNC Threaded rear spacer	242A18290X	62	4-40 UNC Threaded rear spacer	241A16690X
15	M3 Threaded rear spacer	242A18340X	15	M3 Threaded rear spacer	241A16740X
26	M3 Threaded rear spacer	242A18350X	26	M3 Threaded rear spacer	241A16750X
44	M3 Threaded rear spacer	242A18360X	44	M3 Threaded rear spacer	241A16760X
62	M3 Threaded rear spacer	242A18370X	62	M3 Threaded rear spacer	241A16770X
15	4-40 UNC Front/Threaded rear spacer	242A18420X	15	4-40 UNC Front/Threaded rear spacer	241A16820X
26	4-40 UNC Front/Threaded rear spacer	242A18430X	26	4-40 UNC Front/Threaded rear spacer	241A16830X
44	4-40 UNC Front/Threaded rear spacer	242A18440X	44	4-40 UNC Front/Threaded rear spacer	241A16840X
62	4-40 UNC Front/Threaded rear spacer	242A18450X	62	4-40 UNC Front/Threaded rear spacer	241A16850X
15	M3 Front/Threaded rear spacer	242A18500X	15	M3 Front/Threaded rear spacer	241A16900X
26	M3 Front/Threaded rear spacer	242A18510X	26	M3 Front/Threaded rear spacer	241A16910X
44	M3 Front/Threaded rear spacer	242A18520X	44	M3 Front/Threaded rear spacer	241A16920X
62	M3 Front/Threaded rear spacer	242A18530X	62	M3 Front/Threaded rear spacer	241A16930X

# C-FILTER D-SUB HIGH DENSITY

Solder pin – Straight – Precision machined contacts



RoHS compliant – CSA listed, File No.: LR 115000-1 – UL listed, File No.: E202784

## SOCKET CONNECTOR



No. of pos.	A -0.76	B -0.25	C
15	31.19	16.46	25.00 <sup>+0.12</sup> / <sub>-0.13</sub>
26	39.52	24.79	33.30 <sup>+0.15</sup> / <sub>-0.16</sub>
44	53.42	38.50	47.04 <sup>+0.13</sup> / <sub>-0.13</sub>
62	69.70	54.96	63.50 <sup>+0.13</sup> / <sub>-0.13</sub>

PCB-Layout: Kat1i19A

Mounting style: Threaded rear spacer with PCB clip



Mounting style: Front and threaded rear spacer with PCB clip



## DESCRIPTION

- Mounting styles:
  - with 4-40 UNC or M3 threaded rear spacer with PCB clip
  - with 4-40 UNC or M3 front and threaded rear spacer with PCB clip
- Quality class 3 (also available in quality class 1)
- Shell: Steel tin plated (brass tin plated on request)

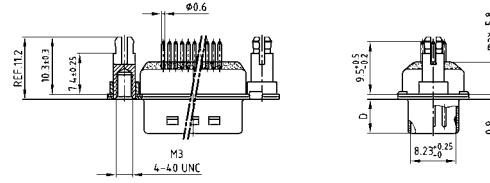
## PLUG CONNECTOR



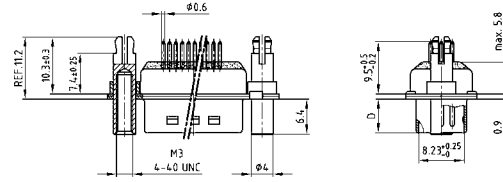
No. of pos.	A -0.76	B -0.25	C	D -0.3
15	31.19	16.79	25.00 <sup>+0.12</sup> / <sub>-0.13</sub>	6.12
26	39.52	25.12	33.30 <sup>+0.15</sup> / <sub>-0.16</sub>	6.12
44	53.42	38.84	47.04 <sup>+0.13</sup> / <sub>-0.13</sub>	5.99
62	69.70	55.30	63.50 <sup>+0.13</sup> / <sub>-0.13</sub>	5.99

PCB-Layout: Kat1iU0A

Mounting style: Threaded rear spacer with PCB clip



Mounting style: Front and threaded rear spacer with PCB clip



## ORDER DATA

Capacitance 180 pF

SOCKET CONNECTOR		
No. of pos.	Mounting style	Part Number
15	4-40 UNC Threaded rear spacer PCB clip	242A27700X
26	4-40 UNC Threaded rear spacer PCB clip	242A27710X
44	4-40 UNC Threaded rear spacer PCB clip	242A27720X
62	4-40 UNC Threaded rear spacer PCB clip	242A27730X
15	M3 Threaded rear spacer PCB clip	242A27740X
26	M3 Threaded rear spacer PCB clip	242A27750X
44	M3 Threaded rear spacer PCB clip	242A27760X
62	M3 Threaded rear spacer PCB clip	242A27770X
15	4-40 UNC Front/Threaded rear spacer PCB clip	242A27780X
26	4-40 UNC Front/Threaded rear spacer PCB clip	242A27790X
44	4-40 UNC Front/Threaded rear spacer PCB clip	242A27800X
62	4-40 UNC Front/Threaded rear spacer PCB clip	242A27810X
15	M3 Front/Threaded rear spacer PCB clip	242A27820X
26	M3 Front/Threaded rear spacer PCB clip	242A27830X
44	M3 Front/Threaded rear spacer PCB clip	242A27840X
62	M3 Front/Threaded rear spacer PCB clip	242A27850X

PLUG CONNECTOR		
No. of pos.	Mounting style	Part Number
15	4-40 UNC Threaded rear spacer PCB clip	241A27800X
26	4-40 UNC Threaded rear spacer PCB clip	241A27810X
44	4-40 UNC Threaded rear spacer PCB clip	241A27820X
62	4-40 UNC Threaded rear spacer PCB clip	241A27830X
15	M3 Threaded rear spacer PCB clip	241A27840X
26	M3 Threaded rear spacer PCB clip	241A27850X
44	M3 Threaded rear spacer PCB clip	241A27860X
62	M3 Threaded rear spacer PCB clip	241A27870X
15	4-40 UNC Front/Threaded rear spacer PCB clip	241A27880X
26	4-40 UNC Front/Threaded rear spacer PCB clip	241A27890X
44	4-40 UNC Front/Threaded rear spacer PCB clip	241A27900X
62	4-40 UNC Front/Threaded rear spacer PCB clip	241A27910X
15	M3 Front/Threaded rear spacer PCB clip	241A27920X
26	M3 Front/Threaded rear spacer PCB clip	241A27930X
44	M3 Front/Threaded rear spacer PCB clip	241A27940X
62	M3 Front/Threaded rear spacer PCB clip	241A27950X

PCB clip .122"/3.1 ± .004"/0.10 mm hole diameter and .063"/1.6 mm circuit board thickness

# C-FILTER D-SUB HIGH DENSITY

Solder pin – Straight – Precision machined contacts

**ORDER DATA**

**Capacitance 370 pF**

SOCKET CONNECTOR			PLUG CONNECTOR		
No. of pos.	Mounting style	Part Number	No. of pos.	Mounting style	Part Number
15	4-40 UNC Threaded rear spacer PCB clip	242A20610X	15	4-40 UNC Threaded rear spacer PCB clip	241A20760X
26	4-40 UNC Threaded rear spacer PCB clip	242A20620X	26	4-40 UNC Threaded rear spacer PCB clip	241A20770X
44	4-40 UNC Threaded rear spacer PCB clip	242A20630X	44	4-40 UNC Threaded rear spacer PCB clip	241A20780X
62	4-40 UNC Threaded rear spacer PCB clip	242A20640X	62	4-40 UNC Threaded rear spacer PCB clip	241A20790X
15	M3 Threaded rear spacer PCB clip	242A20690X	15	M3 Threaded rear spacer PCB clip	241A20840X
26	M3 Threaded rear spacer PCB clip	242A20700X	26	M3 Threaded rear spacer PCB clip	241A20850X
44	M3 Threaded rear spacer PCB clip	242A20710X	44	M3 Threaded rear spacer PCB clip	241A20860X
62	M3 Threaded rear spacer PCB clip	242A20720X	62	M3 Threaded rear spacer PCB clip	241A20870X
15	4-40 UNC Front/Threaded rear spacer PCB clip	242A20770X	15	4-40 UNC Front/Threaded rear spacer PCB clip	241A20920X
26	4-40 UNC Front/Threaded rear spacer PCB clip	242A20780X	26	4-40 UNC Front/Threaded rear spacer PCB clip	241A20930X
44	4-40 UNC Front/Threaded rear spacer PCB clip	242A20790X	44	4-40 UNC Front/Threaded rear spacer PCB clip	241A20940X
62	4-40 UNC Front/Threaded rear spacer PCB clip	242A20800X	62	4-40 UNC Front/Threaded rear spacer PCB clip	241A20950X
15	M3 Front/Threaded rear spacer PCB clip	242A20850X	15	M3 Front/Threaded rear spacer PCB clip	241A21480X
26	M3 Front/Threaded rear spacer PCB clip	242A20860X	26	M3 Front/Threaded rear spacer PCB clip	241A21490X
44	M3 Front/Threaded rear spacer PCB clip	242A20870X	44	M3 Front/Threaded rear spacer PCB clip	241A21500X
62	M3 Front/Threaded rear spacer PCB clip	242A20880X	62	M3 Front/Threaded rear spacer PCB clip	241A21510X

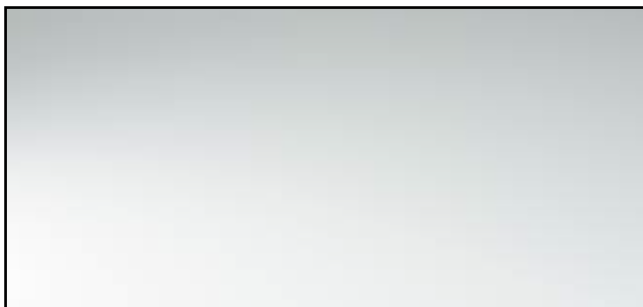
**Capacitance 830 pF**

SOCKET CONNECTOR			PLUG CONNECTOR		
No. of pos.	Mounting style	Part Number	No. of pos.	Mounting style	Part Number
15	4-40 UNC Threaded rear spacer PCB clip	242A20650X	15	4-40 UNC Threaded rear spacer PCB clip	241A20800X
26	4-40 UNC Threaded rear spacer PCB clip	242A20660X	26	4-40 UNC Threaded rear spacer PCB clip	241A20810X
44	4-40 UNC Threaded rear spacer PCB clip	242A20670X	44	4-40 UNC Threaded rear spacer PCB clip	241A20820X
62	4-40 UNC Threaded rear spacer PCB clip	242A20680X	62	4-40 UNC Threaded rear spacer PCB clip	241A20830X
15	M3 Threaded rear spacer PCB clip	242A20730X	15	M3 Threaded rear spacer PCB clip	241A20880X
26	M3 Threaded rear spacer PCB clip	242A20740X	26	M3 Threaded rear spacer PCB clip	241A20890X
44	M3 Threaded rear spacer PCB clip	242A20750X	44	M3 Threaded rear spacer PCB clip	241A20900X
62	M3 Threaded rear spacer PCB clip	242A20760X	62	M3 Threaded rear spacer PCB clip	241A20910X
15	4-40 UNC Front/Threaded rear spacer PCB clip	242A20810X	15	4-40 UNC Front/Threaded rear spacer PCB clip	241A20960X
26	4-40 UNC Front/Threaded rear spacer PCB clip	242A20820X	26	4-40 UNC Front/Threaded rear spacer PCB clip	241A20970X
44	4-40 UNC Front/Threaded rear spacer PCB clip	242A20830X	44	4-40 UNC Front/Threaded rear spacer PCB clip	241A20980X
62	4-40 UNC Front/Threaded rear spacer PCB clip	242A20840X	62	4-40 UNC Front/Threaded rear spacer PCB clip	241A20990X
15	M3 Front/Threaded rear spacer PCB clip	242A20890X	15	M3 Front/Threaded rear spacer PCB clip	241A21520X
26	M3 Front/Threaded rear spacer PCB clip	242A20900X	26	M3 Front/Threaded rear spacer PCB clip	241A21530X
44	M3 Front/Threaded rear spacer PCB clip	242A20910X	44	M3 Front/Threaded rear spacer PCB clip	241A21540X
62	M3 Front/Threaded rear spacer PCB clip	242A20920X	62	M3 Front/Threaded rear spacer PCB clip	241A21550X

PCB clip .122"/3.1 ± .004"/0.10 mm hole diameter and .063"/1.6 mm circuit board thickness

# C-FILTER D-SUB HIGH DENSITY

Solder pin – Angled – .350"/7.98 mm – Precision machined contacts – Plastic bracket



RoHS compliant – CSA listed, File No.: LR 115000-1 – UL listed, File No.: E202784

## DESCRIPTION

- Mounting styles:
  - with mounting bracket, grounding strap and 4-40 UNC or M3 threaded insert
  - with mounting bracket, grounding strap and 4-40 UNC or M3 front spacer
- Quality class 3 (also available in quality class 1)
- Shell: Steel tin plated (brass tin plated on request)

## SOCKET CONNECTOR



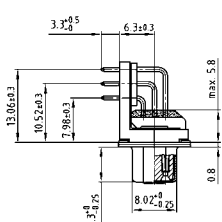
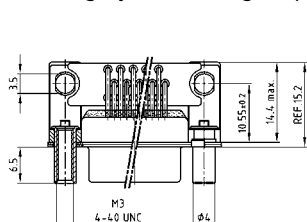
No. of pos.	A -0.76	B -0.25	C
15	31.19	16.46	25.00 <sup>+0.12</sup> / <sub>-0.13</sub>
26	39.52	24.79	33.30 <sup>+0.15</sup> / <sub>-0.10</sub>
44	53.42	38.50	47.04 <sup>+0.13</sup> / <sub>-0.13</sub>
62	69.70	54.96	63.50 <sup>+0.13</sup> / <sub>-0.13</sub>

PCB-Layout: Kat1iU1A

Mounting style: Grounding strap, threaded insert



Mounting style: Grounding strap, front spacer



## PLUG CONNECTOR



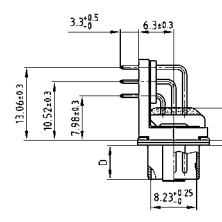
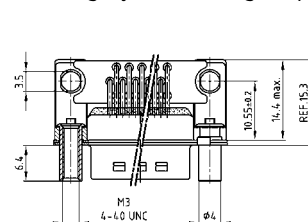
No. of pos.	A -0.76	B -0.25	C	D -0.3
15	31.19	16.79	25.00 <sup>+0.12</sup> / <sub>-0.13</sub>	6.12
26	39.52	25.12	33.30 <sup>+0.15</sup> / <sub>-0.10</sub>	6.12
44	53.42	38.84	47.04 <sup>+0.13</sup> / <sub>-0.13</sub>	5.99
62	69.70	55.30	63.50 <sup>+0.13</sup> / <sub>-0.13</sub>	5.99

PCB-Layout: Kat1iU2A

Mounting style: Grounding strap, threaded insert



Mounting style: Grounding strap, front spacer



## ORDER DATA

### Capacitance 180 pF

SOCKET CONNECTOR		
No. of pos.	Mounting style	Part Number
15	Grounding strap / 4-40 UNC Threaded insert	242A27860X
26	Grounding strap / 4-40 UNC Threaded insert	242A27870X
44	Grounding strap / 4-40 UNC Threaded insert	242A27880X
62	Grounding strap / 4-40 UNC Threaded insert	242A27890X
15	Grounding strap / M3 Threaded insert	242A27900X
26	Grounding strap / M3 Threaded insert	242A27910X
44	Grounding strap / M3 Threaded insert	242A27920X
62	Grounding strap / M3 Threaded insert	242A27930X
15	Grounding strap / 4-40 UNC Front spacer	242A27940X
26	Grounding strap / 4-40 UNC Front spacer	242A27950X
44	Grounding strap / 4-40 UNC Front spacer	242A27960X
62	Grounding strap / 4-40 UNC Front spacer	242A27970X
15	Grounding strap / M3 Front spacer	242A27980X
26	Grounding strap / M3 Front spacer	242A27990X
44	Grounding strap / M3 Front spacer	242A28000X
62	Grounding strap / M3 Front spacer	242A28010X

PLUG CONNECTOR		
No. of pos.	Mounting style	Part Number
15	Grounding strap / 4-40 UNC Threaded insert	241A27960X
26	Grounding strap / 4-40 UNC Threaded insert	241A27970X
44	Grounding strap / 4-40 UNC Threaded insert	241A27980X
62	Grounding strap / 4-40 UNC Threaded insert	241A27990X
15	Grounding strap / M3 Threaded insert	241A28000X
26	Grounding strap / M3 Threaded insert	241A28010X
44	Grounding strap / M3 Threaded insert	241A28020X
62	Grounding strap / M3 Threaded insert	241A28030X
15	Grounding strap / 4-40 UNC Front spacer	241A28040X
26	Grounding strap / 4-40 UNC Front spacer	241A28050X
44	Grounding strap / 4-40 UNC Front spacer	241A28060X
62	Grounding strap / 4-40 UNC Front spacer	241A28070X
15	Grounding strap / M3 Front spacer	241A28080X
26	Grounding strap / M3 Front spacer	241A28090X
44	Grounding strap / M3 Front spacer	241A28100X
62	Grounding strap / M3 Front spacer	241A28110X







# C-FILTER D-SUB HIGH DENSITY

Solder pin – Angled – .350"/7.98 mm – Precision machined contacts – Metal bracket

**ORDER DATA**

**Capacitance 370 pF**

SOCKET CONNECTOR			PLUG CONNECTOR		
No. of pos.	Mounting style	Part Number	No. of pos.	Mounting style	Part Number
15	4-40 UNC Threaded insert	242A19810X	15	4-40 UNC Threaded insert	241A18220X
26	4-40 UNC Threaded insert	242A19820X	26	4-40 UNC Threaded insert	241A18230X
44	4-40 UNC Threaded insert	242A19830X	44	4-40 UNC Threaded insert	241A18240X
62	4-40 UNC Threaded insert	242A19840X	62	4-40 UNC Threaded insert	241A18250X
15	M3 Threaded insert	242A19890X	15	M3 Threaded insert	241A18300X
26	M3 Threaded insert	242A19900X	26	M3 Threaded insert	241A18310X
44	M3 Threaded insert	242A19910X	44	M3 Threaded insert	241A18320X
62	M3 Threaded insert	242A19920X	62	M3 Threaded insert	241A18330X
15	PCB clip / 4-40 UNC Threaded insert	242A19490X	15	PCB clip / 4-40 UNC Threaded insert	241A17900X
26	PCB clip / 4-40 UNC Threaded insert	242A19500X	26	PCB clip / 4-40 UNC Threaded insert	241A17910X
44	PCB clip / 4-40 UNC Threaded insert	242A19510X	44	PCB clip / 4-40 UNC Threaded insert	241A17920X
62	PCB clip / 4-40 UNC Threaded insert	242A19520X	62	PCB clip / 4-40 UNC Threaded insert	241A17930X
15	PCB clip / M3 Threaded insert	242A19570X	15	PCB clip / M3 Threaded insert	241A17980X
26	PCB clip / M3 Threaded insert	242A19580X	26	PCB clip / M3 Threaded insert	241A17990X
44	PCB clip / M3 Threaded insert	242A19590X	44	PCB clip / M3 Threaded insert	241A18000X
62	PCB clip / M3 Threaded insert	242A19600X	62	PCB clip / M3 Threaded insert	241A18010X

**Capacitance 830 pF**

SOCKET CONNECTOR			PLUG CONNECTOR		
No. of pos.	Mounting style	Part Number	No. of pos.	Mounting style	Part Number
15	4-40 UNC Threaded insert	242A19850X	15	4-40 UNC Threaded insert	241A18260X
26	4-40 UNC Threaded insert	242A19860X	26	4-40 UNC Threaded insert	241A18270X
44	4-40 UNC Threaded insert	242A19870X	44	4-40 UNC Threaded insert	241A18280X
62	4-40 UNC Threaded insert	242A19880X	62	4-40 UNC Threaded insert	241A18290X
15	M3 Threaded insert	242A19930X	15	M3 Threaded insert	241A18340X
26	M3 Threaded insert	242A19940X	26	M3 Threaded insert	241A18350X
44	M3 Threaded insert	242A19950X	44	M3 Threaded insert	241A18360X
62	M3 Threaded insert	242A19960X	62	M3 Threaded insert	241A18370X
15	PCB clip / 4-40 UNC Threaded insert	242A19530X	15	PCB clip / 4-40 UNC Threaded insert	241A17940X
26	PCB clip / 4-40 UNC Threaded insert	242A19540X	26	PCB clip / 4-40 UNC Threaded insert	241A17950X
44	PCB clip / 4-40 UNC Threaded insert	242A19550X	44	PCB clip / 4-40 UNC Threaded insert	241A17960X
62	PCB clip / 4-40 UNC Threaded insert	242A19560X	62	PCB clip / 4-40 UNC Threaded insert	241A17970X
15	PCB clip / M3 Threaded insert	242A19610X	15	PCB clip / M3 Threaded insert	241A18020X
26	PCB clip / M3 Threaded insert	242A19620X	26	PCB clip / M3 Threaded insert	241A18030X
44	PCB clip / M3 Threaded insert	242A19630X	44	PCB clip / M3 Threaded insert	241A18040X
62	PCB clip / M3 Threaded insert	242A19640X	62	PCB clip / M3 Threaded insert	241A18050X

PCB clip .122"/3.1 ± .004"/0.10 mm hole diameter and .063"/1.6 mm circuit board thickness

# LC-FILTER D-SUB HIGH DENSITY

Solder pin – Angled – .350"/7.98 mm – Precision machined contacts – Metal Bracket



RoHS compliant – CSA listed, File No.: LR 115000-1 – UL listed, File No.: E202784

## DESCRIPTION

- Mounting styles:
  - with mounting bracket and 4-40 UNC or M3 threaded insert
  - with mounting bracket, PCB clip and 4-40 UNC or M3 threaded insert
- 44 and 62 pos. version implemented with ferrite pearls
- Quality class 3 (also available in quality class 1)
- Shell: Steel tin plated (brass tin plated on request)

## SOCKET CONNECTOR



No. of pos.	A-0.76	B-0.25	C
15	31.19	16.46	25.00 $+0.12$ $-0.13$
26	39.52	24.79	33.30 $+0.15$ $-0.10$
44	53.42	38.50	47.04 $\pm 0.13$
62	69.70	54.96	63.50 $\pm 0.13$

PCB-Layout: Kat1iU1A

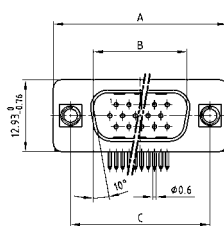
Mounting style: Threaded insert



Mounting style: PCB clip, threaded insert



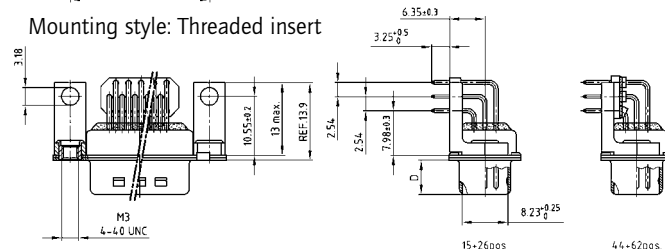
## PLUG CONNECTOR



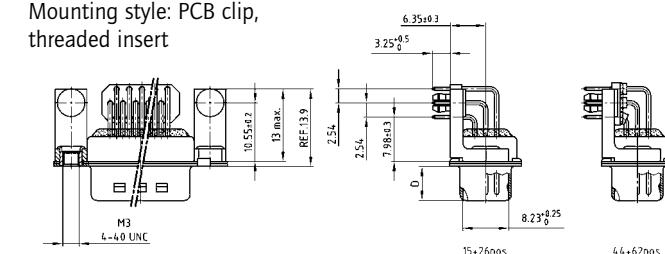
No. of pos.	A-0.76	B-0.25	C	D-0.3
15	31.19	16.79	25.00 $+0.12$ $-0.13$	6.12
26	39.52	25.12	33.30 $+0.15$ $-0.10$	6.12
44	53.42	38.84	47.04 $\pm 0.13$	5.99
62	69.70	55.30	63.50 $\pm 0.13$	5.99

PCB-Layout: Kat1iU2A

Mounting style: Threaded insert



Mounting style: PCB clip, threaded insert



## ORDER DATA

Capacitance 180 pF

### SOCKET CONNECTOR

No. of pos.	Mounting style	Part Number
15	4-40 UNC Threaded insert	242A26580X
26	4-40 UNC Threaded insert	242A26590X
44	4-40 UNC Threaded insert	242A26600X
62	4-40 UNC Threaded insert	242A26610X
15	M3 Threaded insert	242A26660X
26	M3 Threaded insert	242A26670X
44	M3 Threaded insert	242A26680X
62	M3 Threaded insert	242A26690X
15	PCB clip / 4-40 UNC Threaded insert	242A26620X
26	PCB clip / 4-40 UNC Threaded insert	242A26630X
44	PCB clip / 4-40 UNC Threaded insert	242A26640X
62	PCB clip / 4-40 UNC Threaded insert	242A26650X
15	PCB clip / M3 Threaded insert	242A26700X
26	PCB clip / M3 Threaded insert	242A26710X
44	PCB clip / M3 Threaded insert	242A26720X
62	PCB clip / M3 Threaded insert	242A26730X

### PLUG CONNECTOR

No. of pos.	Mounting style	Part Number
15	4-40 UNC Threaded insert	241A26680X
26	4-40 UNC Threaded insert	241A26690X
44	4-40 UNC Threaded insert	241A26700X
62	4-40 UNC Threaded insert	241A26710X
15	M3 Threaded insert	241A26760X
26	M3 Threaded insert	241A26770X
44	M3 Threaded insert	241A26780X
62	M3 Threaded insert	241A26790X
15	PCB clip / 4-40 UNC Threaded insert	241A26720X
26	PCB clip / 4-40 UNC Threaded insert	241A26730X
44	PCB clip / 4-40 UNC Threaded insert	241A26740X
62	PCB clip / 4-40 UNC Threaded insert	241A26750X
15	PCB clip / M3 Threaded insert	241A26800X
26	PCB clip / M3 Threaded insert	241A26810X
44	PCB clip / M3 Threaded insert	241A26820X
62	PCB clip / M3 Threaded insert	241A26830X

PCB clip .122"/3.1 ± .004"/0.10 mm hole diameter and .063"/1.6 mm circuit board thickness

# LC-FILTER D-SUB HIGH DENSITY

Solder pin – Angled – .350" / 7.98 mm – Precision machined contacts – Metal Bracket

**ORDER DATA**

**Capacitance 370 pF**

SOCKET CONNECTOR			PLUG CONNECTOR		
No. of pos.	Mounting style	Part Number	No. of pos.	Mounting style	Part Number
15	4-40 UNC Threaded insert	242A25620X	15	4-40 UNC Threaded insert	241A25720X
26	4-40 UNC Threaded insert	242A25630X	26	4-40 UNC Threaded insert	241A25730X
44	4-40 UNC Threaded insert	242A25640X	44	4-40 UNC Threaded insert	241A25740X
62	4-40 UNC Threaded insert	242A25650X	62	4-40 UNC Threaded insert	241A25750X
15	M3 Threaded insert	242A25700X	15	M3 Threaded insert	241A25800X
26	M3 Threaded insert	242A25710X	26	M3 Threaded insert	241A25810X
44	M3 Threaded insert	242A25720X	44	M3 Threaded insert	241A25820X
62	M3 Threaded insert	242A25730X	62	M3 Threaded insert	241A25830X
15	PCB clip / 4-40 UNC Threaded insert	242A25780X	15	PCB clip / 4-40 UNC Threaded insert	241A25880X
26	PCB clip / 4-40 UNC Threaded insert	242A25790X	26	PCB clip / 4-40 UNC Threaded insert	241A25890X
44	PCB clip / 4-40 UNC Threaded insert	242A25800X	44	PCB clip / 4-40 UNC Threaded insert	241A25900X
62	PCB clip / 4-40 UNC Threaded insert	242A25810X	62	PCB clip / 4-40 UNC Threaded insert	241A25910X
15	PCB clip / M3 Threaded insert	242A25860X	15	PCB clip / M3 Threaded insert	241A25960X
26	PCB clip / M3 Threaded insert	242A25870X	26	PCB clip / M3 Threaded insert	241A25970X
44	PCB clip / M3 Threaded insert	242A25880X	44	PCB clip / M3 Threaded insert	241A25980X
62	PCB clip / M3 Threaded insert	242A25890X	62	PCB clip / M3 Threaded insert	241A25990X

**Capacitance 830 pF**

SOCKET CONNECTOR			PLUG CONNECTOR		
No. of pos.	Mounting style	Part Number	No. of pos.	Mounting style	Part Number
15	4-40 UNC Threaded insert	242A25660X	15	4-40 UNC Threaded insert	241A25760X
26	4-40 UNC Threaded insert	242A25670X	26	4-40 UNC Threaded insert	241A25770X
44	4-40 UNC Threaded insert	242A25680X	44	4-40 UNC Threaded insert	241A25780X
62	4-40 UNC Threaded insert	242A25690X	62	4-40 UNC Threaded insert	241A25790X
15	M3 Threaded insert	242A25740X	15	M3 Threaded insert	241A25840X
26	M3 Threaded insert	242A25750X	26	M3 Threaded insert	241A25850X
44	M3 Threaded insert	242A25760X	44	M3 Threaded insert	241A25860X
62	M3 Threaded insert	242A25770X	62	M3 Threaded insert	241A25870X
15	PCB clip / 4-40 UNC Threaded insert	242A25820X	15	PCB clip / 4-40 UNC Threaded insert	241A25920X
26	PCB clip / 4-40 UNC Threaded insert	242A25830X	26	PCB clip / 4-40 UNC Threaded insert	241A25930X
44	PCB clip / 4-40 UNC Threaded insert	242A25840X	44	PCB clip / 4-40 UNC Threaded insert	241A25940X
62	PCB clip / 4-40 UNC Threaded insert	242A25850X	62	PCB clip / 4-40 UNC Threaded insert	241A25950X
15	PCB clip / M3 Threaded insert	242A25900X	15	PCB clip / M3 Threaded insert	241A26000X
26	PCB clip / M3 Threaded insert	242A25910X	26	PCB clip / M3 Threaded insert	241A26010X
44	PCB clip / M3 Threaded insert	242A25920X	44	PCB clip / M3 Threaded insert	241A26020X
62	PCB clip / M3 Threaded insert	242A25930X	62	PCB clip / M3 Threaded insert	241A26030X

PCB clip .122"/3.1 ± .004"/0.10 mm hole diameter and .063"/1.6 mm circuit board thickness

# C-FILTER D-SUB ADAPTER

Socket connector / Plug connector – Precision machined contacts – Metal



RoHS compliant

## DESCRIPTION

- Mounting styles:
  - with 4-40 UNC or M3 jack screw
  - with 4-40 UNC or M3 hex bolt
- Quality class 3 (also available in quality class 1)
- Shell: Steel tin plated

## SOCKET CONNECTOR

Version with jack screw

No. of pos.	A -0.76	B1 -0.25	B2 +0.25	C	D -0.3
09	31.19	16.46	16.79	25.00 $^{+0.12}_{-0.13}$	6.10
15	39.52	24.79	25.12	33.30 $^{+0.15}_{-0.10}$	6.12
25	53.42	38.50	38.84	47.04 $^{+0.13}$	5.99
37	69.70	54.96	55.30	63.50 $^{+0.12}$	5.99



## PLUG CONNECTOR

Version with hex bolt



## ORDER DATA

### Capacitance 180 pF

#### SOCKET CONNECTOR / PLUG CONNECTOR WITH JACK SCREW

No. of pos.	Mounting style	Part Number
09	4-40 UNC Jack screw	243A12160X
15	4-40 UNC Jack screw	243A12170X
25	4-40 UNC Jack screw	243A12180X
37	4-40 UNC Jack screw	243A12190X
09	M3 Jack screw	243A12320X
15	M3 Jack screw	243A12330X
25	M3 Jack screw	243A12340X
37	M3 Jack screw	243A12350X

#### SOCKET CONNECTOR / PLUG CONNECTOR WITH HEX BOLT

No. of pos.	Mounting style	Part Number
09	4-40 UNC Hex bolt	243A13120X
15	4-40 UNC Hex bolt	243A13130X
25	4-40 UNC Hex bolt	243A13140X
37	4-40 UNC Hex bolt	243A13150X
09	M3 Hex bolt	243A13280X
15	M3 Hex bolt	243A13290X
25	M3 Hex bolt	243A13300X
37	M3 Hex bolt	243A13310X

# C-FILTER D-SUB ADAPTER

Socket connector / Plug connector – Precision machined contacts – Metal

**ORDER DATA**

## Capacitance 370 pF

SOCKET CONNECTOR / PLUG CONNECTOR WITH JACK SCREW			SOCKET CONNECTOR / PLUG CONNECTOR WITH HEX BOLT		
No. of pos.	Mounting style	Part Number	No. of pos.	Mounting style	Part Number
09	4-40 UNC Jack screw	243A12200X	09	4-40 UNC Hex bolt	243A13160X
15	4-40 UNC Jack screw	243A12210X	15	4-40 UNC Hex bolt	243A13170X
25	4-40 UNC Jack screw	243A12220X	25	4-40 UNC Hex bolt	243A13180X
37	4-40 UNC Jack screw	243A12230X	37	4-40 UNC Hex bolt	243A13190X
09	M3 Jack screw	243A12360X	09	M3 Hex bolt	243A13320X
15	M3 Jack screw	243A12370X	15	M3 Hex bolt	243A13330X
25	M3 Jack screw	243A12380X	25	M3 Hex bolt	243A13340X
37	M3 Jack screw	243A12390X	37	M3 Hex bolt	243A13350X

## Capacitance 830 pF

SOCKET CONNECTOR / PLUG CONNECTOR WITH JACK SCREW			SOCKET CONNECTOR / PLUG CONNECTOR WITH HEX BOLT		
No. of pos.	Mounting style	Part Number	No. of pos.	Mounting style	Part Number
09	4-40 UNC Jack screw	243A12240X	09	4-40 UNC Hex bolt	243A13200X
15	4-40 UNC Jack screw	243A12250X	15	4-40 UNC Hex bolt	243A13210X
25	4-40 UNC Jack screw	243A12260X	25	4-40 UNC Hex bolt	243A13220X
37	4-40 UNC Jack screw	243A12270X	37	4-40 UNC Hex bolt	243A13230X
09	M3 Jack screw	243A12400X	09	M3 Hex bolt	243A13360X
15	M3 Jack screw	243A12410X	15	M3 Hex bolt	243A13370X
25	M3 Jack screw	243A12420X	25	M3 Hex bolt	243A13380X
37	M3 Jack screw	243A12430X	37	M3 Hex bolt	243A13390X

## Capacitance 1300 pF

SOCKET CONNECTOR / PLUG CONNECTOR WITH JACK SCREW			SOCKET CONNECTOR / PLUG CONNECTOR WITH HEX BOLT		
No. of pos.	Mounting style	Part Number	No. of pos.	Mounting style	Part Number
09	4-40 UNC Jack screw	243A12280X	09	4-40 UNC Hex bolt	243A13240X
15	4-40 UNC Jack screw	243A12290X	15	4-40 UNC Hex bolt	243A13250X
25	4-40 UNC Jack screw	243A12300X	25	4-40 UNC Hex bolt	243A13260X
37	4-40 UNC Jack screw	243A12310X	37	4-40 UNC Hex bolt	243A13270X
09	M3 Jack screw	243A12440X	09	M3 Hex bolt	243A13400X
15	M3 Jack screw	243A12450X	15	M3 Hex bolt	243A13410X
25	M3 Jack screw	243A12460X	25	M3 Hex bolt	243A13420X
37	M3 Jack screw	243A12470X	37	M3 Hex bolt	243A13430X

# C-FILTER D-SUB ADAPTER

Socket connector / Plug connector – Precision machined contacts – Low profile



RoHS compliant – CSA listed, File No.: LR 115000-1 – UL listed, File No.: E202784

## DESCRIPTION

- Mounting style:  
with 4-40 UNC or M3 jack screw
- Quality class 3 (also available in quality class 1)
- Shell: Steel tin plated

## PRODUCT DRAWING



No. of pos.	A $-0.76$	B1 $-0.25$	B2 $+0.25$	C	D $-0.3$
09	31.19	16.46	16.79	25.00 $+0.12$ $-0.13$	6.10
15	39.52	24.79	25.12	33.30 $+0.15$ $-0.10$	6.12
25	53.42	38.50	38.84	47.04 $+0.13$	5.99
37	69.70	54.96	55.30	63.50 $+0.13$	5.99
50	67.31	52.55	52.68	61.10 $+0.14$ $-0.11$	5.99



50 pos. = Dim. in ( \_ )

## ORDER DATA

**Capacitance 180 pF**

SOCKET CONNECTOR / PLUG CONNECTOR WITH JACK SCREW		
No. of pos.	Mounting style	Part Number
09	4-40 UNC Jack screw	243A11030X
15	4-40 UNC Jack screw	243A11040X
25	4-40 UNC Jack screw	243A11050X
37	4-40 UNC Jack screw	243A11060X
50	4-40 UNC Jack screw	243A11070X

SOCKET CONNECTOR / PLUG CONNECTOR WITH JACK SCREW		
No. of pos.	Mounting style	Part Number
09	M3 Jack screw	243A11080X
15	M3 Jack screw	243A11090X
25	M3 Jack screw	243A11100X
37	M3 Jack screw	243A11110X
50	M3 Jack screw	243A11120X

# C-FILTER D-SUB ADAPTER

Socket connector / Plug connector – Precision machined contacts – Low profile

**ORDER DATA**

**Capacitance 370 pF**

SOCKET CONNECTOR / PLUG CONNECTOR WITH JACK SCREW			SOCKET CONNECTOR / PLUG CONNECTOR WITH JACK SCREW		
No. of pos.	Mounting style	Part Number	No. of pos.	Mounting style	Part Number
09	4-40 UNC Jack screw	243A10010X	09	M3 Jack screw	243A10510X
15	4-40 UNC Jack screw	243A10020X	15	M3 Jack screw	243A10520X
25	4-40 UNC Jack screw	243A10030X	25	M3 Jack screw	243A10530X
37	4-40 UNC Jack screw	243A10040X	37	M3 Jack screw	243A10540X
50	4-40 UNC Jack screw	243A10130X	50	M3 Jack screw	243A10550X

**Capacitance 830 pF**

SOCKET CONNECTOR / PLUG CONNECTOR WITH JACK SCREW			SOCKET CONNECTOR / PLUG CONNECTOR WITH JACK SCREW		
No. of pos.	Mounting style	Part Number	No. of pos.	Mounting style	Part Number
09	4-40 UNC Jack screw	243A10090X	09	M3 Jack screw	243A10610X
15	4-40 UNC Jack screw	243A10100X	15	M3 Jack screw	243A10620X
25	4-40 UNC Jack screw	243A10110X	25	M3 Jack screw	243A10630X
37	4-40 UNC Jack screw	243A10120X	37	M3 Jack screw	243A10640X
50	4-40 UNC Jack screw	243A10150X	50	M3 Jack screw	243A10650X

**Capacitance 1300 pF**

SOCKET CONNECTOR / PLUG CONNECTOR WITH JACK SCREW			SOCKET CONNECTOR / PLUG CONNECTOR WITH JACK SCREW		
No. of pos.	Mounting style	Part Number	No. of pos.	Mounting style	Part Number
09	4-40 UNC Jack screw	243A10050X	09	M3 Jack screw	243A10560X
15	4-40 UNC Jack screw	243A10060X	15	M3 Jack screw	243A10570X
25	4-40 UNC Jack screw	243A10070X	25	M3 Jack screw	243A10580X
37	4-40 UNC Jack screw	243A10080X	37	M3 Jack screw	243A10590X
50	4-40 UNC Jack screw	243A10140X	50	M3 Jack screw	243A10600X

# LC-FILTER D-SUB ADAPTER

Socket connector / Plug connector – Precision machined contacts – Metal



RoHS compliant – CSA listed, File No.: LR 115000-1 – UL listed, File No.: E202784

## DESCRIPTION

- Mounting styles:
  - with 4-40 UNC or M3 jack screw
  - with 4-40 UNC or M3 hex bolt
- Quality class 3 (also available in quality class 1)
- Shell: Steel tin plated

## SOCKET CONNECTOR

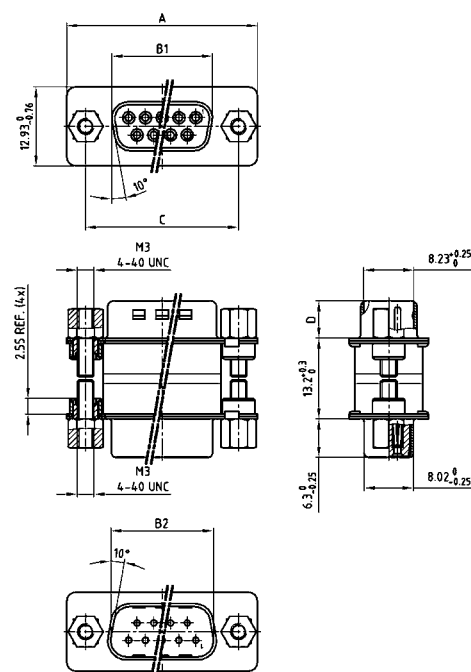
Version with jack screw

No. of pos.	A -0.76	B1 -0.25	B2 +0.25	C	D -0.3
09	31.19	16.46	16.79	25.00 <sup>+0.12</sup> <sub>-0.13</sub>	6.10
15	39.52	24.79	25.12	33.30 <sup>+0.15</sup> <sub>-0.10</sub>	6.12
25	53.42	38.50	38.84	47.04 <sup>+0.13</sup>	5.99
37	69.70	54.96	55.30	63.50 <sup>+0.13</sup>	5.99



## PLUG CONNECTOR

Version with hex bolt



## ORDER DATA

### Capacitance 180 pF

#### SOCKET CONNECTOR / PLUG CONNECTOR WITH JACK SCREW

No. of pos.	Mounting style	Part Number
09	4-40 UNC Jack screw	243A12800X
15	4-40 UNC Jack screw	243A12810X
25	4-40 UNC Jack screw	243A12820X
37	4-40 UNC Jack screw	243A12830X
09	M3 Jack screw	243A12960X
15	M3 Jack screw	243A12970X
25	M3 Jack screw	243A12980X
37	M3 Jack screw	243A12990X

#### SOCKET CONNECTOR / PLUG CONNECTOR WITH HEX BOLT

No. of pos.	Mounting style	Part Number
09	4-40 UNC Hex bolt	243A13440X
15	4-40 UNC Hex bolt	243A13450X
25	4-40 UNC Hex bolt	243A13460X
37	4-40 UNC Hex bolt	243A13470X
09	M3 Hex bolt	243A13600X
15	M3 Hex bolt	243A13610X
25	M3 Hex bolt	243A13620X
37	M3 Hex bolt	243A13630X



# LC-FILTER D-SUB ADAPTER

Socket connector / Plug connector – Precision machined contacts – Metal

**ORDER DATA**

**Capacitance 370 pF**

SOCKET CONNECTOR / PLUG CONNECTOR WITH JACK SCREW			SOCKET CONNECTOR / PLUG CONNECTOR WITH HEX BOLT		
No. of pos.	Mounting style	Part Number	No. of pos.	Mounting style	Part Number
09	4-40 UNC Jack screw	243A12840X	09	4-40 UNC Hex bolt	243A13480X
15	4-40 UNC Jack screw	243A12850X	15	4-40 UNC Hex bolt	243A13490X
25	4-40 UNC Jack screw	243A12860X	25	4-40 UNC Hex bolt	243A13500X
37	4-40 UNC Jack screw	243A12870X	37	4-40 UNC Hex bolt	243A13510X
09	M3 Jack screw	243A13000X	09	M3 Hex bolt	243A13640X
15	M3 Jack screw	243A13010X	15	M3 Hex bolt	243A13650X
25	M3 Jack screw	243A13020X	25	M3 Hex bolt	243A13660X
37	M3 Jack screw	243A13030X	37	M3 Hex bolt	243A13670X

**Capacitance 830 pF**

SOCKET CONNECTOR / PLUG CONNECTOR WITH JACK SCREW			SOCKET CONNECTOR / PLUG CONNECTOR WITH HEX BOLT		
No. of pos.	Mounting style	Part Number	No. of pos.	Mounting style	Part Number
09	4-40 UNC Jack screw	243A12880X	09	4-40 UNC Hex bolt	243A13520X
15	4-40 UNC Jack screw	243A12890X	15	4-40 UNC Hex bolt	243A13530X
25	4-40 UNC Jack screw	243A12900X	25	4-40 UNC Hex bolt	243A13540X
37	4-40 UNC Jack screw	243A12910X	37	4-40 UNC Hex bolt	243A13550X
09	M3 Jack screw	243A13040X	09	M3 Hex bolt	243A13680X
15	M3 Jack screw	243A13050X	15	M3 Hex bolt	243A13690X
25	M3 Jack screw	243A13060X	25	M3 Hex bolt	243A13700X
37	M3 Jack screw	243A13070X	37	M3 Hex bolt	243A13710X

**Capacitance 1300 pF**

SOCKET CONNECTOR / PLUG CONNECTOR WITH JACK SCREW			SOCKET CONNECTOR / PLUG CONNECTOR WITH HEX BOLT		
No. of pos.	Mounting style	Part Number	No. of pos.	Mounting style	Part Number
09	4-40 UNC Jack screw	243A12920X	09	4-40 UNC Hex bolt	243A13560X
15	4-40 UNC Jack screw	243A12930X	15	4-40 UNC Hex bolt	243A13570X
25	4-40 UNC Jack screw	243A12940X	25	4-40 UNC Hex bolt	243A13580X
37	4-40 UNC Jack screw	243A12950X	37	4-40 UNC Hex bolt	243A13590X
09	M3 Jack screw	243A13080X	09	M3 Hex bolt	243A13720X
15	M3 Jack screw	243A13090X	15	M3 Hex bolt	243A13730X
25	M3 Jack screw	243A13100X	25	M3 Hex bolt	243A13740X
37	M3 Jack screw	243A13110X	37	M3 Hex bolt	243A13750X

# π-FILTER D-SUB ADAPTER

Socket connector / Plug connector – Precision machined contacts – Metal



RoHS compliant – CSA listed, File No.: LR 115000-1 – UL listed, File No.: E202784

## DESCRIPTION

- Mounting styles:
  - with 4-40 UNC or M3 jack screw
  - with 4-40 UNC or M3 hex bolt
- Quality class 3 (also available in quality class 1)
- Shell: Steel tin plated

## SOCKET CONNECTOR

Version with jack screw

No. of pos.	A -0.76	B1 -0.25	B2 +0.25	C	D -0.3
09	31.19	16.46	16.79	25.00 <sup>+0.12</sup> / <sub>-0.13</sub>	6.10
15	39.52	24.79	25.12	33.30 <sup>+0.15</sup> / <sub>-0.10</sub>	6.12
25	53.42	38.50	38.84	47.04 <sup>+0.13</sup> / <sub>-0.13</sub>	5.99
37	69.70	54.96	55.30	63.50 <sup>+0.13</sup> / <sub>-0.13</sub>	5.99



## PLUG CONNECTOR

Version with hex bolt



## ORDER DATA

### Capacitance 2 x 180 pF

#### SOCKET CONNECTOR / PLUG CONNECTOR WITH JACK SCREW

No. of pos.	Mounting style	Part Number
09	4-40 UNC Jack screw	MAP1XAAAR02R361X
15	4-40 UNC Jack screw	MAP2XAAAR02R361X
25	4-40 UNC Jack screw	MAP3XAAAR02R361X
37	4-40 UNC Jack screw	MAP4XAAAR02R361X
09	M3 Jack screw	MAP1XAAAR01R361X
15	M3 Jack screw	MAP2XAAAR01R361X
25	M3 Jack screw	MAP3XAAAR01R361X
37	M3 Jack screw	MAP4XAAAR01R361X

#### SOCKET CONNECTOR / PLUG CONNECTOR WITH HEX BOLT

No. of pos.	Mounting style	Part Number
09	4-40 UNC Hex bolt	MAP1XAAAH02R361X
15	4-40 UNC Hex bolt	MAP2XAAAH02R361X
25	4-40 UNC Hex bolt	MAP3XAAAH02R361X
37	4-40 UNC Hex bolt	MAP4XAAAH02R361X
09	M3 Hex bolt	MAP1XAAAH01R361X
15	M3 Hex bolt	MAP2XAAAH01R361X
25	M3 Hex bolt	MAP3XAAAH01R361X
37	M3 Hex bolt	MAP4XAAAH01R361X

# π-FILTER D-SUB ADAPTER

Socket connector / Plug connector – Precision machined contacts – Metal

**ORDER DATA**

**Capacitance 2 x 370 pF**

SOCKET CONNECTOR / PLUG CONNECTOR WITH JACK SCREW			SOCKET CONNECTOR / PLUG CONNECTOR WITH HEX BOLT		
No. of pos.	Mounting style	Part Number	No. of pos.	Mounting style	Part Number
09	4-40 UNC Jack screw	MAP1XAAAR02R741X	09	4-40 UNC Hex bolt	MAP1XAAAH02R741X
15	4-40 UNC Jack screw	MAP2XAAAR02R741X	15	4-40 UNC Hex bolt	MAP2XAAAH02R741X
25	4-40 UNC Jack screw	MAP3XAAAR02R741X	25	4-40 UNC Hex bolt	MAP3XAAAH02R741X
37	4-40 UNC Jack screw	MAP4XAAAR02R741X	37	4-40 UNC Hex bolt	MAP4XAAAH02R741X
09	M3 Jack screw	MAP1XAAAR01R741X	09	M3 Hex bolt	MAP1XAAAH01R741X
15	M3 Jack screw	MAP2XAAAR01R741X	15	M3 Hex bolt	MAP2XAAAH01R741X
25	M3 Jack screw	MAP3XAAAR01R741X	25	M3 Hex bolt	MAP3XAAAH01R741X
37	M3 Jack screw	MAP4XAAAR01R741X	37	M3 Hex bolt	MAP4XAAAH01R741X

**Capacitance 2 x 830 pF**

SOCKET CONNECTOR / PLUG CONNECTOR WITH JACK SCREW			SOCKET CONNECTOR / PLUG CONNECTOR WITH HEX BOLT		
No. of pos.	Mounting style	Part Number	No. of pos.	Mounting style	Part Number
09	4-40 UNC Jack screw	MAP1XAAAR02R162X	09	4-40 UNC Hex bolt	MAP1XAAAH02R162X
15	4-40 UNC Jack screw	MAP2XAAAR02R162X	15	4-40 UNC Hex bolt	MAP2XAAAH02R162X
25	4-40 UNC Jack screw	MAP3XAAAR02R162X	25	4-40 UNC Hex bolt	MAP3XAAAH02R162X
37	4-40 UNC Jack screw	MAP4XAAAR02R162X	37	4-40 UNC Hex bolt	MAP4XAAAH02R162X
09	M3 Jack screw	MAP1XAAAR01R162X	09	M3 Hex bolt	MAP1XAAAH01R162X
15	M3 Jack screw	MAP2XAAAR01R162X	15	M3 Hex bolt	MAP2XAAAH01R162X
25	M3 Jack screw	MAP3XAAAR01R162X	25	M3 Hex bolt	MAP3XAAAH01R162X
37	M3 Jack screw	MAP4XAAAR01R162X	37	M3 Hex bolt	MAP4XAAAH01R162X

**Capacitance 2 x 1300 pF**

SOCKET CONNECTOR / PLUG CONNECTOR WITH JACK SCREW			SOCKET CONNECTOR / PLUG CONNECTOR WITH HEX BOLT		
No. of pos.	Mounting style	Part Number	No. of pos.	Mounting style	Part Number
09	4-40 UNC Jack screw	MAP1XAAAR02R262X	09	4-40 UNC Hex bolt	MAP1XAAAH02R262X
15	4-40 UNC Jack screw	MAP2XAAAR02R262X	15	4-40 UNC Hex bolt	MAP2XAAAH02R262X
25	4-40 UNC Jack screw	MAP3XAAAR02R262X	25	4-40 UNC Hex bolt	MAP3XAAAH02R262X
37	4-40 UNC Jack screw	MAP4XAAAR02R262X	37	4-40 UNC Hex bolt	MAP4XAAAH02R262X
09	M3 Jack screw	MAP1XAAAR01R262X	09	M3 Hex bolt	MAP1XAAAH01R262X
15	M3 Jack screw	MAP2XAAAR01R262X	15	M3 Hex bolt	MAP2XAAAH01R262X
25	M3 Jack screw	MAP3XAAAR01R262X	25	M3 Hex bolt	MAP3XAAAH01R262X
37	M3 Jack screw	MAP4XAAAR01R262X	37	M3 Hex bolt	MAP4XAAAH01R262X

# C-FILTER D-SUB ADAPTER – HIGH DENSITY

Socket connector / Plug connector – Precision machined contacts – Low profile



RoHS compliant – CSA listed, File No.: LR 115000-1 – UL listed, File No.: E202784

## DESCRIPTION

- Mounting style:  
with 4-40 UNC or M3 jack screw
- Quality class 3 (also available in quality class 1)
- Shell: Steel tin plated

## PRODUCT DRAWING

C-Filter design



No. of pos.	A -0.76	B1 -0.25	B2 +0.25	C	D -0.3
15	31.19	16.46	16.79	25.00 <sup>+0.12</sup> <sub>-0.13</sub>	6.10
26	39.52	24.79	25.12	33.30 <sup>+0.15</sup> <sub>-0.10</sub>	6.12
44	53.42	38.50	38.84	47.04 <sup>+0.13</sup>	5.99
62	69.70	54.96	55.30	63.50 <sup>+0.13</sup>	5.99

## ORDER DATA

SOCKET CONNECTOR / PLUG CONNECTOR WITH C-FILTER			SOCKET CONNECTOR / PLUG CONNECTOR WITH C-FILTER		
No. of pos.	Mounting style	Part Number	No. of pos.	Mounting style	Part Number
<b>Capacitance 180 pF</b>					
15	4-40 UNC Jack screw	243A11600X	15	M3 Jack screw	243A11720X
26	4-40 UNC Jack screw	243A11610X	26	M3 Jack screw	243A11730X
44	4-40 UNC Jack screw	243A11620X	44	M3 Jack screw	243A11740X
62	4-40 UNC Jack screw	243A11630X	62	M3 Jack screw	243A11750X
<b>Capacitance 370 pF</b>					
15	4-40 UNC Jack screw	243A11640X	15	M3 Jack screw	243A11760X
26	4-40 UNC Jack screw	243A11650X	26	M3 Jack screw	243A11770X
44	4-40 UNC Jack screw	243A11660X	44	M3 Jack screw	243A11780X
62	4-40 UNC Jack screw	243A11670X	62	M3 Jack screw	243A11790X
<b>Capacitance 830 pF</b>					
15	4-40 UNC Jack screw	243A11680X	15	M3 Jack screw	243A11800X
26	4-40 UNC Jack screw	243A11690X	26	M3 Jack screw	243A11810X
44	4-40 UNC Jack screw	243A11700X	44	M3 Jack screw	243A11820X
62	4-40 UNC Jack screw	243A11710X	62	M3 Jack screw	243A11830X

# LC-FILTER D-SUB ADAPTER – HIGH DENSITY

Socket connector / Plug connector – Precision machined contacts – Low profile



RoHS compliant – CSA listed, File No.: LR 115000-1 – UL listed, File No.: E202784

## DESCRIPTION

- Mounting style:  
with 4-40 UNC or M3 jack screw
- Quality class 3 (also available in quality class 1)
- Shell: Steel tin plated

## PRODUCT DRAWING

LC-Filter design

No. of pos.	A -0.76	B1 -0.25	B2 +0.25	C	D -0.3
15	31.19	16.46	16.79	25.00 <sup>+0.12</sup> <sub>-0.13</sub>	6.10
26	39.52	24.79	25.12	33.30 <sup>+0.15</sup> <sub>-0.10</sub>	6.12
44	53.42	38.50	38.84	47.04 <sup>+0.13</sup>	5.99
62	69.70	54.96	55.30	63.50 <sup>+0.13</sup>	5.99



## ORDER DATA

SOCKET CONNECTOR / PLUG CONNECTOR WITH LC-FILTER			SOCKET CONNECTOR / PLUG CONNECTOR WITH LC-FILTER		
No. of pos.	Mounting style	Part Number	No. of pos.	Mounting style	Part Number
<b>Capacitance 180 pF</b>					
15	4-40 UNC Jack screw	243A13780X	15	M3 Jack screw	243A13900X
26	4-40 UNC Jack screw	243A13790X	26	M3 Jack screw	243A13910X
44	4-40 UNC Jack screw	243A13800X	44	M3 Jack screw	243A13920X
62	4-40 UNC Jack screw	243A13810X	62	M3 Jack screw	243A13930X
<b>Capacitance 370 pF</b>					
15	4-40 UNC Jack screw	243A13820X	15	M3 Jack screw	243A13940X
26	4-40 UNC Jack screw	243A13830X	26	M3 Jack screw	243A13950X
44	4-40 UNC Jack screw	243A13840X	44	M3 Jack screw	243A13960X
62	4-40 UNC Jack screw	243A13850X	62	M3 Jack screw	243A13970X
<b>Capacitance 830 pF</b>					
15	4-40 UNC Jack screw	243A13860X	15	M3 Jack screw	243A13980X
26	4-40 UNC Jack screw	243A13870X	26	M3 Jack screw	243A13990X
44	4-40 UNC Jack screw	243A13880X	44	M3 Jack screw	243A14000X
62	4-40 UNC Jack screw	243A13890X	62	M3 Jack screw	243A14010X

# FILTER D-SUB – ACCESSORIES

## EMI/RFI shielding frames

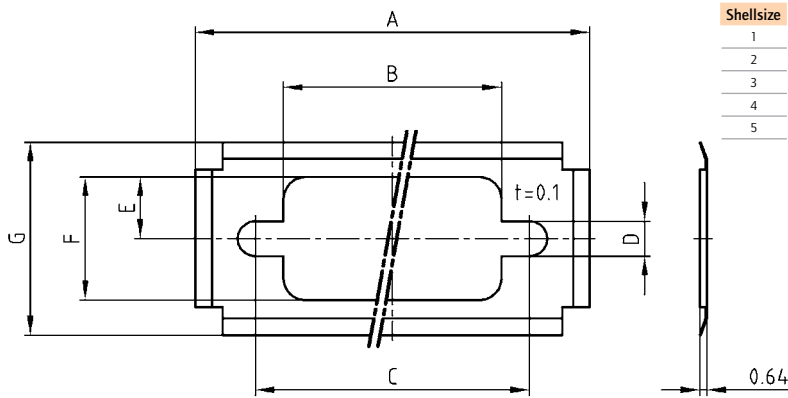


RoHS compliant

### DESCRIPTION

- Material: Stainless steel
- For improved ground contact
- Suitable for assembly to the mating side

### PRODUCT DRAWING



Shellsize	A	B	C	D	E	F	G
1	35.80	19.80	24.90	3.20	5.60	11.20	17.50
2	44.20	28.20	33.30	3.20	5.60	11.20	17.50
3	57.90	41.90	47.00	3.20	5.60	11.20	17.50
4	74.40	58.20	63.50	3.20	5.60	11.20	17.50
5	72.10	53.60	61.20	6.10	7.10	13.90	20.30



### ORDER DATA

SHIELDING FRAME			
Shell size	Standard	High Density	Part Number
1	09	15	160X10839X
2	15	26	160X10849X
3	25	44	160X10859X
4	37	62	160X10869X
5	50	78	160X10879X

# FILTER D-SUB – ACCESSORIES

## Ferrite for Standard and High Density D-SUB



RoHS compliant

### DESCRIPTION

- Ferrite black for use with D-SUB Connectors

### FERRITE FOR STANDARD D-SUB



No. of pos.	A $\pm 0.5$	B $\pm 0.5$	C $\pm 0.10$
09	14.50	7.6	2.75
15	22.65	7.6	2.74
25	36.40	7.6	2.70
37	53.08	7.6	2.80

### FERRITE FOR HIGH DENSITY ANGLED D-SUB



No. of pos.	A $\pm 0.5$	B $\pm 0.5$	C $\pm 0.10$	D $\pm 0.15$
15	14.0	6.9	2.0	0.91
26	22.6	9.5	2.2	3.26

### ORDER DATA

#### FERRITE FOR STANDARD D-SUB

No. of pos.	Part Number
09	240X10019X
15	240X10029X
25	240X10039X
37	240X10049X

#### FERRITE FOR HIGH DENSITY ANGLED D-SUB

No. of pos.	Part Number
15	240X10069X
26	240X10079X

# INSERTION LOSS

## C-FILTER WITH PLANAR FILTER TECHNOLOGY



## C-FILTER WITH CHIP TECHNOLOGY





# INSERTION LOSS

## LC-FILTER WITH PLANAR FILTER TECHNOLOGY



## $\pi$ -FILTER WITH PLANAR FILTER TECHNOLOGY



# MATING CONDITIONS

Float mount tolerance guide



Rigid mount tolerance guide



Rigid mount vertical to tolerance guide



## PANEL CUT-OUT

Rear panel mounting



Front panel mounting

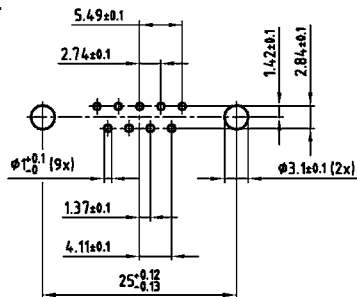


Shell size	A ± 0,13	B ± 0,13	C ± 0,13	D ± 0,13	E ± 0,13
9 15	20.50	22.20	25.00	11.40	13.00
15 26	28.80	30.50	33.30	11.40	13.00
25 44	42.50	44.30	47.04	11.40	13.00
37 62	59.10	60.70	63.50	11.40	13.00
50 78	56.30	58.30	61.10	14.10	15.80

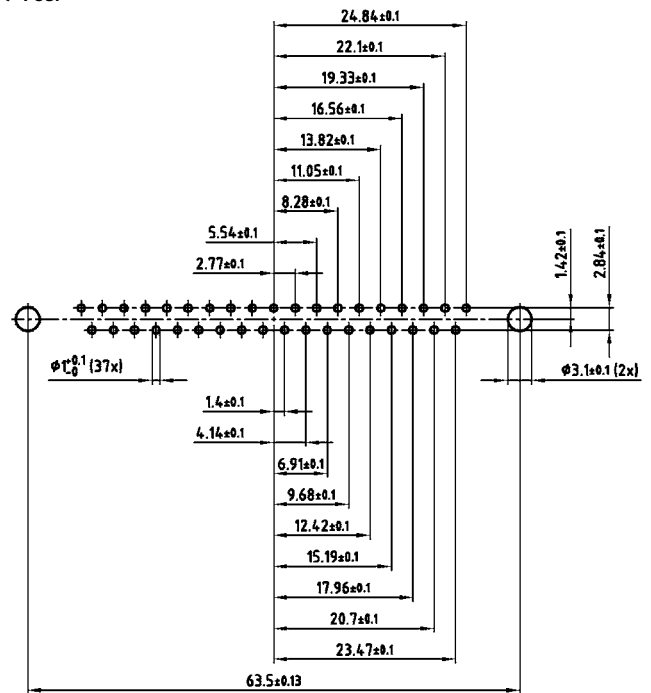
# PCB LAYOUT D-SUB STANDARD

Solder pin, straight – Plug and Socket connector

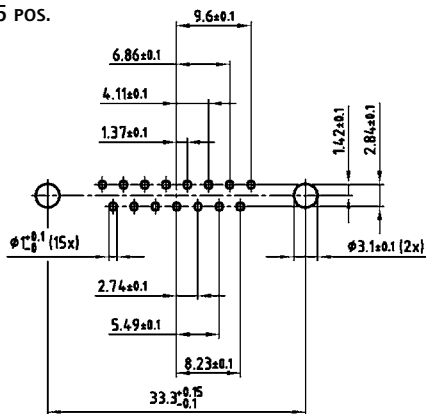
9 POS.



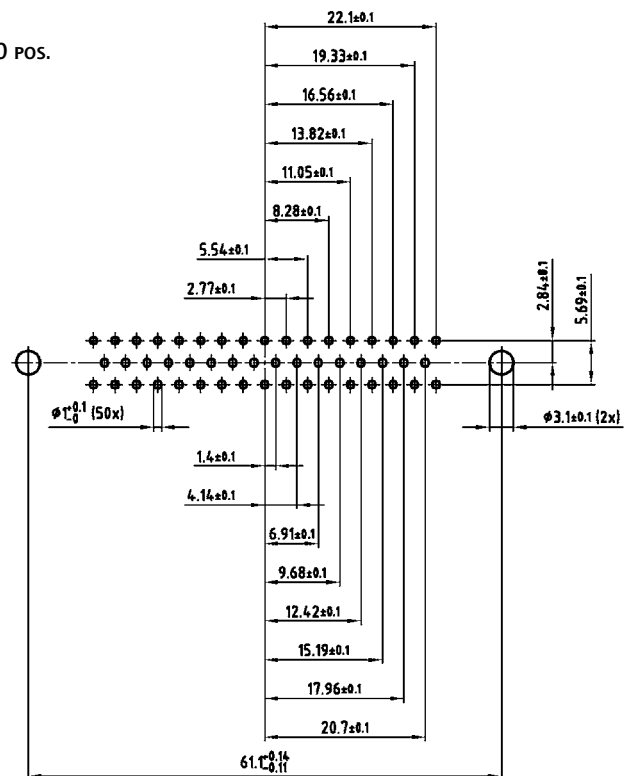
37 POS.



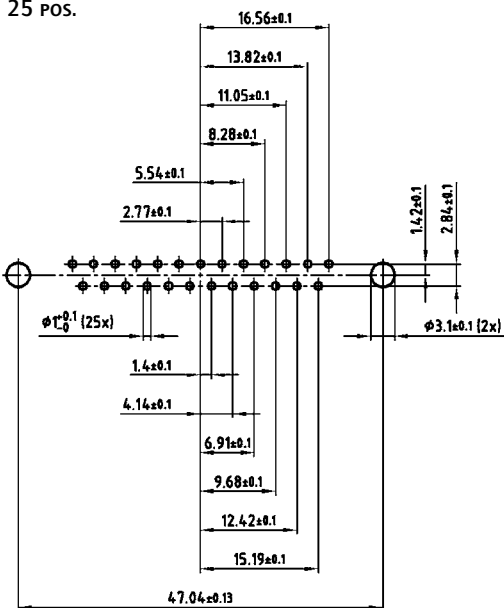
15 POS.



50 POS.



25 POS.



PCB layout Kat1 kFUA (View: component side)

# PCB LAYOUT D-SUB STANDARD

Solder pin, angled, .318" / 7.19 mm – Socket connector

9 POS.



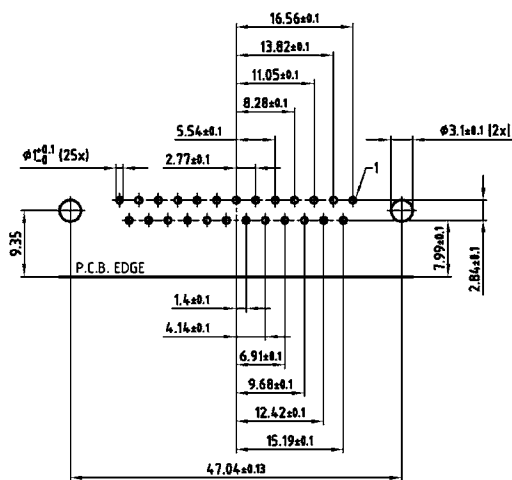
37 POS.



15 POS.



25 POS.



50 POS.



# PCB LAYOUT D-SUB STANDARD

Solder pin, angled, .318" / 7.19 mm – Plug connector

9 POS.



37 POS.



15 POS.



50 POS.



25 POS.



PCB layout Kat1 kgFA (View: component side)



# PCB LAYOUT D-SUB STANDARD

Solder pin, angled, .370" / 9.4 mm – Plug connector

9 POS.



37 POS.



15 POS.



50 POS.



25 POS.



# PCB LAYOUT D-SUB STANDARD

Solder pin, angled, .590" / 14.19 mm – Socket connector

9 pos.



25 pos.



15 pos.



37 pos.



PCB layout Kat1 kGIA (View: component side)



# PCB LAYOUT D-SUB STANDARD

Solder pin, angled, .590" / 14.19 mm – Plug connector

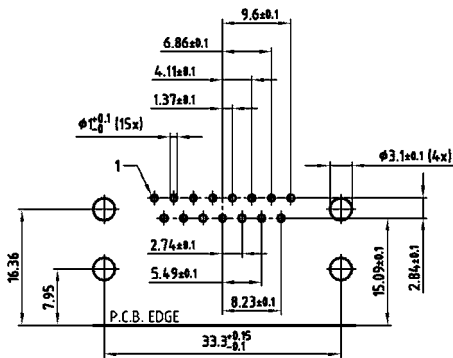
9 pos.



25 pos.



15 pos.



37 pos.



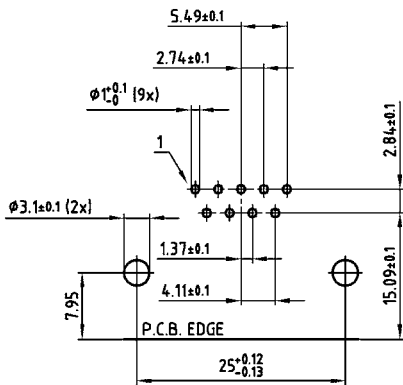
PCB layout Kat1 kGJA (View: component side)



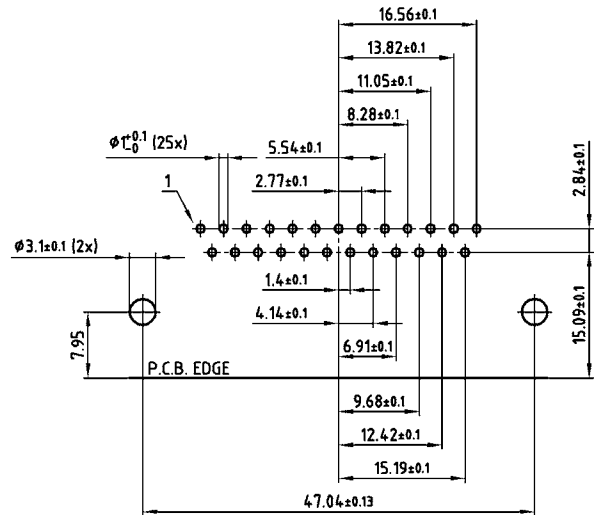
# PCB LAYOUT D-SUB STANDARD

Solder pin, angled, .590" / 14.19 mm – Short metal bracket – Plug connector

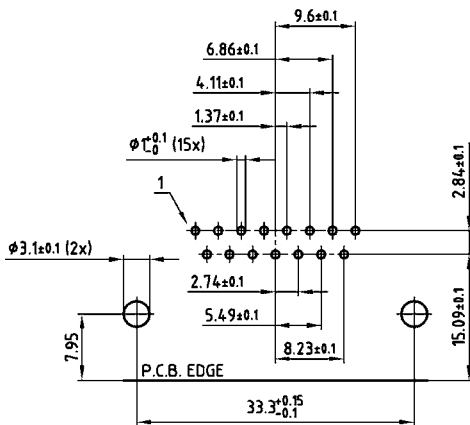
9 POS.



25 POS.



15 POS.



37 POS.



PCB layout Kat1 kGYA (View: component side)

# PCB LAYOUT D-SUB STANDARD

Dual port style – Socket connector bottom

2x9 POS.



2x25 POS.



2x15 POS.



2x37 POS.



PCB layout Kat1iU6A (View: component side)

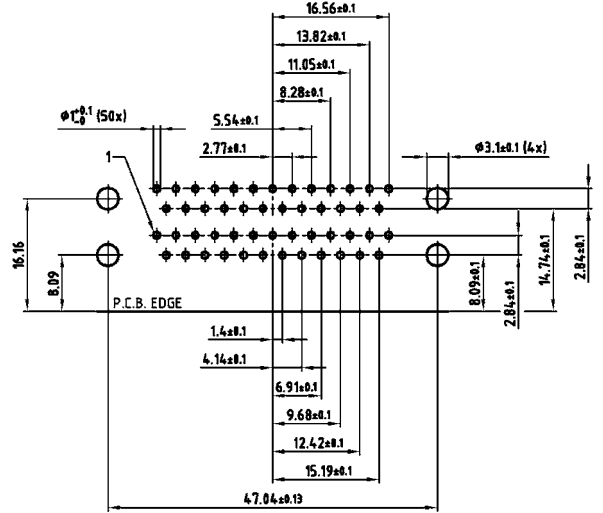
# PCB LAYOUT D-SUB STANDARD

Dual port style – Plug connector bottom

2x9 Pos.



2x25 Pos.



2x15 Pos.



2x37 Pos.



PCB layout Kat1iU5A (View: component side)

# PCB LAYOUT D-SUB HIGH DENSITY

Solder pin, straight – Socket connector

15 POS.



62 POS.



26 POS.



78 POS.



44 POS.



PCB layout Kat1iT9A (View: component side)

# PCB LAYOUT D-SUB HIGH DENSITY

Solder pin, straight – Plug connector

15 POS.



62 POS.



26 POS.



78 POS.



44 POS.



PCB layout Kat1iU0A (View: component side)

# PCB LAYOUT D-SUB HIGH DENSITY

Solder pin, angled .350" / 7.98 mm – Socket connector

15 pos.



62 pos.



26 pos.



78 pos.



44 pos.



PCB layout Kat1iU1A (View: component side)



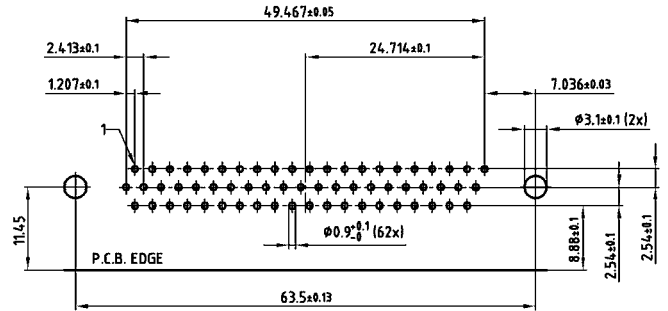
# PCB LAYOUT D-SUB HIGH DENSITY

Solder pin, angled .350" / 7.98 mm – Plug connector

15 POS.



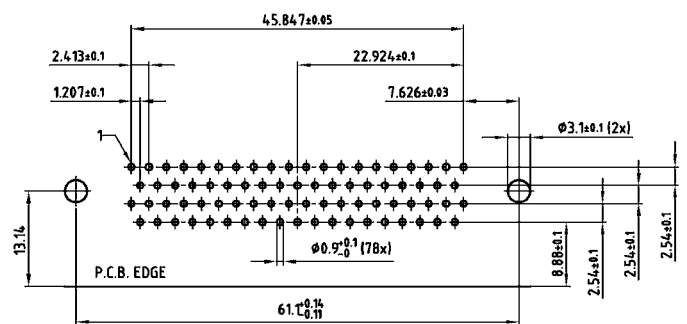
62 POS.



26 POS.



78 POS.



44 POS.



PCB layout Kat1iU2A (View: component side)

# C- AND $\pi$ -FILTER PLATES

CONEC EMI filter plates are used in modules or systems where the transmission of clean, interference-free signals is a top priority. Filter plates are simple to install, they are either mounted directly on the enclosure or even directly onto the PC board. Mounting holes are provided to fasten the filter plate with screws or rivets.

Each contact on the filter plate can be specified for a C- or  $\pi$ -filter to achieve ideal adaptation to the requirements of the given application. Various different filter capacitance values are available. Aside from standard filter values, a myriad of other filter capacitances can be realized and a single filter plate can also be populated with a mix of different capacitance values. The following pages provide a small overview of standard configurations.

The additional configuration please contact factory.



# PART NUMBER CREATOR

CFP 1 B 2 0 8 C 101 1 X

**Product line**

**Lead spacing configuration**

- 1 = Lead spacing .100" / 2.54 mm
- 2 = Lead spacing .079" / 2.00 mm (only in C-Filter available)

**Base plate size**

- A = 1.060" / 26.92 mm x = .500" / 12.70 mm
- B = 1.560" / 39.62 mm x = .500" / 12.70 mm
- C = 2.560" / 65.02 mm x = .500" / 12.70 mm
- D = 3.560" / 90.42 mm x = .500" / 12.70 mm

**Number of rows**

- 1 = Single row (bottom row)
- 2 = Double rows

**Number of filter per row**

.100" / 2.54 mm lead spacing	.079" / 2.00 mm lead spacing
Plate size A: 01.....05	Plate size A: 02.....06
Plate size B: 01.....10	Plate size B: 03.....12
Plate size C: 01.....20	Plate size C: 10.....25
Plate size D: 13.....30	Plate size D: 20.....37

**Filter circuits**

- C = C-Filter
- P =  $\pi$ -Filter

**Capacitance**

C-Filter	$\pi$ -Filter
680 = 0068pF ± 20%	680 = 0068pF ± 20%
101 = 0100pF ± 20%	101 = 0100pF ± 20%
141 = 0140pF + 100/-0%	141 = 0140pF + 100/-0%
471 = 0470pF ± 20%	471 = 0470pF ± 20%
821 = 0820pF ± 20%	821 = 0820pF ± 20%
102 = 1000pF ± 20%	102 = 1000pF ± 20%
152 = 1500pF ± 20%	172 = 1700pF + 100/-0%
252 = 2500pF + 100/-0%	252 = 2500pF + 100/-0%
402 = 4000pF + 100/-0%	502 = 5000pF + 100/-0%

**Termination**

- 1 = Round contact straight
- 2 = Round contact 90° left
- 3 = Round contact 90° right
- 4 = Round contact 90° both
- 5 = Square contacts straight (only with .100" / 2.54 mm lead spacing available)

- X = Standard

## OVERVIEW C- AND $\pi$ -FILTER PLATES



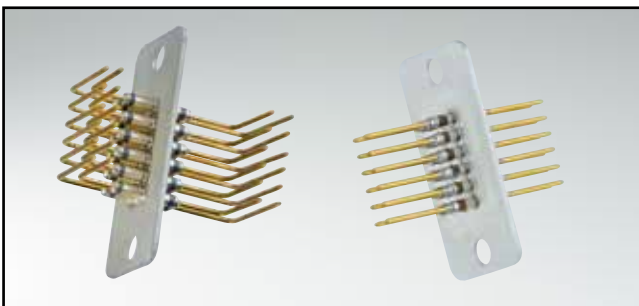
### DESCRIPTION

- C- or  $\pi$ -Filter Plates lead spacing .100"/2.54 mm, 1-row
- Round contact  $\varnothing$  .025"/0.64 mm
- Number of positions: 1-21 filter contacts
- Designs:
  - straight
  - 90° left
  - 90° right
  - 90° both
- Diverse filter capacitance



### DESCRIPTION

- C- or  $\pi$ -Filter Plates lead spacing .100"/2.54 mm, 1-row
- Square end pin .025"/0,64 x .025"/0,64 mm
- Number of positions: 1-21 filter contacts
- Design: Straight
- Diverse filter capacitance



### DESCRIPTION

- C- or  $\pi$ -Filter Plates lead spacing .100"/2.54 mm, 2-row
- Round contact  $\varnothing$  .025"/0.64 mm
- Number of positions: 2-42 filter contacts
- Designs:
  - straight
  - 90° left
  - 90° right
  - 90° both
- Diverse filter capacitance

## OVERVIEW C- AND $\pi$ -FILTER PLATES



### DESCRIPTION

- C- or  $\pi$ -Filter Plates lead spacing .100"/2.54 mm, 2-row
- Square end pin .025"/0,64 x .025"/0,64 mm
- Number of positions: 2-42 filter contacts
- Design: Straight
- Diverse filter capacitance



### DESCRIPTION

- C- or  $\pi$ -Filter Plates lead spacing .079"/2.00 mm, 1-row
- Round contact  $\varnothing$  .020"/0.51 mm
- Number of positions: 2-28 filter contacts
- Designs:
  - straight
  - 90° left
  - 90° right
  - 90° both
- Diverse filter capacitance



### DESCRIPTION

- C- or  $\pi$ -Filter Plates lead spacing .079"/2.00 mm, 2-row
- Round contact  $\varnothing$  .020"/0.51 mm
- Number of positions: 4-56 filter contacts
- Designs:
  - straight
  - 90° left
  - 90° right
  - 90° both
- Diverse filter capacitance

## SECTION 4

# FILTER COMBINATION D-SUB CONNECTORS

In addition to our filtered connectors such as standard and High Density, D-SUB, CONEC has developed the Combination D-SUB Filter connector product family.

The low pass filters connect each contact through a capacitor to the connector housing.

Filtered D-SUB Connectors used in I/O applications for power in or power out where EMI/RFI problems can occur, are the right solution for those type of occurrences.

Filter capacitance can be selected for specific applications.





Thus if undesirable high-frequency noise should occur in the environment or inside the device itself, the appropriately selected interface connector, fitted with filters, is able to suppress the noise directly at the interface.

Such connectors, for example, can also reliably eliminate the noise frequencies generated by the power supply's own switching operation. The filters employed in these power connectors meet today's safety requirements for surge and DC dielectric strength. Filter connectors in the CONEC product line offer dielectric strength ratings up to 1500 VDC.



# PART NUMBER CREATOR

**3 F 3 S P A 0 8 S 4 1 A 1 O X**

**Variations**

2W2C = Coded  
 3W3S = Standard  
 3W3C = Coded  
 5W5S = Standard  
 8W8S = standard (Replace the letter „W“ with letter „F“ = Filtered version)

**Contact type**

P = Plug connector  
 S = Socket connector

**Plaiting code/Quality class for contacts**

A = Quality class 3 =50 mating cycles  
 C = Quality class 1 =500 mating cycles\* \*on request

**Capacitance**

05 = 1.3 nF      14 = 12 nF  
 08 = 5,0 nF      22 = 47 nF  
 12 = 10 nF      28 = 100 nF

**Dielectric with standing voltage**

S = 707 VDC standard DWV      U = 1500 VDC ultra high DWV  
 H = 1020 VDC high DWV

**Termination for high current contacts**

41 = Solder cup 10 A  
 42 = Solder cup 20 A  
 43 = Solder cup 30 A  
 44 = Solder cup 40 A  
 45 = Solder cup 50 A  
 46 = Solder cup 65 A\*  
 48 = Solder pin, straight 20 A, D= .077"/1.95 mm  
 49 = Solder pin, straight 20 A, D= .102"/2.60 mm  
 50 = Solder pin, straight 20 A, D= .112"/2.85 mm  
 51 = Solder pin, straight 30 A, D= .125"/3.18 mm  
 52 = Solder pin, straight 40 A, D= .148"/3.75 mm  
 53 = Solder pin, straight 50 A, D= .148"/3.75 mm  
 56 = Solder pin, angled 20 A  
 57 = Solder pin, angled 30 A  
 58 = Solder pin, angled 40 A  
 P1 = Press fit 30 A  
 P2 = Press fit 30 A  
 P4 = Press fit 30 A  
 \*3W3: Pos. A1 + A3; 5W5: Pos. A1 + A3 + A5

**Mounting style**

A1 = Riveted  
 A2 = M3 threaded insert  
 A3 = 4-40 UNC threaded insert  
 A4 = M3 threaded rear spacer  
 A5 = 4-40 UNC threaded rear spacer  
 A9 = Threaded rear spacer with M3 press fit  
 AA = Threaded rear spacer with 4-40 UNC press fit  
 C1 = M3 threaded rear spacer with PCB clip, PCB .063"/1.60 mm  
 C2 = 4-40 UNC threaded rear spacer with PCB clip, PCB .063"/1.60 mm  
 C3 = M3 threaded rear spacer with PCB clip, PCB .091"/2.30 mm  
 C4 = 4-40 UNC threaded rear spacer with PCB clip, PCB .091"/2.30 mm  
 C5 = M3 threaded rear spacer with PCB clip, PCB .126"/3.20 mm  
 C6 = 4-40 UNC threaded rear spacer with PCB clip, PCB .126"/3.20 mm  
 D1 = M3 front/threaded rear spacer with PCB clip, PCB .063"/1.60 mm  
 D2 = 4-40 UNC front/threaded rear spacer with PCB clip, PCB .063"/1.60 mm  
 D3 = M3 front/threaded rear spacer with PCB clip, PCB .091"/2.30 mm  
 D4 = 4-40 UNC front/threaded rear spacer with PCB clip .091"/2.30 mm  
 D5 = M3 front/threaded rear spacer with PCB clip, PCB .126"/3.20 mm  
 D6 = 4-40 UNC front/threaded rear spacer with PCB clip, PCB .126"/3.20 mm  
 E1 = M3 front/threaded rear spacer with PCB clip, PCB .063"/1.60 mm  
 E2 = 4-40 UNC threaded rear spacer with PCB clip, PCB .063"/1.60 mm  
 E3 = M3 threaded rear spacer with PCB clip, PCB .091"/2.30 mm  
 E4 = 4-40 UNC threaded rear spacer with PCB clip, PCB .091"/2.30 mm  
 E5 = M3 threaded rear spacer with PCB clip, PCB .126"/3.20 mm  
 E6 = 4-40 UNC threaded rear spacer with PCB clip, PCB .126"/3.20 mm  
 F1 = M3 front/threaded rear spacer with PCB clip, PCB .063"/1.60 mm  
 F2 = 4-40 UNC front/threaded rear spacer with PCB clip, PCB .063"/1.60 mm  
 F3 = M3 front/threaded rear spacer with PCB clip, PCB .091"/2.30 mm  
 F4 = 4-40 UNC front/threaded rear spacer with PCB clip, PCB .091"/2.30 mm  
 F5 = M3 front/threaded rear spacer with PCB clip, PCB .126"/3.20 mm  
 F6 = 4-40 UNC front/threaded rear spacer with PCB clip, PCB .126"/3.20 mm  
 K1 = Metal bracket, M3 threaded insert  
 K2 = Metal bracket, 4-40 UNC threaded insert  
 K3 = Metal bracket, M3 threaded insert /PCB clip  
 K4 = Metal bracket, 4-40 UNC threaded insert /PCB clip  
 L1 = Metal bracket, M3 threaded lock  
 L2 = Metal bracket, 4-40 UNC threaded lock  
 L3 = Metal bracket, M3 threaded lock /PCB clip  
 L4 = Metal bracket, 4-40 UNC threaded lock /PCB clip  
 W3 = Press-fit spacer with M3 push in pin  
 W4 = Press-fit spacer with 4-40 UNC push in pin

OX = Standard



# TECHNICAL DATA

<b>Materiala</b>	<b>Variations</b> 2W2C – 3W3C – 3W3 – 5W5 – 8W8		
<b>Insulator</b>	Polyester GF UL94 V0		
<b>Contacts</b>	CU alloy		
<b>Contact plating</b>	Mating area gold plated over nickel / termination area tin or gold plated		
<b>Shell</b>	Steel tin plated		
<b>Mechanical and electrical characteristics</b>			
<b>Test voltage U eff/NM</b>	1000 V		
<b>Dielectric with standing voltage</b>	Standard DWV 707 VDC/high DWV 1020 VDC / ultra high DWV 1500 VDC		
<b>Working voltage</b>	100 VDC Depending on isolation coordination (refer to DIN VDE 0110/IEC 664-1)		
<b>Contact resistance</b>	Max. 2 mΩ prior to stressing, Δ R max. 2 mΩ after stressing per DIN 41652, Part 2		
<b>Insulation resistance</b>	≥1 GΩ at 100 VDC		
<b>Current rating</b>	up to 65 A (20°C)		
<b>Temperature storage range</b>	-55°C to + 125°C		
<b>Temperature working range</b>	-55°C to + 125°C		
<b>Humidity</b>	40°C / 85% relative humidity / RH		
<b>Capacitor values</b> For other capacitance values please contact the factory.	1.3 nF ± 20% tolerance		12 nF ± 20% tolerance
	5 nF ± 20% tolerance		47 nF ± 20% tolerance
	10 nF ± 20% tolerance		100 nF ± 20% tolerance
<b>Quality class</b>	A = Quality class 3 = 50 mating cycles C = Quality class 1 = 500 mating cycles		
<b>Solder parameter</b>	<b>Preheating</b>		<b>Solder terminal dipping parameters</b>
<b>Recommended wave-solder parameters</b>	max. Temperature	Duration	max. solder bath Temperature   max. Terminal Immersion Time
	120°C	120s	260°C   5s

Technical specifications are subject to change without notice.

# INSERTION LOSS

## C-FILTER



### PANEL CUT-OUT

#### Rear panel mounting



#### Front panel mounting



Shell size	A ± 0.1	B ± 0.1	C ± 0.1	D ± 0.1	E ± 0.1
9	20.50	20.90	25.00	11.40	13.00
15	28.80	29.20	33.30	11.40	13.00
25	42.50	42.90	47.04	11.40	13.00
37	59.10	59.40	63.50	11.40	13.00
50	56.30	57.00	61.10	14.10	15.80

# C-FILTER COMBINATION D-SUB 2W2C

Solder cup – Precision machined contacts – For wire size AWG 8...20



RoHS compliant – UL listed, File No.: E228329

## DESCRIPTION

- Coding design = 1 Plug and 1 socket contact
- 707 VDC (other DWV on request)
- Mounting styles:
  - with through-hole, Ø .118"/3 mm
  - with 4-40 UNC or M3 threaded insert
- Quality class 3 (also available in quality class 1)
- Shell: Steel tin plated

## SOCKET CONNECTOR



Termination Code	Current Rating	Wire Size	Ø A
41	10A	AWG 16-20	1.80
42	20A	AWG 12-14	2.70
43	30A	AWG 10-12	3.50
44	40A	AWG 8-10	4.80

Mounting style: Through-hole



Mounting style: Threaded insert



## PLUG CONNECTOR



Mounting style: Through-hole



Mounting style: Threaded insert



## ORDER DATA

SOCKET CONNECTOR				
Type	Mounting style	AWG	Capacitance	Part Number
2W2C	Through-hole	16...20	47 nF	2F2CSA 22 S41A10X
2W2C	Through-hole	12...14	47 nF	2F2CSA 22 S42A10X
2W2C	Through-hole	10...12	47 nF	2F2CSA 22 S43A10X
2W2C	Through-hole	8...10	47 nF	2F2CSA 22 S44A10X
2W2C	4-40 UNC Threaded insert	16...20	47 nF	2F2CSA 22 S41A30X
2W2C	4-40 UNC Threaded insert	12...14	47 nF	2F2CSA 22 S42A30X
2W2C	4-40 UNC Threaded insert	10...12	47 nF	2F2CSA 22 S43A30X
2W2C	4-40 UNC Threaded insert	8...10	47 nF	2F2CSA 22 S44A30X
2W2C	M3 Threaded insert	16...20	47 nF	2F2CSA 22 S41A20X
2W2C	M3 Threaded insert	12...14	47 nF	2F2CSA 22 S42A20X
2W2C	M3 Threaded insert	10...12	47 nF	2F2CSA 22 S43A20X
2W2C	M3 Threaded insert	8...10	47 nF	2F2CSA 22 S44A20X

PLUG CONNECTOR				
Type	Mounting style	AWG	Capacitance	Part Number
2W2C	Through-hole	16...20	47 nF	2F2CPA 22 S41A10X
2W2C	Through-hole	12...14	47 nF	2F2CPA 22 S42A10X
2W2C	Through-hole	10...12	47 nF	2F2CPA 22 S43A10X
2W2C	Through-hole	8...10	47 nF	2F2CPA 22 S44A10X
2W2C	4-40 UNC Threaded insert	16...20	47 nF	2F2CPA 22 S41A30X
2W2C	4-40 UNC Threaded insert	12...14	47 nF	2F2CPA 22 S42A30X
2W2C	4-40 UNC Threaded insert	10...12	47 nF	2F2CPA 22 S43A30X
2W2C	4-40 UNC Threaded insert	8...10	47 nF	2F2CPA 22 S44A30X
2W2C	M3 Threaded insert	16...20	47 nF	2F2CPA 22 S41A20X
2W2C	M3 Threaded insert	12...14	47 nF	2F2CPA 22 S42A20X
2W2C	M3 Threaded insert	10...12	47 nF	2F2CPA 22 S43A20X
2W2C	M3 Threaded insert	8...10	47 nF	2F2CPA 22 S44A20X

For other capacitance values refer to the part number creator.

Capacitance value	Code
100 nF	28
47 nF	22
12 nF	14
10 nF	12
5 nF	08
1.3 nF	05

# C-FILTER COMBINATION D-SUB 3W3

Solder cup – Precision machined contacts – For wire size AWG 8...20



RoHS compliant – UL listed, File No.: E228329

## DESCRIPTION

- 707 VDC (other DWV on request)
- Mounting styles:
  - with through-hole,  $\varnothing$  .118" / 3 mm
  - with 4-40 UNC or M3 threaded insert
- Quality class 3 (also available in quality class 1)
- Shell: Steel tin plated

## SOCKET CONNECTOR



Termination Code	Current Rating	Wire Size	Ø A
41	10A	AWG 16-20	1.80
42	20A	AWG 12-14	2.70
43	30A	AWG 10-12	3.50
44	40A	AWG 8-10	4.80

Mounting style: Through-hole



Mounting style: Threaded insert



## PLUG CONNECTOR



Mounting style: Through-hole



Mounting style: Threaded insert



## ORDER DATA

SOCKET CONNECTOR				
Type	Mounting style	AWG	Capacitance	Part Number
3W3	Through-hole	16...20	47 nF	3F3SSA 22 S41A10X
3W3	Through-hole	12...14	47 nF	3F3SSA 22 S42A10X
3W3	Through-hole	10...12	47 nF	3F3SSA 22 S43A10X
3W3	Through-hole	8...10	47 nF	3F3SSA 22 S44A10X
3W3	4-40 UNC Threaded insert	16...20	47 nF	3F3SSA 22 S41A30X
3W3	4-40 UNC Threaded insert	12...14	47 nF	3F3SSA 22 S42A30X
3W3	4-40 UNC Threaded insert	10...12	47 nF	3F3SSA 22 S43A30X
3W3	4-40 UNC Threaded insert	8...10	47 nF	3F3SSA 22 S44A30X
3W3	M3 Threaded insert	16...20	47 nF	3F3SSA 22 S41A20X
3W3	M3 Threaded insert	12...14	47 nF	3F3SSA 22 S42A20X
3W3	M3 Threaded insert	10...12	47 nF	3F3SSA 22 S43A20X
3W3	M3 Threaded insert	8...10	47 nF	3F3SSA 22 S44A20X

PLUG CONNECTOR				
Type	Mounting style	AWG	Capacitance	Part Number
3W3	Through-hole	16...20	47 nF	3F3SPA 22 S41A10X
3W3	Through-hole	12...14	47 nF	3F3SPA 22 S42A10X
3W3	Through-hole	10...12	47 nF	3F3SPA 22 S43A10X
3W3	Through-hole	8...10	47 nF	3F3SPA 22 S44A10X
3W3	4-40 UNC Threaded insert	16...20	47 nF	3F3SPA 22 S41A30X
3W3	4-40 UNC Threaded insert	12...14	47 nF	3F3SPA 22 S42A30X
3W3	4-40 UNC Threaded insert	10...12	47 nF	3F3SPA 22 S43A30X
3W3	4-40 UNC Threaded insert	8...10	47 nF	3F3SPA 22 S44A30X
3W3	M3 Threaded insert	16...20	47 nF	3F3SPA 22 S41A20X
3W3	M3 Threaded insert	12...14	47 nF	3F3SPA 22 S42A20X
3W3	M3 Threaded insert	10...12	47 nF	3F3SPA 22 S43A20X
3W3	M3 Threaded insert	8...10	47 nF	3F3SPA 22 S44A20X

For other capacitance values refer to the part number creator.

Capacitance value	Code
100 nF	28
47 nF	22
12 nF	14
10 nF	12
5 nF	08
1.3 nF	05

# C-FILTER COMBINATION D-SUB 3W3C

Solder cup – Precision machined contacts – For wire size AWG 8...20

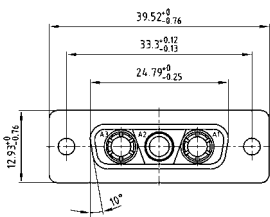


RoHS compliant – UL listed, File No.: E228329

## DESCRIPTION

- Coded socket connector = 1 Plug and 2 Socket contacts
- Coded plug connector = 2 Plugs and 1 Socket contact
- 707 VDC (other DWV on request)
- Mounting styles:
  - with through-hole,  $\varnothing$  .118"/3 mm
  - with 4-40 UNC or M3 threaded insert
- Quality class 3 (also available in quality class 1)
- Shell: Steel tin plated

## SOCKET CONNECTOR



Termination Code	Current Rating	Wire Size	Ø A
41	10A	AWG 16-20	1.80
42	20A	AWG 12-14	2.70
43	30A	AWG 10-12	3.50
44	40A	AWG 8-10	4.80

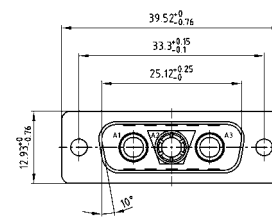
Mounting style: Through-hole



Mounting style: Threaded insert



## PLUG CONNECTOR



Mounting style: Through-hole



Mounting style: Threaded insert



## ORDER DATA

SOCKET CONNECTOR				
Type	Mounting style	AWG	Capacitance	Part Number
3W3C	Through-hole	16...20	47 nF	3F3CSA 22 S41A10X
3W3C	Through-hole	12...14	47 nF	3F3CSA 22 S42A10X
3W3C	Through-hole	10...12	47 nF	3F3CSA 22 S43A10X
3W3C	Through-hole	8...10	47 nF	3F3CSA 22 S44A10X
3W3C	4-40 UNC Threaded insert	16...20	47 nF	3F3CSA 22 S41A30X
3W3C	4-40 UNC Threaded insert	12...14	47 nF	3F3CSA 22 S42A30X
3W3C	4-40 UNC Threaded insert	10...12	47 nF	3F3CSA 22 S43A30X
3W3C	4-40 UNC Threaded insert	8...10	47 nF	3F3CSA 22 S44A30X
3W3C	M3 Threaded insert	16...20	47 nF	3F3CSA 22 S41A20X
3W3C	M3 Threaded insert	12...14	47 nF	3F3CSA 22 S42A20X
3W3C	M3 Threaded insert	10...12	47 nF	3F3CSA 22 S43A20X
3W3C	M3 Threaded insert	8...10	47 nF	3F3CSA 22 S44A20X

PLUG CONNECTOR				
Type	Mounting style	AWG	Capacitance	Part Number
3W3C	Through-hole	16...20	47 nF	3F3CPA 22 S41A10X
3W3C	Through-hole	12...14	47 nF	3F3CPA 22 S42A10X
3W3C	Through-hole	10...12	47 nF	3F3CPA 22 S43A10X
3W3C	Through-hole	8...10	47 nF	3F3CPA 22 S44A10X
3W3C	4-40 UNC Threaded insert	16...20	47 nF	3F3CPA 22 S41A30X
3W3C	4-40 UNC Threaded insert	12...14	47 nF	3F3CPA 22 S42A30X
3W3C	4-40 UNC Threaded insert	10...12	47 nF	3F3CPA 22 S43A30X
3W3C	4-40 UNC Threaded insert	8...10	47 nF	3F3CPA 22 S44A30X
3W3C	M3 Threaded insert	16...20	47 nF	3F3CPA 22 S41A20X
3W3C	M3 Threaded insert	12...14	47 nF	3F3CPA 22 S42A20X
3W3C	M3 Threaded insert	10...12	47 nF	3F3CPA 22 S43A20X
3W3C	M3 Threaded insert	8...10	47 nF	3F3CPA 22 S44A20X

For other capacitance values refer to the part number creator.

Capacitance value	Code
100 nF	28
47 nF	22
12 nF	14
10 nF	12
5 nF	08
1.3 nF	05

# C-FILTER COMBINATION D-SUB 5W5

Solder cup – Precision machined contacts – For wire size AWG 8...20



RoHS compliant – UL listed, File No.: E228329

## DESCRIPTION

- 707 VDC (other DWV on request)
- Mounting styles:
  - with through-hole,  $\varnothing$  .118"/3 mm
  - with 4-40 UNC or M3 threaded insert
- Quality class 3 (also available in quality class 1)
- Shell: Steel tin plated

## SOCKET CONNECTOR



Termination Code	Current Rating	Wire Size	Ø A
41	10A	AWG 16-20	1.80
42	20A	AWG 12-14	2.70
43	30A	AWG 10-12	3.50
44	40A	AWG 8-10	4.80

Mounting style: Through-hole



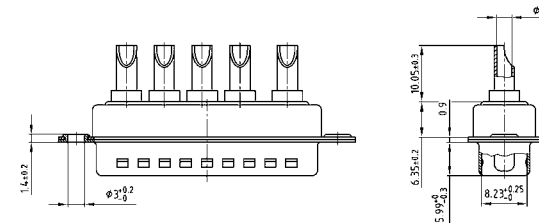
Mounting style: Threaded insert



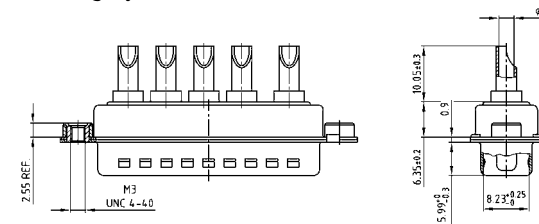
## PLUG CONNECTOR



Mounting style: Through-hole



Mounting style: Threaded insert



## ORDER DATA

SOCKET CONNECTOR				
Type	Mounting style	AWG	Capacitance	Part Number
5W5	Through-hole	16...20	47 nF	5F5SSA 22 S41A10X
5W5	Through-hole	12...14	47 nF	5F5SSA 22 S42A10X
5W5	Through-hole	10...12	47 nF	5F5SSA 22 S43A10X
5W5	Through-hole	8...10	47 nF	5F5SSA 22 S44A10X
5W5	4-40 UNC Threaded insert	16...20	47 nF	5F5SSA 22 S41A30X
5W5	4-40 UNC Threaded insert	12...14	47 nF	5F5SSA 22 S42A30X
5W5	4-40 UNC Threaded insert	10...12	47 nF	5F5SSA 22 S43A30X
5W5	4-40 UNC Threaded insert	8...10	47 nF	5F5SSA 22 S44A30X
5W5	M3 Threaded insert	16...20	47 nF	5F5SSA 22 S41A20X
5W5	M3 Threaded insert	12...14	47 nF	5F5SSA 22 S42A20X
5W5	M3 Threaded insert	10...12	47 nF	5F5SSA 22 S43A20X
5W5	M3 Threaded insert	8...10	47 nF	5F5SSA 22 S44A20X

PLUG CONNECTOR				
Type	Mounting style	AWG	Capacitance	Part Number
5W5	Through-hole	16...20	47 nF	5F5SPA 22 S41A10X
5W5	Through-hole	12...14	47 nF	5F5SPA 22 S42A10X
5W5	Through-hole	10...12	47 nF	5F5SPA 22 S43A10X
5W5	Through-hole	8...10	47 nF	5F5SPA 22 S44A10X
5W5	4-40 UNC Threaded insert	16...20	47 nF	5F5SPA 22 S41A30X
5W5	4-40 UNC Threaded insert	12...14	47 nF	5F5SPA 22 S42A30X
5W5	4-40 UNC Threaded insert	10...12	47 nF	5F5SPA 22 S43A30X
5W5	4-40 UNC Threaded insert	8...10	47 nF	5F5SPA 22 S44A30X
5W5	M3 Threaded insert	16...20	47 nF	5F5SPA 22 S41A20X
5W5	M3 Threaded insert	12...14	47 nF	5F5SPA 22 S42A20X
5W5	M3 Threaded insert	10...12	47 nF	5F5SPA 22 S43A20X
5W5	M3 Threaded insert	8...10	47 nF	5F5SPA 22 S44A20X

For other capacitance values refer to the part number creator.

Capacitance value	Code
100 nF	28
47 nF	22
12 nF	14
10 nF	12
5 nF	08
1.3 nF	05

# C-FILTER COMBINATION D-SUB 8W8

Solder cup – Precision machined contacts – For wire size AWG 8...20

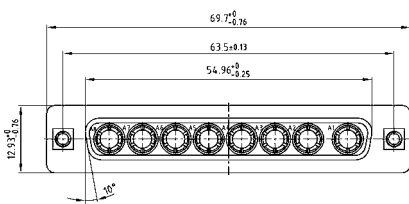


RoHS compliant – UL listed, File No.: E228329

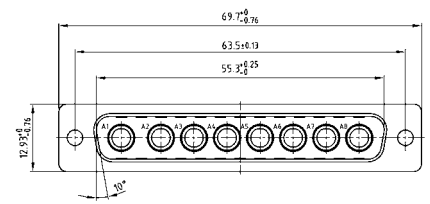
## DESCRIPTION

- 707 VDC (other DWV on request)
- Mounting styles:
  - with through-hole,  $\varnothing .118"/3 \text{ mm}$
  - with 4-40 UNC or M3 threaded insert
- Quality class 3 (also available in quality class 1)
- Shell: Steel tin plated

## SOCKET CONNECTOR



Termination Code	Current Rating	Wire Size	Ø A
41	10A	AWG 16-20	1.80
42	20A	AWG 12-14	2.70
43	30A	AWG 10-12	3.50
44	40A	AWG 8-10	4.80



Mounting style: Through-hole



Mounting style: Through-hole



Mounting style: Threaded insert



Mounting style: Threaded insert



## ORDER DATA

SOCKET CONNECTOR				
Type	Mounting style	AWG	Capacitance	Part Number
8W8	Through-hole	16...20	47 nF	8F8SSA 22 S41A10X
8W8	Through-hole	12...14	47 nF	8F8SSA 22 S42A10X
8W8	Through-hole	10...12	47 nF	8F8SSA 22 S43A10X
8W8	Through-hole	8...10	47 nF	8F8SSA 22 S44A10X
8W8	4-40 UNC Threaded insert	16...20	47 nF	8F8SSA 22 S41A30X
8W8	4-40 UNC Threaded insert	12...14	47 nF	8F8SSA 22 S42A30X
8W8	4-40 UNC Threaded insert	10...12	47 nF	8F8SSA 22 S43A30X
8W8	4-40 UNC Threaded insert	8...10	47 nF	8F8SSA 22 S44A30X
8W8	M3 Threaded insert	16...20	47 nF	8F8SSA 22 S41A20X
8W8	M3 Threaded insert	12...14	47 nF	8F8SSA 22 S42A20X
8W8	M3 Threaded insert	10...12	47 nF	8F8SSA 22 S43A20X
8W8	M3 Threaded insert	8...10	47 nF	8F8SSA 22 S44A20X

PLUG CONNECTOR				
Type	Mounting style	AWG	Capacitance	Part Number
8W8	Through-hole	16...20	47 nF	8F8SPA 22 S41A10X
8W8	Through-hole	12...14	47 nF	8F8SPA 22 S42A10X
8W8	Through-hole	10...12	47 nF	8F8SPA 22 S43A10X
8W8	Through-hole	8...10	47 nF	8F8SPA 22 S44A10X
8W8	4-40 UNC Threaded insert	16...20	47 nF	8F8SPA 22 S41A30X
8W8	4-40 UNC Threaded insert	12...14	47 nF	8F8SPA 22 S42A30X
8W8	4-40 UNC Threaded insert	10...12	47 nF	8F8SPA 22 S43A30X
8W8	4-40 UNC Threaded insert	8...10	47 nF	8F8SPA 22 S44A30X
8W8	M3 Threaded insert	16...20	47 nF	8F8SPA 22 S41A20X
8W8	M3 Threaded insert	12...14	47 nF	8F8SPA 22 S42A20X
8W8	M3 Threaded insert	10...12	47 nF	8F8SPA 22 S43A20X
8W8	M3 Threaded insert	8...10	47 nF	8F8SPA 22 S44A20X

For other capacitance values refer to the part number creator.

Capacitance value	Code
100 nF	28
47 nF	22
12 nF	14
10 nF	12
5 nF	08
1.3 nF	05

# C-FILTER COMBINATION D-SUB 2W2C

Solder pin – Straight – Precision machined contacts



RoHS compliant – UL listed, File No.: E228329

## SOCKET CONNECTOR



Termination Code	Current Rating	Ø A	B ± 0.3	PCB Thickness
48	20A	1.95	9.65	1.6
49	20A	2.60	10.65	1.6
50	20A	2.85	10.05	1.6
51	30A	3.18	12.85	1.6/ 2.3/ 3.2
52	40A	3.75	11.10	1.6/ 2.3/ 3.2



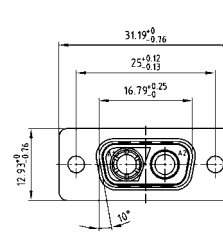
Mounting style: Through-hole



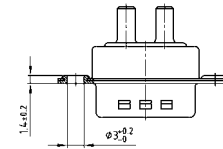
## DESCRIPTION

- Coded design = 1 plug and 1 socket contact
- 707 VDC (other DWV on request)
- Mounting styles:
  - with through-hole Ø .118"/3.0 mm
  - with 4-40 UNC threaded insert
  - with 4-40 UNC threaded rear spacer
  - with 4-40 UNC threaded rear spacer with PCB clip, .291"/7.4 mm
- Mounting styles with M3 thread on request
- Quality class 3 (also available in quality class 1)
- Shell: Steel tin plated

## PLUG CONNECTOR



Mounting style: Through-hole



## ORDER DATA

SOCKET CONNECTOR				
Type	Mounting style	Ø A	Capacitance	Part Number
2W2C	Through-hole	.080"/1.95	47 nF	2F2CSA 22 S48A10X
2W2C	Through-hole	.102"/2.60	47 nF	2F2CSA 22 S49A10X
2W2C	Through-hole	.110"/2.85	47 nF	2F2CSA 22 S50A10X
2W2C	Through-hole	.130"/3.18	47 nF	2F2CSA 22 S51A10X
2W2C	Through-hole	.150"/3.75	47 nF	2F2CSA 22 S52A10X

PLUG CONNECTOR				
Type	Mounting style	Ø A	Capacitance	Part Number
2W2C	Through-hole	.080"/1.95	47 nF	2F2CPA 22 S48A10X
2W2C	Through-hole	.102"/2.60	47 nF	2F2CPA 22 S49A10X
2W2C	Through-hole	.110"/2.85	47 nF	2F2CPA 22 S50A10X
2W2C	Through-hole	.130"/3.18	47 nF	2F2CPA 22 S51A10X
2W2C	Through-hole	.150"/3.75	47 nF	2F2CPA 22 S52A10X

For other capacitance values refer to the part number creator.

Capacitance value	Code
100 nF	28
47 nF	22
12 nF	14
10 nF	12
5 nF	08
1.3 nF	05



# C-FILTER COMBINATION D-SUB 2W2C – MOUNTING STYLES

## Solder pin – Straight – Precision machined contacts

### ORDER DATA



SOCKET CONNECTOR				
Type	Mounting style 4-40 UNC	Ø A	Capacitance	Part Number
2W2C	Threaded insert	.080"/1.95	47 nF	2F2CSA 22 S48A30X
2W2C	Threaded insert	.102"/2.60	47 nF	2F2CSA 22 S49A30X
2W2C	Threaded insert	.110"/2.85	47 nF	2F2CSA 22 S50A30X
2W2C	Threaded insert	.130"/3.18	47 nF	2F2CSA 22 S51A30X
2W2C	Threaded insert	.150"/3.75	47 nF	2F2CSA 22 S52A30X

PLUG CONNECTOR				
Type	Mounting style 4-40 UNC	Ø A	Capacitance	Part Number
2W2C	Threaded insert	.080"/1.95	47 nF	2F2CPA 22 S48A30X
2W2C	Threaded insert	.102"/2.60	47 nF	2F2CPA 22 S49A30X
2W2C	Threaded insert	.110"/2.85	47 nF	2F2CPA 22 S50A30X
2W2C	Threaded insert	.130"/3.18	47 nF	2F2CPA 22 S51A30X
2W2C	Threaded insert	.150"/3.75	47 nF	2F2CPA 22 S52A30X



SOCKET CONNECTOR				
Type	Mounting style 4-40 UNC	Ø A	Capacitance	Part Number
2W2C	Threaded rear spacer	.080"/1.95	47 nF	2F2CSA 22 S48A50X
2W2C	Threaded rear spacer	.102"/2.60	47 nF	2F2CSA 22 S49A50X
2W2C	Threaded rear spacer	.110"/2.85	47 nF	2F2CSA 22 S50A50X
2W2C	Threaded rear spacer	.130"/3.18	47 nF	2F2CSA 22 S51A50X
2W2C	Threaded rear spacer	.150"/3.75	47 nF	2F2CSA 22 S52A50X

PLUG CONNECTOR				
Type	Mounting style 4-40 UNC	Ø A	Capacitance	Part Number
2W2C	Threaded rear spacer	.080"/1.95	47 nF	2F2CPA 22 S48A50X
2W2C	Threaded rear spacer	.102"/2.60	47 nF	2F2CPA 22 S49A50X
2W2C	Threaded rear spacer	.110"/2.85	47 nF	2F2CPA 22 S50A50X
2W2C	Threaded rear spacer	.130"/3.18	47 nF	2F2CPA 22 S51A50X
2W2C	Threaded rear spacer	.150"/3.75	47 nF	2F2CPA 22 S52A50X

.291" / 7.4 mm for .063" / 1.6 mm circuit board thickness. (Length of spacer .256" / 6.5 mm on request)



SOCKET CONNECTOR				
Type	Mounting style 4-40 UNC	Ø A	Capacitance	Part Number
2W2C	Threaded rear spacer PCB clip	.080"/1.95	47 nF	2F2CSA 22 S48E20X
2W2C	Threaded rear spacer PCB clip	.102"/2.60	47 nF	2F2CSA 22 S49E20X
2W2C	Threaded rear spacer PCB clip	.110"/2.85	47 nF	2F2CSA 22 S50E20X
2W2C	Threaded rear spacer PCB clip	.130"/3.18	47 nF	2F2CSA 22 S51E20X
2W2C	Threaded rear spacer PCB clip	.150"/3.75	47 nF	2F2CSA 22 S52E20X

PLUG CONNECTOR				
Type	Mounting style 4-40 UNC	Ø A	Capacitance	Part Number
2W2C	Threaded rear spacer PCB clip	.080"/1.95	47 nF	2F2CPA 22 S48E20X
2W2C	Threaded rear spacer PCB clip	.102"/2.60	47 nF	2F2CPA 22 S49E20X
2W2C	Threaded rear spacer PCB clip	.110"/2.85	47 nF	2F2CPA 22 S50E20X
2W2C	Threaded rear spacer PCB clip	.130"/3.18	47 nF	2F2CPA 22 S51E20X
2W2C	Threaded rear spacer PCB clip	.150"/3.75	47 nF	2F2CPA 22 S52E20X

.291" / 7.4 mm for .091" / 2.3 mm circuit board thickness. (Length of spacer .256" / 6.5 mm on request)



SOCKET CONNECTOR				
Type	Mounting style 4-40 UNC	Ø A	Capacitance	Part Number
2W2C	Threaded rear spacer PCB clip	.130"/3.18	47 nF	2F2CSA 22 S51E40X
2W2C	Threaded rear spacer PCB clip	.150"/3.75	47 nF	2F2CSA 22 S52E40X

PLUG CONNECTOR				
Type	Mounting style 4-40 UNC	Ø A	Capacitance	Part Number
2W2C	Threaded rear spacer PCB clip	.130"/3.18	47 nF	2F2CPA 22 S51E40X
2W2C	Threaded rear spacer PCB clip	.150"/3.75	47 nF	2F2CPA 22 S52E40X

.291" / 7.4 mm for .126" / 3.2 mm circuit board thickness. (Length of spacer .256" / 6.5 mm on request)



SOCKET CONNECTOR				
Type	Mounting style 4-40 UNC	Ø A	Capacitance	Part Number
2W2C	Threaded rear spacer PCB clip	.130"/3.18	47 nF	2F2CSA 22 S51E60X
2W2C	Threaded rear spacer PCB clip	.150"/3.75	47 nF	2F2CSA 22 S52E60X

PLUG CONNECTOR				
Type	Mounting style 4-40 UNC	Ø A	Capacitance	Part Number
2W2C	Threaded rear spacer PCB clip	.130"/3.18	47 nF	2F2CPA 22 S51E60X
2W2C	Threaded rear spacer PCB clip	.150"/3.75	47 nF	2F2CPA 22 S52E60X

For other capacitance values refer to the part number creator.

# C-FILTER COMBINATION D-SUB 3W3

Solder pin – Straight – Precision machined contacts



RoHS compliant – UL listed, File No.: E228329

## SOCKET CONNECTOR



Termination Code	Current Rating	Ø A	B ± 0.3	PCB Thickness
48	20A	1.95	9.65	1.6
49	20A	2.60	10.65	1.6
50	20A	2.85	10.05	1.6
51	30A	3.18	12.85	1.6/ 2.3/ 3.2
52	40A	3.75	11.10	1.6/ 2.3/ 3.2



Mounting style: Through-hole



## DESCRIPTION

- 707 VDC (other DWV on request)
- Mounting styles:
  - with through-hole Ø .118"/3.0 mm
  - with 4-40 UNC threaded insert
  - with 4-40 UNC threaded rear spacer
  - with 4-40 UNC threaded rear spacer with PCB clip, .291"/7.4 mm
- Mounting styles with M3 thread on request
- Quality class 3 (also available in quality class 1)
- Shell: Steel tin plated

## PLUG CONNECTOR



Mounting style: Through-hole



## ORDER DATA

SOCKET CONNECTOR				
Type	Mounting style	Ø A	Capacitance	Part Number
3W3	Through-hole	.080"/1.95	47 nF	3F3SSA 22 S48A10X
3W3	Through-hole	.102"/2.60	47 nF	3F3SSA 22 S49A10X
3W3	Through-hole	.110"/2.85	47 nF	3F3SSA 22 S50A10X
3W3	Through-hole	.130"/3.18	47 nF	3F3SSA 22 S51A10X
3W3	Through-hole	.150"/3.75	47 nF	3F3SSA 22 S52A10X

PLUG CONNECTOR				
Type	Mounting style	Ø A	Capacitance	Part Number
3W3	Through-hole	.080"/1.95	47 nF	3F3SPA 22 S48A10X
3W3	Through-hole	.102"/2.60	47 nF	3F3SPA 22 S49A10X
3W3	Through-hole	.110"/2.85	47 nF	3F3SPA 22 S50A10X
3W3	Through-hole	.130"/3.18	47 nF	3F3SPA 22 S51A10X
3W3	Through-hole	.150"/3.75	47 nF	3F3SPA 22 S52A10X

For other capacitance values refer to the part number creator.

Capacitance value	Code
100 nF	28
47 nF	22
12 nF	14
10 nF	12
5 nF	08
1.3 nF	05

# C-FILTER COMBINATION D-SUB 3W3 – MOUNTING STYLES

## Solder pin – Straight – Precision machined contacts

### ORDER DATA



SOCKET CONNECTOR				
Type	Mounting style 4-40 UNC	Ø A	Capacitance	Part Number
3W3	Threaded insert	.080"/1.95	47 nF	3F3SSA 22 S48A30X
3W3	Threaded insert	.102"/2.60	47 nF	3F3SSA 22 S49A30X
3W3	Threaded insert	.110"/2.85	47 nF	3F3SSA 22 S50A30X
3W3	Threaded insert	.130"/3.18	47 nF	3F3SSA 22 S51A30X
3W3	Threaded insert	.150"/3.75	47 nF	3F3SSA 22 S52A30X

PLUG CONNECTOR				
Type	Mounting style 4-40 UNC	Ø A	Capacitance	Part Number
3W3	Threaded insert	.080"/1.95	47 nF	3F3SPA 22 S48A30X
3W3	Threaded insert	.102"/2.60	47 nF	3F3SPA 22 S49A30X
3W3	Threaded insert	.110"/2.85	47 nF	3F3SPA 22 S50A30X
3W3	Threaded insert	.130"/3.18	47 nF	3F3SPA 22 S51A30X
3W3	Threaded insert	.150"/3.75	47 nF	3F3SPA 22 S52A30X



SOCKET CONNECTOR				
Type	Mounting style 4-40 UNC	Ø A	Capacitance	Part Number
3W3	Threaded rear spacer	.080"/1.95	47 nF	3F3SSA 22 S48A50X
3W3	Threaded rear spacer	.102"/2.60	47 nF	3F3SSA 22 S49A50X
3W3	Threaded rear spacer	.110"/2.85	47 nF	3F3SSA 22 S50A50X
3W3	Threaded rear spacer	.130"/3.18	47 nF	3F3SSA 22 S51A50X
3W3	Threaded rear spacer	.150"/3.75	47 nF	3F3SSA 22 S52A50X

PLUG CONNECTOR				
Type	Mounting style 4-40 UNC	Ø A	Capacitance	Part Number
3W3	Threaded rear spacer	.080"/1.95	47 nF	3F3SPA 22 S48A50X
3W3	Threaded rear spacer	.102"/2.60	47 nF	3F3SPA 22 S49A50X
3W3	Threaded rear spacer	.110"/2.85	47 nF	3F3SPA 22 S50A50X
3W3	Threaded rear spacer	.130"/3.18	47 nF	3F3SPA 22 S51A50X
3W3	Threaded rear spacer	.150"/3.75	47 nF	3F3SPA 22 S52A50X

.291" / 7.4 mm for .063" / 1.6 mm circuit board thickness. (Length of spacer .256" / 6.5 mm on request)



SOCKET CONNECTOR				
Type	Mounting style 4-40 UNC	Ø A	Capacitance	Part Number
3W3	Threaded rear spacer PCB clip	.080"/1.95	47 nF	3F3SSA 22 S48E20X
3W3	Threaded rear spacer PCB clip	.102"/2.60	47 nF	3F3SSA 22 S49E20X
3W3	Threaded rear spacer PCB clip	.110"/2.85	47 nF	3F3SSA 22 S50E20X
3W3	Threaded rear spacer PCB clip	.130"/3.18	47 nF	3F3SSA 22 S51E20X
3W3	Threaded rear spacer PCB clip	.150"/3.75	47 nF	3F3SSA 22 S52E20X

PLUG CONNECTOR				
Type	Mounting style 4-40 UNC	Ø A	Capacitance	Part Number
3W3	Threaded rear spacer PCB clip	.080"/1.95	47 nF	3F3SPA 22 S48E20X
3W3	Threaded rear spacer PCB clip	.102"/2.60	47 nF	3F3SPA 22 S49E20X
3W3	Threaded rear spacer PCB clip	.110"/2.85	47 nF	3F3SPA 22 S50E20X
3W3	Threaded rear spacer PCB clip	.130"/3.18	47 nF	3F3SPA 22 S51E20X
3W3	Threaded rear spacer PCB clip	.150"/3.75	47 nF	3F3SPA 22 S52E20X

.291" / 7.4 mm for .091" / 2.3 mm circuit board thickness. (Length of spacer .256" / 6.5 mm on request)



SOCKET CONNECTOR				
Type	Mounting style 4-40 UNC	Ø A	Capacitance	Part Number
3W3	Threaded rear spacer PCB clip	.130"/3.18	47 nF	3F3SSA 22 S51E40X
3W3	Threaded rear spacer PCB clip	.150"/3.75	47 nF	3F3SSA 22 S52E40X

PLUG CONNECTOR				
Type	Mounting style 4-40 UNC	Ø A	Capacitance	Part Number
3W3	Threaded rear spacer PCB clip	.130"/3.18	47 nF	3F3SPA 22 S51E40X
3W3	Threaded rear spacer PCB clip	.150"/3.75	47 nF	3F3SPA 22 S52E40X

.291" / 7.4 mm for .126" / 3.2 mm circuit board thickness. (Length of spacer .256" / 6.5 mm on request)



SOCKET CONNECTOR				
Type	Mounting style 4-40 UNC	Ø A	Capacitance	Part Number
3W3	Threaded rear spacer PCB clip	.130"/3.18	47 nF	3F3SSA 22 S51E60X
3W3	Threaded rear spacer PCB clip	.150"/3.75	47 nF	3F3SSA 22 S52E60X

PLUG CONNECTOR				
Type	Mounting style 4-40 UNC	Ø A	Capacitance	Part Number
3W3	Threaded rear spacer PCB clip	.130"/3.18	47 nF	3F3SPA 22 S51E60X
3W3	Threaded rear spacer PCB clip	.150"/3.75	47 nF	3F3SPA 22 S52E60X

For other capacitance values refer to the part number creator.

# C-FILTER COMBINATION D-SUB 3W3C

Solder pin – Straight – Precision machined contacts



RoHS compliant – UL listed, File No.: E228329

## DESCRIPTION

- Coded socket connectors = 1 plug and 2 socket contacts
- Coded plug connectors = 2 plugs and 1 socket contact
- 707 VDC (other DWV on request)
- Mounting styles: - with through-hole  $\varnothing$  .118"/3.0 mm  
- with 4-40 UNC threaded insert (M3 on request)  
- with 4-40 UNC threaded rear spacer (M3 on request)  
- with 4-40 UNC threaded rear spacer, PCB clip, .291"/7.4 mm (M3 on request)
- Quality class 3 (also available in quality class 1)
- Shell: Steel tin plated

## SOCKET CONNECTOR



Termination Code	Current Rating	Ø A	B ± 0.3	PCB Thickness
48	20A	1.95	9.65	1.6
49	20A	2.60	10.65	1.6
50	20A	2.85	10.05	1.6
51	30A	3.18	12.85	1.6/ 2.3/ 3.2
52	40A	3.75	11.10	1.6/ 2.3/ 3.2



Mounting style: Through-hole



## PLUG CONNECTOR



Mounting style: Through-hole



## ORDER DATA

SOCKET CONNECTOR				
Type	Mounting style	Ø A	Capacitance	Part Number
3W3C	Through-hole	.080"/1.95	47 nF	3F3CSA 22 S48A10X
3W3C	Through-hole	.102"/2.60	47 nF	3F3CSA 22 S49A10X
3W3C	Through-hole	.110"/2.85	47 nF	3F3CSA 22 S50A10X
3W3C	Through-hole	.130"/3.18	47 nF	3F3CSA 22 S51A10X
3W3C	Through-hole	.150"/3.75	47 nF	3F3CSA 22 S52A10X

PLUG CONNECTOR				
Type	Mounting style	Ø A	Capacitance	Part Number
3W3C	Through-hole	.080"/1.95	47 nF	3F3CPA 22 S48A10X
3W3C	Through-hole	.102"/2.60	47 nF	3F3CPA 22 S49A10X
3W3C	Through-hole	.110"/2.85	47 nF	3F3CPA 22 S50A10X
3W3C	Through-hole	.130"/3.18	47 nF	3F3CPA 22 S51A10X
3W3C	Through-hole	.150"/3.75	47 nF	3F3CPA 22 S52A10X

For other capacitance values refer to the part number creator.

Capacitance value	Code
100 nF	28
47 nF	22
12 nF	14
10 nF	12
5 nF	08
1.3 nF	05

# C-FILTER COMBINATION D-SUB 3W3C – MOUNTING STYLES

## Solder pin – Straight – Precision machined contacts

### ORDER DATA



SOCKET CONNECTOR				
Type	Mounting style 4-40 UNC	Ø A	Capacitance	Part Number
3W3C	Threaded insert	.080"/1.95	47 nF	3F3CSA 22 S48A30X
3W3C	Threaded insert	.102"/2.60	47 nF	3F3CSA 22 S49A30X
3W3C	Threaded insert	.110"/2.85	47 nF	3F3CSA 22 S50A30X
3W3C	Threaded insert	.130"/3.18	47 nF	3F3CSA 22 S51A30X
3W3C	Threaded insert	.150"/3.75	47 nF	3F3CSA 22 S52A30X

PLUG CONNECTOR				
Type	Mounting style 4-40 UNC	Ø A	Capacitance	Part Number
3W3C	Threaded insert	.080"/1.95	47 nF	3F3CPA 22 S48A30X
3W3C	Threaded insert	.102"/2.60	47 nF	3F3CPA 22 S49A30X
3W3C	Threaded insert	.110"/2.85	47 nF	3F3CPA 22 S50A30X
3W3C	Threaded insert	.130"/3.18	47 nF	3F3CPA 22 S51A30X
3W3C	Threaded insert	.150"/3.75	47 nF	3F3CPA 22 S52A30X



SOCKET CONNECTOR				
Type	Mounting style 4-40 UNC	Ø A	Capacitance	Part Number
3W3C	Threaded rear spacer	.080"/1.95	47 nF	3F3CSA 22 S48A50X
3W3C	Threaded rear spacer	.102"/2.60	47 nF	3F3CSA 22 S49A50X
3W3C	Threaded rear spacer	.110"/2.85	47 nF	3F3CSA 22 S50A50X
3W3C	Threaded rear spacer	.130"/3.18	47 nF	3F3CSA 22 S51A50X
3W3C	Threaded rear spacer	.150"/3.75	47 nF	3F3CSA 22 S52A50X

PLUG CONNECTOR				
Type	Mounting style 4-40 UNC	Ø A	Capacitance	Part Number
3W3C	Threaded rear spacer	.080"/1.95	47 nF	3F3CPA 22 S48A50X
3W3C	Threaded rear spacer	.102"/2.60	47 nF	3F3CPA 22 S49A50X
3W3C	Threaded rear spacer	.110"/2.85	47 nF	3F3CPA 22 S50A50X
3W3C	Threaded rear spacer	.130"/3.18	47 nF	3F3CPA 22 S51A50X
3W3C	Threaded rear spacer	.150"/3.75	47 nF	3F3CPA 22 S52A50X

.291" / 7.4 mm for .063" / 1.6 mm circuit board thickness. (Length of spacer .256" / 6.5 mm on request)



SOCKET CONNECTOR				
Type	Mounting style 4-40 UNC	Ø A	Capacitance	Part Number
3W3C	Threaded rear spacer PCB clip	.080"/1.95	47 nF	3F3CSA 22 S48E20X
3W3C	Threaded rear spacer PCB clip	.102"/2.60	47 nF	3F3CSA 22 S49E20X
3W3C	Threaded rear spacer PCB clip	.110"/2.85	47 nF	3F3CSA 22 S50E20X
3W3C	Threaded rear spacer PCB clip	.130"/3.18	47 nF	3F3CSA 22 S51E20X
3W3C	Threaded rear spacer PCB clip	.150"/3.75	47 nF	3F3CSA 22 S52E20X

PLUG CONNECTOR				
Type	Mounting style 4-40 UNC	Ø A	Capacitance	Part Number
3W3C	Threaded rear spacer PCB clip	.080"/1.95	47 nF	3F3CPA 22 S48E20X
3W3C	Threaded rear spacer PCB clip	.102"/2.60	47 nF	3F3CPA 22 S49E20X
3W3C	Threaded rear spacer PCB clip	.110"/2.85	47 nF	3F3CPA 22 S50E20X
3W3C	Threaded rear spacer PCB clip	.130"/3.18	47 nF	3F3CPA 22 S51E20X
3W3C	Threaded rear spacer PCB clip	.150"/3.75	47 nF	3F3CPA 22 S52E20X

.291" / 7.4 mm for .091" / 2.3 mm circuit board thickness. (Length of spacer .256" / 6.5 mm on request)



SOCKET CONNECTOR				
Type	Mounting style 4-40 UNC	Ø A	Capacitance	Part Number
3W3C	Threaded rear spacer PCB clip	.130"/3.18	47 nF	3F3CSA 22 S51E40X
3W3C	Threaded rear spacer PCB clip	.150"/3.75	47 nF	3F3CSA 22 S52E40X

PLUG CONNECTOR				
Type	Mounting style 4-40 UNC	Ø A	Capacitance	Part Number
3W3C	Threaded rear spacer PCB clip	.130"/3.18	47 nF	3F3CPA 22 S51E40X
3W3C	Threaded rear spacer PCB clip	.150"/3.75	47 nF	3F3CPA 22 S52E40X

.291" / 7.4 mm for .126" / 3.2 mm circuit board thickness. (Length of spacer .256" / 6.5 mm on request)



SOCKET CONNECTOR				
Type	Mounting style 4-40 UNC	Ø A	Capacitance	Part Number
3W3C	Threaded rear spacer PCB clip	.130"/3.18	47 nF	3F3CSA 22 S51E60X
3W3C	Threaded rear spacer PCB clip	.150"/3.75	47 nF	3F3CSA 22 S52E60X

PLUG CONNECTOR				
Type	Mounting style 4-40 UNC	Ø A	Capacitance	Part Number
3W3C	Threaded rear spacer PCB clip	.130"/3.18	47 nF	3F3CPA 22 S51E60X
3W3C	Threaded rear spacer PCB clip	.150"/3.75	47 nF	3F3CPA 22 S52E60X

For other capacitance values refer to the part number creator.

# C-FILTER COMBINATION D-SUB 5W5

Solder pin – Straight – Precision machined contacts



RoHS compliant – UL listed, File No.: E228329

## DESCRIPTION

- 707 VDC (other DWV on request)
- Mounting styles:
  - with through-hole  $\varnothing$  .118"/3.0 mm
  - with 4-40 UNC threaded insert
  - with 4-40 UNC threaded rear spacer
  - with 4-40 UNC threaded rear spacer, PCB clip, .291"/7.4 mm
- Mounting styles with M3 thread on request
- Quality class 3 (also available in quality class 1)
- Shell: Steel tin plated

## SOCKET CONNECTOR



Termination Code	Current Rating	Ø A	B +0,3	PCB Thickness
48	20A	1.95	9.65	1.6
49	20A	2.60	10.65	1.6
50	20A	2.85	10.05	1.6
51	30A	3.18	12.85	1.6/ 2.3/ 3.2
52	40A	3.75	11.10	1.6/ 2.3/ 3.2



Mounting style: Through-hole



## PLUG CONNECTOR



Mounting style: Through-hole



## ORDER DATA

SOCKET CONNECTOR				
Type	Mounting style	Ø A	Capacitance	Part Number
5W5	Through-hole	.080"/1.95	47 nF	5F5SSA 22 S48A10X
5W5	Through-hole	.102"/2.60	47 nF	5F5SSA 22 S49A10X
5W5	Through-hole	.110"/2.85	47 nF	5F5SSA 22 S50A10X
5W5	Through-hole	.130"/3.18	47 nF	5F5SSA 22 S51A10X
5W5	Through-hole	.150"/3.75	47 nF	5F5SSA 22 S52A10X

PLUG CONNECTOR				
Type	Mounting style	Ø A	Capacitance	Part Number
5W5	Through-hole	.080"/1.95	47 nF	5F5SPA 22 S48A10X
5W5	Through-hole	.102"/2.60	47 nF	5F5SPA 22 S49A10X
5W5	Through-hole	.110"/2.85	47 nF	5F5SPA 22 S50A10X
5W5	Through-hole	.130"/3.18	47 nF	5F5SPA 22 S51A10X
5W5	Through-hole	.150"/3.75	47 nF	5F5SPA 22 S52A10X

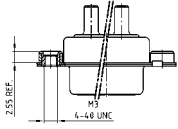
For other capacitance values refer to the part number creator.

Capacitance value	Code
100 nF	28
47 nF	22
12 nF	14
10 nF	12
5 nF	08
1.3 nF	05

# C-FILTER COMBINATION D-SUB 5W5 – MOUNTING STYLES

## Solder pin – Straight – Precision machined contacts

### ORDER DATA



SOCKET CONNECTOR				
Type	Mounting style 4-40 UNC	Ø A	Capacitance	Part Number
5W5	Threaded insert	.080"/1.95	47 nF	5F5SSA 22 S48A30X
5W5	Threaded insert	.102"/2.60	47 nF	5F5SSA 22 S49A30X
5W5	Threaded insert	.110"/2.85	47 nF	5F5SSA 22 S50A30X
5W5	Threaded insert	.130"/3.18	47 nF	5F5SSA 22 S51A30X
5W5	Threaded insert	.150"/3.75	47 nF	5F5SSA 22 S52A30X

PLUG CONNECTOR				
Type	Mounting style 4-40 UNC	Ø A	Capacitance	Part Number
5W5	Threaded insert	.080"/1.95	47 nF	5F5SPA 22 S48A30X
5W5	Threaded insert	.102"/2.60	47 nF	5F5SPA 22 S49A30X
5W5	Threaded insert	.110"/2.85	47 nF	5F5SPA 22 S50A30X
5W5	Threaded insert	.130"/3.18	47 nF	5F5SPA 22 S51A30X
5W5	Threaded insert	.150"/3.75	47 nF	5F5SPA 22 S52A30X



SOCKET CONNECTOR				
Type	Mounting style 4-40 UNC	Ø A	Capacitance	Part Number
5W5	Threaded rear spacer	.080"/1.95	47 nF	5F5SSA 22 S48A50X
5W5	Threaded rear spacer	.102"/2.60	47 nF	5F5SSA 22 S49A50X
5W5	Threaded rear spacer	.110"/2.85	47 nF	5F5SSA 22 S50A50X
5W5	Threaded rear spacer	.130"/3.18	47 nF	5F5SSA 22 S51A50X
5W5	Threaded rear spacer	.150"/3.75	47 nF	5F5SSA 22 S52A50X

PLUG CONNECTOR				
Type	Mounting style 4-40 UNC	Ø A	Capacitance	Part Number
5W5	Threaded rear spacer	.080"/1.95	47 nF	5F5SPA 22 S48A50X
5W5	Threaded rear spacer	.102"/2.60	47 nF	5F5SPA 22 S49A50X
5W5	Threaded rear spacer	.110"/2.85	47 nF	5F5SPA 22 S50A50X
5W5	Threaded rear spacer	.130"/3.18	47 nF	5F5SPA 22 S51A50X
5W5	Threaded rear spacer	.150"/3.75	47 nF	5F5SPA 22 S52A50X

.291" / 7.4 mm for .063" / 1.6 mm circuit board thickness. (Length of spacer .256" / 6.5 mm on request)



SOCKET CONNECTOR				
Type	Mounting style 4-40 UNC	Ø A	Capacitance	Part Number
5W5	Threaded rear spacer PCB clip	.080"/1.95	47 nF	5F5SSA 22 S48E20X
5W5	Threaded rear spacer PCB clip	.102"/2.60	47 nF	5F5SSA 22 S49E20X
5W5	Threaded rear spacer PCB clip	.110"/2.85	47 nF	5F5SSA 22 S50E20X
5W5	Threaded rear spacer PCB clip	.130"/3.18	47 nF	5F5SSA 22 S51E20X
5W5	Threaded rear spacer PCB clip	.150"/3.75	47 nF	5F5SSA 22 S52E20X

PLUG CONNECTOR				
Type	Mounting style 4-40 UNC	Ø A	Capacitance	Part Number
5W5	Threaded rear spacer PCB clip	.080"/1.95	47 nF	5F5SPA 22 S48E20X
5W5	Threaded rear spacer PCB clip	.102"/2.60	47 nF	5F5SPA 22 S49E20X
5W5	Threaded rear spacer PCB clip	.110"/2.85	47 nF	5F5SPA 22 S50E20X
5W5	Threaded rear spacer PCB clip	.130"/3.18	47 nF	5F5SPA 22 S51E20X
5W5	Threaded rear spacer PCB clip	.150"/3.75	47 nF	5F5SPA 22 S52E20X

.291" / 7.4 mm for .091" / 2.3 mm circuit board thickness. (Length of spacer .256" / 6.5 mm on request)



SOCKET CONNECTOR				
Type	Mounting style 4-40 UNC	Ø A	Capacitance	Part Number
5W5	Threaded rear spacer PCB clip	.130"/3.18	47 nF	5F5SSA 22 S51E40X
5W5	Threaded rear spacer PCB clip	.150"/3.75	47 nF	5F5SSA 22 S52E40X

PLUG CONNECTOR				
Type	Mounting style 4-40 UNC	Ø A	Capacitance	Part Number
5W5	Threaded rear spacer PCB clip	.130"/3.18	47 nF	5F5SPA 22 S51E40X
5W5	Threaded rear spacer PCB clip	.150"/3.75	47 nF	5F5SPA 22 S52E40X

.291" / 7.4 mm for .126" / 3.2 mm circuit board thickness. (Length of spacer .256" / 6.5 mm on request)



SOCKET CONNECTOR				
Type	Mounting style 4-40 UNC	Ø A	Capacitance	Part Number
5W5	Threaded rear spacer PCB clip	.130"/3.18	47 nF	5F5SSA 22 S51E60X
5W5	Threaded rear spacer PCB clip	.150"/3.75	47 nF	5F5SSA 22 S52E60X

PLUG CONNECTOR				
Type	Mounting style 4-40 UNC	Ø A	Capacitance	Part Number
5W5	Threaded rear spacer PCB clip	.130"/3.18	47 nF	5F5SPA 22 S51E60X
5W5	Threaded rear spacer PCB clip	.150"/3.75	47 nF	5F5SPA 22 S52E60X

For other capacitance values refer to the part number creator.

# C-FILTER COMBINATION D-SUB 8W8

Solder pin – Straight – Precision machined contacts



RoHS compliant – UL listed, File No.: E228329

## DESCRIPTION

- 707 VDC (other DWV on request)
- Mounting styles:
  - with through-hole  $\varnothing$  .118"/3.0 mm
  - with 4-40 UNC threaded insert
  - with 4-40 UNC threaded rear spacer
  - with 4-40 UNC threaded rear spacer, PCB clip, .291"/7.4 mm
- Mounting styles with M3 thread on request
- Quality class 3 (also available in quality class 1)
- Shell: Steel tin plated

## SOCKET CONNECTOR



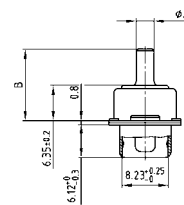
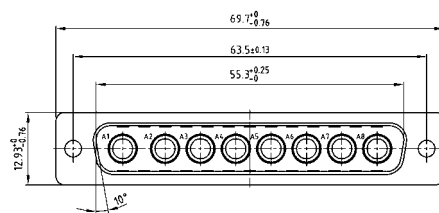
Termination Code	Current Rating	Ø A	B ± 0.3	PCB Thickness
48	20A	1.95	9.65	1.6
49	20A	2.60	10.65	1.6
50	20A	2.85	10.05	1.6
51	30A	3.18	12.85	1.6/ 2.3/ 3.2
52	40A	3.75	11.10	1.6/ 2.3/ 3.2



Mounting style: Through-hole



## PLUG CONNECTOR



Mounting style: Through-hole



## ORDER DATA

SOCKET CONNECTOR				
Type	Mounting style	Ø A	Capacitance	Part Number
8W8	Through-hole	.080"/1.95	47 nF	8F8SSA 22 S48A10X
8W8	Through-hole	.102"/2.60	47 nF	8F8SSA 22 S49A10X
8W8	Through-hole	.110"/2.85	47 nF	8F8SSA 22 S50A10X
8W8	Through-hole	.130"/3.18	47 nF	8F8SSA 22 S51A10X
8W8	Through-hole	.150"/3.75	47 nF	8F8SSA 22 S52A10X

PLUG CONNECTOR				
Type	Mounting style	Ø A	Capacitance	Part Number
8W8	Through-hole	.080"/1.95	47 nF	8F8SPA 22 S48A10X
8W8	Through-hole	.102"/2.60	47 nF	8F8SPA 22 S49A10X
8W8	Through-hole	.110"/2.85	47 nF	8F8SPA 22 S50A10X
8W8	Through-hole	.130"/3.18	47 nF	8F8SPA 22 S51A10X
8W8	Through-hole	.150"/3.75	47 nF	8F8SPA 22 S52A10X

For other capacitance values refer to the part number creator.

Capacitance value	Code
100 nF	28
47 nF	22
12 nF	14
10 nF	12
5 nF	08
1.3 nF	05



# C-FILTER COMBINATION D-SUB 8W8 – MOUNTING STYLES

Solder pin – Straight – Precision machined contacts

**ORDER DATA**



SOCKET CONNECTOR				
Type	Mounting style 4-40 UNC	Ø A	Capacitance	Part Number
8W8	Threaded insert	.080"/1.95	47 nF	8F8SSA 22 S48A30X
8W8	Threaded insert	.102"/2.60	47 nF	8F8SSA 22 S49A30X
8W8	Threaded insert	.110"/2.85	47 nF	8F8SSA 22 S50A30X
8W8	Threaded insert	.130"/3.18	47 nF	8F8SSA 22 S51A30X
8W8	Threaded insert	.150"/3.75	47 nF	8F8SSA 22 S52A30X

PLUG CONNECTOR				
Type	Mounting style 4-40 UNC	Ø A	Capacitance	Part Number
8W8	Threaded insert	.080"/1.95	47 nF	8F8SPA 22 S48A30X
8W8	Threaded insert	.102"/2.60	47 nF	8F8SPA 22 S49A30X
8W8	Threaded insert	.110"/2.85	47 nF	8F8SPA 22 S50A30X
8W8	Threaded insert	.130"/3.18	47 nF	8F8SPA 22 S51A30X
8W8	Threaded insert	.150"/3.75	47 nF	8F8SPA 22 S52A30X



SOCKET CONNECTOR				
Type	Mounting style 4-40 UNC	Ø A	Capacitance	Part Number
8W8	Threaded rear spacer	.080"/1.95	47 nF	8F8SSA 22 S48A50X
8W8	Threaded rear spacer	.102"/2.60	47 nF	8F8SSA 22 S49A50X
8W8	Threaded rear spacer	.110"/2.85	47 nF	8F8SSA 22 S50A50X
8W8	Threaded rear spacer	.130"/3.18	47 nF	8F8SSA 22 S51A50X
8W8	Threaded rear spacer	.150"/3.75	47 nF	8F8SSA 22 S52A50X

PLUG CONNECTOR				
Type	Mounting style 4-40 UNC	Ø A	Capacitance	Part Number
8W8	Threaded rear spacer	.080"/1.95	47 nF	8F8SPA 22 S48A50X
8W8	Threaded rear spacer	.102"/2.60	47 nF	8F8SPA 22 S49A50X
8W8	Threaded rear spacer	.110"/2.85	47 nF	8F8SPA 22 S50A50X
8W8	Threaded rear spacer	.130"/3.18	47 nF	8F8SPA 22 S51A50X
8W8	Threaded rear spacer	.150"/3.75	47 nF	8F8SPA 22 S52A50X

.291" / 7.4 mm for .063" / 1.6 mm circuit board thickness. (Length of spacer .256" / 6.5 mm on request)



SOCKET CONNECTOR				
Type	Mounting style 4-40 UNC	Ø A	Capacitance	Part Number
8W8	Threaded rear spacer PCB clip	.080"/1.95	47 nF	8F8SSA 22 S48E20X
8W8	Threaded rear spacer PCB clip	.102"/2.60	47 nF	8F8SSA 22 S49E20X
8W8	Threaded rear spacer PCB clip	.110"/2.85	47 nF	8F8SSA 22 S50E20X
8W8	Threaded rear spacer PCB clip	.130"/3.18	47 nF	8F8SSA 22 S51E20X
8W8	Threaded rear spacer PCB clip	.150"/3.75	47 nF	8F8SSA 22 S52E20X

PLUG CONNECTOR				
Type	Mounting style 4-40 UNC	Ø A	Capacitance	Part Number
8W8	Threaded rear spacer PCB clip	.080"/1.95	47 nF	8F8SPA 22 S48E20X
8W8	Threaded rear spacer PCB clip	.102"/2.60	47 nF	8F8SPA 22 S49E20X
8W8	Threaded rear spacer PCB clip	.110"/2.85	47 nF	8F8SPA 22 S50E20X
8W8	Threaded rear spacer PCB clip	.130"/3.18	47 nF	8F8SPA 22 S51E20X
8W8	Threaded rear spacer PCB clip	.150"/3.75	47 nF	8F8SPA 22 S52E20X

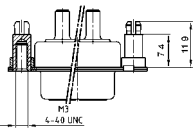
.291" / 7.4 mm for .091" / 2.3 mm circuit board thickness. (Length of spacer .256" / 6.5 mm on request)



SOCKET CONNECTOR				
Type	Mounting style 4-40 UNC	Ø A	Capacitance	Part Number
8W8	Threaded rear spacer PCB clip	.130"/3.18	47 nF	8F8SSA 22 S51E40X
8W8	Threaded rear spacer PCB clip	.150"/3.75	47 nF	8F8SSA 22 S52E40X

PLUG CONNECTOR				
Type	Mounting style 4-40 UNC	Ø A	Capacitance	Part Number
8W8	Threaded rear spacer PCB clip	.130"/3.18	47 nF	8F8SPA 22 S51E40X
8W8	Threaded rear spacer PCB clip	.150"/3.75	47 nF	8F8SPA 22 S52E40X

.291" / 7.4 mm for .126" / 3.2 mm circuit board thickness. (Length of spacer .256" / 6.5 mm on request)



SOCKET CONNECTOR				
Type	Mounting style 4-40 UNC	Ø A	Capacitance	Part Number
8W8	Threaded rear spacer PCB clip	.130"/3.18	47 nF	8F8SSA 22 S51E60X
8W8	Threaded rear spacer PCB clip	.150"/3.75	47 nF	8F8SSA 22 S52E60X

PLUG CONNECTOR				
Type	Mounting style 4-40 UNC	Ø A	Capacitance	Part Number
8W8	Threaded rear spacer PCB clip	.130"/3.18	47 nF	8F8SPA 22 S51E60X
8W8	Threaded rear spacer PCB clip	.150"/3.75	47 nF	8F8SPA 22 S52E60X

For other capacitance values refer to the part number creator.

# C-FILTER COMBINATION D-SUB 2W2C

Solder pin – Angled – Precision machined contacts – Metal bracket

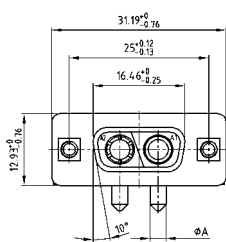


RoHS compliant – UL listed, File No.: E228329

## DESCRIPTION

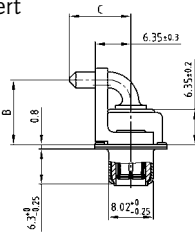
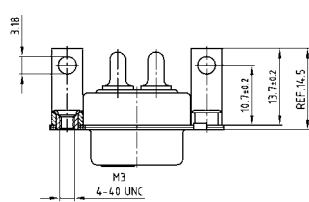
- coded design = 1 plug and 1 socket contact
- 707 VDC (other DWV on request)
- Mounting styles:
  - with mounting bracket and 4-40 UNC threaded insert
  - with mounting bracket, PCB clip and 4-40 UNC threaded insert
- Mounting styles with M3 thread on request
- Quality class 3 (also available in quality class 1)
- Shell: Steel tin plated

## SOCKET CONNECTOR

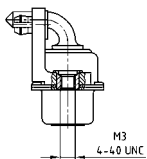


Termination Code	Current Rating	Ø A	B ± 0.3	C ± 0.3
56	20A	2.85	11.65	11.00
57	30A	3.18	20.35	9.50
58	40A	3.75	11.65	11.00

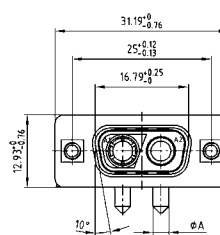
Mounting style: Mounting bracket, threaded insert



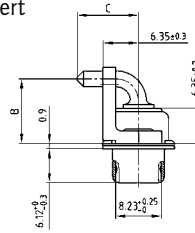
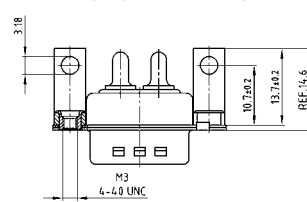
Mounting style: Mounting bracket, PCB clip and threaded insert



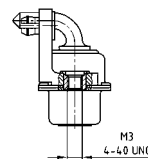
## PLUG CONNECTOR



Mounting style: Mounting bracket, threaded insert



Mounting style: Mounting bracket, PCB clip and threaded insert



## ORDER DATA

SOCKET CONNECTOR				
Type	Mounting style 4-40 UNC	Ø A	Capacitance	Part Number
2W2C	Mounting bracket/Threaded insert	.110"/2.85	47 nF	2F2CSA 22 S56K20X
2W2C	Mounting bracket/Threaded insert	.126"/3.20	47 nF	2F2CSA 22 S57K20X
2W2C	Mounting bracket/Threaded insert	.150"/3.75	47 nF	2F2CSA 22 S58K20X
2W2C	Mounting bracket/PCB clip/Threaded insert	.110"/2.85	47 nF	2F2CPA 22 S56K40X
2W2C	Mounting bracket/PCB clip/Threaded insert	.126"/3.20	47 nF	2F2CPA 22 S57K40X
2W2C	Mounting bracket/PCB clip/Threaded insert	.150"/3.75	47 nF	2F2CPA 22 S58K40X

PLUG CONNECTOR				
Type	Mounting style 4-40 UNC	Ø A	Capacitance	Part Number
2W2C	Mounting bracket/Threaded insert	.110"/2.85	47 nF	2F2CPA 22 S56K20X
2W2C	Mounting bracket/Threaded insert	.126"/3.20	47 nF	2F2CPA 22 S57K20X
2W2C	Mounting bracket/Threaded insert	.150"/3.75	47 nF	2F2CPA 22 S58K20X
2W2C	Mounting bracket/PCB clip/Threaded insert	.110"/2.85	47 nF	2F2CPA 22 S56K40X
2W2C	Mounting bracket/PCB clip/Threaded insert	.126"/3.20	47 nF	2F2CPA 22 S57K40X
2W2C	Mounting bracket/PCB clip/Threaded insert	.150"/3.75	47 nF	2F2CPA 22 S58K40X

PCB clip .122"/3.1 ± .004"/0.10 mm hole diameter and .063"/1.6 mm circuit board thickness.  
For other capacitance values refer to the part number creator.

Capacitance value	Code
100 nF	28
47 nF	22
12 nF	14
10 nF	12
5 nF	08
1.3 nF	05

# C-FILTER COMBINATION D-SUB 3W3

Solder pin – Angled – Precision machined contacts – Metal bracket



RoHS compliant – UL listed, File No.: E228329

## DESCRIPTION

- 707 VDC (other DWV on request)
- Mounting styles:
  - with mounting bracket and 4-40 UNC threaded insert
  - with mounting bracket, PCB clip and 4-40 UNC threaded insert
- Mounting styles with M3 thread on request
- Quality class 3 (also available in quality class 1)
- Shell: Steel tin plated

## SOCKET CONNECTOR



Termination Code	Current Rating	Ø A	B ± 0.3	C ± 0.3
56	20A	2.85	11.65	11.00
57	30A	3.18	20.35	9.50
58	40A	3.75	11.65	11.00

Mounting style: Mounting bracket, threaded insert



Mounting style: Mounting bracket, PCB clip and threaded insert



## PLUG CONNECTOR



Mounting style: Mounting bracket, threaded insert



Mounting style: Mounting bracket, PCB clip and threaded insert



## ORDER DATA

SOCKET CONNECTOR				
Type	Mounting style 4-40 UNC	Ø A	Capacitance	Part Number
3W3	Mounting bracket/Threaded insert	.110"/2.85	47 nF	3F3SSA 22 S56K20X
3W3	Mounting bracket/Threaded insert	.126"/3.20	47 nF	3F3SSA 22 S57K20X
3W3	Mounting bracket/Threaded insert	.150"/3.75	47 nF	3F3SSA 22 S58K20X
3W3	Mounting bracket/PCB clip/Threaded insert	.110"/2.85	47 nF	3F3SSA 22 S56K40X
3W3	Mounting bracket/PCB clip/Threaded insert	.126"/3.20	47 nF	3F3SSA 22 S57K40X
3W3	Mounting bracket/PCB clip/Threaded insert	.150"/3.75	47 nF	3F3SSA 22 S58K40X

PLUG CONNECTOR				
Type	Mounting style	Ø A	Capacitance	Part Number
3W3	Mounting bracket/Threaded insert	.110"/2.85	47 nF	3F3SPA 22 S56K20X
3W3	Mounting bracket/Threaded insert	.126"/3.20	47 nF	3F3SPA 22 S57K20X
3W3	Mounting bracket/Threaded insert	.150"/3.75	47 nF	3F3SPA 22 S58K20X
3W3	Mounting bracket/PCB clip/Threaded insert	.110"/2.85	47 nF	3F3SPA 22 S56K40X
3W3	Mounting bracket/PCB clip/Threaded insert	.126"/3.20	47 nF	3F3SPA 22 S57K40X
3W3	Mounting bracket/PCB clip/Threaded insert	.150"/3.75	47 nF	3F3SPA 22 S58K40X

PCB clip .122"/3.1 ± .004"/0.10 mm hole diameter and .063"/1.6 mm circuit board thickness.  
For other capacitance values refer to the part number creator.

Capacitance value	Code
100 nF	28
47 nF	22
12 nF	14
10 nF	12
5 nF	08
1.3 nF	05

# C-FILTER COMBINATION D-SUB 3W3C

Solder pin – Angled – Precision machined contacts – Metal bracket



RoHS compliant – UL listed, File No.: E228329

## DESCRIPTION

- Coded socket connector = 1 plug and 2 socket contacts
- Coded plug connector = 2 plugs and 1 socket contact
- 707 VDC (other DWV on request)
- Mounting styles:
  - with mounting bracket and 4-40 UNC threaded insert
  - with mounting bracket, PCB clip and 4-40 UNC threaded insert
- Mounting styles with M3 thread on request
- Quality class 3 (also available in quality class 1)
- Shell: Steel tin plated

## SOCKET CONNECTOR



Termination Code	Current Rating	Ø A	B ± 0.3	C ± 0.3
56	20A	2.85	11.65	11.00
57	30A	3.18	20.35	9.50
58	40A	3.75	11.65	11.00

## PLUG CONNECTOR



Mounting style: Mounting bracket, threaded insert



Mounting style:  
Mounting bracket, PCB clip and threaded insert



Mounting style: Mounting bracket, threaded insert



Mounting style:  
Mounting bracket, PCB clip and threaded insert



## ORDER DATA

SOCKET CONNECTOR				
Type	Mounting style	Ø A	Capacitance	Part Number
3W3C	Mounting bracket/Threaded insert	.110"/2.85	47 nF	3F3CSA 22 S56K20X
3W3C	Mounting bracket/Threaded insert	.126"/3.20	47 nF	3F3CSA 22 S57K20X
3W3C	Mounting bracket/Threaded insert	.150"/3.75	47 nF	3F3CSA 22 S58K20X
3W3C	Mounting bracket/PCB clip/Threaded insert	.110"/2.85	47 nF	3F3CPA 22 S56K40X
3W3C	Mounting bracket/PCB clip/Threaded insert	.126"/3.20	47 nF	3F3CPA 22 S57K40X
3W3C	Mounting bracket/PCB clip/Threaded insert	.150"/3.75	47 nF	3F3CPA 22 S58K40X

PLUG CONNECTOR				
Type	Mounting style	Ø A	Capacitance	Part Number
3W3C	Mounting bracket/Threaded insert	.110"/2.85	47 nF	3F3CPA 22 S56K20X
3W3C	Mounting bracket/Threaded insert	.126"/3.20	47 nF	3F3CPA 22 S57K20X
3W3C	Mounting bracket/Threaded insert	.150"/3.75	47 nF	3F3CPA 22 S58K20X
3W3C	Mounting bracket/PCB clip/Threaded insert	.110"/2.85	47 nF	3F3CPA 22 S56K40X
3W3C	Mounting bracket/PCB clip/Threaded insert	.126"/3.20	47 nF	3F3CPA 22 S57K40X
3W3C	Mounting bracket/PCB clip/Threaded insert	.150"/3.75	47 nF	3F3CPA 22 S58K40X

PCB clip .122" / 3.1 ± .004" / 0.10 mm hole diameter and .063" / 1.6 mm circuit board thickness.  
For other capacitance values refer to the part number creator.

Capacitance value	Code
100 nF	28
47 nF	22
12 nF	14
10 nF	12
5 nF	08
1.3 nF	05

# C-FILTER COMBINATION D-SUB 5W5

Solder pin – Angled – Precision machined contacts – Metal bracket



RoHS compliant – UL listed, File No.: E228329

## DESCRIPTION

- 707 VDC (other DWV on request)
- Mounting styles:
  - with mounting bracket and 4-40 UNC threaded insert
  - with mounting bracket, PCB clip and 4-40 UNC threaded insert
- Mounting styles with M3 thread on request
- Quality class 3 (also available in quality class 1)
- Shell: Steel tin plated

## SOCKET CONNECTOR



Termination Code	Current Rating	Ø A	B ± 0.3	C ± 0.3
56	20A	2.85	11.65	11.00
57	30A	3.18	20.35	9.50
58	40A	3.75	11.65	11.00

## PLUG CONNECTOR



Mounting style: Mounting bracket, threaded insert



Mounting style: Mounting bracket, threaded insert



Mounting style:  
Mounting bracket, PCB clip and threaded insert



Mounting style:  
Mounting bracket, PCB clip and threaded insert



## ORDER DATA

SOCKET CONNECTOR				
Type	Mounting style	Ø A	Capacitance	Part Number
5W5	Mounting bracket/Threaded insert	.110"/2.85	47 nF	5F5SSA 22 S56K20X
5W5	Mounting bracket/Threaded insert	.126"/3.20	47 nF	5F5SSA 22 S57K20X
5W5	Mounting bracket/Threaded insert	.150"/3.75	47 nF	5F5SSA 22 S58K20X
5W5	Mounting bracket/PCB clip/Threaded insert	.110"/2.85	47 nF	5F5SSA 22 S56K40X
5W5	Mounting bracket/PCB clip/Threaded insert	.126"/3.20	47 nF	5F5SSA 22 S57K40X
5W5	Mounting bracket/PCB clip/Threaded insert	.150"/3.75	47 nF	5F5SSA 22 S58K40X

PLUG CONNECTOR				
Type	Mounting style	Ø A	Capacitance	Part Number
5W5	Mounting bracket/Threaded insert	.110"/2.85	47 nF	5F5SPA 22 S56K20X
5W5	Mounting bracket/Threaded insert	.126"/3.20	47 nF	5F5SPA 22 S57K20X
5W5	Mounting bracket/Threaded insert	.150"/3.75	47 nF	5F5SPA 22 S58K20X
5W5	Mounting bracket/PCB clip/Threaded insert	.110"/2.85	47 nF	5F5SPA 22 S56K40X
5W5	Mounting bracket/PCB clip/Threaded insert	.126"/3.20	47 nF	5F5SPA 22 S57K40X
5W5	Mounting bracket/PCB clip/Threaded insert	.150"/3.75	47 nF	5F5SPA 22 S58K40X

PCB clip .122"/3.1 ± .004"/0.10 mm hole diameter and .063"/1.6 mm circuit board thickness.  
For other capacitance values refer to the part number creator.

Capacitance value	Code
100 nF	28
47 nF	22
12 nF	14
10 nF	12
5 nF	08
1.3 nF	05

# C-FILTER COMBINATION D-SUB 8W8

Solder pin – Angled – Precision machined contacts – Metal bracket



RoHS compliant – UL listed, File No.: E228329

## DESCRIPTION

- 707 VDC (other DWV on request)
- Mounting styles:
  - with mounting bracket and 4-40 UNC threaded insert
  - with mounting bracket, PCB clip and 4-40 UNC threaded insert
- Mounting styles with M3 thread on request
- Quality class 3 (also available in quality class 1)
- Shell: Steel tin plated

## SOCKET CONNECTOR

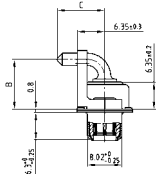


Termination Code	Current Rating	Ø A	B ± 0.3	C ± 0.3
56	20A	2.85	11.65	11.00
57	30A	3.18	20.35	9.50
58	40A	3.75	11.65	11.00

## PLUG CONNECTOR



Mounting style: Mounting bracket, threaded insert



Mounting style: Mounting bracket, threaded insert



Mounting style:  
Mounting bracket, PCB clip and threaded insert



Mounting style:  
Mounting bracket, PCB clip and threaded insert



## ORDER DATA

SOCKET CONNECTOR				
Type	Mounting style	Ø A	Capacitance	Part Number
8W8	Mounting bracket/Threaded insert	.110"/2.85	47 nF	8F8SSA 22 S56K20X
8W8	Mounting bracket/Threaded insert	.126"/3.20	47 nF	8F8SSA 22 S57K20X
8W8	Mounting bracket/Threaded insert	.150"/3.75	47 nF	8F8SSA 22 S58K20X
8W8	Mounting bracket/PCB clip/Threaded insert	.110"/2.85	47 nF	8F8SSA 22 S56K40X
8W8	Mounting bracket/PCB clip/Threaded insert	.126"/3.20	47 nF	8F8SSA 22 S57K40X
8W8	Mounting bracket/PCB clip/Threaded insert	.150"/3.75	47 nF	8F8SSA 22 S58K40X

PLUG CONNECTOR				
Type	Mounting style	Ø A	Capacitance	Part Number
8W8	Mounting bracket/Threaded insert	.110"/2.85	47 nF	8F8SPA 22 S56K20X
8W8	Mounting bracket/Threaded insert	.126"/3.20	47 nF	8F8SPA 22 S57K20X
8W8	Mounting bracket/Threaded insert	.150"/3.75	47 nF	8F8SPA 22 S58K20X
8W8	Mounting bracket/PCB clip/Threaded insert	.110"/2.85	47 nF	8F8SPA 22 S56K40X
8W8	Mounting bracket/PCB clip/Threaded insert	.126"/3.20	47 nF	8F8SPA 22 S57K40X
8W8	Mounting bracket/PCB clip/Threaded insert	.150"/3.75	47 nF	8F8SPA 22 S58K40X

PCB clip .122"/3.1 ± .004"/0.10 mm hole diameter and .063"/1.6 mm circuit board thickness.  
For other capacitance values refer to the part number creator.

Capacitance value	Code
100 nF	28
47 nF	22
12 nF	14
10 nF	12
5 nF	08
1.3 nF	05

# C-FILTER COMBINATION D-SUB 2W2C

Press-fit contact – Straight – Precision machined contacts

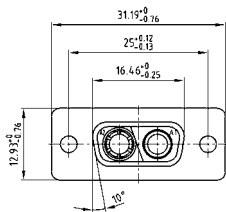


RoHS compliant – UL listed, File No.: E228329

## DESCRIPTION

- Coded design = 1 plug and 1 socket contact
- 707 VDC (other DWV on request)
- Mounting styles:
  - with threaded rear spacer and 4-40 UNC threaded insert
  - with rear press-fit spacer and 4-40 UNC threaded insert
- Mounting styles with M3 thread on request
- Quality class 3 (also available in quality class 1)
- Shell: Steel tin plated

## SOCKET CONNECTOR

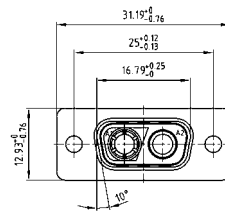


Termination Code	Current Rating	A ± 0.03	B min.	B max.
P1	30A	3.13	2.96	3.11
P2	30A	3.27	3.10	3.25
P4	30A	3.22	3.02	3.20

PCB hole drilling for high power press fit contact.



## PLUG CONNECTOR



Mounting style: 4-40 UNC threaded rear spacer



Mounting style: 4-40 UNC threaded rear spacer



Mounting style: 4-40 UNC rear press-fit spacer



Mounting style: 4-40 UNC rear press-fit spacer



## ORDER DATA

SOCKET CONNECTOR				
Type	Mounting style 4-40 UNC	Ø A	Capacitance	Part Number
2W2C	Threaded rear spacer	.120"/3.13	47 nF	2F2CSA 22 SP1AAOX
2W2C	Threaded rear spacer	.130"/3.27	47 nF	2F2CSA 22 SP2AAOX
2W2C	Threaded rear spacer	.120"/3.22	47 nF	2F2CSA 22 SP4AAOX
2W2C	Rear press-fit spacer	.120"/3.13	47 nF	2F2CSA 22 SP1W4OX
2W2C	Rear press-fit spacer	.120"/3.27	47 nF	2F2CSA 22 SP2W4OX
2W2C	Rear press-fit spacer	.120"/3.22	47 nF	2F2CSA 22 SP4W4OX

PLUG CONNECTOR				
Type	Mounting style 4-40 UNC	Ø A	Capacitance	Part Number
2W2C	Threaded rear spacer	.120"/3.13	47 nF	2F2CPA 22 SP1AAOX
2W2C	Threaded rear spacer	.130"/3.27	47 nF	2F2CPA 22 SP2AAOX
2W2C	Threaded rear spacer	.120"/3.22	47 nF	2F2CPA 22 SP4AAOX
2W2C	Rear press-fit spacer	.120"/3.13	47 nF	2F2CPA 22 SP1W4OX
2W2C	Rear press-fit spacer	.120"/3.27	47 nF	2F2CPA 22 SP2W4OX
2W2C	Rear press-fit spacer	.120"/3.22	47 nF	2F2CPA 22 SP4W4OX

PCB clip .122"/3.1 ± .004"/0.10 mm hole diameter and .063"/1.6 mm circuit board thickness. For other capacitance values refer to the part number creator.

Capacitance value	Code
100 nF	28
47 nF	22
12 nF	14
10 nF	12
5 nF	08
1.3 nF	05

# C-FILTER COMBINATION D-SUB 3W3

Press-fit contact – Straight – Precision machined contacts



RoHS compliant – UL listed, File No.: E228329

## DESCRIPTION

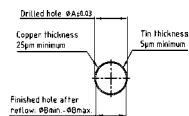
- 707 VDC (other DWV on request)
- Mounting styles:
  - with threaded rear spacer and 4-40 UNC threaded insert
  - with rear press-fit spacer and 4-40 UNC threaded insert
- Mounting styles with M3 thread on request
- Quality class 3 (also available in quality class 1)
- Shell: Steel tin plated

## SOCKET CONNECTOR

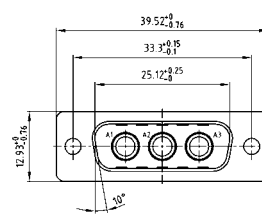


Termination Code	Current Rating	A ± 0.03	B min.	B max.
P1	30A	3.13	2.96	3.11
P2	30A	3.27	3.10	3.25
P4	30A	3.22	3.02	3.20

PCB hole drilling for high power press fit contact.



## PLUG CONNECTOR



Mounting style: 4-40 UNC threaded rear spacer



Mounting style: 4-40 UNC threaded rear spacer



Mounting style: Rear press-fit spacer



Mounting style: Rear press-fit spacer



## ORDER DATA

SOCKET CONNECTOR				
Type	Mounting style 4-40 UNC	Ø A	Capacitance	Part Number
3W3	Threaded rear spacer	.120"/3.13	47 nF	3F3SSA 22 SP1AAOX
3W3	Threaded rear spacer	.130"/3.27	47 nF	3F3SSA 22 SP2AAOX
3W3	Threaded rear spacer	.120"/3.22	47 nF	3F3SSA 22 SP4AAOX
3W3	Rear press-fit spacer	.120"/3.13	47 nF	3F3SSA 22 SP1W4OX
3W3	Rear press-fit spacer	.120"/3.27	47 nF	3F3SSA 22 SP2W4OX
3W3	Rear press-fit spacer	.120"/3.22	47 nF	3F3SSA 22 SP4W4OX

PLUG CONNECTOR				
Type	Mounting style 4-40 UNC	Ø A	Capacitance	Part Number
3W3	Threaded rear spacer	.120"/3.13	47 nF	3F3SPA 22 SP1AAOX
3W3	Threaded rear spacer	.130"/3.27	47 nF	3F3SPA 22 SP2AAOX
3W3	Threaded rear spacer	.120"/3.22	47 nF	3F3SPA 22 SP4AAOX
3W3	Rear press-fit spacer	.120"/3.13	47 nF	3F3SPA 22 SP1W4OX
3W3	Rear press-fit spacer	.120"/3.27	47 nF	3F3SPA 22 SP2W4OX
3W3	Rear press-fit spacer	.120"/3.22	47 nF	3F3SPA 22 SP4W4OX

PCB clip .122"/3.1 ± .004"/0.10 mm hole diameter and .063"/1.6 mm circuit board thickness.  
For other capacitance values refer to the part number creator.

Capacitance value	Code
100 nF	28
47 nF	22
12 nF	14
10 nF	12
5 nF	08
1.3 nF	05



# C-FILTER COMBINATION D-SUB 3W3C

Press-fit contact – Straight – Precision machined contacts



RoHS compliant – UL listed, File No.: E228329

## SOCKET CONNECTOR



Termination Code	Current Rating	A ± 0.03	B min.	B max.
P1	30A	3.13	2.96	3.11
P2	30A	3.27	3.10	3.25
P4	30A	3.22	3.02	3.20

PCB hole drilling for high power press fit contact.



Mounting style: 4-40 UNC threaded rear spacer



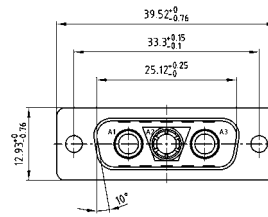
Mounting style: 4-40 UNC rear press-fit spacer



## DESCRIPTION

- Coded socket connector = 1 plug and 2 socket contacts
- Coded plug connector = 2 plugs and 1 socket contact
- 707 VDC (other DWV on request)
- Mounting styles:
  - with threaded rear spacer and 4-40 UNC threaded insert
  - with rear press-fit spacer and 4-40 UNC threaded insert
- Mounting styles with M3 thread on request
- Quality class 3 (also available in quality class 1)
- Shell: Steel tin plated

## PLUG CONNECTOR



Mounting style: 4-40 UNC threaded rear spacer



Mounting style: 4-40 UNC rear press-fit spacer



## ORDER DATA

SOCKET CONNECTOR				
Type	Mounting style 4-40 UNC	Ø A	Capacitance	Part Number
3W3C	Threaded rear spacer	.120"/3.13	47 nF	3F3CSA 22 SP1AAOX
3W3C	Threaded rear spacer	.130"/3.27	47 nF	3F3CSA 22 SP2AAOX
3W3C	Threaded rear spacer	.120"/3.22	47 nF	3F3CSA 22 SP4AAOX
3W3C	Rear press-fit spacer	.120"/3.13	47 nF	3F3CSA 22 SP1W4OX
3W3C	Rear press-fit spacer	.120"/3.27	47 nF	3F3CSA 22 SP2W4OX
3W3C	Rear press-fit spacer	.120"/3.22	47 nF	3F3CSA 22 SP4W4OX

PLUG CONNECTOR				
Type	Mounting style 4-40 UNC	Ø A	Capacitance	Part Number
3W3C	Threaded rear spacer	.120"/3.13	47 nF	3F3CPA 22 SP1AAOX
3W3C	Threaded rear spacer	.130"/3.27	47 nF	3F3CPA 22 SP2AAOX
3W3C	Threaded rear spacer	.120"/3.22	47 nF	3F3CPA 22 SP4AAOX
3W3C	Rear press-fit spacer	.120"/3.13	47 nF	3F3CPA 22 SP1W4OX
3W3C	Rear press-fit spacer	.120"/3.27	47 nF	3F3CPA 22 SP2W4OX
3W3C	Rear press-fit spacer	.120"/3.22	47 nF	3F3CPA 22 SP4W4OX

PCB clip .122"/3.1 ± .004"/0.10 mm diameter and .063"/1.6 mm circuit board thickness.  
For other capacitance values refer to the part number creator.

Capacitance value	Code
100 nF	28
47 nF	22
12 nF	14
10 nF	12
5 nF	08
1.3 nF	05

# C-FILTER COMBINATION D-SUB 5W5

Press-fit contact – Straight – Precision machined contacts



RoHS compliant – UL listed, File No.: E228329

## DESCRIPTION

- 707 VDC (other DWV on request)
- Mounting styles:
  - with threaded rear spacer and 4-40 UNC threaded insert
  - with rear press-fit spacer and 4-40 UNC threaded insert
- Mounting styles with M3 thread on request
- Quality class 3 (also available in quality class 1)
- Shell: Steel tin plated

## SOCKET CONNECTOR



Termination Code	Current Rating	A ± 0.03	B min.	B max.
P1	30A	3.13	2.96	3.11
P2	30A	3.27	3.10	3.25
P4	30A	3.22	3.02	3.20

PCB hole drilling for high power press fit contact.



## PLUG CONNECTOR



Mounting style: 4-40 UNC threaded rear spacer



Mounting style: 4-40 UNC threaded rear spacer



Mounting style: Rear press-fit spacer



Mounting style: Rear press-fit spacer



## ORDER DATA

SOCKET CONNECTOR				
Type	Mounting style 4-40 UNC	Ø A	Capacitance	Part Number
5W5	Threaded rear spacer	.120"/3.13	47 nF	5F5SSA 22 SP1AAOX
5W5	Threaded rear spacer	.130"/3.27	47 nF	5F5SSA 22 SP2AAOX
5W5	Threaded rear spacer	.120"/3.22	47 nF	5F5SSA 22 SP4AAOX
5W5	Rear press-fit spacer	.120"/3.13	47 nF	5F5SSA 22 SP1W4OX
5W5	Rear press-fit spacer	.120"/3.27	47 nF	5F5SSA 22 SP2W4OX
5W5	Rear press-fit spacer	.120"/3.22	47 nF	5F5SSA 22 SP4W4OX

PLUG CONNECTOR				
Type	Mounting style 4-40 UNC	Ø A	Capacitance	Part Number
5W5	Threaded rear spacer	.120"/3.13	47 nF	5F5SPA 22 SP1AAOX
5W5	Threaded rear spacer	.130"/3.27	47 nF	5F5SPA 22 SP2AAOX
5W5	Threaded rear spacer	.120"/3.22	47 nF	5F5SPA 22 SP4AAOX
5W5	Rear press-fit spacer	.120"/3.13	47 nF	5F5SPA 22 SP1W4OX
5W5	Rear press-fit spacer	.120"/3.27	47 nF	5F5SPA 22 SP2W4OX
5W5	Rear press-fit spacer	.120"/3.22	47 nF	5F5SPA 22 SP4W4OX

PCB clip .122"/3.1 ± .004"/0.10 mm hole diameter and .063"/1.6 mm circuit board thickness. For other capacitance values refer to the part number creator.

Capacitance value	Code
100 nF	28
47 nF	22
12 nF	14
10 nF	12
5 nF	08
1.3 nF	05

# C-FILTER COMBINATION D-SUB 8W8

Press-fit contact – Straight – Precision machined contacts



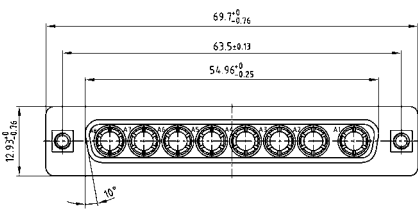
RoHS compliant – UL listed, File No.: E228329

## DESCRIPTION

- 707 VDC (other DWV on request)
- Mounting styles:
  - with threaded rear spacer and 4-40 UNC threaded insert
  - with rear press-fit spacer and 4-40 UNC threaded insert
- Mounting styles with M3 thread on request
- Quality class 3 (also available in quality class 1)
- Shell: Steel tin plated

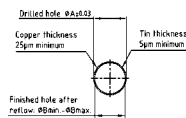
## SOCKET CONNECTOR

## PLUG CONNECTOR



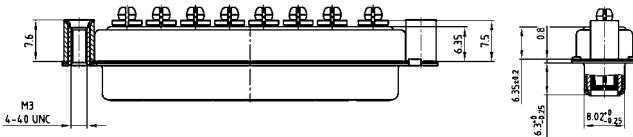
Termination Code	Current Rating	A ± 0.03	B min.	B max.
P1	30A	3.13	2.96	3.11
P2	30A	3.27	3.10	3.25
P4	30A	3.22	3.02	3.20

PCB hole drilling for high power press fit contact.



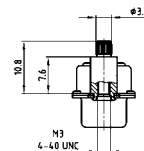
Mounting style: 4-40 UNC threaded rear spacer

Mounting style: 4-40 UNC threaded rear spacer



Mounting style: 4-40 UNC rear press-fit spacer

Mounting style: 4-40 UNC rear press-fit spacer



## ORDER DATA

SOCKET CONNECTOR				
Type	Mounting style 4-40 UNC	Ø A	Capacitance	Part Number
8W8	Threaded rear spacer	.120°/3.13	47 nF	8F8SSA 22 SP1AAOX
8W8	Threaded rear spacer	.130°/3.27	47 nF	8F8SSA 22 SP2AAOX
8W8	Threaded rear spacer	.120°/3.22	47 nF	8F8SSA 22 SP4AAOX
8W8	Rear press-fit spacer	.120°/3.13	47 nF	8F8SSA 22 SP1W4OX
8W8	Rear press-fit spacer	.120°/3.27	47 nF	8F8SSA 22 SP2W4OX
8W8	Rear press-fit spacer	.120°/3.22	47 nF	8F8SSA 22 SP4W4OX

PLUG CONNECTOR				
Type	Mounting style 4-40 UNC	Ø A	Capacitance	Part Number
8W8	Threaded rear spacer	.120°/3.13	47 nF	8F8SPA 22 SP1AAOX
8W8	Threaded rear spacer	.130°/3.27	47 nF	8F8SPA 22 SP2AAOX
8W8	Threaded rear spacer	.120°/3.22	47 nF	8F8SPA 22 SP4AAOX
8W8	Rear press-fit spacer	.120°/3.13	47 nF	8F8SPA 22 SP1W4OX
8W8	Rear press-fit spacer	.120°/3.27	47 nF	8F8SPA 22 SP2W4OX
8W8	Rear press-fit spacer	.120°/3.22	47 nF	8F8SPA 22 SP4W4OX

PCB clip .122°/3.1 ± .004°/0.10 mm hole diameter and .063°/1.6 mm circuit board thickness. For other capacitance values refer to the part number creator.

Capacitance value	Code
100 nF	28
47 nF	22
12 nF	14
10 nF	12
5 nF	08
1.3 nF	05

## SECTION 5

 **$\mu$ TCA™ POWER MODULE CONNECTORS**

The MicroTCA standard now provides a specification that permits the design of small, economical and flexible systems from standardized modules.

Power modules, which ensure a secure power supply for the system, are also a part of MicroTCA system design criteria.

The power feed from an external source is accomplished by way of a cable connected to the external source and ending locally in a power input connector mounted on the front side of the power module.

The MicroTCA .0 specification defines appropriate interfaces for this. An interface has been chosen for the input side of MicroTCA direct current power modules which is based on the dual port Combination D-SUB connector.

Form factor 7W2 modules are used for power supplies of -48V and -60V.

Form factor 9W4 is used for +24V power supplies to provide coding and differentiation. The specified connectors consist of two power contacts and two signal contacts.

The signal contacts are used for hot-swap control purposes and, according to specification, should be shorted with a jumper on the cable side of the connector.





A 24 amp rating per contact is required for the 7W2 version and a 49 amp rating per contact for the 9W4 version.

The contact may not have an operational temperature rise in excess of 30° C.

The machined precision contacts used in CONEC MicroTCA power module input connectors offer considerable power reserves and are specified for 250 insertion cycles.

The CONEC product line encompasses connectors for installation on the PC board in dual and single port designs for through hole soldering and SMT. Filtered version available on request. Socket connectors are available for use with cable. These connectors are offered with signal contacts which are bridged and unbridged versions.

Included in the product offering are slim line, low profile hoods and suitable connectors.



MEMBER OF



## TECHNICAL DATA

<b>Materials</b>		
Insulator	PBT (UL 94-V0)	
Power Contacts	Copper alloy, Precision machined contacts	Mating side Au over Ni
		Soldering side Sn over Ni
Signal contacts	Copper alloy, Precision machined contacts	Mating side Au over Ni
		Soldering side Au over Ni
Shell	Steel	Tin plated
Mounting bracket	Zink die-cast	Tin plated
4-40 UNC threaded insert	Copper alloy	Tin plated
Hex bolt with 4-40 UNC threaded insert and washers	Steel	Nickel plated
PCB clip for .063" / 1.6 mm PCB	Copper alloy	Tin plated
<b>Mechanical and electrical characteristics</b>		
Current rating	Power contacts	24 A at max. 30°C temperature rise
	Signal contacts	7.5 A nominal
Clearance- and creepage distance	Power contacts	.059" / 1.5 mm min.
	Signal contacts	.016" / 0.4 mm min.
	Signal and power contacts	.059" / 1.5 mm min.
	Power contacts and shell	.059" / 1.5 mm min.
	Signal contact and shell	.059" / 1.5 mm min.
Insulation resistance	Power contact	5000 mΩ min.
	Signal contact	5000 mΩ min.
	Signal and power contacts	5000 mΩ min.
	Power contacts and Shell	5000 mΩ min.
	Signal contact and Shell	5000 mΩ min.
Dielectric with standing voltage	1000 V r.m.s.	
Mating cycles	250 cycles	
Mating force	100 N max.	
Unmating force	65 N max.	

Technical specifications are subject to change without notice.

## SOLDER PROFILE

Connector Type	Preheating		Solder terminal dipping parameters	
	max. Temperature	Duration	max. Solder bath Temperature	max. Terminal Immersion Time
Filter D-SUB	100°C	30s	260°C	5s
Combo D-SUB Filter	120°C	120s	260°C	5s
Filter D-SUB Water Resistant	100°C	30s	240°C	5s
Combo D-SUB Water Resistant	120°C	120s	240°C	5s
D-SUB Water Resistant	120°C	120s	240°C	5s
D-SUB Solid Body Type Water Resistant	150°C	180s	265°C	8s
RJ45 Modular Jack Filtered	150°C	180s	265°C	8s
Filter Plates	150°C	180s	265°C	8s

Recommended wave-solder parameters for CONEC connectors.

# MICROTCA POWER MODUL INPUT CONNECTORS

Plug connector – Solder pin angled – Dual port style – Through hole



RoHS compliant

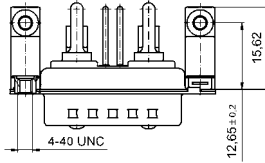
## DESCRIPTION

- Standard version according to MTCA.0 specification
- Design 7W2 for -48/-60 V Power modul
- Design: 2 power contacts 24 A / 2 signal contacts per port
- Mounting styles:
  - Mounting bracket with PCB clip, 4-40 UNC threaded insert
  - Mounting bracket with PCB clip, 4-40 UNC hex bolt
- Note for 9W4 product please contact factory
- Precision machined contacts

## PRODUCT DRAWING



Mounting style:  
Mounting bracket with PCB clip,  
4-40 UNC threaded insert



Mounting style:  
Mounting bracket with PCB clip,  
threaded insert and 4-40 UNC hex bolt



## ORDER DATA

PLUG CONNECTOR		
Design	Mounting style	Part Number
7W2	Mounting bracket with PCB clip/Threaded insert and 4-40 UNC Hex bolt	13-000011
7W2	Mounting bracket with PCB clip/4-40 UNC Threaded insert	13-000021

PCB clip .122"/3.1 ± .004"/0.10 mm hole diameter and .063"/1.6 mm circuit board thickness





# MICROTCA POWER MODUL INPUT CONNECTORS

Plug connector – SMT version – Suitable for reflow – Angled – Dual port style



RoHS compliant

## DESCRIPTION

- SMT Version with contact spacer plate
- Design 7W2 for -48/-60V power modul
- Design: 2 power contacts 35 A / 2 signal contacts per port
- Mounting styles:
  - Mounting bracket with PCB clip, 4-40 UNC threaded insert
  - Mounting bracket with PCB clip, 4-40 UNC hex bolt
- Note for 9W4 product please contact factory
- Precision machined contacts

## PRODUCT DRAWING



Mounting style:  
Mounting bracket with PCB clip,  
4-40 UNC threaded insert



Mounting style:  
Mounting bracket with PCB clip,  
threaded insert and 4-40 UNC hex bolt



## ORDER DATA

PLUG CONNECTOR		
Design	Mounting style	Part Number
7W2	Mounting bracket with PCB clip/Threaded insert and 4-40 UNC Hex bolt	13-000031
7W2	Mounting bracket with PCB clip/4-40 UNC Threaded insert	13-000041

PCB clip .122"/3.1 ± .004"/0.10 mm hole diameter and .063"/1.6 mm circuit board thickness



# MICROTCA POWER MODUL INPUT CONNECTORS

Plug connector – Solder pin angled – Filter version – Through hole

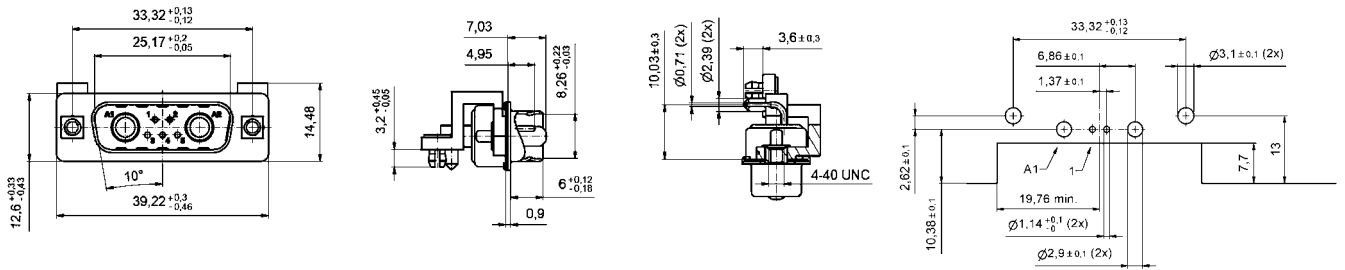


RoHS compliant

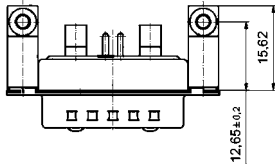
## DESCRIPTION

- Single port version for MicroTCA PCB layout
- Design 7W2 for -48/-60 V power modul
- Design: 2 power contacts 24 A / 2 signal contacts
- Mounting styles:
  - Mounting bracket with PCB clip, 4-40 UNC threaded insert
  - Mounting bracket with PCB clip, 4-40 UNC hex bolt
- Note for 9W4 product please contact factory
- Precision machined contacts

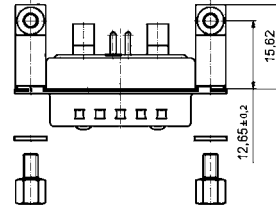
## PRODUCT DRAWING



Mounting style:  
Mounting bracket with PCB clip,  
4-40 UNC threaded insert



Mounting style:  
Mounting bracket with PCB clip,  
threaded insert and 4-40 UNC hex bolt



## ORDER DATA

PLUG CONNECTOR			
Design	Mounting style	Filter capacitance for power contact	Part Number
7W2	Mounting bracket with PCB clip/4-40 UNC Hex bolt	54 nF	24-000061
7W2	Mounting bracket with PCB clip/4-40 UNC Threaded insert	54 nF	24-000071
7W2	Mounting bracket with PCB clip/4-40 UNC Hex bolt	10 nF	24-000081
7W2	Mounting bracket with PCB clip/4-40 UNC Threaded insert	10 nF	24-000091

PCB clip .122"/3.1 ± .004"/0.10 mm hole diameter and .063"/1.6 mm circuit board thickness

# MICROTCA POWER MODUL INPUT CONNECTORS

Plug connector – SMT version – Suitable for reflow – Angled



RoHS compliant

## DESCRIPTION

- SMT Version with contact spacer plate
- Design 7W2 for -48/-60V power modul
- Design: 2 power contacts 35 A / 2 signal contacts
- Mounting styles:
  - Mounting bracket with PCB clip, 4-40 UNC threaded insert
  - Mounting bracket with PCB clip, 4-40 UNC hex bolt
- Note for 9W4 product please contact factory
- Precision machined contacts

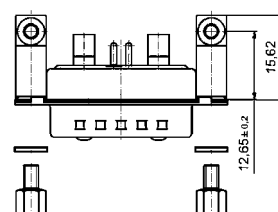
## PRODUCT DRAWING



Mounting style:  
Mounting bracket with PCB clip,  
4-40 UNC threaded insert



Mounting style:  
Mounting bracket with PCB clip,  
threaded insert and 4-40 UNC hex bolt



## ORDER DATA

PLUG CONNECTOR		
Design	Mounting style	Part Number
7W2	Mounting bracket with PCB clip/Threaded insert and 4-40 UNC Hex bolt	13-000071
7W2	Mounting bracket with PCB clip/4-40 UNC Threaded insert	13-000081

PCB clip .122"/3.1 ± .004"/0.10 mm hole diameter and .063"/1.6 mm circuit board thickness

# POWER MODUL INPUT CONNECTOR

Plug connector – Solder pin – Angled – Through hole

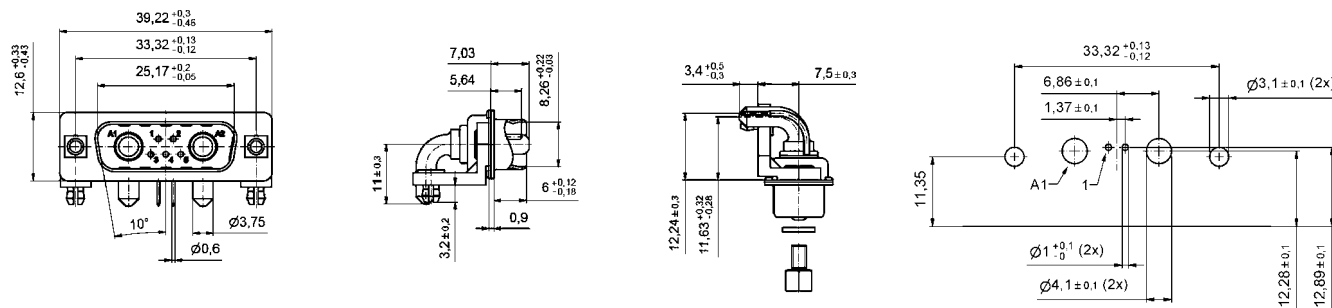


RoHS compliant

## DESCRIPTION

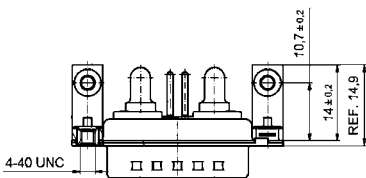
- 7W2 Combination D-SUB Connector
- Design: 2 power contacts 40 A / 2 signal contacts
- Mounting styles:
  - Mounting bracket with PCB clip, 4-40 UNC threaded insert
  - Mounting bracket with PCB clip, 4-40 UNC hex bolt
- Note for 9W4 product please contact factory
- Precision machined contacts

## PRODUCT DRAWING



Mounting style:  
Mounting bracket with PCB clip,  
4-40 UNC threaded insert

Mounting style:  
Mounting bracket with PCB clip,  
threaded insert and 4-40 UNC hex bolt



## ORDER DATA

PLUG CONNECTOR		
Design	Mounting style	Part Number
7W2	Mounting bracket with PCB clip/Threaded insert and 4-40 UNC Hex bolt	13-000091
7W2	Mounting bracket with PCB clip/4-40 UNC Threaded insert	13-000101

PCB clip .122"/3.1 ± .004"/0.10 mm hole diameter and .063"/1.6 mm circuit board thickness

# POWER MODUL INPUT CONNECTOR

Plug connector – Solder pin – Angled – Filter version – Through hole



RoHS compliant

## DESCRIPTION

- 7W2 Combination D-SUB Connectors
- Design: 2 power contacts 40 A / 2 signal contacts
- Filtered power contacts with 54 nF or 10 nF Capacitance
- Signal contacts are not filtered
- Mounting styles:
  - Mounting bracket with PCB clip, 4-40 UNC threaded insert
  - Mounting bracket with PCB clip, 4-40 UNC hex bolt
- Note for 9W4 product please contact factory
- Precision machined contacts

## PRODUCT DRAWING



Mounting style:  
Mounting bracket with PCB clip,  
4-40 UNC threaded insert

Mounting style:  
Mounting bracket with PCB clip,  
threaded insert and 4-40 UNC hex bolt



## ORDER DATA

PLUG CONNECTOR			
Design	Mounting style	Filter capacitance for power contact	Part Number
7W2	Mounting bracket with PCB clip/4-40 UNC Hex bolt	54 nF	24-000101
7W2	Mounting bracket with PCB clip/4-40 UNC Threaded insert	54 nF	24-000111
7W2	Mounting bracket with PCB clip/4-40 UNC Hex bolt	10 nF	24-000121
7W2	Mounting bracket with PCB clip/4-40 UNC Threaded insert	10 nF	24-000131

PCB clip .122"/3.1 ± .004"/0.10 mm hole diameter and .063"/1.6 mm circuit board thickness

# POWER MODUL INPUT CONNECTOR

Plug connector – Solder pin – Straight – Through hole



RoHS compliant

## DESCRIPTION

- 7W2 Combination D-SUB Connectors
- Design: 2 power contacts 24 A / 2 signal contacts
- Mounting styles:
  - 4-40 UNC threaded rear spacer with PCB clip,
  - 4-40 UNC threaded insert
  - 4-40 UNC threaded rear spacer with PCB clip,
  - 4-40 UNC hex bolt
- Note for 9W4 product please contact factory
- Precision machined contacts

## PRODUCT DRAWING



Mounting style:

4-40 UNC threaded rear spacer with PCB clip,  
4-40 UNC threaded insert



Mounting style:

4-40 UNC threaded rear spacer with PCB clip,  
4-40 UNC hex bolt



## ORDER DATA

PLUG CONNECTOR		
Design	Mounting style 4-40 UNC	Part Number
7W2	Threaded rear spacer with PCB clip / Hex bolt	13-000111
7W2	Threaded rear spacer with PCB clip / Threaded insert	13-000121

PCB clip .122" / 3.1 ± .004" / 0.10 mm hole diameter



# POWER MODUL INPUT CONNECTOR

Plug connector – Solder pin – Straight – Filter version – Through hole



RoHS compliant

## DESCRIPTION

- 7W2 Combination D-SUB Connectors
- Design: 2 power contacts 24 A / 2 signal contacts
- Filtered power contacts with 54 nF oder 10 nF capacitance
- Mounting styles:
  - 4-40 UNC threaded rear spacer with PCB clip,
  - 4-40 UNC threaded insert
  - 4-40 UNC threaded rear spacer with PCB clip,
  - 4-40 UNC hex bolt
- Note for 9W4 product please contact factory
- Precision machined contacts

## PRODUCT DRAWING



Mounting style:

4-40 UNC threaded rear spacer with PCB clip,  
4-40 UNC threaded insert



Mounting style:

4-40 UNC threaded rear spacer with PCB clip,  
4-40 UNC hex bolt



## ORDER DATA

### PLUG CONNECTOR

Design	Mounting style 4-40 UNC	Filter capacitance for power contact	Part Number
7W2	Threaded rear spacer with PCB clip/Hex bolt	54 nF	24-000141
7W2	Threaded rear spacer with PCB clip/Threaded insert	54 nF	24-000151
7W2	Threaded rear spacer with PCB clip/Hex bolt	10 nF	24-000161
7W2	Threaded rear spacer with PCB clip/Threaded insert	10 nF	24-000171

PCB clip .122"/3.1 ± .004" / 0.10 mm hole diameter

# MICROTCA POWER INPUT CONNECTOR

Socket connector – Solder cup or crimp body



RoHS compliant

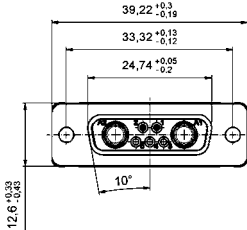
## DESCRIPTION

- 7W2 MicroTCA Design: 2 Power / 2 signal contacts
- Available with bridged and unbridged signal contacts
- Mounting style: with Through-hole .118"/3.0 mm
- Power contacts solder cup or crimp type wire size
- Note for 9W4 product please contact factory

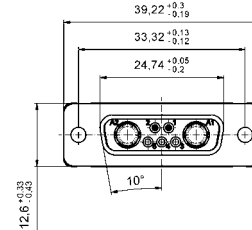
## PRODUCT DRAWING

Solder cup

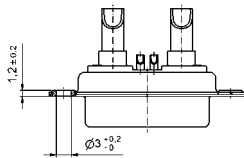
AWG	X	Current Rating
10-12	3.5	max. 30 A
12-14	2.7	max. 20 A
16-20	1.8	max. 10 A



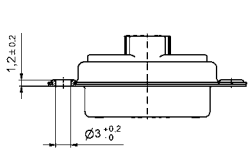
Crimp version



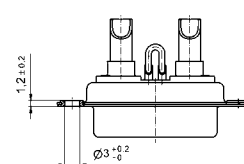
With signal contacts



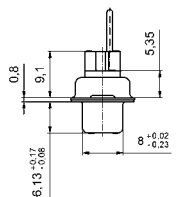
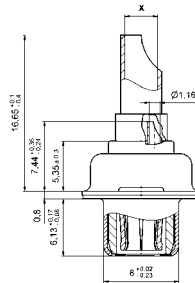
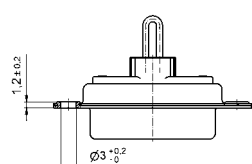
Without signal contacts



With bridged signal contact



with bridged signal contacts



## ORDER DATA

### SOCKET CONNECTOR VERSION SOLDER CUP

Design	Wire size	Current rating	Mounting style	Signal contacts	Part Number
7W2	AWG 10...12	30 A	Through-hole .118"/3.0 mm	Unbridged	13-000131
7W2	AWG 12...14	20 A	Through-hole .118"/3.0 mm	Unbridged	13-000141
7W2	AWG 16...20	10 A	Through-hole .118"/3.0 mm	Unbridged	13-000151
7W2	AWG 10...12	30 A	Through-hole .118"/3.0 mm	Bridged	13-000161
7W2	AWG 12...14	20 A	Through-hole .118"/3.0 mm	Bridged	13-000171
7W2	AWG 16...20	10 A	Through-hole .118"/3.0 mm	Bridged	13-000181

### SOCKET CONNECTOR CRIMP BODY

Design	Design	Mounting style	Crimp signal contacts	Part Number
7W2	Crimp body	Through-hole .118"/3.0 mm	Without signal contacts	13-000190
7W2	Crimp body	Through-hole .118"/3.0 mm	Bridged	13-000201

# MICROTCA POWER INPUT CONTACTS

Socket contact – Crimp body – Precision machined



RoHS compliant

## DESCRIPTION

- Standard packaging
- Precision machined contacts
- Quality class 1 is standard
- Other quality classes on request
- Short power contacts, offered for use in MicroTCA specific hood

## PRODUCT DRAWING

Signal crimp contact (Standard version)



Signal crimp contact (closed entry version)



Power crimp contact (standard version)



Power crimp contact (short version)



AWG	A <sub>1</sub>	A <sub>2</sub>	X	Y	Current Rating
8-10		20.08	4.6	5.35	40A
10-12	22.98	20.08	3.7	4.7	30 A
12-14	22.98	20.08	2.6	3.6	20 A
16-20	22.98	20.08	1.7	2.6	10 A

## ORDER DATA

SOCKET CONTACT			
Version	Wire cross section	Current rating	Part Number
Signal crimp (standard version)	AWG 20...24	7.5 A	162C18709X
Power crimp (standard version)	AWG 10...12 / A = 22.98	30 A	132C11039X
Power crimp (standard version)	AWG 12...14 / A = 22.98	20 A	132C11029X
Power crimp (standard version)	AWG 16...20 / A = 22.98	10 A	132C11019X
Signal crimp (closed entry version)	AWG 20...24	7.5 A	132C15019X
Power crimp (for MicroTCA) (short version)	AWG 8...10 / A = 20.08	40 A	13-000321
Power crimp (for MicroTCA) (short version)	AWG 10...12 / A = 20.08	30 A	13-000311
Power crimp (for MicroTCA) (short version)	AWG 12...14 / A = 20.08	20 A	13-000301
Power crimp (for MicroTCA) (short version)	AWG 16...20 / A = 20.08	10 A	13-000291

# MICROTCA CABLE HOOD AND CONNECTOR SET

Plastic hood with crimp connector body – Straight cable entry



RoHS compliant

## DESCRIPTION

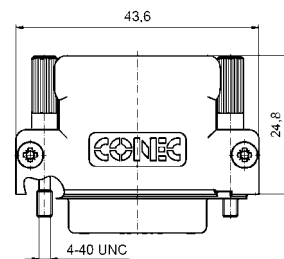
- Compact 7W2 shell inclusive crimp-socket connector
- Available with bridged signal contacts
- Short 4-40 UNC screws with Phillips or Allen key
- Material Housing: PBT GF; UL 94 V0, black
- Integrated strain relief
- Power contacts for wire size AWG 8 up to AWG 20
- This hood only fits this included connector, sold together as a set
- Choose short power contacts from previous page, sold separately

## PRODUCT DRAWING

Hood with short screw  
(Socket connector included)



Hood with jack screw  
(Socket connector included)



## ORDER DATA

### SOCKET CONNECTOR

Design	Signal contacts	Screw design	Part Number
Hood / Crimp socket connector 7W2	Without signal contacts	Short / Allen key	13-000210
Hood / Crimp socket connector 7W2	Without signal contacts	Short / Phillips head	13-000220
Hood / Crimp socket connector 7W2	Bridged	Short / Allen key	13-000231
Hood / Crimp socket connector 7W2	Bridged	Short / Phillips head	13-000241
Hood / Crimp socket connector 7W2	Without signal contacts	Jack screw / Allen key	13-000370
Hood / Crimp socket connector 7W2	Without signal contacts	Jack screw / Phillips head	13-000380
Hood / Crimp socket connector 7W2	Bridged	Jack screw / Allen key	13-000391
Hood / Crimp socket connector 7W2	Bridged	Jack screw / Phillips head	13-000401

# MICROTCA CABLE HOOD

## Metal design – Side cable entry



RoHS compliant

### DESCRIPTION

- Cable hood for 7W2 MicroTCA Standard socket connector
- Suitable for other D-SUB Connectors
- Material: Zink die-cast
- Fastening with 4-40 UNC thread and jack screws
- Solide zink die-cast strain relief
- Plastic cable run integrated in shell
- Bulk or single packaged units

### PRODUCT DRAWING



### ORDER DATA

D-SUB MicroTCA Hood 7W2		
Type	Design	Part Number
7W2	Metal hood	16-000010

## SECTION 6

# RJ45 MODULAR JACK WITH MAGNETIC FILTER

The CONEC RJ45 Magnetic Filtered Modular Jack has been especially developed for 10Base-T and 100Base-Tx LAN Ethernet applications. The requirements for signal transfer over Ethernet are specified in the IEEE 802.3u standard. This series offers ideal protection against electromagnetic interference and common mode interference in Ethernet applications. Furthermore, the RJ45 MM jack offers space saving advantages because the passive components for IC adaptation are implemented.

The areas of application for this connector include networking cards, hubs, motherboards, bridges, routers, switches and point-to-point connections for telecommunications and industry.

This series is available in single and multiple ports (2, 4, 6, 8) designs with straight solder pins for through hole mounting SMT versions are also available.



**Special features:**

- Conformant with IEEE 802.3 and the ANSI X3.263 standard
- Including the required measurements for min.350  $\mu\text{H}$  OCL with 8 mA DC biasing current and 1500  $\text{V}_{\text{rms}}$  isolation voltage
- Offers outstanding EMC characteristics and suppresses common mode interference
- Perfect, reliable filter performance
- Helps the system achieve requirements for low emissions
- Telcordia test report available (on request)

The CONEC RJ45 Magnetic Modular Jack series is UL/cUL (E 202784) tested.

# PART NUMBER CREATOR

RJ45 T J S 1 1 A C O N O X

**Product Line**

**PCB-Termination**

- T = Solder pin, straight
- S = SMT

**Contact finish**

- J = Min. 50 micro inch, 1.27 $\mu$  gold plated over nickel  
Other plating options are available.

**Shielding**

- S = Fully shielded

**Number of port**

- 1 = 1 Port
- 2 = 2 Port
- 4 = 4 Port
- 6 = 6 Port
- 8 = 8 Port

**Number of rows**

- 1 = 1 row

**Turns ratio of transformer**

- A = 1:1/1:1 (Tx/Rx)
  - B = 1:1.414/1:1 (Tx/Rx)
- Other turns ratio of transformer are available, please contact factory.

**Shunt choke option**

- C = With shunt choke in transmit channel
- N = Without shunt choke in transmit channel

**Impedance matching resistors**

- O = Without impedance matching resistors

**LED Color options**

- N = Without LED
  - 1 = Green LED (left), yellow LED (right)
- Other LED combinations are available, please contact factory.

**Standard**

- OX = Standard



## TECHNICAL DATA

Specifications	
Housing, solder pin, straight	Polyester glass filled, black, UL94 V-0
Housing, SMT-Termination	Nylon 46 glass filled, black, UL94 V-0
Shielding	.008" / 0.20 mm thick copper alloy
Contact material	.014" / 0.35 mm thick copper alloy
Mating area plating	50 $\mu$ " / 1.27 $\mu$ m gold min. over 30 $\mu$ " / 0.76 $\mu$ m min. nickel
Solder tails plating	Tin plated
OCL (Open Circuit Inductance)	Min. 350 $\mu$ H at 8mA DC bias
Leakage inductance	Max. 0.35 $\mu$ H
Inter-winding capacitance	Max. 25 pF
DC-Resistance	Max. 1.0 $\Omega$
Turns ratio	1:1/1:1 $\pm$ 3% or Tx/Rx = 1:1.414/1:1 $\pm$ 3%
Rise time and fall time	3.0 ns (typical)
Mating force	Max. 22 N
Retention force	Min. 89 N
Mating cycles	Min. 1 000
Contact resistance	Max. 20 m $\Omega$
Insulation resistance	Min. 1000 m $\Omega$
Dielectric with standing voltage	1 500V ms (Signal to Shield)
Current rating	Max. 0,05A

Spezification at 25°C (Operating temperature -40°C to +85°C)		
Insertion loss	0.1-100 MHz	1.0 dB max
Return loss	0.1-30 MHz	20.0 dB Type
	60 MHz	15.0 dB Type
	80 MHz	12.0 dB Type
Next near and cross talk	0.1-30 MHz	50.0 dB Type
	60 MHz	45.0 dB Type
	100 MHz	40.0 dB Type
Differential to common mode rejection	60 MHz	40.0 dB Type
	100 MHz	35.0 dB Type
Common mode rejection ration	60 MHz	35.0 dB Type
	100 MHz	30.0 dB Type
Hi-Pot	1500 Vrms	60 sec.

Standard-LED		
Color	Green	Yellow
Wave length	565 nm	585 nm
Forward voltage with I <sub>F</sub> =20 mA	2.6 V (max)	2.6 V (max)
	2.1 V (Type)	2.0 V (Type)
Reserve voltage with I <sub>R</sub> =10 $\mu$ A	5.0 V (Type)	5.0 V (Type)
Luminous intensity with I <sub>F</sub> =20 mA	15 mcd (min)	20 mcd (min)
	25 mcd (Type)	30 mcd (Type)

Solder parameter	Preheating		Solder terminal dipping parameters	
	max. Temperature	Duration	max. Solder bath temperature	max. Terminal Immersion Time
Recommended wave-solder parameters	150°C	180s	265°C	8s

Technical specifications are subject to change without notice.

# RJ45 MODULAR JACK WITH MAGNETIC FILTER

1 Port – Solder pin straight – Shielded

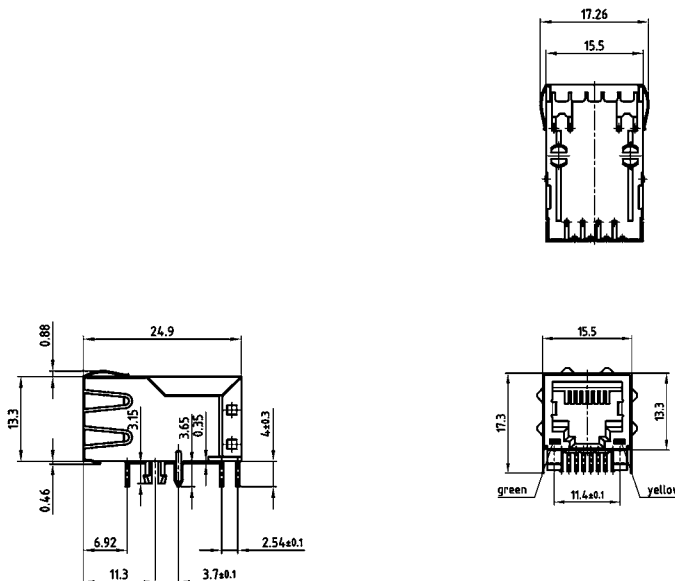


RoHS compliant – UL / cUL listed, File No.: E202784

## DESCRIPTION

- According to specifications IEEE 802.3 and ANSI X3.263
- With and without LED
- Turns Ratio
  - 1:1 / 1:1 (Tx/Rx) or
  - 1:1.414 / 1:1 (Tx/Rx)
  - Further Turns Ratio on request
- Available with and without shunt choke option in transmission channel

## PRODUCT DRAWING



## ORDER DATA

RJ45 MAGNETIC MODULAR JACK – 1 PORT				
Design	Turns ratio	Shunt choke	LED	Part Number
Solder pin, straight	1:1 / 1:1 (Tx/Rx)	In transmit channel	Without LED	RJ45TJS11ACONOX
Solder pin, straight	1:1 / 1:1 (Tx/Rx)	In transmit channel	Green (left)/Yellow (right)	RJ45TJS11AC010X
Solder pin, straight	1:1 / 1:1 (Tx/Rx)	Without	Without LED	RJ45TJS11ANONOX
Solder pin, straight	1:1 / 1:1 (Tx/Rx)	Without	Green (left)/Yellow (right)	RJ45TJS11AN010X
Solder pin, straight	1:1.414 / 1:1 (Tx/Rx)	In transmit channel	Without LED	RJ45TJS11BCONOX
Solder pin, straight	1:1.414 / 1:1 (Tx/Rx)	In transmit channel	Green (left)/Yellow (right)	RJ45TJS11BC010X
Solder pin, straight	1:1.414 / 1:1 (Tx/Rx)	Without	Without LED	RJ45TJS11BNONOX
Solder pin, straight	1:1.414 / 1:1 (Tx/Rx)	Without	Green (left)/Yellow (right)	RJ45TJS11BN010X

# RJ45 MODULAR JACK WITH MAGNETIC FILTER

## 1 Port – SMT-Termination – Shielded



RoHS compliant – UL / cUL listed, File No.: E202784

### DESCRIPTION

- According to specifications IEEE 802.3 and ANSI X3.263
- With and without LED
- Turns Ratio
  - 1:1 / 1:1 (Tx/Rx) or
  - 1:1.414 / 1:1 (Tx/Rx)
  - Further Turns Ratio on request
- Available with and without shunt choke option in transmission channel

### PRODUCT DRAWING



### ORDER DATA

RJ45 MAGNETIC MODULAR JACK – 1 PORT				
Design	Turns ratio	Shunt choke	LED	Part Number
SMT-Termination	1:1 / 1:1 (Tx/Rx)	In transmit channel	Without LED	RJ45SJS11ACONOX
SMT-Termination	1:1 / 1:1 (Tx/Rx)	In transmit channel	Green (left)/Yellow (right)	RJ45SJS11AC010X
SMT-Termination	1:1 / 1:1 (Tx/Rx)	Without	Without LED	RJ45SJS11ANONOX
SMT-Termination	1:1 / 1:1 (Tx/Rx)	Without	Green (left)/Yellow (right)	RJ45SJS11AN010X
SMT-Termination	1:1.414 / 1:1 (Tx/Rx)	In transmit channel	Without LED	RJ45SJS11BCONOX
SMT-Termination	1:1.414 / 1:1 (Tx/Rx)	In transmit channel	Green (left)/Yellow (right)	RJ45SJS11BC010X
SMT-Termination	1:1.414 / 1:1 (Tx/Rx)	Without	Without LED	RJ45SJS11BNONOX
SMT-Termination	1:1.414 / 1:1 (Tx/Rx)	Without	Green (left)/Yellow (right)	RJ45SJS11BN010X

# RJ45 MODULAR JACK WITH MAGNETIC FILTER

2 Port – Solder pin, straight – Shielded

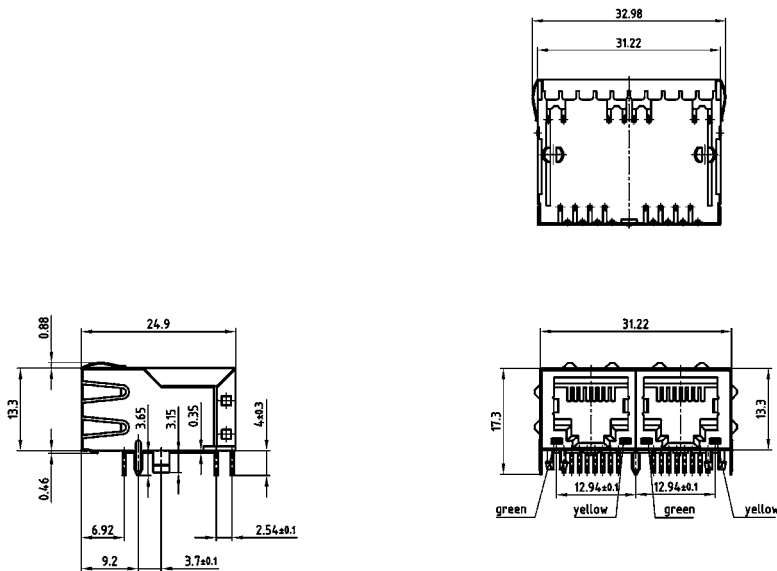


RoHS compliant – UL / cUL listed, File No.: E202784

## DESCRIPTION

- According to specifications IEEE 802.3 and ANSI X3.263
- With and without LED
- Turns Ratio
  - 1:1 / 1:1 (Tx/Rx) or
  - 1:1.414 / 1:1 (Tx/Rx)
  - Further Turns Ratio on request
- Available with and without shunt choke option in transmission channel

## PRODUCT DRAWING



## ORDER DATA

RJ45 MAGNETIC MODULAR JACK – 2 PORT				
Design	Turns ratio	Shunt choke	LED	Part Number
Solder pin, straight	1:1 / 1:1 (Tx/Rx)	In transmit channel	Without LED	RJ45TJS21ACON0X
Solder pin, straight	1:1 / 1:1 (Tx/Rx)	In transmit channel	Green (left)/Yellow (right)	RJ45TJS21AC010X
Solder pin, straight	1:1 / 1:1 (Tx/Rx)	Without	Without LED	RJ45TJS21ANON0X
Solder pin, straight	1:1 / 1:1 (Tx/Rx)	Without	Green (left)/Yellow (right)	RJ45TJS21AN010X
Solder pin, straight	1:1.414 / 1:1 (Tx/Rx)	In transmit channel	Without LED	RJ45TJS21BCON0X
Solder pin, straight	1:1.414 / 1:1 (Tx/Rx)	In transmit channel	Green (left)/Yellow (right)	RJ45TJS21BC010X
Solder pin, straight	1:1.414 / 1:1 (Tx/Rx)	Without	Without LED	RJ45TJS21BNON0X
Solder pin, straight	1:1.414 / 1:1 (Tx/Rx)	Without	Green (left)/Yellow (right)	RJ45TJS21BN010X



# RJ45 MODULAR JACK WITH MAGNETIC FILTER

4 Port – Solder pin, straight – Shielded



RoHS compliant – UL / cUL listed, File No.: E202784

## DESCRIPTION

- According to specifications IEEE 802.3 and ANSI X3.263
- With and without LED
- Turns Ratio
  - 1:1 / 1:1 (Tx/Rx) or
  - 1:1.414/1:1 (Tx/Rx)
  - Further Turns Ratio on request
- Available with and without shunt choke option in transmission channel

## PRODUCT DRAWING



## ORDER DATA

RJ45 MAGNETIC MODULAR JACK – 4 PORT				
Design	Turns ratio	Shunt choke	LED	Part Number
Solder pin, straight	1:1 / 1:1 (Tx/Rx)	In transmit channel	Without LED	RJ45TJS41ACONOX
Solder pin, straight	1:1 / 1:1 (Tx/Rx)	In transmit channel	Green (left)/Yellow (right)	RJ45TJS41AC010X
Solder pin, straight	1:1 / 1:1 (Tx/Rx)	Without	Without LED	RJ45TJS41ANONOX
Solder pin, straight	1:1 / 1:1 (Tx/Rx)	Without	Green (left)/Yellow (right)	RJ45TJS41AN010X
Solder pin, straight	1:1.414/1:1 (Tx/Rx)	In transmit channel	Without LED	RJ45TJS41BCONOX
Solder pin, straight	1:1.414/1:1 (Tx/Rx)	In transmit channel	Green (left)/Yellow (right)	RJ45TJS41BC010X
Solder pin, straight	1:1.414/1:1 (Tx/Rx)	Without	Without LED	RJ45TJS41BNONOX
Solder pin, straight	1:1.414/1:1 (Tx/Rx)	Without	Green (left)/Yellow (right)	RJ45TJS41BN010X

# RJ45 MODULAR JACK WITH MAGNETIC FILTER

## 4 Port – SMT-Termination – Shielded

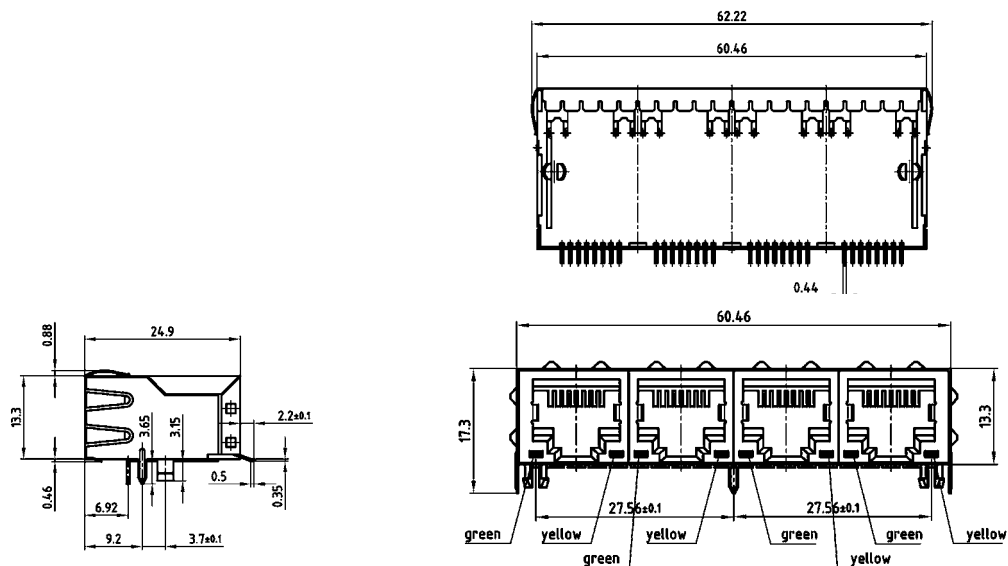


RoHS compliant – UL / cUL listed, File No.: E202784

### DESCRIPTION

- According to specifications IEEE 802.3 and ANSI X3.263
- With and without LED
- Turns Ratio
  - 1:1 / 1:1 (Tx/Rx) or
  - 1:1.414 / 1:1 (Tx/Rx)
  - Further Turns Ratio on request
- Available with and without shunt choke option in transmission channel

### PRODUCT DRAWING



### ORDER DATA

RJ45 MAGNETIC MODULAR JACK – 4 PORT				
Design	Turns ratio	Shunt choke	LED	Part Number
SMT-Termination	1:1 / 1:1 (Tx/Rx)	In transmit channel	Without LED	RJ45SJS41ACONOX
SMT-Termination	1:1 / 1:1 (Tx/Rx)	In transmit channel	Green (left)/Yellow (right)	RJ45SJS41AC010X
SMT-Termination	1:1 / 1:1 (Tx/Rx)	Without	Without LED	RJ45SJS41ANONOX
SMT-Termination	1:1 / 1:1 (Tx/Rx)	Without	Green (left)/Yellow (right)	RJ45SJS41AN010X
SMT-Termination	1:1.414 / 1:1 (Tx/Rx)	In transmit channel	Without LED	RJ45SJS41BCONOX
SMT-Termination	1:1.414 / 1:1 (Tx/Rx)	In transmit channel	Green (left)/Yellow (right)	RJ45SJS41BC010X
SMT-Termination	1:1.414 / 1:1 (Tx/Rx)	Without	Without LED	RJ45SJS41BNONOX
SMT-Termination	1:1.414 / 1:1 (Tx/Rx)	Without	Green (left)/Yellow (right)	RJ45SJS41BN010X

# RJ45 MODULAR JACK WITH MAGNETIC FILTER

6 Port – Solder pin, straight – Shielded



RoHS compliant – UL / cUL listed, File No.: E202784

## DESCRIPTION

- According to specifications IEEE 802.3 and ANSI X3.263
- With and without LED
- Turns Ratio
  - 1:1 / 1:1 (Tx/Rx) or
  - 1:1.414/1:1 (Tx/Rx)
  - Further Turns Ratio on request
- Available with and without shunt choke option in transmission channel

## PRODUCT DRAWING



## ORDER DATA

### RJ45 MAGNETIC MODULAR JACK – 6 PORT

Design	Turns ratio	Shunt choke	LED	Part Number
Solder pin, straight	1:1 / 1:1 (Tx/Rx)	In transmit channel	Without LED	RJ45TJS61AC0N0X
Solder pin, straight	1:1 / 1:1 (Tx/Rx)	In transmit channel	Green (left)/Yellow (right)	RJ45TJS61AC010X
Solder pin, straight	1:1 / 1:1 (Tx/Rx)	Without	Without LED	RJ45TJS61AN0N0X
Solder pin, straight	1:1 / 1:1 (Tx/Rx)	Without	Green (left)/Yellow (right)	RJ45TJS61AN010X
Solder pin, straight	1:1.414/1:1 (Tx/Rx)	In transmit channel	Without LED	RJ45TJS61BC0N0X
Solder pin, straight	1:1.414/1:1 (Tx/Rx)	In transmit channel	Green (left)/Yellow (right)	RJ45TJS61BC010X
Solder pin, straight	1:1.414/1:1 (Tx/Rx)	Without	Without LED	RJ45TJS61BN0N0X
Solder pin, straight	1:1.414/1:1 (Tx/Rx)	Without	Green (left)/Yellow (right)	RJ45TJS61BN010X



# RJ45 MODULAR JACK WITH MAGNETIC FILTER

## 6 Port – SMT-Termination – Shielded



RoHS compliant – UL / cUL listed, File No.: E202784

### DESCRIPTION

- According to specifications IEEE 802.3 and ANSI X3.263
- With and without LED
- Turns Ratio
  - 1:1 / 1:1 (Tx/Rx) or
  - 1:1.414 / 1:1 (Tx/Rx)
  - Further Turns Ratio on request
- Available with and without shunt choke option in transmission channel

### PRODUCT DRAWING



### ORDER DATA

RJ45 MAGNETIC MODULAR JACK – 6 PORT				
Design	Turns ratio	Shunt choke	LED	Part Number
SMT-Termination	1:1 / 1:1 (Tx/Rx)	In transmit channel	Without LED	RJ45JS61AC0N0X
SMT-Termination	1:1 / 1:1 (Tx/Rx)	In transmit channel	Green (left)/Yellow (right)	RJ45JS61AC010X
SMT-Termination	1:1 / 1:1 (Tx/Rx)	Without	Without LED	RJ45JS61AN0N0X
SMT-Termination	1:1 / 1:1 (Tx/Rx)	Without	Green (left)/Yellow (right)	RJ45JS61AN010X
SMT-Termination	1:1.414 / 1:1 (Tx/Rx)	In transmit channel	Without LED	RJ45JS61BC0N0X
SMT-Termination	1:1.414 / 1:1 (Tx/Rx)	In transmit channel	Green (left)/Yellow (right)	RJ45JS61BC010X
SMT-Termination	1:1.414 / 1:1 (Tx/Rx)	Without	Without LED	RJ45JS61BN0N0X
SMT-Termination	1:1.414 / 1:1 (Tx/Rx)	Without	Green (left)/Yellow (right)	RJ45JS61BN010X

# RJ45 MODULAR JACK WITH MAGNETIC FILTER

8 Port – Solder pin, straight – Shielded



RoHS compliant – UL / cUL listed, File No.: E202784

## DESCRIPTION

- According to specifications IEEE 802.3 and ANSI X3.263
- With and without LED
- Turns Ratio
  - 1:1 / 1:1 (Tx/Rx) or
  - 1:1.414/1:1 (Tx/Rx)
  - Further Turns Ratio on request
- Available with and without shunt choke option in transmission channel

## PRODUCT DRAWING



## ORDER DATA

RJ45 MAGNETIC MODULAR JACK – 8 PORT				
Design	Turns ratio	Shunt choke	LED	Part Number
Solder pin, straight	1:1 / 1:1 (Tx/Rx)	In transmit channel	Without LED	RJ45TJS81AC0N0X
Solder pin, straight	1:1 / 1:1 (Tx/Rx)	In transmit channel	Green (left)/Yellow (right)	RJ45TJS81AC010X
Solder pin, straight	1:1 / 1:1 (Tx/Rx)	Without	Without LED	RJ45TJS81AN0N0X
Solder pin, straight	1:1 / 1:1 (Tx/Rx)	Without	Green (left)/Yellow (right)	RJ45TJS81AN010X
Solder pin, straight	1:1.414/1:1 (Tx/Rx)	In transmit channel	Without LED	RJ45TJS81BC0N0X
Solder pin, straight	1:1.414/1:1 (Tx/Rx)	In transmit channel	Green (left)/Yellow (right)	RJ45TJS81BC010X
Solder pin, straight	1:1.414/1:1 (Tx/Rx)	Without	Without LED	RJ45TJS81BN0N0X
Solder pin, straight	1:1.414/1:1 (Tx/Rx)	Without	Green (left)/Yellow (right)	RJ45TJS81BN010X

# RJ45 MODULAR JACK WITH MAGNETIC FILTER

## 8 Port – SMT-Termination – Shielded



RoHS compliant – UL / cUL listed, File No.: E202784

### DESCRIPTION

- According to specifications IEEE 802.3 and ANSI X3.263
- With and without LED
- Turns Ratio
  - 1:1 / 1:1 (Tx/Rx) or
  - 1:1.414 / 1:1 (Tx/Rx)
  - Further Turns Ratio on request
- Available with and without shunt choke option in transmission channel

### PRODUCT DRAWING



### ORDER DATA

#### RJ45 MAGNETIC MODULAR JACK – 8 PORT

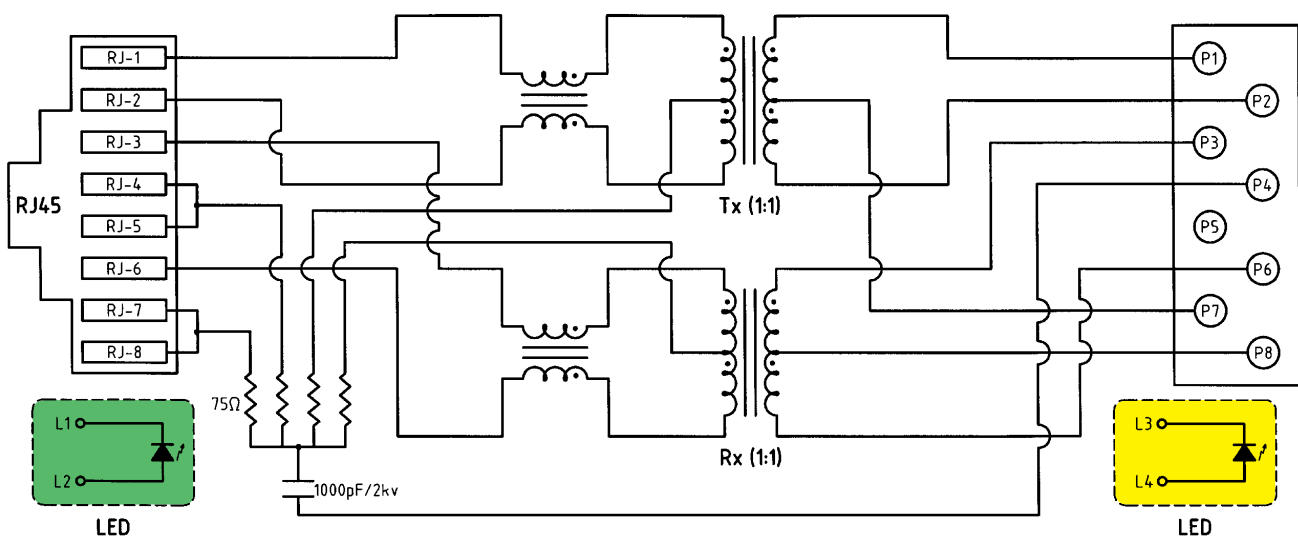
Design	Turns ratio	Shunt choke	LED	Part Number
SMT-Termination	1:1 / 1:1 (Tx/Rx)	In transmit channel	Without LED	RJ45JS81AC0N0X
SMT-Termination	1:1 / 1:1 (Tx/Rx)	In transmit channel	Green (left)/Yellow (right)	RJ45JS81AC010X
SMT-Termination	1:1 / 1:1 (Tx/Rx)	Without	Without LED	RJ45JS81AN0N0X
SMT-Termination	1:1 / 1:1 (Tx/Rx)	Without	Green (left)/Yellow (right)	RJ45JS81AN010X
SMT-Termination	1:1.414 / 1:1 (Tx/Rx)	In transmit channel	Without LED	RJ45JS81BC0N0X
SMT-Termination	1:1.414 / 1:1 (Tx/Rx)	In transmit channel	Green (left)/Yellow (right)	RJ45JS81BC010X
SMT-Termination	1:1.414 / 1:1 (Tx/Rx)	Without	Without LED	RJ45JS81BN0N0X
SMT-Termination	1:1.414 / 1:1 (Tx/Rx)	Without	Green (left)/Yellow (right)	RJ45JS81BN010X

# SCHEMATICS

Schematic of magnetic Circuit with Tx/Rx = 1:1/1:1 or Tx/Rx = 1:1.414/1:1 - Turns Ratio, additional shunt Chok, 4x0,75Ω Terminal Resistors - 1000pF/2kv Capacitor and LEDs (Optional)



Schematic of magnetic Circuit with Tx/Rx = 1:1/1:1 or Tx/Rx = 1:1.414/1:1 - Turns Ratio, additional 4x0,75Ω Terminal Resistors - 1000pF/2kv Capacitor and LEDs (Optional).



# RECOMMENDED PANEL CUT-OUT



# PCB LAYOUT FOR SOLDER PIN STRAIGHT

1 PORT



6 PORT



2 PORT



8 PORT



4 PORT





## SECTION 7

# D-SUB HOODS AND ACCESSORIES

---

The diversity of different applications and market requirements makes it necessary to offer a comprehensive line of hoods and backshells. The CONEC product line includes shielded hoods made of metal, plastic, Metallized plastic and plastic with metal inserts.

Connectors with high current or coaxial contacts require special hoods with adapted interiors. In these cases the height of the housing is particularly important to assure faultless seating of the contacts. The cable should exit from the hood or backshell without introducing any strain on the contacts.

A special developed hood with an IP67 rating is available to provide optimal water resistance for D-SUB Connectors.







The input/output connector product line is supplemented by a wide array of accessories. The various caps, hardware and latches are available for use with these D-subminiature connectors, whether standard, high density, combination or filter designs are selected. Various materials and designs in plastic, steel or stainless steel, as well as M3 or 4-40 UNC thread designs, are deliverable as standard or on request.

For special application please contact the factory.



# D-SUB METAL HOOD

Straight cable entry – 9-50 pos.



RoHS compliant – CSA listed, File No.: LR 115000-1 – UL listed, File No.: E202784

## DESCRIPTION

- Zinc die-cast hood, EMI/RFI shielding
- Cable sleeve
- Fastening:
  - short screws 4-40 UNC or M3 thread
  - jack screws 4-40 UNC or M3 thread
- Surface nickel plated
- Packaging: in bulk or in pack units as a single package

## PRODUCT DRAWING



No. of pos.	A	B	C	D	E	Ø F
09	31.70	25.00	30.00	32.70	15.00	5.00
15	40.00	33.30	32.00	34.70	15.00	5.00
25	53.70	47.00	35.00	37.70	15.00	7.00
37	70.20	63.50	41.00	43.70	15.00	7.00
50	67.80	61.10	41.00	43.70	17.70	9.30

## ORDER DATA

D-SUB METAL HOOD – SHORT SCREW		
No. of pos.	Design	Part Number
09	4-40 UNC Short screw	165X17409X
15	4-40 UNC Short screw	165X17419X
25	4-40 UNC Short screw	165X17429X
37	4-40 UNC Short screw	165X17439X
50	4-40 UNC Short screw	165X17449X
09	M3 Short screw	165X17459X
15	M3 Short screw	165X17469X
25	M3 Short screw	165X17479X
37	M3 Short screw	165X17489X
50	M3 Short screw	165X17499X

D-SUB METAL HOOD – JACK SCREW		
No. of pos.	Design	Part Number
09	4-40 UNC Jack screw	165X17309X
15	4-40 UNC Jack screw	165X17319X
25	4-40 UNC Jack screw	165X17329X
37	4-40 UNC Jack screw	165X17339X
50	4-40 UNC Jack screw	165X17349X
09	M3 Jack screw	165X17359X
15	M3 Jack screw	165X17369X
25	M3 Jack screw	165X17379X
37	M3 Jack screw	165X17389X
50	M3 Jack screw	165X17399X

For single packaged add the letter „E“ at the end of the part number.

# D-SUB METAL HOOD

Side cable entry – 9-50 pos.



RoHS compliant – CSA listed, File No.: LR 115000-1 – UL listed, File No.: E202784

## DESCRIPTION

- Zinc die-cast hood, EMI/RFI shielding
- Cable sleeve
- Fastening:
  - short screws 4-40 UNC or M3 thread
- Surface nickel plated
- Packaging: in bulk or in pack units as a single package

## PRODUCT DRAWING



No. of pos.	A	B	C	D	E	Ø F
09	31.80	25.00	39.50	42.40	15.40	5.00
15	40.30	33.30	41.00	43.50	15.40	5.00
25	54.00	47.00	45.00	47.70	15.40	7.00
37	70.20	63.50	48.00	50.40	15.40	7.00
50	67.80	61.10	48.00	50.40	18.50	9.30

## ORDER DATA

D-SUB METAL HOOD – SHORT SCREW		
No. of pos.	Design 4-40 UNC	Part Number
09	Short screw	165X17559X
15	Short screw	165X17569X
25	Short screw	165X17579X
37	Short screw	165X17589X
50	Short screw	165X17599X

D-SUB METAL HOOD – SHORT SCREW		
No. of pos.	Design M3	Part Number
09	Short screw	165X17609X
15	Short screw	165X17619X
25	Short screw	165X17629X
37	Short screw	165X17639X
50	Short screw	165X17649X

For single packaged add the letter „E“ at the end of the part number.

# D-SUB METAL HOOD

Variable cable entries – 9-50 pos. – Without jack screws



RoHS compliant – CSA listed, File No.: LR 115000-1 – UL listed, File No.: E202784

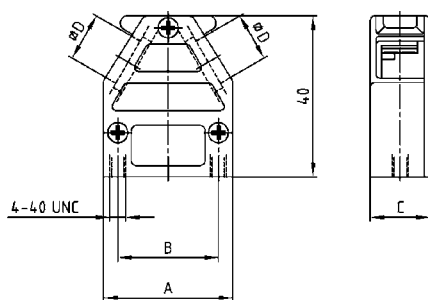
## DESCRIPTION

- Zinc die-cast hood, EMI/RFI shielding
- Two designs:
  - Type 1: 1.575"/40 mm height
  - Type 2: 2.165"/55 mm height
- Delivery includes: Hood with covers, blanking plugs, screws for assembly
- Cable clamp must be ordered separately
- Packaging: in bulk or in pack units as a single package

## PRODUCT DRAWING

Type 1: Installation height 1.575"/40 mm

9 pos.

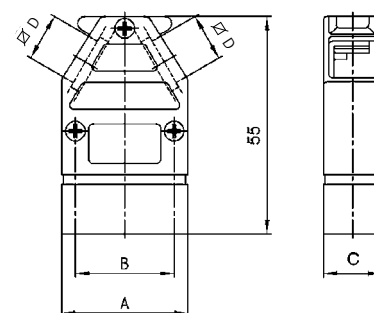


15-50 pos.



Type 2: Installation height 2.165"/55 mm

9 pos.



15-50 pos.



No. of pos.	A	B	C	∅D
09	32.00	25.00	14.80	12.10
15	39.30	33.30	14.80	12.10
25	53.20	47.04	14.80	12.10
37	69.50	63.50	14.80	12.10
50	67.00	61.10	17.80	14.60



## ORDER DATA

D-SUB METAL HOOD – VARIABLE CABLE ENTRIES – TYPE 1		
No. of pos.	Design	Part Number
09	Housing / Two side cable entries	165X10819X
15	Housing / Two side cable entries	165X10829X
25	Housing / Three cable entries	165X10839X
37	Housing / Three cable entries	165X10849X
50	Housing / Three cable entries	165X10859X
09-37	Cable clamp, accept cable diameter from 3 to 12 mm	160X11189X
50	Cable clamp, accept cable diameter from 5 to 14 mm	160X11199X

D-SUB METAL HOOD – VARIABLE CABLE ENTRIES – TYPE 2		
No. of pos.	Design	Part Number
09	Housing / Two side cable entries	165X11159X
15	Housing / Two side cable entries	165X10869X
25	Housing / Three cable entries	165X10879X
37	Housing / Three cable entries	165X10889X
50	Housing / Three cable entries	165X10899X
09-37	Cable clamp, accept cable diameter from 3 to 12 mm	160X11189X
50	Cable clamp, accept cable diameter from 5 to 14 mm	160X11199X

For single packaged add the letter „E“ at the end of the part number.

# D-SUB METAL HOOD

Variable cable entries – 9-50 pos. – Jack screws



RoHS compliant – CSA listed, File No.: LR 115000-1 – UL listed, File No.: E202784

## DESCRIPTION

- Zinc die-cast hood, EMI/RFI shielding
- Two designs:
  - Type 1: 1.575"/40 mm height
  - Type 2: 2.165"/55 mm height
- Delivery includes: Hood, blanking plugs, screws for assembly grounding screws, 4-40 UNC jack screws
- Cable clamp must be ordered separately
- M3 thread design for jack screws available on request
- Packaging: in bulk or in pack units as a single package

## PRODUCT DRAWING

Type 1: max. installation height 42 mm

9 pos.

15 pos.



25-50 pos.



Type 2: max. installation height 57 mm

9 pos.

15 pos.



25-50 pos.



No. of pos.	A	B	Dim. C (Type 1)	Dim. C (Type 2)	D	∅ E
09	31.00	25.00	35.50	50.50	14.80	12.10
15	39.40	33.30	40.00	55.00	14.80	12.10
25	53.20	47.04	40.00	55.00	14.80	12.10
37	69.60	63.50	40.00	55.00	14.80	12.10
50	67.00	61.10	42.00	57.00	17.80	14.60

## ORDER DATA

### D-SUB METAL HOOD – VARIABLE CABLE ENTRIES – JACK SCREW – TYPE 1

No. of pos.	Design	Part Number
09	Housing / One straight cable entry	165X11609X
15	Housing / One straight / One side cable entry	165X11619X
25	Housing / Three cable entries	165X11629X
37	Housing / Three cable entries	165X11639X
50	Housing / Three cable entries	165X11649X
09-37	Cable clamp, accept cable diameter from 3 to 12 mm	160X11189X
50	Cable clamp, accept cable diameter from 5 to 14 mm	160X11199X

### D-SUB METAL HOOD – VARIABLE CABLE ENTRIES – JACK SCREW – TYPE 2

No. of pos.	Design	Part Number
09	Housing / One side cable entry	165X14409X
15	Housing / One side cable entry	165X14419X
25	Housing / Three cable entries	165X14429X
37	Housing / Three cable entries	165X14439X
50	Housing / Three cable entries	165X14449X
09-37	Cable clamp, accept cable diameter from 3 to 12 mm	160X11189X
50	Cable clamp, accept cable diameter from 5 to 14 mm	160X11199X

For single packaged add the letter „E“ at the end of the part number.

# D-SUB METAL HOOD

Variable cable entries – 9-50 pos. – Slide lock



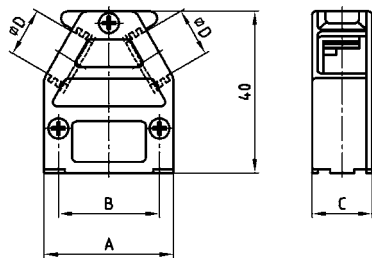
RoHS compliant – CSA listed, File No.: LR 115000-1 – UL listed, File No.: E202784

## DESCRIPTION

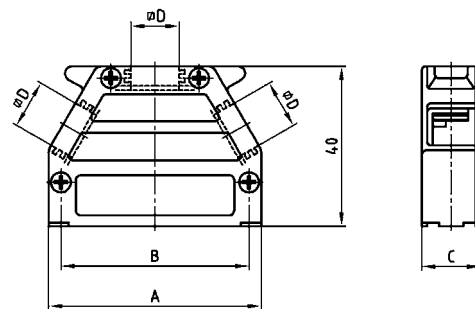
- Zinc die-cast hood, EMI/RFI shielding
- Design:
  - 9 pos. = two sided cable entries,
  - 15-50 pos. = three cable entries
- Delivery includes: Hood, blanking plugs, screws for assembly, grounding screw, slide lock, spring
- Cable clamp must be ordered separately
- Packaging: in bulk or in pack units as a single package

## PRODUCT DRAWING

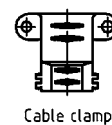
9 pos.



15-50 pos.



No. of pos.	A	B	C	∅ D
09	32.00	25.00	14.80	12.10
15	39.30	33.30	14.80	12.10
25	53.20	47.04	14.80	12.10
37	69.50	63.50	14.80	12.10
50	67.00	61.10	17.80	14.60



Cable clamp

## ORDER DATA

D-SUB METAL HOOD – VARIABLE CABLE ENTRIES		
No. of pos.	Design	Part Number
09	Hood/Two side cable entries	165X11659X
15	Hood/Three cable entries	165X11669X
25	Hood/Three cable entries	165X11679X
37	Hood/Three cable entries	165X11689X
50	Hood/Three cable entries	165X11699X

D-SUB METAL HOOD – CABLE CLAMP – SLIDE LOCK		
No. of pos.	Design	Part Number
09-37	Cable clamp, accept cable diameter from 3 to 12 mm	160X11189X
50	Cable clamp, accept cable diameter from 5 to 14 mm	160X11199X
09-37	Locking hooks for slide lock	165X10119X
50	Locking hooks for slide lock	165X10129X

For single packaged add the letter „E“ at the end of the part number.

# D-SUB METAL HOOD

Variable cable entries – 9-50 pos. – Without jack screws



RoHS compliant – CSA listed, File No.: LR 115000-1 – UL listed, File No.: E202784

## DESCRIPTION

- Zinc die-cast hood, EMI/RFI shielding
- Design:
  - 9 pos. = two side cable entries,
  - 15-50 pos. = three cable entries
- Internal ground
- Cable clamp must be ordered separately
- Packaging: in bulk or in pack units as a single package

## PRODUCT DRAWING

9 pos.



15-50 pos.



No. of pos.	A	B	C	D
09	31.00	25.00	14.80	12 x 9.0
15	39.00	33.30	14.80	12 x 9.0
25	53.00	47.00	14.80	12 x 9.0
37	69.50	63.50	14.80	12 x 9.0
50	67.00	61.10	17.60	14.3 x 11.6



## ORDER DATA

D-SUB METAL HOOD		
No. of pos.	Design	Part Number
09	Hood / Two side cable entries	600X51109X
15	Hood / Three cable entries	600X51115X
25	Hood / Three cable entries	600X51125X
37	Hood / Three cable entries	600X51137X
50	Hood / Three cable entries	600X51150X
09-37	Cable clamp, accept cable diameter from 3 to 12 mm	160X10139X
50	Cable clamp, accept cable diameter from 5 to 14 mm	160X10149X

For single packaged add the letter „E“ at the end of the part number.

# D-SUB METAL HOOD

Variable cable entries – 9-25 pos. – Jack screws



RoHS compliant – CSA listed, File No.: LR 115000-1 – UL listed, File No.: E202784

## DESCRIPTION

- Zinc die-cast hood, EMI/RFI shielding
- Designs:  
9-15 pos. = one straight cable entry,  
25 pos. = three cable entries
- Internal ground
- 4-40 UNC jack screw
- M3 thread design for jack screws available on request
- Cable clamps must be ordered separately
- Packaging: in bulk or in pack units as a single package

## PRODUCT DRAWING

9 pos.



15 pos.



25 pos.



No. of pos.	A	B	C	D
09	31.00	25.00	37.20	8x9.00
15	39.00	33.30	35.20	11 x9.00
25	53.00	47.00	42.70	11.5x9.00



## ORDER DATA

### D-SUB METAL HOOD WITH LONG JACK SCREW

No. of pos.	Design	Part Number
09	Housing / One straight cable entry	600X51209X
15	Housing / One straight cable entry	600X51215X
25	Housing / Three cable entries	600X51225X
09-25	Cable clamp, accept cable diameter from 3 to 12 mm	160X10139X

For single packaged add the letter „E“ at the end of the part number.



# D-SUB METAL HOOD

Side cable entry – 9-25 pos. – Jack screws

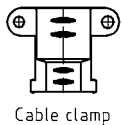


RoHS compliant – CSA listed, File No.: LR 115000-1 – UL listed, File No.: E202784

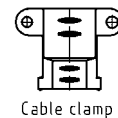
## DESCRIPTION

- Zinc die-cast hood, EMI/RFI shielding
- Internal ground
- Fastening:  
jack screws 4-40 UNC or M3 thread
- Cable clamps must be ordered separately
- Packaging: in bulk or in pack units as a single package

## PRODUCT DRAWING



No. of pos.	A	B	C
09	31.00	25.00	10x9.2
15	39.00	33.30	12x9.2
25	53.00	47.00	12x9.2



## ORDER DATA

D-SUB METAL HOOD – SIDE CABLE ENTRY		
No. of pos.	Design	Part Number
09	4-40 UNC Jack screw	600X51309X
15	4-40 UNC Jack screw	600X51315X
25	4-40 UNC Jack screw	600X51325X
09-25	Cable clamp, accept cable diameter from 3 to 12 mm	160X10139X

D-SUB METAL HOOD – SIDE CABLE ENTRY		
No. of pos.	Design	Part Number
09	M3 Jack screw	600X51609X
15	M3 Jack screw	600X51615X
25	M3 Jack screw	600X51625X
09-25	Cable clamp, accept cable diameter from 3 to 12 mm	160X10139X

For single packaged add the letter „E“ at the end of the part number.

# D-SUB METAL HOOD

Straight cable entry – 9-50 pos. – With jack screws



RoHS compliant – CSA listed, File No.: LR 115000-1 – UL listed, File No.: E202784

## DESCRIPTION

- Zinc die-cast hood, EMI/RFI shielding
- Simple assembly
- Fastening:
  - Short screw Thread 4-40 UNC
  - Jack screw Thread 4-40 UNC
- Packaging: in bulk or in pack units as a single package

## PRODUCT DRAWING



No. of pos.	A	B	C	D	E	F	Ø G
09	19.80	25.00	31.00	47.00	15.60	-	8.50
15	27.90	33.30	40.20	48.30	16.20	-	10.00
25	41.50	47.00	53.70	48.80	16.20	-	11.00
37	57.80	63.50	69.00	48.50	16.20	20.80	14.00
50	55.00	61.10	67.00	48.50	18.70	23.20	12.30



## ORDER DATA

D-SUB METAL HOOD – STRAIGHT CABLE ENTRY		
No. of pos.	Design 4-40 UNC	Part Number
09	Short screw	300X11129X
15	Short screw	300X11139X
25	Short screw	300X11149X
37	Short screw	300X11159X
50	Short screw	300X11169X

D-SUB METAL HOOD – STRAIGHT CABLE ENTRY		
No. of pos.	Design 4-40 UNC	Part Number
09	Jack screw	300X11179X
15	Jack screw	300X11189X
25	Jack screw	300X11199X
37	Jack screw	300X11209X
50	Jack screw	300X11219X

# D-SUB METAL HOOD

Straight cable entry – 9-37 pos. – Jack screws

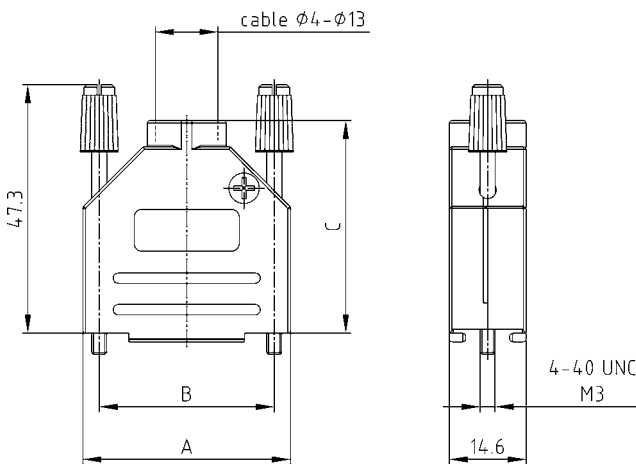


RoHS compliant – CSA listed, File No.: LR 115000-1 – UL listed, File No.: E202784

## DESCRIPTION

- Zinc die-cast hood, EMI/RFI shielding
- Plastic strain relief
- Fastening:  
jack screws 4-40 UNC or M3 thread
- Housing nickel plated
- Attenuation factor: > 40dB between 30 Mhz and 1 GHz
- Packaging: in bulk or in pack units as a single package

## PRODUCT DRAWING



No. of pos.	A	B	C
09	31.20	25.00	38.30
15	39.30	33.30	40.50
25	53.40	47.00	47.80
37	69.90	63.50	52.20

## ORDER DATA

D-SUB METAL HOOD – STRAIGHT CABLE ENTRY		
No. of pos.	Design 4-40 UNC	Part Number
09	Jack screw	165X02609X
15	Jack screw	165X02619X
25	Jack screw	165X02629X
37	Jack screw	165X02639X

For single packaged add the letter „E“ at the end of the part number.

D-SUB METAL HOOD – STRAIGHT CABLE ENTRY		
No. of pos.	Design M3	Part Number
09	Jack screw	165X02649X
15	Jack screw	165X02659X
25	Jack screw	165X02669X
37	Jack screw	165X02679X

# D-SUB METAL HOOD

Side cable entry – 9-37 pos. – Jack screws



RoHS compliant – CSA listed, File No.: LR 115000-1 – UL listed, File No.: E202784

## DESCRIPTION

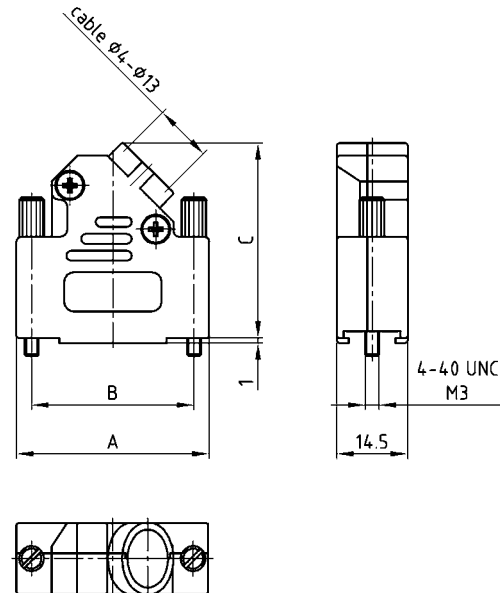
- Zinc die-cast hood, EMI/RFI shielding
- Plastic strain relief
- Fastening:  
jack screws 4-40 UNC or M3 thread
- Housing nickel plated
- Attenuation factor: > 40dB between 30 Mhz and 1 GHz
- Packaging: in bulk or in pack units as a single package

## PRODUCT DRAWING

9 pos.



15-37 pos.



No. of pos.	A	B	C
09	31.00		36.20
15	39.50	33.30	40.20
25	53.20	47.00	40.20
37	69.70	63.50	40.20

## ORDER DATA

D-SUB METAL HOOD – SIDE CABLE ENTRY		
No. of pos.	Design 4-40 UNC	Part Number
09	Jack screw	165X02689X
15	Jack screw	165X02699X
25	Jack screw	165X02709X
37	Jack screw	165X02719X

D-SUB METAL HOOD – SIDE CABLE ENTRY		
No. of pos.	Design M3	Part Number
09	Jack screw	165X02729X
15	Jack screw	165X02739X
25	Jack screw	165X02749X
37	Jack screw	165X02759X

For single packaged add the letter „E“ at the end of the part number.

# D-SUB PLASTIC HOOD

Side cable entry – 9-50 pos. – With and without internal shielding



RoHS compliant – CSA listed, File No.: LR 115000-1 – UL listed, File No.: E202784

## DESCRIPTION

- Material: Polycarbonate Black or Grey + Glas filled
- Design:
  - without shielding
  - with internal shielding
- Fastening:
  - Metal jack screw with plastic head or metal jack screws
- Press-fit housing assembly
- Attenuation factor at 10 MHz > 60dB (shielded version)
- Packaging: in bulk or in pack units as a single package

## PRODUCT DRAWING

9 pos.



15-50 pos.



No. of pos.	A	B	C	D	Ø E
09	31.30	25.00	39.15	15.00	8.00
15	39.62	33.30	39.15	15.00	9.00
25	53.52	47.00	39.15	15.00	11.00
37	69.80	63.50	39.15	15.00	11.00
50	67.41	61.10	39.15	19.00	14.50

## ORDER DATA

D-SUB PLASTIC HOOD – SIDE CABLE ENTRY - UNSHIELDED		
No. of pos.	Design	Part Number
09	Black / Metal jack screw / Plastic head	165X11709X
15	Black / Metal jack screw / Plastic head	165X11719X
25	Black / Metal jack screw / Plastic head	165X11729X
37	Black / Metal jack screw / Plastic head	165X11739X
50	Black / Metal jack screw / Plastic head	165X11749X
09	Black / Metal jack screw	165X00829A
15	Black / Metal jack screw	165X00839A
25	Black / Metal jack screw	165X00849A
37	Black / Metal jack screw	165X00859A
50	Black / Metal jack screw	165X00869A
09	Grey / Metal jack screw / Plastic head	165X16019X
15	Grey / Metal jack screw / Plastic head	165X16029X
25	Grey / Metal jack screw / Plastic head	165X16039X
37	Grey / Metal jack screw / Plastic head	165X16049X
50	Grey / Metal jack screw / Plastic head	165X16059X
09	Grey / Metal jack screw	165X16069X
15	Grey / Metal jack screw	165X16079X
25	Grey / Metal jack screw	165X16089X
37	Grey / Metal jack screw	165X16099X
50	Grey / Metal jack screw	165X16109X

D-SUB PLASTIC HOOD – SIDE CABLE ENTRY - SHIELDED		
No. of pos.	Design	Part Number
09	Black / Metal jack screw / Plastic head	165X11759X
15	Black / Metal jack screw / Plastic head	165X11769X
25	Black / Metal jack screw / Plastic head	165X11779X
37	Black / Metal jack screw / Plastic head	165X11789X
50	Black / Metal jack screw / Plastic head	165X11799X
09	Black / Metal jack screw	165X00779A
15	Black / Metal jack screw	165X00789A
25	Black / Metal jack screw	165X00799A
37	Black / Metal jack screw	165X00809A
50	Black / Metal jack screw	165X00819A
09	Grey / Metal jack screw / Plastic head	165X16119X
15	Grey / Metal jack screw / Plastic head	165X16129X
25	Grey / Metal jack screw / Plastic head	165X16139X
37	Grey / Metal jack screw / Plastic head	165X16149X
50	Grey / Metal jack screw / Plastic head	165X16159X
09	Grey / Metal jack screw	165X16169X
15	Grey / Metal jack screw	165X16179X
25	Grey / Metal jack screw	165X16189X
37	Grey / Metal jack screw	165X16199X
50	Grey / Metal jack screw	165X16209X

For single packaged add the letter „E“ at the end of the part number.

# D-SUB PLASTIC HOOD

Straight cable entry – 9-50 pos. – With jack screws



RoHS compliant – CSA listed, File No.: LR 115000-1 – UL listed, File No.: E202784

## DESCRIPTION

- Two-part plastic hood
- Integrated cable clamping
- Material:
  - Plastic hood grey/black: Polyamide + Glas filled, UL 94 V-0
  - Plastic hood metallized: ABS, UL 94 V-0
- Fastening:
  - 4-40 UNC jack screw
  - M3 jack screw
- Packaging: in bulk or in pack units as a single package

## PRODUCT DRAWING



No. of pos.	A	B	C	D	E	Ø F
09	34.00	25.00	25.00	27.75	14.50	8.50
15	42.30	33.30	37.00	39.75	14.50	10.00
25	56.00	47.00	37.00	39.75	14.50	10.50
37	72.50	63.50	37.00	39.75	14.50	10.50
50	67.00	61.10	49.10	51.40	19.80	14.00



## ORDER DATA

D-SUB PLASTIC HOOD – STRAIGHT CABLE ENTRY		
No. of pos.	Design	Part Number
09	Black / 4-40 UNC Jack screw	165X10139X
15	Black / 4-40 UNC Jack screw	165X10149X
25	Black / 4-40 UNC Jack screw	165X10159X
37	Black / 4-40 UNC Jack screw	165X10169X
50	Black / 4-40 UNC Jack screw	165X10179X
09	Black / M3 Jack screw	165X10189X
15	Black / M3 Jack screw	165X10199X
25	Black / M3 Jack screw	165X10209X
37	Black / M3 Jack screw	165X10219X
50	Black / M3 Jack screw	165X10229X
09	Grey / 4-40-UNC Jack screw	165X14109X
15	Grey / 4-40-UNC Jack screw	165X14119X
25	Grey / 4-40-UNC Jack screw	165X14129X
37	Grey / 4-40-UNC Jack screw	165X14139X
50	Grey / 4-40-UNC Jack screw	165X14149X
09	Grey / M3 Jack screw	165X14159X
15	Grey / M3 Jack screw	165X14169X
25	Grey / M3 Jack screw	165X14179X
37	Grey / M3 Jack screw	165X14189X
50	Grey / M3 Jack screw	165X14199X

D-SUB PLASTIC HOOD – STRAIGHT CABLE ENTRY - METALLIZED		
No. of pos.	Design	Part Number
09	Metallized / 4-40 UNC Jack screw	165X10909X
15	Metallized / 4-40 UNC Jack screw	165X10919X
25	Metallized / 4-40 UNC Jack screw	165X10929X
37	Metallized / 4-40 UNC Jack screw	165X10939X
50	Metallized / 4-40 UNC Jack screw	165X10949X
09	Metallized / M3 Jack screw	165X10959X
15	Metallized / M3 Jack screw	165X10969X
25	Metallized / M3 Jack screw	165X10979X
37	Metallized / M3 Jack screw	165X10989X
50	Metallized / M3 Jack screw	165X10999X

For single packaged add the letter „E“ at the end of the part number.

# D-SUB PLASTIC HOOD

Straight cable entry – 9-50 pos. – Cable-to-cable connection



RoHS compliant – CSA listed, File No.: LR 115000-1 – UL listed, File No.: E202784

## DESCRIPTION

- Two-part plastic hood
- Integrated cable clamping
- Material:
  - Plastic hood grey / black: Polyamide + Glas filled, UL 94 V-0
  - Plastic hood metallized: ABS, UL 94 V-0
- Fastening:
  - 4-40 UNC jack screw
  - M3 jack screw
- Packaging: in bulk or in pack units as a single package

## PRODUCT DRAWING

9-pos



No. of pos.	A	B	C	D	E	Ø F
09	34.00	25.00	25.00	27.75	14.50	8.50
15	42.30	33.30	37.00	39.75	14.50	10.00
25	56.00	47.00	37.00	39.75	14.50	10.50
37	72.50	63.50	37.00	39.75	14.50	10.50
50	67.00	61.10	49.10	51.40	19.80	14.00

15-50 pos



## ORDER DATA

D-SUB PLASTIC HOOD – CABLE-TO-CABLE CONNECTION		
No. of pos.	Design	Part Number
09	Black / Jack screw / 4-40 UNC Hex bolt	165X10239X
15	Black / Jack screw / 4-40 UNC Hex bolt	165X10249X
25	Black / Jack screw / 4-40 UNC Hex bolt	165X10259X
37	Black / Jack screw / 4-40 UNC Hex bolt	165X10269X
50	Black / Jack screw / 4-40 UNC Hex bolt	165X10279X
09	Black / Jack screw / M3 Hex bolt	165X10289X
15	Black / Jack screw / M3 Hex bolt	165X10299X
25	Black / Jack screw / M3 Hex bolt	165X10309X
37	Black / Jack screw / M3 Hex bolt	165X10319X
50	Black / Jack screw / M3 Hex bolt	165X10329X
09	Grey / Jack screw / 4-40 UNC Hex bolt	165X14209X
15	Grey / Jack screw / 4-40 UNC Hex bolt	165X14219X
25	Grey / Jack screw / 4-40 UNC Hex bolt	165X14229X
37	Grey / Jack screw / 4-40 UNC Hex bolt	165X14239X
50	Grey / Jack screw / 4-40 UNC Hex bolt	165X14249X
09	Grey / Jack screw / M3 Hex bolt	165X14259X
15	Grey / Jack screw / M3 Hex bolt	165X14269X
25	Grey / Jack screw / M3 Hex bolt	165X14279X
37	Grey / Jack screw / M3 Hex bolt	165X14289X
50	Grey / Jack screw / M3 Hex bolt	165X14299X

D-SUB PLASTIC HOOD - CABLE-TO-CABLE CONNECTION – METALLIZED		
No. of pos.	Design	Part Number
09	Metallized / Jack screw / 4-40 UNC Hex bolt	165X11009X
15	Metallized / Jack screw / 4-40 UNC Hex bolt	165X11019X
25	Metallized / Jack screw / 4-40 UNC Hex bolt	165X11029X
37	Metallized / Jack screw / 4-40 UNC Hex bolt	165X11039X
50	Metallized / Jack screw / 4-40 UNC Hex bolt	165X11049X
09	Metallized / Jack screw / M3 Hex bolt	165X11059X
15	Metallized / Jack screw / M3 Hex bolt	165X11069X
25	Metallized / Jack screw / M3 Hex bolt	165X11079X
37	Metallized / Jack screw / M3 Hex bolt	165X11089X
50	Metallized / Jack screw / M3 Hex bolt	165X11099X

For single packaged add the letter „E“ at the end of the part number.

# D-SUB PLASTIC HOOD

Straight cable entry – 9-50 pos. – large interior



RoHS compliant – CSA listed, File No.: LR 115000-1 – UL listed, File No.: E202784

## DESCRIPTION

- Suitable for Combination D-SUB Connectors
- Large internal space for crimp, high power and coaxial contacts
- Material:
  - Plastic hood black: Polyester, UL 94 V-0
  - Plastic hood metallized: ABS, UL 94 V-0
- Fastening:
  - 4-40 UNC jack screw or M3
  - 4-40 UNC short screw or M3
- Packaging: in bulk or in pack units as a single package

## PRODUCT DRAWING

Short screw



Jack screw



Cable grommet



No. of pos.	A	B	C	D	E	Ø F	Ø F1	G	H	K	L
09	32.90	25.00	39.50	41.80	16.30	11.00	5.00	60.00	24.50	11.20	11.20
15	41.20	33.30	45.50	47.80	16.30	11.00	5.00	60.00	24.50	11.20	11.20
25	54.90	47.00	52.50	54.80	16.30	12.00	7.00	70.00	27.50	12.20	15.00
37	71.40	63.50	55.50	57.80	18.70	15.00	7.00	70.00	27.50	12.20	15.00
50	69.00	61.10	55.00	57.80	19.50	14.00	9.30	70.00	29.20	15.00	20.00

## ORDER DATA

D-SUB PLASTIC HOOD BLACK		
No. of pos.	Design	Part Number
09	Black / 4-40 UNC Short screw	165X13369X
15	Black / 4-40 UNC Short screw	165X13379X
25	Black / 4-40 UNC Short screw	165X13389X
37	Black / 4-40 UNC Short screw	165X13399X
50	Black / 4-40 UNC Short screw	165X13409X
09	Black / M3 Short screw	165X14509X
15	Black / M3 Short screw	165X14519X
25	Black / M3 Short screw	165X14529X
37	Black / M3 Short screw	165X14539X
50	Black / M3 Short screw	165X14549X
09	Black / 4-40 UNC Jack screw	165X03309A
15	Black / 4-40 UNC Jack screw	165X03319A
25	Black / 4-40 UNC Jack screw	165X03329A
37	Black / 4-40 UNC Jack screw	165X03339A
50	Black / 4-40 UNC Jack screw	165X03349A
09	Black / M3 Jack screw	165X03359A
15	Black / M3 Jack screw	165X03369A
25	Black / M3 Jack screw	165X03379A
37	Black / M3 Jack screw	165X03389A
50	Black / M3 Jack screw	165X03399A

D-SUB PLASTIC HOOD METALLIZED		
No. of pos.	Design	Part Number
09	Metallized / 4-40 UNC Short screw	165X13469X
15	Metallized / 4-40 UNC Short screw	165X13479X
25	Metallized / 4-40 UNC Short screw	165X13489X
37	Metallized / 4-40 UNC Short screw	165X13499X
50	Metallized / 4-40 UNC Short screw	165X13509X
09	Metallized / M3 Short screw	165X14609X
15	Metallized / M3 Short screw	165X14619X
25	Metallized / M3 Short screw	165X14629X
37	Metallized / M3 Short screw	165X14639X
50	Metallized / M3 Short screw	165X14649X

CABLE GROMMET		
No. of pos.	Design	Part Number
09/15	Cable grommet for 9 and 15 pos. hood	795-907600
25/37	Cable grommet for 25 and 37 pos. hood	795-907700
50	Cable grommet for 50 pos. hood	795-907800

For single packaged add the letter „E“ at the end of the part number.



# D-SUB PLASTIC HOOD

Side cable entry – 9-50 pos. – large interior



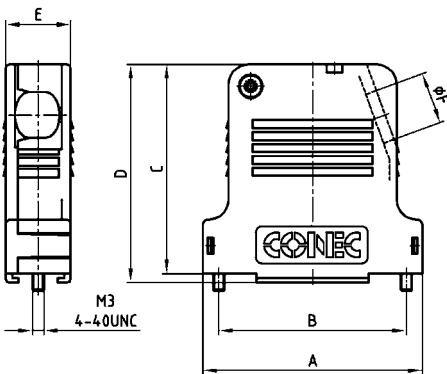
RoHS compliant – CSA listed, File No.: LR 115000-1 – UL listed, File No.: E202784

## DESCRIPTION

- Suitable for Combination D-SUB Connectors
- Large internal space for crimp, high power and coaxial contacts
- Material:
  - Plastic hood black: Polyester, UL 94 V-0
  - Plastic hood metallized: ABS, UL 94 V-0
- Fastening:
  - 4-40 UNC or M3 short screw
- Packaging: in bulk or in pack units as a single package

## PRODUCT DRAWING

9-25 pos.



37-50 pos.



No. of pos.	A	B	C	D	E	Ø F
09	32.90	25.00	39.50	41.90	16.40	8.60
15	41.20	33.30	45.50	47.90	16.40	9.40
25	54.90	47.00	52.50	54.90	16.40	13.00
37	71.40	63.50	55.00	57.90	18.80	15.00
50	69.00	61.10	55.00	57.90	19.60	14.90

## ORDER DATA

D-SUB PLASTIC HOOD BLACK		
No. of pos.	Design	Part Number
09	Black / 4-40 UNC Short screw	165X13419X
15	Black / 4-40 UNC Short screw	165X13429X
25	Black / 4-40 UNC Short screw	165X13439X
37	Black / 4-40 UNC Short screw	165X13449X
50	Black / 4-40 UNC Short screw	165X13459X
09	Black / M3 Short screw	165X14559X
15	Black / M3 Short screw	165X14569X
25	Black / M3 Short screw	165X14579X
37	Black / M3 Short screw	165X14589X
50	Black / M3 Short screw	165X14599X

D-SUB PLASTIC HOOD METALLIZED		
No. of pos.	Design	Part Number
09	Metallized / 4-40 UNC Short screw	165X13519X
15	Metallized / 4-40 UNC Short screw	165X13529X
25	Metallized / 4-40 UNC Short screw	165X13539X
37	Metallized / 4-40 UNC Short screw	165X13549X
50	Metallized / 4-40 UNC Short screw	165X13559X
09	Metallized / M3 Short screw	165X14659X
15	Metallized / M3 Short screw	165X14669X
25	Metallized / M3 Short screw	165X14679X
37	Metallized / M3 Short screw	165X14689X
50	Metallized / M3 Short screw	165X14699X

For single packaged add the letter „E“ at the end of the part number.

CABLE GROMMET		
No. of pos.	Design	Part Number
09/15	Cable grommet for 9 and 15 pos. hood	795-907600
25/37	Cable grommet for 25 and 37 pos. hood	795-907700
50	Cable grommet for 50 pos. hood	795-907800

# D-SUB PLASTIC HOOD

Single or dual cable entry – 9-50 pos. – fixed screws



RoHS compliant – CSA listed, File No.: LR 115000-1 – UL listed, File No.: E202784

## DESCRIPTION

- Integrated cable clamping
- Design:
  - 9 pos. = one straight cable entry,
  - 15-50 pos. = one straight and one side cable entry
- Material:
  - Plastic hood grey: Polycarbonate + Glas filled, UL 94 V-0
  - Plastic hood metallized: ABS, UL 94 V-0
- Fastening:
  - 4-40 UNC short screw
- Packaging: in bulk or in pack units as a single package

## PRODUCT DRAWING

9 pos.



15 pos.



25-50 pos.



No. of pos.	A	B	C	D	Ø E
09	31.20	25.00	31.80	15.60	8.00
15	39.50	33.30	37.00	15.60	8.00
25	53.20	47.00	42.20	15.60	10.00
37	69.70	63.50	42.20	15.60	10.00
50	67.30	61.10	42.20	18.50	12.50

## ORDER DATA

D-SUB PLASTIC HOOD GREY		
No. of pos.	Design	Part Number
09	Grey /Single cable entry/4-40 UNC Short screw	165X11869X
15	Grey /Dual cable entries/4-40 UNC Short screw	165X11879X
25	Grey /Dual cable entries/4-40 UNC Short screw	165X11889X
37	Grey /Dual cable entries/4-40 UNC Short screw	165X11899X
50	Grey /Dual cable entries/4-40 UNC Short screw	165X11909X

D-SUB PLASTIC HOOD METALLIZED		
No. of pos.	Design	Part Number
09	Metallized /Single cable entry/4-40 UNC Short screw	165X11919X
15	Metallized /Dual cable entries/4-40 UNC Short screw	165X11929X
25	Metallized /Dual cable entries/4-40 UNC Short screw	165X11939X
37	Metallized /Dual cable entries/4-40 UNC Short screw	165X11949X
50	Metallized /Dual cable entries/4-40 UNC Short screw	165X11959X

For single packaged add the letter „E“ at the end of the part number.

# D-SUB PLASTIC HOOD

Straight or side cable entry – 9-37 pos. – Low profile



RoHS compliant – CSA listed, File No.: LR 115000-1 – UL listed, File No.: E202784

## DESCRIPTION

- Space-saving, side-by-side mounting
- Material:
  - Plastic hood black: ABS, UL 94 V-0
  - Plastic hood metallized: ABS, UL 94 V-0
- Fastening:
  - 4-40 UNC jack screw
  - 4-40 UNC short screw
- Packaging: in pack units as a single package

## PRODUCT DRAWING

Straight cable entry 9-37 pos.



No. of pos.	A	B	C	D	Ø E
09	35.80	31.20	25.00	37.00	8.00
15	44.10	39.50	33.30	38.00	8.00
25	57.90	53.20	47.00	41.00	9.00
37	74.30	69.70	63.50	41.00	9.00

60° cable entry 9-pos.



60° cable entry 15-37-pos.



No. of pos.	A	B	C	D	Ø E
09	35.80	31.20	25.00	37.00	8.00
15	44.10	39.50	33.30	38.00	8.00
25	57.90	53.20	47.00	41.00	9.00
37	74.30	69.70	63.50	41.00	9.00

## ORDER DATA

### D-SUB PLASTIC HOOD - STRAIGHT CABLE ENTRY

No. of pos.	Design	Part Number
09	Black / 4-40 UNC Jack screw	165X16219X
15	Black / 4-40 UNC Jack screw	165X16229X
25	Black / 4-40 UNC Jack screw	165X16239X
37	Black / 4-40 UNC Jack screw	165X16249X
09	Metallized / 4-40-UNC Jack screw	165X16299X
15	Metallized / 4-40-UNC Jack screw	165X16309X
25	Metallized / 4-40-UNC Jack screw	165X16319X
37	Metallized / 4-40-UNC Jack screw	165X16329X

### D-SUB PLASTIC HOOD – SIDE CABLE ENTRY

No. of pos.	Design	Part Number
09	Black / 4-40 UNC Short screw	165X16379X
15	Black / 4-40 UNC Short screw	165X16389X
25	Black / 4-40 UNC Short screw	165X16399X
37	Black / 4-40 UNC Short screw	165X16409X
09	Metallized / 4-40-UNC Short screw	165X16459X
15	Metallized / 4-40-UNC Short screw	165X16469X
25	Metallized / 4-40-UNC Short screw	165X16479X
37	Metallized / 4-40-UNC Short screw	165X16489X

# D-SUB PLASTIC HOOD

Straight or side cable entry – 9-50 pos. – Jack screws or slide lock mounting



RoHS compliant – CSA listed, File No.: LR 115000-1 – UL listed, File No.: E202784

## DESCRIPTION

- Integrated strain relief
- Entries not in use are blanked off with blanking plugs
- Material:
  - Plastic hood black: ABS, UL 94 V-0
  - Plastic hood metallized: ABS, UL 94 V-0
- Fastening:
  - 4-40 UNC short screws
  - Slide lock
- Packaging: in bulk or in pack units as a single package

## PRODUCT DRAWING

Housing with short slotted screw



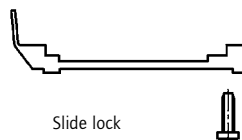
Housing with slide lock



No. of pos.	A	B	C	Ø D	E	F
09	32.00	25.00	36.70	6.30	15.50	16.50
15	40.00	33.30	38.20	8.00	15.50	16.50
25	54.20	47.00	42.20	10.50	15.50	16.50
37	70.60	63.50	47.20	11.50	15.50	16.50
50	68.20	61.10	47.20	13.70	19.60	20.60



Spring



Slide lock



Locking hooks for slide lock

## ORDER DATA

D-SUB PLASTIC HOOD – BLACK		
No. of pos.	Design	Part Number
09	4-40 UNC Short screw	165X11239X
15	4-40 UNC Short screw	165X11249X
25	4-40 UNC Short screw	165X11259X
37	4-40 UNC Short screw	165X11269X
50	4-40 UNC Short screw	165X16539X
09	Slide lock version including spring	165X11279X
15	Slide lock version including spring	165X11289X
25	Slide lock version including spring	165X11299X
37	Slide lock version including spring	165X11309X
50	Slide lock version including spring	165X16549X

D-SUB PLASTIC HOOD – METALLIZED		
No. of pos.	Design	Part Number
09	4-40 UNC Short screw	165X11319X
15	4-40 UNC Short screw	165X11329X
25	4-40 UNC Short screw	165X11339X
37	4-40 UNC Short screw	165X11349X
50	4-40 UNC Short screw	165X16559X
09	Slide lock version including spring	165X11359X
15	Slide lock version including spring	165X11369X
25	Slide lock version including spring	165X11379X
37	Slide lock version including spring	165X11389X
50	Slide lock version including spring	165X16569X

For single packaged add the letter „E“ at the end of the part number.

### LOCKING FOR SLIDE LOCK (TWO PIECES PER CONNECTOR)

No. of pos.	Design	Part Number
09-37	Locking hooks for 9-37 pos. hood	165X10119X
50	Locking hooks 50 pos. hood	165X16609X

# D-SUB PLASTIC HOOD

Side cable entry – 9-50 pos. – Jack screws or short screws



RoHS compliant – CSA listed, File No.: LR 115000-1 – UL listed, File No.: E202784

## DESCRIPTION

- Material:
  - Plastic hood black: ABS, UL 94 V-0
  - Plastic hood metallized: ABS, UL 94 V-0
- Fastening:
  - 4-40 UNC short screws
  - 4-40 UNC jack screws
- Packaging: in pack units as a single package

## PRODUCT DRAWING

with short screw

with jack screws



No. of pos.	A	B	C	D	Ø E
09	31.50	25.00	37.00	15.20	8.50
15	40.00	33.30	37.00	15.20	8.50
25	53.50	47.00	41.00	15.20	11.00
37	70.00	63.50	41.00	15.20	11.00
50	67.80	61.10	41.00	18.20	12.00

## ORDER DATA

D-SUB PLASTIC HOOD – SIDE CABLE ENTRY		
No. of pos.	Design	Part Number
09	Black / 4-40 UNC Short screw	600X54009X
15	Black / 4-40 UNC Short screw	600X54015X
25	Black / 4-40 UNC Short screw	600X54025X
37	Black / 4-40 UNC Short screw	600X54037X
50	Black / 4-40 UNC Short screw	600X54050X
09	Black / 4-40 UNC Jack screw	600X55009X
15	Black / 4-40 UNC Jack screw	600X55015X
25	Black / 4-40 UNC Jack screw	600X55025X
37	Black / 4-40 UNC Jack screw	600X55037X
50	Black / 4-40 UNC Jack screw	600X55050X

D-SUB PLASTIC HOOD – SIDE CABLE ENTRY – METALLIZED		
No. of pos.	Design	Part Number
09	Metallized / 4-40 UNC Short screw	600X56009X
15	Metallized / 4-40 UNC Short screw	600X56015X
25	Metallized / 4-40 UNC Short screw	600X56025X
37	Metallized / 4-40 UNC Short screw	600X56037X
50	Metallized / 4-40 UNC Short screw	600X56050X
09	Metallized / 4-40 UNC Jack screw	600X57009X
15	Metallized / 4-40 UNC Jack screw	600X57015X
25	Metallized / 4-40 UNC Jack screw	600X57025X
37	Metallized / 4-40 UNC Jack screw	600X57037X
50	Metallized / 4-40 UNC Jack screw	600X57050X

# D-SUB PLASTIC HOOD

Straight cable entry – 9-37 pos. – Jack screws or short screws



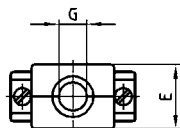
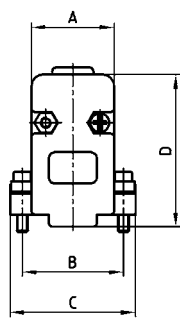
RoHS compliant – CSA listed, File No.: LR 115000-1 – UL listed, File No.: E202784

## DESCRIPTION

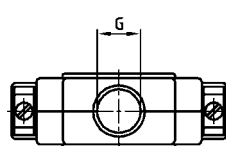
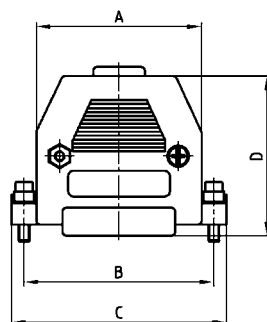
- Material:
  - Plastic hood grey: ABS, UL 94 V-2
  - Plastic hood metallized: ABS, UL 94 V-2
- Fastening:
  - 4-40 UNC short screw
  - 4-40 UNC jack screw
- Packaging: in pack units as a single package

## PRODUCT DRAWING

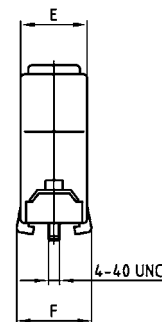
9 pos.



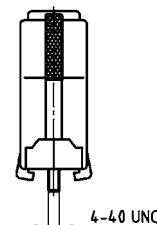
15-50 pos.



with short screw



with jack screws



No. of pos.	A	B	C	D	E	F	Ø G
09	20.50	25.00	31.00	38.80	16.00	16.00	7.00
15	28.00	33.30	39.50	35.50	16.00	17.50	10.00
25	41.00	47.00	55.00	42.00	16.50	16.50	11.00
37	58.00	63.50	70.00	51.10	24.20	19.00	14.00

## ORDER DATA

D-SUB PLASTIC HOOD – GREY		
No. of pos.	Design 4-40 UNC	Part Number
09	Grey / Short screw	300X10169X
15	Grey / Short screw	300X10179X
25	Grey / Short screw	300X10209X
37	Grey / Short screw	300X10219X
09	Grey / Jack screw	300X10829X
15	Grey / Jack screw	300X10839X
25	Grey / Jack screw	300X10859X
37	Grey / Jack screw	300X10869X

D-SUB PLASTIC HOOD – METALLIZED		
No. of pos.	Design 4-40 UNC	Part Number
09	Metallized / Short screw	300X10109X
15	Metallized / Short screw	300X10119X
25	Metallized / Short screw	300X10149X
37	Metallized / Short screw	300X10159X
09	Metallized / Jack screw	300X10879X
15	Metallized / Jack screw	300X10889X
25	Metallized / Jack screw	300X10909X
37	Metallized / Jack screw	300X10919X

# D-SUB PLASTIC HOOD

Straight or side cable entry – 9-50 pos.



RoHS compliant – CSA listed, File No.: LR 115000-1 – UL listed, File No.: E202784

## DESCRIPTION

- Material:  
Plastic hood black: Polyamide 6.6 + Glas filled, UL 94 V-0
- Fastening:  
- 4-40 UNC short screw  
- 4-40 UNC jack screw
- Packaging: in bulk or in pack units as a single package

## PRODUCT DRAWING



No. of pos.	A	B	C	D	Ø E
09	33.00	25.00	45.50	17.00	7.50
15	41.00	33.30	45.50	17.00	8.50
25	55.00	47.00	47.00	17.00	10.50
37	71.30	63.50	51.00	17.00	11.00
50	69.00	61.10	50.00	20.00	12.50

## ORDER DATA

D-SUB PLASTIC HOOD		
No. of pos.	Design 4-40 UNC	Part Number
09	Black / Short screw	165X13019X
15	Black / Short screw	165X13029X
25	Black / Short screw	165X13039X
37	Black / Short screw	165X13049X
50	Black / Short screw	165X13059X

D-SUB PLASTIC HOOD		
No. of pos.	Design 4-40 UNC	Part Number
09	Black / Jack screw	165X13079X
15	Black / Jack screw	165X13089X
25	Black / Jack screw	165X13099X
37	Black / Jack screw	165X13109X
50	Black / Jack screw	165X13119X

For single packaged add the letter „E“ at the end of the part number.

# D-SUB PLASTIC HOOD

Straight cable entry – 9, 25 and 37 pos. – Flat mounting style



RoHS compliant – CSA listed, File No.: LR 115000-1 – UL listed, File No.: E202784

## DESCRIPTION

- Strain relief is achieved by using a cable tie
- Material:  
Plastic hood black: Polyamide 6.6 + Glas filled, UL 94 V-0
- Fastening:  
4-40 UNC short screw
- Packaging: in bulk or in pack units as a single package

## PRODUCT DRAWING



No. of pos.	A	B	C	Ø D
09	31.20	25.00	43.60	8.00
25	53.50	47.00	43.60	10.30
37	69.70	63.50	43.60	10.30

## ORDER DATA

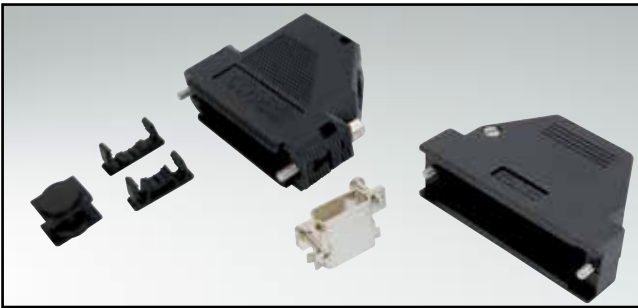
D-SUB PLASTIC HOOD		
No. of pos.	Design 4-40 UNC	Part Number
09	Black / Short screw	165X13179X
25	Black / Short screw	165X13199X
37	Black / Short screw	165X13209X

For single packaged add the letter „E“ at the end of the part number.



# D-SUB PLASTIC HOOD

50 pos. with large cable opening – 25 pos. – Snap locking hood



RoHS compliant – CSA listed, File No.: LR 115000-1 – UL listed, File No.: E202784

## DESCRIPTION

- Large cable opening
- 50 pos. version
  - Plastic hood black: Polyamide 6.6 + Glas filled, UL 94 V-0
  - Fastening: 4-40 UNC short screws
- 25 pos. version with snap locking for simple assembly
  - integrated strain relief for several cable diameters
  - Plastic hood black: ABS, UL 94 V-0
  - Fastening: with or without Jack screws 4-40 UNC
- Packaging: in bulk or in pack units as a single package

## PRODUCT DRAWING

50 pos. plastic hood with large strain relief



25 pos. plastic hood – two cable openings



## ORDER DATA

### D-SUB PLASTIC HOOD – 50 POS.

No. of pos.	Design	Part Number
50	Black / 4-40 UNC Short screw	165X13269X

### D-SUB PLASTIC HOOD – 25 POS. WITH SNAP LOCKING

No. of pos.	Design	Part Number
25	Black / Without jack screws	165X11419X
25	Black / With 4-40 UNC Jack screw	165X11459X

For single packaged add the letter „E“ at the end of the part number.

# D-SUB PLASTIC HOOD

Variable cable entries – 9-50 pos. – Without jack screws



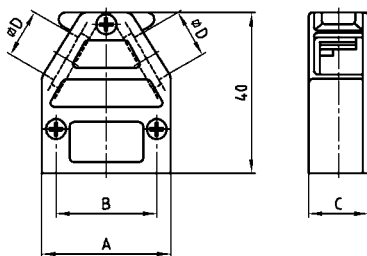
RoHS compliant – CSA listed, File No.: LR 115000-1 – UL listed, File No.: E202784

## DESCRIPTION

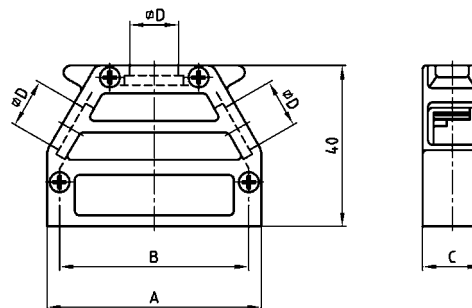
- Entries not in use are blanked off with blanking plugs
- Design:
  - 9 pos.: two cable entries
  - 15-50 pos.: two side and one straight cable entry
- simultaneous use of all cable entries possible
- Material:
  - Plastic hood black: ABS, UL 94 V-0
  - Plastic hood metallized: ABS, UL 94 V-0
- Packaging: in pack units as a single package

## PRODUCT DRAWING

9 pos. with two cable entries



15-50 pos. with three cable entries



No. of pos.	A	B	C	$\varnothing D$
09	31.00	25.00	15.40	12.10
15	39.30	33.30	15.40	12.10
25	53.20	47.00	15.40	12.10
37	69.50	63.50	15.40	12.10
50	67.00	61.10	17.90	14.60

## ORDER DATA

D-SUB PLASTIC HOOD		
No. of pos.	Design	Part Number
09	Black	165X10489X
15	Black	165X10499X
25	Black	165X10509X
37	Black	165X10519X
50	Black	165X10529X

D-SUB PLASTIC HOOD – METALLIZED		
No. of pos.	Design	Part Number
09	Metallized	165X11559X
15	Metallized	165X11569X
25	Metallized	165X11579X
37	Metallized	165X11589X
50	Metallized	165X11599X

# D-SUB PLASTIC HOOD

Straight or side cable entry – 9-50 pos. – One piece Design



RoHS compliant – CSA listed, File No.: LR 115000-1 – UL listed, File No.: E202784

## DESCRIPTION

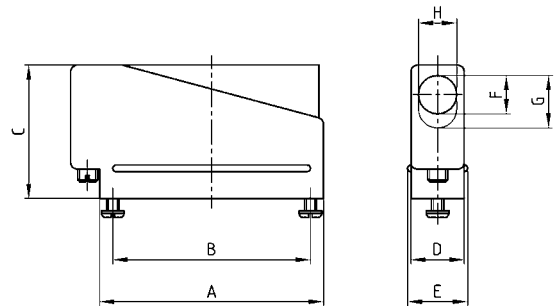
- Cable strain relief, set screws
- Material:  
Plastic hood black: Polyamide 6.6, UL 94 V-0
- Fastening:  
with connector mounting screws
- Packaging: in bulk or in pack units as a single package

## PRODUCT DRAWING

Straight cable entry



Side cable entry



No. of pos.	A	B	C	D	E	Ø F	G	H
09	30.90	25.00	25.40	12.70	14.30	7.10	-	-
15	39.30	33.30	25.40	12.70	14.30	9.10	-	-
25	53.20	47.00	31.70	12.70	14.30	-	12.50	9.10
37	69.40	63.50	38.10	12.70	14.30	-	17.60	9.10
50	67.10	61.10	38.10	15.50	17.00	-	18.60	11.90

## ORDER DATA

### D-SUB PLASTIC HOOD – STRAIGHT CABLE ENTRY

No. of pos.	Design	Part Number
09	Black	165X10389X
15	Black	165X10399X
25	Black	165X10409X
37	Black	165X10419X
50	Black	165X10429X

### D-SUB PLASTIC HOOD - SIDE CABLE ENTRY

No. of pos.	Design	Part Number
09	Black	165X10439X
15	Black	165X10449X
25	Black	165X10459X
37	Black	165X10469X
50	Black	165X10479X

For single packaged add the letter „E“ at the end of the part number.

# D-SUB PLASTIC HOOD

Straight or side cable entry – Hinged version – 9 and 25 pos.



RoHS compliant – CSA listed, File No.: LR 115000-1 – UL listed, File No.: E202784

## DESCRIPTION

- Strain relief is achieved by plastic inserts
- Material:  
Plastic hood black: Polypropylene, UL 94 V-0
- Fastening:  
without jack screws
- Packaging: in bulk or in pack units as a single package

## PRODUCT DRAWING

9 pos.



25 pos.



## ORDER DATA

D-SUB PLASTIC HOOD		
No. of pos.	Design	Part Number
09	Black	165X13219X
25	Black	165X13239X

For single packaged add the letter „E“ at the end of the part number.

# D-SUB PLASTIC HOOD

Side cable entry – Low profile – 15 pos.



RoHS compliant – CSA listed, File No.: LR 115000-1 – UL listed, File No.: E202784

## DESCRIPTION

- Requires little space
- Integrated strain relief
- Material:
  - Plastic hood black: PBT + Glas filled, UL 94 V-0
  - Plastic hood metallized: ABS V-0
- Fastening:
  - 4-40 UNC short screw
- Packaging: in bulk or in pack units as a single package

## PRODUCT DRAWING



## ORDER DATA

D-SUB PLASTIC HOOD – BLACK			D-SUB PLASTIC HOOD – METALLIZED		
No. of pos.	Design	Part Number	No. of pos.	Design	Part Number
15	Black	500X10015MP	15	Metallized	165X17729X

For single packaged add the letter „E“ at the end of the part number.

# D-SUB PLASTIC HOOD

For flat cable – Snap locking – 25 and 37 pos.



RoHS compliant – CSA listed, File No.: LR 115000-1 – UL listed, File No.: E202784

## DESCRIPTION

- Hood for IDC D-SUB Connectors
- Quick assembly snap locking feature
- Integrated strain relief
- Material:
  - plastic hood grey: ABS, UL 94 V-0
  - Plastic hood metallized: ABS, UL 94 V-0
- Fastening:
  - 4-40 UNC short screws
- Packaging: in bulk or in pack units as a single package

## PRODUCT DRAWING



No. of pos.	A	B	C
25	53.20	47.00	35.80
37	69.50	63.50	50.50

## ORDER DATA

D-SUB PLASTIC HOOD		
No. of pos.	Design	Part Number
25	Grey	165X14029X
37	Grey	165X14039X

D-SUB PLASTIC HOOD – METALLIZED		
No. of pos.	Design	Part Number
25	Metallized	165X14069X
37	Metallized	165X14079X

For single packaged add the letter „E“ at the end of the part number.

# D-SUB PLASTIC HOOD

For flat cable version and round cable version – 9 and 50 pos.



RoHS compliant – CSA listed, File No.: LR 115000-1 – UL listed, File No.: E202784

## DESCRIPTION

- Hood for IDC D-SUB Connectors
- Design:
  - round cable version with straight and side cable entry for flat cable
- Material:
  - plastic hood black: ABS, UL 94 V-0
- Fastening:
  - 4-40 UNC short screws
  - 4-40 UNC jack screws
- Packaging: in bulk or in pack units as a single package

## PRODUCT DRAWING

Round cable entry



Flat cable entry



No. of pos.	A	B	C	D	Ø E
25	55.00	47.00	60.00	21.00	9.50
50	79.00	61.10	65.00	24.00	12.50

## ORDER DATA

D-SUB PLASTIC HOOD – ROUND CABLE ENTRY		
No. of pos.	Design	Part Number
25	Black/Short screw	165X12919X
50	Black/Short screw	165X12929X
25	Black/Jack screw	165X12939X

D-SUB PLASTIC HOOD – FLAT CABLE ENTRY		
No. of pos.	Design	Part Number
25	Black/Jack screw	165X12949X

Also available as single package – in case of single package (polybag) please add „E“ at the end of part number.

# D-SUB PLASTIC HOOD

Design for power 2W2 Combination D-SUB Connectors – Wire size AWG 8...20

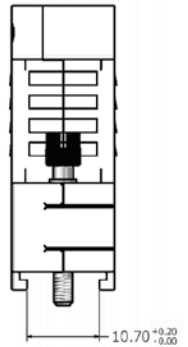
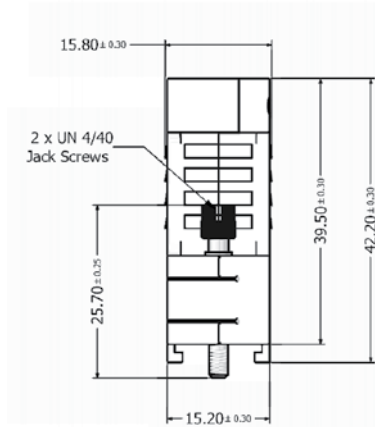


RoHS compliant – CSA listed, File No.: LR 115000-1 – UL listed, File No.: E202784

## DESCRIPTION

- Hood for 2W2 Combination D-SUB Connector
- Design: round cable entries with strain relief for wire size AWG 8...20
- Material: Plastic hood grey: PA 6.6 Glas filled, UL 94 V-0
- Fastening: 4-40 UNC jack screws
- Packaging: in bulk or in pack units as a single package

## PRODUCT DRAWING



AWG	Outer Diameter Cable	Ø A <sup>+0.10</sup> / <sub>-0.00</sub>
8	6.58 ± 0.13	6.75
10	4.42 ± 0.10	4.52
12	3.88 ± 0.10	4.52
14	3.45 ± 0.10	3.55
16	2.95 ± 0.10	3.55
18	2.92 ± 0.10	3.02
20	2.44 ± 0.10	3.02

## ORDER DATA

D-SUB PLASTIC HOOD 2W2		
Number of cable openings	Design	Part Number
Two supplied for	AWG 8	165X17889X
Two supplied for	AWG 10/ AWG 12	165X17949X
Two supplied for	AWG 14/ AWG 16	165X17959X
Two supplied for	AWG 18/ AWG 20	165X17969X

For single packaged add the letter „E“ at the end of the part number.



# D-SUB PLASTIC HOOD

Design for power 3W3 Combination D-SUB Connectors – Wire size AWG 6...20



RoHS compliant – CSA listed, File No.: LR 115000-1 – UL listed, File No.: E202784

## DESCRIPTION

- Hood for 3W3 Combination D-SUB Connector
- Design: round cable entries with strain relief for wire size AWG 6...20
- Material: Plastic hood grey: PA 6.6 Glas filled, UL 94 V-0
- Fastening: 4-40 UNC jack screw
- Packaging: in bulk or in pack units as a single package

## PRODUCT DRAWING



## ORDER DATA

D-SUB PLASTIC HOOD 3W3		
Number of cable openings	Design	Part Number
Two supplied for	AWG 6	165X18169X
Three supplied for	AWG 8	165X17899X
Three supplied for	AWG 10 / AWG 12	165X17979X
Three supplied for	AWG 14 / AWG 16	165X17989X
Three supplied for	AWG 18 / AWG 20	165X17999X

For single packaged add the letter „E“ at the end of the part number.

# D-SUB MicroTCA METAL HOOD

Side cable entry – Slim design



RoHS compliant

## DESCRIPTION

- Cable hood for 7W2 MicroTCA Connector
- Suitable for other D-SUB Connectors
- Slim design for use on dual port interfaces
- Solid strain relief
- Material: zinc die-cast
- Fastening 4-40 UNC screws
- Packaging: in pack units as a single package

## PRODUCT DRAWING



## ORDER DATA

D-SUB MicroTCA Hood 7W2

Type	Design	Part Number
7W2	Metal hood	16-000010

# D-SUB MicroTCA Hood Set

Plastic hood with crimp connector body – Straight cable entry



RoHS compliant

## DESCRIPTION

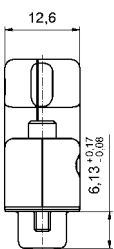
- Compact 7W2 shell inclusive crimp-socket connector
- Available with bridged signal contacts
- Short 4-40 UNC screws with Phillips or Allen key
- Material Housing: PBT GF; UL 94 V0, black
- Integrated strain relief
- Power contacts for wire size AWG 8 up to AWG 20
- This hood only fits this included connector, sold together as a set
- Choose short power contacts from page 5 | 15, sold separately

## PRODUCT DRAWING

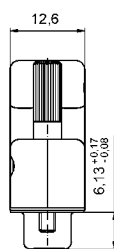
Socket connector



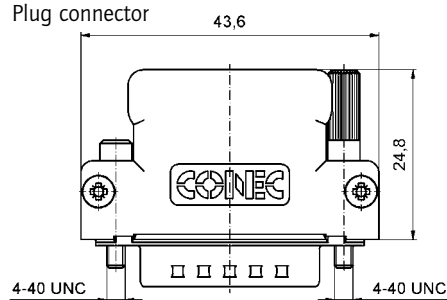
Short screw



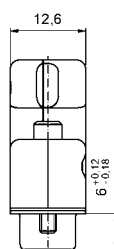
Jack screw



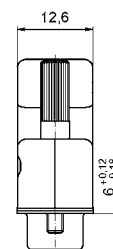
Plug connector



Short screw



Jack screw



## ORDER DATA

### D-SUB MicroTCA Hood Set - Socket Connector

Type	Design	Part Number
7W2	Black / Short screw Phillips	13-000220
7W2	Black / Short screw Allen Key	13-000210
7W2	Black / Jack screw Phillips	13-000380
7W2	Black / Jack screw Allen Key	13-000370

### D-SUB MicroTCA Hood Set - Plug Connector

Type	Design	Part Number
7W2	Black / Short screw Phillips	13-002780
7W2	Black / Short screw Allen Key	13-002770
7W2	Black / Jack screw Phillips	13-002760
7W2	Black / Jack screw Allen Key	13-002750

# IP67 D-SUB PLASTIC HOOD AND ACCESSORIES

Straight cable entry – 9-50 pos. – large interior



RoHS compliant – CSA listed, File No.: LR 115000-1 – UL listed, File No.: E202784

## DESCRIPTION

- Water resistant hood for Standard- and Combination D-SUB
- With large internal space for high power and coaxial contacts
- Material:
  - Plastic hood black: PBT + Glas filled, UL 94 V-0
  - Plastic hood metallized: ABS, UL 94 V-0
- Fastening:
  - M3 or 4-40 UNC short screws stainless steel
  - M3 or 4-40 UNC jack screws stainless steel
- Accessories: Protection cap and Outside sealing made from TPE
- Packaging: in pack units as a single package

## PRODUCT DRAWING



Protection cap



Outside sealing



No. of pos.	A	B	C
09	44.56	12.60	25.60
15	52.86	12.60	25.60
25	66.60	12.60	25.60
37	82.66	12.60	25.60
50	80.26	12.60	28.40

No. of pos.	A ±0.2	B ±0.2	C ±0.2	D ±0.2	E ±0.5
09	38.36	33.96	20.00	15.60	9.90
15	46.66	42.26	20.00	15.60	9.90
25	60.40	56.00	20.00	15.60	9.90
37	76.86	72.46	20.00	15.60	9.90
50	74.50	70.10	22.80	18.40	9.90

Shellsize	A	B	C		D	E	F <sup>+1</sup> <sub>-3</sub>	G	Cable Ø	
			black/grey	metallized					black/grey	metallized
1	40.76	25.00	SW 22	SW 20	51.00	22.00	77.00	44.00	5 - 10	5 - 10
2	49.06	33.30	SW 24	SW 24	51.00	22.00	79.00	52.00	6 - 12	7 - 12
3	62.80	47.04	SW 24	SW 24	59.50	22.00	87.50	52.00	6 - 12	7 - 12
4	78.86	63.50	SW 33	SW 30	67.00	22.00	99.00	52.00	9 - 16	9 - 16
5	76.46	61.10	SW 42	SW 40	67.00	24.80	107.00	52.00	13 - 20	13 - 20

## ORDER DATA

D-SUB PLASTIC HOOD – BLACK		
No. of pos.	Jack screw M3	Jack screw 4-40 UNC
09	165X15119X	165X14819X
15	165X15129X	165X14829X
25	165X15139X	165X14839X
37	165X15149X	165X14849X
50	165X15159X	165X14859X
No. of pos.	Short screw M3	Short screw 4-40 UNC
09	165X15169X	165X14869X
15	165X15179X	165X14879X
25	165X15189X	165X14889X
37	165X15199X	165X14899X
50	165X15209X	165X14909X

D-SUB PLASTIC HOOD – METALLIZED		
No. of pos.	Jack screw M3	Jack screw 4-40 UNC
09	165X15319X	165X15019X
15	165X15329X	165X15029X
25	165X15339X	165X15039X
37	165X15349X	165X15049X
50	165X15359X	165X15059X
No. of pos.	Short screw M3	Short screw 4-40 UNC
09	165X15369X	165X15069X
15	165X15379X	165X15079X
25	165X15389X	165X15089X
37	165X15399X	165X15099X
50	165X15409X	165X15109X

PROTECTION CAP		
No. of pos.	Design	Part Number
09	Protection cap	165X17509X
15	Protection cap	165X17519X
25	Protection cap	165X17529X
37	Protection cap	165X17539X
50	Protection cap	165X17549X

OUTSIDE SEALING		
No. of pos.	Ausführung	Part Number
09	Outside sealing	795-305420
15	Outside sealing	795-305490
25	Outside sealing	795-305580
37	Outside sealing	795-305640
50	Outside sealing	795-305710

# IP67 D-SUB PLASTIC HOOD

Straight cable entry – 9-50 pos.

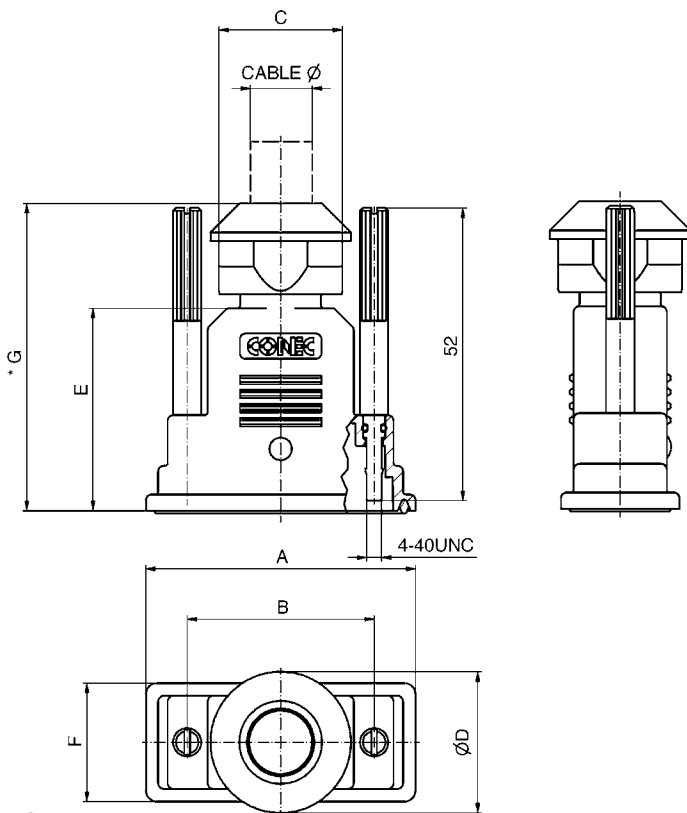


RoHS compliant

## DESCRIPTION

- Water resistant hood for Standard and Combination D-SUB
- for high power and coaxial contacts
- Material:
  - Plastic hood black: PBT + Glas filled, UL 94 V-0
  - Plastic hood metallized: ABS, UL 94 V-0
- Fastening:
  - 4-40 UNC short screws stainless steel
  - 4-40 UNC jack screws stainless steel
- Packaging: in pack units as a single package

## PRODUCT DRAWING



Shellsize	A	B	C	Ø D	E	F	G ±1	Cable Ø
1	40.00	25.00	20 A/F	23	36	21.00	54.30	7 - 9
2	48.00	33.30	22 A/F	25	36	21.00	54.60	9 - 11
3	62.00	47.04	24 A/F	27	44	21.00	67.70	10 - 12
4	78.00	63.50	28 A/F	31	53	25.20	77.20	14 - 16
5	75.60	61.10	28 A/F	31	53	23.80	77.20	14 - 16

## ORDER DATA

D-SUB PLASTIC HOOD – BLACK		
No. of pos.	Short screw 4-40 UNC	Jack screw 4-40 UNC
09	15-004710	
15	15-004720	15-004670
25	15-004730	15-004680
37	15-004740	15-004690
50	15-004750	15-004700

D-SUB PLASTIC HOOD – METALLIZED		
No. of pos.	Short screw 4-40 UNC	Jack screw 4-40 UNC
09	15-004810	
15	15-004820	15-004770
25	15-004830	15-004780
37	15-004840	15-004790
50	15-004850	15-004800

# D-SUB ADAPTER HOOD

Plastic design – 9-25 pos.



RoHS compliant – CSA listed, File No.: LR 115000-1 – UL listed, File No.: E202784

## DESCRIPTION

- Adapter hood with large internal space inside for custom applications
- Material:
  - Plastic hood grey: ABS, UL 94 V-2
  - Plastic hood metallized: ABS, UL 94 V-0
- Fastening:
  - 4-40 UNC short screws
- Packaging: in pack units as a single package

## PRODUCT DRAWING



No. of pos.	A	B	C
09/09	34.00	25.00	53.00
15/15	41.30	33.30	52.00
25/25	55.60	47.00	53.00



9-25 pos.



## ORDER DATA

D-SUB ADAPTER HOOD – GREY		
No. of pos.	Design 4-40 UNC	Part Number
09/09	Grey /Short screw	300X10729X
15/15	Grey /Short screw	300X10739X
25/25	Grey /Short screw	300X10749X
09/25	Grey /Short screw	300X10759X

D-SUB ADAPTER HOOD – METALLIZED		
No. of pos.	Design 4-40 UNC	Part Number
09/09	Metallized /Short screw	300X10779X
15/15	Metallized /Short screw	300X10789X
25/25	Metallized /Short screw	300X10799X
09/25	Metallized /Short screw	300X10809X

# D-SUB PROTECTION CAP

Plastic design – Black or metallized



RoHS compliant

## DESCRIPTION

- Dust cap protecting connector mounting area
- Material: TPE; UL94 V-0
- Color: Black
- Shielded cap protecting against EMI/RFI as well as ESD
- Material: ABS, UL94 V-0; metallized
- Temperature range: -35°C... +85°C

## SOCKET CONNECTOR



## PLUG CONNECTOR



50-pos. = Dim. in (..)

No. of pos.	A	B	C	D
09	22.90	16.20	22.50	16.90
15	31.40	24.70	30.65	25.05
25	44.70	38.00	44.40	38.80
37	61.20	54.50	60.75	55.15
50	58.80	52.10	58.15	52.55

## ORDER DATA

PROTECTION CAP FOR SOCKET CONNECTOR		
No. of pos.	Design	Part Number
09	Black/Plastic	160X10449X
15	Black/Plastic	160X10459X
25	Black/Plastic	160X10469X
37	Black/Plastic	160X10479X
50	Black/Plastic	160X10959X
09	Metallized plastic	600X518009X
15	Metallized plastic	600X518015X
25	Metallized plastic	600X518025X
37	Metallized plastic	600X518037X
50	Metallized plastic	600X518050X

PROTECTION CAP FOR PLUG CONNECTOR		
No. of pos.	Design	Part Number
09	Black/Plastic	160X10409X
15	Black/Plastic	160X10419X
25	Black/Plastic	160X10429X
37	Black/Plastic	160X10439X
50	Black/Plastic	160X10969X
09	Metallized plastic	600X517009X
15	Metallized plastic	600X517015X
25	Metallized plastic	600X517025X
37	Metallized plastic	600X517037X
50	Metallized plastic	600X517050X

# D-SUB SHIELDED CAP

Metal design – Shielded



RoHS compliant

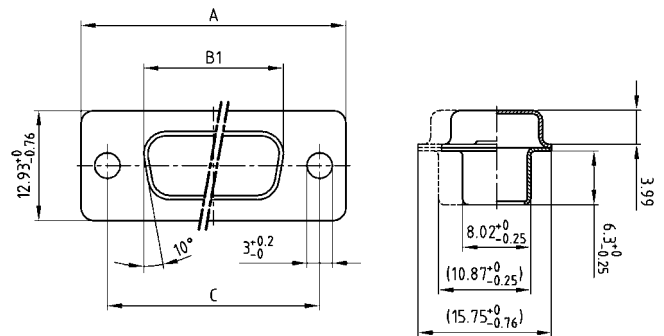
## DESCRIPTION

- Shielded cap protecting against EMI/RFI
- Material: Steel tin plated
- Mounting style:  
with Through-hole  $\varnothing$  .118" / 3.00 mm

## SOCKET CONNECTOR



## PLUG CONNECTOR



50-pos. = Dim. in (..)

No. of pos.	A-0.76	B1-0.25	B2+0.25	C	D-0.3
09	31.19	16.46	16.79	25.00 +0.12	6.12
15	39.52	24.79	25.12	33.30 +0.15 -0.10	6.12
25	53.42	38.50	38.84	47.04 +0.13	5.99
37	69.70	54.96	55.30	63.50 +0.13	5.99
50	67.31	52.55	52.68	61.10 +0.14 -0.11	5.99

## ORDER DATA

SHIELDED CAP FOR SOCKET CONNECTOR		
No. of pos.	Design	Part Number
09	Metal / Through-hole $\varnothing$ .118" / 3.00 mm	165X12969X
15	Metal / Through-hole $\varnothing$ .118" / 3.00 mm	165X12979X
25	Metal / Through-hole $\varnothing$ .118" / 3.00 mm	165X12989X
37	Metal / Through-hole $\varnothing$ .118" / 3.00 mm	165X12999X
50	Metal / Through-hole $\varnothing$ .118" / 3.00 mm	165X13009X

SHIELDED CAP FOR PLUG CONNECTOR		
No. of pos.	Design	Part Number
09	Metal / Through-hole $\varnothing$ .118" / 3.00 mm	165X13129X
15	Metal / Through-hole $\varnothing$ .118" / 3.00 mm	165X13139X
25	Metal / Through-hole $\varnothing$ .118" / 3.00 mm	165X13149X
37	Metal / Through-hole $\varnothing$ .118" / 3.00 mm	165X13159X
50	Metal / Through-hole $\varnothing$ .118" / 3.00 mm	165X13169X



# D-SUB SHIELDED CAP

Metal design – Shielded – Fastening screws



RoHS compliant

## DESCRIPTION

- Shielded cap protecting against EMI/RFI
- Material: Steel tin plated
- Mounting style:  
with 4-40 UNC screw and clip

## SOCKET CONNECTOR



## PLUG CONNECTOR



50-pos. = Dim. in (..)

No. of pos.	A-0.76	B1-0.25	B2-0.25	C	D-0.3
09	31.19	16.46	16.79	25.00 ±0.12	6.12
15	39.52	24.79	25.12	33.30 ±0.15 ±0.10	6.12
25	53.42	38.50	38.84	47.04 ±0.13	5.99
37	69.70	54.96	55.30	63.50 ±0.13	5.99
50	67.31	52.55	52.68	61.10 ±0.14 ±0.11	5.99

## ORDER DATA

SHIELDED CAP FOR SOCKET CONNECTOR		
No. of pos.	Design 4-40 UNC	Part Number
09	Metal / Screw and clip	165X16719X
15	Metal / Screw and clip	165X16729X
25	Metal / Screw and clip	165X16739X
37	Metal / Screw and clip	165X16749X
50	Metal / Screw and clip	165X16759X

SHIELDED CAP FOR PLUG CONNECTOR		
No. of pos.	Design 4-40 UNC	Part Number
09	Metal / Screw and clip	165X16769X
15	Metal / Screw and clip	165X16779X
25	Metal / Screw and clip	165X16789X
37	Metal / Screw and clip	165X16799X
50	Metal / Screw and clip	165X16809X

# D-SUB SHIELDED CAP

Metal design – Shielded – Jack screws



RoHS compliant

## SOCKET CONNECTOR



## PLUG CONNECTOR



50-pos. = Dim. in (..)

No. of pos.	A <sub>±0.76</sub>	B1 <sub>±0.25</sub>	B2 <sub>±0.25</sub>	C	D <sub>±0.3</sub>
09	31.19	16.46	16.79	25.00 +0.12	6.12
15	39.52	24.79	25.12	33.30 +0.15 -0.10	6.12
25	53.42	38.50	38.84	47.04 +0.13	5.99
37	69.70	54.96	55.30	63.50 +0.13	5.99
50	67.31	52.55	52.68	61.10 +0.14 -0.11	5.99

## ORDER DATA

SHIELDED CAP FOR SOCKET CONNECTOR		
No. of pos.	Design	Part Number
09	Metal / M3 Jack screw	165X16859X
15	Metal / M3 Jack screw	165X16869X
25	Metal / M3 Jack screw	165X16879X
37	Metal / M3 Jack screw	165X16889X
50	Metal / M3 Jack screw	165X16899X
09	Metal / 4-40 UNC Jack screw	165X16909X
15	Metal / 4-40 UNC Jack screw	165X16919X
25	Metal / 4-40 UNC Jack screw	165X16929X
37	Metal / 4-40 UNC Jack screw	165X16939X
50	Metal / 4-40 UNC Jack screw	165X16949X

SHIELDED CAP FOR PLUG CONNECTOR		
No. of pos.	Design	Part Number
09	Metal / M3 Jack screw	165X16959X
15	Metal / M3 Jack screw	165X16969X
25	Metal / M3 Jack screw	165X16979X
37	Metal / M3 Jack screw	165X16989X
50	Metal / M3 Jack screw	165X16999X
09	Metal / 4-40 UNC Jack screw	165X17009X
15	Metal / 4-40 UNC Jack screw	165X17019X
25	Metal / 4-40 UNC Jack screw	165X17029X
37	Metal / 4-40 UNC Jack screw	165X17039X
50	Metal / 4-40 UNC Jack screw	165X17049X

# D-SUB SHIELDED CAP

Metal design – Shielded – Lanyard – Fastening screws



RoHS compliant

## DESCRIPTION

- Shielded cap protecting against EMI/RFI
- Material:
  - Shell: Steel tin plated
  - Lanyard: Stainless steel
- Mounting style:
  - with steel screws M3 or
  - with short screws 4-40 UNC

## SOCKET CONNECTOR



## PLUG CONNECTOR



50-pos. = Dim. in (..)

No. of pos.	A-0.76	B1-0.25	B2-0.25	C	D-0.3
09	31.19	16.79	16.46	25.00	6.12
15	39.52	25.12	24.79	33.30	6.12
25	53.42	38.84	38.50	47.04	5.99
37	69.70	55.30	54.96	63.50	5.99
50	67.00	52.81	52.50	61.11	6.12



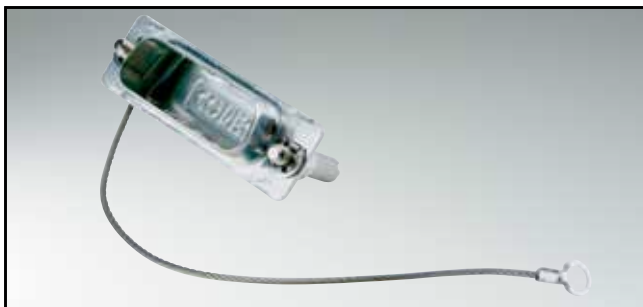
## ORDER DATA

SHIELDED CAP FOR SOCKET CONNECTOR		
No. of pos.	Design	Part Number
09	Metal / M3 fastening screw / Lanyard	16-001000
15	Metal / M3 fastening screw / Lanyard	16-001010
25	Metal / M3 fastening screw / Lanyard	16-001020
37	Metal / M3 fastening screw / Lanyard	16-001030
50	Metal / M3 fastening screw / Lanyard	16-001040
09	Metal / 4-40 UNC fastening screw / Lanyard	16-001050
15	Metal / 4-40 UNC fastening screw / Lanyard	16-001060
25	Metal / 4-40 UNC fastening screw / Lanyard	16-001070
37	Metal / 4-40 UNC fastening screw / Lanyard	16-001080
50	Metal / 4-40 UNC fastening screw / Lanyard	16-001090

SHIELDED CAP FOR PLUG CONNECTOR		
No. of pos.	Design	Part Number
09	Metal / M3 fastening screw / Lanyard	16-001100
15	Metal / M3 fastening screw / Lanyard	16-001110
25	Metal / M3 fastening screw / Lanyard	16-001120
37	Metal / M3 fastening screw / Lanyard	16-001130
50	Metal / M3 fastening screw / Lanyard	16-001140
09	Metal / 4-40 UNC fastening screw / Lanyard	16-001150
15	Metal / 4-40 UNC fastening screw / Lanyard	16-001160
25	Metal / 4-40 UNC fastening screw / Lanyard	16-001170
37	Metal / 4-40 UNC fastening screw / Lanyard	16-001180
50	Metal / 4-40 UNC fastening screw / Lanyard	16-001190

# D-SUB SHIELDED CAP

Metal design – Shielded – Jack screw – Lanyard



RoHS compliant

## DESCRIPTION

- Shielded cap protecting against EMI/RFI
- Material:
  - Shell: Steel tin plated
  - Lanyard: Stainless steel
  - Screw: Steel or stainless steel
- Mounting style:
  - with M3 or 4-40 UNC Jack screw

## SOCKET CONNECTOR



## PLUG CONNECTOR



## ORDER DATA

SHIELDED CAP FOR SOCKET CONNECTOR		
No. of pos.	Design	Part Number
09	Metal/M3 Jack screw steel/Lanyard	16-000790
15	Metal/M3 Jack screw steel/Lanyard	16-000800
25	Metal/M3 Jack screw steel/Lanyard	16-000810
37	Metal/M3 Jack screw steel/Lanyard	16-000820
50	Metal/M3 Jack screw steel/Lanyard	16-000830
09	Metal/4-40 UNC Jack screw steel/Lanyard	16-000840
15	Metal/4-40 UNC Jack screw steel/Lanyard	16-000850
25	Metal/4-40 UNC Jack screw steel/Lanyard	16-000860
37	Metal/4-40 UNC Jack screw steel/Lanyard	16-000870
50	Metal/4-40 UNC Jack screw steel/Lanyard	16-000890
09	Metal/M3 Jack screw stainless steel/Lanyard	16-000230
15	Metal/M3 Jack screw stainless steel/Lanyard	16-000240
25	Metal/M3 Jack screw stainless steel/Lanyard	16-000250
37	Metal/M3 Jack screw stainless steel/Lanyard	16-000260
50	Metal/M3 Jack screw stainless steel/Lanyard	16-000270
09	Metal/4-40 UNC Jack screw stainless steel/Lanyard	16-000280
15	Metal/4-40 UNC Jack screw stainless steel/Lanyard	16-000290
25	Metal/4-40 UNC Jack screw stainless steel/Lanyard	16-000300
37	Metal/4-40 UNC Jack screw stainless steel/Lanyard	16-000310
50	Metal/4-40 UNC Jack screw stainless steel/Lanyard	16-000320

SHIELDED CAP FOR PLUG CONNECTOR		
No. of pos.	Design	Part Number
09	Metal/M3 Jack screw steel/Lanyard	16-000900
15	Metal/M3 Jack screw steel/Lanyard	16-000910
25	Metal/M3 Jack screw steel/Lanyard	16-000920
37	Metal/M3 Jack screw steel/Lanyard	16-000930
50	Metal/M3 Jack screw steel/Lanyard	16-000940
09	Metal/4-40 UNC Jack screw steel/Lanyard	16-000950
15	Metal/4-40 UNC Jack screw steel/Lanyard	16-000960
25	Metal/4-40 UNC Jack screw steel/Lanyard	16-000970
37	Metal/4-40 UNC Jack screw steel/Lanyard	16-000980
50	Metal/4-40 UNC Jack screw steel/Lanyard	16-000990
09	Metal/M3 Jack screw stainless steel/Lanyard	16-000330
15	Metal/M3 Jack screw stainless steel/Lanyard	16-000340
25	Metal/M3 Jack screw stainless steel/Lanyard	16-000350
37	Metal/M3 Jack screw stainless steel/Lanyard	16-000360
50	Metal/M3 Jack screw stainless steel/Lanyard	16-000370
09	Metal/4-40 UNC Jack screw stainless steel/Lanyard	16-000380
15	Metal/4-40 UNC Jack screw stainless steel/Lanyard	16-000390
25	Metal/4-40 UNC Jack screw stainless steel/Lanyard	16-000400
37	Metal/4-40 UNC Jack screw stainless steel/Lanyard	16-000410
50	Metal/4-40 UNC Jack screw stainless steel/Lanyard	16-000420

# IP67 D-SUB PROTECTION CAP

Metal design – Shielded – Fastening screws



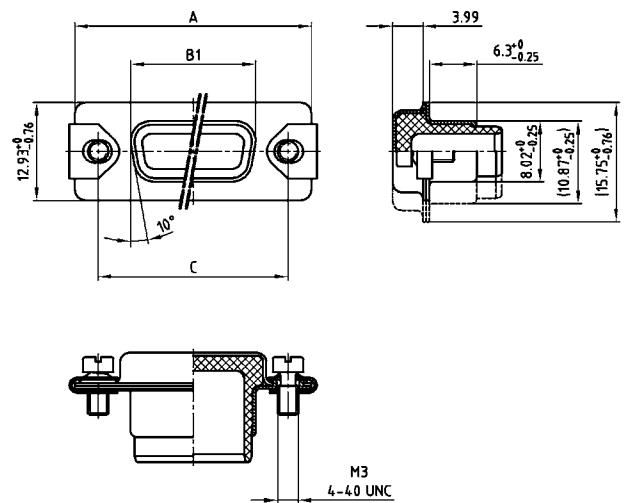
RoHS compliant

## DESCRIPTION

- IP67 Protection cap with gasket
- EMI/RFI protection
- Material: Brass tin plated
- Mounting style:  
with M3 or 4-40 UNC screw and stainless steel clip

## SOCKET CONNECTOR

## PLUG CONNECTOR



50-pos. = Dim. in (..)

No. of pos.	A-0.76	B1±0.25	B2±0.25	C	D±0.3
09	31.19	16.46	16.79	25.00 +0.12	6.12
15	39.52	24.79	25.12	33.30 +0.15 -0.10	6.12
25	53.42	38.50	38.84	47.04 +0.13	5.99
37	69.70	54.96	55.30	63.50 +0.13	5.99
50	67.31	52.55	52.68	61.10 +0.14 -0.11	5.99

## ORDER DATA

### PROTECTION CAP FOR SOCKET CONNECTOR IP67

No. of pos.	Design	Part Number
09	Metal / M3 Screw and clip	165X16619X
15	Metal / M3 Screw and clip	165X16629X
25	Metal / M3 Screw and clip	165X16639X
37	Metal / M3 Screw and clip	165X16649X
50	Metal / M3 Screw and clip	165X16659X
09	Metal / 4-40 UNC Screw and clip	165X14719X
15	Metal / 4-40 UNC Screw and clip	165X14729X
25	Metal / 4-40 UNC Screw and clip	165X14739X
37	Metal / 4-40 UNC Screw and clip	165X14749X
50	Metal / 4-40 UNC Screw and clip	165X14759X

### PROTECTION CAP FOR PLUG CONNECTOR IP67

No. of pos.	Design	Part Number
09	Metal / M3 Screw and clip	165X16669X
15	Metal / M3 Screw and clip	165X16679X
25	Metal / M3 Screw and clip	165X16689X
37	Metal / M3 Screw and clip	165X16699X
50	Metal / M3 Screw and clip	165X16709X
09	Metal / 4-40 UNC Screw and clip	165X14769X
15	Metal / 4-40 UNC Screw and clip	165X14779X
25	Metal / 4-40 UNC Screw and clip	165X14789X
37	Metal / 4-40 UNC Screw and clip	165X14799X
50	Metal / 4-40 UNC Screw and clip	165X14809X

# IP67 D-SUB PROTECTION CAP

Metal design – Shielded – Jack screw



RoHS compliant

## DESCRIPTION

- IP67 Protection cap with gasket
- EMI/RFI protection
- Material:
  - Shell: Brass tin plated
  - Jack screw: steel nickel plated
- Mounting style:
  - with M3 or 4-40 UNC Jack screws

## SOCKET CONNECTOR



## PLUG CONNECTOR



50-pos. = Dim. in (..)

No. of pos.	A-0,76	B1+0,25	B2-0,25	C	D-0,3
09	31.19	16.46	16.79	25.00 +0.12	6.12
15	39.52	24.79	25.12	33.30 +0.15 -0.10	6.12
25	53.42	38.50	38.84	47.04 +0.13	5.99
37	69.70	54.96	55.30	63.50 ±0.13	5.99
50	67.31	52.55	52.68	61.10 +0.14 -0.11	5.99

## ORDER DATA

### PROTECTION CAP FOR SOCKET CONNECTOR IP67

No. of pos.	Design	Part Number
09	Metal / M3 Jack screw	165X17159X
15	Metal / M3 Jack screw	165X17169X
25	Metal / M3 Jack screw	165X17179X
37	Metal / M3 Jack screw	165X17189X
50	Metal / M3 Jack screw	165X17199X
09	Metal / 4-40 UNC Jack screw	165X17109X
15	Metal / 4-40 UNC Jack screw	165X17119X
25	Metal / 4-40 UNC Jack screw	165X17129X
37	Metal / 4-40 UNC Jack screw	165X17139X
50	Metal / 4-40 UNC Jack screw	165X17149X

### SHIELDED CAP FOR PLUG CONNECTOR IP67

No. of pos.	Design	Part Number
09	Metal / M3 Jack screw	165X17259X
15	Metal / M3 Jack screw	165X17269X
25	Metal / M3 Jack screw	165X17279X
37	Metal / M3 Jack screw	165X17289X
50	Metal / M3 Jack screw	165X17299X
09	Metal / 4-40 UNC Jack screw	165X17209X
15	Metal / 4-40 UNC Jack screw	165X17219X
25	Metal / 4-40 UNC Jack screw	165X17229X
37	Metal / 4-40 UNC Jack screw	165X17239X
50	Metal / 4-40 UNC Jack screw	165X17249X

# IP67 D-SUB PROTECTION CAP

Metal design – Shielded – 9-50pos. – Jack screw – Lanyard



RoHS compliant – CSA listed, File No.: LR 115000-1 – UL listed, File No.: E202784

## DESCRIPTION

- IP67 Protection cap with gasket and Lanyard
- Protection against EMI/RFI
- Material:
  - Shell: Brass tin plated
  - Lanyard: Stainless steel
  - Jack screw: Stainless steel
- Mounting style:
  - with M3 or 4-40 UNC Jack screws

## SOCKET CONNECTOR

## PLUG CONNECTOR



50 pos. = Dim. in (..)

No. of pos.	A-0.76	B1-0.25	B2-0.25	C	D-0.3
09	31.19	16.79	16.46	25.00	6.12
15	39.52	25.12	24.79	33.30	6.12
25	53.42	38.84	38.50	47.04	5.99
37	69.70	55.30	54.96	63.50	5.99
50	67.00	52.81	52.50	61.11	6.12

## ORDER DATA

SHIELDED CAP FOR SOCKET CONNECTOR		
No. of pos.	Design	Part Number
09	Metal / M3 Jack screw stainless steel / Lanyard	15-000060
15	Metal / M3 Jack screw stainless steel / Lanyard	15-000070
25	Metal / M3 Jack screw stainless steel / Lanyard	15-000080
37	Metal / M3 Jack screw stainless steel / Lanyard	15-000090
50	Metal / M3 Jack screw stainless steel / Lanyard	15-000100
09	Metal / 4-40 UNC Jack screw stainless steel / Lanyard	15-000010
15	Metal / 4-40 UNC Jack screw stainless steel / Lanyard	15-000020
25	Metal / 4-40 UNC Jack screw stainless steel / Lanyard	15-000030
37	Metal / 4-40 UNC Jack screw stainless steel / Lanyard	15-000040
50	Metal / 4-40 UNC Jack screw stainless steel / Lanyard	15-000050

SHIELDED CAP FOR PLUG CONNECTOR		
No. of pos.	Design	Part Number
09	Metal / M3 Jack screw stainless steel / Lanyard	15-000160
15	Metal / M3 Jack screw stainless steel / Lanyard	15-000170
25	Metal / M3 Jack screw stainless steel / Lanyard	15-000180
37	Metal / M3 Jack screw stainless steel / Lanyard	15-000190
50	Metal / M3 Jack screw stainless steel / Lanyard	15-000200
09	Metal / 4-40 UNC Jack screw stainless steel / Lanyard	15-000110
15	Metal / 4-40 UNC Jack screw stainless steel / Lanyard	15-000120
25	Metal / 4-40 UNC Jack screw stainless steel / Lanyard	15-000130
37	Metal / 4-40 UNC Jack screw stainless steel / Lanyard	15-000140
50	Metal / 4-40 UNC Jack screw stainless steel / Lanyard	15-000150

# D-SUB HARDWARE ACCESSORIES

## Hex bolt-spacer – Screw locking



RoHS compliant

### DESCRIPTION

- Material: Steel nickel plated
- Delivery includes:
  - Single hex bolts
  - Set composed of each with
    - 2 hex bolts
    - 2 flat washers
    - 2 spring rings
    - 2 nuts

### PRODUCT DRAWING

Single hex bolt



Screw locking set



Single hex bolt set



Hex bolt nut .228"/5.8 mm



Accessories



### ORDER DATA

**SINGLE HEX BOLTS PACKAGING UNIT 200 PIECES**

Length A	Internal / External thread	Part Number
.256"/6.5 mm	4-40 UNC / 4-40 UNC	740-353770
.315"/8.0 mm	4-40 UNC / 4-40 UNC	740-331370
.433"/11.0 mm	4-40 UNC / 4-40 UNC	740-331570
.512"/13.0 mm	4-40 UNC / 4-40 UNC	740-331870
.551"/14.0 mm	4-40 UNC / 4-40 UNC	740-331670
.158"/4.0 mm	M3 / M3	740-354470
.276"/7.0 mm	M3 / M3	740-320570
.315"/8.0 mm	M3 / M3	740-342470
.512"/13.0 mm	M3 / M3	740-365270
.158"/4.0 mm	4-40 UNC / M3	740-354370
.276"/7.0 mm	4-40 UNC / M3	740-320170
.512"/13.0 mm	4-40 UNC / M3	740-344970

**SCREW LOCKING SET PACKAGING UNIT 100 PIECES**

Length A	Internal / External thread	Part Number
.315"/8.0 mm	4-40 UNC / 4-40 UNC	160X10329 X

**OTHER ACCESSORIES PACKAGING UNIT 200 PIECES**

Description	Part Number
Hex bolt nut .228"/5.8 mm	160X10379 X
Flat washer	765-329670
Spring ring	765-329570
4-40 UNC nut	765-329770
M3 nut	765-329870

**SINGLE HEX BOLTS SET PACKAGING UNIT 100 PIECES**

Length A	Internal / External thread	Part Number
.315"/8.0 mm	4-40 UNC / 4-40 UNC	160X10359X
.551"/14.0 mm	4-40 UNC / 4-40 UNC	160X10639X
.315"/8.0 mm	M3 / M3	160X10529X



# D-SUB HARDWARE ACCESSORIES

Screw locking with clamp – Steel or stainless steel and brass



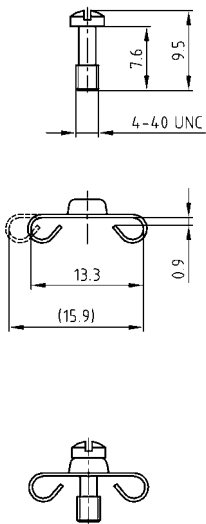
RoHS compliant

**DESCRIPTION**

- Two types available
  - Type 1: Steel
  - Type 2: Stainless steel
  - Type 3: Brass
- Delivery includes:
  - Set consists of
    - 2 clamps
    - 2 screws

**PRODUCT DRAWING**

Type 1: Steel

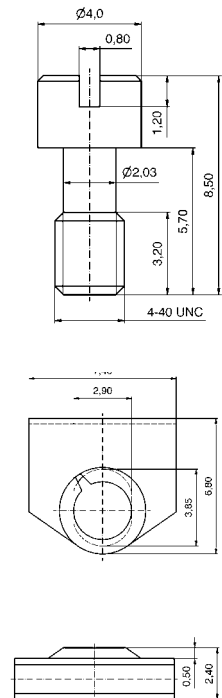


50-pos. = Dim. in (..)

Type 2: Stainless steel



Type 3: Brass



**ORDER DATA**

SCREW COUPLING WITH CLAMPS			SCREW COUPLING WITH CLAMPS		
No. of pos.	Design 4-40 UNC	Part Number	No. of pos.	Design 4-40 UNC	Part Number
09-37	Type 1 steel	160X10259X	09-50	Type 2 stainless steel	160X00470A
50	Type 1 steel	160X10659X	09-50	Type 3 brass	16-505750

# D-SUB HARDWARE ACCESSORIES

## Spring locking



RoHS compliant

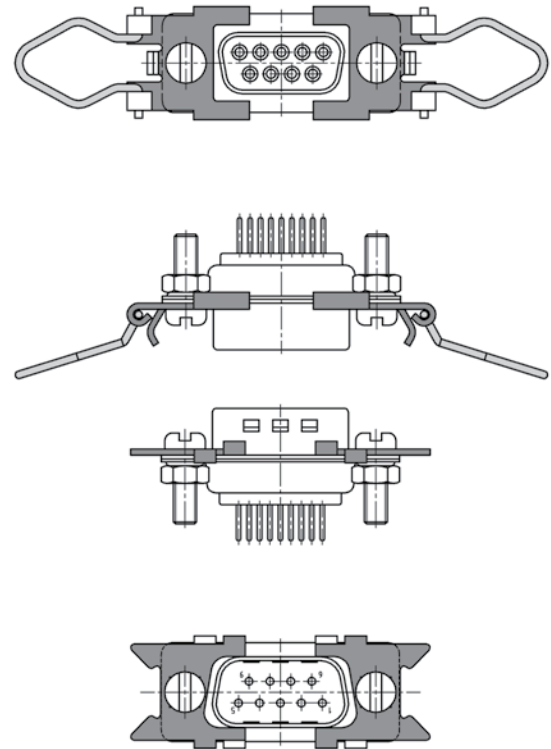
### DESCRIPTION

- Steel
- Delivery includes:
  - Set consists of
  - 2 spring clips
  - 2 wire clamp holders
  - 2 clamps
  - 4 M3 screws
  - 4 M3 nuts

### PRODUCT DRAWING



### View for assembly



### ORDER DATA

#### SPRING LOCKING

No. of pos.	Design	Part Number
09 - 37	Spring locking	160X10239X

# D-SUB HARDWARE ACCESSORIES

## Slide lock with holding bolt



RoHS compliant

### DESCRIPTION

- Slide lock set in two designs:
  - Type 3: 1 frame, 2 screws 4-40 UNC, 2 flat washers, 2 spring rings, 2 4-40 UNC nuts
  - Type 4: 1 frame, 2 4-40 UNC screws, 2 flat washers, 2 spring rings, 2 4-40 UNC nuts
- Holding bolt set consists of
  - 2 hex bolts, 2 flat washers, 2 spring rings, 2 nuts

### PRODUCT DRAWING

Type 3



No. of pos.	A	B	C
09	35.00	27.40	12.00
15	43.30	35.70	11.50
25	57.00	49.40	12.00
37	74.40	65.90	12.00
50	72.00	63.50	15.00

Type 4



holding bolt for slide lock



### ORDER DATA

#### SLIDE LOCK TYPE 3

No. of pos.	Design	Part Number
09	Slide lock set type 3	160X10159X
15	Slide lock set type 3	160X10169X
25	Slide lock set type 3	160X10179X
37	Slide lock set type 3	160X10189X
50	Slide lock set type 3	160X10199X

#### SLIDE LOCK TYPE 4

No. of pos.	Design	Part Number
09	Slide lock set type 4	160X10689X
15	Slide lock set type 4	160X10699X
25	Slide lock set type 4	160X10709X
37	Slide lock set type 4	160X10719X
50	Slide lock set type 4	160X10729X

#### HOLDING BOLT FOR SLIDE LOCK

No. of pos.	Design	Part Number
09 - 50	Slide lock type 3 and type 4	160X10209X

# D-SUB HARDWARE ACCESSORIES

## Snap locking for hoods with straight and side cable entry



RoHS compliant

### DESCRIPTION

- Steel design
- Delivery includes: - Set consists of
  - 2 locking levers
  - 2 self threading screws
  - 2 snap-fits
  - 2 M3 screws
  - 2 spring rings
  - 2 M3 nuts
- Steel, nickel plated

### PRODUCT DRAWING

For straight Cable entry



For sided Cable entry



50-pos. = Dim. in (..)

### ORDER DATA

#### FOR STRAIGHT CABLE ENTRY

No. of pos.	Design	Part Number
09 - 37	Snap in locking	160X10219X
50	Snap in locking	160X10229X

#### FOR SIDE CABLE ENTRY

No. of pos.	Design	Part Number
09 - 37	Snap in locking	160X10609X
50	Snap in locking	160X10619X

# D-SUB HARDWARE ACCESSORIES

## Blind mating – Plug-in system



RoHS compliant

### DESCRIPTION

- Mounting for mating applications consist of frame, float mount and guide pins
- Material: Steel nickel plated
- Frame is factory assembled. It requires a special hollow rivet to accept the Guide Post.
- Contact factory to configure part number for the connector/frame assembly

### PRODUCT DRAWING

Frame



Guide post



View for assembly



No. of pos.	A ± 0.2	B ± 0.2	C ± 0.2	D ± 0.3	E ± 0.2	F ± 0.3
09	20.20	24.99	40.28	49.02	12.10	17.20
15	28.80	33.32	48.62	57.35	12.10	17.20
25	42.50	47.04	62.51	71.25	12.10	17.20
37	59.10	63.50	78.79	87.53	12.10	17.20
50	56.30	61.11	76.40	85.14	14.80	20.04

### ORDER DATA

FRAME WITH FLOAT MOUNT		
No. of pos.	Design	Part Number
09	Blind mating frame	160X10889X
15	Blind mating frame	160X10899X
25	Blind mating frame	160X10909X
37	Blind mating frame	160X10919X
50	Blind mating frame	160X10929X

GUIDING PIN		
No. of pos.	Design	Part Number
09 - 50	Blind mating guide posts	160X10949X

## SECTION 8

# IP67 D-SUB CONNECTORS

---

Connector systems able to meet special demands are needed for industrial use in harsh environments.

The water resistant connector system developed by CONEC is intended for applications where dust and water are factors.

The system includes D-Subminiature Connectors in standard and high density configurations as well as corresponding accessories, such as water resistant hoods and protective caps.



The type of protection is defined by IEC 60529 which also specifies the suitability of electrical components for various ambient conditions.

CONEC water resistant connectors ensure a continuously secure connection compliant with the IP67 rating. They are dustproof and protect against temporary submersion in water.



#### System details:

- Standard design with metal shell and O-ring
- One piece "solid body" design available for increased mechanical stresses
- Seal in the connector, water cannot penetrate into the housing
- Available for front and rear side panel mounting
- Connector without frame for cable housing
- Special threaded parts, 4-40 UNC and M 3
- Plastic materials comply with UL 94 V0
- Machined precision contacts for heavy duty usage
- Various gold plating options available
- Basic connector dimensions - without frame - in compliance with DIN 41652 / MIL-C-24308
- All conventional contact termination types available
- Various accessories, including waterproof hoods and protective caps



# PART NUMBER CREATOR

6 S T D 0 9 S A M 9 9 B 3 O X

**Product Line**

- 6 = Shell brass tin plated with die-cast frame
- 4 = Shell brass tin plated with plastic frame or without frame
- 8\* = Shell stainless steel with or without die-cast frame
- 9\* = Shell stainless steel with plastic frame
- \* on request

**Variations**

- STD = D-SUBMINIATURE, Standard
- HDD = D-SUBMINIATURE, High Density

**Position for STD**

- 09 = 9 pos.
- 15 = 15 pos.
- 25 = 25 pos.
- 37 = 37 pos.
- 50 = 50 pos.

**Position for HDD**

- 15 = 15 pos.
- 26 = 26 pos.
- 44 = 44 pos.
- 62 = 62 pos.
- 78 = 78 pos.

**Contact type**

- P = Plug connector
- S = Socket connector
- A = Adapter

**Quality class for contacts**

- A = Quality class 3 = 50 mating cycles
- B = Quality class 2 = 200 mating cycles
- C = Quality class 1 = 500 mating cycles

**Termination**

- M = Solder cup
- R = Solder pin, straight
- T = Solder pin, angled, .189"/4.80 mm
- U = Solder pin, angled, .276"/7.00 mm
- Z = Solder pin, angled, .465"/11.8 mm
- Y = Solder pin, angled, .220"/5.60 mm (high density design only)
- A = Adapter

**Capacitance**

- 99 = Without filter for STD and HDD

**Mounting style**

- |                                                            |                                                               |
|------------------------------------------------------------|---------------------------------------------------------------|
| A1 = Riveted for wire assembly shell without sealing frame | E2 = 4-40 UNC Threaded rear spacer with PCB clip, PCB 1,60 mm |
| B2 = M3 threaded insert                                    | S1 = Metal bracket, M3 threaded insert                        |
| B3 = 4-40 UNC threaded insert                              | S2 = Metal bracket, 4-40 UNC threaded insert                  |
| B4 = M3 front spacer                                       | S3 = Metal bracket, M3 threaded insert and PCB clip           |
| B5 = 4-40 UNC front spacer                                 | S4 = Metal bracket, 4-40 UNC threaded insert and PCB clip     |
| B7 = 4-40 UNC front spacer and rear mounting stud          | R1 = Metal bracket, M3 threaded insert                        |
| B8 = M3 threaded lock for adapter                          | R2 = Metal bracket, 4-40 UNC threaded insert                  |
| B9 = 4-40 UNC front spacer for adapter                     | R3 = Metal bracket, M3 threaded insert and PCB clip           |
| E1 = M3 threaded rear spacer with PCB clip .063"/1.60 mm   | R4 = Metal bracket, 4-40 UNC threaded insert and PCB clip     |

- OX = Standard



## PANEL MOUNTING

### FRONT PANEL MOUNTING



### REAR PANEL MOUNTING



The hex bolts illustrated here (4-40 UNC or M3 threads) are included in the delivery complement of every connector with a sealing frame. The length of this spacer has been selected to accommodate a panel thickness of .063"/1.6 mm such that it does not extend beyond the plug-in height. Furthermore, the hex bolts outside threads are shorter than standard hex bolts. Material: stainless steel.

# IP67 D-SUB STANDARD

Solder cup – Precision machined contacts – For wire size AWG 20



RoHS compliant - CSA listed, File No.LR115000-1 UL listed, File No. E202784

## DESCRIPTION

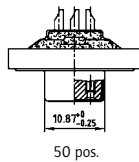
- Suitable for wire size AWG 20
- Mounting style: with 4-40 UNC or M3 threaded insert including hex locking bolt
- Quality class 3 (also available in quality class 1)
- Shell: Brass tin plated (stainless steel available on request)
- Nickel plated die-cast frame (Black plastic frame on request)

## SOCKET CONNECTOR



No. of pos.	A +0.3	B +0.3	C	D2 -0.25
09	21.10	39.40	25.00 <sup>+0.12</sup>	16.46
15	21.10	47.70	33.30 <sup>+0.15</sup> <sub>-0.10</sub>	24.79
25	21.10	61.40	47.04 <sup>+0.13</sup>	38.50
37	21.10	77.90	63.50 <sup>+0.13</sup>	54.96
50	23.90	75.50	61.10 <sup>+0.14</sup> <sub>-0.11</sub>	52.55

Mounting style: Threaded insert

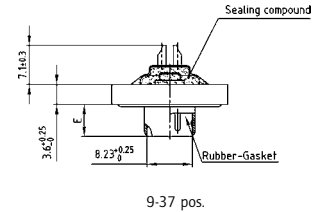


## PLUG CONNECTOR



No. of pos.	A +0.3	B +0.3	C	D1 -0.25	E -0.30
9	21.10	39.40	25.00 <sup>+0.12</sup> <sub>-0.12</sub>	16.79	5.82
15	21.10	47.70	33.30 <sup>+0.15</sup> <sub>-0.10</sub>	25.12	5.82
25	21.10	61.40	47.04 <sup>+0.13</sup>	38.84	5.69
37	21.10	77.90	63.50 <sup>+0.13</sup>	55.30	5.69
50	23.90	75.50	61.10 <sup>+0.14</sup> <sub>-0.11</sub>	52.68	5.69

Mounting style: Threaded insert



## ORDER DATA

SOCKET CONNECTOR		
No. of pos.	Mounting style	Part Number
09	M3 Threaded insert	6STD09SAM99B20X
15	M3 Threaded insert	6STD15SAM99B20X
25	M3 Threaded insert	6STD25SAM99B20X
37	M3 Threaded insert	6STD37SAM99B20X
50	M3 Threaded insert	6STD50SAM99B20X
09	4-40 UNC Threaded insert	6STD09SAM99B30X
15	4-40 UNC Threaded insert	6STD15SAM99B30X
25	4-40 UNC Threaded insert	6STD25SAM99B30X
37	4-40 UNC Threaded insert	6STD37SAM99B30X
50	4-40 UNC Threaded insert	6STD50SAM99B30X

PLUG CONNECTOR		
No. of pos.	Mounting style	Part Number
09	M3 Threaded insert	6STD09PAM99B20X
15	M3 Threaded insert	6STD15PAM99B20X
25	M3 Threaded insert	6STD25PAM99B20X
37	M3 Threaded insert	6STD37PAM99B20X
50	M3 Threaded insert	6STD50PAM99B20X
09	4-40 UNC Threaded insert	6STD09PAM99B30X
15	4-40 UNC Threaded insert	6STD15PAM99B30X
25	4-40 UNC Threaded insert	6STD25PAM99B30X
37	4-40 UNC Threaded insert	6STD37PAM99B30X
50	4-40 UNC Threaded insert	6STD50PAM99B30X

# IP67 D-SUB STANDARD

Solder pin – Straight – Precision machined contacts



RoHS compliant - CSA listed, File No.LR115000-1 UL listed, File No. E202784

## SOCKET CONNECTOR



No. of pos.	A +0.3	B +0.3	C	D2 -0.25
09	21.10	39.40	25.00 ±0.12	16.46
15	21.10	47.70	33.30 ±0.15 / ±0.10	24.79
25	21.10	61.40	47.04 ±0.13	38.50
37	21.10	77.90	63.50 ±0.13	54.96
50	23.90	75.50	61.10 ±0.14 / ±0.11	52.55

PCB-Layout: Kat1kFVA / Kat1kFUA

Mounting style: Threaded insert



9-37 pos.

Mounting style:  
Threaded rear spacer with PCB clip



50 pos.

## DESCRIPTION

- Mounting styles:
  - with 4-40 UNC or M3 threaded insert including hex locking bolt
  - with 4-40 UNC or M3 threaded rear spacer and PCB clip including hex locking bolt
- Quality class 3 (also available in quality class 1)
- Shell: Brass tin plated (stainless steel available on request)
- Nickel plated die-cast frame (Black plastic frame on request)

## PLUG CONNECTOR



No. of pos.	A +0.3	B +0.3	C	D1 -0.25	E -0.30
9	21.10	39.40	25.00 ±0.12 / ±0.13	16.79	5.82
15	21.10	47.70	33.30 ±0.15 / ±0.10	25.12	5.82
25	21.10	61.40	47.04 ±0.13	38.84	5.69
37	21.10	77.90	63.50 ±0.13	55.30	5.69
50	23.90	75.50	61.10 ±0.14 / ±0.11	52.68	5.69

PCB-Layout: Kat1kFVA / Kat1kFUA

Mounting style: Threaded insert



9-37 pos.

Mounting style:  
Threaded rear spacer with PCB clip



50 pos.

## ORDER DATA

### SOCKET CONNECTOR

No. of pos.	Mounting style	Part Number
09	M3 Threaded insert	6STD09SAR99B20X
15	M3 Threaded insert	6STD15SAR99B20X
25	M3 Threaded insert	6STD25SAR99B20X
37	M3 Threaded insert	6STD37SAR99B20X
50	M3 Threaded insert	6STD50SAR99B20X
09	4-40 UNC Threaded insert	6STD09SAR99B30X
15	4-40 UNC Threaded insert	6STD15SAR99B30X
25	4-40 UNC Threaded insert	6STD25SAR99B30X
37	4-40 UNC Threaded insert	6STD37SAR99B30X
50	4-40 UNC Threaded insert	6STD50SAR99B30X
09	M3 Threaded rear spacer PCB clip	6STD09SAR99E10X
15	M3 Threaded rear spacer PCB clip	6STD15SAR99E10X
25	M3 Threaded rear spacer PCB clip	6STD25SAR99E10X
37	M3 Threaded rear spacer PCB clip	6STD37SAR99E10X
50	M3 Threaded rear spacer PCB clip	6STD50SAR99E10X
09	4-40 UNC Threaded rear spacer PCB clip	6STD09SAR99E20X
15	4-40 UNC Threaded rear spacer PCB clip	6STD15SAR99E20X
25	4-40 UNC Threaded rear spacer PCB clip	6STD25SAR99E20X
37	4-40 UNC Threaded rear spacer PCB clip	6STD37SAR99E20X
50	4-40 UNC Threaded rear spacer PCB clip	6STD50SAR99E20X

### PLUG CONNECTOR

No. of pos.	Mounting style	Part Number
09	M3 Threaded insert	6STD09PAR99B20X
15	M3 Threaded insert	6STD15PAR99B20X
25	M3 Threaded insert	6STD25PAR99B20X
37	M3 Threaded insert	6STD37PAR99B20X
50	M3 Threaded insert	6STD50PAR99B20X
09	4-40 UNC Threaded insert	6STD09PAR99B30X
15	4-40 UNC Threaded insert	6STD15PAR99B30X
25	4-40 UNC Threaded insert	6STD25PAR99B30X
37	4-40 UNC Threaded insert	6STD37PAR99B30X
50	4-40 UNC Threaded insert	6STD50PAR99B30X
09	M3 Threaded rear spacer PCB clip	6STD09PAR99E10X
15	M3 Threaded rear spacer PCB clip	6STD15PAR99E10X
25	M3 Threaded rear spacer PCB clip	6STD25PAR99E10X
37	M3 Threaded rear spacer PCB clip	6STD37PAR99E10X
50	M3 Threaded rear spacer PCB clip	6STD50PAR99E10X
09	4-40 UNC Threaded rear spacer PCB clip	6STD09PAR99E20X
15	4-40 UNC Threaded rear spacer PCB clip	6STD15PAR99E20X
25	4-40 UNC Threaded rear spacer PCB clip	6STD25PAR99E20X
37	4-40 UNC Threaded rear spacer PCB clip	6STD37PAR99E20X
50	4-40 UNC Threaded rear spacer PCB clip	6STD50PAR99E20X

PCB clip .122"/3.1 ± .004"/0.10 mm hole diameter and .063"/1.6 mm circuit board thickness

# IP67 D-SUB STANDARD

Solder pin – Angled – .189"/4.8 mm – Precision machined contacts – Metal bracket



RoHS compliant - CSA listed, File No.LR115000-1 UL listed, File No. E202784

## SOCKET CONNECTOR



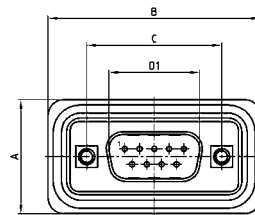
No. of pos.	A +0.3	B +0.3	C	D2 -0.25
09	21.10	39.40	25.00 ±0.12	16.46
15	21.10	47.70	33.30 ±0.15	24.79
25	21.10	61.40	47.04 ±0.13	38.50
37	21.10	77.90	63.50 ±0.13	54.96
50	23.90	75.50	61.10 ±0.14	52.55

PCB-Layout: Kat1kGSA

## DESCRIPTION

- Mounting styles:
  - with mounting bracket and 4-40 UNC or M3 threaded insert including hex locking bolt
  - with mounting bracket, PCB clip and M3 or UNC 4-40 threaded insert including hex locking bolt
- Quality class 3 (also available in quality class 1)
- Shell: Brass tin plated (stainless steel available on request)
- Nickel plated die-cast frame (Black plastic frame on request)

## PLUG CONNECTOR



No. of pos.	A +0.3	B +0.3	C	D1 -0.25	E -0.30
9	21.10	39.40	25.00 ±0.12	16.79	5.82
15	21.10	47.70	33.30 ±0.15	25.12	5.82
25	21.10	61.40	47.04 ±0.13	38.84	5.69
37	21.10	77.90	63.50 ±0.13	55.30	5.69
50	23.90	75.50	61.10 ±0.14	52.68	5.69

PCB-Layout: Kat1kGSA

Mounting style: Mounting bracket, threaded insert



Mounting style: Mounting bracket, threaded insert



Mounting style: PCB clip, threaded insert



Mounting style: PCB clip, threaded insert



## ORDER DATA

SOCKET CONNECTOR			PLUG CONNECTOR		
No. of pos.	Mounting style	Part Number	No. of pos.	Mounting style	Part Number
09	M3 Threaded insert	6STD09SAT99S10X	09	M3 Threaded insert	6STD09PAT99S10X
15	M3 Threaded insert	6STD15SAT99S10X	15	M3 Threaded insert	6STD15PAT99S10X
25	M3 Threaded insert	6STD25SAT99S10X	25	M3 Threaded insert	6STD25PAT99S10X
37	M3 Threaded insert	6STD37SAT99S10X	37	M3 Threaded insert	6STD37PAT99S10X
50	M3 Threaded insert	6STD50SAT99S10X	50	M3 Threaded insert	6STD50PAT99S10X
09	4-40 UNC Threaded insert	6STD09SAT99S20X	09	4-40 UNC Threaded insert	6STD09PAT99S20X
15	4-40 UNC Threaded insert	6STD15SAT99S20X	15	4-40 UNC Threaded insert	6STD15PAT99S20X
25	4-40 UNC Threaded insert	6STD25SAT99S20X	25	4-40 UNC Threaded insert	6STD25PAT99S20X
37	4-40 UNC Threaded insert	6STD37SAT99S20X	37	4-40 UNC Threaded insert	6STD37PAT99S20X
50	4-40 UNC Threaded insert	6STD50SAT99S20X	50	4-40 UNC Threaded insert	6STD50PAT99S20X
09	PCB clip / M3 Threaded insert	6STD09SAT99S30X	09	PCB clip / M3 Threaded insert	6STD09PAT99S30X
15	PCB clip / M3 Threaded insert	6STD15SAT99S30X	15	PCB clip / M3 Threaded insert	6STD15PAT99S30X
25	PCB clip / M3 Threaded insert	6STD25SAT99S30X	25	PCB clip / M3 Threaded insert	6STD25PAT99S30X
37	PCB clip / M3 Threaded insert	6STD37SAT99S30X	37	PCB clip / M3 Threaded insert	6STD37PAT99S30X
50	PCB clip / M3 Threaded insert	6STD50SAT99S30X	50	PCB clip / M3 Threaded insert	6STD50PAT99S30X
09	PCB clip / 4-40 UNC Threaded insert	6STD09SAT99S40X	09	PCB clip / 4-40 UNC Threaded insert	6STD09PAT99S40X
15	PCB clip / 4-40 UNC Threaded insert	6STD15SAT99S40X	15	PCB clip / 4-40 UNC Threaded insert	6STD15PAT99S40X
25	PCB clip / 4-40 UNC Threaded insert	6STD25SAT99S40X	25	PCB clip / 4-40 UNC Threaded insert	6STD25PAT99S40X
37	PCB clip / 4-40 UNC Threaded insert	6STD37SAT99S40X	37	PCB clip / 4-40 UNC Threaded insert	6STD37PAT99S40X
50	PCB clip / 4-40 UNC Threaded insert	6STD50SAT99S40X	50	PCB clip / 4-40 UNC Threaded insert	6STD50PAT99S40X

PCB clip .122"/3.1 ± .004"/0.10 mm hole diameter and .063"/1.6 mm circuit board thickness

# IP67 D-SUB STANDARD

Solder pin – Angled – .276"/7.0 mm – Precision machined contacts – Metal bracket



RoHS compliant - CSA listed, File No.LR115000-1 UL listed, File No. E202784

## DESCRIPTION

- Mounting styles:
  - with mounting bracket and 4-40 UNC or M3 threaded insert including hex locking bolt
  - with mounting bracket, PCB clip and M3 or UNC 4-40 threaded insert including hex locking bolt
- Quality class 3 (also available in quality class 1)
- Shell: Brass tin plated (stainless steel available on request)
- Nickel plated die-cast frame (Black plastic frame on request)

## SOCKET CONNECTOR



No. of pos.	A +0.3	B +0.3	C	D2 -0.25
09	21.10	39.40	25.00 +0.12	16.46
15	21.10	47.70	33.30 +0.15 / -0.10	24.79
25	21.10	61.40	47.04 +0.13	38.50
37	21.10	77.90	63.50 +0.13	54.96
50	23.90	75.50	61.10 +0.14 / -0.11	52.55

PCB-Layout: Kat1kGTA

## PLUG CONNECTOR



No. of pos.	A +0.3	B +0.3	C	D1 -0.25	E -0.30
9	21.10	39.40	25.00 +0.12 / -0.13	16.79	5.82
15	21.10	47.70	33.30 +0.15 / -0.10	25.12	5.82
25	21.10	61.40	47.04 +0.13	38.84	5.69
37	21.10	77.90	63.50 +0.13	55.30	5.69
50	23.90	75.50	61.10 +0.14 / -0.11	52.68	5.69

PCB-Layout: Kat1kGTA

Mounting style: Mounting bracket, threaded insert



Mounting style: Mounting bracket, threaded insert



Mounting style: PCB clip, threaded insert



Mounting style: PCB clip, threaded insert



## ORDER DATA

### SOCKET CONNECTOR

No. of pos.	Mounting style	Part Number
09	M3 Threaded insert	6STD09SAU99R10X
15	M3 Threaded insert	6STD15SAU99R10X
25	M3 Threaded insert	6STD25SAU99R10X
37	M3 Threaded insert	6STD37SAU99R10X
50	M3 Threaded insert	6STD50SAU99R10X
09	4-40 UNC Threaded insert	6STD09SAU99R20X
15	4-40 UNC Threaded insert	6STD15SAU99R20X
25	4-40 UNC Threaded insert	6STD25SAU99R20X
37	4-40 UNC Threaded insert	6STD37SAU99R20X
50	4-40 UNC Threaded insert	6STD50SAU99R20X
09	PCB clip / M3 Threaded insert	6STD09SAU99R30X
15	PCB clip / M3 Threaded insert	6STD15SAU99R30X
25	PCB clip / M3 Threaded insert	6STD25SAU99R30X
37	PCB clip / M3 Threaded insert	6STD37SAU99R30X
50	PCB clip / M3 Threaded insert	6STD50SAU99R30X
09	PCB clip / 4-40 UNC Threaded insert	6STD09SAU99R40X
15	PCB clip / 4-40 UNC Threaded insert	6STD15SAU99R40X
25	PCB clip / 4-40 UNC Threaded insert	6STD25SAU99R40X
37	PCB clip / 4-40 UNC Threaded insert	6STD37SAU99R40X
50	PCB clip / 4-40 UNC Threaded insert	6STD50SAU99R40X

### PLUG CONNECTOR

No. of pos.	Mounting style	Part Number
09	M3 Threaded insert	6STD09PAU99R10X
15	M3 Threaded insert	6STD15PAU99R10X
25	M3 Threaded insert	6STD25PAU99R10X
37	M3 Threaded insert	6STD37PAU99R10X
50	M3 Threaded insert	6STD50PAU99R10X
09	4-40 UNC Threaded insert	6STD09PAU99R20X
15	4-40 UNC Threaded insert	6STD15PAU99R20X
25	4-40 UNC Threaded insert	6STD25PAU99R20X
37	4-40 UNC Threaded insert	6STD37PAU99R20X
50	4-40 UNC Threaded insert	6STD50PAU99R20X
09	PCB clip / M3 Threaded insert	6STD09PAU99R30X
15	PCB clip / M3 Threaded insert	6STD15PAU99R30X
25	PCB clip / M3 Threaded insert	6STD25PAU99R30X
37	PCB clip / M3 Threaded insert	6STD37PAU99R30X
50	PCB clip / M3 Threaded insert	6STD50PAU99R30X
09	PCB clip / 4-40 UNC Threaded insert	6STD09PAU99R40X
15	PCB clip / 4-40 UNC Threaded insert	6STD15PAU99R40X
25	PCB clip / 4-40 UNC Threaded insert	6STD25PAU99R40X
37	PCB clip / 4-40 UNC Threaded insert	6STD37PAU99R40X
50	PCB clip / 4-40 UNC Threaded insert	6STD50PAU99R40X

PCB clip .122"/3.1 ± .004"/0.10 mm hole diameter and .063"/1.6 mm circuit board thickness

# IP67 D-SUB STANDARD

Solder pin – Angled – .464" / 11.8 mm – Precision machined contacts – Metal bracket



RoHS compliant - CSA listed, File No.LR115000-1 UL listed, File No. E202784

## SOCKET CONNECTOR



No. of pos.	A +0.3	B +0.3	C	D2 -0.25
09	21.10	39.40	25.00 <sup>+0.12</sup> <sub>-0.13</sub>	16.46
15	21.10	47.70	33.30 <sup>+0.15</sup> <sub>-0.10</sub>	24.79
25	21.10	61.40	47.04 <sup>+0.13</sup>	38.50
37	21.10	77.90	63.50 <sup>+0.13</sup>	54.96

PCB-Layout: Kat1kGUA

Mounting style: Mounting bracket, threaded insert



Mounting style: PCB clip, threaded insert



## DESCRIPTION

- Mounting styles:
  - with mounting bracket and 4-40 UNC or M3 threaded insert including hex locking bolt
  - with mounting bracket, PCB clip and M3 or UNC 4-40 threaded insert including hex locking bolt
- Quality class 3 (also available in quality class 1)
- Shell: Brass tin plated (stainless steel available on request)
- Nickel plated die-cast frame (Black plastic frame on request)

## PLUG CONNECTOR



No. of pos.	A +0.3	B +0.3	C	D1 -0.25	E -0.30
9	21.10	39.40	25.00 <sup>+0.12</sup> <sub>-0.13</sub>	16.79	5.82
15	21.10	47.70	33.30 <sup>+0.15</sup> <sub>-0.10</sub>	25.12	5.82
25	21.10	61.40	47.04 <sup>+0.13</sup>	38.84	5.69
37	21.10	77.90	63.50 <sup>+0.13</sup>	55.30	5.69

PCB-Layout: Kat1kGUA

Mounting style: Mounting bracket, threaded insert



Mounting style: PCB clip, threaded insert



## ORDER DATA

### SOCKET CONNECTOR

No. of pos.	Mounting style	Part Number
09	M3 Threaded insert	6STD09SAZ99S10X
15	M3 Threaded insert	6STD15SAZ99S10X
25	M3 Threaded insert	6STD25SAZ99S10X
37	M3 Threaded insert	6STD37SAZ99S10X
09	4-40 UNC Threaded insert	6STD09SAZ99S20X
15	4-40 UNC Threaded insert	6STD15SAZ99S20X
25	4-40 UNC Threaded insert	6STD25SAZ99S20X
37	4-40 UNC Threaded insert	6STD37SAZ99S20X
09	PCB clip / M3 Threaded insert	6STD09SAZ99S30X
15	PCB clip / M3 Threaded insert	6STD15SAZ99S30X
25	PCB clip / M3 Threaded insert	6STD25SAZ99S30X
37	PCB clip / M3 Threaded insert	6STD37SAZ99S30X
09	PCB clip / 4-40 UNC Threaded insert	6STD09SAZ99S40X
15	PCB clip / 4-40 UNC Threaded insert	6STD15SAZ99S40X
25	PCB clip / 4-40 UNC Threaded insert	6STD25SAZ99S40X
37	PCB clip / 4-40 UNC Threaded insert	6STD37SAZ99S40X

### PLUG CONNECTOR

No. of pos.	Mounting style	Part Number
09	M3 Threaded insert	6STD09PAZ99S10X
15	M3 Threaded insert	6STD15PAZ99S10X
25	M3 Threaded insert	6STD25PAZ99S10X
37	M3 Threaded insert	6STD37PAZ99S10X
09	4-40 UNC Threaded insert	6STD09PAZ99S20X
15	4-40 UNC Threaded insert	6STD15PAZ99S20X
25	4-40 UNC Threaded insert	6STD25PAZ99S20X
37	4-40 UNC Threaded insert	6STD37PAZ99S20X
09	PCB clip / M3 Threaded insert	6STD09PAZ99S30X
15	PCB clip / M3 Threaded insert	6STD15PAZ99S30X
25	PCB clip / M3 Threaded insert	6STD25PAZ99S30X
37	PCB clip / M3 Threaded insert	6STD37PAZ99S30X
09	PCB clip / 4-40 UNC Threaded insert	6STD09PAZ99S40X
15	PCB clip / 4-40 UNC Threaded insert	6STD15PAZ99S40X
25	PCB clip / 4-40 UNC Threaded insert	6STD25PAZ99S40X
37	PCB clip / 4-40 UNC Threaded insert	6STD37PAZ99S40X

PCB clip .122" / 3.1 ± .004" / 0.10 mm hole diameter and .063" / 1.6 mm circuit board thickness

# IP67 D-SUB STANDARD

Solder cup – Precision machined contacts – Front mounting – For wire size AWG 20



RoHS compliant - CSA listed, File No.LR115000-1 UL listed, File No. E202784

## DESCRIPTION

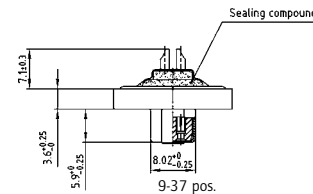
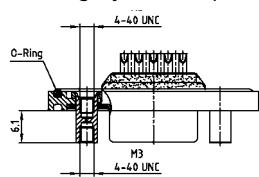
- Suitable for wire size AWG 20
- Mounting styles:
  - with M3 or 4-40 UNC front spacer
  - with M3 or 4-40 UNC front spacer and rear mounting stud
- Quality class 3 (also available in quality class 1)
- Shell: Brass tin plated (stainless steel available on request)
- Nickel plated die-cast frame (Black plastic frame on request)

## SOCKET CONNECTOR



No. of pos.	A +0.3	B +0.3	C	D2 -0.25
09	21.10	39.40	25.00	16.46
15	21.10	47.70	33.30	24.79
25	21.10	61.40	47.04	38.50
37	21.10	77.90	63.50	54.96
50	23.90	75.50	61.10	52.55

Mounting style: Front spacer



Mounting style: Front spacer and rear mounting stud



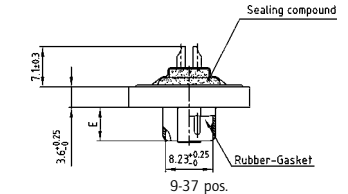
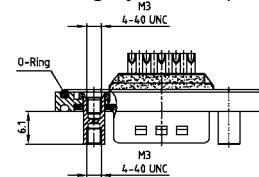
50 pos.

## PLUG CONNECTOR

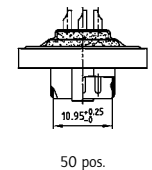
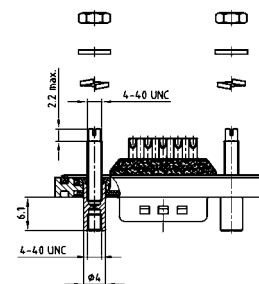


No. of pos.	A +0.3	B +0.3	C	D1 -0.25	E -0.30
9	21.10	39.40	25.00	16.79	5.82
15	21.10	47.70	33.30	25.12	5.82
25	21.10	61.40	47.04	38.84	5.69
37	21.10	77.90	63.50	55.30	5.69
50	23.90	75.50	61.10	52.68	5.69

Mounting style: Front spacer



Mounting style: Front spacer and rear mounting stud



50 pos.

## ORDER DATA

SOCKET CONNECTOR		
No. of pos.	Mounting style	Part Number
09	M3 Front spacer	6STD09SAM99B40X
15	M3 Front spacer	6STD15SAM99B40X
25	M3 Front spacer	6STD25SAM99B40X
37	M3 Front spacer	6STD37SAM99B40X
50	M3 Front spacer	6STD50SAM99B40X
09	4-40 UNC Front spacer	6STD09SAM99B50X
15	4-40 UNC Front spacer	6STD15SAM99B50X
25	4-40 UNC Front spacer	6STD25SAM99B50X
37	4-40 UNC Front spacer	6STD37SAM99B50X
50	4-40 UNC Front spacer	6STD50SAM99B50X
09	4-40 UNC Front spacer and rear mounting stud	6STD09SAM99B70X
15	4-40 UNC Front spacer and rear mounting stud	6STD15SAM99B70X
25	4-40 UNC Front spacer and rear mounting stud	6STD25SAM99B70X
37	4-40 UNC Front spacer and rear mounting stud	6STD37SAM99B70X
50	4-40 UNC Front spacer and rear mounting stud	6STD50SAM99B70X

PLUG CONNECTOR		
No. of pos.	Mounting style	Part Number
09	M3 Front spacer	6STD09PAM99B40X
15	M3 Front spacer	6STD15PAM99B40X
25	M3 Front spacer	6STD25PAM99B40X
37	M3 Front spacer	6STD37PAM99B40X
50	M3 Front spacer	6STD50PAM99B40X
09	4-40 UNC Front spacer	6STD09PAM99B50X
15	4-40 UNC Front spacer	6STD15PAM99B50X
25	4-40 UNC Front spacer	6STD25PAM99B50X
37	4-40 UNC Front spacer	6STD37PAM99B50X
50	4-40 UNC Front spacer	6STD50PAM99B50X
09	4-40 UNC Front spacer and rear mounting stud	6STD09PAM99B70X
15	4-40 UNC Front spacer and rear mounting stud	6STD15PAM99B70X
25	4-40 UNC Front spacer and rear mounting stud	6STD25PAM99B70X
37	4-40 UNC Front spacer and rear mounting stud	6STD37PAM99B70X
50	4-40 UNC Front spacer and rear mounting stud	6STD50PAM99B70X

# IP67 D-SUB STANDARD

Solder cup – Precision machined contacts – For hood Assembly – For wire size AWG 20



RoHS compliant - CSA listed, File No.LR115000-1 UL listed, File No. E202784

## DESCRIPTION

- Suitable for wire size AWG 20
- Mounting style:  
with through-hole, Ø .118" / 3.0 mm
- Quality class 3 (also available in quality class 1)
- Shell: Brass tin plated (stainless steel available on request)

## SOCKET CONNECTOR



No. of pos.	A -0.76	B2 -0.25	C
09	31.19	16.46	25.00 <sup>+0.12</sup> / <sub>-0.13</sub>
15	39.52	24.79	33.30 <sup>+0.15</sup> / <sub>-0.10</sub>
25	53.42	38.50	47.04 <sup>+0.13</sup> / <sub>-0.10</sub>
37	69.70	54.96	63.50 <sup>+0.13</sup> / <sub>-0.10</sub>
50	67.31	52.55	61.10 <sup>+0.14</sup> / <sub>-0.11</sub>

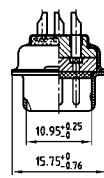


50 pos.

## PLUG CONNECTOR



No. of pos.	A	B1 +0.25	C	D -0.30
09	31.19	16.79	25.00 <sup>+0.12</sup> / <sub>-0.13</sub>	6.12
15	39.52	25.12	33.30 <sup>+0.15</sup> / <sub>-0.10</sub>	6.12
25	53.42	38.84	47.04 <sup>+0.13</sup> / <sub>-0.10</sub>	5.99
37	69.70	55.30	63.50 <sup>+0.13</sup> / <sub>-0.10</sub>	5.99
50	67.31	52.68	61.10 <sup>+0.14</sup> / <sub>-0.11</sub>	5.99



50 pos.

## ORDER DATA

### SOCKET CONNECTOR

No. of pos.	Mounting style	Part Number
09	Through-hole	4STD09SAM99A10X
15	Through-hole	4STD15SAM99A10X
25	Through-hole	4STD25SAM99A10X
37	Through-hole	4STD37SAM99A10X
50	Through-hole	4STD50SAM99A10X

### PLUG CONNECTOR

No. of pos.	Mounting style	Part Number
09	Through-hole	4STD09PAM99A10X
15	Through-hole	4STD15PAM99A10X
25	Through-hole	4STD25PAM99A10X
37	Through-hole	4STD37PAM99A10X
50	Through-hole	4STD50PAM99A10X



# IP67 D-SUB HIGH DENSITY

Solder cup – Precision machined contacts – For wire size AWG 22



RoHS compliant - CSA listed, File No.LR115000-1 UL listed, File No. E202784

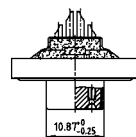
## DESCRIPTION

- Suitable for wire size AWG 22
- Mounting style:  
with 4-40 UNC or M3 threaded insert including hex locking bolt
- Quality class 3 (also available in quality class 1)
- Shell: Brass tin plated (stainless steel available on request)
- Nickel plated die-cast frame  
(Black plastic frame on request)

## SOCKET CONNECTOR

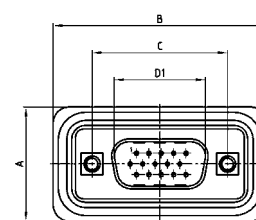


No. of pos.	A +0.3	B +0.3	C	D2 -0.25
15	21.10	39.40	25.00 <sup>+0.12 -0.13</sup>	16.46
26	21.10	47.70	33.30 <sup>+0.15 -0.10</sup>	24.79
44	21.10	61.40	47.04 <sup>+0.13</sup>	38.50
62	21.10	77.90	63.50 <sup>+0.13</sup>	54.96
78	23.90	75.50	61.10 <sup>+0.14 -0.11</sup>	52.55

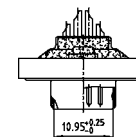
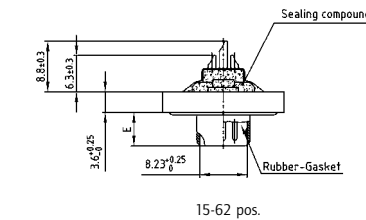
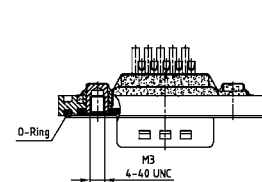


78 pos.

## PLUG CONNECTOR



No. of pos.	A +0.3	B +0.3	C	D1 +0.25	E -0.30
15	21.10	39.40	25.00 <sup>+0.12 -0.13</sup>	16.79	5.82
26	21.10	47.70	33.30 <sup>+0.15 -0.10</sup>	25.12	5.82
44	21.10	61.40	47.04 <sup>+0.13</sup>	38.84	5.69
62	21.10	77.90	63.50 <sup>+0.13</sup>	55.30	5.69
78	23.90	75.50	61.10 <sup>+0.14 -0.11</sup>	52.68	5.69



78 pos.

## ORDER DATA

SOCKET CONNECTOR		
No. of pos.	Mounting style	Part Number
15	M3 Threaded insert	6HDD15SAM99B20X
26	M3 Threaded insert	6HDD26SAM99B20X
44	M3 Threaded insert	6HDD44SAM99B20X
62	M3 Threaded insert	6HDD62SAM99B20X
78	M3 Threaded insert	6HDD78SAM99B20X
15	4-40 UNC Threaded insert	6HDD15SAM99B30X
26	4-40 UNC Threaded insert	6HDD26SAM99B30X
44	4-40 UNC Threaded insert	6HDD44SAM99B30X
62	4-40 UNC Threaded insert	6HDD62SAM99B30X
78	4-40 UNC Threaded insert	6HDD78SAM99B30X

PLUG CONNECTOR		
No. of pos.	Mounting style	Part Number
15	M3 Threaded insert	6HDD15PAM99B20X
26	M3 Threaded insert	6HDD26PAM99B20X
44	M3 Threaded insert	6HDD44PAM99B20X
62	M3 Threaded insert	6HDD62PAM99B20X
78	M3 Threaded insert	6HDD78PAM99B20X
15	4-40 UNC Threaded insert	6HDD15PAM99B30X
26	4-40 UNC Threaded insert	6HDD26PAM99B30X
44	4-40 UNC Threaded insert	6HDD44PAM99B30X
62	4-40 UNC Threaded insert	6HDD62PAM99B30X
78	4-40 UNC Threaded insert	6HDD78PAM99B30X

# IP67 D-SUB HIGH DENSITY

Solder pin – Straight – Precision machined contacts



RoHS compliant - CSA listed, File No.LR115000-1 UL listed, File No. E202784

## SOCKET CONNECTOR



No. of pos.	A +0.3	B +0.3	C	D2 -0.25	D1
15	21.10	39.40	25.00 <sup>+0.12 -0.13</sup>	16.46	
26	21.10	47.70	33.30 <sup>+0.15 -0.10</sup>	24.79	
44	21.10	61.40	47.04 <sup>+0.13</sup>	38.50	
62	21.10	77.90	63.50 <sup>+0.13</sup>	54.96	
78	23.90	75.50	61.10 <sup>+0.14 -0.11</sup>	52.55	

PCB-Layout: Kat1kGDA / Kat1tT9A

Mounting style: Threaded insert

## DESCRIPTION

- Mounting styles:
  - with 4-40 UNC or M3 threaded insert including hex locking bolt
  - with M3 or 4-40 UNC threaded rear spacer and PCB clip including hex locking bolt
- Quality class 3 (also available in quality class 1)
- Shell: Brass tin plated (stainless steel available on request)
- Nickel plated die-cast frame (Black plastic frame on request)

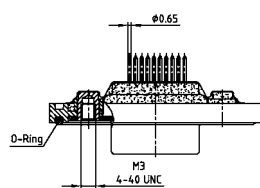
## PLUG CONNECTOR



No. of pos.	A +0.3	B +0.3	C	D1 -0.25	E -0.30
15	21.10	39.40	25.00 <sup>+0.12 -0.13</sup>	16.79	5.82
26	21.10	47.70	33.30 <sup>+0.15 -0.10</sup>	25.12	5.82
44	21.10	61.40	47.04 <sup>+0.13</sup>	38.84	5.69
62	21.10	77.90	63.50 <sup>+0.13</sup>	55.30	5.69
78	23.90	75.50	61.10 <sup>+0.14 -0.11</sup>	52.68	5.69

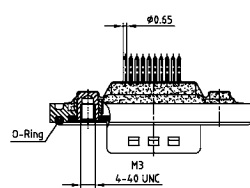
PCB-Layout: Kat1kFWA / Kat1iU0A

Mounting style: Threaded insert



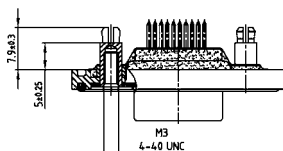
15-62 pos.

Mounting style: Threaded rear spacer with PCB clip

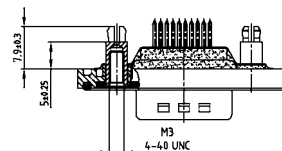


15-62 pos.

Mounting style: Threaded rear spacer with PCB clip



78 pos.



78 pos.

## ORDER DATA

### SOCKET CONNECTOR

No. of pos.	Mounting style	Part Number
15	M3 Threaded insert	6HDD15SAR99B20X
26	M3 Threaded insert	6HDD26SAR99B20X
44	M3 Threaded insert	6HDD44SAR99B20X
62	M3 Threaded insert	6HDD62SAR99B20X
78	M3 Threaded insert	6HDD78SAR99B20X
15	4-40 UNC Threaded insert	6HDD15SAR99B30X
26	4-40 UNC Threaded insert	6HDD26SAR99B30X
44	4-40 UNC Threaded insert	6HDD44SAR99B30X
62	4-40 UNC Threaded insert	6HDD62SAR99B30X
78	4-40 UNC Threaded insert	6HDD78SAR99B30X
15	M3 Threaded rear spacer PCB clip	6HDD15SAR99E10X
26	M3 Threaded rear spacer PCB clip	6HDD26SAR99E10X
44	M3 Threaded rear spacer PCB clip	6HDD44SAR99E10X
62	M3 Threaded rear spacer PCB clip	6HDD62SAR99E10X
78	M3 Threaded rear spacer PCB clip	6HDD78SAR99E10X
15	4-40 UNC Threaded rear spacer PCB clip	6HDD15SAR99E20X
26	4-40 UNC Threaded rear spacer PCB clip	6HDD26SAR99E20X
44	4-40 UNC Threaded rear spacer PCB clip	6HDD44SAR99E20X
62	4-40 UNC Threaded rear spacer PCB clip	6HDD62SAR99E20X
78	4-40 UNC Threaded rear spacer PCB clip	6HDD78SAR99E20X

### PLUG CONNECTOR

No. of pos.	Mounting style	Part Number
15	M3 Threaded insert	6HDD15PAR99B20X
26	M3 Threaded insert	6HDD26PAR99B20X
44	M3 Threaded insert	6HDD44PAR99B20X
62	M3 Threaded insert	6HDD62PAR99B20X
78	M3 Threaded insert	6HDD78PAR99B20X
15	4-40 UNC Threaded insert	6HDD15PAR99B30X
26	4-40 UNC Threaded insert	6HDD26PAR99B30X
44	4-40 UNC Threaded insert	6HDD44PAR99B30X
62	4-40 UNC Threaded insert	6HDD62PAR99B30X
78	4-40 UNC Threaded insert	6HDD78PAR99B30X
15	M3 Threaded rear spacer PCB clip	6HDD15PAR99E10X
26	M3 Threaded rear spacer PCB clip	6HDD26PAR99E10X
44	M3 Threaded rear spacer PCB clip	6HDD44PAR99E10X
62	M3 Threaded rear spacer PCB clip	6HDD62PAR99E10X
78	M3 Threaded rear spacer PCB clip	6HDD78PAR99E10X
15	4-40 UNC Threaded rear spacer PCB clip	6HDD15PAR99E20X
26	4-40 UNC Threaded rear spacer PCB clip	6HDD26PAR99E20X
44	4-40 UNC Threaded rear spacer PCB clip	6HDD44PAR99E20X
62	4-40 UNC Threaded rear spacer PCB clip	6HDD62PAR99E20X
78	4-40 UNC Threaded rear spacer PCB clip	6HDD78PAR99E20X

PCB clip .122"/3.1 ± .004"/0.10 mm hole diameter and .063"/1.6 mm circuit board thickness

# IP67 D-SUB HIGH DENSITY

Solder pin – Angled – .220"/5,6 mm – Precision machined contacts – Metal Bracket



RoHS compliant - CSA listed, File No.LR115000-1 UL listed, File No. E202784

## DESCRIPTION

- Mounting styles:
  - with mounting bracket and 4-40 UNC or M3 threaded insert including hex locking bolt
  - with mounting bracket, PCB clip and 4-40 UNC or M3 threaded insert including hex locking bolt
- Quality class 3 (also available in quality class 1)
- Shell: Brass tin plated (stainless steel available on request)
- Nickel plated die-cast frame (Black plastic frame on request)

## SOCKET CONNECTOR



Mounting style: Mounting bracket, threaded insert



Mounting style: PCB clip, threaded insert



## PLUG CONNECTOR



Mounting style: Mounting bracket, threaded insert



Mounting style: PCB clip, threaded insert



## ORDER DATA

SOCKET CONNECTOR			PLUG CONNECTOR		
No. of pos.	Mounting style	Part Number	No. of pos.	Mounting style	Part Number
15	M3 Threaded insert	6HDD15SAY99R10X	15	M3 Threaded insert	6HDD15PAY99R10X
26	M3 Threaded insert	6HDD26SAY99R10X	26	M3 Threaded insert	6HDD26PAY99R10X
44	M3 Threaded insert	6HDD44SAY99R10X	44	M3 Threaded insert	6HDD44PAY99R10X
62	M3 Threaded insert	6HDD62SAY99R10X	62	M3 Threaded insert	6HDD62PAY99R10X
78	M3 Threaded insert	6HDD78SAY99R10X	78	M3 Threaded insert	6HDD78PAY99R10X
15	4-40 UNC Threaded insert	6HDD15SAY99R20X	15	4-40 UNC Threaded insert	6HDD15PAY99R20X
26	4-40 UNC Threaded insert	6HDD26SAY99R20X	26	4-40 UNC Threaded insert	6HDD26PAY99R20X
44	4-40 UNC Threaded insert	6HDD44SAY99R20X	44	4-40 UNC Threaded insert	6HDD44PAY99R20X
62	4-40 UNC Threaded insert	6HDD62SAY99R20X	62	4-40 UNC Threaded insert	6HDD62PAY99R20X
78	4-40 UNC Threaded insert	6HDD78SAY99R20X	78	4-40 UNC Threaded insert	6HDD78PAY99R20X
15	PCB clip / M3 Threaded insert	6HDD15SAY99R30X	15	PCB clip / M3 Threaded insert	6HDD15PAY99R30X
26	PCB clip / M3 Threaded insert	6HDD26SAY99R30X	26	PCB clip / M3 Threaded insert	6HDD26PAY99R30X
44	PCB clip / M3 Threaded insert	6HDD44SAY99R30X	44	PCB clip / M3 Threaded insert	6HDD44PAY99R30X
62	PCB clip / M3 Threaded insert	6HDD62SAY99R30X	62	PCB clip / M3 Threaded insert	6HDD62PAY99R30X
78	PCB clip / M3 Threaded insert	6HDD78SAY99R30X	78	PCB clip / M3 Threaded insert	6HDD78PAY99R30X
15	PCB clip / 4-40 UNC Threaded insert	6HDD15SAY99R40X	15	PCB clip / 4-40 UNC Threaded insert	6HDD15PAY99R40X
26	PCB clip / 4-40 UNC Threaded insert	6HDD26SAY99R40X	26	PCB clip / 4-40 UNC Threaded insert	6HDD26PAY99R40X
44	PCB clip / 4-40 UNC Threaded insert	6HDD44SAY99R40X	44	PCB clip / 4-40 UNC Threaded insert	6HDD44PAY99R40X
62	PCB clip / 4-40 UNC Threaded insert	6HDD62SAY99R40X	62	PCB clip / 4-40 UNC Threaded insert	6HDD62PAY99R40X
78	PCB clip / 4-40 UNC Threaded insert	6HDD78SAY99R40X	78	PCB clip / 4-40 UNC Threaded insert	6HDD78PAY99R40X

PCB clip .122"/3.1 ± .004"/0.10 mm hole diameter and .063"/1.6 mm circuit board thickness

# IP67 D-SUB HIGH DENSITY

Solder cup – Precision machined contacts – Front mounting – For wire size AWG 22



RoHS compliant - CSA listed, File No.LR115000-1 UL listed, File No. E202784

## DESCRIPTION

- Suitable for wire size AWG 22
- Mounting styles:
  - with M3 or 4-40 UNC front spacer
  - with M3 or 4-40 UNC front spacer and rear mounting stud
- Quality class 3 (also available in quality class 1)
- Shell: Brass tin plated (stainless steel available on request)
- Nickel plated die-cast frame (Black plastic frame on request)

## SOCKET CONNECTOR



No. of pos.	A +0.3	B +0.3	C	D2 -0.25	D1 -0.30
15	21.10	39.40	25.00 <sup>+0.12</sup> <sub>-0.13</sub>	16.46	16.79
26	21.10	47.70	33.30 <sup>+0.15</sup> <sub>-0.10</sub>	24.79	25.12
44	21.10	61.40	47.04 <sup>+0.13</sup>	38.50	38.84
62	21.10	77.90	63.50 <sup>+0.13</sup>	54.96	55.30
78	23.90	75.50	61.10 <sup>+0.14</sup> <sub>-0.11</sub>	52.55	52.68

Mounting style: Front spacer



Mounting style: Front spacer and rear mounting stud



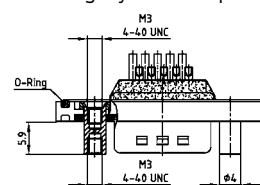
78 pos.

## PLUG CONNECTOR



No. of pos.	A +0.3	B +0.3	C	D1 -0.25	E -0.30
15	21.10	39.40	25.00 <sup>+0.12</sup> <sub>-0.13</sub>	16.79	5.82
26	21.10	47.70	33.30 <sup>+0.15</sup> <sub>-0.10</sub>	25.12	5.82
44	21.10	61.40	47.04 <sup>+0.13</sup>	38.84	5.69
62	21.10	77.90	63.50 <sup>+0.13</sup>	55.30	5.69
78	23.90	75.50	61.10 <sup>+0.14</sup> <sub>-0.11</sub>	52.68	5.69

Mounting style: Front spacer



Mounting style: Front spacer and rear mounting stud



78 pos.

## ORDER DATA

### SOCKET CONNECTOR

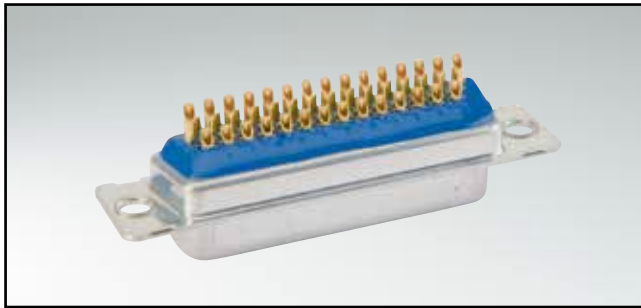
No. of pos.	Mounting style	Part Number
15	M3 Front spacer	6HDD15SAM99B40X
26	M3 Front spacer	6HDD26SAM99B40X
44	M3 Front spacer	6HDD44SAM99B40X
62	M3 Front spacer	6HDD62SAM99B40X
78	M3 Front spacer	6HDD78SAM99B40X
15	4-40 UNC Front spacer	6HDD15SAM99B50X
26	4-40 UNC Front spacer	6HDD26SAM99B50X
44	4-40 UNC Front spacer	6HDD44SAM99B50X
62	4-40 UNC Front spacer	6HDD62SAM99B50X
78	4-40 UNC Front spacer	6HDD78SAM99B50X
15	4-40 UNC Front spacer and rear mounting stud	6HDD15SAM99B70X
26	4-40 UNC Front spacer and rear mounting stud	6HDD26SAM99B70X
44	4-40 UNC Front spacer and rear mounting stud	6HDD44SAM99B70X
62	4-40 UNC Front spacer and rear mounting stud	6HDD62SAM99B70X
78	4-40 UNC Front spacer and rear mounting stud	6HDD78SAM99B70X

### PLUG CONNECTOR

No. of pos.	Mounting style	Part Number
15	M3 Front spacer	6HDD15PAM99B40X
26	M3 Front spacer	6HDD26PAM99B40X
44	M3 Front spacer	6HDD44PAM99B40X
62	M3 Front spacer	6HDD62PAM99B40X
78	M3 Front spacer	6HDD78PAM99B40X
15	4-40 UNC Front spacer	6HDD15PAM99B50X
26	4-40 UNC Front spacer	6HDD26PAM99B50X
44	4-40 UNC Front spacer	6HDD44PAM99B50X
62	4-40 UNC Front spacer	6HDD62PAM99B50X
78	4-40 UNC Front spacer	6HDD78PAM99B50X
15	4-40 UNC Front spacer and rear mounting stud	6HDD15PAM99B70X
26	4-40 UNC Front spacer and rear mounting stud	6HDD26PAM99B70X
44	4-40 UNC Front spacer and rear mounting stud	6HDD44PAM99B70X
62	4-40 UNC Front spacer and rear mounting stud	6HDD62PAM99B70X
78	4-40 UNC Front spacer and rear mounting stud	6HDD78PAM99B70X

# IP67 D-SUB HIGH DENSITY

Solder cup – Precision machined contacts – For hood Assembly – For wire size AWG 22



RoHS compliant - CSA listed, File No.LR115000-1 UL listed, File No. E202784

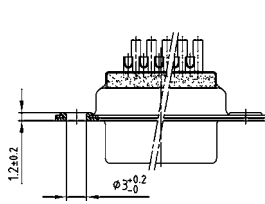
## DESCRIPTION

- Suitable for wire size AWG 22
- Mounting style:  
with through-hole, Ø .118"/3.0 mm
- Quality class 3 (also available in quality class 1)
- Shell: Brass tin plated (stainless steel available on request)

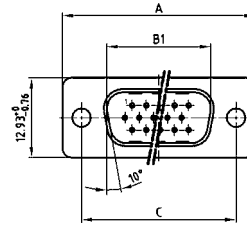
## SOCKET CONNECTOR



No. of pos.	A -0.76	B2 -0.25	C
15	31.19	16.46	25.00 <sup>+0.12</sup> / <sub>-0.13</sub>
26	39.52	24.79	33.30 <sup>+0.15</sup> / <sub>-0.10</sub>
44	53.42	38.50	47.04 <sup>+0.13</sup>
62	69.70	54.96	63.50 <sup>+0.13</sup>
78	67.31	52.55	61.10 <sup>+0.14</sup> / <sub>-0.11</sub>



## PLUG CONNECTOR



No. of pos.	A -0.76	B1 +0.25	C	D -0.30
15	31.19	16.79	25.00 <sup>+0.12</sup> / <sub>-0.13</sub>	6.12
26	39.52	25.12	33.30 <sup>+0.15</sup> / <sub>-0.10</sub>	6.12
44	53.42	38.84	47.04 <sup>+0.13</sup>	5.99
62	69.70	55.30	63.50 <sup>+0.13</sup>	5.99
78	67.31	62.68	61.10 <sup>+0.14</sup> / <sub>-0.11</sub>	5.99



## ORDER DATA

SOCKET CONNECTOR		
No. of pos.	Mounting style	Part Number
15	Through-hole	4HDD15SAM99A10X
26	Through-hole	4HDD26SAM99A10X
44	Through-hole	4HDD44SAM99A10X
62	Through-hole	4HDD62SAM99A10X
78	Through-hole	4HDD78SAM99A10X

PLUG CONNECTOR		
No. of pos.	Mounting style	Part Number
15	Through-hole	4HDD15PAM99A10X
26	Through-hole	4HDD26PAM99A10X
44	Through-hole	4HDD44PAM99A10X
62	Through-hole	4HDD62PAM99A10X
78	Through-hole	4HDD78PAM99A10X

# IP67 D-SUB STANDARD SOLID BODY

Solder cup – Precision machined contacts – For wire size AWG 20



RoHS compliant - UL listed, File No. E202784

## DESCRIPTION

- Suitable for wire size AWG 20
- Mounting style:  
4-40 UNC threaded insert including hex locking bolt
- Quality class 3 (also available in quality class 1)
- One-piece zinc die-cast nickel plated shell
- IP67 for harsh environments, pressure-proof up to 1.45 PSI
- Higher protection on request

## SOCKET CONNECTOR

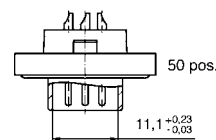
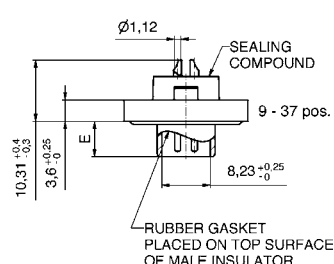


No. of pos.	A	B2 ±0.25	C	D
09	39.40 <sup>+0.30</sup> <sub>-0.00</sub>	16.46	25.00 <sup>+0.12</sup> <sub>-0.13</sub>	21.10 <sup>+0.3</sup> <sub>-0</sub>
15	47.70 <sup>+0.30</sup> <sub>-0.00</sub>	24.79	33.32 <sup>+0.13</sup> <sub>-0.12</sub>	21.10 <sup>+0.3</sup> <sub>-0</sub>
25	61.40 <sup>+0.30</sup> <sub>-0.00</sub>	38.50	47.04 <sup>+0.13</sup> <sub>-0.12</sub>	21.10 <sup>+0.3</sup> <sub>-0</sub>
37	78.00 <sup>+0.30</sup> <sub>-0.00</sub>	54.96	63.50 <sup>+0.13</sup> <sub>-0.12</sub>	21.10 <sup>+0.3</sup> <sub>-0</sub>
50	75.60 <sup>+0.30</sup> <sub>-0.10</sub>	52.55	61.10 <sup>+0.14</sup> <sub>-0.11</sub>	23.90 <sup>+0.3</sup> <sub>-0.1</sub>

## PLUG CONNECTOR



No. of pos.	A	B1	C	D	E
09	39.4 <sup>+0.30</sup> <sub>-0.00</sub>	16.81 <sup>+0.23</sup> <sub>-0.02</sub>	25.00 <sup>+0.12</sup> <sub>-0.13</sub>	21.1 <sup>+0.3</sup> <sub>-0</sub>	6.00 <sup>+0.12</sup> <sub>-0.18</sub>
15	47.7 <sup>+0.30</sup> <sub>-0.00</sub>	25.14 <sup>+0.22</sup> <sub>-0.02</sub>	33.32 <sup>+0.13</sup> <sub>-0.12</sub>	21.1 <sup>+0.3</sup> <sub>-0</sub>	6.00 <sup>+0.12</sup> <sub>-0.18</sub>
25	61.4 <sup>+0.30</sup> <sub>-0.00</sub>	38.86 <sup>+0.23</sup> <sub>-0.02</sub>	47.04 <sup>+0.13</sup> <sub>-0.12</sub>	21.1 <sup>+0.3</sup> <sub>-0</sub>	5.99 <sup>+0</sup> <sub>-0.3</sub>
37	78.0 <sup>+0.30</sup> <sub>-0.01</sub>	55.32 <sup>+0.23</sup> <sub>-0.02</sub>	63.50 <sup>+0.13</sup> <sub>-0.12</sub>	21.1 <sup>+0.3</sup> <sub>-0</sub>	5.99 <sup>+0</sup> <sub>-0.3</sub>
50	75.6 <sup>+0.30</sup> <sub>-0.10</sub>	52.80 <sup>+0.13</sup> <sub>-0.12</sub>	61.10 <sup>+0.14</sup> <sub>-0.11</sub>	23.9 <sup>+0.3</sup> <sub>-0.1</sub>	5.99 <sup>+0</sup> <sub>-0.3</sub>



## ORDER DATA

### SOCKET CONNECTOR

No. of pos.	Mounting style 4-40 UNC	Part Number
09	Threaded insert	15-000613
15	Threaded insert	15-000623
25	Threaded insert	15-000633
37	Threaded insert	15-000643
50	Threaded insert	15-002103

### PLUG CONNECTOR

No. of pos.	Mounting style 4-40 UNC	Part Number
09	Threaded insert	15-000573
15	Threaded insert	15-000583
25	Threaded insert	15-000593
37	Threaded insert	15-000603
50	Threaded insert	15-002093

# IP67 D-SUB STANDARD SOLID BODY

Solder pin – Straight – Precision machined contacts



RoHS compliant - UL listed, File No. E202784

## DESCRIPTION

- Mounting style:  
4-40 UNC threaded rear spacer with PCB clip including hex locking bolt
- Quality class 3 (also available in quality class 1)
- One-piece zinc die-cast nickel plated shell
- IP67 for harsh environments, pressure-proof up to 1.45 PSI
- Higher protection on request

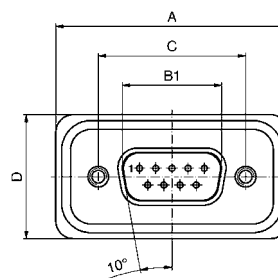
## SOCKET CONNECTOR



No. of pos.	A	B2 <sup>+0</sup> / <sub>-0.25</sub>	C	D
09	39.40 <sup>+0.30</sup> / <sub>-0.00</sub>	16.46	25.00 <sup>+0.12</sup> / <sub>-0.13</sub>	21.10 <sup>+0.3</sup> / <sub>-0</sub>
15	47.70 <sup>+0.30</sup> / <sub>-0.00</sub>	24.79	33.32 <sup>+0.13</sup> / <sub>-0.12</sub>	21.10 <sup>+0.3</sup> / <sub>-0</sub>
25	61.40 <sup>+0.30</sup> / <sub>-0.00</sub>	38.50	47.04 <sup>+0.13</sup> / <sub>-0.12</sub>	21.10 <sup>+0.3</sup> / <sub>-0</sub>
37	78.00 <sup>+0.30</sup> / <sub>-0.00</sub>	54.96	63.50 <sup>+0.13</sup> / <sub>-0.12</sub>	21.10 <sup>+0.3</sup> / <sub>-0</sub>
50	75.60 <sup>+0.30</sup> / <sub>-0.10</sub>	52.55	61.10 <sup>+0.14</sup> / <sub>-0.11</sub>	23.90 <sup>+0.3</sup> / <sub>-0.1</sub>

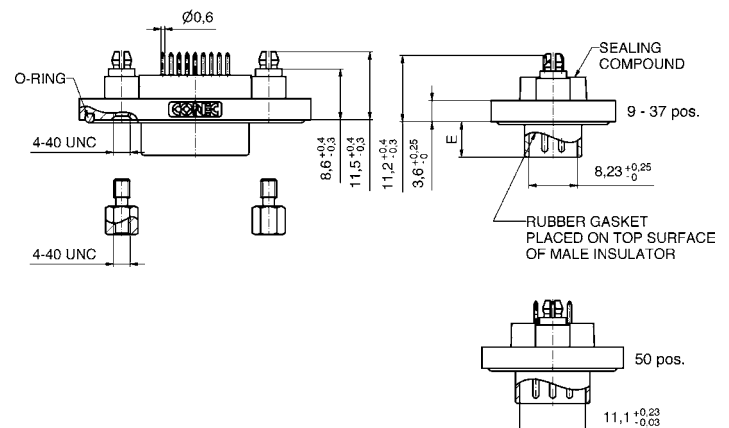
PCB-Layout: Kat1kFUA

## PLUG CONNECTOR



No. of pos.	A	B1	C	D	E
09	39.4 <sup>+0.30</sup> / <sub>0.00</sub>	16.81 <sup>+0.23</sup> / <sub>-0.02</sub>	25.00 <sup>+0.12</sup> / <sub>0.12</sub>	21.1 <sup>+0.3</sup> / <sub>0</sub>	6.00 <sup>+0.12</sup> / <sub>0.18</sub>
15	47.7 <sup>+0.30</sup> / <sub>0.00</sub>	25.14 <sup>+0.23</sup> / <sub>-0.02</sub>	33.32 <sup>+0.12</sup> / <sub>0.12</sub>	21.1 <sup>+0.3</sup> / <sub>0</sub>	6.00 <sup>+0.12</sup> / <sub>0.18</sub>
25	61.4 <sup>+0.30</sup> / <sub>0.00</sub>	38.86 <sup>+0.23</sup> / <sub>-0.02</sub>	47.04 <sup>+0.12</sup> / <sub>0.12</sub>	21.1 <sup>+0.3</sup> / <sub>0</sub>	5.99 <sup>+0</sup> / <sub>0.3</sub>
37	78.0 <sup>+0.30</sup> / <sub>0.00</sub>	55.32 <sup>+0.23</sup> / <sub>-0.02</sub>	63.50 <sup>+0.12</sup> / <sub>0.12</sub>	21.1 <sup>+0.3</sup> / <sub>0</sub>	5.99 <sup>+0</sup> / <sub>0.3</sub>
50	75.6 <sup>+0.30</sup> / <sub>0.10</sub>	52.80 <sup>+0.13</sup> / <sub>0.12</sub>	61.10 <sup>+0.14</sup> / <sub>0.11</sub>	23.9 <sup>+0.3</sup> / <sub>0.1</sub>	5.99 <sup>+0</sup> / <sub>0.3</sub>

PCB-Layout: Kat1kFUA



## ORDER DATA

SOCKET CONNECTOR		
No. of pos.	Mounting style 4-40 UNC	Part Number
09	Threaded rear spacer PCB clip	15-000453
15	Threaded rear spacer PCB clip	15-000463
25	Threaded rear spacer PCB clip	15-000473
37	Threaded rear spacer PCB clip	15-000483
50	Threaded rear spacer PCB clip	15-002063

PLUG CONNECTOR		
No. of pos.	Mounting style 4-40 UNC	Part Number
09	Threaded rear spacer PCB clip	15-000413
15	Threaded rear spacer PCB clip	15-000423
25	Threaded rear spacer PCB clip	15-000433
37	Threaded rear spacer PCB clip	15-000443
50	Threaded rear spacer PCB clip	15-002053

PCB clip .122"/3.1 ± .004"/0.10 mm hole diameter and .063"/1.6 mm circuit board thickness

# IP67 D-SUB STANDARD SOLID BODY

Solder pin – Angled – .402" / 10.2 mm – Precision machined contacts – Metal bracket



RoHS compliant - UL listed, File No. E202784

## SOCKET CONNECTOR



No. of pos.	A	B2 ±0.25	C	D
09	39.40 <sup>+0.30</sup> <sub>-0.00</sub>	16.46	25.00 <sup>+0.02</sup> <sub>-0.13</sub>	21.10 <sup>+0.3</sup> <sub>-0</sub>
15	47.70 <sup>+0.30</sup> <sub>-0.00</sub>	24.79	33.32 <sup>+0.03</sup> <sub>-0.12</sub>	21.10 <sup>+0.3</sup> <sub>-0</sub>
25	61.40 <sup>+0.30</sup> <sub>-0.00</sub>	38.50	47.04 <sup>+0.03</sup> <sub>-0.13</sub>	21.10 <sup>+0.3</sup> <sub>-0</sub>
37	78.00 <sup>+0.30</sup> <sub>-0.00</sub>	54.96	63.50 <sup>+0.03</sup> <sub>-0.13</sub>	21.10 <sup>+0.3</sup> <sub>-0</sub>
50	75.60 <sup>+0.30</sup> <sub>-0.00</sub>	52.55	61.10 <sup>+0.04</sup> <sub>-0.11</sub>	23.90 <sup>+0.3</sup> <sub>-0.1</sub>

PCB-Layout: Kat1kGMA

## DESCRIPTION

- Mounting style:  
mounting bracket, 4-40 UNC PCB clip including hex locking bolt
- Quality class 3 (also available in quality class 1)
- One-piece zinc die-cast nickel plated shell
- IP67 for harsh environments, pressure-proof up to 1.45 PSI
- Higher protection on request

## PLUG CONNECTOR



No. of pos.	A	B1	C	D	E
09	39.4 <sup>+0.30</sup> <sub>0.00</sub>	16.81 <sup>+0.23</sup> <sub>-0.02</sub>	25.00 <sup>+0.02</sup> <sub>-0.12</sub>	21.1 <sup>+0.3</sup> <sub>0</sub>	6.00 <sup>+0.12</sup> <sub>-0.18</sub>
15	47.7 <sup>+0.30</sup> <sub>0.00</sub>	25.14 <sup>+0.22</sup> <sub>-0.02</sub>	33.32 <sup>+0.03</sup> <sub>-0.12</sub>	21.1 <sup>+0.3</sup> <sub>0</sub>	6.00 <sup>+0.12</sup> <sub>-0.18</sub>
25	61.4 <sup>+0.30</sup> <sub>0.00</sub>	38.86 <sup>+0.23</sup> <sub>-0.02</sub>	47.04 <sup>+0.03</sup> <sub>-0.12</sub>	21.1 <sup>+0.3</sup> <sub>0</sub>	5.99 <sup>+0.0</sup> <sub>-0.3</sub>
37	78.0 <sup>+0.30</sup> <sub>0.01</sub>	55.32 <sup>+0.23</sup> <sub>-0.02</sub>	63.50 <sup>+0.03</sup> <sub>-0.12</sub>	21.1 <sup>+0.3</sup> <sub>0</sub>	5.99 <sup>+0.0</sup> <sub>-0.3</sub>
50	75.6 <sup>+0.30</sup> <sub>0.02</sub>	52.80 <sup>+0.13</sup> <sub>-0.12</sub>	61.10 <sup>+0.04</sup> <sub>-0.11</sub>	23.9 <sup>+0.3</sup> <sub>-0.1</sub>	5.99 <sup>+0.0</sup> <sub>-0.3</sub>

PCB-Layout: Kat1kGNA

Mounting style: Mounting bracket, PCB clip



Mounting style: Mounting bracket, PCB clip



## ORDER DATA

SOCKET CONNECTOR		
No. of pos.	Mounting style 4-40 UNC	Part Number
09	Mounting bracket / PCB clip	15-000773
15	Mounting bracket / PCB clip	15-000783
25	Mounting bracket / PCB clip	15-000793
37	Mounting bracket / PCB clip	15-000803
50	Mounting bracket / PCB clip	15-002143

PLUG CONNECTOR		
No. of pos.	Mounting style 4-40 UNC	Part Number
09	Mounting bracket / PCB clip	15-000733
15	Mounting bracket / PCB clip	15-000743
25	Mounting bracket / PCB clip	15-000753
37	Mounting bracket / PCB clip	15-000763
50	Mounting bracket / PCB clip	15-002133

PCB clip .122" / 3.1 ± .004" / 0.10 mm hole diameter and .063" / 1.6 mm circuit board thickness



# IP67 D-SUB STANDARD SOLID BODY

Solder pin – Angled – .590" / 14.9 mm – Precision machined contacts – Metal bracket



RoHS compliant - UL listed, File No. E202784

## SOCKET CONNECTOR



No. of pos.	A	B2 <sup>+0</sup> / <sub>-0.25</sub>	C	D
09	39.40 <sup>+0.30</sup> / <sub>-0.00</sub>	16.46	25.00 <sup>+0.12</sup> / <sub>-0.13</sub>	21.10 <sup>+0.3</sup> / <sub>-0</sub>
15	47.70 <sup>+0.30</sup> / <sub>-0.00</sub>	24.79	33.32 <sup>+0.13</sup> / <sub>-0.12</sub>	21.10 <sup>+0.3</sup> / <sub>-0</sub>
25	61.40 <sup>+0.30</sup> / <sub>-0.00</sub>	38.50	47.04 <sup>+0.13</sup> / <sub>-0.12</sub>	21.10 <sup>+0.3</sup> / <sub>-0</sub>
37	78.00 <sup>+0.30</sup> / <sub>-0.00</sub>	54.96	63.50 <sup>+0.13</sup> / <sub>-0.12</sub>	21.10 <sup>+0.3</sup> / <sub>-0</sub>
50	75.60 <sup>+0.30</sup> / <sub>-0.10</sub>	52.55	61.10 <sup>+0.14</sup> / <sub>-0.11</sub>	23.90 <sup>+0.3</sup> / <sub>-0.1</sub>

PCB-Layout: Kat1kGOA

## DESCRIPTION

- Mounting style: mounting bracket, 4-40 UNC PCB clip including hex locking bolt
- Quality class 3 (also available in quality class 1)
- One-piece zinc die-cast nickel plated shell
- IP67 for harsh environments, pressure-proof up to 1.45 PSI
- Higher protection on request

## PLUG CONNECTOR



No. of pos.	A	B1	C	D	E
09	39.4 <sup>+0.30</sup> / <sub>-0.00</sub>	16.81 <sup>+0.23</sup> / <sub>-0.02</sub>	25.00 <sup>+0.12</sup> / <sub>-0.12</sub>	21.1 <sup>+0.3</sup> / <sub>-0</sub>	6.00 <sup>+0.12</sup> / <sub>-0.18</sub>
15	47.7 <sup>+0.30</sup> / <sub>-0.00</sub>	25.14 <sup>+0.23</sup> / <sub>-0.02</sub>	33.32 <sup>+0.12</sup> / <sub>-0.12</sub>	21.1 <sup>+0.3</sup> / <sub>-0</sub>	6.00 <sup>+0.12</sup> / <sub>-0.18</sub>
25	61.4 <sup>+0.30</sup> / <sub>-0.00</sub>	38.86 <sup>+0.23</sup> / <sub>-0.02</sub>	47.04 <sup>+0.12</sup> / <sub>-0.12</sub>	21.1 <sup>+0.3</sup> / <sub>-0</sub>	5.99 <sup>+0</sup> / <sub>-0.3</sub>
37	78.0 <sup>+0.30</sup> / <sub>-0.00</sub>	55.32 <sup>+0.23</sup> / <sub>-0.02</sub>	63.50 <sup>+0.12</sup> / <sub>-0.12</sub>	21.1 <sup>+0.3</sup> / <sub>-0</sub>	5.99 <sup>+0</sup> / <sub>-0.3</sub>
50	75.6 <sup>+0.30</sup> / <sub>-0.10</sub>	52.80 <sup>+0.13</sup> / <sub>-0.12</sub>	61.10 <sup>+0.14</sup> / <sub>-0.11</sub>	23.9 <sup>+0.3</sup> / <sub>-0.1</sub>	5.99 <sup>+0</sup> / <sub>-0.3</sub>

PCB-Layout: Kat1kGPA

Mounting style: Mounting bracket, PCB clip



Mounting style: Mounting bracket, PCB clip



## ORDER DATA

SOCKET CONNECTOR		
No. of pos.	Mounting style 4-40 UNC	Part Number
09	Mounting bracket / PCB clip	15-000853
15	Mounting bracket / PCB clip	15-000863
25	Mounting bracket / PCB clip	15-000873
37	Mounting bracket / PCB clip	15-000883
50	Mounting bracket / PCB clip	15-002163

PLUG CONNECTOR		
No. of pos.	Mounting style 4-40 UNC	Part Number
09	Mounting bracket / PCB clip	15-000813
15	Mounting bracket / PCB clip	15-000823
25	Mounting bracket / PCB clip	15-000833
37	Mounting bracket / PCB clip	15-000843
50	Mounting bracket / PCB clip	15-002153

PCB clip .122" / 3.1 ± .004" / 0.10 mm hole diameter and .063" / 1.6 mm circuit board thickness

# IP67 D-SUB HIGH DENSITY SOLID BODY

Solder cup – Precision machined contacts – For wire size AWG 22



RoHS compliant - UL listed, File No. E202784

## DESCRIPTION

- Suitable for wire size AWG 22
- Mounting style:  
4-40 UNC threaded insert including hex locking bolt
- Quality class 3 (also available in quality class 1)
- One-piece zinc die-cast nickel plated shell
- IP67 for harsh environments, pressure-proof up to 1.45 PSI
- Higher protection on request

## SOCKET CONNECTOR



No. of pos.	A	B2 ±0.25	C	D
15	39.40 <sup>+0.30</sup> <sub>-0.00</sub>	16.46	25.00 <sup>+0.12</sup> <sub>-0.13</sub>	21.10 <sup>+0.3</sup> <sub>-0</sub>
26	47.70 <sup>+0.30</sup> <sub>-0.00</sub>	24.79	33.32 <sup>+0.13</sup> <sub>-0.12</sub>	21.10 <sup>+0.3</sup> <sub>-0</sub>
44	61.40 <sup>+0.30</sup> <sub>-0.00</sub>	38.50	47.04 <sup>+0.13</sup> <sub>-0.12</sub>	21.10 <sup>+0.3</sup> <sub>-0</sub>
62	78.00 <sup>+0.30</sup> <sub>-0.00</sub>	54.96	63.50 <sup>+0.13</sup> <sub>-0.12</sub>	21.10 <sup>+0.3</sup> <sub>-0</sub>
78	75.60 <sup>+0.30</sup> <sub>-0.10</sub>	52.55	61.10 <sup>+0.14</sup> <sub>-0.11</sub>	23.90 <sup>+0.3</sup> <sub>-0.1</sub>

## PLUG CONNECTOR



No. of pos.	A	B1	C	D	E
15	39.4 <sup>+0.30</sup> <sub>-0.00</sub>	16.81 <sup>+0.23</sup> <sub>-0.02</sub>	25.00 <sup>+0.12</sup> <sub>-0.12</sub>	21.1 <sup>+0.3</sup> <sub>-0</sub>	6.00 <sup>+0.12</sup> <sub>-0.18</sub>
26	47.7 <sup>+0.30</sup> <sub>-0.00</sub>	25.14 <sup>+0.22</sup> <sub>-0.02</sub>	33.32 <sup>+0.12</sup> <sub>-0.12</sub>	21.1 <sup>+0.3</sup> <sub>-0</sub>	6.00 <sup>+0.12</sup> <sub>-0.18</sub>
44	61.4 <sup>+0.30</sup> <sub>-0.00</sub>	38.86 <sup>+0.23</sup> <sub>-0.02</sub>	47.04 <sup>+0.12</sup> <sub>-0.12</sub>	21.1 <sup>+0.3</sup> <sub>-0</sub>	5.99 <sup>+0.0</sup> <sub>-0.3</sub>
62	78.0 <sup>+0.30</sup> <sub>-0.01</sub>	55.32 <sup>+0.23</sup> <sub>-0.02</sub>	63.50 <sup>+0.12</sup> <sub>-0.12</sub>	21.1 <sup>+0.3</sup> <sub>-0</sub>	5.99 <sup>+0.0</sup> <sub>-0.3</sub>
78	75.6 <sup>+0.30</sup> <sub>-0.10</sub>	52.80 <sup>+0.12</sup> <sub>-0.12</sub>	61.10 <sup>+0.14</sup> <sub>-0.11</sub>	23.9 <sup>+0.3</sup> <sub>-0.1</sub>	5.99 <sup>+0.0</sup> <sub>-0.3</sub>



## ORDER DATA

### SOCKET CONNECTOR

No. of pos.	Mounting style 4-40 UNC	Part Number
15	Threaded insert	15-000693
26	Threaded insert	15-000703
44	Threaded insert	15-000713
62	Threaded insert	15-000723
78	Threaded insert	15-002123

### PLUG CONNECTOR

No. of pos.	Mounting style 4-40 UNC	Part Number
15	Threaded insert	15-000653
26	Threaded insert	15-000663
44	Threaded insert	15-000673
62	Threaded insert	15-000683
78	Threaded insert	15-002113

# IP67 D-SUB HIGH DENSITY SOLID BODY

Solder pin – Straight – Precision machined contacts

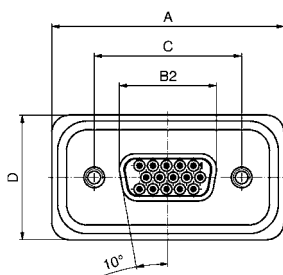


RoHS compliant - UL listed, File No. E202784

## DESCRIPTION

- Mounting style:  
4-40 UNC threaded rear spacer with PCB clip including hex locking bolt
- Quality class 3 (also available in quality class 1)
- One-piece zinc die-cast nickel plated shell
- IP67 for harsh environments, pressure-proof up to 1.45 PSI
- Higher protection on request

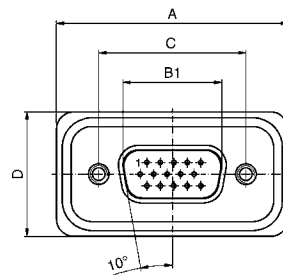
## SOCKET CONNECTOR



No. of pos.	A	B2 <sup>+0</sup> / <sub>-0.25</sub>	C	D
15	39.40 <sup>+0.30</sup> / <sub>-0.00</sub>	16.46	25.00 <sup>+0.12</sup> / <sub>-0.13</sub>	21.10 <sup>+0.3</sup> / <sub>0</sub>
26	47.70 <sup>+0.30</sup> / <sub>-0.00</sub>	24.79	33.32 <sup>+0.13</sup> / <sub>-0.12</sub>	21.10 <sup>+0.3</sup> / <sub>0</sub>
44	61.40 <sup>+0.30</sup> / <sub>-0.00</sub>	38.50	47.04 <sup>+0.13</sup> / <sub>-0.12</sub>	21.10 <sup>+0.3</sup> / <sub>0</sub>
62	78.00 <sup>+0.30</sup> / <sub>-0.00</sub>	54.96	63.50 <sup>+0.13</sup> / <sub>-0.12</sub>	21.10 <sup>+0.3</sup> / <sub>0</sub>
78	75.60 <sup>+0.30</sup> / <sub>-0.10</sub>	52.55	61.10 <sup>+0.14</sup> / <sub>-0.11</sub>	23.90 <sup>+0.3</sup> / <sub>-0.1</sub>

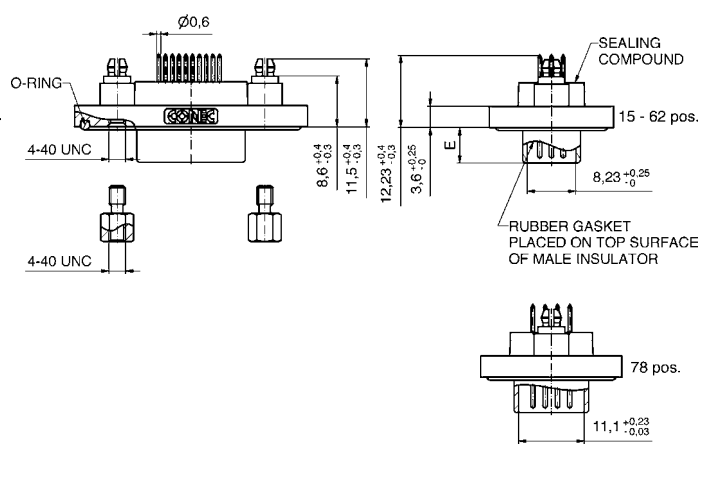
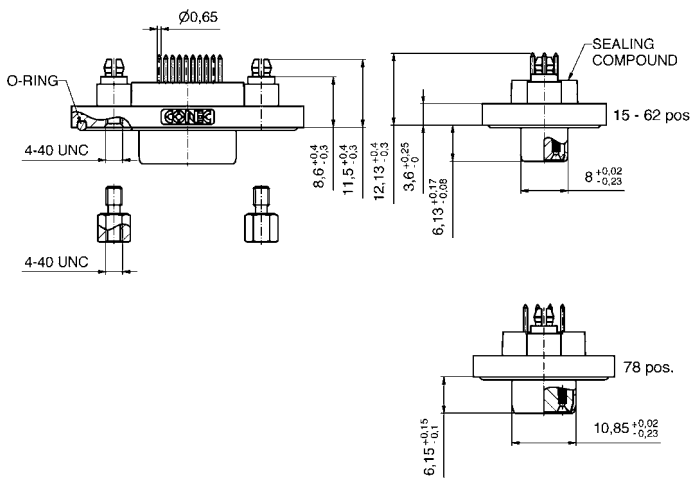
PCB-Layout: Kat11T9A

## PLUG CONNECTOR



No. of pos.	A	B1	C	D	E
15	39.4 <sup>+0.30</sup> / <sub>0.00</sub>	16.81 <sup>+0.23</sup> / <sub>-0.02</sub>	25.00 <sup>+0.12</sup> / <sub>-0.12</sub>	21.1 <sup>+0.3</sup> / <sub>0</sub>	6.00 <sup>+0.12</sup> / <sub>-0.18</sub>
26	47.7 <sup>+0.30</sup> / <sub>0.00</sub>	25.14 <sup>+0.23</sup> / <sub>-0.02</sub>	33.32 <sup>+0.12</sup> / <sub>-0.12</sub>	21.1 <sup>+0.3</sup> / <sub>0</sub>	6.00 <sup>+0.12</sup> / <sub>-0.18</sub>
44	61.4 <sup>+0.30</sup> / <sub>0.00</sub>	38.86 <sup>+0.23</sup> / <sub>-0.02</sub>	47.04 <sup>+0.12</sup> / <sub>-0.12</sub>	21.1 <sup>+0.3</sup> / <sub>0</sub>	5.99 <sup>+0</sup> / <sub>-0.3</sub>
62	78.0 <sup>+0.30</sup> / <sub>0.00</sub>	55.32 <sup>+0.23</sup> / <sub>-0.02</sub>	63.50 <sup>+0.12</sup> / <sub>-0.12</sub>	21.1 <sup>+0.3</sup> / <sub>0</sub>	5.99 <sup>+0</sup> / <sub>-0.3</sub>
78	75.6 <sup>+0.30</sup> / <sub>-0.10</sub>	52.80 <sup>+0.13</sup> / <sub>-0.12</sub>	61.10 <sup>+0.14</sup> / <sub>-0.11</sub>	23.9 <sup>+0.3</sup> / <sub>-0.1</sub>	5.99 <sup>+0</sup> / <sub>-0.3</sub>

PCB-Layout: Kat11UOA



## ORDER DATA

### SOCKET CONNECTOR

No. of pos.	Mounting style 4-40 UNC	Part Number
15	Threaded rear spacer PCB clip	15-000533
26	Threaded rear spacer PCB clip	15-000543
44	Threaded rear spacer PCB clip	15-000553
62	Threaded rear spacer PCB clip	15-000563
78	Threaded rear spacer PCB clip	15-002183

### PLUG CONNECTOR

No. of pos.	Mounting style 4-40 UNC	Part Number
15	Threaded rear spacer PCB clip	15-000493
26	Threaded rear spacer PCB clip	15-000503
44	Threaded rear spacer PCB clip	15-000513
62	Threaded rear spacer PCB clip	15-000523
78	Threaded rear spacer PCB clip	15-002073

PCB clip .122" / 3.1 ± .004" / 0.10 mm hole diameter and .063" / 1.6 mm circuit board thickness

# IP67 D-SUB HIGH DENSITY SOLID BODY

Solder pin – Angled – .362"/9,2 mm – Precision machined contacts – Metal bracket



RoHS compliant - UL listed, File No. E202784

## DESCRIPTION

- Mounting style:  
Mounting bracket, 4-40 UNC PCB clip including hex locking bolt
- Quality class 3 (also available in quality class 1)
- One-piece zinc die-cast nickel plated shell
- IP67 for harsh environments, pressure-proof up to 1.45 PSI
- Higher protection on request

## SOCKET CONNECTOR



No. of pos.	A	B2 <sup>+0</sup> / <sub>-0.25</sub>	C	D
15	39.40 <sup>+0.30</sup> / <sub>-0.00</sub>	16.46	25.00 <sup>+0.12</sup> / <sub>-0.13</sub>	21.10 <sup>+0.3</sup> / <sub>-0</sub>
26	47.70 <sup>+0.30</sup> / <sub>-0.00</sub>	24.79	33.32 <sup>+0.13</sup> / <sub>-0.12</sub>	21.10 <sup>+0.3</sup> / <sub>-0</sub>
44	61.40 <sup>+0.30</sup> / <sub>-0.00</sub>	38.50	47.04 <sup>+0.13</sup> / <sub>-0.12</sub>	21.10 <sup>+0.3</sup> / <sub>-0</sub>
62	78.00 <sup>+0.30</sup> / <sub>-0.00</sub>	54.96	63.50 <sup>+0.13</sup> / <sub>-0.12</sub>	21.10 <sup>+0.3</sup> / <sub>-0</sub>
78	75.60 <sup>+0.30</sup> / <sub>-0.10</sub>	52.55	61.10 <sup>+0.14</sup> / <sub>-0.11</sub>	23.90 <sup>+0.3</sup> / <sub>-0.1</sub>

PCB-Layout: Kat1kHRA

## PLUG CONNECTOR



No. of pos.	A	B1	C	D	E
15	39.4 <sup>+0.30</sup> / <sub>-0.00</sub>	16.81 <sup>+0.23</sup> / <sub>-0.02</sub>	25.00 <sup>+0.12</sup> / <sub>-0.12</sub>	21.1 <sup>+0.3</sup> / <sub>-0</sub>	6.00 <sup>+0.12</sup> / <sub>-0.18</sub>
26	47.7 <sup>+0.30</sup> / <sub>-0.00</sub>	25.14 <sup>+0.23</sup> / <sub>-0.02</sub>	33.32 <sup>+0.13</sup> / <sub>-0.12</sub>	21.1 <sup>+0.3</sup> / <sub>-0</sub>	6.00 <sup>+0.12</sup> / <sub>-0.18</sub>
44	61.4 <sup>+0.30</sup> / <sub>-0.00</sub>	38.86 <sup>+0.23</sup> / <sub>-0.02</sub>	47.04 <sup>+0.13</sup> / <sub>-0.12</sub>	21.1 <sup>+0.3</sup> / <sub>-0</sub>	5.99 <sup>+0</sup> / <sub>-0.3</sub>
62	78.0 <sup>+0.30</sup> / <sub>-0.00</sub>	55.32 <sup>+0.23</sup> / <sub>-0.02</sub>	63.50 <sup>+0.13</sup> / <sub>-0.12</sub>	21.1 <sup>+0.3</sup> / <sub>-0</sub>	5.99 <sup>+0</sup> / <sub>-0.3</sub>
78	75.6 <sup>+0.30</sup> / <sub>-0.10</sub>	52.80 <sup>+0.13</sup> / <sub>-0.12</sub>	61.10 <sup>+0.14</sup> / <sub>-0.11</sub>	23.9 <sup>+0.3</sup> / <sub>-0.1</sub>	5.99 <sup>+0</sup> / <sub>-0.3</sub>

PCB-Layout: Kat1kHQA



## ORDER DATA

SOCKET CONNECTOR		
No. of pos.	Mounting style 4-40 UNC	Part Number
15	Mounting bracket / PCB clip	15-002243
26	Mounting bracket / PCB clip	15-002253
44	Mounting bracket / PCB clip	15-002263
62	Mounting bracket / PCB clip	15-002273
78	Mounting bracket / PCB clip	15-002283

PLUG CONNECTOR		
No. of pos.	Mounting style 4-40 UNC	Part Number
15	Mounting bracket / PCB clip	15-002193
26	Mounting bracket / PCB clip	15-002203
44	Mounting bracket / PCB clip	15-002213
62	Mounting bracket / PCB clip	15-002223
78	Mounting bracket / PCB clip	15-002233

PCB clip .122"/3.1 ± .004"/0.10 mm hole diameter and .063"/1.6 mm circuit board thickness

# IP67 D-SUB HIGH DENSITY SOLID BODY

Solder pin – Angled – .484" / 12,3 mm – Precision machined contacts – Metal bracket



RoHS compliant - UL listed, File No. E202784

## DESCRIPTION

- Mounting style:  
Mounting bracket, 4-40 UNC PCB clip including hex locking bolt
- Quality class 3 (also available in quality class 1)
- One-piece zinc die-cast nickel plated shell
- IP67 for harsh environments, pressure-proof up to 1.45 PSI
- Higher protection on request

## SOCKET CONNECTOR



No. of pos.	A +0.3	B2 +0 -0.25	C
15	39.40	16.46	25.00 <sup>+0.12 -0.13</sup>
26	47.70	24.79	33.32 <sup>+0.12 -0.12</sup>
44	61.40	38.50	47.04 <sup>+0.13</sup>
62	78.00	54.96	63.50 <sup>+0.13</sup>

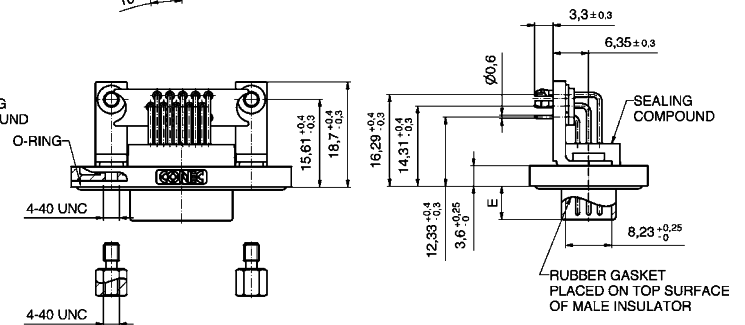
PCB-Layout: Kat1kgQA

## PLUG CONNECTOR



No. of pos.	A +0.3	B1 +0 -0.25	C	D	E
15	39.40	16.81	25.00 <sup>+0.12 -0.13</sup>	21.10 <sup>+0.3 0</sup>	6.00 <sup>+0.12 -0.16</sup>
26	47.70	25.14	33.32 <sup>+0.12 -0.12</sup>	21.10 <sup>+0.3 0</sup>	6.00 <sup>+0.12 -0.16</sup>
44	61.40	38.86	47.04 <sup>+0.13</sup>	21.10 <sup>+0.3 0</sup>	5.99 <sup>+0 -0.3</sup>
62	78.00	55.32	63.50 <sup>+0.13</sup>	21.10 <sup>+0.3 0</sup>	5.99 <sup>+0 -0.3</sup>

PCB-Layout: Kat1kgRA



## ORDER DATA

SOCKET CONNECTOR		
No. of pos.	Mounting style 4-40 UNC	Part Number
15	Mounting bracket / PCB clip	15-000933
26	Mounting bracket / PCB clip	15-000943
44	Mounting bracket / PCB clip	15-000953
62	Mounting bracket / PCB clip	15-000963

PLUG CONNECTOR		
No. of pos.	Mounting style 4-40 UNC	Part Number
15	Mounting bracket / PCB clip	15-000893
26	Mounting bracket / PCB clip	15-000903
44	Mounting bracket / PCB clip	15-000913
62	Mounting bracket / PCB clip	15-000923

PCB clip .122" / 3.1 ± .004" / 0.10 mm hole diameter and .063" / 1.6 mm circuit board thickness

# IP67 D-SUB STANDARD

## Interface adapter – Connector Saver



RoHS compliant - UL listed, File No. E202784

### DESCRIPTION

- Plug to socket adapter
- Mounting style:  
4-40 UNC threaded rear spacer including hex locking bolt
- Precision machined contacts
- Quality class 3 (also available in quality class 1)
- Shell: Brass tin plated
- Nickel plated die-cast frame

### PRODUCT DRAWING



No. of Pos.	A -0.76	B1 -0.25	B2 +0.25	C	D +0.3
9	31.19	16.46	16.79	25.00 <sup>+0.12</sup> / <sub>-0.13</sub>	39.40
15	39.52	24.79	25.12	33.30 <sup>+0.15</sup> / <sub>-0.10</sub>	47.70
25	53.42	38.50	38.84	47.04 <sup>+0.13</sup> / <sub>-0.10</sub>	61.40
37	69.70	54.96	55.30	63.50 <sup>+0.13</sup> / <sub>-0.10</sub>	77.90



### ORDER DATA

#### ADAPTER PLUG CONNECTOR - SOCKET CONNECTOR

No. of pos.	Mounting style 4-40 UNC	Part Number
09	Threaded rear spacer	6STD09AAA99B90X
15	Threaded rear spacer	6STD15AAA99B90X
25	Threaded rear spacer	6STD25AAA99B90X
37	Threaded rear spacer	6STD37AAA99B90X

# CONVERSION TABLE

$\mu\text{m}$ 1/1000 mm	$\mu\text{inch}$ 1/1000 inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch
0,10	4	3,30	.130	10,16	.400	19,50	.768	30,90	1.217	49,50	1.949
0,20	8	3,40	.134	10,26	.402	19,70	.776	31,00	1.220	49,90	1.965
0,25	10	3,50	.138	10,36	.406	19,80	.780	31,20	1.228	50,10	1.972
0,30	12	3,60	.142	10,56	.413	19,90	.783	31,50	1.240	50,30	1.980
0,50	20	3,70	.146	10,66	.417	20,00	.787	31,70	1.248	50,50	1.988
0,70	28	3,80	.150	10,76	.421	20,10	.791	32,00	1.260	50,70	1.996
0,75	30	3,81	.150	11,00	.433	20,30	.799	32,20	1.268	50,80	2.000
0,80	32	3,90	.154	11,20	.441	20,32	.800	32,30	1.272	51,40	2.024
1,00	39	4,00	.158	11,40	.449	20,50	.807	32,50	1.280	51,50	2.028
1,27	50	4,10	.161	11,50	.453	21,00	.827	32,80	1.291	52,00	2.047
2,00	79	4,20	.165	11,60	.457	21,10	.831	33,00	1.299	52,30	2.059
2,50	98	4,30	.169	11,90	.469	21,70	.854	33,10	1.303	52,80	2.079
3,00	118	4,50	.177	12,00	.472	22,00	.866	33,30	1.311	53,00	2.087
4,00	157	4,70	.185	12,20	.480	22,10	.870	33,80	1.331	53,20	2.095
5,00	197	4,90	.193	12,30	.484	22,20	.874	34,00	1.339	53,80	2.118
<b>mm</b>	<b>inch</b>	5,00	.197	12,40	.488	22,30	.878	34,20	1.346	54,00	2.126
0,10	.004	5,08	.200	12,50	.492	22,40	.882	34,40	1.354	54,20	2.134
0,20	.008	5,10	.201	12,70	.500	22,50	.886	35,00	1.378	54,90	2.161
0,25	.012	5,20	.205	12,90	.508	22,60	.890	35,40	1.394	55,00	2.165
0,35	.014	5,30	.209	13,00	.512	22,80	.898	35,50	1.398	55,40	2.181
0,40	.016	5,40	.213	13,10	.516	22,86	.900	35,56	1.400	55,70	2.193
0,45	.018	5,50	.217	13,20	.520	22,90	.902	35,60	1.402	56,60	2.228
0,50	.020	5,60	.220	13,50	.532	23,00	.906	36,00	1.417	57,40	2.260
0,55	.022	5,70	.224	13,60	.535	23,10	.909	36,50	1.437	57,80	2.276
0,60	.024	5,80	.228	13,70	.539	23,30	.917	36,60	1.441	57,90	2.280
0,64	.025	6,00	.236	13,90	.547	23,50	.925	36,70	1.445	58,42	2.300
0,65	.026	6,10	.240	14,00	.551	24,00	.945	37,00	1.457	59,00	2.323
0,70	.028	6,40	.252	14,30	.563	24,30	.957	37,30	1.469	59,20	2.331
0,75	.030	6,50	.256	14,40	.567	24,60	.969	37,50	1.476	59,80	2.354
0,80	.032	6,60	.260	14,50	.571	24,90	.980	37,60	1.480	59,90	2.358
0,85	.034	6,70	.264	14,70	.579	25,00	.984	37,70	1.484	60,00	2.362
0,90	.035	6,80	.268	14,80	.583	25,10	.998	37,90	1.492	60,96	2.400
1,00	.039	6,90	.272	14,90	.587	25,40	1.000	38,00	1.496	61,10	2.406
1,20	.047	7,00	.276	14,98	.590	25,60	1.008	38,10	1.500	62,00	2.441
1,25	.049	7,10	.280	15,00	.591	25,90	1.020	39,00	1.535	63,00	2.480
1,27	.050	7,20	.283	15,20	.598	26,00	1.024	39,20	1.543	63,50	2.500
1,30	.051	7,40	.291	15,24	.600	26,30	1.035	39,30	1.547	64,00	2.520
1,35	.053	7,50	.295	15,40	.606	26,60	1.047	39,90	1.571	65,00	2.560
1,40	.055	7,60	.299	15,50	.610	26,70	1.051	40,00	1.575	67,00	2.638
1,45	.057	7,62	.300	15,60	.614	27,00	1.063	40,30	1.587	68,00	2.677
1,50	.059	7,70	.303	15,90	.626	27,20	1.071	40,40	1.591	69,00	2.717
1,60	.063	7,80	.307	16,00	.630	27,40	1.079	40,60	1.598	70,00	2.756
1,70	.067	7,98	.314	16,20	.638	27,50	1.093	41,00	1.614	71,00	2.795
1,80	.071	8,00	.315	16,50	.650	27,90	1.098	41,60	1.638	74,00	2.913
1,85	.073	8,18	.318	16,60	.654	27,94	1.100	42,70	1.681	75,00	2.953
1,90	.075	8,20	.323	16,80	.661	28,00	1.102	43,18	1.700	76,20	3.000
2,00	.079	8,30	.327	17,00	.669	28,20	1.110	44,20	1.740	77,00	3.032
2,10	.083	8,40	.331	17,20	.677	28,50	1.122	44,80	1.764	78,74	3.100
2,20	.087	8,50	.335	17,30	.681	28,70	1.130	45,80	1.803	80,00	3.150
2,30	.091	8,60	.339	17,50	.689	29,00	1.142	46,30	1.823	81,28	3.200
2,40	.095	8,90	.350	17,60	.693	29,20	1.150	46,70	1.839	84,00	3.307
2,50	.098	9,00	.354	17,70	.697	29,40	1.158	47,00	1.850	85,00	3.346
2,54	.100	9,10	.358	17,78	.700	29,50	1.161	47,20	1.858	86,36	3.400
2,60	.102	9,20	.362	17,80	.701	29,70	1.169	47,30	1.862	88,90	3.500
2,70	.106	9,30	.366	17,90	.705	29,90	1.177	47,50	1.870	90,00	3.543
2,80	.110	9,40	.370	18,00	.709	30,00	1.181	47,80	1.882	91,44	3.600
2,84	.112	9,50	.374	18,10	.713	30,20	1.189	48,00	1.890	94,00	3.701
2,90	.114	9,60	.378	18,30	.721	30,40	1.197	48,10	1.894	95,00	3.740
3,00	.118	9,70	.382	18,60	.732	30,48	1.200	48,26	1.900	100,00	3.937
3,10	.122	9,90	.390	19,00	.748	30,50	1.201	48,80	1.921	110,00	4.331
3,20	.126	10,00	.395	19,20	.756	30,80	1.213	49,10	1.933	120,00	4.724

## IP-CODE FIGURE DEFINITIONS

1. Code figure	Definition	Remark
0	Not protected	
1	Protected against access to hazardous parts by the back of the hand. Protected against fixed foreign objects $\varnothing \geq 1.969''/50$ mm.	
2	Protected against access to hazardous parts with a finger. Protected against fixed foreign objects $\varnothing \geq .492''/12.5$ mm.	
3	Protected against access to hazardous parts with a tool. Protected against fixed foreign objects $\varnothing \geq .098''/2.5$ mm.	
4	Protected against access to hazardous parts with a wire. Protected against fixed foreign objects $\varnothing \geq .039''/1$ mm.	
5	Protected against access to hazardous parts with a wire. Dust protected.	Ingress of dust is not completely blocked. But dust may not penetrate to the extent that satisfactory operation of the device or safety is impaired.
6	Protected against access to hazardous parts with a wire. Dustproof. No ingress of dust.	
2. Code figure	Definition	Remark
0	Not protected	
1	Protected against dropper.	
2	Protected against dropper when the shell is tipped as much as 15°.	
3	Protected against spray water	Up to 60° of either side of the vertical, such spray water shall have no harmful effects.
4	Protected against splash water	On the shell from all directions, no harmful effects shall be incurred.
5	Protected against jets of water.	
6	Protected against strong jets of water.	
7	Protected against the effects of temporary submersion in water.	Water may not ingress in a volume that would cause harmful effects when the shell is submerged in water for 30 min at a depth of 1 m.
8	Protected against the effects of continuous submersion in water.	Water may not ingress in a volume that would cause harmful effects when the shell is continuously submerged in water under conditions agreed between manufacturer and user. However, these conditions must be more stringent than those described under code figure 7.
9k	Protected against water from high-pressure or steam cleaning.	

### Explanation to spray water protected (IP) systems and their environment.

This system, described in IEC 60529, was developed to represent standard values for respective protection:

- a) Contact with, and ingress of, fixed foreign objects
- b) The ingress of liquids to which the inside is to be exposed.

The first digit describes the level of protection for life, contacting objects and the intrusion of foreign bodies. The second digit describes the level of protection against the ingress of liquids. The larger the first and second digits are, the greater afforded protection is, e.g. IP55 must also meet the requirements of all lower protection levels, such as IP22, IP23, IP34 and IP54.



# TECHNICAL DATA

Materials	D-Subminiature, Standard 9, 15, 25, 37 and 50 position	D-Subminiature, High Density 15, 26, 44, 62 and 78 position		
Insulator	Polyester GF UL94 V-0			
Contacts	CU alloy			
Contact plating	Gold plated over nickel			
Shell	Brass tin plated (Standard) Stainless steel on request			
Mechanical and electrical characteristics				
Test voltage U eff/NN	1000 V			
Working voltage	125 V ≈   60 V ≈ depending on isolation coordination (refer to DIN VDE 0110/IEC 664-1)			
Current rating	7.5 A (UL) / 5 A (CSA,VDE)	3 A (UL,VDE) / 2.5 A (CSA)		
Contact resistance	max. 10 mΩ prior to stressing, Δ R max. 10 mΩ after stressing per DIN 41652, Part 2			
Insulation resistance	≥ 5 GΩ			
Clearance and creepage distance	contact – contact ≥ .04"/1.0 mm contact – earth ≥ .047"/1.2 mm	≥ .024"/0.6 mm		
Operating temperature	– 25 °C to + 105 °C			
Mating and unmating forces	9 pos. ≤ 30 N 15 pos. ≤ 50 N 25 pos. ≤ 83 N 37 pos. ≤ 123 N 50 pos. ≤ 167 N	15 pos. ≤ 50 N 26 pos. ≤ 84 N 44 pos. ≤ 120 N 62 pos. ≤ 170 N 78 pos. ≤ 200 N		
Quality class	A = Quality class 3 = 50 mating cycles B = Quality class 2 = 200 mating cycles C = Quality class 1 = 500 mating cycles			
Recommended wave-solder parameters	Preheating		Solder terminal dipping parameters	
	max. Temperature	Duration	max. Solder bath Temperature	max. Terminal Immersion Time
D-SUB Water Resistant	120°C	120s	240°C	5s
D-SUB Solid Body Type Water Resistant	150°C	180s	265°C	8s

Technical specifications are subject to change without notice.

# MATING CONDITIONS

Float mount tolerance guide



Rigid mount tolerance guide



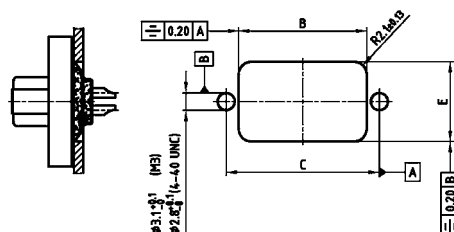
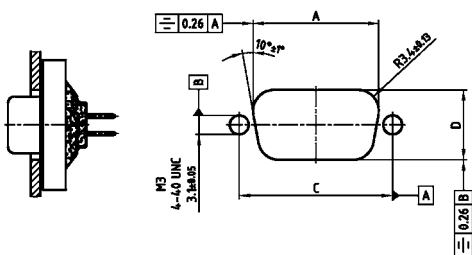
Rigid mount vertical to tolerance guide



## PANEL CUT-OUT

Rear panel mounting IP67 D-SUB Connectors

Front panel mounting IP67 D-SUB Connectors



Shell size	A $\pm 0.1$	B $\pm 0.1$	C $\pm 0.1$	D $\pm 0.1$	E $\pm 0.1$
1	20.50	20.90	25.00	11.40	13.00
2	28.80	29.20	33.30	11.40	13.00
3	42.50	42.90	47.04	11.40	13.00
4	59.10	59.40	63.50	11.40	13.00
5	56.30	57.00	61.10	14.10	15.80

# PCB LAYOUT D-SUB STANDARD

Solder pin, straight – without rear spacer PCB clip – Plug and Socket connector

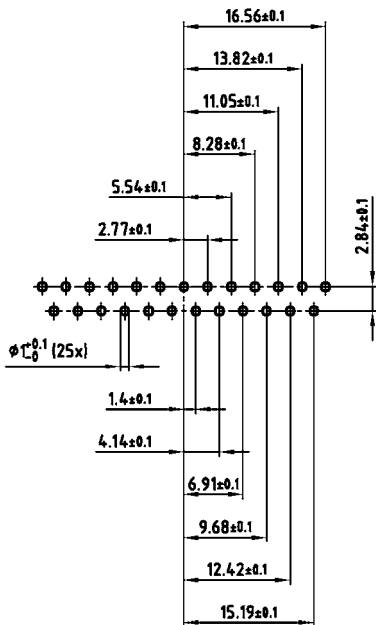
9 POS.



15 POS.



25 POS.



37 POS.



50 POS.



# PCB LAYOUT D-SUB STANDARD

Solder pin, straight – With rear spacer PCB clip – Plug and Socket connector

9 POS.



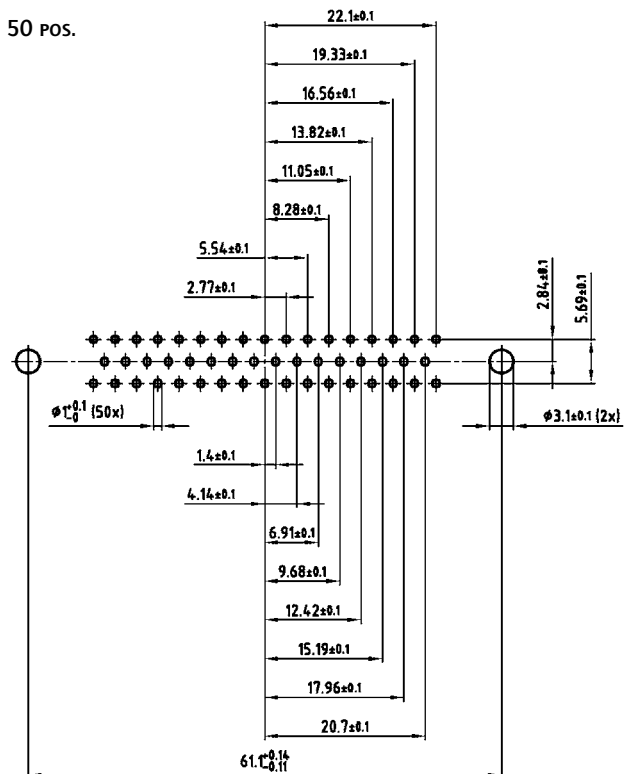
37 POS.



15 POS.



50 POS.



25 POS.



PCB layout Kat1kFUA (View: component side)

# PCB LAYOUT D-SUB STANDARD

Solder pin, angled, .189" / 4.8 mm – Plug and Socket connector

9 POS.



15 POS.



25 POS.



37 POS.



50 POS.



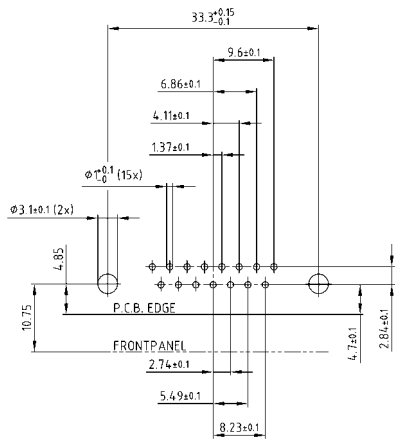
# PCB LAYOUT D-SUB STANDARD

Solder pin, angled, .276" / 7.0 mm – Plug and Socket connector

9 pos.



15 pos.



25 pos.



37 pos.



50 pos.



PCB layout Kat1kGTA (View: component side)

# PCB LAYOUT D-SUB STANDARD

Solder pin, angled, .464" / 11.8 mm – Plug and Socket connector

9 pos.



25 pos.



15 pos.



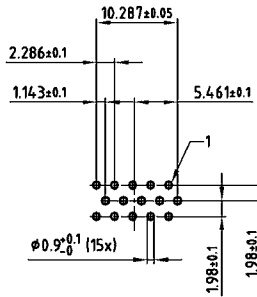
37 pos.



# PCB LAYOUT D-SUB HIGH DENSITY

Solder pin, straight – without rear spacer PCB clip – Socket connector

15 POS.



62 POS.



26 POS.



78 POS.



44 POS.







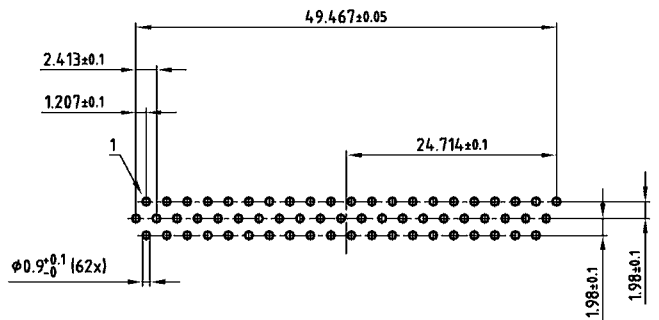
# PCB LAYOUT D-SUB HIGH DENSITY

Solder pin, straight – Without rear spacer PCB clip – Plug connector

15 POS.



62 POS.



26 POS.



78 POS.



44 POS.



# PCB LAYOUT D-SUB HIGH DENSITY

Solder pin, straight – With rear spacer PCB clip – Plug connector

15 pos.



62 pos.



26 pos.



78 pos.



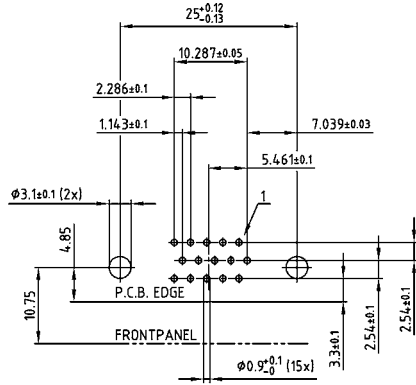
44 pos.



# PCB LAYOUT D-SUB HIGH DENSITY

Solder pin, angled, .220" / 5.6 mm – Socket connector

15 pos.



62 pos.



26 pos.



78 pos.



44 pos.



# PCB LAYOUT D-SUB HIGH DENSITY

Solder pin, angled, .220" / 5.6 mm – Plug connector



# PCB LAYOUT D-SUB SOLID BODY

Solder pin, angled, .402" / 10.2 mm – Socket connector

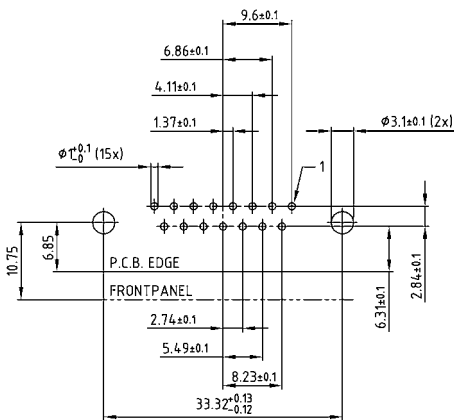
9 pos.



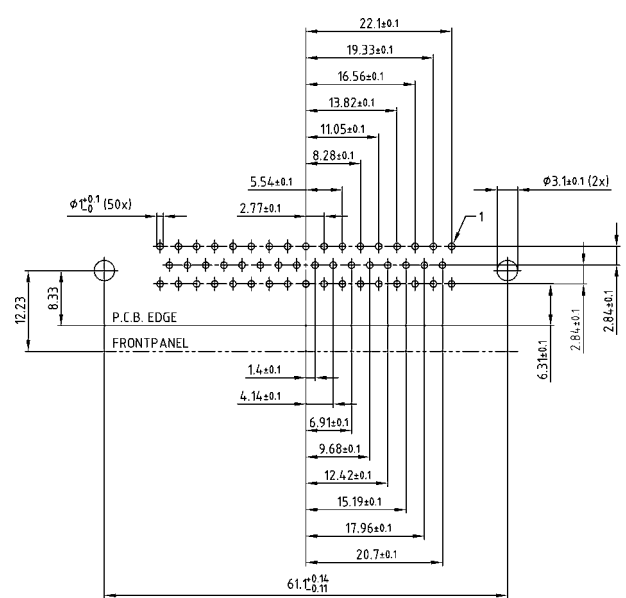
37 pos.



15 pos.



50 pos.



25 pos.



PCB layout Kat1 kgMA (View: component side)

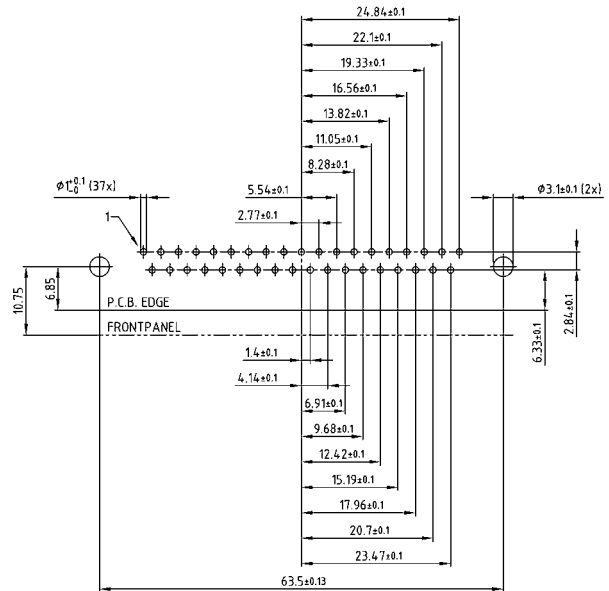
# PCB LAYOUT D-SUB SOLID BODY

Solder pin, angled, .402" / 10.2 mm – Plug connector

9 POS.



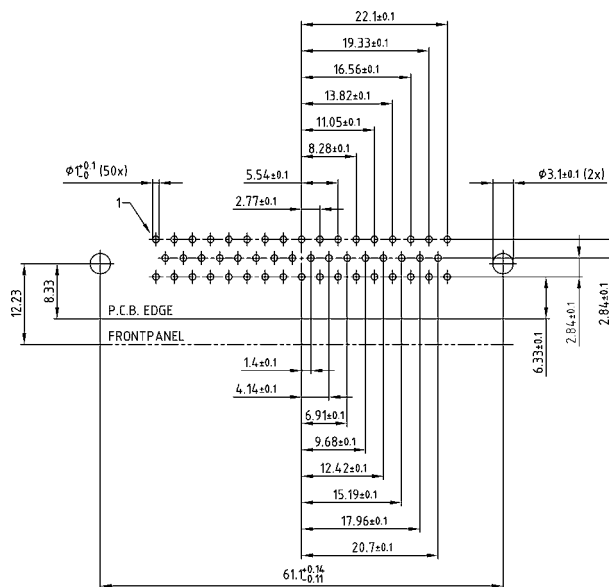
37 POS.



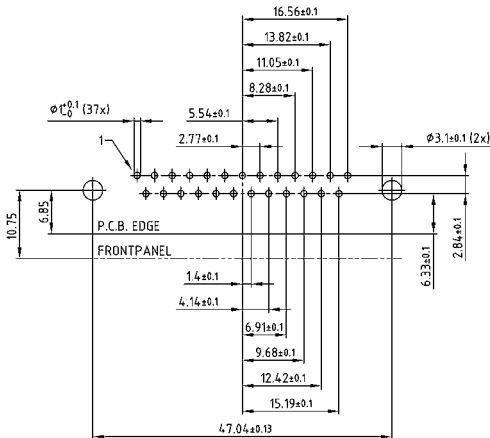
15 POS.



50 POS.



25 POS.



# PCB LAYOUT D-SUB SOLID BODY

Solder pin, angled, .587" / 14.9 mm – Socket connector

9 pos.



37 pos.



15 pos.



37 pos.



25 pos.



PCB layout Kat1kGOA (View: component side)



# PCB LAYOUT D-SUB SOLID BODY

Solder pin, angled, .587" / 14.9 mm – Plug connector

9 pos.



37 pos.



15 pos.



50 pos.



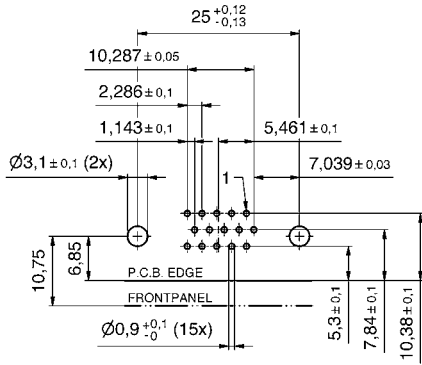
25 pos.



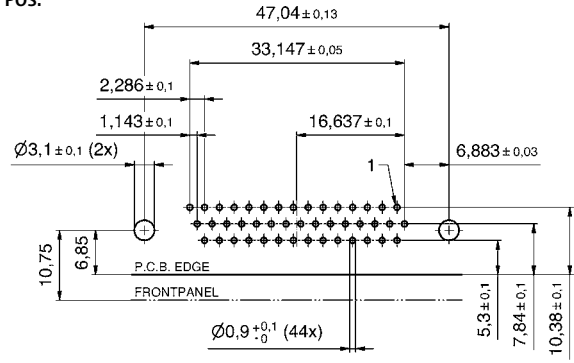
# PCB LAYOUT D-SUB HIGH DENSITY SOLID BODY

Solder pin, angled, .484" / 12.3 mm – Socket connector

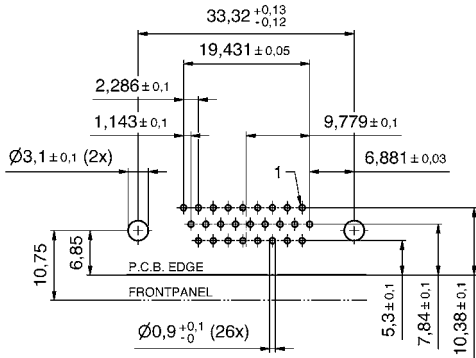
15 POS.



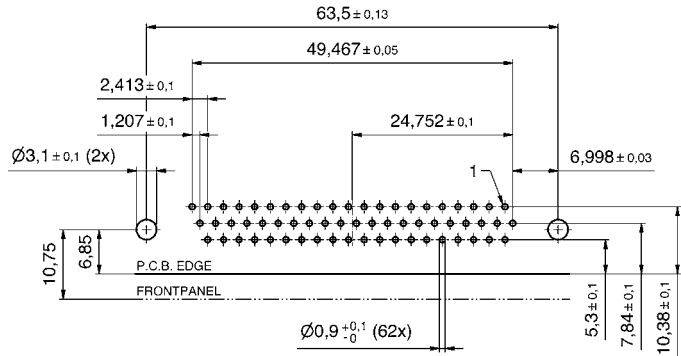
44 POS.



26 POS.



62 POS.



# PCB LAYOUT D-SUB HIGH DENSITY SOLID BODY

Solder pin, angled, .484" / 12.3 mm – Plug connector

15 POS.



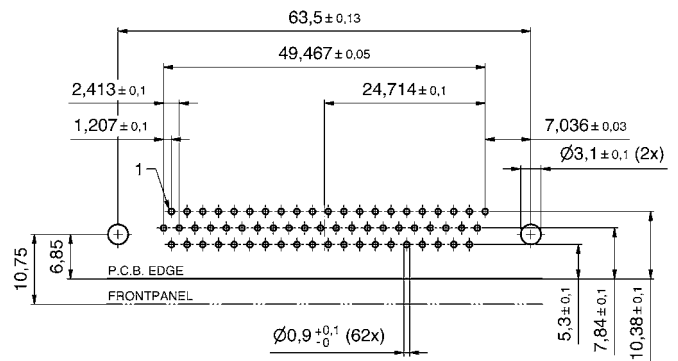
44 POS.



26 POS.



62 POS.



# PCB LAYOUT D-SUB HIGH DENSITY SOLID BODY

Solder pin, angled, .362" / 9,2 mm – Socket connector

15 POS.



44 POS.



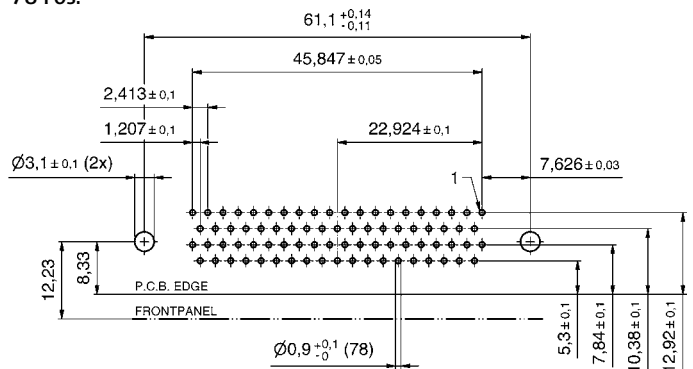
26 POS.



62 POS.



78 POS.



# PCB LAYOUT D-SUB HIGH DENSITY SOLID BODY

Solder pin, angled, .362" / 9,2 mm – Plug connector

15 pos.



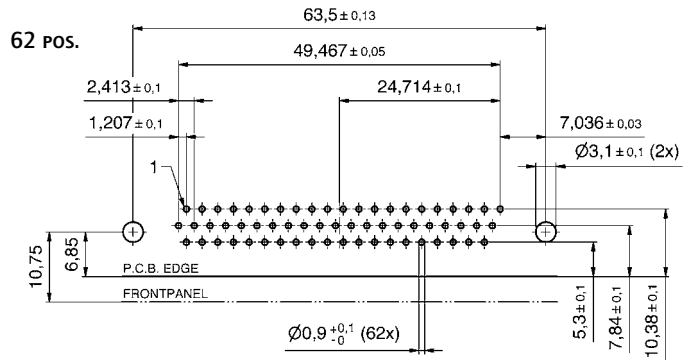
44 pos.



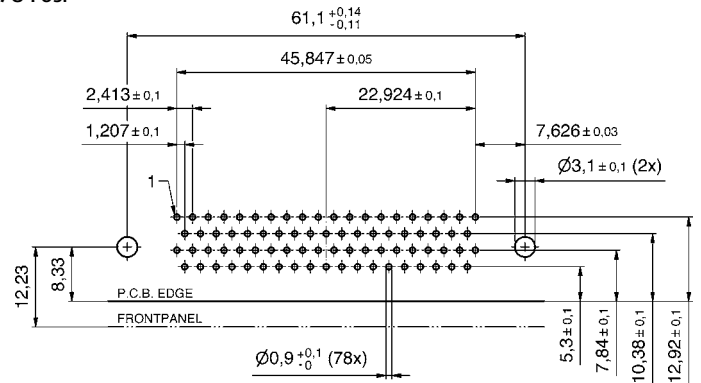
26 pos.



62 pos.



78 pos.



SECTION 9

# IP67 COMBINATION D-SUB CONNECTORS

CONEC Combination D-SUB Connectors with IP67-rating are suitable for use in environments where increased protection against moisture and contamination is necessary. All IP67 protected Combination D-SUB Connectors are supplied already populated with signal, high voltage, high power or coaxial contacts. This is necessary to provide factory assurance that the connector is properly sealed thus ensuring its reliable protection in harsh environments.

The type of protection is defined by IEC 60529 which also specifies the suitability of electrical components for various ambient conditions. CONEC water resistant connectors ensure a continuously secure connection compliant with the IP67 rating. They are dustproof and protected against temporary submersion into water.





#### Power details:

- Standard design with metal frame and O-ring
- One piece "solid body" design available for increased mechanical stresses
- Inside seal in the connector plug - water cannot penetrate into the housing
- Available for front or rear panel mounting on the enclosure
- Connector without frame for cable mounting
- 4-40 UNC or M 3 threaded insert
- Plastic materials comply with UL 94 V0
- Machined precision contacts for heavy duty usage
- Various gold plating options available
- Basic connector dimensions - without frame - in compliance with DIN 41652 / MIL-C-24308
- Special accessories, including waterproof hoods and sealing caps



# PART NUMBER CREATOR

6 0 0 7 W 2 S A M 6 2 B 3 O X

**Product Line**

- 6 = Shell: Brass tin plated with die-cast frame
- 4\* = Shell: Brass tin plated with or without plastic frame
- 8\* = Shell: Stainless steel with or without die-cast frame
- 9\* = Shell: Stainless steel with plastic frame
- \* on request

**Variations**

- Shellsize 1 = 5W1, 2W2C
- Shellsize 2 = 3W3, 7W2, 11W1, 3W3C
- Shellsize 3 = 5W5, 9W4, 13W3, 17W2, 21W1
- Shellsize 4 = 8W8, 13W6, 17W5, 21WA4, 25W3, 27W2
- Shellsize 5 = 24W7, 36W4, 43W2, 47W1
- Empty positions ADD „0“ for example 007W2

**Contact type**

- P = Plug connector
- S = Socket connector

**Plating code/Quality class for signal contacts**

- A = Quality class 3 = 50 mating cycles
- B\* = Quality class 2 = 200 mating cycles
- C = Quality class 1 = 500 mating cycles
- X = without signal contact \* on request

**Termination applies to signal contacts only**

- M = Solder cup
- R = Solder pin – Straight
- T = Solder pin – Angled, .189"/4.80 mm
- U = Solder pin – Angled, .276"/7.00 mm
- Z = Solder pin – Angled, .465"/11.80 mm
- X = 3W3, 5W5, 8W8, 2W2C, 3W3C

**Termination for high power or coaxial contacts**

**Quality class 3 /Quality class 1**

- 61 / 41 = Solder cup 10 A
- 62 / 42 = Solder cup 20 A
- 68 / 48 = Solder pin – Straight 20 A, D= .077"/1.95 mm
- 69 / 49 = Solder pin – Straight 20 A, D= .102"/2.60 mm
- 70 / 50 = Solder pin – Straight 20 A, D= .112"/2.85 mm
- 71 / 51 = Solder pin – Straight 30 A, D= .125"/3.18 mm
- 72 / 52 = Solder pin – Straight 40 A, D= .148"/3.75 mm
- 59 / 55 = Solder pin – Angled 15 A
- 73 / 56 = Solder pin – Angled 20 A
- 74 / 57 = Solder pin – Angled 30 A
- 75 / 58 = Solder pin – Angled 40 A
- 77 / 60 = Solder pin – Angled 40 A

**Quality class 3 /Quality class 1**

- 85 / 65 = Solder pin – Angled 30 A
- 81 / 66 = Solder pin – Angled 20 A
- 82 / 67 = Solder pin – Angled 30 A
- F9 / H4 = Cable connection straight 75 Ω
- G1 / H5 = Cable connection straight 75 Ω
- G2 / H6 = Cable connection straight 50 Ω
- G3 / H7 = Cable connection straight 50 Ω
- G4 / H8 = Cable connection straight 50 Ω
- G5 / H9 = Cable connection straight 50 Ω
- G6 / K1 = Cable connection straight 50 Ω
- G7 / 76 = 3 solder pins straight 50 Ω
- G8 / 86 = 3 solder pins straight 75 Ω

**Quality class 3 /Quality class 1**

- G9 / 78 = 3 solder pins angled 50 Ω
- H1 / 79 = 3 solder pins angled 50 Ω
- H2 / 88 = 3 solder pins angled 75 Ω
- H3 / 89 = 3 solder pins angled 75 Ω
- R1 = Screw/Crimp 10 A
- R2 = Screw/Crimp 20 A
- R3 = Screw/Crimp 30 A
- R4 = Screw/Crimp 40 A

**Mounting style**

- A1 = Riveted through hole for hood assembly
- B2 = M3 threaded insert
- B3 = 4-40 UNC threaded insert
- B4 = M3 front spacer
- B5 = 4-40 UNC front spacer
- E1 = M3 threaded rear spacer with PCB clip, PCB .063"/1.60 mm
- E2 = 4-40 UNC threaded rear spacer with PCB clip, PCB .063"/1.60 mm
- S1 = Metal bracket, M3 threaded insert
- S2 = Metal bracket, 4-40 UNC threaded insert
- S3 = Metal bracket, M3 threaded insert and PCB clip
- S4 = Metal bracket, 4-40 UNC threaded insert and PCB clip
- R1 = Metal bracket, M3 threaded insert
- R2 = Metal bracket, 4-40 UNC threaded insert
- R3 = Metal bracket, M3 threaded insert/PCB clip
- R4 = Metal bracket, 4-40 UNC threaded insert/PCB clip

- OX = Standard



# TECHNICAL DATA

Mechanical and electrical characteristics	Signal contacts	Coaxial contacts	High power contacts
Insulator	Polyester GF (UL 94V-0)	PTFE	
Shell	Brass tin plated		
Contact plating	Gold plated over nickel		
Contact material	CU alloy		
Retaining clip		CU alloy	CU alloy
Current rating	7.5 A (UL) / 5 A (CSA, VDE)		
Test voltage between 2 contacts shell and contact	1000 V, 50Hz 1 min.		
Resistance between mated contacts	≤ 2.7mΩ		
Insulation resistance	5GΩ	≤ 1GΩ	5GΩ
Volume resistivity	10 <sup>16</sup> Ωcm		
Dielectric with standing voltage	50KV/mm		
Impedance		50/75Ω	
Contact resistance inner- /outer conductor	≤ 2.7mΩ	≤ 2.7mΩ	≤ 1mΩ
VSWR-value at according MIL-C-39012			
1.2GHz		≤ 1.2	
1.5GHz		≤ 1.3	
2.0GHz		≤ 1.5	
Dielectric with standing voltage		750 V 50Hz	
Frequency range		0-2GHz	
Working voltage	250 V	250 V	
Temperature range	-25°C to +105°C		
Degree of protection	Requirements according to IEC 60529 – IP67		
Insertion force per signal contact	≤ 3.4N	≤ 7N	≤ 7N
Extraction force per signal contact	≤ 0.2N	≤ 7N	ca. 5N
Quality class	A = Quality class 3 = 50 mating cycles B = Quality class 2 = 200 mating cycles C = Quality class 1 = 500 mating cycles		

Solder parameter	Preheating		Solder terminal dipping parameters	
	max. Temperature	Duration	max. Solder bath Temperature	max. Terminal Immersion Time
Recommended wave-solder parameters	120°C	120s	240°C	5s

Technical specifications are subject to change without notice.

# PANEL MOUNTING

Front panel mounting



Rear panel mounting



## Grounding for Coaxial contacts

To optimize a perfect ground connection from the coaxial outer conductor to the metal shell (Factory installed).



## Hole plug

The hole plug can be used for both male and female connector. The assembly is implemented from the mating side. The hole plug is used to plug unwanted holes in the insulator. (Factory installed)



## Threaded insert

Suitable hex bolts with either 4-40 UNC or M3 thread are supplied with the IP67 rated connectors.

Hex bolt material: Stainless steel



## IP-CODE FIGURE DEFINITIONS

1. Code figure	Definition	Remark
0	Not protected	
1	Protected against access to hazardous parts by the back of the hand. Protected against fixed foreign objects $\varnothing \geq 1.969''/50$ mm.	
2	Protected against access to hazardous parts with a finger. Protected against fixed foreign objects $\varnothing \geq .492''/12.5$ mm.	
3	Protected against access to hazardous parts with a tool. Protected against fixed foreign objects $\varnothing \geq .098''/2.5$ mm.	
4	Protected against access to hazardous parts with a wire. Protected against fixed foreign objects $\varnothing \geq .039''/1$ mm.	
5	Protected against access to hazardous parts with a wire. Dust protected.	Ingress of dust is not completely blocked. But dust may not penetrate to the extent that satisfactory operation of the device or safety is impaired.
6	Protected against access to hazardous parts with a wire. Dustproof. No ingress of dust.	

2. Code figure	Definition	Remark
0	Not protected	
1	Protected against dropper.	
2	Protected against dropper when the shell is tipped as much as 15°.	
3	Protected against spray water	Up to 60° of either side of the vertical, such spray water shall have no harmful effects.
4	Protected against splash water	On the shell from all directions, no harmful effects shall be incurred.
5	Protected against jets of water.	
6	Protected against strong jets of water.	
7	Protected against the effects of temporary submersion in water.	Water may not ingress in a volume that would cause harmful effects when the shell is submerged in water for 30 min at a depth of 1 m.
8	Protected against the effects of continuous submersion in water.	Water may not ingress in a volume that would cause harmful effects when the shell is continuously submerged in water under conditions agreed between manufacturer and user. However, these conditions must be more stringent than those described under code figure 7.
9k	Protected against water from high-pressure or steam cleaning.	

### Explanation to spray water protected (IP) systems and their environment.

This system, described in IEC 60529, was developed to represent standard values for respective protection:

- a) Contact with, and ingress of, fixed foreign objects
- b) The ingress of liquids to which the inside is to be exposed.

The first digit describes the level of protection for life, contacting objects and the intrusion of foreign bodies. The second digit describes the level of protection against the ingress of liquids. The larger the first and second digits are, the greater afforded protection is, e.g. IP55 must also meet the requirements of all lower protection levels, such as IP22, IP23, IP34 and IP54.

# TECHNICAL INFORMATIONS

## SKIN EFFECT

Alternating currents do not uniformly occupy the entire cross section of the conductor, rather inductance effect in the conductor deflects the current towards the surface of the conductor, whereby this deflection increases with the frequency. The resistive attenuation of a transmission line increases with the frequency as a result of this skin effect. The skin depth (equivalent thickness of the layer in which current flows) can be determined using

$$\delta = \frac{1}{\sqrt{f \pi \sigma \mu_0 \mu_r}}$$

- f = frequency
- $\sigma$  = conductivity of the conductor material
- $\sigma_{Ag} = 62 \times 10^6 \text{ S/m}$
- $\sigma_{Cu} = 58 \times 10^6 \text{ S/m}$
- $\mu_0 = 1,256 \cdot 10^{-6} \text{ Vs / Am}$
- $\mu_r$  ... relative permeability constant for the employed material

## VSWR-VALUE

The ratio between the value of the largest and the smallest voltages on a loss-free line is known as the ripple or voltage standing wave ratio s (where  $1 \leq s < \infty$ ). The reciprocal value of the VSWR is known as the inverse voltage standing wave ratio m (where  $0 < m \leq 1$ ). (VSWR = Voltage standing wave ratio)

The value of s is linked with the → reflection coefficient r on s transmission line according to the equation

$$s = \frac{(1 + |r|)}{(1 - |r|)}$$

## DERATING CURVE



All connectors in the Water Resistant Combination D-Subminiature series are fully loaded with contacts. They are equipped with either signal, high voltage, high power or coaxial contacts according to requirements. Our production standard requires that all connectors are fully loaded. Connectors 3W3, 5W5 and 8W8 female: Socket contacts are fingerprobe safe according to UL1950 and CSA 22.2.950 specifications.

# MATING CONDITIONS

Float mount tolerance guide



Rigid mount tolerance guide



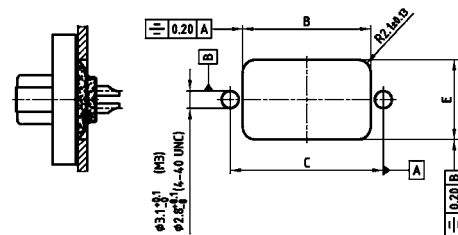
Rigid mount vertical to tolerance guide



## PANEL CUT-OUT

Rear panel mounting

Front panel mounting



Shellsize	A $\pm 0.1$	B $\pm 0.1$	C $\pm 0.1$	D $\pm 0.1$	E $\pm 0.1$
1	20.50	20.90	25.00	11.40	13.00
2	28.80	29.20	33.30	11.40	13.00
3	42.50	42.90	47.04	11.40	13.00
4	59.10	59.40	63.50	11.40	13.00
5	56.30	57.00	61.10	14.10	15.80

# IP67 COMBINATION D-SUB

Solder cup – Precision machined contacts – For wire size AWG 20



RoHS compliant – CSA listed, File No.: LR 115000-1 – UL listed, File No.: E202784

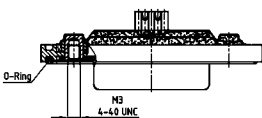
## DESCRIPTION

- Signal contacts for wire size AWG 20
- Contacts: high power or coaxial contacts
- Mounting style: with 4-40 UNC or M3 threaded insert
- Quality class 3 (Also available in quality class 1)
- Shell: Brass tin plated (Stainless steel on request)
- Nickel plated die-cast frame (Black plastic frame on request)
- Stainless steel hex bolts are supplied loose

## SOCKET CONNECTOR



Shellsize	A +0.3	B +0.3	C	D2 ±0.25
1	21.10	39.40	25.00 <sup>+0.12</sup> <sub>-0.13</sub>	16.46
2	21.10	47.70	33.30 <sup>+0.15</sup> <sub>-0.10</sub>	24.79
3	21.10	61.40	47.04 <sup>+0.13</sup>	38.50
4	21.10	77.90	63.50 <sup>+0.13</sup>	54.96
5	23.90	75.50	61.10 <sup>+0.14</sup> <sub>-0.11</sub>	52.55



Shellsize 1-4

Shellsize 5

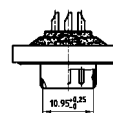
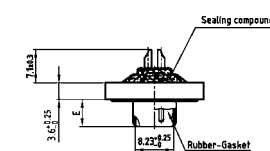
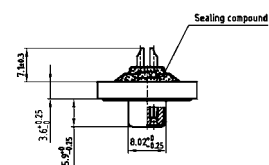


Shellsize	A +0.3	B +0.3	C	D1 ±0.25	E ±0.30
1	21.10	39.40	25.00 <sup>+0.12</sup> <sub>-0.13</sub>	16.79	5.82
2	21.10	47.70	33.30 <sup>+0.15</sup> <sub>-0.10</sub>	25.12	5.82
3	21.10	61.40	47.04 <sup>+0.13</sup>	38.84	5.69
4	21.10	77.90	63.50 <sup>+0.13</sup>	55.30	5.69
5	23.90	75.50	61.10 <sup>+0.14</sup> <sub>-0.11</sub>	52.68	5.69



Shellsize 1-4

Shellsize 5



## ORDER DATA

SOCKET CONNECTOR		High power contact	Part Number
Design	Mounting style 4-40 UNC		
5W1	Threaded insert	10 A	6005W1SAM 61 B30X
7W2	Threaded insert	10 A	6007W2SAM 61 B30X
11W1	Threaded insert	10 A	6011W1SAM 61 B30X
9W4	Threaded insert	10 A	6009W4SAM 61 B30X
13W3	Threaded insert	10 A	6013W3SAM 61 B30X
17W2	Threaded insert	10 A	6017W2SAM 61 B30X
21W1	Threaded insert	10 A	6021W1SAM 61 B30X
13W6	Threaded insert	10 A	6013W6SAM 61 B30X
17W5	Threaded insert	10 A	6017W5SAM 61 B30X
21WA4	Threaded insert	10 A	621WA4SAM 61 B30X
25W3	Threaded insert	10 A	6025W3SAM 61 B30X
27W2	Threaded insert	10 A	6027W2SAM 61 B30X
24W7	Threaded insert	10 A	6024W7SAM 61 B30X
36W4	Threaded insert	10 A	6036W4SAM 61 B30X
43W2	Threaded insert	10 A	6043W2SAM 61 B30X
47W1	Threaded insert	10 A	6047W1SAM 61 B30X

PLUG CONNECTOR		High power contact	Part Number
Design	Mounting style 4-40 UNC		
5W1	Threaded insert	10 A	6005W1PAM 61 B30X
7W2	Threaded insert	10 A	6007W2PAM 61 B30X
11W1	Threaded insert	10 A	6011W1PAM 61 B30X
9W4	Threaded insert	10 A	6009W4PAM 61 B30X
13W3	Threaded insert	10 A	6013W3PAM 61 B30X
17W2	Threaded insert	10 A	6017W2PAM 61 B30X
21W1	Threaded insert	10 A	6021W1PAM 61 B30X
13W6	Threaded insert	10 A	6013W6PAM 61 B30X
17W5	Threaded insert	10 A	6017W5PAM 61 B30X
21WA4	Threaded insert	10 A	621WA4PAM 61 B30X
25W3	Threaded insert	10 A	6025W3PAM 61 B30X
27W2	Threaded insert	10 A	6027W2PAM 61 B30X
24W7	Threaded insert	10 A	6024W7PAM 61 B30X
36W4	Threaded insert	10 A	6036W4PAM 61 B30X
43W2	Threaded insert	10 A	6043W2PAM 61 B30X
47W1	Threaded insert	10 A	6047W1PAM 61 B30X

For other contacts refer to page 6 | 32 to 6 | 37

Contact	Code
High power 10 A	= 61
High power 20 A	= 62

# IP67 COMBINATION D-SUB

## Solder pin – Straight – Precision machined contacts

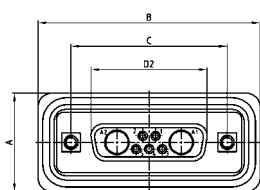


RoHS compliant – CSA listed, File No.: LR 115000-1 – UL listed, File No.: E202784

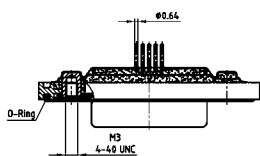
### DESCRIPTION

- Contacts: high power or coaxial contacts
- Mounting style: with 4-40 UNC or M3 threaded insert
- Quality class 3 (also available in quality class 1)
- Shell: Brass tin plated (Stainless steel on request)
- Nickel plated die-cast frame (Black plastic frame on request)
- Stainless steel hex bolts are supplied loose

### SOCKET CONNECTOR



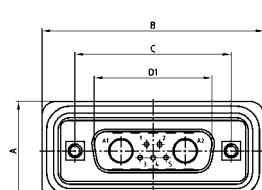
Shellsize	A +0.3	B +0.3	C	D2 +0.25	D1
1	21.10	39.40	25.00 <sup>+0.12/-0.13</sup>	16.46	
2	21.10	47.70	33.30 <sup>+0.15/-0.10</sup>	24.79	
3	21.10	61.40	47.04 <sup>+0.13</sup>	38.50	
4	21.10	77.90	63.50 <sup>+0.13</sup>	54.96	
5	23.90	75.50	61.10 <sup>+0.14/-0.11</sup>	52.55	



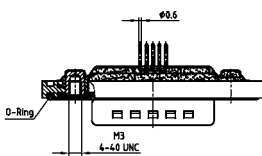
Shellsize 1-4

Shellsize 5

### PLUG CONNECTOR

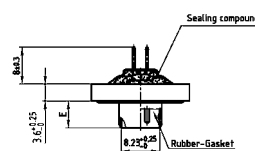
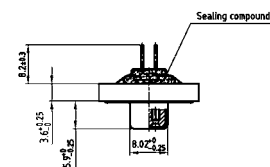


Shellsize	A +0.3	B +0.3	C	D1 +0.25	E -0.30
1	21.10	39.40	25.00 <sup>+0.12/-0.13</sup>	16.79	5.82
2	21.10	47.70	33.30 <sup>+0.15/-0.10</sup>	25.12	5.82
3	21.10	61.40	47.04 <sup>+0.13</sup>	38.84	5.69
4	21.10	77.90	63.50 <sup>+0.13</sup>	55.30	5.69
5	23.90	75.50	61.10 <sup>+0.14/-0.11</sup>	52.68	5.69



Shellsize 1-4

Shellsize 5



### ORDER DATA

SOCKET CONNECTOR		High power contact	Bestellnummer
Design	Mounting style 4-40 UNC		
5W1	Threaded insert	20 A	6005W1SAR 68 B30X
7W2	Threaded insert	20 A	6007W2SAR 68 B30X
11W1	Threaded insert	20 A	6011W1SAR 68 B30X
9W4	Threaded insert	20 A	6009W4SAR 68 B30X
13W3	Threaded insert	20 A	6013W3SAR 68 B30X
17W2	Threaded insert	20 A	6017W2SAR 68 B30X
21W1	Threaded insert	20 A	6021W1SAR 68 B30X
13W6	Threaded insert	20 A	6013W6SAR 68 B30X
17W5	Threaded insert	20 A	6017W5SAR 68 B30X
21WA4	Threaded insert	20 A	621WA4SAR 68 B30X
25W3	Threaded insert	20 A	6025W3SAR 68 B30X
27W2	Threaded insert	20 A	6027W2SAR 68 B30X
24W7	Threaded insert	20 A	6024W7SAR 68 B30X
36W4	Threaded insert	20 A	6036W4SAR 68 B30X
43W2	Threaded insert	20 A	6043W2SAR 68 B30X
47W1	Threaded insert	20 A	6047W1SAR 68 B30X

PLUG CONNECTOR		High power contact	Part Number
Design	Mounting style 4-40 UNC		
5W1	Threaded insert	20 A	6005W1PAR 68 B30X
7W2	Threaded insert	20 A	6007W2PAR 68 B30X
11W1	Threaded insert	20 A	6011W1PAR 68 B30X
9W4	Threaded insert	20 A	6009W4PAR 68 B30X
13W3	Threaded insert	20 A	6013W3PAR 68 B30X
17W2	Threaded insert	20 A	6017W2PAR 68 B30X
21W1	Threaded insert	20 A	6021W1PAR 68 B30X
13W6	Threaded insert	20 A	6013W6PAR 68 B30X
17W5	Threaded insert	20 A	6017W5PAR 68 B30X
21WA4	Threaded insert	20 A	621WA4PAR 68 B30X
25W3	Threaded insert	20 A	6025W3PAR 68 B30X
27W2	Threaded insert	20 A	6027W2PAR 68 B30X
24W7	Threaded insert	20 A	6024W7PAR 68 B30X
36W4	Threaded insert	20 A	6036W4PAR 68 B30X
43W2	Threaded insert	20 A	6043W2PAR 68 B30X
47W1	Threaded insert	20 A	6047W1PAR 68 B30X

For other contacts prefer to page 6|32 to 6|37

Contact	Code
High power 20 A; D=.080/1.95 mm	68
High power 20 A; D=.102/2.60 mm	69
High power 20 A; D=.110/2.85 mm	70
High power 30 A; D=.130/3.18 mm	71
High power 40 A; D=.150/3.75 mm	72

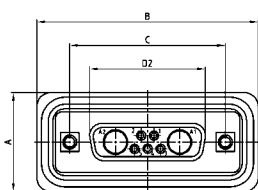
# IP67 COMBINATION D-SUB

Solder pin – Straight – Precision machined contacts – Threaded rear spacer with PCB clip



RoHS compliant – CSA listed, File No.: LR 115000-1 – UL listed, File No.: E202784

## SOCKET CONNECTOR



Shellsize	A +0.3	B +0.3	C	D2 +0.25
1	21.10	39.40	25.00 <sup>+0.12/-0.13</sup>	16.46
2	21.10	47.70	33.30 <sup>+0.15/-0.10</sup>	24.79
3	21.10	61.40	47.04 <sup>+0.13</sup>	38.50
4	21.10	77.90	63.50 <sup>+0.13</sup>	54.96
5	23.90	75.50	61.10 <sup>+0.14/-0.11</sup>	52.55



Shellsize 1-4



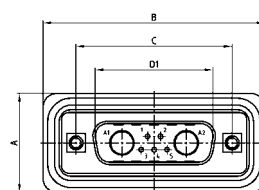
Shellsize 5



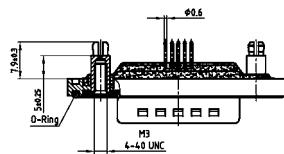
## DESCRIPTION

- Contacts: high power or coaxial contacts
- Mounting style: with 4-40 UNC or M3 threaded rear spacer with PCB clip
- Quality class 3 (also available in quality class 1)
- Shell: Brass tin plated (Stainless steel on request)
- Nickel plated die-cast frame (Black plastic frame on request)
- Stainless steel hex bolts are supplied loose

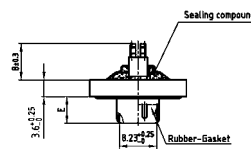
## PLUG CONNECTOR



Shellsize	A +0.3	B +0.3	C	D1 +0.25	E -0.30
1	21.10	39.40	25.00 <sup>+0.12/-0.13</sup>	16.79	5.82
2	21.10	47.70	33.30 <sup>+0.15/-0.10</sup>	25.12	5.82
3	21.10	61.40	47.04 <sup>+0.13</sup>	38.84	5.69
4	21.10	77.90	63.50 <sup>+0.13</sup>	55.30	5.69
5	23.90	75.50	61.10 <sup>+0.14/-0.11</sup>	52.68	5.69



Shellsize 1-4



Shellsize 5



## ORDER DATA

SOCKET CONNECTOR		High power contact	Part Number
5W1	Threaded rear spacer PCB clip	20 A	6005W1SAR 68 E20X
7W2	Threaded rear spacer PCB clip	20 A	6007W2SAR 68 E20X
11W1	Threaded rear spacer PCB clip	20 A	6011W1SAR 68 E20X
9W4	Threaded rear spacer PCB clip	20 A	6009W4SAR 68 E20X
13W3	Threaded rear spacer PCB clip	20 A	6013W3SAR 68 E20X
17W2	Threaded rear spacer PCB clip	20 A	6017W2SAR 68 E20X
21W1	Threaded rear spacer PCB clip	20 A	6021W1SAR 68 E20X
13W6	Threaded rear spacer PCB clip	20 A	6013W6SAR 68 E20X
17W5	Threaded rear spacer PCB clip	20 A	6017W5SAR 68 E20X
21WA4	Threaded rear spacer PCB clip	20 A	621WA4SAR 68 E20X
25W3	Threaded rear spacer PCB clip	20 A	6025W3SAR 68 E20X
27W2	Threaded rear spacer PCB clip	20 A	6027W2SAR 68 E20X
24W7	Threaded rear spacer PCB clip	20 A	6024W7SAR 68 E20X
36W4	Threaded rear spacer PCB clip	20 A	6036W4SAR 68 E20X
43W2	Threaded rear spacer PCB clip	20 A	6043W2SAR 68 E20X
47W1	Threaded rear spacer PCB clip	20 A	6047W1SAR 68 E20X

PLUG CONNECTOR		High power contact	Part Number
5W1	Threaded rear spacer PCB clip	20 A	6005W1PAR 68 E20X
7W2	Threaded rear spacer PCB clip	20 A	6007W2PAR 68 E20X
11W1	Threaded rear spacer PCB clip	20 A	6011W1PAR 68 E20X
9W4	Threaded rear spacer PCB clip	20 A	6009W4PAR 68 E20X
13W3	Threaded rear spacer PCB clip	20 A	6013W3PAR 68 E20X
17W2	Threaded rear spacer PCB clip	20 A	6017W2PAR 68 E20X
21W1	Threaded rear spacer PCB clip	20 A	6021W1PAR 68 E20X
13W6	Threaded rear spacer PCB clip	20 A	6013W6PAR 68 E20X
17W5	Threaded rear spacer PCB clip	20 A	6017W5PAR 68 E20X
21WA4	Threaded rear spacer PCB clip	20 A	621WA4PAR 68 E20X
25W3	Threaded rear spacer PCB clip	20 A	6025W3PAR 68 E20X
27W2	Threaded rear spacer PCB clip	20 A	6027W2PAR 68 E20X
24W7	Threaded rear spacer PCB clip	20 A	6024W7PAR 68 E20X
36W4	Threaded rear spacer PCB clip	20 A	6036W4PAR 68 E20X
43W2	Threaded rear spacer PCB clip	20 A	6043W2PAR 68 E20X
47W1	Threaded rear spacer PCB clip	20 A	6047W1PAR 68 E20X

PCB clip .122"/3.1 ± .004"/0.10 mm hole diameter and .063"/1.6 mm circuit board thickness.

For other contacts prefer to page 6|32 to 6|37

Contact	Code
High power 20 A; D=.080/1.95 mm	68
High power 20 A; D=.102/2.60 mm	69
High power 20 A; D=.110/2.85 mm	70
High power 30 A; D=.130/3.18 mm	71
High power 40 A; D=.150/3.75 mm	72



# IP67 COMBINATION D-SUB

Solder pin – Angled – .189" / 4.8 mm – Precision machined contacts – Metal bracket



RoHS compliant – CSA listed, File No.: LR 115000-1 – UL listed, File No.: E202784

## DESCRIPTION

- Contacts: high power or coaxial contacts
- Mounting style: metal bracket with 4-40 UNC or M3 threaded insert
- Quality class 3 (also available in quality class 1)
- Shell: Brass tin plated (Stainless steel on request)
- Nickel plated die-cast frame (Black plastic frame on request)
- Stainless steel hex bolts are supplied loose

## SOCKET CONNECTOR



Shellsize	A +0.3	B +0.3	C	D2 +0.25
1	21.10	39.40	25.00 <sup>+0.12</sup> <sub>-0.13</sub>	16.46
2	21.10	47.70	33.30 <sup>+0.15</sup> <sub>-0.10</sub>	24.79
3	21.10	61.40	47.04 <sup>+0.13</sup>	38.50
4	21.10	77.90	63.50 <sup>+0.13</sup>	54.96
5	23.90	75.50	61.10 <sup>+0.14</sup> <sub>-0.11</sub>	52.55



Dim. in ( ) = Shellsize 5

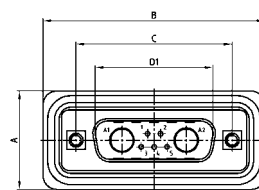
Shellsize 1-4



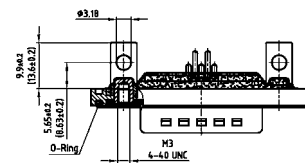
Shellsize 5



## PLUG CONNECTOR

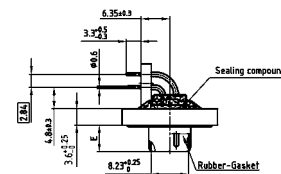


Shellsize	A +0.3	B +0.3	C	D1 +0.25	E -0.30
1	21.10	39.40	25.00 <sup>+0.12</sup> <sub>-0.13</sub>	16.79	5.82
2	21.10	47.70	33.30 <sup>+0.15</sup> <sub>-0.10</sub>	25.12	5.82
3	21.10	61.40	47.04 <sup>+0.13</sup>	38.84	5.69
4	21.10	77.90	63.50 <sup>+0.13</sup>	55.30	5.69
5	23.90	75.50	61.10 <sup>+0.14</sup> <sub>-0.11</sub>	52.68	5.69

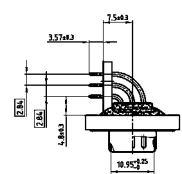


Dim. in ( ) = Shellsize 5

Shellsize 1-4



Shellsize 5



## ORDER DATA

SOCKET CONNECTOR		High power contact	Part Number
Design	Mounting style 4-40 UNC		
5W1	Threaded insert	15 A	6005W1SAT 59 S20X
7W2	Threaded insert	15 A	6007W2SAT 59 S20X
11W1	Threaded insert	15 A	6011W1SAT 59 S20X
9W4	Threaded insert	15 A	6009W4SAT 59 S20X
13W3	Threaded insert	15 A	6013W3SAT 59 S20X
17W2	Threaded insert	15 A	6017W2SAT 59 S20X
21W1	Threaded insert	15 A	6021W1SAT 59 S20X
13W6	Threaded insert	15 A	6013W6SAT 59 S20X
17W5	Threaded insert	15 A	6017W5SAT 59 S20X
21WA4	Threaded insert	15 A	621WA4SAT 59 S20X
25W3	Threaded insert	15 A	6025W3SAT 59 S20X
27W2	Threaded insert	15 A	6027W2SAT 59 S20X
24W7	Threaded insert	20 A	6024W7SAT 81 S20X
36W4	Threaded insert	20 A	6036W4SAT 81 S20X
43W2	Threaded insert	20 A	6043W2SAT 81 S20X
47W1	Threaded insert	20 A	6047W1SAT 81 S20X

PLUG CONNECTOR		High power contact	Part Number
Design	Mounting style 4-40 UNC		
5W1	Threaded insert	15 A	6005W1PAT 59 S20X
7W2	Threaded insert	15 A	6007W2PAT 59 S20X
11W1	Threaded insert	15 A	6011W1PAT 59 S20X
9W4	Threaded insert	15 A	6009W4PAT 59 S20X
13W3	Threaded insert	15 A	6013W3PAT 59 S20X
17W2	Threaded insert	15 A	6017W2PAT 59 S20X
21W1	Threaded insert	15 A	6021W1PAT 59 S20X
13W6	Threaded insert	15 A	6013W6PAT 59 S20X
17W5	Threaded insert	15 A	6017W5PAT 59 S20X
21WA4	Threaded insert	15 A	621WA4PAT 59 S20X
25W3	Threaded insert	15 A	6025W3PAT 59 S20X
27W2	Threaded insert	15 A	6027W2PAT 59 S20X
24W7	Threaded insert	20 A	6024W7PAT 81 S20X
36W4	Threaded insert	20 A	6036W4PAT 81 S20X
43W2	Threaded insert	20 A	6043W2PAT 81 S20X
47W1	Threaded insert	20 A	6047W1PAT 81 S20X

For other contacts refer to page 6 | 32 to 6 | 37

Contact for shellsize 1-4	Code	Contact for shellsize 5	Code
High power 15 A; E=.075/1.90 mm =	59	High power 20 A; E=.110/2.85 mm =	81
High power 20 A; E=.110/2.85 mm =	73	High power 30 A; E=.150/3.75 mm =	85
High power 30 A; E=.126/3.20 mm =	74	High power 30 A; E=.126/3.20 mm =	82
High power 40 A; E=.150/3.75 mm =	75	High power 40 A; E=.150/3.75 mm =	77

# IP67 COMBINATION D-SUB

Solder pin – Angled – .189" / 4.8 mm – Precision machined contacts –  
Metal bracket with PCB clip



RoHS compliant – CSA listed, File No.: LR 115000-1 – UL listed, File No.: E202784

## SOCKET CONNECTOR



Shellsize	A +0.3	B +0.3	C	D2 +0.25
1	21.10	39.40	25.00 <sup>+0.12/-0.13</sup>	16.46
2	21.10	47.70	33.30 <sup>+0.15/-0.10</sup>	24.79
3	21.10	61.40	47.04 <sup>+0.13</sup>	38.50
4	21.10	77.90	63.50 <sup>+0.13</sup>	54.96
5	23.90	75.50	61.10 <sup>+0.14/-0.11</sup>	52.55

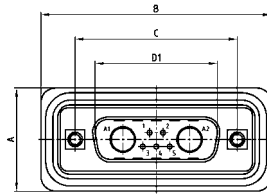


Dim. in ( ) = Shellsize 5

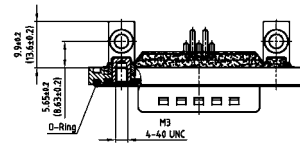
Shellsize 1-4



Shellsize 5

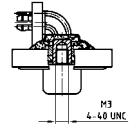


Shellsize	A +0.3	B +0.3	C	D1 +0.25	E -0.30
1	21.10	39.40	25.00 <sup>+0.12/-0.13</sup>	16.79	5.82
2	21.10	47.70	33.30 <sup>+0.15/-0.10</sup>	25.12	5.82
3	21.10	61.40	47.04 <sup>+0.13</sup>	38.84	5.69
4	21.10	77.90	63.50 <sup>+0.13</sup>	55.30	5.69
5	23.90	75.50	61.10 <sup>+0.14/-0.11</sup>	52.68	5.69

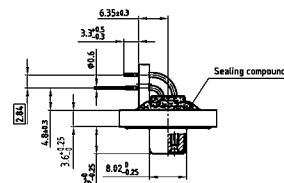


Dim. in ( ) = Shellsize 5

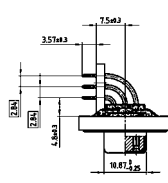
Shellsize 1-4



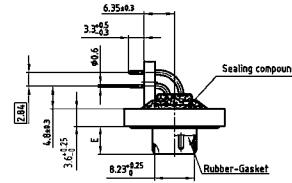
Shellsize 5



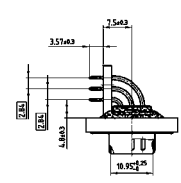
View without clip



View without clip



View without clip



View without clip

## ORDER DATA

SOCKET CONNECTOR		High power contact	Part Number
5W1	PCB clip/Thread	15 A	6005W1SAT 59 S40X
7W2	PCB clip/Thread	15 A	6007W2SAT 59 S40X
11W1	PCB clip/Thread	15 A	6011W1SAT 59 S40X
9W4	PCB clip/Thread	15 A	6009W4SAT 59 S40X
13W3	PCB clip/Thread	15 A	6013W3SAT 59 S40X
17W2	PCB clip/Thread	15 A	6017W2SAT 59 S40X
21W1	PCB clip/Thread	15 A	6021W1SAT 59 S40X
13W6	PCB clip/Thread	15 A	6013W6SAT 59 S40X
17W5	PCB clip/Thread	15 A	6017W5SAT 59 S40X
21WA4	PCB clip/Thread	15 A	621WA4SAT 59 S40X
25W3	PCB clip/Thread	15 A	6025W3SAT 59 S40X
27W2	PCB clip/Thread	15 A	6027W2SAT 59 S40X
24W7	PCB clip/Thread	20 A	6024W7SAT 81 S40X
36W4	PCB clip/Thread	20 A	6036W4SAT 81 S40X
43W2	PCB clip/Thread	20 A	6043W2SAT 81 S40X
47W1	PCB clip/Thread	20 A	6047W1SAT 81 S40X

PLUG CONNECTOR		High power contact	Part Number
5W1	PCB clip/Thread	15 A	6005W1PAT 59 S40X
7W2	PCB clip/Thread	15 A	6007W2PAT 59 S40X
11W1	PCB clip/Thread	15 A	6011W1PAT 59 S40X
9W4	PCB clip/Thread	15 A	6009W4PAT 59 S40X
13W3	PCB clip/Thread	15 A	6013W3PAT 59 S40X
17W2	PCB clip/Thread	15 A	6017W2PAT 59 S40X
21W1	PCB clip/Thread	15 A	6021W1PAT 59 S40X
13W6	PCB clip/Thread	15 A	6013W6PAT 59 S40X
17W5	PCB clip/Thread	15 A	6017W5PAT 59 S40X
21WA4	PCB clip/Thread	15 A	621WA4PAT 59 S40X
25W3	PCB clip/Thread	15 A	6025W3PAT 59 S40X
27W2	PCB clip/Thread	15 A	6027W2PAT 59 S40X
24W7	PCB clip/Thread	20 A	6024W7PAT 81 S40X
36W4	PCB clip/Thread	20 A	6036W4PAT 81 S40X
43W2	PCB clip/Thread	20 A	6043W2PAT 81 S40X
47W1	PCB clip/Thread	20 A	6047W1PAT 81 S40X

PCB clip .122" / 3.1 ± .004" / 0.10 mm hole diameter and .063" / 1.6 mm circuit board thickness.

For other contacts refer to page 6|32 to 6|37

Contact for shellsize 1-4	Code	Contact for shellsize 5	Code
High power 15 A; E=.075/1.90 mm =	59	High power 20 A; E=.110/2.85 mm =	81
High power 20 A; E=.110/2.85 mm =	73	High power 30 A; E=.150/3.75 mm =	85
High power 30 A; E=.126/3.20 mm =	74	High power 30 A; E=.126/3.20 mm =	82
High power 40 A; E=.150/3.75 mm =	75	High power 40 A; E=.150/3.75 mm =	77

# IP67 COMBINATION D-SUB

Solder pin – Angled – .276"/7.0 mm – Precision machined contacts – Metal bracket



RoHS compliant – CSA listed, File No.: LR 115000-1 – UL listed, File No.: E202784

## DESCRIPTION

- Contacts: high power or coaxial contacts
- Mounting style:  
Metal bracket with 4-40 UNC threaded insert (M3 on request)
- Quality class 3 (also available in quality class 1)
- Shell: Brass tin plated (Stainless steel on request)
- Nickel plated die-cast frame (Black plastic frame on request)
- Stainless steel hex bolts are supplied loose

## SOCKET CONNECTOR

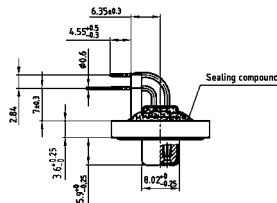


Shellsize	A +0.3	B +0.3	C	D2 +0.25
1	21.10	39.40	25.00 <sup>+0.12/-0.13</sup>	16.46
2	21.10	47.70	33.30 <sup>+0.15/-0.10</sup>	24.79
3	21.10	61.40	47.04 <sup>+0.13</sup>	38.50
4	21.10	77.90	63.50 <sup>+0.13</sup>	54.96
5	23.90	75.50	61.10 <sup>+0.14/-0.11</sup>	52.55

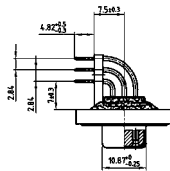


Dim. in ( ) = Shellsize 5

### Shellsize 1-4



### Shellsize 5



## PLUG CONNECTOR

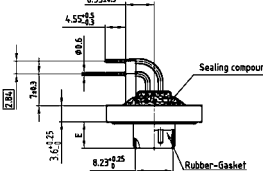


Shellsize	A +0.3	B +0.3	C	D1 +0.25	E -0.30
1	21.10	39.40	25.00 <sup>+0.12/-0.13</sup>	16.79	5.82
2	21.10	47.70	33.30 <sup>+0.15/-0.10</sup>	25.12	5.82
3	21.10	61.40	47.04 <sup>+0.13</sup>	38.84	5.69
4	21.10	77.90	63.50 <sup>+0.13</sup>	55.30	5.69
5	23.90	75.50	61.10 <sup>+0.14/-0.11</sup>	52.68	5.69

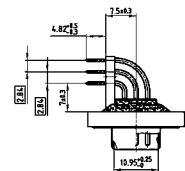


Dim. in ( ) = Shellsize 5

### Shellsize 1-4



### Shellsize 5



## ORDER DATA

SOCKET CONNECTOR		High power contact	Part Number
Design	Mounting style 4-40 UNC		
5W1	PCB clip/Threaded insert	15 A	6005W1SAU 59 R20X
7W2	PCB clip/Threaded insert	15 A	6007W2SAU 59 R20X
11W1	PCB clip/Threaded insert	15 A	6011W1SAU 59 R20X
9W4	PCB clip/Threaded insert	15 A	6009W4SAU 59 R20X
13W3	PCB clip/Threaded insert	15 A	6013W3SAU 59 R20X
17W2	PCB clip/Threaded insert	15 A	6017W2SAU 59 R20X
21W1	PCB clip/Threaded insert	15 A	6021W1SAU 59 R20X
13W6	PCB clip/Threaded insert	15 A	6013W6SAU 59 R20X
17W5	PCB clip/Threaded insert	15 A	6017W5SAU 59 R20X
21WA4	PCB clip/Threaded insert	15 A	621WA4SAU 59 R20X
25W3	PCB clip/Threaded insert	15 A	6025W3SAU 59 R20X
27W2	PCB clip/Threaded insert	15 A	6027W2SAU 59 R20X
24W7	PCB clip/Threaded insert	20 A	6024W7SAU 81 R20X
36W4	PCB clip/Threaded insert	20 A	6036W4SAU 81 R20X
43W2	PCB clip/Threaded insert	20 A	6043W2SAU 81 R20X
47W1	PCB clip/Threaded insert	20 A	6047W1SAU 81 R20X

PLUG CONNECTOR		High power contact	Part Number
Design	Mounting style 4-40 UNC		
5W1	PCB clip/Threaded insert	15 A	6005W1PAU 59 R20X
7W2	PCB clip/Threaded insert	15 A	6007W2PAU 59 R20X
11W1	PCB clip/Threaded insert	15 A	6011W1PAU 59 R20X
9W4	PCB clip/Threaded insert	15 A	6009W4PAU 59 R20X
13W3	PCB clip/Threaded insert	15 A	6013W3PAU 59 R20X
17W2	PCB clip/Threaded insert	15 A	6017W2PAU 59 R20X
21W1	PCB clip/Threaded insert	15 A	6021W1PAU 59 R20X
13W6	PCB clip/Threaded insert	15 A	6013W6PAU 59 R20X
17W5	PCB clip/Threaded insert	15 A	6017W5PAU 59 R20X
21WA4	PCB clip/Threaded insert	15 A	621WA4PAU 59 R20X
25W3	PCB clip/Threaded insert	15 A	6025W3PAU 59 R20X
27W2	PCB clip/Threaded insert	15 A	6027W2PAU 59 R20X
24W7	PCB clip/Threaded insert	20 A	6024W7PAU 81 R20X
36W4	PCB clip/Threaded insert	20 A	6036W4PAU 81 R20X
43W2	PCB clip/Threaded insert	20 A	6043W2PAU 81 R20X
47W1	PCB clip/Threaded insert	20 A	6047W1PAU 81 R20X

For other contacts refer to page 6 | 32 to 6 | 37

Contact for shellsize 1-4	Code	Contact for shellsize 5	Code
High power 15 A; E=.075/1.90 mm =	59	High power 20 A; E=.110/2.85 mm =	81
High power 20 A; E=.110/2.85 mm =	73	High power 30 A; E=.150/3.75 mm =	85
High power 30 A; E=.126/3.20 mm =	74	High power 30 A; E=.126/3.20 mm =	82
High power 40 A; E=.150/3.75 mm =	75	High power 40 A; E=.150/3.75 mm =	77

# IP67 COMBINATION D-SUB

Solder pin – Angled – .276"/7.0 mm – Precision machined contacts – Metal bracket with PCB clip

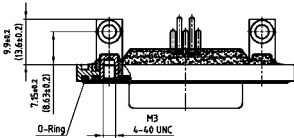


RoHS compliant – CSA listed, File No.: LR 115000-1 – UL listed, File No.: E202784

## SOCKET CONNECTOR



Shellsize	A +0.3	B +0.3	C	D2 ±0.25
1	21.10	39.40	25.00 <sup>+0.12/-0.13</sup>	16.46
2	21.10	47.70	33.30 <sup>+0.15/-0.10</sup>	24.79
3	21.10	61.40	47.04 <sup>+0.13</sup>	38.50
4	21.10	77.90	63.50 <sup>+0.13</sup>	54.96
5	23.90	75.50	61.10 <sup>+0.14/-0.11</sup>	52.55

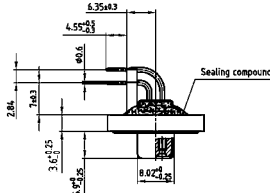


Dim. in ( ) = Shellsize 5

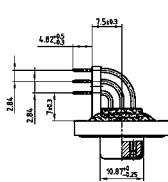


Shellsize 5

Shellsize 1-4



View without clip

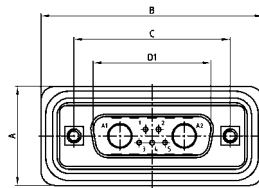


View without clip

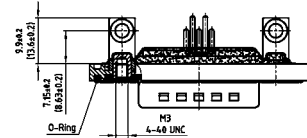
## DESCRIPTION

- Contacts: high power or coaxial contacts
- Mounting style: metal bracket, threaded insert and 4-40 UNC or M3 PCB clip
- Quality class 3 (also available in quality class 1)
- Shell: Brass tin plated (Stainless steel on request)
- Nickel plated die-cast frame (Black plastic frame on request)
- Stainless steel hex bolts are supplied loose

## PLUG CONNECTOR



Shellsize	A +0.3	B +0.3	C	D1 ±0.25	E ±0.30
1	21.10	39.40	25.00 <sup>+0.12/-0.13</sup>	16.79	5.82
2	21.10	47.70	33.30 <sup>+0.15/-0.10</sup>	25.12	5.82
3	21.10	61.40	47.04 <sup>+0.13</sup>	38.84	5.69
4	21.10	77.90	63.50 <sup>+0.13</sup>	55.30	5.69
5	23.90	75.50	61.10 <sup>+0.14/-0.11</sup>	52.68	5.69

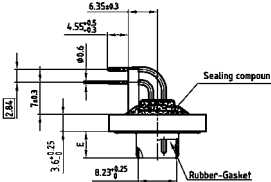


Dim. in ( ) = Shellsize 5

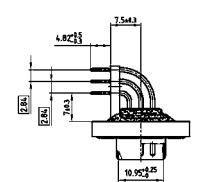


Shellsize 5

Shellsize 1-4



View without clip



View without clip

## ORDER DATA

SOCKET CONNECTOR		High power contact	Part Number
Design	Mounting style 4-40 UNC		
5W1	PCB clip/Thread	15 A	6005W1SAU 59 R40X
7W2	PCB clip/Thread	15 A	6007W2SAU 59 R40X
11W1	PCB clip/Thread	15 A	6011W1SAU 59 R40X
9W4	PCB clip/Thread	15 A	6009W4SAU 59 R40X
13W3	PCB clip/Thread	15 A	6013W3SAU 59 R40X
17W2	PCB clip/Thread	15 A	6017W2SAU 59 R40X
21W1	PCB clip/Thread	15 A	6021W1SAU 59 R40X
13W6	PCB clip/Thread	15 A	6013W6SAU 59 R40X
17W5	PCB clip/Thread	15 A	6017W5SAU 59 R40X
21WA4	PCB clip/Thread	15 A	621WA4SAU 59 R40X
25W3	PCB clip/Thread	15 A	6025W3SAU 59 R40X
27W2	PCB clip/Thread	15 A	6027W2SAU 59 R40X
24W7	PCB clip/Thread	20 A	6024W7SAU 81 R40X
36W4	PCB clip/Thread	20 A	6036W4SAU 81 R40X
43W2	PCB clip/Thread	20 A	6043W2SAU 81 R40X
47W1	PCB clip/Thread	20 A	6047W1SAU 81 R40X

PLUG CONNECTOR		High power contact	Part Number
Design	Mounting style 4-40 UNC		
5W1	PCB clip/Thread	15 A	6005W1PAU 59 R40X
7W2	PCB clip/Thread	15 A	6007W2PAU 59 R40X
11W1	PCB clip/Thread	15 A	6011W1PAU 59 R40X
9W4	PCB clip/Thread	15 A	6009W4PAU 59 R40X
13W3	PCB clip/Thread	15 A	6013W3PAU 59 R40X
17W2	PCB clip/Thread	15 A	6017W2PAU 59 R40X
21W1	PCB clip/Thread	15 A	6021W1PAU 59 R40X
13W6	PCB clip/Thread	15 A	6013W6PAU 59 R40X
17W5	PCB clip/Thread	15 A	6017W5PAU 59 R40X
21WA4	PCB clip/Thread	15 A	621WA4PAU 59 R40X
25W3	PCB clip/Thread	15 A	6025W3PAU 59 R40X
27W2	PCB clip/Thread	15 A	6027W2PAU 59 R40X
24W7	PCB clip/Thread	20 A	6024W7PAU 81 R40X
36W4	PCB clip/Thread	20 A	6036W4PAU 81 R40X
43W2	PCB clip/Thread	20 A	6043W2PAU 81 R40X
47W1	PCB clip/Thread	20 A	6047W1PAU 81 R40X

PCB clip .122"/3.1 ± .004"/0.10 mm hole diameter and .063"/1.6 mm circuit board thickness.

For other contacts refer to page 6|32 to 6|37

Contact for shellsize 1-4	Code	Contact for shellsize 5	Code
High power 15 A; E=.075/1.90 mm =	59	High power 20 A; E=.110/2.85 mm =	81
High power 20 A; E=.110/2.85 mm =	73	High power 30 A; E=.150/3.75 mm =	85
High power 30 A; E=.126/3.20 mm =	74	High power 30 A; E=.126/3.20 mm =	82
High power 40 A; E=.150/3.75 mm =	75	High power 40 A; E=.150/3.75 mm =	77

# IP67 COMBINATION D-SUB

Solder pin – Angled – .465" / 11.8 mm – Precision machined contacts – Metal bracket



RoHS compliant – CSA listed, File No.: LR 115000-1 – UL listed, File No.: E202784

## DESCRIPTION

- Contacts: high power or coaxial contacts
- Mounting style: metal bracket with 4-40 UNC or M3 threaded insert
- Quality class 3 (also available in quality class 1)
- Shell: Brass tin plated (Stainless steel on request)
- Nickel plated die-cast frame (Black plastic frame on request)
- Shellsize 5 on request
- Stainless steel hex bolts are supplied loose

## SOCKET CONNECTOR



Shellsize	A +0.3	B +0.3	C	D2 +0.25
1	21.10	39.40	25.00 <sup>+0.12/-0.13</sup>	16.46
2	21.10	47.70	33.30 <sup>+0.15/-0.10</sup>	24.79
3	21.10	61.40	47.04 <sup>+0.13</sup>	38.50
4	21.10	77.90	63.50 <sup>+0.13</sup>	54.96



Shellsize 1-4



## PLUG CONNECTOR



Shellsize	A +0.3	B +0.3	C	D1 +0.25	E -0.30
1	21.10	39.40	25.00 <sup>+0.12/-0.13</sup>	16.79	5.82
2	21.10	47.70	33.30 <sup>+0.15/-0.10</sup>	25.12	5.82
3	21.10	61.40	47.04 <sup>+0.13</sup>	38.84	5.69
4	21.10	77.90	63.50 <sup>+0.13</sup>	55.30	5.69



Shellsize 1-4



## ORDER DATA

SOCKET CONNECTOR		High power contact	Part Number
5W1	Threaded insert	15 A	6005W1SAZ 59 S20X
7W2	Threaded insert	15 A	6007W2SAZ 59 S20X
11W1	Threaded insert	15 A	6011W1SAZ 59 S20X
9W4	Threaded insert	15 A	6009W4SAZ 59 S20X
13W3	Threaded insert	15 A	6013W3SAZ 59 S20X
17W2	Threaded insert	15 A	6017W2SAZ 59 S20X
21W1	Threaded insert	15 A	6021W1SAZ 59 S20X
13W6	Threaded insert	15 A	6013W6SAZ 59 S20X
17W5	Threaded insert	15 A	6017W5SAZ 59 S20X
21WA4	Threaded insert	15 A	621WA4SAZ 59 S20X
25W3	Threaded insert	15 A	6025W3SAZ 59 S20X
27W2	Threaded insert	15 A	6027W2SAZ 59 S20X

PLUG CONNECTOR		High power contact	Part Number
5W1	Threaded insert	15 A	6005W1PAZ 59 S20X
7W2	Threaded insert	15 A	6007W2PAZ 59 S20X
11W1	Threaded insert	15 A	6011W1PAZ 59 S20X
9W4	Threaded insert	15 A	6009W4PAZ 59 S20X
13W3	Threaded insert	15 A	6013W3PAZ 59 S20X
17W2	Threaded insert	15 A	6017W2PAZ 59 S20X
21W1	Threaded insert	15 A	6021W1PAZ 59 S20X
13W6	Threaded insert	15 A	6013W6PAZ 59 S20X
17W5	Threaded insert	15 A	6017W5PAZ 59 S20X
21WA4	Threaded insert	15 A	621WA4PAZ 59 S20X
25W3	Threaded insert	15 A	6025W3PAZ 59 S20X
27W2	Threaded insert	15 A	6027W2PAZ 59 S20X

For other contacts refer to page 6 | 32 to 6 | 37

Contact	Code
High power 15 A ; E= .075" / 1.90 mm =	59
High power 20 A ; E= .110" / 2.85 mm =	73
High power 30 A ; E= .126" / 3.20 mm =	74
High power 40 A ; E= .150" / 3.75 mm =	75

# IP67 COMBINATION D-SUB

Solder pin – Angled – .465" / 11.8 mm – Precision machined contacts – Metal bracket with PCB clip



RoHS compliant – CSA listed, File No.: LR 115000-1 – UL listed, File No.: E202784

## SOCKET CONNECTOR



Shellsize	A +0.3	B +0.3	C	D2 ±0.25
1	21.10	39.40	25.00 <sup>+0.12</sup> <sub>-0.13</sub>	16.46
2	21.10	47.70	33.30 <sup>+0.15</sup> <sub>-0.10</sub>	24.79
3	21.10	61.40	47.04 <sup>+0.13</sup>	38.50
4	21.10	77.90	63.50 ±0.13	54.96



Shellsize 1-4



## DESCRIPTION

- Contacts: high power or coaxial contacts
- Mounting style: metal bracket, threaded insert and 4-40 UNC or M3 PCB clip
- Quality class 3 (also available in quality class 1)
- Shell: Brass tin plated (Stainless steel on request)
- Nickel plated die-cast frame (Black plastic frame on request)
- Shellsize 5 on request
- Stainless steel hex bolts are supplied loose

## PLUG CONNECTOR



Shellsize	A +0.3	B +0.3	C	D1 ±0.25	E -0.30
1	21.10	39.40	25.00 <sup>+0.12</sup> <sub>-0.13</sub>	16.79	5.82
2	21.10	47.70	33.30 <sup>+0.15</sup> <sub>-0.10</sub>	25.12	5.82
3	21.10	61.40	47.04 <sup>+0.13</sup>	38.84	5.69
4	21.10	77.90	63.50 ±0.13	55.30	5.69



Shellsize 1-4



## ORDER DATA

SOCKET CONNECTOR		High power contact	Part Number
Design	Mounting style 4-40 UNC		
5W1	PCB clip/Threaded insert	15 A	6005W1SAZ 59 S40X
7W2	PCB clip/Threaded insert	15 A	6007W2SAZ 59 S40X
11W1	PCB clip/Threaded insert	15 A	6011W1SAZ 59 S40X
9W4	PCB clip/Threaded insert	15 A	6009W4SAZ 59 S40X
13W3	PCB clip/Threaded insert	15 A	6013W3SAZ 59 S40X
17W2	PCB clip/Threaded insert	15 A	6017W2SAZ 59 S40X
21W1	PCB clip/Threaded insert	15 A	6021W1SAZ 59 S40X
13W6	PCB clip/Threaded insert	15 A	6013W6SAZ 59 S40X
17W5	PCB clip/Threaded insert	15 A	6017W5SAZ 59 S40X
21WA4	PCB clip/Threaded insert	15 A	621WA4SAZ 59 S40X
25W3	PCB clip/Threaded insert	15 A	6025W3SAZ 59 S40X
27W2	PCB clip/Threaded insert	15 A	6027W2SAZ 59 S40X

PLUG CONNECTOR		High power contact	Part Number
Design	Mounting style 4-40 UNC		
5W1	PCB clip/Threaded insert	15 A	6005W1PAZ 59 S40X
7W2	PCB clip/Threaded insert	15 A	6007W2PAZ 59 S40X
11W1	PCB clip/Threaded insert	15 A	6011W1PAZ 59 S40X
9W4	PCB clip/Threaded insert	15 A	6009W4PAZ 59 S40X
13W3	PCB clip/Threaded insert	15 A	6013W3PAZ 59 S40X
17W2	PCB clip/Threaded insert	15 A	6017W2PAZ 59 S40X
21W1	PCB clip/Threaded insert	15 A	6021W1PAZ 59 S40X
13W6	PCB clip/Threaded insert	15 A	6013W6PAZ 59 S40X
17W5	PCB clip/Threaded insert	15 A	6017W5PAZ 59 S40X
21WA4	PCB clip/Threaded insert	15 A	621WA4PAZ 59 S40X
25W3	PCB clip/Threaded insert	15 A	6025W3PAZ 59 S40X
27W2	PCB clip/Threaded insert	15 A	6027W2PAZ 59 S40X

PCB clip .122" / 3.1 ± .004" / 0.10 mm hole diameter and .063" / 1.6 mm circuit board thickness.  
For other contacts prefer to page 6|32 to 6|37

Contact	Code
High power 15 A ; E= .075" / 1.90 mm =	59
High power 20 A ; E= .110" / 2.85 mm =	73
High power 30 A ; E= .126" / 3.20 mm =	74
High power 40 A ; E= .150" / 3.75 mm =	75

# IP67 COMBINATION D-SUB

Solder cup – Solder pin – Straight – With power or coaxial contacts – Precision machined contacts



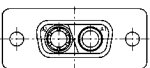
RoHS compliant – CSA listed, File No.: LR 115000-1 – UL listed, File No.: E202784

## SOCKET CONNECTOR

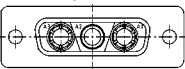


Shellsize	A +0.3	B +0.3	C	D2 +0.25
1	21.10	39.40	25.00 <sup>+0.12</sup> <sub>-0.13</sub>	16.46
2	21.10	47.70	33.30 <sup>+0.15</sup> <sub>-0.10</sub>	24.79
3	21.10	61.40	47.04 <sup>+0.13</sup>	38.50
4	21.10	77.90	63.50 <sup>+0.13</sup>	54.96

### Coded socket connectors



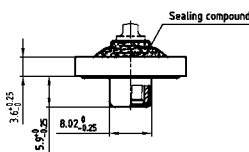
2W2C = 1 Socket – 1 Plug



3W3C = 2 Sockets – 1 Plug

Mounting style: Threaded insert (Solder cup)

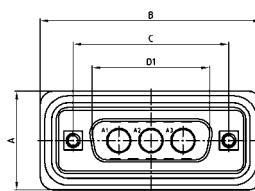
Mounting style: Threaded rear spacer with PCB clip (Solder pin)



## DESCRIPTION

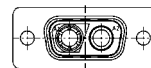
- Designs: 2W2C; 3W3; 3W3C; 5W5; 8W8
- Contacts: high power or coaxial contacts
- Mounting styles:
  - with 4-40 UNC or M3 threaded insert
  - with 4-40 UNC or M3 threaded rear spacer with PCB clip
- Quality class 3 (also available in quality class 1)
- Shell: Brass tin plated (Stainless steel on request)
- Nickel plated die-cast frame (Black plastic frame on request)
- Stainless steel hex bolts are supplied loose

## PLUG CONNECTOR

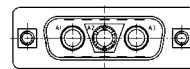


Shellsize	A +0.3	B +0.3	C	D1 +0.25	E -0.30
1	21.10	39.40	25.00 <sup>+0.12</sup> <sub>-0.13</sub>	16.79	5.82
2	21.10	47.70	33.30 <sup>+0.15</sup> <sub>-0.10</sub>	25.12	5.82
3	21.10	61.40	47.04 <sup>+0.13</sup>	38.84	5.69
4	21.10	77.90	63.50 <sup>+0.13</sup>	55.30	5.69

### Coded plug connectors



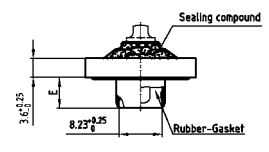
2W2C = 1 Plug – 1 Socket



3W3C = 2 Plugs – 1 Socket

Mounting style: Threaded insert (Solder cup)

Mounting style: Threaded rear spacer with PCB clip (Solder pin)



## ORDER DATA

SOCKET CONNECTOR			
Design	Mounting style / Solder cup	Contact	Part Number
2W2C	Threaded insert 4-40 UNC	High power 10A	602W2CSXX 61 B30X
3W3	Threaded insert 4-40 UNC	High power 10A	6003W3SXX 61 B30X
3W3C	Threaded insert 4-40 UNC	High power 10A	603W3CSXX 61 B30X
5W5	Threaded insert 4-40 UNC	High power 10A	6005W5SXX 61 B30X
8W8	Threaded insert 4-40 UNC	High power 10A	6008W8SXX 61 B30X
Design	Mounting style / Solder pin	Contact	Part Number
2W2C	Rear spacer with clip 4-40 UNC	High power 10A	602W2CSXX 68 E20X
3W3	Rear spacer with clip 4-40 UNC	High power 10A	6003W3SXX 68 E20X
3W3C	Rear spacer with clip 4-40 UNC	High power 10A	603W3CSXX 68 E20X
5W5	Rear spacer with clip 4-40 UNC	High power 10A	6005W5SXX 68 E20X
8W8	Rear spacer with clip 4-40 UNC	High power 10A	6008W8SXX 68 E20X

PLUG CONNECTOR			
Design	Mounting style / Solder cup	Contact	Part Number
2W2C	Threaded insert 4-40 UNC	High power 10A	602W2CPXX 61 B30X
3W3	Threaded insert 4-40 UNC	High power 10A	6003W3PXX 61 B30X
3W3C	Threaded insert 4-40 UNC	High power 10A	603W3CPXX 61 B30X
5W5	Threaded insert 4-40 UNC	High power 10A	6005W5PXX 61 B30X
8W8	Threaded insert 4-40 UNC	High power 10A	6008W8PXX 61 B30X
Design	Mounting style / Solder pin	Contact	Part Number
2W2C	Rear spacer with clip 4-40 UNC	High power 10A	602W2CPXX 68 E20X
3W3	Rear spacer with clip 4-40 UNC	High power 10A	6003W3PXX 68 E20X
3W3C	Rear spacer with clip 4-40 UNC	High power 10A	603W3CPXX 68 E20X
5W5	Rear spacer with clip 4-40 UNC	High power 10A	6005W5PXX 68 E20X
8W8	Rear spacer with clip 4-40 UNC	High power 10A	6008W8PXX 68 E20X

PCB clip .122"/3.1 ± .004"/0.10 mm hole diameter and .063"/1.6 mm circuit board thickness.

For other contacts refer to page 6|32 to 6|37

*Contact solder cup	Code
High power 10A	= 61
High power 20A	= 62

Contact solder pin straight	Code
High power 20A, D=1,95	= 68
High power 20A, D=2,60	= 69
High power 20A, D=2,85	= 70
High power 30A, D=3,18	= 71
High power 40A, D=3,75	= 72





# IP67 COMBINATION D-SUB – WITHOUT FRAME

Solder cup – Precision machined contacts – Design for use with hood –  
For wire size AWG20

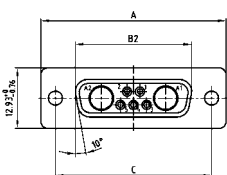


RoHS compliant – CSA listed, File No.: LR 115000-1 – UL listed, File No.: E202784

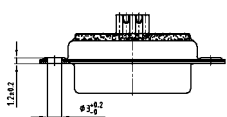
## DESCRIPTION

- Signal contacts for wire size AWG 20
- Contacts: high power or coaxial contacts
- Mounting style:  
through-hole Ø .118" / 3.0 mm
- Quality class 3 (also available in quality class 1)
- Shell: Brass tin plated (Stainless steel on request)

## SOCKET CONNECTOR



Shellsize	A -0.76	B2 -0.25	C
1	31.19	16.46	25.00 <sup>+0.12</sup> <sub>-0.13</sub>
2	39.52	24.79	33.30 <sup>+0.15</sup> <sub>-0.10</sub>
3	53.42	38.50	47.04 <sup>+0.13</sup>
4	69.70	54.96	63.50 <sup>+0.13</sup>
5	67.31	52.55	61.10 <sup>+0.14</sup> <sub>-0.11</sub>

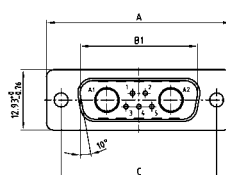


Shellsize 1-4

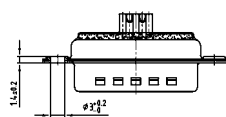
Shellsize 5



## PLUG CONNECTOR



Shellsize	A -0.76	B1 +0.25	C	D -0.30
1	31.19	16.79	25.00 <sup>+0.12</sup> <sub>-0.13</sub>	6.12
2	39.52	25.12	33.30 <sup>+0.15</sup> <sub>-0.10</sub>	6.12
3	53.42	38.84	47.04 <sup>+0.13</sup>	5.99
4	69.70	55.30	63.50 <sup>+0.13</sup>	5.99
5	67.31	52.68	61.10 <sup>+0.14</sup> <sub>-0.11</sub>	5.99



Shellsize 1-4

Shellsize 5



## ORDER DATA

SOCKET CONNECTOR		High power contact	Part Number
5W1	Through-hole	10 A	4005W1SAM 61 A10X
7W2	Through-hole	10 A	4007W2SAM 61 A10X
11W1	Through-hole	10 A	4011W1SAM 61 A10X
9W4	Through-hole	10 A	4009W4SAM 61 A10X
13W3	Through-hole	10 A	4013W3SAM 61 A10X
17W2	Through-hole	10 A	4017W2SAM 61 A10X
21W1	Through-hole	10 A	4021W1SAM 61 A10X
13W6	Through-hole	10 A	4013W6SAM 61 A10X
17W5	Through-hole	10 A	4017W5SAM 61 A10X
21WA4	Through-hole	10 A	421WA4SAM 61 A10X
25W3	Through-hole	10 A	4025W3SAM 61 A10X
27W2	Through-hole	10 A	4027W2SAM 61 A10X
24W7	Through-hole	10 A	4024W7SAM 61 A10X
36W4	Through-hole	10 A	4036W4SAM 61 A10X
43W2	Through-hole	10 A	4043W2SAM 61 A10X
47W1	Through-hole	10 A	4047W1SAM 61 A10X

PLUG CONNECTOR		High power contact	Part Number
5W1	Through-hole	10 A	4005W1PAM 61 A10X
7W2	Through-hole	10 A	4007W2PAM 61 A10X
11W1	Through-hole	10 A	4011W1PAM 61 A10X
9W4	Through-hole	10 A	4009W4PAM 61 A10X
13W3	Through-hole	10 A	4013W3PAM 61 A10X
17W2	Through-hole	10 A	4017W2PAM 61 A10X
21W1	Through-hole	10 A	4021W1PAM 61 A10X
13W6	Through-hole	10 A	4013W6PAM 61 A10X
17W5	Through-hole	10 A	4017W5PAM 61 A10X
21WA4	Through-hole	10 A	421WA4PAM 61 A10X
25W3	Through-hole	10 A	4025W3PAM 61 A10X
27W2	Through-hole	10 A	4027W2PAM 61 A10X
24W7	Through-hole	10 A	4024W7PAM 61 A10X
36W4	Through-hole	10 A	4036W4PAM 61 A10X
43W2	Through-hole	10 A	4043W2PAM 61 A10X
47W1	Through-hole	10 A	4047W1PAM 61 A10X

For other contacts refer to page 7 | 24 up to 7 | 29.

Contact	Code
High power 10 A	= 61
High power 20 A	= 62

# IP67 COMBINATION D-SUB – WITHOUT FRAME

Solder cup – Precision machined contacts – Design for use with hood

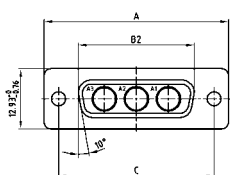


RoHS compliant – CSA listed, File No.: LR 115000-1 – UL listed, File No.: E202784

## DESCRIPTION

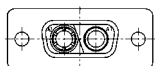
- Designs: 2W2C; 3W3; 3W3C; 5W5; 8W8
- Contacts: high power or coaxial contacts
- Mounting style: through-hole  $\varnothing .118'' / 3.0 \text{ mm}$
- Quality class 3 (also available in quality class 1)
- Shell: Brass tin plated (Stainless steel on request)

## SOCKET CONNECTOR

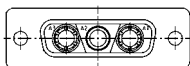


Shellsize	A -0.76	B2 -0.25	C
1	31.19	16.46	25.00 $\begin{smallmatrix} +0.12 \\ -0.13 \end{smallmatrix}$
2	39.52	24.79	33.30 $\begin{smallmatrix} +0.15 \\ -0.10 \end{smallmatrix}$
3	53.42	38.50	47.04 $\pm 0.13$
4	69.70	54.96	63.50 $\pm 0.13$

Coded socket connectors



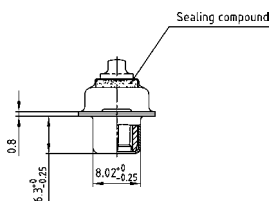
2W2C = 1 Socket – 1 Plug



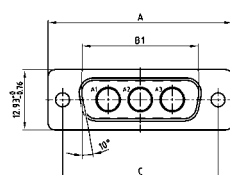
3W3C = 2 Sockets – 1 Plug



Shellsize 1-4

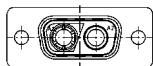


## PLUG CONNECTOR

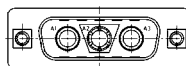


Shellsize	A -0.76	B1 +0.25	C	D -0.30
1	31.19	16.79	25.00 $\begin{smallmatrix} +0.12 \\ -0.13 \end{smallmatrix}$	6.12
2	39.52	25.12	33.30 $\begin{smallmatrix} +0.15 \\ -0.10 \end{smallmatrix}$	6.12
3	53.42	38.84	47.04 $\pm 0.13$	5.99
4	69.70	55.30	63.50 $\pm 0.13$	5.99

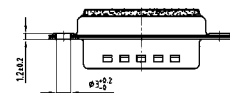
Coded plug connectors



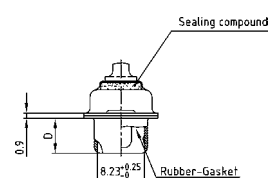
2W2C = 1 Plug – 1 Socket



3W3C = 2 Plugs – 2 Socket



Shellsize 1-4



## ORDER DATA

SOCKET CONNECTOR		High power contact	Part Number
2W2C	Through-hole	10 A	402W2CSXX 61 A10X
3W3	Through-hole	10 A	4003W3SXX 61 A10X
3W3C	Through-hole	10 A	403W3CSXX 61 A10X
5W5	Through-hole	10 A	4005W5SXX 61 A10X
8W8	Through-hole	10 A	4008W8SXX 61 A10X

PLUG CONNECTOR		High power contact	Part Number
2W2C	Through-hole	10 A	402W2CPXX 61 A10X
3W3	Through-hole	10 A	4003W3PXX 61 A10X
3W3C	Through-hole	10 A	403W3CPXX 61 A10X
5W5	Through-hole	10 A	4005W5PXX 61 A10X
8W8	Through-hole	10 A	4008W8PXX 61 A10X

For other contacts refer to page 7 | 24 up to 7 | 29.

Contact solder cup	Code
High power 10 A	= 61
High power 20 A	= 62

# IP67 COMBINATION D-SUB – FRONT PANEL MOUNTING

Solder cup – Precision machined contacts

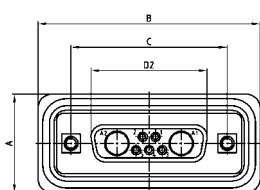


RoHS compliant – CSA listed, File No.: LR 115000-1 – UL listed, File No.: E202784

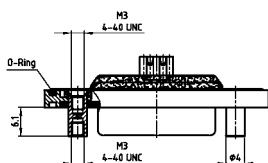
## DESCRIPTION

- Signal contacts for wire size AWG 20
- Contacts: high power or coaxial contacts
- Mounting style: with 4-40 UNC or M3 front spacer
- Quality class 3 (also available in quality class 1)
- Shell: Brass tin plated (Stainless steel on request)
- Nickel plated die-cast frame (Black plastic frame on request)
- Stainless steel hex bolts are supplied loose

## SOCKET CONNECTOR



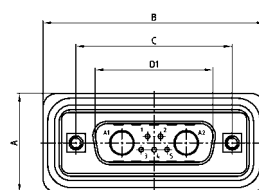
Shellsize	A +0.3	B +0.3	C	D2 ±0.25	D1
1	21.10	39.40	25.00 <sup>+0.12/-0.13</sup>	16.46	
2	21.10	47.70	33.30 <sup>+0.15/-0.10</sup>	24.79	
3	21.10	61.40	47.04 <sup>+0.13</sup>	38.50	
4	21.10	77.90	63.50 <sup>+0.13</sup>	54.96	
5	23.90	75.50	61.10 <sup>+0.14/-0.11</sup>	52.55	



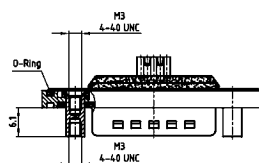
Shellsize 1-4

Shellsize 5

## PLUG CONNECTOR

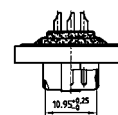
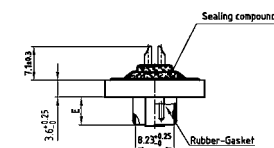
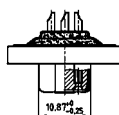
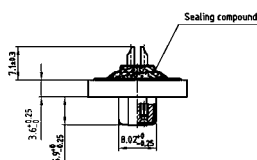


Shellsize	A +0.3	B +0.3	C	D1 ±0.25	E ±0.30
1	21.10	39.40	25.00 <sup>+0.12/-0.13</sup>	16.79	5.82
2	21.10	47.70	33.30 <sup>+0.15/-0.10</sup>	25.12	5.82
3	21.10	61.40	47.04 <sup>+0.13</sup>	38.84	5.69
4	21.10	77.90	63.50 <sup>+0.13</sup>	55.30	5.69
5	23.90	75.50	61.10 <sup>+0.14/-0.11</sup>	52.68	5.69



Shellsize 1-4

Shellsize 5



## ORDER DATA

SOCKET CONNECTOR		High power contact	Part Number
Design	Mounting style 4-40 UNC		
5W1	Front spacer	10 A	6005W1SAM 61 B50X
7W2	Front spacer	10 A	6007W2SAM 61 B50X
11W1	Front spacer	10 A	6011W1SAM 61 B50X
9W4	Front spacer	10 A	6009W4SAM 61 B50X
13W3	Front spacer	10 A	6013W3SAM 61 B50X
17W2	Front spacer	10 A	6017W2SAM 61 B50X
21W1	Front spacer	10 A	6021W1SAM 61 B50X
13W6	Front spacer	10 A	6013W6SAM 61 B50X
17W5	Front spacer	10 A	6017W5SAM 61 B50X
21WA4	Front spacer	10 A	621WA4SAM 61 B50X
25W3	Front spacer	10 A	6025W3SAM 61 B50X
27W2	Front spacer	10 A	6027W2SAM 61 B50X
24W7	Front spacer	10 A	6024W7SAM 61 B50X
36W4	Front spacer	10 A	6036W4SAM 61 B50X
43W2	Front spacer	10 A	6043W2SAM 61 B50X
47W1	Front spacer	10 A	6047W1SAM 61 B50X

PLUG CONNECTOR		High power contact	Part Number
Design	Mounting style 4-40 UNC		
5W1	Front spacer	10 A	6005W1PAM 61 B50X
7W2	Front spacer	10 A	6007W2PAM 61 B50X
11W1	Front spacer	10 A	6011W1PAM 61 B50X
9W4	Front spacer	10 A	6009W4PAM 61 B50X
13W3	Front spacer	10 A	6013W3PAM 61 B50X
17W2	Front spacer	10 A	6017W2PAM 61 B50X
21W1	Front spacer	10 A	6021W1PAM 61 B50X
13W6	Front spacer	10 A	6013W6PAM 61 B50X
17W5	Front spacer	10 A	6017W5PAM 61 B50X
21WA4	Front spacer	10 A	621WA4PAM 61 B50X
25W3	Front spacer	10 A	6025W3PAM 61 B50X
27W2	Front spacer	10 A	6027W2PAM 61 B50X
24W7	Front spacer	10 A	6024W7PAM 61 B50X
36W4	Front spacer	10 A	6036W4PAM 61 B50X
43W2	Front spacer	10 A	6043W2PAM 61 B50X
47W1	Front spacer	10 A	6047W1PAM 61 B50X

For other contacts refer to page 7 | 24 up to 7 | 29.

Contact	Code
High power 10 A	= 61
High power 20 A	= 62

# IP67 COMBINATION D-SUB – FRONT PANEL MOUNTING

Solder cup – With power or coaxial contacts – Precision machined contacts



RoHS compliant – CSA listed, File No.: LR 115000-1 – UL listed, File No.: E202784

## DESCRIPTION

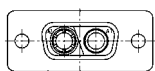
- Designs: 2W2C; 3W3; 3W3C; 5W5; 8W8
- Contacts: high power or coaxial contacts
- Mounting styles: with 4-40 UNC or M3 front spacer
- Quality class 3 (also available in quality class 1)
- Shell: Brass tin plated
- Nickel plated die-cast frame (Black plastic frame on request)
- Stainless steel hex bolts are supplied loose

## SOCKET CONNECTOR



Dimensions in mm				
Shellsize	A +0.3	B +0.3	C	D2 +0.25
1	39.40	16.46	24.99 <sup>+0.13</sup> <sub>-0.12</sub>	16.79
2	47.70	24.79	33.32 <sup>+0.13</sup> <sub>-0.12</sub>	25.12
3	61.40	38.50	47.04 <sup>+0.13</sup>	38.84
4	77.90	54.96	63.50 <sup>+0.13</sup>	55.30

### Coded socket connectors



2W2C = 1 Socket – 1 Plug



3W3C = 2 Sockets – 1 Plug

Shellsize 1-4

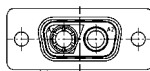


## PLUG CONNECTOR



Dimensions in mm					
Shellsize	A +0.3	B +0.3	C	D1 +0.25	E -0.30
1	39.40	16.46	24.99 <sup>+0.13</sup> <sub>-0.12</sub>	16.46	5.82
2	47.70	24.79	33.32 <sup>+0.13</sup> <sub>-0.12</sub>	24.79	5.82
3	61.40	38.50	47.04 <sup>+0.13</sup>	38.50	5.69
4	77.90	54.96	63.50 <sup>+0.13</sup>	54.96	5.69

### Coded plug connectors



2W2C = 1 Plug – 1 Socket



3W3C = 2 Plugs – 1 Socket

Shellsize 1-4



## ORDER DATA

SOCKET CONNECTOR		High power contact	Part Number
2W2C	Front spacer	10 A	602W2CSXX 61 B50X
3W3	Front spacer	10 A	6003W3SXX 61 B50X
3W3C	Front spacer	10 A	603W3CSXX 61 B50X
5W5	Front spacer	10 A	6005W5SXX 61 B50X
8W8	Front spacer	10 A	6008W8SXX 61 B50X

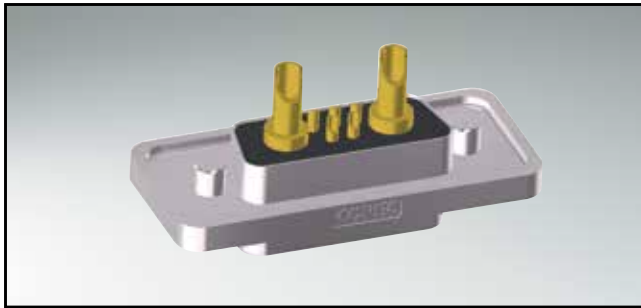
PLUG CONNECTOR		High power contact	Part Number
2W2C	Front spacer	10 A	602W2CPXX 61 B50X
3W3	Front spacer	10 A	6003W3PXX 61 B50X
3W3C	Front spacer	10 A	603W3CPXX 61 B50X
5W5	Front spacer	10 A	6005W5PXX 61 B50X
8W8	Front spacer	10 A	6008W8PXX 61 B50X

For other contacts refer to page 7 | 24 up to 7 | 29.

Contact	Code
High power 10 A	= 61
High power 20 A	= 62

# IP67 COMBINATION D-SUB SOLID BODY

Solder cup – Precision machined contacts – For wire size AWG 20 and AWG 12 - 14



RoHS compliant – UL listed, File No.: E202784

## DESCRIPTION

- Signal contacts for wire size AWG 20
- High power contacts 20A for cable AWG 12 - 14
- Mounting style:  
with 4-40 UNC threaded insert
- Quality class 3 (also available in quality class 1)
- One-piece zinc die-cast nickel plated shell
- IP67 for harsh environments, pressure-proof up to 1.45 PSI
- Stainless steel hex bolts are supplied loose

## SOCKET CONNECTOR



Shellsize	A	B2 -0.25	C	D
1	39.40 <sup>+0.3</sup> <sub>-0</sub>	16.46	25.00 <sup>+0.12</sup> <sub>-0.13</sub>	21.10 <sup>+0.3</sup>
2	47.70 <sup>+0.3</sup> <sub>-0</sub>	24.79	33.32 <sup>+0.13</sup> <sub>-0.12</sub>	21.10 <sup>+0.3</sup>
3	61.40 <sup>+0.3</sup> <sub>-0</sub>	38.50	47.04 <sup>+0.13</sup>	21.10 <sup>+0.3</sup>
4	78.00 <sup>+0.3</sup> <sub>-0</sub>	54.96	63.50 <sup>+0.13</sup>	21.10 <sup>+0.3</sup>
5	75.60 <sup>+0.3</sup> <sub>-0.1</sub>	52.55	61.10 <sup>+0.14</sup> <sub>-0.11</sub>	23.90 <sup>+0.3</sup> <sub>-0.1</sub>



Shellsize 1-4



Shellsize 5



## PLUG CONNECTOR



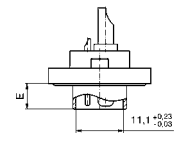
Shellsize	A	B1	C	D	E
1	39.40 <sup>+0.3</sup> <sub>-0</sub>	16.81 <sup>+0.23</sup> <sub>-0.02</sub>	25.00 <sup>+0.12</sup> <sub>-0.13</sub>	21.10 <sup>+0.3</sup>	6.00 <sup>+0.12</sup> <sub>-0.18</sub>
2	47.70 <sup>+0.3</sup> <sub>-0</sub>	25.14 <sup>+0.23</sup> <sub>-0.02</sub>	33.32 <sup>+0.13</sup> <sub>-0.12</sub>	21.10 <sup>+0.3</sup>	6.00 <sup>+0.12</sup> <sub>-0.18</sub>
3	61.40 <sup>+0.3</sup> <sub>-0</sub>	38.86 <sup>+0.23</sup> <sub>-0.02</sub>	47.04 <sup>+0.13</sup>	21.10 <sup>+0.3</sup>	5.99 <sup>+0.3</sup>
4	78.00 <sup>+0.3</sup> <sub>-0</sub>	55.32 <sup>+0.23</sup> <sub>-0.02</sub>	63.50 <sup>+0.13</sup>	21.10 <sup>+0.3</sup>	5.99 <sup>+0.3</sup>
5	75.60 <sup>+0.3</sup> <sub>-0.1</sub>	52.80 <sup>+0.13</sup> <sub>-0.12</sub>	61.10 <sup>+0.14</sup> <sub>-0.11</sub>	23.90 <sup>+0.3</sup> <sub>-0.1</sub>	5.99 <sup>+0.3</sup>



Shellsize 1-4



Shellsize 5



## ORDER DATA

SOCKET CONNECTOR			
Design	Mounting style	Power contact	Part Number
5W1	Threaded insert 4-40 UNC	High power 20A	15-005063
7W2	Threaded insert 4-40 UNC	High power 20A	15-001103
11W1	Threaded insert 4-40 UNC	High power 20A	15-005073
9W4	Threaded insert 4-40 UNC	High power 20A	15-005083
13W3	Threaded insert 4-40 UNC	High power 20A	15-004563
17W2	Threaded insert 4-40 UNC	High power 20A	15-004453
21W1	Threaded insert 4-40 UNC	High power 20A	15-005093
13W6	Threaded insert 4-40 UNC	High power 20A	15-005103
17W5	Threaded insert 4-40 UNC	High power 20A	15-005113
21WA4	Threaded insert 4-40 UNC	High power 20A	15-005123
25W3	Threaded insert 4-40 UNC	High power 20A	15-005133
27W2	Threaded insert 4-40 UNC	High power 20A	15-005143
24W7	Threaded insert 4-40 UNC	High power 20A	15-005153
36W4	Threaded insert 4-40 UNC	High power 20A	15-005163
43W2	Threaded insert 4-40 UNC	High power 20A	15-004593
47W1	Threaded insert 4-40 UNC	High power 20A	15-005183

PLUG CONNECTOR			
Design	Mounting style	Power contact	Part Number
5W1	Threaded insert 4-40 UNC	High power 20A	15-005193
7W2	Threaded insert 4-40 UNC	High power 20A	15-004643
11W1	Threaded insert 4-40 UNC	High power 20A	15-005203
9W4	Threaded insert 4-40 UNC	High power 20A	15-005213
13W3	Threaded insert 4-40 UNC	High power 20A	15-004553
17W2	Threaded insert 4-40 UNC	High power 20A	15-004543
21W1	Threaded insert 4-40 UNC	High power 20A	15-005223
13W6	Threaded insert 4-40 UNC	High power 20A	15-005233
17W5	Threaded insert 4-40 UNC	High power 20A	15-005243
21WA4	Threaded insert 4-40 UNC	High power 20A	15-005253
25W3	Threaded insert 4-40 UNC	High power 20A	15-005263
27W2	Threaded insert 4-40 UNC	High power 20A	15-005273
24W7	Threaded insert 4-40 UNC	High power 20A	15-005283
36W4	Threaded insert 4-40 UNC	High power 20A	15-005293
43W2	Threaded insert 4-40 UNC	High power 20A	15-005303
47W1	Threaded insert 4-40 UNC	High power 20A	15-005313

Other high power or coaxial contacts on request.

# IP67 COMBINATION D-SUB SOLID BODY

Solder pin – straight – Precision machined contacts



RoHS compliant – UL listed, File No.: E202784

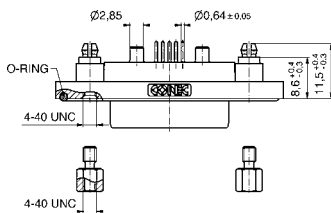
## DESCRIPTION

- High power contacts 20A
- Mounting style:  
4-40 UNC threaded rear spacer with PCB clip
- Quality class 3 (Also available in quality class 1)
- One-piece zinc die-cast nickel plated shell
- IP67 for harsh environments, pressure-proof up to 1.45 PSI
- Stainless steel hex bolts are supplied loose

## SOCKET CONNECTOR



Shellsize	A	B2 -0.25	C	D2
1	39.40 <sup>+0.3</sup> <sub>0</sub>	16.46	25.00 <sup>+0.12</sup> <sub>-0.13</sub>	21.10 <sup>+0.3</sup>
2	47.70 <sup>+0.3</sup> <sub>0</sub>	24.79	33.32 <sup>+0.13</sup> <sub>-0.12</sub>	21.10 <sup>+0.3</sup>
3	61.40 <sup>+0.3</sup> <sub>0</sub>	38.50	47.04 <sup>+0.13</sup> <sub>-0.12</sub>	21.10 <sup>+0.3</sup>
4	78.00 <sup>+0.3</sup> <sub>0</sub>	54.96	63.50 <sup>+0.13</sup> <sub>-0.12</sub>	21.10 <sup>+0.3</sup>
5	75.60 <sup>+0.3</sup> <sub>-0.1</sub>	52.55	61.10 <sup>+0.14</sup> <sub>-0.11</sub>	23.90 <sup>+0.3</sup> <sub>-0.1</sub>



Shellsize 1-4



Shellsize 5



## PLUG CONNECTOR



Shellsize	A	B1	C	D	E
1	39.40 <sup>+0.3</sup> <sub>0</sub>	16.81 <sup>+0.23</sup> <sub>-0.22</sub>	25.00 <sup>+0.12</sup> <sub>-0.13</sub>	21.10 <sup>+0.3</sup>	6.00 <sup>+0.12</sup> <sub>-0.18</sub>
2	47.70 <sup>+0.3</sup> <sub>0</sub>	25.14 <sup>+0.23</sup> <sub>-0.22</sub>	33.32 <sup>+0.13</sup> <sub>-0.12</sub>	21.10 <sup>+0.3</sup>	6.00 <sup>+0.12</sup> <sub>-0.18</sub>
3	61.40 <sup>+0.3</sup> <sub>0</sub>	38.86 <sup>+0.23</sup> <sub>-0.22</sub>	47.04 <sup>+0.13</sup> <sub>-0.12</sub>	21.10 <sup>+0.3</sup>	5.99 <sup>+0.3</sup>
4	78.00 <sup>+0.3</sup> <sub>0</sub>	55.32 <sup>+0.23</sup> <sub>-0.22</sub>	63.50 <sup>+0.13</sup> <sub>-0.12</sub>	21.10 <sup>+0.3</sup>	5.99 <sup>+0.3</sup>
5	75.60 <sup>+0.3</sup> <sub>-0.1</sub>	52.80 <sup>+0.13</sup> <sub>-0.12</sub>	61.10 <sup>+0.14</sup> <sub>-0.11</sub>	23.90 <sup>+0.3</sup> <sub>-0.1</sub>	5.99 <sup>+0.3</sup>



Shellsize 1-4



Shellsize 5



## ORDER DATA

### SOCKET CONNECTOR

Design	Mounting style 4-40 UNC	Power contact	Part Number
5W1	Threaded rear spacer PCB clip	High power 20A	15-005323
7W2	Threaded rear spacer PCB clip	High power 20A	15-001823
11W1	Threaded rear spacer PCB clip	High power 20A	15-005333
9W4	Threaded rear spacer PCB clip	High power 20A	15-005343
13W3	Threaded rear spacer PCB clip	High power 20A	15-005353
17W2	Threaded rear spacer PCB clip	High power 20A	15-005363
21W1	Threaded rear spacer PCB clip	High power 20A	15-005373
13W6	Threaded rear spacer PCB clip	High power 20A	15-005383
17W5	Threaded rear spacer PCB clip	High power 20A	15-005393
21WA4	Threaded rear spacer PCB clip	High power 20A	15-005403
25W3	Threaded rear spacer PCB clip	High power 20A	15-005413
27W2	Threaded rear spacer PCB clip	High power 20A	15-005423
24W7	Threaded rear spacer PCB clip	High power 20A	15-005433
36W4	Threaded rear spacer PCB clip	High power 20A	15-005443
43W2	Threaded rear spacer PCB clip	High power 20A	15-005453
47W1	Threaded rear spacer PCB clip	High power 20A	15-005463

### PLUG CONNECTOR

Design	Mounting style 4-40 UNC	Power contact	Part Number
5W1	Threaded rear spacer PCB clip	High power 20A	15-005473
7W2	Threaded rear spacer PCB clip	High power 20A	15-001863
11W1	Threaded rear spacer PCB clip	High power 20A	15-005483
9W4	Threaded rear spacer PCB clip	High power 20A	15-005493
13W3	Threaded rear spacer PCB clip	High power 20A	15-005503
17W2	Threaded rear spacer PCB clip	High power 20A	15-005513
21W1	Threaded rear spacer PCB clip	High power 20A	15-005523
13W6	Threaded rear spacer PCB clip	High power 20A	15-005533
17W5	Threaded rear spacer PCB clip	High power 20A	15-005543
21WA4	Threaded rear spacer PCB clip	High power 20A	15-005553
25W3	Threaded rear spacer PCB clip	High power 20A	15-005563
27W2	Threaded rear spacer PCB clip	High power 20A	15-005573
24W7	Threaded rear spacer PCB clip	High power 20A	15-005583
36W4	Threaded rear spacer PCB clip	High power 20A	15-005593
43W2	Threaded rear spacer PCB clip	High power 20A	15-005603
47W1	Threaded rear spacer PCB clip	High power 20A	15-005613

Other high power or coaxial contacts on request.

# IP67 COMBINATION D-SUB SOLID BODY

Solder pin – Angled – .402" / 10.2 mm – Precision machined contacts – Metal bracket



RoHS compliant – UL listed, File No.: E202784

## DESCRIPTION

- High power contacts 20A
- Mounting style: mounting bracket, 4-40 UNC PCB clip
- Quality class 3 (also available in quality class 1)
- One-piece zinc die-cast nickel plated shell
- IP67 for harsh environments, pressure-proof up to 1.45 PSI
- Stainless steel hex bolts are supplied loose

## SOCKET CONNECTOR



Shellsize	A	B2 -0.25	C	D
1	39.40 <sup>+0.3</sup> <sub>-0</sub>	16.46	25.00 <sup>+0.12</sup> <sub>-0.13</sub>	21.10 <sup>+0.3</sup>
2	47.70 <sup>+0.3</sup> <sub>-0</sub>	24.79	33.32 <sup>+0.13</sup> <sub>-0.12</sub>	21.10 <sup>+0.3</sup>
3	61.40 <sup>+0.3</sup> <sub>-0</sub>	38.50	47.04 <sup>+0.13</sup> <sub>-0.13</sub>	21.10 <sup>+0.3</sup>
4	78.00 <sup>+0.3</sup> <sub>-0</sub>	54.96	63.50 <sup>+0.13</sup> <sub>-0.13</sub>	21.10 <sup>+0.3</sup>
5	75.60 <sup>+0.3</sup> <sub>-0.1</sub>	52.55	61.10 <sup>+0.14</sup> <sub>-0.11</sub>	23.90 <sup>+0.3</sup> <sub>-0.1</sub>



## PLUG CONNECTOR



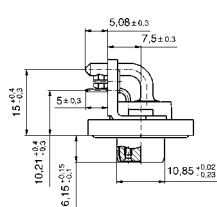
Shellsize	A	B1	C	D	E
1	39.40 <sup>+0.3</sup> <sub>-0</sub>	16.81 <sup>+0.23</sup> <sub>-0.02</sub>	25.00 <sup>+0.12</sup> <sub>-0.13</sub>	21.10 <sup>+0.3</sup>	6.00 <sup>+0.12</sup> <sub>-0.18</sub>
2	47.70 <sup>+0.3</sup> <sub>-0</sub>	25.14 <sup>+0.23</sup> <sub>-0.02</sub>	33.32 <sup>+0.13</sup> <sub>-0.12</sub>	21.10 <sup>+0.3</sup>	6.00 <sup>+0.12</sup> <sub>-0.18</sub>
3	61.40 <sup>+0.3</sup> <sub>-0</sub>	38.86 <sup>+0.23</sup> <sub>-0.02</sub>	47.04 <sup>+0.13</sup> <sub>-0.13</sub>	21.10 <sup>+0.3</sup>	5.99 <sup>+0.3</sup>
4	78.00 <sup>+0.3</sup> <sub>-0</sub>	55.32 <sup>+0.23</sup> <sub>-0.02</sub>	63.50 <sup>+0.13</sup> <sub>-0.13</sub>	21.10 <sup>+0.3</sup>	5.99 <sup>+0.3</sup>
5	75.60 <sup>+0.3</sup> <sub>-0.1</sub>	52.80 <sup>+0.13</sup> <sub>-0.12</sub>	61.10 <sup>+0.14</sup> <sub>-0.11</sub>	23.90 <sup>+0.3</sup> <sub>-0.1</sub>	5.99 <sup>+0.3</sup>



### Shellsize 1-4



### Shellsize 5



### Shellsize 1-4



### Shellsize 5



## ORDER DATA

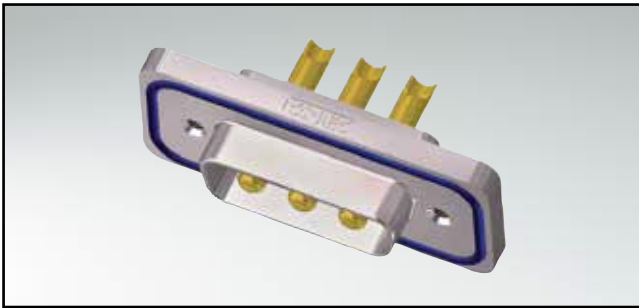
SOCKET CONNECTOR			
Design	Mounting style 4-40 UNC	Power contact	Part number
5W1	Mounting bracket PCB clip	High power 20A	15-005623
7W2	Mounting bracket PCB clip	High power 20A	15-001463
11W1	Mounting bracket PCB clip	High power 20A	15-005633
9W4	Mounting bracket PCB clip	High power 20A	15-005643
13W3	Mounting bracket PCB clip	High power 20A	15-005653
17W2	Mounting bracket PCB clip	High power 20A	15-005663
21W1	Mounting bracket PCB clip	High power 20A	15-005673
13W6	Mounting bracket PCB clip	High power 20A	15-005683
17W5	Mounting bracket PCB clip	High power 20A	15-005693
21W4A	Mounting bracket PCB clip	High power 20A	15-005703
25W3	Mounting bracket PCB clip	High power 20A	15-005713
27W2	Mounting bracket PCB clip	High power 20A	15-005723
24W7	Mounting bracket PCB clip	High power 20A	15-005733
36W4	Mounting bracket PCB clip	High power 20A	15-005743
43W2	Mounting bracket PCB clip	High power 20A	15-004593
47W1	Mounting bracket PCB clip	High power 20A	15-005753

PLUG CONNECTOR			
Design	Mounting style 4-40 UNC	Power contact	Part number
5W1	Mounting bracket PCB clip	High power 20A	15-005763
7W2	Mounting bracket PCB clip	High power 20A	15-001503
11W1	Mounting bracket PCB clip	High power 20A	15-005773
9W4	Mounting bracket PCB clip	High power 20A	15-005783
13W3	Mounting bracket PCB clip	High power 20A	15-005793
17W2	Mounting bracket PCB clip	High power 20A	15-002323
21W1	Mounting bracket PCB clip	High power 20A	15-005803
13W6	Mounting bracket PCB clip	High power 20A	15-005813
17W5	Mounting bracket PCB clip	High power 20A	15-005823
21W4A	Mounting bracket PCB clip	High power 20A	15-005833
25W3	Mounting bracket PCB clip	High power 20A	15-002333
27W2	Mounting bracket PCB clip	High power 20A	15-005843
24W7	Mounting bracket PCB clip	High power 20A	15-005853
36W4	Mounting bracket PCB clip	High power 20A	15-002293
43W2	Mounting bracket PCB clip	High power 20A	15-005863
47W1	Mounting bracket PCB clip	High power 20A	15-005873

Other high power or coaxial contacts on request.

# IP67 COMBINATION D-SUB SOLID BODY

Solder cup – Precision machined contacts – For wire size AWG 12 - 14



RoHS compliant – UL listed, File No.: E202784

## DESCRIPTION

- High power contacts 20A for wire size AWG 12 - 14
- Mounting style: with 4-40 UNC threaded insert
- Quality class 3 (Also available in quality class 1)
- One-piece zinc die-cast nickel plated shell
- IP67 for harsh environments, pressure-proof up to 1.45 PSI
- Stainless steel hex bolts are supplied loose

## SOCKET CONNECTOR



Shellsize	A	B2 ±0.25	C
1	39.40 <sup>+0.3</sup> <sub>0</sub>	16.46	25.00 <sup>+0.12</sup> <sub>-0.13</sub>
2	47.70 <sup>+0.3</sup> <sub>0</sub>	24.79	33.32 <sup>+0.13</sup> <sub>-0.12</sub>
3	61.40 <sup>+0.3</sup> <sub>0</sub>	38.50	47.04 <sup>+0.13</sup> <sub>0</sub>
4	78.00 <sup>+0.3</sup> <sub>0</sub>	54.96	63.50 <sup>+0.13</sup> <sub>0</sub>



### Shellsize 1-4



## PLUG CONNECTOR



Shellsize	A	B1	C	D
1	39.40 <sup>+0.3</sup> <sub>0</sub>	16.81 <sup>+0.23</sup> <sub>-0.02</sub>	25.00 <sup>+0.12</sup> <sub>-0.13</sub>	6.00 <sup>+0.12</sup> <sub>-0.18</sub>
2	47.70 <sup>+0.3</sup> <sub>0</sub>	25.14 <sup>+0.23</sup> <sub>-0.02</sub>	33.32 <sup>+0.13</sup> <sub>-0.12</sub>	6.00 <sup>+0.12</sup> <sub>-0.18</sub>
3	61.40 <sup>+0.3</sup> <sub>0</sub>	38.86 <sup>+0.23</sup> <sub>-0.02</sub>	47.04 <sup>+0.13</sup> <sub>0</sub>	5.99 <sup>+0.3</sup> <sub>0</sub>
4	78.00 <sup>+0.3</sup> <sub>0</sub>	55.32 <sup>+0.23</sup> <sub>-0.02</sub>	63.50 <sup>+0.13</sup> <sub>0</sub>	5.99 <sup>+0.3</sup> <sub>0</sub>



### Shellsize 1-4



## ORDER DATA

SOCKET CONNECTOR			
Design	Mounting style 4-40 UNC	Power contact	Part number
2W2C	Threaded insert	High power 20A	15-001063
3W3C	Threaded insert	High power 20A	15-001073
3W3	Threaded insert	High power 20A	15-001083
5W5	Threaded insert	High power 20A	15-001093
8W8	Threaded insert	High power 20A	15-001613

Design			
Bauform	Mounting style 4-40 UNC	Power contact	Part number
3W3C	Threaded insert	High power 20A	15-001113
3W3	Threaded insert	High power 20A	15-001123
5W5	Threaded insert	High power 20A	15-001133
8W8	Threaded insert	High power 20A	15-001653

Other high power or coaxial contacts on request.



# IP67 COMBINATION D-SUB SOLID BODY

Solder pin – Straight – Precision machined contacts



RoHS compliant – UL listed, File No.: E202784

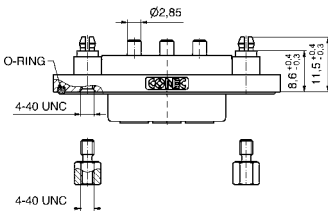
## DESCRIPTION

- High power contacts 20A
- Mounting style:  
4-40 UNC threaded rear spacer with PCB clip
- Quality class 3 (also available in quality class 1)
- One-piece zinc die-cast nickel plated shell
- IP67 for harsh environments, pressure-proof up to 1.45 PSI
- Stainless steel hex bolts are supplied loose

## SOCKET CONNECTOR



Shellsize	A	B2 ±0.25	C
1	39.40 <sup>+0.3</sup> <sub>0</sub>	16.46	25.00 <sup>+0.12</sup> <sub>-0.13</sub>
2	47.70 <sup>+0.3</sup> <sub>0</sub>	24.79	33.32 <sup>+0.13</sup> <sub>-0.12</sub>
3	61.40 <sup>+0.3</sup> <sub>0</sub>	38.50	47.04 <sup>+0.13</sup> <sub>-0.12</sub>
4	78.00 <sup>+0.3</sup> <sub>0</sub>	54.96	63.50 <sup>+0.13</sup> <sub>-0.12</sub>



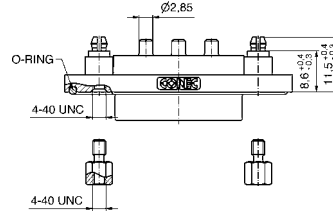
Shellsize 1-4



## PLUG CONNECTOR



Shellsize	A	B1	C	D
1	39.40 <sup>+0.3</sup> <sub>0</sub>	16.81 <sup>+0.23</sup> <sub>-0.02</sub>	25.00 <sup>+0.12</sup> <sub>-0.13</sub>	6.00 <sup>+0.12</sup> <sub>-0.18</sub>
2	47.70 <sup>+0.3</sup> <sub>0</sub>	25.14 <sup>+0.23</sup> <sub>-0.02</sub>	33.32 <sup>+0.13</sup> <sub>-0.12</sub>	6.00 <sup>+0.12</sup> <sub>-0.18</sub>
3	61.40 <sup>+0.3</sup> <sub>0</sub>	38.86 <sup>+0.23</sup> <sub>-0.02</sub>	47.04 <sup>+0.13</sup> <sub>-0.12</sub>	5.99 <sup>+0.3</sup> <sub>-0.3</sub>
4	78.00 <sup>+0.3</sup> <sub>0</sub>	55.32 <sup>+0.23</sup> <sub>-0.02</sub>	63.50 <sup>+0.13</sup> <sub>-0.12</sub>	5.99 <sup>+0.3</sup> <sub>-0.3</sub>



Shellsize 1-4



## ORDER DATA

SOCKET CONNECTOR			
Design	Mounting style 4-40 UNC	Power contact	Part number
2W2C	Threaded rear spacer PCB clip	High power 20A	15-001783
3W3C	Threaded rear spacer PCB clip	High power 20A	15-001793
3W3	Threaded rear spacer PCB clip	High power 20A	15-001803
5W5	Threaded rear spacer PCB clip	High power 20A	15-001813
8W8	Threaded rear spacer PCB clip	High power 20A	15-002023

PLUG CONNECTOR			
Design	Mounting style 4-40 UNC	Power contact	Part number
3W3C	Threaded rear spacer PCB clip	High power 20A	15-005883
3W3	Threaded rear spacer PCB clip	High power 20A	15-001843
5W5	Threaded rear spacer PCB clip	High power 20A	15-001853
8W8	Threaded rear spacer PCB clip	High power 20A	15-001833

Other high power or coaxial contacts on request.

# IP67 COMBINATION D-SUB SOLID BODY

Solder pin – Angled – Precision machined contacts – Metal bracket



RoHS compliant – UL listed, File No.: E202784

## DESCRIPTION

- High power contacts 20A
- Mounting style:  
mounting bracket, 4-40 UNC PCB clip
- Quality class 3 (Also available in quality class 1)
- One-piece zinc die-cast nickel plated shell
- IP67 for harsh environments, pressure-proof up to 1.45 PSI
- Stainless steel hex bolts are supplied loose

## SOCKET CONNECTOR



Shellsize	A	B2 ±0.25	C
1	39.40 <sup>+0.3</sup> <sub>0</sub>	16.46	25.00 <sup>+0.12</sup> <sub>-0.13</sub>
2	47.70 <sup>+0.3</sup> <sub>0</sub>	24.79	33.32 <sup>+0.13</sup> <sub>-0.12</sub>
3	61.40 <sup>+0.3</sup> <sub>0</sub>	38.50	47.04 ±0.13
4	78.00 <sup>+0.3</sup> <sub>0</sub>	54.96	63.50 ±0.13



Shellsize 1-4



## PLUG CONNECTOR



Shellsize	A	B1	C	D
1	39.40 <sup>+0.3</sup> <sub>0</sub>	16.81 <sup>+0.23</sup> <sub>-0.02</sub>	25.00 <sup>+0.12</sup> <sub>-0.13</sub>	6.00 <sup>+0.12</sup> <sub>-0.18</sub>
2	47.70 <sup>+0.3</sup> <sub>0</sub>	25.14 <sup>+0.23</sup> <sub>-0.02</sub>	33.32 <sup>+0.13</sup> <sub>-0.12</sub>	6.00 <sup>+0.12</sup> <sub>-0.18</sub>
3	61.40 <sup>+0.3</sup> <sub>0</sub>	38.86 <sup>+0.23</sup> <sub>-0.02</sub>	47.04 ±0.13	5.99 ±0.3
4	78.00 <sup>+0.3</sup> <sub>0</sub>	55.32 <sup>+0.23</sup> <sub>-0.02</sub>	63.50 ±0.13	5.99 ±0.3



Shellsize 1-4



## ORDER DATA

SOCKET CONNECTOR			
Design	Mounting style 4-40 UNC	Power contact	Part number
2W2C	Mounting bracket PCB clip	High power 20A	15-001423
3W3C	Mounting bracket PCB clip	High power 20A	15-001433
3W3	Mounting bracket PCB clip	High power 20A	15-001443
5W5	Mounting bracket PCB clip	High power 20A	15-001453
8W8	Mounting bracket PCB clip	High power 20A	15-001963

PLUG CONNECTOR			
Design	Mounting style 4-40 UNC	Power contact	Part number
3W3C	Mounting bracket PCB clip	High power 20A	15-001473
3W3	Mounting bracket PCB clip	High power 20A	15-001483
5W5	Mounting bracket PCB clip	High power 20A	15-001493
8W8	Mounting bracket PCB clip	High power 20A	15-001993

Other high power or coaxial contacts on request.

# IP67 COMBINATION HD-SUB SOLID BODY

Solder cup – Precision machined contacts – For wire size AWG 22 and AWG 12 - 14



RoHS compliant

## DESCRIPTION

- Signal contacts for wire size AWG 22
- High power contacts 20A for cable AWG 12 - 14
- Mounting style:  
with 4-40 UNC threaded insert
- Quality class 3 (Also available in quality class 1)
- One-piece zinc die-cast nickel plated shell
- IP67 for harsh environments, pressure-proof up to 1.45 PSI
- Stainless steel hex bolts are supplied loose

## SOCKET CONNECTOR



Shellsize	A	B2 ±0.25	C
2	47.70 <sup>+0.3</sup> <sub>0</sub>	24.79	33.32 <sup>+0.13</sup> <sub>-0.12</sub>
3	61.40 <sup>+0.3</sup> <sub>0</sub>	38.50	47.04 <sup>+0.13</sup>
4	78.00 <sup>+0.3</sup> <sub>0</sub>	54.96	63.50 <sup>+0.13</sup>



Shellsize 2-4



## PLUG CONNECTOR



Shellsize	A	B1	C	D
2	47.70 <sup>+0.3</sup> <sub>0</sub>	25.14 <sup>+0.23</sup> <sub>-0.02</sub>	33.32 <sup>+0.13</sup> <sub>-0.12</sub>	6.00 <sup>+0.12</sup> <sub>-0.18</sub>
3	61.40 <sup>+0.3</sup> <sub>0</sub>	38.86 <sup>+0.23</sup> <sub>-0.02</sub>	47.04 <sup>+0.13</sup>	5.99 <sup>-0.3</sup>
4	78.00 <sup>+0.3</sup> <sub>0</sub>	55.32 <sup>+0.23</sup> <sub>-0.02</sub>	63.50 <sup>+0.13</sup>	5.99 <sup>-0.3</sup>



Shellsize 2-4



## ORDER DATA

SOCKET CONNECTOR			
Design	Mounting style 4-40 UNC	Power contact	Part number
15W4	Threaded insert	High power 20A	15-005893
19W1	Threaded insert	High power 20A	15-005903
45W2	Threaded insert	High power 20A	15-005913

PLUG CONNECTOR			
Design	Mounting style 4-40 UNC	Power contact	Part number
15W4	Threaded insert	High power 20A	15-005923
19W1	Threaded insert	High power 20A	15-005933
45W2	Threaded insert	High power 20A	15-005943

Other high power or coaxial contacts on request.

# IP67 COMBINATION HD-SUB SOLID BODY

Solder pin – Straight – Precision machined contacts



RoHS compliant

## DESCRIPTION

- High power contacts 20A
- Mounting style:  
4-40 UNC threaded rear spacer with PCB clip
- Quality class 3 (Also available in quality class 1)
- One-piece zinc die-cast nickel plated shell
- IP67 for harsh environments, pressure-proof up to 1.45 PSI
- Stainless steel hex bolts are supplied loose

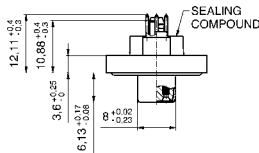
## SOCKET CONNECTOR



Shellsize	A	B2 -0.25	C
2	47.70 <sup>+0.3</sup> <sub>0</sub>	24.79	33.32 <sup>+0.13</sup> <sub>-0.12</sub>
3	61.40 <sup>+0.3</sup> <sub>0</sub>	38.50	47.04 <sup>+0.13</sup> <sub>±0.13</sub>
4	78.00 <sup>+0.3</sup> <sub>0</sub>	54.96	63.50 <sup>+0.13</sup> <sub>±0.13</sub>



Shellsize 2-4



## PLUG CONNECTOR



Shellsize	A	B1	C	D
2	47.70 <sup>+0.3</sup> <sub>0</sub>	25.14 <sup>+0.23</sup> <sub>-0.02</sub>	33.32 <sup>+0.13</sup> <sub>-0.12</sub>	6.00 <sup>+0.12</sup> <sub>-0.18</sub>
3	61.40 <sup>+0.3</sup> <sub>0</sub>	38.86 <sup>+0.23</sup> <sub>-0.02</sub>	47.04 <sup>+0.13</sup> <sub>±0.13</sub>	5.99 <sup>+0.3</sup> <sub>-0.3</sub>
4	78.00 <sup>+0.3</sup> <sub>0</sub>	55.32 <sup>+0.23</sup> <sub>-0.02</sub>	63.50 <sup>+0.13</sup> <sub>±0.13</sub>	5.99 <sup>+0.3</sup> <sub>-0.3</sub>



Shellsize 2-4



## ORDER DATA

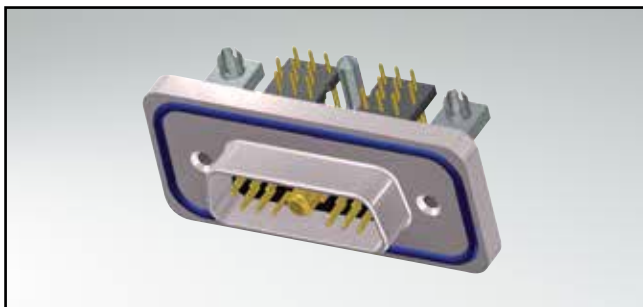
SOCKET CONNECTOR			
Design	Mounting style 4-40 UNC	Power contact	Part number
15W4	Threaded rear spacer PCB clip	High power 20A	15-005953
19W1	Threaded rear spacer PCB clip	High power 20A	15-005963
45W2	Threaded rear spacer PCB clip	High power 20A	15-005973

PLUG CONNECTOR			
Design	Mounting style 4-40 UNC	Power contact	Part number
15W4	Threaded rear spacer PCB clip	High power 20A	15-005983
19W1	Threaded rear spacer PCB clip	High power 20A	15-005993
45W2	Threaded rear spacer PCB clip	High power 20A	15-006003

Other high power or coaxial contacts on request.

# IP67 COMBINATION HD-SUB SOLID BODY

Solder pin – Angled – Precision machined contacts – Metal bracket



RoHS compliant

## DESCRIPTION

- High power contacts 20A
- Mounting style: mounting bracket, 4-40 UNC PCB clip
- Quality class 3 (Also available in quality class 1)
- One-piece zinc die-cast nickel plated shell
- IP67 for harsh environments, pressure-proof up to 1.45 PSI
- Stainless steel hex bolts are supplied loose

## SOCKET CONNECTOR



Shellsize	A	B2 ±0.25	C
2	47.70 <sup>+0.3</sup> <sub>0</sub>	24.79	33.32 <sup>+0.13</sup> <sub>-0.12</sub>
3	61.40 <sup>+0.3</sup> <sub>0</sub>	38.50	47.04 <sup>+0.13</sup> <sub>0</sub>
4	78.00 <sup>+0.3</sup> <sub>0</sub>	54.96	63.50 <sup>+0.13</sup> <sub>0</sub>



### Shellsize 2-4



## PLUG CONNECTOR



Shellsize	A	B1	C	D
2	47.70 <sup>+0.3</sup> <sub>0</sub>	25.14 <sup>+0.23</sup> <sub>-0.02</sub>	33.32 <sup>+0.13</sup> <sub>-0.12</sub>	6.00 <sup>+0.12</sup> <sub>-0.18</sub>
3	61.40 <sup>+0.3</sup> <sub>0</sub>	38.86 <sup>+0.23</sup> <sub>-0.02</sub>	47.04 <sup>+0.13</sup> <sub>0</sub>	5.99 <sup>+0.3</sup> <sub>0</sub>
4	78.00 <sup>+0.3</sup> <sub>0</sub>	55.32 <sup>+0.23</sup> <sub>-0.02</sub>	63.50 <sup>+0.13</sup> <sub>0</sub>	5.99 <sup>+0.3</sup> <sub>0</sub>



### Shellsize 2-4



## ORDER DATA

SOCKET CONNECTOR			
Design	Mounting style 4-40 UNC	Power contact	Part number
15W4	Mounting bracket PCB clip	High power 20A	15-006013
19W1	Mounting bracket PCB clip	High power 20A	15-006023
45W2	Mounting bracket PCB clip	High power 20A	15-006033

PLUG CONNECTOR			
Design	Mounting style 4-40 UNC	Power contact	Part number
15W4	Mounting bracket PCB clip	High power 20A	15-006043
19W1	Mounting bracket PCB clip	High power 20A	15-006053
45W2	Mounting bracket PCB clip	High power 20A	15-006063

Other high power or coaxial contacts on request.

# COMBINATION D-SUB CONTACTS

## High power contacts – Solder cup – Screw/Crimp version



RoHS compliant – CSA listed, File No.: LR 115000-1 – UL listed, File No.: E202784

### DESCRIPTION

- Precision machined contacts
- Quality class 3: 50 mating cycles
- Quality class 1: 500 mating cycles
- Premating contacts available on request
- Solder area tin plated available on request

### Note:

Contacts shown on this page, are for the Selection and Coding of your part number, using the Part Number Constructor on page 9|2.

### PRODUCT DRAWING

Socket contact/Solder cup



Plug contact/Solder cup



Socket contact/Screw crimp



Plug contact/Screw crimp



AWG	Current rating	ØA+0.15
16-20	10A	1.80
12-14	20A	2.70
10-12	30A	3.50
8-10	40A	4.80

Wire stripping



### ORDER DATA

#### HIGH POWER CONTACT SOLDER CUP

Wire size	Current rating	Quality class 3 Code	Quality class 1 Code
AWG 16...20	10 A	61	41
AWG 12...14	20 A	62	42
AWG 10...12	30 A	63 (only for solid body)	43
AWG 8...10	40 A	64 (only for solid body)	44

#### HIGH POWER CONTACT SCREW CRIMP

Wire size	Current rating	Quality class 3 Code	Quality class 1 Code
AWG 16...20	10 A	On request	R1
AWG 12...14	20 A	On request	R2
AWG 10...12	30 A	On request	R3
AWG 8...10	40 A	On request	R4

# COMBINATION D-SUB CONTACTS

## High power contacts – Solder pin – Straight



RoHS compliant – CSA listed, File No.: LR 115000-1 – UL listed, File No.: E202784

### DESCRIPTION

- Precision machined contacts
- Quality class 3: 50 mating cycles (gold plated)
- Quality class 1: 500 mating cycles (gold plated)
- Premating contacts available on request

### Note:

Contacts shown on this page, are for the Selection and Coding of your part number, using the Part Number Constructor on page 9|2.

### PRODUCT DRAWING

Socket contact



Plug contact



Current rating	Termination	A	B	C	Ø D
20A	48/68	15.84	4.60	15.98	1.95
20A	49/69	16.84	5.30	16.98	2.60
20A	50/70	16.24	4.70	16.38	2.85
30A	51/71	19.04	7.50	19.18	3.18
40A	52/72	17.29	5.75	17.43	3.75

### ORDER DATA

HIGH POWER CONTACT		Quality class 3	Quality class 1
Solder tail diameter D	Current rating	Code	Code
.077" / 1.95 mm	20A	68	48
.102" / 2.60 mm	20A	69	49
.112" / 2.85 mm	20A	70	50
.125" / 3.18 mm	30A	71	51
.148" / 3.75 mm	40A	72	52

Please select code to create a new part number.

# COMBINATION D-SUB CONTACTS

High power contacts – Solder pin – angled



RoHS compliant – CSA listed, File No.: LR 115000-1 – UL listed, File No.: E202784

## DESCRIPTION

- Precision machined contacts
- Quality class 3: .008 μ" / 0.2 μm Au in contact area
- Quality class 1: .032 μ" / 0.8 μm Au in contact area
- Premating contacts available on request

### Note:

Contacts shown on this page, are for the Selection and Coding of your part number, using the Part Number Constructor on page 9|2.

## PRODUCT DRAWING

Socket contact



Plug contact



Shellsize	Current rating	Termination	A	B	C	D	Ø E
1-4	15A	55/59	14.54	3.00	10.50	14.68	1.90
1-4	20A	56/73	17.84	6.30	11.00	17.98	2.85
1-4	30A	57/74	26.54	15.00	9.50	26.68	3.20
1-4	40A	58/75	17.84	6.30	11.00	17.98	3.75
5	20A	66/81	20.39	8.85	14.00	20.53	2.85
5	30A	67/82	20.39	8.85	14.00	20.53	3.20
5	30A	65/85	26.54	15.00	13.50	26.68	3.20
5	40A	60/77	20.39	8.85	14.00	20.53	3.75

## ORDER DATA

HIGH POWER CONTACT		Quality class 3	Quality class 1
Shellsize	Current rating	Code	Code
1-4	15 A	59	55
1-4	20 A	73	56
1-4	30 A	74	57
1-4	40 A	75	58
5	20 A	81	66
5	30 A	82	67
5	30 A	85	65
5	40 A	77	60

Please select code to create a new part number.



# COMBINATION D-SUB CONTACTS

Coaxial contacts – Straight – Inner and outer conductor for solder connection



RoHS compliant – CSA listed, File No.: LR 115000-1 – UL listed, File No.: E202784

## DESCRIPTION

- 50 and 75 Ω design
- Contact plating:
  - .008 μ"/0.2 μm Au plating mating side inner- and outer conductor (Quality class 3)
  - other quality classes on request
- IP67 protection only in mated condition in conjunction with water resistant housing from CONEC

### Note:

Contacts shown on this page, are for the Selection and Coding of your part number, using the Part Number Constructor on page 9|2.

## PRODUCT DRAWING

### 50 Ω version

Plug contact



Socket contact



Wire stripping



Usable Cables RG	A	B	C	Ø E max.	Ø F max.	Ø G max.	Ø H max.
178BU, 196AU, 404U	22.50	11.20	23.00	0.85	1.20	1.40	2.30
174U, 188AU, 316U	22.50	11.20	23.00	0.85	1.90	2.30	3.20
180BU	22.50	11.20	23.00	0.85	2.80	3.10	4.50
58CU, 141AU	26.30	14.80	26.80	1.00	3.00	3.60	5.20
316U double braided	23.50	12.20	24.00	0.85	1.90	2.70	3.20

### 75 Ω version

Plug contact



Socket contact



Wire stripping



Usable Cables RG	A	B	C	Ø H max.	J	K	L
179BU, 187AU	18.55	7.30	19.05	2.30	2.00	3.10	6.00
179BU, 187AU	22.50	11.20	23.00	3.20	3.20	5.00	9.50

## ORDER DATA

COAXIAL CONTACT		Quality class 1	Quality class 3
Usable cable	Characteristic impedance	Code	Code
178BU, 196AU, 404U	50 Ω	H6	G2
174U, 188AU, 316U	50 Ω	H7	G3
180BU	50 Ω	H8	G4
58CU, 141AU	50 Ω	H9	G5
316U double braided	50 Ω	K1	G6
179BU, 187AU (B= .290" / 7.3 mm)	75 Ω	H4	F9
179BU, 187AU (B= .441" / 11.2 mm)	75 Ω	H5	G1

Please select code to create a new part number.

# COMBINATION D-SUB CONTACTS

Coaxial contacts – Straight – PCB termination – 3 solder pins



RoHS compliant – CSA listed, File No.: LR 115000-1 – UL listed, File No.: E202784

## DESCRIPTION

- 50 and 75 Ω design
- Contact plating:
  - .051 μ" / 1.3 μm Au plating mating side inner conductor / .032 μ" / 0.8 μm Au outer conductor (Quality class 1)
  - .008 μ" / 0.2 μm Au plating mating side inner- and outer conductor (Quality class 3)
- IP67 protection only in mated condition in conjunction with water resistant housing from CONEC

## Note:

Contacts shown on this page, are for the Selection and Coding of your part number, using the Part Number Constructor on page 9 | 2.

## PRODUCT DRAWING

### 50 Ω version

Plug contact



Socket contact



### 75 Ω version

Plug contact



Socket contact



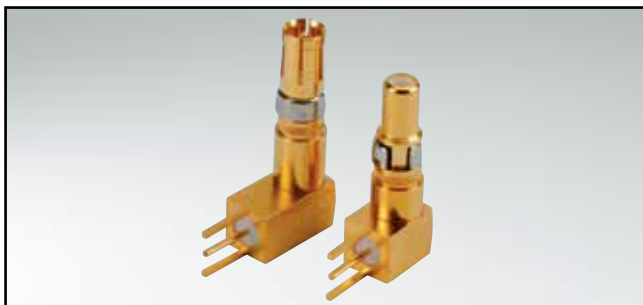
## ORDER DATA

COAXIAL CONTACT		Quality class 1		Quality class 3	
Shellsize	Characteristic impedance	Code		Code	
1-5	50 Ω	76		G7	
1-5	75 Ω	86		G8	

Please select code to create a new part number.

# COMBINATION D-SUB CONTACTS

Coaxial contacts – Angled – PCB termination – 3 solder pins



RoHS compliant – CSA listed, File No.: LR 115000-1 – UL listed, File No.: E202784

### DESCRIPTION

- 50 and 75 Ω design
- Contact plating:
  - .051 μ" / 1.3 μm Au plating mating side inner conductor / .032 μ" / 0.8 μm Au outer conductor (Quality class 1)
  - .008 μ" / 0.2 μm Au plating mating side inner- and outer conductor (Quality class 3)
- IP67 protection only in mated condition in conjunction with water resistant shells from CONEC

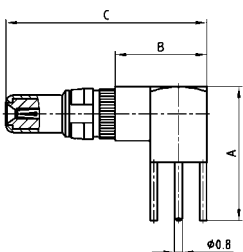
### Note:

Contacts shown on this page, are for the Selection and Coding of your part number, using the Part Number Constructor on page 9 | 2.

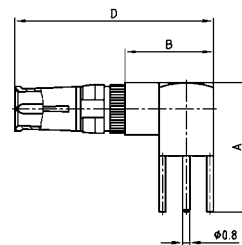
### PRODUCT DRAWING

#### 50 Ω version

Plug contact

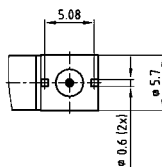


Socket contact

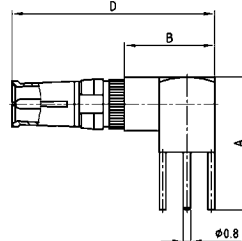


#### 75 Ω version

Plug contact



Socket contact



Shellsize	A	B	C	D	E	F
1-4	13.80	9.30	20.70	21.20	11.00	9.30
5	16.80	11.80	23.20	23.70	14.00	11.80

### ORDER DATA

COAXIAL CONTACT		Quality class 1		Quality class 3	
Shellsize	Characteristic impedance	Code		Code	
1-4	50 Ω	78		G9	
5	50 Ω	79		H1	
1-4	75 Ω	88		H2	
5	75 Ω	89		H3	

Please select code to create a new part number.

## SECTION 10

# IP67 FILTER D-SUB CONNECTORS

---

Many applications in harsh, industrial environments place additional demands on the interface.

The filtered, water resistant connector system developed by CONEC is well suited for applications that require increased EMC protection under ambient conditions where there is risk of dust and moisture.

The system includes D-Subminiature Connectors in standard and high-density designs.

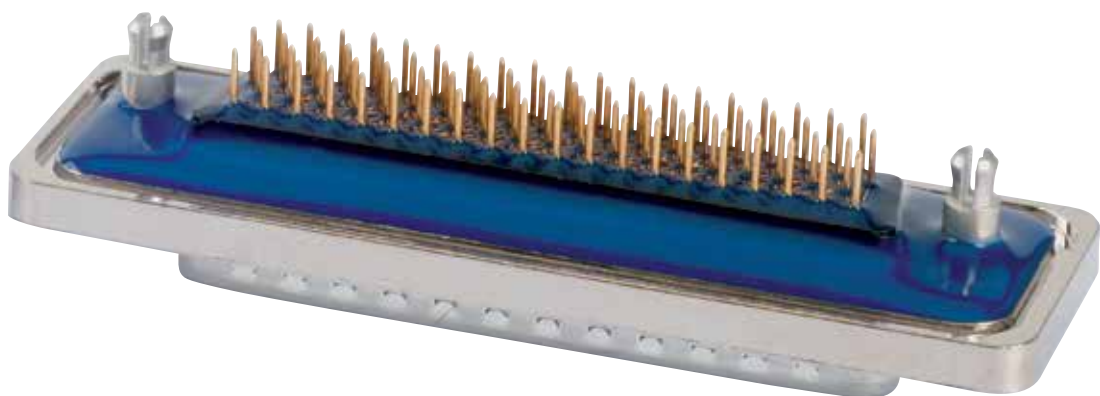
This connector system designed to IEC 60529 with an IP67 rating. In order to ensure these requirements are met, special sealing measures have been taken for these connectors and their sealing frames. Special water resistant accessories and protective caps supplement the product line.





#### System details:

- Plastic or metal frame with O-ring for sealing
- Seal in the connector plug- water cannot penetrate into the housing
- Available for front side or rear side panel of the enclosure
- Connector without frame for cable housing
- Special threaded parts, 4-40 UNC and M 3
- Plastic materials comply with UL 94 V0
- Machined precision contacts for heavy duty usage
- Various gold plating options available
- All conventional contact termination types available
- Special accessories, e.g. water resistant hoods and sealing caps



# PART NUMBER CREATOR

6 S T F O 9 P A M O 4 B 3 O X

### Product Line

- 4\* = Shell brass tin plated with plastic frame or without frame
- 6 = Shell brass tin plated with metal frame (Standard)  
(\*on request)

### Variations

- STF = D-Subminiatur Standard filtered
- HDF = D-Subminiatur High Density filtered

### No. of pos. for STF

- 09 = 09 pos.
- 15 = 15 pos.
- 25 = 25 pos.
- 37 = 37 pos.
- 50 = 50 pos.

### No. of pos. for HDF

- 15 = 15 pos.
- 26 = 26 pos.
- 44 = 44 pos.
- 62 = 62 pos.
- 78 = 78 pos.

### P

- = Plug connector (Standard)  
(Socket connector on request)

### Quality class / Plating code for contacts

- A = Quality class 3 = 50 mating cycles
- B = Quality class 2 = 200 mating cycles
- C = Quality class 1 = 500 mating cycles

### Termination

- M = Solder cup only for STF
- R = Solder pin, straight
- T = Solder pin, angled, .189" / 4.80 mm only for STF
- U = Solder pin, angled, .276" / 7.00 mm only for STF
- Z = Solder pin, angled, .465" / 11.80 mm only for STF
- Y = Solder pin, angled, .220" / 5.60 mm only for HDF

### Capacitance

- 01 = 180 pF ± 20% tolerance
- 03 = 370 pF ± 20% tolerance
- 04 = 830 pF ± 20% tolerance
- 05\* = 1300 pF ± 20% tolerance \*not applicable for HDF

### Mounting style

- A1 = Riveted through hole for cable mount / Shell without sealing frame
- B2 = M3 threaded insert
- B3 = 4-40 UNC threaded insert
- B4 = Threaded lock for M3 front mounting
- B5 = Threaded lock for 4-40 UNC front mounting
- E1 = M3 threaded rear spacer with PCB clip, PCB .063" / 1.60 mm
- E2 = 4-40 UNC threaded rear spacer with PCB clip, PCB .063" / 1.60 mm
- S1 = Metal bracket, M3 threaded insert
- S2 = Metal bracket, 4-40 UNC threaded insert
- S3 = Metal bracket, M3 threaded insert and PCB clip
- S4 = Metal bracket, 4-40 UNC threaded insert and PCB clip
- R1 = Metal bracket, M3 threaded insert
- R2 = Metal bracket, 4-40 UNC threaded insert
- R3 = Metal bracket, M3 threaded insert and PCB clip
- R4 = Metal bracket, 4-40 UNC threaded insert and PCB clip

- OX = Standard

## PANEL CUT-OUT

### FRONT PANEL MOUNTING



### REAR PANEL MOUNTING



The hex bolts illustrated here (4-40 UNC or M3 threads) are included in the delivery complement of every connector with a sealing frame. The length of this spacer has been selected to accommodate a panel thickness of .063"/1.6 mm such that it does not extend beyond the plug-in height. Furthermore, the hex bolts outside threads are shorter than standard hex bolts. Material: stainless steel.

# IP67 C-FILTER D-SUB STANDARD

Plug connector – Solder cup – Precision machined contacts – For wire size AWG 26



RoHS compliant – CSA listed, File No.: LR 115000-1 – UL listed, File No.: E 202784

## DESCRIPTION

- Suitable for wire size AWG 26 (AWG 20 available on request)
- Mounting style: with 4-40 UNC or M3 threaded insert
- Quality class 3 (also available in quality class 1)
- Shell: brass tin plated
- Nickel plated die-cast frame (Black plastic frame on request)

## PRODUCT DRAWING



No. of pos.	A +0.30	B +0.30	C	D +0.25	E -0.30
09	21.10	39.40	25.00 <sup>+0.12</sup> <sub>-0.13</sub>	16.79	5.82
15	21.10	47.70	33.30 <sup>+0.15</sup> <sub>-0.10</sub>	25.12	5.82
25	21.10	61.40	47.04 <sup>+0.13</sup>	38.84	5.69
37	21.10	77.90	63.50 <sup>+0.13</sup>	55.30	5.69
50	23.90	75.50	61.10 <sup>+0.14</sup> <sub>-0.11</sub>	52.68	5.69

Mounting style: Threaded insert



9-37 pos.



50 pos.



## ORDER DATA

Capacitance 180 pF

PLUG CONNECTOR		
No. of pos.	Mounting style M3	Part Number
09	Threaded insert	6STF09PAM01B20X
15	Threaded insert	6STF15PAM01B20X
25	Threaded insert	6STF25PAM01B20X
37	Threaded insert	6STF37PAM01B20X
50	Threaded insert	6STF50PAM01B20X

PLUG CONNECTOR		
No. of pos.	Mounting style 4-40 UNC	Part Number
09	Threaded insert	6STF09PAM01B30X
15	Threaded insert	6STF15PAM01B30X
25	Threaded insert	6STF25PAM01B30X
37	Threaded insert	6STF37PAM01B30X
50	Threaded insert	6STF50PAM01B30X



# IP67 C-FILTER D-SUB STANDARD

Plug connector – Solder cup – Precision machined contacts – For wire size AWG 26

## ORDER DATA

### Capacitance 370 pF

PLUG CONNECTOR			PLUG CONNECTOR		
No. of pos.	Mounting style M3	Part Number	No. of pos.	Mounting style 4-40 UNC	Part Number
09	Threaded insert	6STF09PAM03B20X	09	Threaded insert	6STF09PAM03B30X
15	Threaded insert	6STF15PAM03B20X	15	Threaded insert	6STF15PAM03B30X
25	Threaded insert	6STF25PAM03B20X	25	Threaded insert	6STF25PAM03B30X
37	Threaded insert	6STF37PAM03B20X	37	Threaded insert	6STF37PAM03B30X
50	Threaded insert	6STF50PAM03B20X	50	Threaded insert	6STF50PAM03B30X

### Capacitance 830 pF

PLUG CONNECTOR			PLUG CONNECTOR		
No. of pos.	Mounting style M3	Part Number	No. of pos.	Mounting style 4-40 UNC	Part Number
09	Threaded insert	6STF09PAM04B20X	09	Threaded insert	6STF09PAM04B30X
15	Threaded insert	6STF15PAM04B20X	15	Threaded insert	6STF15PAM04B30X
25	Threaded insert	6STF25PAM04B20X	25	Threaded insert	6STF25PAM04B30X
37	Threaded insert	6STF37PAM04B20X	37	Threaded insert	6STF37PAM04B30X
50	Threaded insert	6STF50PAM04B20X	50	Threaded insert	6STF50PAM04B30X

### Capacitance 1300 pF

PLUG CONNECTOR			PLUG CONNECTOR		
No. of pos.	Mounting style M3	Part Number	No. of pos.	Mounting style 4-40 UNC	Part Number
09	Threaded insert	6STF09PAM05B20X	09	Threaded insert	6STF09PAM05B30X
15	Threaded insert	6STF15PAM05B20X	15	Threaded insert	6STF15PAM05B30X
25	Threaded insert	6STF25PAM05B20X	25	Threaded insert	6STF25PAM05B30X
37	Threaded insert	6STF37PAM05B20X	37	Threaded insert	6STF37PAM05B30X
50	Threaded insert	6STF50PAM05B20X	50	Threaded insert	6STF50PAM05B30X

# IP67 C-FILTER D-SUB STANDARD

Plug connector – Solder pin – Straight – Precision machined contacts

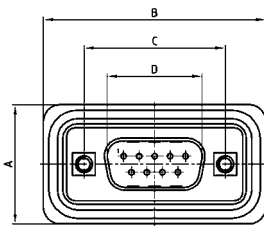


RoHS compliant – CSA listed, File No.: LR 115000-1 – UL listed, File No.: E 202784

## DESCRIPTION

- Mounting styles:
  - with 4-40 UNC or M3 threaded insert
  - with 4-40 UNC or M3 threaded rear spacer with PCB clip
- Quality class 3 (also available in quality class 1)
- Shell: brass tin plated
- Nickel plated die-cast frame  
(Black plastic frame on request)

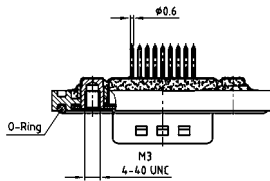
## PRODUCT DRAWING



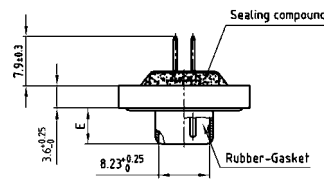
No. of pos.	A +0.30	B +0.30	C	D +0.25	E -0.30
09	21.10	39.40	25.00 <sup>+0.12</sup> <sub>-0.13</sub>	16.79	5.82
15	21.10	47.70	33.30 <sup>+0.15</sup> <sub>-0.10</sub>	25.12	5.82
25	21.10	61.40	47.04 <sup>+0.13</sup>	38.84	5.69
37	21.10	77.90	63.50 <sup>+0.13</sup>	55.30	5.69
50	23.90	75.50	61.10 <sup>+0.14</sup> <sub>-0.11</sub>	52.68	5.69

PCB-Layout: Kat1kFVA / Kat1kFUA

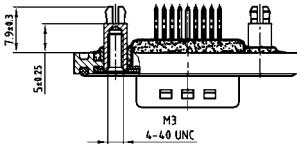
Mounting style: Threaded insert



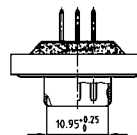
9-37 pos.



Mounting style: Threaded rear spacer with PCB clip



50 pos.



## ORDER DATA

Capacitance 180 pF

### PLUG CONNECTOR

No. of pos.	Mounting style	Part Number
09	M3 Threaded insert	6STF09PAR01 B20X
15	M3 Threaded insert	6STF15PAR01 B20X
25	M3 Threaded insert	6STF25PAR01 B20X
37	M3 Threaded insert	6STF37PAR01 B20X
50	M3 Threaded insert	6STF50PAR01 B20X
09	4-40 UNC Threaded insert	6STF09PAR01 B30X
15	4-40 UNC Threaded insert	6STF15PAR01 B30X
25	4-40 UNC Threaded insert	6STF25PAR01 B30X
37	4-40 UNC Threaded insert	6STF37PAR01 B30X
50	4-40 UNC Threaded insert	6STF50PAR01 B30X

### PLUG CONNECTOR

No. of pos.	Mounting style	Part Number
09	M3 Threaded rear spacer PCB clip	6STF09PAR01 E10X
15	M3 Threaded rear spacer PCB clip	6STF15PAR01 E10X
25	M3 Threaded rear spacer PCB clip	6STF25PAR01 E10X
37	M3 Threaded rear spacer PCB clip	6STF37PAR01 E10X
50	M3 Threaded rear spacer PCB clip	6STF50PAR01 E10X
09	4-40 UNC Threaded rear spacer PCB clip	6STF09PAR01 E20X
15	4-40 UNC Threaded rear spacer PCB clip	6STF15PAR01 E20X
25	4-40 UNC Threaded rear spacer PCB clip	6STF25PAR01 E20X
37	4-40 UNC Threaded rear spacer PCB clip	6STF37PAR01 E20X
50	4-40 UNC Threaded rear spacer PCB clip	6STF50PAR01 E20X

PCB clip .122" / 3.1 ± .004" / 0.10 mm hole diameter and .063" / 1.6 mm circuit board thickness

# IP67 C-FILTER D-SUB STANDARD

Plug connector – Solder pin – Straight – Precision machined contacts

## ORDER DATA

### Capacitance 370 pF

PLUG CONNECTOR			PLUG CONNECTOR		
No. of pos.	Mounting style	Part Number	No. of pos.	Mounting style	Part Number
09	M3 Threaded insert	6STF09PAR03B20X	09	M3 Threaded rear spacer PCB clip	6STF09PAR03E10X
15	M3 Threaded insert	6STF15PAR03B20X	15	M3 Threaded rear spacer PCB clip	6STF15PAR03E10X
25	M3 Threaded insert	6STF25PAR03B20X	25	M3 Threaded rear spacer PCB clip	6STF25PAR03E10X
37	M3 Threaded insert	6STF37PAR03B20X	37	M3 Threaded rear spacer PCB clip	6STF37PAR03E10X
50	M3 Threaded insert	6STF50PAR03B20X	50	M3 Threaded rear spacer PCB clip	6STF50PAR03E10X
09	4-40 UNC Threaded insert	6STF09PAR03B30X	09	4-40 UNC Threaded rear spacer PCB clip	6STF09PAR03E20X
15	4-40 UNC Threaded insert	6STF15PAR03B30X	15	4-40 UNC Threaded rear spacer PCB clip	6STF15PAR03E20X
25	4-40 UNC Threaded insert	6STF25PAR03B30X	25	4-40 UNC Threaded rear spacer PCB clip	6STF25PAR03E20X
37	4-40 UNC Threaded insert	6STF37PAR03B30X	37	4-40 UNC Threaded rear spacer PCB clip	6STF37PAR03E20X
50	4-40 UNC Threaded insert	6STF50PAR03B30X	50	4-40 UNC Threaded rear spacer PCB clip	6STF50PAR03E20X

### Capacitance 830 pF

PLUG CONNECTOR			PLUG CONNECTOR		
No. of pos.	Mounting style	Part Number	No. of pos.	Mounting style	Part Number
09	M3 Threaded insert	6STF09PAR04B20X	09	M3 Threaded rear spacer PCB clip	6STF09PAR04E10X
15	M3 Threaded insert	6STF15PAR04B20X	15	M3 Threaded rear spacer PCB clip	6STF15PAR04E10X
25	M3 Threaded insert	6STF25PAR04B20X	25	M3 Threaded rear spacer PCB clip	6STF25PAR04E10X
37	M3 Threaded insert	6STF37PAR04B20X	37	M3 Threaded rear spacer PCB clip	6STF37PAR04E10X
50	M3 Threaded insert	6STF50PAR04B20X	50	M3 Threaded rear spacer PCB clip	6STF50PAR04E10X
09	4-40 UNC Threaded insert	6STF09PAR04B30X	09	4-40 UNC Threaded rear spacer PCB clip	6STF09PAR04E20X
15	4-40 UNC Threaded insert	6STF15PAR04B30X	15	4-40 UNC Threaded rear spacer PCB clip	6STF15PAR04E20X
25	4-40 UNC Threaded insert	6STF25PAR04B30X	25	4-40 UNC Threaded rear spacer PCB clip	6STF25PAR04E20X
37	4-40 UNC Threaded insert	6STF37PAR04B30X	37	4-40 UNC Threaded rear spacer PCB clip	6STF37PAR04E20X
50	4-40 UNC Threaded insert	6STF50PAR04B30X	50	4-40 UNC Threaded rear spacer PCB clip	6STF50PAR04E20X

### Capacitance 1300 pF

PLUG CONNECTOR			PLUG CONNECTOR		
No. of pos.	Mounting style	Part Number	No. of pos.	Mounting style	Part Number
09	M3 Threaded insert	6STF09PAR05B20X	09	M3 Threaded rear spacer PCB clip	6STF09PAR05E10X
15	M3 Threaded insert	6STF15PAR05B20X	15	M3 Threaded rear spacer PCB clip	6STF15PAR05E10X
25	M3 Threaded insert	6STF25PAR05B20X	25	M3 Threaded rear spacer PCB clip	6STF25PAR05E10X
37	M3 Threaded insert	6STF37PAR05B20X	37	M3 Threaded rear spacer PCB clip	6STF37PAR05E10X
50	M3 Threaded insert	6STF50PAR05B20X	50	M3 Threaded rear spacer PCB clip	6STF50PAR05E10X
09	4-40 UNC Threaded insert	6STF09PAR05B30X	09	4-40 UNC Threaded rear spacer PCB clip	6STF09PAR05E20X
15	4-40 UNC Threaded insert	6STF15PAR05B30X	15	4-40 UNC Threaded rear spacer PCB clip	6STF15PAR05E20X
25	4-40 UNC Threaded insert	6STF25PAR05B30X	25	4-40 UNC Threaded rear spacer PCB clip	6STF25PAR05E20X
37	4-40 UNC Threaded insert	6STF37PAR05B30X	37	4-40 UNC Threaded rear spacer PCB clip	6STF37PAR05E20X
50	4-40 UNC Threaded insert	6STF50PAR05B30X	50	4-40 UNC Threaded rear spacer PCB clip	6STF50PAR05E20X

# IP67 C-FILTER D-SUB STANDARD

Plug connector – Solder pin – Angled – .189" / 4.8 mm –  
Precision machined contacts – Metal bracket



RoHS compliant – CSA listed, File No.: LR 115000-1 – UL listed, File No.: E 202784

## DESCRIPTION

- Mounting styles:
  - with 4-40 UNC or M3 threaded insert
  - with mounting bracket, PCB clip and 4-40 UNC or M3 threaded insert
- Quality class 3 (also available in quality class 1)
- Shell: brass tin plated
- Nickel plated die-cast frame (Black plastic frame on request)

## PRODUCT DRAWING



No. of pos.	A +0.30	B +0.30	C	D +0.25	E -0.30
09	21.10	39.40	25.00 <sup>+0.12</sup> <sub>-0.13</sub>	16.79	5.82
15	21.10	47.70	33.30 <sup>+0.15</sup> <sub>-0.10</sub>	25.12	5.82
25	21.10	61.40	47.04 <sup>+0.13</sup>	38.84	5.69
37	21.10	77.90	63.50 <sup>+0.13</sup>	55.30	5.69

PCB-Layout: Kat1kGSA

Mounting style: Threaded insert



Mounting style: PCB clip, threaded insert



## ORDER DATA

Capacitance 180 pF

PLUG CONNECTOR			PLUG CONNECTOR		
No. of pos.	Mounting style	Part Number	No. of pos.	Mounting style	Part Number
09	M3 Threaded insert	6STF09PAT01S10X	09	PCB clip / M3 Threaded insert	6STF09PAT01S30X
15	M3 Threaded insert	6STF15PAT01S10X	15	PCB clip / M3 Threaded insert	6STF15PAT01S30X
25	M3 Threaded insert	6STF25PAT01S10X	25	PCB clip / M3 Threaded insert	6STF25PAT01S30X
37	M3 Threaded insert	6STF37PAT01S10X	37	PCB clip / M3 Threaded insert	6STF37PAT01S30X
09	4-40 UNC Threaded insert	6STF09PAT01S20X	09	PCB clip / 4-40 UNC Threaded insert	6STF09PAT01S40X
15	4-40 UNC Threaded insert	6STF15PAT01S20X	15	PCB clip / 4-40 UNC Threaded insert	6STF15PAT01S40X
25	4-40 UNC Threaded insert	6STF25PAT01S20X	25	PCB clip / 4-40 UNC Threaded insert	6STF25PAT01S40X
37	4-40 UNC Threaded insert	6STF37PAT01S20X	37	PCB clip / 4-40 UNC Threaded insert	6STF37PAT01S40X

PCB clip .122" / 3.1 ± .004" / 0.10 mm hole diameter and .063" / 1.6 mm circuit board thickness

# IP67 C-FILTER D-SUB STANDARD

Plug connector – Solder pin – Angled – .189" / 4.8 mm –

Precision machined contacts – Metal bracket

## ORDER DATA

### Capacitance 370 pF

PLUG CONNECTOR			PLUG CONNECTOR		
No. of pos.	Mounting style	Part Number	No. of pos.	Mounting style	Part Number
09	M3 Threaded insert	6STF09PAT03S10X	09	PCB clip / M3 Threaded insert	6STF09PAT03S30X
15	M3 Threaded insert	6STF15PAT03S10X	15	PCB clip / M3 Threaded insert	6STF15PAT03S30X
25	M3 Threaded insert	6STF25PAT03S10X	25	PCB clip / M3 Threaded insert	6STF25PAT03S30X
37	M3 Threaded insert	6STF37PAT03S10X	37	PCB clip / M3 Threaded insert	6STF37PAT03S30X
09	4-40 UNC Threaded insert	6STF09PAT03S20X	09	PCB clip / 4-40 UNC Threaded insert	6STF09PAT03S40X
15	4-40 UNC Threaded insert	6STF15PAT03S20X	15	PCB clip / 4-40 UNC Threaded insert	6STF15PAT03S40X
25	4-40 UNC Threaded insert	6STF25PAT03S20X	25	PCB clip / 4-40 UNC Threaded insert	6STF25PAT03S40X
37	4-40 UNC Threaded insert	6STF37PAT03S20X	37	PCB clip / 4-40 UNC Threaded insert	6STF37PAT03S40X

### Capacitance 830 pF

PLUG CONNECTOR			PLUG CONNECTOR		
No. of pos.	Mounting style	Part Number	No. of pos.	Mounting style	Part Number
09	M3 Threaded insert	6STF09PAT04S10X	09	PCB clip / M3 Threaded insert	6STF09PAT04S30X
15	M3 Threaded insert	6STF15PAT04S10X	15	PCB clip / M3 Threaded insert	6STF15PAT04S30X
25	M3 Threaded insert	6STF25PAT04S10X	25	PCB clip / M3 Threaded insert	6STF25PAT04S30X
37	M3 Threaded insert	6STF37PAT04S10X	37	PCB clip / M3 Threaded insert	6STF37PAT04S30X
09	4-40 UNC Threaded insert	6STF09PAT04S20X	09	PCB clip / 4-40 UNC Threaded insert	6STF09PAT04S40X
15	4-40 UNC Threaded insert	6STF15PAT04S20X	15	PCB clip / 4-40 UNC Threaded insert	6STF15PAT04S40X
25	4-40 UNC Threaded insert	6STF25PAT04S20X	25	PCB clip / 4-40 UNC Threaded insert	6STF25PAT04S40X
37	4-40 UNC Threaded insert	6STF37PAT04S20X	37	PCB clip / 4-40 UNC Threaded insert	6STF37PAT04S40X

### Capacitance 1300 pF

PLUG CONNECTOR			PLUG CONNECTOR		
No. of pos.	Mounting style	Part Number	No. of pos.	Mounting style	Part Number
09	M3 Threaded insert	6STF09PAT05S10X	09	PCB clip / M3 Threaded insert	6STF09PAT05S30X
15	M3 Threaded insert	6STF15PAT05S10X	15	PCB clip / M3 Threaded insert	6STF15PAT05S30X
25	M3 Threaded insert	6STF25PAT05S10X	25	PCB clip / M3 Threaded insert	6STF25PAT05S30X
37	M3 Threaded insert	6STF37PAT05S10X	37	PCB clip / M3 Threaded insert	6STF37PAT05S30X
09	4-40 UNC Threaded insert	6STF09PAT05S20X	09	PCB clip / 4-40 UNC Threaded insert	6STF09PAT05S40X
15	4-40 UNC Threaded insert	6STF15PAT05S20X	15	PCB clip / 4-40 UNC Threaded insert	6STF15PAT05S40X
25	4-40 UNC Threaded insert	6STF25PAT05S20X	25	PCB clip / 4-40 UNC Threaded insert	6STF25PAT05S40X
37	4-40 UNC Threaded insert	6STF37PAT05S20X	37	PCB clip / 4-40 UNC Threaded insert	6STF37PAT05S40X

PCB clip .122" / 3.1 ± .004" / 0.10 mm hole diameter and .063" / 1.6 mm circuit board thickness

# IP67 C-FILTER D-SUB STANDARD

Plug connector – Solder pin – Angled – .276" / 7.0 mm –  
Precision machined contacts – Metal bracket



RoHS compliant – CSA listed, File No.: LR 115000-1 – UL listed, File No.: E 202784

## DESCRIPTION

- Mounting styles:
  - with 4-40 UNC or M3 threaded insert
  - with mounting bracket, PCB clip and 4-40 UNC or M3 threaded insert
- Quality class 3 (also available in quality class 1)
- Shell: brass tin plated
- Nickel plated die-cast frame  
(Black plastic frame on request)

## PRODUCT DRAWING



No. of pos.	A +0.30	B +0.30	C	D +0.25	E -0.30
09	21.10	39.40	25.00 <sup>+0.12</sup> <sub>-0.13</sub>	16.79	5.82
15	21.10	47.70	33.30 <sup>+0.15</sup> <sub>-0.10</sub>	25.12	5.82
25	21.10	61.40	47.04 <sup>+0.13</sup>	38.84	5.69
37	21.10	77.90	63.50 <sup>+0.13</sup>	55.30	5.69
50	23.90	75.50	61.10 <sup>+0.14</sup> <sub>-0.11</sub>	52.68	5.69

PCB-Layout: Kat1kGTA

Mounting style: Threaded insert



Mounting style: PCB clip, threaded insert



9-37 pos.



50 pos.



## ORDER DATA

### Capacitance 180 pF

PLUG CONNECTOR			PLUG CONNECTOR		
No. of pos.	Mounting style	Part Number	No. of pos.	Mounting style	Part Number
09	M3 Threaded insert	6STF09PAU01R10X	09	PCB clip / M3 Threaded insert	6STF09PAU01R30X
15	M3 Threaded insert	6STF15PAU01R10X	15	PCB clip / M3 Threaded insert	6STF15PAU01R30X
25	M3 Threaded insert	6STF25PAU01R10X	25	PCB clip / M3 Threaded insert	6STF25PAU01R30X
37	M3 Threaded insert	6STF37PAU01R10X	37	PCB clip / M3 Threaded insert	6STF37PAU01R30X
50	M3 Threaded insert	6STF50PAU01R10X	50	PCB clip / M3 Threaded insert	6STF50PAU01R30X
09	4-40 UNC Threaded insert	6STF09PAU01R20X	09	PCB clip / 4-40 UNC Threaded insert	6STF09PAU01R40X
15	4-40 UNC Threaded insert	6STF15PAU01R20X	15	PCB clip / 4-40 UNC Threaded insert	6STF15PAU01R40X
25	4-40 UNC Threaded insert	6STF25PAU01R20X	25	PCB clip / 4-40 UNC Threaded insert	6STF25PAU01R40X
37	4-40 UNC Threaded insert	6STF37PAU01R20X	37	PCB clip / 4-40 UNC Threaded insert	6STF37PAU01R40X
50	4-40 UNC Threaded insert	6STF50PAU01R20X	50	PCB clip / 4-40 UNC Threaded insert	6STF50PAU01R40X

PCB clip .122" / 3.1 ± .004" / 0.10 mm hole diameter and .063" / 1.6 mm circuit board thickness

# IP67 C-FILTER D-SUB STANDARD

Plug connector – Solder pin – Angled – .276" / 7.0 mm –

Precision machined contacts – Metal bracket

## ORDER DATA

### Capacitance 370 pF

PLUG CONNECTOR			PLUG CONNECTOR		
No. of pos.	Mounting style	Part Number	No. of pos.	Mounting style	Part Number
09	M3 Threaded insert	6STF09PAU03R10X	09	PCB clip / M3 Threaded insert	6STF09PAU03R30X
15	M3 Threaded insert	6STF15PAU03R10X	15	PCB clip / M3 Threaded insert	6STF15PAU03R30X
25	M3 Threaded insert	6STF25PAU03R10X	25	PCB clip / M3 Threaded insert	6STF25PAU03R30X
37	M3 Threaded insert	6STF37PAU03R10X	37	PCB clip / M3 Threaded insert	6STF37PAU03R30X
50	M3 Threaded insert	6STF50PAU03R10X	50	PCB clip / M3 Threaded insert	6STF50PAU03R30X
09	4-40 UNC Threaded insert	6STF09PAU03R20X	09	PCB clip / 4-40 UNC Threaded insert	6STF09PAU03R40X
15	4-40 UNC Threaded insert	6STF15PAU03R20X	15	PCB clip / 4-40 UNC Threaded insert	6STF15PAU03R40X
25	4-40 UNC Threaded insert	6STF25PAU03R20X	25	PCB clip / 4-40 UNC Threaded insert	6STF25PAU03R40X
37	4-40 UNC Threaded insert	6STF37PAU03R20X	37	PCB clip / 4-40 UNC Threaded insert	6STF37PAU03R40X
50	4-40 UNC Threaded insert	6STF50PAU03R20X	50	PCB clip / 4-40 UNC Threaded insert	6STF50PAU03R40X

### Capacitance 830 pF

PLUG CONNECTOR			PLUG CONNECTOR		
No. of pos.	Mounting style	Part Number	No. of pos.	Mounting style	Part Number
09	M3 Threaded insert	6STF09PAU04R10X	09	PCB clip / M3 Threaded insert	6STF09PAU04R30X
15	M3 Threaded insert	6STF15PAU04R10X	15	PCB clip / M3 Threaded insert	6STF15PAU04R30X
25	M3 Threaded insert	6STF25PAU04R10X	25	PCB clip / M3 Threaded insert	6STF25PAU04R30X
37	M3 Threaded insert	6STF37PAU04R10X	37	PCB clip / M3 Threaded insert	6STF37PAU04R30X
50	M3 Threaded insert	6STF50PAU04R10X	50	PCB clip / M3 Threaded insert	6STF50PAU04R30X
09	4-40 UNC Threaded insert	6STF09PAU04R20X	09	PCB clip / 4-40 UNC Threaded insert	6STF09PAU04R40X
15	4-40 UNC Threaded insert	6STF15PAU04R20X	15	PCB clip / 4-40 UNC Threaded insert	6STF15PAU04R40X
25	4-40 UNC Threaded insert	6STF25PAU04R20X	25	PCB clip / 4-40 UNC Threaded insert	6STF25PAU04R40X
37	4-40 UNC Threaded insert	6STF37PAU04R20X	37	PCB clip / 4-40 UNC Threaded insert	6STF37PAU04R40X
50	4-40 UNC Threaded insert	6STF50PAU04R20X	50	PCB clip / 4-40 UNC Threaded insert	6STF50PAU04R40X

### Capacitance 1300 pF

PLUG CONNECTOR			PLUG CONNECTOR		
No. of pos.	Mounting style	Part Number	No. of pos.	Mounting style	Part Number
09	M3 Threaded insert	6STF09PAU05R10X	09	PCB clip / M3 Threaded insert	6STF09PAU05R30X
15	M3 Threaded insert	6STF15PAU05R10X	15	PCB clip / M3 Threaded insert	6STF15PAU05R30X
25	M3 Threaded insert	6STF25PAU05R10X	25	PCB clip / M3 Threaded insert	6STF25PAU05R30X
37	M3 Threaded insert	6STF37PAU05R10X	37	PCB clip / M3 Threaded insert	6STF37PAU05R30X
50	M3 Threaded insert	6STF50PAU05R10X	50	PCB clip / M3 Threaded insert	6STF50PAU05R30X
09	4-40 UNC Threaded insert	6STF09PAU05R20X	09	PCB clip / 4-40 UNC Threaded insert	6STF09PAU05R40X
15	4-40 UNC Threaded insert	6STF15PAU05R20X	15	PCB clip / 4-40 UNC Threaded insert	6STF15PAU05R40X
25	4-40 UNC Threaded insert	6STF25PAU05R20X	25	PCB clip / 4-40 UNC Threaded insert	6STF25PAU05R40X
37	4-40 UNC Threaded insert	6STF37PAU05R20X	37	PCB clip / 4-40 UNC Threaded insert	6STF37PAU05R40X
50	4-40 UNC Threaded insert	6STF50PAU05R20X	50	PCB clip / 4-40 UNC Threaded insert	6STF50PAU05R40X

PCB clip .122" / 3.1 ± .004" / 0.10 mm hole diameter and .063" / 1.6 mm circuit board thickness

# IP67 C-FILTER D-SUB STANDARD

Plug connector – Solder pin – Angled – .464" / 11.8 mm –  
Precision machined contacts – Metal bracket



RoHS compliant – CSA listed, File No.: LR 115000-1 – UL listed, File No.: E 202784

## DESCRIPTION

- Mounting styles:
  - with 4-40 UNC or M3 threaded insert
  - with mounting bracket, PCB clip and 4-40 UNC or M3 threaded insert
- Quality class 3 (also available in quality class 1)
- Shell: brass tin plated
- Nickel plated die-cast frame (Black plastic frame on request)

## PRODUCT DRAWING



No. of pos.	A +0.30	B +0.30	C	D +0.25	E -0.30
09	21.10	39.40	25.00 <sup>+0.12</sup> <sub>-0.13</sub>	16.79	5.82
15	21.10	47.70	33.30 <sup>+0.15</sup> <sub>-0.10</sub>	25.12	5.82
25	21.10	61.40	47.04 <sup>+0.13</sup>	38.84	5.69
37	21.10	77.90	63.50 <sup>+0.13</sup>	55.30	5.69

PCB-Layout: Kat1kgUA

Mounting style: Threaded insert



Mounting style: PCB clip, threaded insert



## ORDER DATA

Capacitance 180 pF

### PLUG CONNECTOR

No. of pos.	Mounting style	Part Number
09	M3 Threaded insert	6STF09PAZ01S10X
15	M3 Threaded insert	6STF15PAZ01S10X
25	M3 Threaded insert	6STF25PAZ01S10X
37	M3 Threaded insert	6STF37PAZ01S10X
09	4-40 UNC Threaded insert	6STF09PAZ01S20X
15	4-40 UNC Threaded insert	6STF15PAZ01S20X
25	4-40 UNC Threaded insert	6STF25PAZ01S20X
37	4-40 UNC Threaded insert	6STF37PAZ01S20X

### PLUG CONNECTOR

No. of pos.	Mounting style	Part Number
09	PCB clip / M3 Threaded insert	6STF09PAZ01S30X
15	PCB clip / M3 Threaded insert	6STF15PAZ01S30X
25	PCB clip / M3 Threaded insert	6STF25PAZ01S30X
37	PCB clip / M3 Threaded insert	6STF37PAZ01S30X
09	PCB clip / 4-40 UNC Threaded insert	6STF09PAZ01S40X
15	PCB clip / 4-40 UNC Threaded insert	6STF15PAZ01S40X
25	PCB clip / 4-40 UNC Threaded insert	6STF25PAZ01S40X
37	PCB clip / 4-40 UNC Threaded insert	6STF37PAZ01S40X

PCB clip .122" / 3.1 ± .004" / 0.10 mm hole diameter and .063" / 1.6 mm circuit board thickness



# IP67 C-FILTER D-SUB STANDARD

Plug connector – Solder pin – Angled – .464" / 11.8 mm –

Precision machined contacts – Metal bracket

## ORDER DATA

### Capacitance 370 pF

PLUG CONNECTOR			PLUG CONNECTOR		
No. of pos.	Mounting style	Part Number	No. of pos.	Mounting style	Part Number
09	M3 Threaded insert	6STF09PAZ03S10X	09	PCB clip / M3 Threaded insert	6STF09PAZ03S30X
15	M3 Threaded insert	6STF15PAZ03S10X	15	PCB clip / M3 Threaded insert	6STF15PAZ03S30X
25	M3 Threaded insert	6STF25PAZ03S10X	25	PCB clip / M3 Threaded insert	6STF25PAZ03S30X
37	M3 Threaded insert	6STF37PAZ03S10X	37	PCB clip / M3 Threaded insert	6STF37PAZ03S30X
09	4-40 UNC Threaded insert	6STF09PAZ03S20X	09	PCB clip / 4-40 UNC Threaded insert	6STF09PAZ03S40X
15	4-40 UNC Threaded insert	6STF15PAZ03S20X	15	PCB clip / 4-40 UNC Threaded insert	6STF15PAZ03S40X
25	4-40 UNC Threaded insert	6STF25PAZ03S20X	25	PCB clip / 4-40 UNC Threaded insert	6STF25PAZ03S40X
37	4-40 UNC Threaded insert	6STF37PAZ03S20X	37	PCB clip / 4-40 UNC Threaded insert	6STF37PAZ03S40X

### Capacitance 830 pF

PLUG CONNECTOR			PLUG CONNECTOR		
No. of pos.	Mounting style	Part Number	No. of pos.	Mounting style	Part Number
09	M3 Threaded insert	6STF09PAZ04S10X	09	PCB clip / M3 Threaded insert	6STF09PAZ04S30X
15	M3 Threaded insert	6STF15PAZ04S10X	15	PCB clip / M3 Threaded insert	6STF15PAZ04S30X
25	M3 Threaded insert	6STF25PAZ04S10X	25	PCB clip / M3 Threaded insert	6STF25PAZ04S30X
37	M3 Threaded insert	6STF37PAZ04S10X	37	PCB clip / M3 Threaded insert	6STF37PAZ04S30X
09	4-40 UNC Threaded insert	6STF09PAZ04S20X	09	PCB clip / 4-40 UNC Threaded insert	6STF09PAZ04S40X
15	4-40 UNC Threaded insert	6STF15PAZ04S20X	15	PCB clip / 4-40 UNC Threaded insert	6STF15PAZ04S40X
25	4-40 UNC Threaded insert	6STF25PAZ04S20X	25	PCB clip / 4-40 UNC Threaded insert	6STF25PAZ04S40X
37	4-40 UNC Threaded insert	6STF37PAZ04S20X	37	PCB clip / 4-40 UNC Threaded insert	6STF37PAZ04S40X

### Capacitance 1300 pF

PLUG CONNECTOR			PLUG CONNECTOR		
No. of pos.	Mounting style	Part Number	No. of pos.	Mounting style	Part Number
09	M3 Threaded insert	6STF09PAZ05S10X	09	PCB clip / M3 Threaded insert	6STF09PAZ05S30X
15	M3 Threaded insert	6STF15PAZ05S10X	15	PCB clip / M3 Threaded insert	6STF15PAZ05S30X
25	M3 Threaded insert	6STF25PAZ05S10X	25	PCB clip / M3 Threaded insert	6STF25PAZ05S30X
37	M3 Threaded insert	6STF37PAZ05S10X	37	PCB clip / M3 Threaded insert	6STF37PAZ05S30X
09	4-40 UNC Threaded insert	6STF09PAZ05S20X	09	PCB clip / 4-40 UNC Threaded insert	6STF09PAZ05S40X
15	4-40 UNC Threaded insert	6STF15PAZ05S20X	15	PCB clip / 4-40 UNC Threaded insert	6STF15PAZ05S40X
25	4-40 UNC Threaded insert	6STF25PAZ05S20X	25	PCB clip / 4-40 UNC Threaded insert	6STF25PAZ05S40X
37	4-40 UNC Threaded insert	6STF37PAZ05S20X	37	PCB clip / 4-40 UNC Threaded insert	6STF37PAZ05S40X

PCB clip .122" / 3.1 ± .004" / 0.10 mm hole diameter and .063" / 1.6 mm circuit board thickness

# IP67 C-FILTER D-SUB STANDARD

Plug connector – Solder cup – Precision machined contacts –  
For wire size AWG 26 – Front mounting



RoHS compliant – CSA listed, File No.: LR 115000-1 – UL listed, File No.: E 202784

## DESCRIPTION

- Suitable for wire size **AWG 26** (AWG 20 available on request)
- Mounting style:  
with M3 or 4-40 UNC front spacer
- Quality class 3 (also available in quality class 1)
- Shell: brass tin plated
- Nickel plated die-cast frame  
(Black plastic frame on request)

## PRODUCT DRAWING

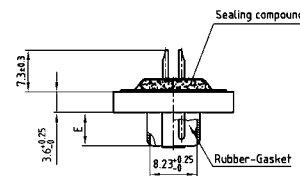


No. of pos.	A +0.30	B +0.30	C	D +0.25	E -0.30
09	21.10	39.40	25.00 <sup>+0.12</sup> <sub>-0.13</sub>	16.79	5.82
15	21.10	47.70	33.30 <sup>+0.15</sup> <sub>-0.10</sub>	25.12	5.82
25	21.10	61.40	47.04 <sup>+0.13</sup> <sub>-0.13</sub>	38.84	5.69
37	21.10	77.90	63.50 <sup>+0.13</sup> <sub>-0.13</sub>	55.30	5.69
50	23.90	75.50	61.10 <sup>+0.14</sup> <sub>-0.11</sub>	52.68	5.69

Mounting style: Threaded lock



9-37 pos.



50 pos.



## ORDER DATA

Capacitance 180 pF

PLUG CONNECTOR			PLUG CONNECTOR		
No. of pos.	Mounting style M3	Part Number	No. of pos.	Mounting style 4-40 UNC	Part Number
09	Front spacer	6STF09PAM01B40X	09	Front spacer	6STF09PAM01B50X
15	Front spacer	6STF15PAM01B40X	15	Front spacer	6STF15PAM01B50X
25	Front spacer	6STF25PAM01B40X	25	Front spacer	6STF25PAM01B50X
37	Front spacer	6STF37PAM01B40X	37	Front spacer	6STF37PAM01B50X
50	Front spacer	6STF50PAM01B40X	50	Front spacer	6STF50PAM01B50X

# IP67 C-FILTER D-SUB STANDARD

Plug connector – Solder cup – Precision machined contacts –

For wire size AWG 26 – Front mounting

## ORDER DATA

### Capacitance 370 pF

PLUG CONNECTOR			PLUG CONNECTOR		
No. of pos.	Mounting style M3	Part Number	No. of pos.	Mounting style 4-40 UNC	Part Number
09	Front spacer	6STF09PAM03B40X	09	Front spacer	6STF09PAM03B50X
15	Front spacer	6STF15PAM03B40X	15	Front spacer	6STF15PAM03B50X
25	Front spacer	6STF25PAM03B40X	25	Front spacer	6STF25PAM03B50X
37	Front spacer	6STF37PAM03B40X	37	Front spacer	6STF37PAM03B50X
50	Front spacer	6STF50PAM03B40X	50	Front spacer	6STF50PAM03B50X

### Capacitance 830 pF

PLUG CONNECTOR			PLUG CONNECTOR		
No. of pos.	Mounting style M3	Part Number	No. of pos.	Mounting style 4-40 UNC	Part Number
09	Front spacer	6STF09PAM04B40X	09	Front spacer	6STF09PAM04B50X
15	Front spacer	6STF15PAM04B40X	15	Front spacer	6STF15PAM04B50X
25	Front spacer	6STF25PAM04B40X	25	Front spacer	6STF25PAM04B50X
37	Front spacer	6STF37PAM04B40X	37	Front spacer	6STF37PAM04B50X
50	Front spacer	6STF50PAM04B40X	50	Front spacer	6STF50PAM04B50X

### Capacitance 1300 pF

PLUG CONNECTOR			PLUG CONNECTOR		
No. of pos.	Mounting style M3	Part Number	No. of pos.	Mounting style 4-40 UNC	Part Number
09	Front spacer	6STF09PAM05B40X	09	Front spacer	6STF09PAM05B50X
15	Front spacer	6STF15PAM05B40X	15	Front spacer	6STF15PAM05B50X
25	Front spacer	6STF25PAM05B40X	25	Front spacer	6STF25PAM05B50X
37	Front spacer	6STF37PAM05B40X	37	Front spacer	6STF37PAM05B50X
50	Front spacer	6STF50PAM05B40X	50	Front spacer	6STF50PAM05B50X

# IP67 C-FILTER D-SUB STANDARD

Plug connector – Solder cup – Precision machined contacts –  
For wire size AWG 26 – For hood assembly



RoHS compliant – CSA listed, File No.: LR 115000-1 – UL listed, File No.: E 202784

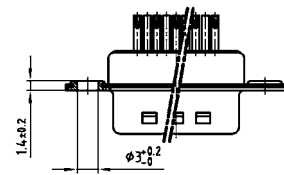
## DESCRIPTION

- Suitable for wire size AWG 26 (AWG 20 available on request)
- Mounting style:  
with through-hole  $\varnothing$  .118" / 3,0 mm
- Quality class 3 (also available in quality class 1)
- Shell: brass tin plated

## PRODUCT DRAWING

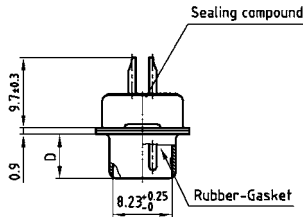


Mounting style: Through-hole



No. of pos.	A -0.76	B +0.25	C	D -0.30
09	31.19	16.79	25.00 <sup>+0.12</sup> <sub>-0.13</sub>	6.12
15	39.52	25.12	33.30 <sup>+0.15</sup> <sub>-0.10</sub>	6.12
25	53.42	38.84	47.04 <sup>+0.13</sup>	5.99
37	69.70	55.30	63.50 <sup>+0.13</sup>	5.99
50	67.31	52.68	61.10 <sup>+0.14</sup> <sub>-0.11</sub>	5.99

9-37 pos.



50 pos.



## ORDER DATA

Capacitance 180 pF

PLUG CONNECTOR		
No. of pos.	Mounting style	Part Number
09	Through-hole	4STF09PAM01A10X
15	Through-hole	4STF15PAM01A10X
25	Through-hole	4STF25PAM01A10X
37	Through-hole	4STF37PAM01A10X
50	Through-hole	4STF50PAM01A10X

## IP67 C-FILTER D-SUB STANDARD

Plug connector – Solder cup – Precision machined contacts –

For wire size AWG 26 – For hood assembly

### ORDER DATA

#### Capacitance 370 pF

##### PLUG CONNECTOR

No. of pos.	Mounting style	Part Number
09	Through-hole	4STF09PAM03A10X
15	Through-hole	4STF15PAM03A10X
25	Through-hole	4STF25PAM03A10X
37	Through-hole	4STF37PAM03A10X
50	Through-hole	4STF50PAM03A10X

#### Capacitance 830 pF

##### PLUG CONNECTOR

No. of pos.	Mounting style	Part Number
09	Through-hole	4STF09PAM04A10X
15	Through-hole	4STF15PAM04A10X
25	Through-hole	4STF25PAM04A10X
37	Through-hole	4STF37PAM04A10X
50	Through-hole	4STF50PAM04A10X

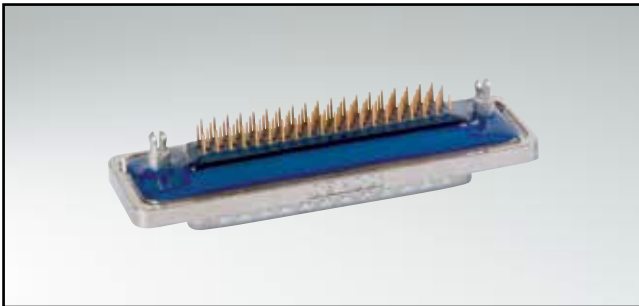
#### Capacitance 1300 pF

##### PLUG CONNECTOR

No. of pos.	Mounting style	Part Number
09	Through-hole	4STF09PAM05A10X
15	Through-hole	4STF15PAM05A10X
25	Through-hole	4STF25PAM05A10X
37	Through-hole	4STF37PAM05A10X
50	Through-hole	4STF50PAM05A10X

# IP67 C-FILTER D-SUB HIGH DENSITY

Plug connector – Solder pin – Straight – Precision machined contacts



RoHS compliant – CSA listed, File No.: LR 115000-1 – UL listed, File No.: E 202784

## DESCRIPTION

- Mounting styles:
  - with 4-40 UNC or M3 threaded insert
  - with 4-40 UNC or M3 threaded rear spacer with PCB clip
- Quality class 3 (also available in quality class 1)
- Shell: brass tin plated
- Nickel plated die-cast frame  
(Black plastic frame on request)

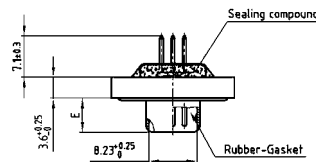
## PRODUCT DRAWING



No. of pos.	A +0.30	B +0.30	C	D +0.25	E -0.30
15	21.10	39.40	25.00 <sup>+0.12</sup> <sub>-0.13</sub>	16.79	5.82
26	21.10	47.70	33.30 <sup>+0.15</sup> <sub>-0.10</sub>	25.12	5.82
44	21.10	61.40	47.04 <sup>+0.13</sup>	38.84	5.69
62	21.10	77.90	63.50 <sup>+0.13</sup>	55.30	5.69

PCB-Layout: Kat1kFWA / Kat1iU0A

Mounting style: Threaded insert



Mounting style: Threaded rear spacer with PCB clip



## ORDER DATA

Capacitance 180 pF

PLUG CONNECTOR			PLUG CONNECTOR		
No. of pos.	Mounting style	Part Number	No. of pos.	Mounting style	Part Number
15	M3 Threaded insert	6HDF15PAR01B20X	15	M3 Threaded rear spacer PCB clip	6HDF15PAR01E10X
26	M3 Threaded insert	6HDF26PAR01B20X	26	M3 Threaded rear spacer PCB clip	6HDF26PAR01E10X
44	M3 Threaded insert	6HDF44PAR01B20X	44	M3 Threaded rear spacer PCB clip	6HDF44PAR01E10X
62	M3 Threaded insert	6HDF62PAR01B20X	62	M3 Threaded rear spacer PCB clip	6HDF62PAR01E10X
15	4-40 UNC Threaded insert	6HDF15PAR01B30X	15	4-40 UNC Threaded rear spacer PCB clip	6HDF15PAR01E20X
26	4-40 UNC Threaded insert	6HDF26PAR01B30X	26	4-40 UNC Threaded rear spacer PCB clip	6HDF26PAR01E20X
44	4-40 UNC Threaded insert	6HDF44PAR01B30X	44	4-40 UNC Threaded rear spacer PCB clip	6HDF44PAR01E20X
62	4-40 UNC Threaded insert	6HDF62PAR01B30X	62	4-40 UNC Threaded rear spacer PCB clip	6HDF62PAR01E20X

PCB clip .122"/3.1 ± .004"/0.10 mm hole diameter and .063"/1.6 mm circuit board thickness

# IP67 C-FILTER D-SUB HIGH DENSITY

Plug connector – Solder pin – Straight – Precision machined contacts

## ORDER DATA

### Capacitance 370 pF

PLUG CONNECTOR			PLUG CONNECTOR		
No. of pos.	Mounting style	Part Number	No. of pos.	Mounting style	Part Number
15	M3 Threaded insert	6HDF15PAR03B20X	15	M3 Threaded rear spacer PCB clip	6HDF15PAR03E10X
26	M3 Threaded insert	6HDF26PAR03B20X	26	M3 Threaded rear spacer PCB clip	6HDF26PAR03E10X
44	M3 Threaded insert	6HDF44PAR03B20X	44	M3 Threaded rear spacer PCB clip	6HDF44PAR03E10X
62	M3 Threaded insert	6HDF62PAR03B20X	62	M3 Threaded rear spacer PCB clip	6HDF62PAR03E10X
15	4-40 UNC Threaded insert	6HDF15PAR03B30X	15	4-40 UNC Threaded rear spacer PCB clip	6HDF15PAR03E20X
26	4-40 UNC Threaded insert	6HDF26PAR03B30X	26	4-40 UNC Threaded rear spacer PCB clip	6HDF26PAR03E20X
44	4-40 UNC Threaded insert	6HDF44PAR03B30X	44	4-40 UNC Threaded rear spacer PCB clip	6HDF44PAR03E20X
62	4-40 UNC Threaded insert	6HDF62PAR03B30X	62	4-40 UNC Threaded rear spacer PCB clip	6HDF62PAR03E20X

### Capacitance 830 pF

PLUG CONNECTOR			PLUG CONNECTOR		
No. of pos.	Mounting style	Part Number	No. of pos.	Mounting style	Part Number
15	M3 Threaded insert	6HDF15PAR04B20X	15	M3 Threaded rear spacer PCB clip	6HDF15PAR04E10X
26	M3 Threaded insert	6HDF26PAR04B20X	26	M3 Threaded rear spacer PCB clip	6HDF26PAR04E10X
44	M3 Threaded insert	6HDF44PAR04B20X	44	M3 Threaded rear spacer PCB clip	6HDF44PAR04E10X
62	M3 Threaded insert	6HDF62PAR04B20X	62	M3 Threaded rear spacer PCB clip	6HDF62PAR04E10X
15	4-40 UNC Threaded insert	6HDF15PAR04B30X	15	4-40 UNC Threaded rear spacer PCB clip	6HDF15PAR04E20X
26	4-40 UNC Threaded insert	6HDF26PAR04B30X	26	4-40 UNC Threaded rear spacer PCB clip	6HDF26PAR04E20X
44	4-40 UNC Threaded insert	6HDF44PAR04B30X	44	4-40 UNC Threaded rear spacer PCB clip	6HDF44PAR04E20X
62	4-40 UNC Threaded insert	6HDF62PAR04B30X	62	4-40 UNC Threaded rear spacer PCB clip	6HDF62PAR04E20X

PCB clip .122"/3.1 ± .004"/0.10 mm hole diameter and .063"/1.6 mm circuit board thickness

# IP67 C-FILTER D-SUB HIGH DENSITY

Plug connector – Solder pin – Angled – .220" / 5.6 mm –  
Precision machined contacts – Metal bracket



RoHS compliant – CSA listed, File No.: LR 115000-1 – UL listed, File No.: E 202784

## DESCRIPTION

- Mounting styles:
  - with 4-40 UNC or M3 threaded insert
  - with mounting bracket, PCB clip and 4-40 UNC or M3 threaded insert
- Quality class 3 (also available in quality class 1)
- Shell: brass tin plated
- Nickel plated die-cast frame (Black plastic frame on request)

## PRODUCT DRAWING



No. of pos.	A +0.30	B +0.30	C	D +0.25	E -0.30
15	21.10	39.40	25.00 <sup>+0.12</sup> <sub>-0.13</sub>	16.79	5.82
26	21.10	47.70	33.30 <sup>+0.15</sup> <sub>-0.10</sub>	25.12	5.82
44	21.10	61.40	47.04 <sup>+0.13</sup>	38.84	5.69
62	21.10	77.90	63.50 <sup>+0.13</sup>	55.30	5.69

PCB-Layout: Kat1kgWA

Mounting style: Threaded insert



Mounting style: PCB clip, threaded insert



## ORDER DATA

### Capacitance 180 pF

PLUG CONNECTOR			PLUG CONNECTOR		
No. of pos.	Mounting style	Part Number	No. of pos.	Mounting style	Part Number
15	M3 Threaded insert	6HDF15PAY01R10X	15	PCB clip / M3 Threaded insert	6HDF15PAY01R30X
26	M3 Threaded insert	6HDF26PAY01R10X	26	PCB clip / M3 Threaded insert	6HDF26PAY01R30X
44	M3 Threaded insert	6HDF44PAY01R10X	44	PCB clip / M3 Threaded insert	6HDF44PAY01R30X
62	M3 Threaded insert	6HDF62PAY01R10X	62	PCB clip / M3 Threaded insert	6HDF62PAY01R30X
15	4-40 UNC Threaded insert	6HDF15PAY01R20X	15	PCB clip / 4-40 UNC Threaded insert	6HDF15PAY01R40X
26	4-40 UNC Threaded insert	6HDF26PAY01R20X	26	PCB clip / 4-40 UNC Threaded insert	6HDF26PAY01R40X
44	4-40 UNC Threaded insert	6HDF44PAY01R20X	44	PCB clip / 4-40 UNC Threaded insert	6HDF44PAY01R40X
62	4-40 UNC Threaded insert	6HDF62PAY01R20X	62	PCB clip / 4-40 UNC Threaded insert	6HDF62PAY01R40X

PCB clip .122" / 3.1 ± .004" / 0.10 mm hole diameter and .063" / 1.6 mm circuit board thickness



# IP67 C-FILTER D-SUB HIGH DENSITY

Plug connector – Solder pin – Angled – .220" / 5.6 mm –

Precision machined contacts – Metal bracket

## ORDER DATA

### Capacitance 370 pF

PLUG CONNECTOR			PLUG CONNECTOR		
No. of pos.	Mounting style	Part Number	No. of pos.	Mounting style	Part Number
15	M3 Threaded insert	6HDF15PAY03R10X	15	PCB clip / M3 Threaded insert	6HDF15PAY03R30X
26	M3 Threaded insert	6HDF26PAY03R10X	26	PCB clip / M3 Threaded insert	6HDF26PAY03R30X
44	M3 Threaded insert	6HDF44PAY03R10X	44	PCB clip / M3 Threaded insert	6HDF44PAY03R30X
62	M3 Threaded insert	6HDF62PAY03R10X	62	PCB clip / M3 Threaded insert	6HDF62PAY03R30X
15	4-40 UNC Threaded insert	6HDF15PAY03R20X	15	PCB clip / 4-40 UNC Threaded insert	6HDF15PAY03R40X
26	4-40 UNC Threaded insert	6HDF26PAY03R20X	26	PCB clip / 4-40 UNC Threaded insert	6HDF26PAY03R40X
44	4-40 UNC Threaded insert	6HDF44PAY03R20X	44	PCB clip / 4-40 UNC Threaded insert	6HDF44PAY03R40X
62	4-40 UNC Threaded insert	6HDF62PAY03R20X	62	PCB clip / 4-40 UNC Threaded insert	6HDF62PAY03R40X

### Capacitance 830 pF

PLUG CONNECTOR			PLUG CONNECTOR		
No. of pos.	Mounting style	Part Number	No. of pos.	Mounting style	Part Number
15	M3 Threaded insert	6HDF15PAY04R10X	15	PCB clip / M3 Threaded insert	6HDF15PAY04R30X
26	M3 Threaded insert	6HDF26PAY04R10X	26	PCB clip / M3 Threaded insert	6HDF26PAY04R30X
44	M3 Threaded insert	6HDF44PAY04R10X	44	PCB clip / M3 Threaded insert	6HDF44PAY04R30X
62	M3 Threaded insert	6HDF62PAY04R10X	62	PCB clip / M3 Threaded insert	6HDF62PAY04R30X
15	4-40 UNC Threaded insert	6HDF15PAY04R20X	15	PCB clip / 4-40 UNC Threaded insert	6HDF15PAY04R40X
26	4-40 UNC Threaded insert	6HDF26PAY04R20X	26	PCB clip / 4-40 UNC Threaded insert	6HDF26PAY04R40X
44	4-40 UNC Threaded insert	6HDF44PAY04R20X	44	PCB clip / 4-40 UNC Threaded insert	6HDF44PAY04R40X
62	4-40 UNC Threaded insert	6HDF62PAY04R20X	62	PCB clip / 4-40 UNC Threaded insert	6HDF62PAY04R40X

PCB clip .122" / 3.1 ± .004" / 0.10 mm hole diameter and .063" / 1.6 mm circuit board thickness

# TECHNICAL DATA

<b>Materials</b>	<b>Filter D-SUB Standard IP67 9, 15, 25, 37 and 50 position</b>	<b>Filter D-SUB High Density IP67 15, 26, 44, and 62 position</b>
Insulator	Polyester GF UL94 V-0	
Contacts	CU alloy	
Contact plating	Gold plated over nickel, solder area tin plated (PCB)	
Shell	Brass tin plated	
<b>Mechanical and electrical characteristics</b>		
Dielectric with standing voltage	Standard 424 VDC	Standard 300 VDC
Working voltage	100 VDC Depending on isolation coordination (refer to DIN VDE 0110/IEC 664-1)	
Contact resistance	Max. 10 mΩ prior to stressing, Δ R max. 10 mΩ after stressing per DIN 41652, Part 2	
Insulation resistance	≥ 1GΩ	
Current rating	7.5 A (UL) / 5 A (CSA, VDE)	3 A (UL, VDE) / 2.5 A (CSA)
Voltage surge 10/700μs	Standard 300 V	Standard 300 V
Temperature working range	-25°C to +105°C	-25°C to +85°C
Capacitor values For other capacitance values please contact the factory.	180 pF ± 20% tolerance 370 pF ± 20% tolerance 830 pF ± 20% tolerance 1300 pF ± 20% tolerance	180 pF ± 20% tolerance 370 pF ± 20% tolerance 830 pF ± 20% tolerance
Mating and unmating forces	9 pos. ≤ 30 N 15 pos. ≤ 50 N 25 pos. ≤ 83 N 37 pos. ≤ 123 N 50 pos. ≤ 167 N	15 pos. ≤ 50 N 26 pos. ≤ 84 N 44 pos. ≤ 120 N 62 pos. ≤ 170 N
Quality class	A = Quality class 3 = 50 mating cycles B = Quality class 2 = 200 mating cycles C = Quality class 1 = 500 mating cycles	
Degree of protection	Requirement according to IEC 60529 – IP67	

Technical specifications are subject to change without notice.

# INSERTION LOSS

## C-FILTER WITH PLANAR FILTER TECHNOLOGY



# SOLDER PROFILE

Connector Type	Preheating		Solder terminal dipping parameters	
	max. Temperature	Duration	max. Solder bath Temperature	max. Terminal Immersion Time
Filter D-SUB	100°C	30s	260°C	5s
Combo D-SUB Filter	120°C	120s	260°C	5s
Filter D-SUB Water Resistant	100°C	30s	240°C	5s
Combo D-SUB Water Resistant	120°C	120s	240°C	5s
D-SUB Water Resistant	120°C	120s	240°C	5s
D-SUB Solid Body Type Water Resistant	150°C	180s	265°C	8s
RJ45 Modular Jack Filtered	150°C	180s	265°C	8s
Filter Plates	150°C	180s	265°C	8s

Recommended wave-solder parameters for CONEC connectors.

## IP-CODE DEFINITIONS

1. Code figure	Definition	Remark
0	Not protected	
1	Protected against access to hazardous parts by the back of the hand. Protected against fixed foreign objects $\varnothing \geq 1.969''/50$ mm.	
2	Protected against access to hazardous parts with a finger. Protected against fixed foreign objects $\varnothing \geq .492''/12.5$ mm.	
3	Protected against access to hazardous parts with a tool. Protected against fixed foreign objects $\varnothing \geq .098''/2.5$ mm.	
4	Protected against access to hazardous parts with a wire. Protected against fixed foreign objects $\varnothing \geq .039''/1$ mm.	
5	Protected against access to hazardous parts with a wire. Dust protected.	Ingress of dust is not completely blocked. But dust may not penetrate to the extent that satisfactory operation of the device or safety is impaired.
6	Protected against access to hazardous parts with a wire. Dustproof. No ingress of dust.	

2. Code figure	Definition	Remark
0	Not protected	
1	Protected against dropper.	
2	Protected against dropper when the shell is tipped as much as 15°.	
3	Protected against spray water	Up to 60° of either side of the vertical, such spray water shall have no harmful effects.
4	Protected against splash water	On the shell from all directions, no harmful effects shall be incurred.
5	Protected against jets of water.	
6	Protected against strong jets of water.	
7	Protected against the effects of temporary submersion in water.	Water may not ingress in a volume that would cause harmful effects when the shell is submerged in water for 30 min at a depth of 1 m.
8	Protected against the effects of continuous submersion in water.	Water may not ingress in a volume that would cause harmful effects when the shell is continuously submerged in water under conditions agreed between manufacturer and user. However, these conditions must be more stringent than those described under code figure 7.
9k	Protected against water from high-pressure or steam cleaning.	

### Explanation to spray water protected (IP) systems and their environment.

This system, described in IEC 60529, was developed to represent standard values for respective protection:

- Contact with, and ingress of, fixed foreign objects
- The ingress of liquids to which the inside is to be exposed.

The first digit describes the level of protection for life, contacting objects and the intrusion of foreign bodies. The second digit describes the level of protection against the ingress of liquids. The larger the first and second digits are, the greater afforded protection is, e.g. IP55 must also meet the requirements of all lower protection levels, such as IP22, IP23, IP34 and IP54.

# MATING CONDITIONS

Float mount tolerance guide



Rigid mount tolerance guide

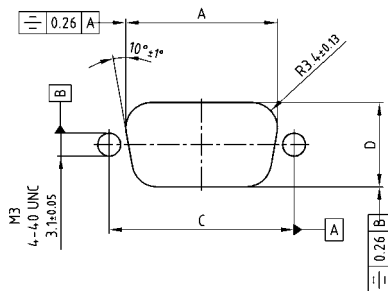


Rigid mount vertical to tolerance guide



## PANEL CUT-OUT

Rear panel mounting



Front panel mounting



Shell size	A ± 0.1	B ± 0.1	C ± 0.1	D ± 0.1	E ± 0.1
9	20.50	20.90	25.00	11.40	13.00
15	28.80	29.20	33.30	11.40	13.00
25	42.50	42.90	47.04	11.40	13.00
37	59.10	59.40	63.50	11.40	13.00
50	56.30	57.00	61.10	14.10	15.80

# PCB LAYOUT D-SUB STANDARD

Solder pin, straight – Without rear spacer PCB clip – Plug connector

9 POS.



37 POS.



15 POS.



50 POS.



25 POS.



PCB layout Kat1 kFVA (View: component side)

# PCB LAYOUT D-SUB STANDARD

Solder pin, straight – With rear spacer PCB clip – Plug connector

9 POS.



37 POS.



15 POS.



50 POS.



25 POS.

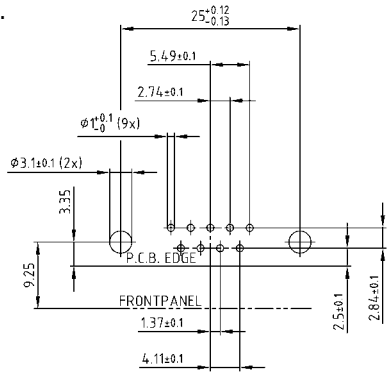


PCB layout Kat1kFUA (View: component side)

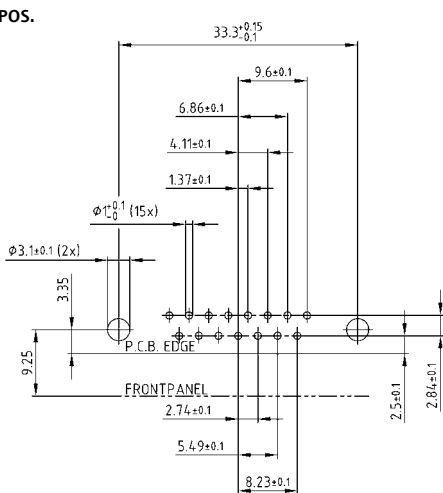
# PCB LAYOUT D-SUB STANDARD

Solder pin, angled .189" / 4.8 mm – Plug connector

9 POS.



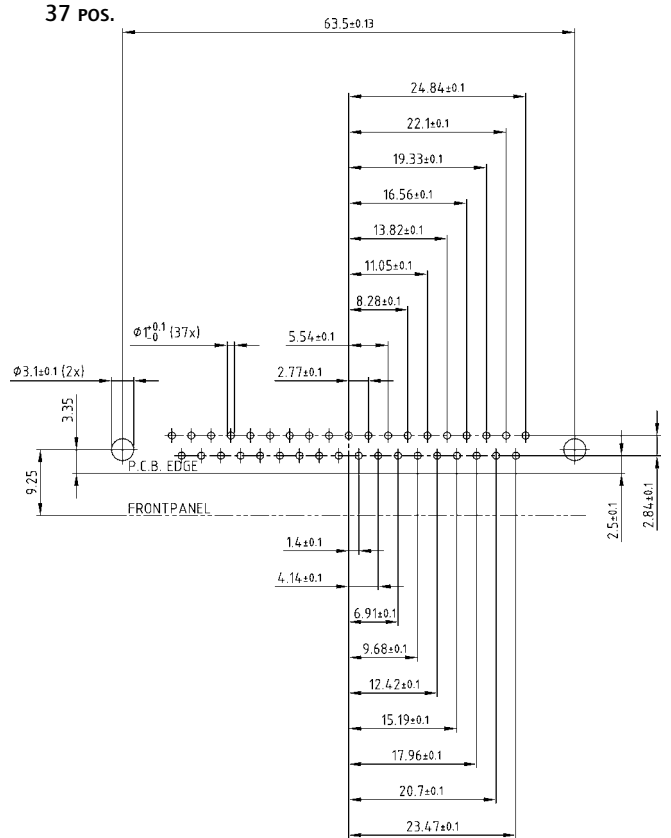
15 POS.



25 POS.



37 POS.



50 POS.



PCB layout Kat1kGSA (View: component side)



# PCB LAYOUT D-SUB STANDARD

Solder pin, angled .276" / 7.0 mm – Plug connector

9 pos.



15 pos.



25 pos.



37 pos.



50 pos.



PCB layout Kat1 kGTA (View: component side)

# PCB LAYOUT D-SUB STANDARD

Solder pin, angled, .464" / 11.8 mm – Plug connector

9 pos.



25 pos.



15 pos.



37 pos.



PCB layout Kat1 kGUA (View: component side)

# PCB LAYOUT D-SUB HIGH DENSITY

Solder pin, straight – Without rear spacer PCB clip – Plug connector

15 POS.



62 POS.



26 POS.



78 POS.



44 POS.



PCB layout Kat1 kFWA (View: component side)

# PCB LAYOUT D-SUB HIGH DENSITY

Solder pin, straight – With rear spacer PCB clip – Plug connector

15 POS.



62 POS.



26 POS.



78 POS.



44 POS.



PCB layout Kat1iU0A (View: component side)

# PCB LAYOUT D-SUB HIGH DENSITY

Solder pin, angled, .220" / 5.6 mm – Plug connector



PCB layout Kat1 kgWA (View: component side)

## SECTION 11

# RJ45-IP67 INDUSTRIAL ETHERNET CONNECTOR SYSTEM

---

The RJ45 connector is the most used interface in data communications. CONEC has, based on this connector interface, designed a rugged versatile connector system for Cat. 5e and Cat. 6A, that ensures reliable protection and the convenience of easily mating under the most difficult and harsh environments.

The housing with bayonet coupling mechanism is in compliance with IEC 61076-3-106 and provide increased protection for the connector system against contamination and moisture (IP67 rating). Furthermore, there are also increased demands for mechanical stability, temperature resistance, vibration immunity and protection against EMI and UV radiation. This program is supplemented by preassembled patch cables with IP67 rating in various lengths and designs.

The zinc die-cast version provides an excellent protection against harsh environment.



**Example applications:**

- CNC machines
- Communications equipment
- Mass transportation
- Industrial process control
- Diagnostic and instrument
- Printers, displays
- Factory automation
- Outdoor telecommunications systems



# TECHNICAL DATA

<b>Mechanical and electrical characteristics</b>	
Interface connector	RJ45 Cat. 5e per EIA/TIA-568-B2/ RJ45 Cat. 6A per EIA/TIA-568-B2 (channel)
Lock mechanism	Bayonet socket connector per IEC 61076-3-106
IP Degree of protection	IP67
Temperature range	-40°C to + 85°C
Strength of current	1.2 A max. to 25°C
Voltage	100 VDC
Contact resistance	20 mΩ max.
Insulation resistance	500 MΩ
Electric strength contact to contact	1000 VDC/60 sec.
Electric strength contact to metal Housing	1500 VDC/60 sec.
<b>Materials</b>	
Housing	PBT (black) or ABS Metallized (nickel plated), flame protection per UL 94-V0, zinc die-cast (nickel plated)
Fastening nut	Brass nickel plated
Housing sealing	Silicone
RJ45 Socket metal housing	Copper alloy, nickel plated
RJ45 Socket and plug connector plastic housing	PBT (black), flame protection per UL 94-V0
RJ45 Socket and plug contacts	Phosphor bronze, gold plated
Connector housing	PBT (black) or ABS Metallized (nickel plated), flame protection peer UL 94-V0, zinc die-cast (nickel plated)
Socket coupling ring	PBT (black) or ABS Metallized (nickel plated), flame protection per UL 94-V0, zinc die-cast (nickel plated)
Cable termination	PBT (black) flame protection per UL 94-V0, or brass nickel plated
Cable seal	NBR
Interface seal	Silicone
RJ45 plug connector metal housing	Copper alloy, nickel plated
Protection cap	PBT (black) or ABS Metallized (nickel plated), flame protection per UL 94-V0, zinc die-cast (nickel plated)
Seal	Silicone
Protection cap	PE

Technical specifications are subject to change without notice.



# RJ45-IP67 PANEL MOUNTED RECEPTACLE

Inline coupling Cat. 5e and Cat. 6A – Bayonet locking – Plastic or Zinc die-cast



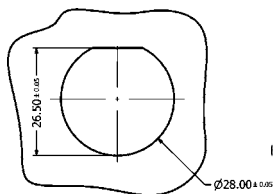
UL listed, File No.: E202784

### DESCRIPTION

- For front- or rear panel mounting up to wall thickness of 3.2 mm
- Designs:
  - Black plastic or metallized,
  - Zinc die-cast nickel plated
- RJ45 Cat. 5e Inline coupling unshielded or shielded
- RJ45 Cat. 6A Inline coupling shielded
- Plastic housing: blue, green, yellow, red and white on request
- Available as a set with protection cap

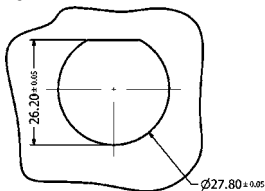
### PRODUCT DRAWING

Recommended Panel Cut-out  
for plastic version

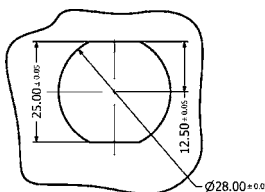


for metal version

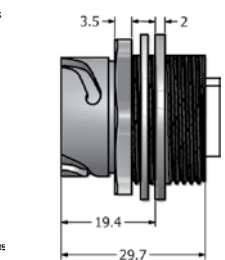
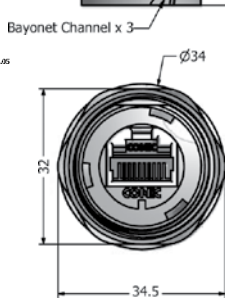
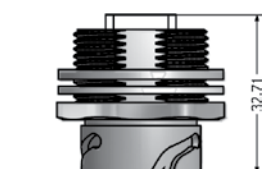
Single-D Panel Cut-out



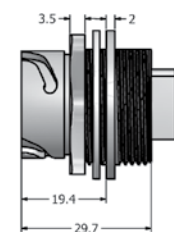
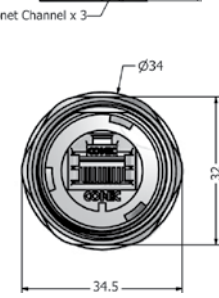
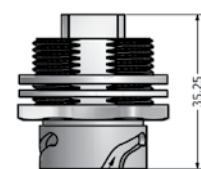
Double-D Panel Cut-out



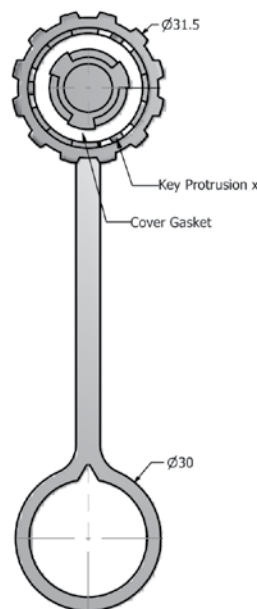
Coupling Cat. 5e



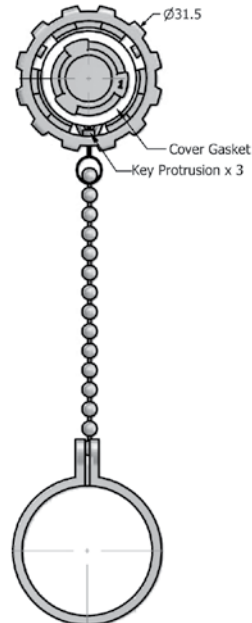
Coupling Cat. 6A



Protection cap plastic



Protection cap metal



### ORDER DATA

Type	Material	Surface	RJ45 Cat.5e design	Protection cap	Part Number
Receptacle Cat. 5e	Plastic	black	Inline coupling shielded		17-10009
Receptacle Cat. 5e	Plastic	black	Inline coupling unshielded		17-10019
Receptacle Cat. 5e	Plastic	metallized	Inline coupling shielded		17-10012
Receptacle Cat. 5e	Plastic	black	Inline coupling shielded	with protection cap	17-10000
Receptacle Cat. 5e	Plastic	black	Inline coupling unshielded	with protection cap	17-10020
Receptacle Cat. 5e	Plastic	metallized	Inline coupling shielded	with protection cap	17-10011
Receptacle Cat. 5e	Zinc die-cast	nickel plated	Inline coupling shielded		17-101754
Receptacle Cat. 5e	Zinc die-cast	nickel plated	Inline coupling unshielded		17-101764
Receptacle Cat. 5e	Zinc die-cast	nickel plated	Inline coupling shielded	with protection cap	17-101814
Receptacle Cat. 5e	Zinc die-cast	nickel plated	Inline coupling unshielded	with protection cap	17-101824
Receptacle Cat. 6A	Plastic	black	Inline coupling shielded		17-150004
Receptacle Cat. 6A	Plastic	black	Inline coupling shielded	with protection cap	17-150014
Receptacle Cat. 6A	Plastic	metallized	Inline coupling shielded		17-150124
Receptacle Cat. 6A	Plastic	metallized	Inline coupling shielded	with protection cap	17-150134
Receptacle Cat. 6A	Zinc die-cast	nickel plated	Inline coupling shielded		17-150174
Receptacle Cat. 6A	Zinc die-cast	nickel plated	Inline coupling shielded	with protection cap	17-150184

# RJ45-IP67 PANEL MOUNTED RECEPTACLE

Inline coupling Cat. 5e and 6A – Square flange – Bayonet locking – Zinc die-cast



UL listed, File No.: E202784

## DESCRIPTION

- For front- or rear panel mounting up to wall thickness of 3.2 mm
- Design:
  - Zinc die-cast nickel plated
- RJ45 Cat. 5e Inline coupling unshielded or shielded
- RJ45 Cat. 6A Inline coupling shielded
- Available as a set with protection cap
- Accessories:
  - Gasket and mounting hardware can be ordered separately
- Mounting hardware includes
  - 4x (screw M3 + nut + flat washer + spring washer)

## PRODUCT DRAWING

### Recommended Panel Cut-out

Double-D Panel Cut-out



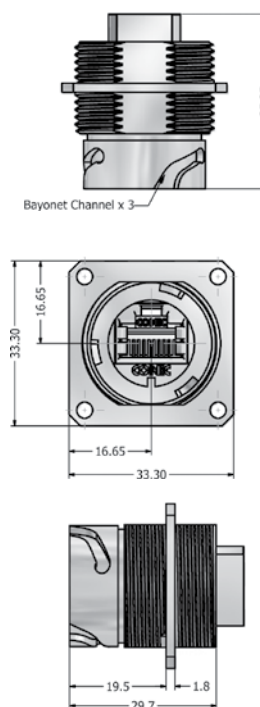
Round Panel Cut-out



### Cat. 5e Version



### Cat. 6A Version



### Protection cap metal



## ORDER DATA

Type	Material	Surface	RJ45 design	Protection cap	Part Number
Receptacle Cat 5e with accessories	Zinc die-cast	nickel plated	Inline coupling unshielded		17-110224
Receptacle Cat 5e with accessories	Zinc die-cast	nickel plated	Inline coupling unshielded	with protection cap	17-110244
Receptacle Cat 5e with accessories	Zinc die-cast	nickel plated	Inline coupling shielded		17-110214
Receptacle Cat 5e with accessories	Zinc die-cast	nickel plated	Inline coupling shielded	with protection cap	17-110234
Receptacle Cat 6A without accessories	Zinc die-cast	nickel plated	Inline coupling shielded		17-150214
Receptacle Cat 6A with accessories	Zinc die-cast	nickel plated	Inline coupling shielded		17-160004
Receptacle Cat 6A with accessories	Zinc die-cast	nickel plated	Inline coupling shielded	with protection cap	17-160014
Panel gasket	Silicone				17-103540
Mounting hardware	Stainless steel				17-103530

# RJ45-IP67 PANEL MOUNTED RECEPTACLE

Inline coupling Cat. 5e – both sides Bayonet locking – Plastic



UL listed, File No.: E202784

### DESCRIPTION

- For front- or rear panel mounting up to wall thickness of 3.2 mm
- Design: Black plastic
- RJ45 Cat. 5e Inline coupling unshielded or shielded
- IP67 Protection in mated condition
- Available as a set with protection cap

### PRODUCT DRAWING

Recommended Panel Cut-out



Protection cap plastic



### ORDER DATA

Type	Material	Surface	RJ45 Cat.5e design	Protection cap	Part Number
Receptacle	Plastic	black	Inline coupling shielded		17-110004
Receptacle	Plastic	black	Inline coupling unshielded		17-110014
Receptacle	Plastic	black	Inline coupling shielded	with protection cap	17-110024
Receptacle	Plastic	black	Inline coupling unshielded	with protection cap	17-110034

# RJ45-IP67 PANEL MOUNTED RECEPTACLE

Screw connection Cat. 5e – Bayonet locking – Plastic or zinc die-cast



UL listed, File No.: E202784

## DESCRIPTION

- For front- or rear panel mounting up to wall thickness of 3.2 mm
- Design:
  - Black plastic or metallized plastic
  - Zinc die-cast nickel plated
- RJ45 Cat. 5e with 4x2 screw terminations shielded
- Cable cross-section AWG 16-28
- Available as a set with protection cap
- Plastic housing: blue, green, yellow, red and white on request

## PRODUCT DRAWING

Recommended Panel Cut-out  
for plastic version

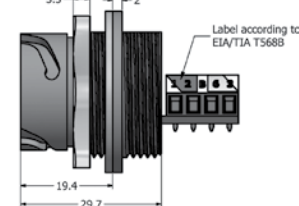


for metal version

Single-D Panel Cut-out



Double-D Panel Cut-out



Protection cap plastic

Protection cap metal



## ORDER DATA

Type	Material	Surface	RJ45 Cat.5e design	Sealing	Protection cap	Part Number
Receptacle	Plastic	black	Terminal block shielded			17-110054
Receptacle	Plastic	black	Terminal block shielded	Sealing compound		17-110114
Receptacle	Plastic	black	Terminal block shielded		with protection cap	17-110594
Receptacle	Plastic	black	Terminal block shielded	Sealing compound	with protection cap	17-110654
Receptacle	Plastic	metallized	Terminal block shielded			17-110174
Receptacle	Plastic	metallized	Terminal block shielded	Sealing compound		17-110184
Receptacle	Plastic	metallized	Terminal block shielded		with protection cap	17-110714
Receptacle	Plastic	metallized	Terminal block shielded	Sealing compound	with protection cap	17-110724
Receptacle	Zinc die-cast	nickel plated	Terminal block shielded			17-110194
Receptacle	Zinc die-cast	nickel plated	Terminal block shielded	Sealing compound		17-110204
Receptacle	Zinc die-cast	nickel plated	Terminal block shielded		with protection cap	17-110734
Receptacle	Zinc die-cast	nickel plated	Terminal block shielded	Sealing compound	with protection cap	17-110744

# RJ45-IP67 PANEL MOUNTED RECEPTACLE

Screw connection Cat. 5e – Square flange – Bayonet locking – Zinc die-cast



UL listed, File No.: E202784

## DESCRIPTION

- For front- or rear panel mounting up to wall thickness of 3.2 mm
- Design:
  - Zinc die-cast nickel plated
- RJ45 Cat. 5e with 4x2 screw terminations shielded
- Cable cross-section AWG 16-28
- Available as a set with protection cap
- Accessories:
  - Gasket and mounting hardware can be ordered separately
- Mounting hardware includes
  - 4x (screw M3 + nut + flat washer + spring washer)

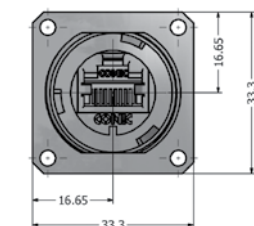
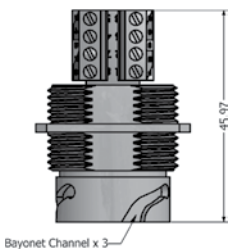
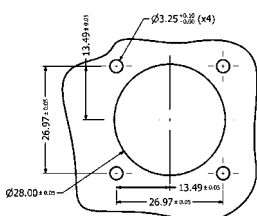
## PRODUCT DRAWING

### Recommended Panel Cut-out

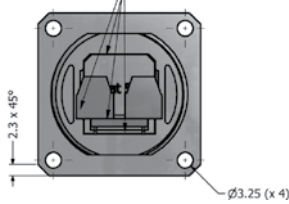
Double-D Panel Cut-out



Round Panel Cut-out



Sealed with Sealing Compound, provides IP67 even when uncovered (For potted version only)



### Protection cap metal



## ORDER DATA

Type	Material	Surface	RJ45 Cat.5e design	Sealing	Protection cap	Part Number
Receptacle Cat 5e without accessories	Zinc die-cast	nickel plated	Terminal block shielded			17-111074
Receptacle Cat 5e without accessories	Zinc die-cast	nickel plated	Terminal block shielded	Sealing compound		17-111084
Receptacle Cat 5e with accessories	Zinc die-cast	nickel plated	Terminal block shielded			17-111134
Receptacle Cat 5e with accessories	Zinc die-cast	nickel plated	Terminal block shielded	Sealing compound		17-111144
Receptacle Cat 5e with accessories	Zinc die-cast	nickel plated	Terminal block shielded		with protection cap	17-111194
Receptacle Cat 5e with accessories	Zinc die-cast	nickel plated	Terminal block shielded	Sealing compound	with protection cap	17-111204
Panel gasket	Silicone					17-103540
Mounting hardware	Stainless steel					17-103530

# RJ45-IP67 PANEL MOUNTED RECEPTACLE

Solder termination (PCB) Cat. 5e – Bayonet locking – Plastic or zinc die-cast



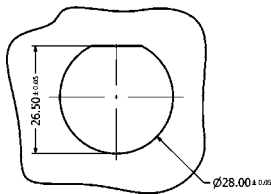
UL listed, File No.: E202784

## DESCRIPTION

- For front- or rear panel mounting up to wall thickness of 3.2 mm
- Design:
  - Black plastic or metallized plastic
  - Zinc die-cast nickel plated
- RJ45 Cat. 5e solder termination shielded with or without grounding
- Available as a set with protection cap
- Plastic housing: blue, green, yellow, red and white on request

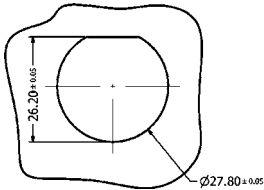
## PRODUCT DRAWING

Recommended Panel Cut-out for plastic version

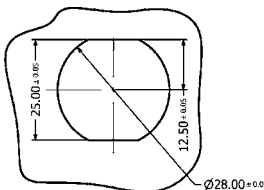


for metal version

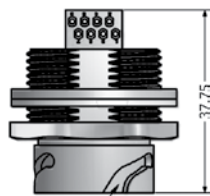
Single-D Panel Cut-out



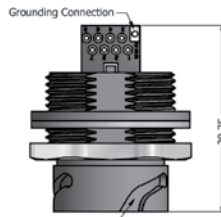
Double-D Panel Cut-out



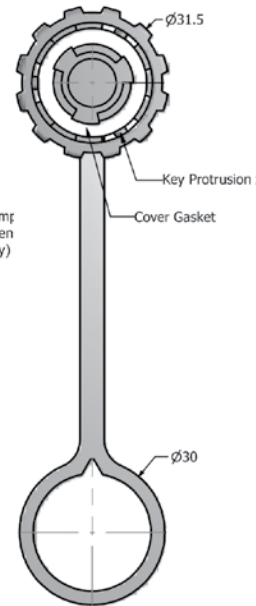
PCB without grounding



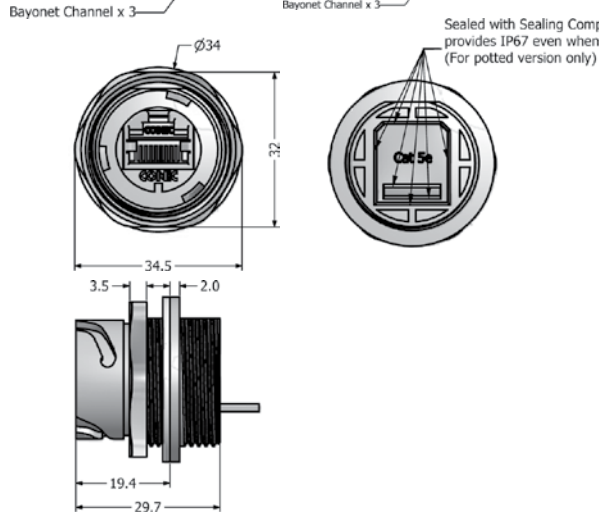
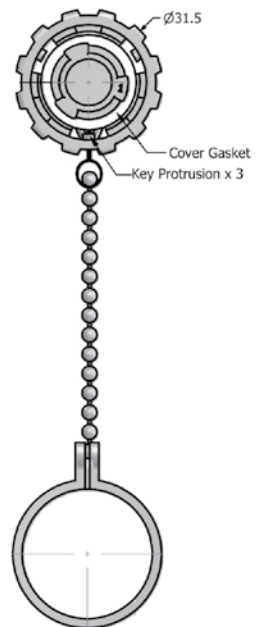
PCB with grounding



Protection cap plastic



Protection cap metal



## ORDER DATA

Type	Material	Surface	RJ45 Cat.5e design	Sealing	Protection cap	Part Number PCB with grounding	Part Number PCB without grounding
Receptacle	Plastic	black	Solder termination shielded			17-110264	17-10017
Receptacle	Plastic	black	Solder termination shielded	Sealing compound		17-110324	17-10035
Receptacle	Plastic	black	Solder termination shielded		with protection cap	17-110754	17-10023
Receptacle	Plastic	black	Solder termination shielded	Sealing compound	with protection cap	17-110814	17-10039
Receptacle	Plastic	metallized	Solder termination shielded			17-110384	17-10018
Receptacle	Plastic	metallized	Solder termination shielded	Sealing compound		17-110394	17-10036
Receptacle	Plastic	metallized	Solder termination shielded		with protection cap	17-110874	17-10024
Receptacle	Plastic	metallized	Solder termination shielded	Sealing compound	with protection cap	17-110884	17-10040
Receptacle	Zinc die-cast	nickel plated	Solder termination shielded			17-110404	17-101784
Receptacle	Zinc die-cast	nickel plated	Solder termination shielded	Sealing compound		17-110414	17-102184
Receptacle	Zinc die-cast	nickel plated	Solder termination shielded		with protection cap	17-110894	17-101844
Receptacle	Zinc die-cast	nickel plated	Solder termination shielded	Sealing compound	with protection cap	17-110904	17-102204

# RJ45-IP67 PANEL MOUNTED RECEPTACLE

Solder termination (PCB) Cat. 5e – Bayonet locking – Plastic or zinc die-cast



UL listed, File No.: E202784

## DESCRIPTION

- For front- or rear panel mounting up to wall thickness of 3.2 mm
- Design:
  - Black plastic or metallized
  - zinc die-cast nickel plated
- RJ45 Cat. 5e solder termination with grounding connection shielded
- Strain relief version includes a cable tie
- Available as a set with protection cap
- Plastic housing: blue, green, yellow, red and white on request

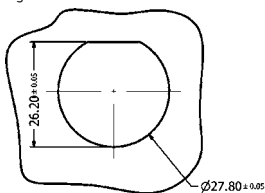
## PRODUCT DRAWING

Recommended Panel Cut-out for plastic version

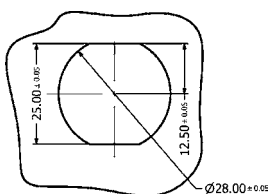


for metal version

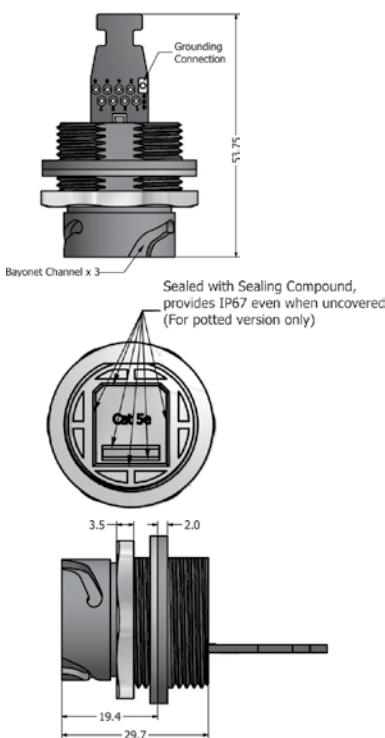
Single-D Panel Cut-out



Double-D Panel Cut-out



PCB with grounding connection and strain relief area



Protection cap plastic



Protection cap metal



## ORDER DATA

Type	Material	Surface	RJ45 Cat. 5e design	Sealing	Protection cap	Part Number
Receptacle	Plastic	black	Solder termination shielded			17-110424
Receptacle	Plastic	black	Solder termination shielded	Sealing compound		17-110484
Receptacle	Plastic	black	Solder termination shielded	Sealing compound	with protection cap	17-110914
Receptacle	Plastic	black	Solder termination shielded	Sealing compound	with protection cap	17-110974
Receptacle	Plastic	metallized	Solder termination shielded			17-110544
Receptacle	Plastic	metallized	Solder termination shielded	Sealing compound		17-110554
Receptacle	Plastic	metallized	Solder termination shielded		with protection cap	17-111034
Receptacle	Plastic	metallized	Solder termination shielded	Sealing compound	with protection cap	17-111044
Receptacle	Zinc die-cast	nickel plated	Solder termination shielded			17-110564
Receptacle	Zinc die-cast	nickel plated	Solder termination shielded	Sealing compound		17-110574
Receptacle	Zinc die-cast	nickel plated	Solder termination shielded		with protection cap	17-111054
Receptacle	Zinc die-cast	nickel plated	Solder termination shielded	Sealing compound	with protection cap	17-111064

# RJ45-IP67 PANEL MOUNTED RECEPTACLE

Solder termination (PCB) Cat. 5e – Square flange – Bayonet locking – Zinc die-cast



UL listed, File No.: E202784

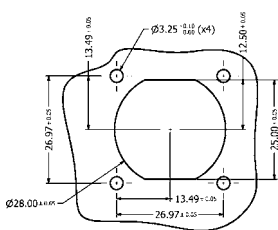
## DESCRIPTION

- For front- or rear panel mounting up to wall thickness of 3.2 mm
- Design:
  - Zinc die-cast nickel plated
- RJ45 Cat. 5e solder termination with grounding connection shielded
- Strain relief version includes a cable tie
- Available as a set with protection cap
- Accessories:
  - Gasket and mounting hardware can be ordered separately
- Mounting hardware includes
  - 4x (screw M3 + nut + flat washer + spring washer)

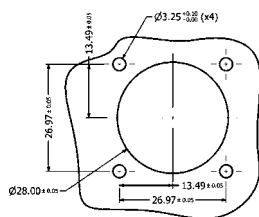
## PRODUCT DRAWING

### Recommended Panel Cut-out

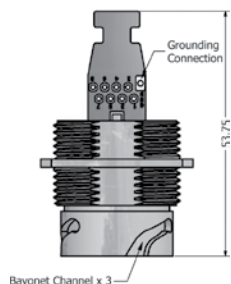
Double-D Panel Cut-out



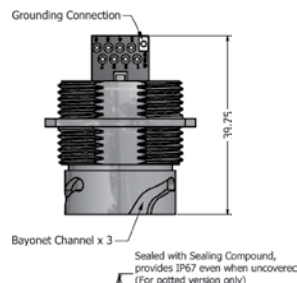
Round Panel Cut-out



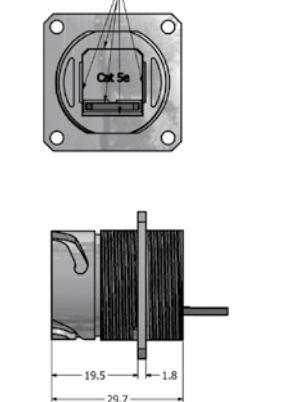
### PCB with grounding connection and strain relief area



### PCB with grounding connection



### Protection cap metal



## ORDER DATA

Type	Material	Surface	RJ45 Cat.5e design	Sealing	Grounding connection	Protection cap	Part Number
Receptacle without accessories	Zinc die-cast	nickel plated	Solder termination		Grounding connection		17-111094
Receptacle without accessories	Zinc die-cast	nickel plated	Solder termination	Sealing compound	Grounding connection		17-111104
Receptacle with accessories	Zinc die-cast	nickel plated	Solder termination		Grounding connection		17-111154
Receptacle with accessories	Zinc die-cast	nickel plated	Solder termination	Sealing compound	Grounding connection		17-111164
Receptacle with accessories	Zinc die-cast	nickel plated	Solder termination		Grounding connection	with protection cap	17-111214
Receptacle with accessories	Zinc die-cast	nickel plated	Solder termination	Sealing compound	Grounding connection	with protection cap	17-111224
Receptacle without accessories	Zinc die-cast	nickel plated	Solder termination		Grounding/Strain relief		17-111114
Receptacle without accessories	Zinc die-cast	nickel plated	Solder termination	Sealing compound	Grounding/Strain relief		17-111124
Receptacle with accessories	Zinc die-cast	nickel plated	Solder termination		Grounding/Strain relief		17-111174
Receptacle with accessories	Zinc die-cast	nickel plated	Solder termination	Sealing compound	Grounding/Strain relief		17-111184
Receptacle with accessories	Zinc die-cast	nickel plated	Solder termination		Grounding/Strain relief	with protection cap	17-111234
Receptacle with accessories	Zinc die-cast	nickel plated	Solder termination	Sealing compound	Grounding/Strain relief	with protection cap	17-111244
Panel gasket	Silicone						17-103540
Mounting hardware	Stainless steel						17-103530



# RJ45-IP67 PANEL MOUNTED RECEPTACLE

IDC Cat. 5e – Bayonet locking – Plastic or zinc die-cast



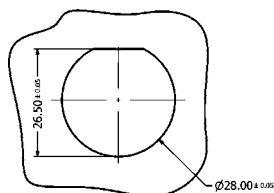
UL listed, File No.: E202784

### DESCRIPTION

- For front- or rear panel mounting up to wall thickness of 3.2 mm
- Design:
  - Black plastic or metallized
  - Zinc die-cast nickel plated
- RJ45 Cat. 5e IDC shielded
- Available as a set with protection cap
- Plastic housing: blue, green, yellow, red and white on request

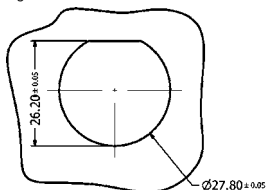
### PRODUCT DRAWING

Recommended Panel Cut-out  
for plastic version

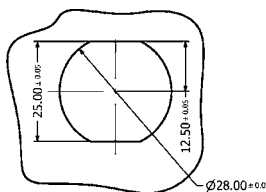


for metal version

Single-D Panel Cut-out



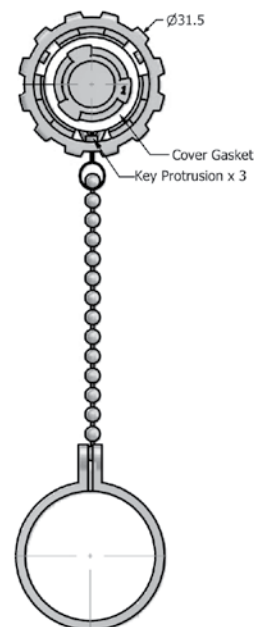
Double-D Panel Cut-out



Protection cap plastic



Protection cap metal



### ORDER DATA

Type	Material	Surface	RJ45 Cat.5e design, shielded	Sealing	Protection cap	Part Number
Receptacle	Plastic	black	Socket connector IDC termination			17-10015
Receptacle	Plastic	black	Socket connector IDC termination	Sealing compound		17-10033
Receptacle	Plastic	black	Socket connector IDC termination		with protection cap	17-10021
Receptacle	Plastic	black	Socket connector IDC termination	Sealing compound	with protection cap	17-10037
Receptacle	Plastic	metallized	Socket connector IDC termination			17-10016
Receptacle	Plastic	metallized	Socket connector IDC termination	Sealing compound		17-10034
Receptacle	Plastic	metallized	Socket connector IDC termination		with protection cap	17-10022
Receptacle	Plastic	metallized	Socket connector IDC termination	Sealing compound	with protection cap	17-10038
Receptacle	Zinc die-cast	nickel plated	Socket connector IDC termination			17-101774
Receptacle	Zinc die-cast	nickel plated	Socket connector IDC termination	Sealing compound		17-102174
Receptacle	Zinc die-cast	nickel plated	Socket connector IDC termination		with protection cap	17-101834
Receptacle	Zinc die-cast	nickel plated	Socket connector IDC termination	Sealing compound	with protection cap	17-102194

# RJ45-IP67 PANEL MOUNTED RECEPTACLE

Inline coupling Cat. 5e and 6A – M28 thread – Metal



UL listed, File No.: E202784

## DESCRIPTION

- For front- or rear panel mounting up to wall thickness of 3.2 mm
- Design:
  - Metal design, M28 thread
- RJ45 Cat. 5e Inline coupling unshielded or shielded
- RJ45 Cat. 6A Inline coupling shielded
- Metal protection cap, M28 thread
- Available as a set with protection cap

## PRODUCT DRAWING

Recommended panel cut-out



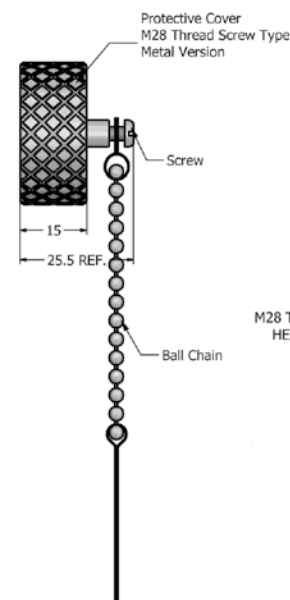
Coupling Cat. 5e



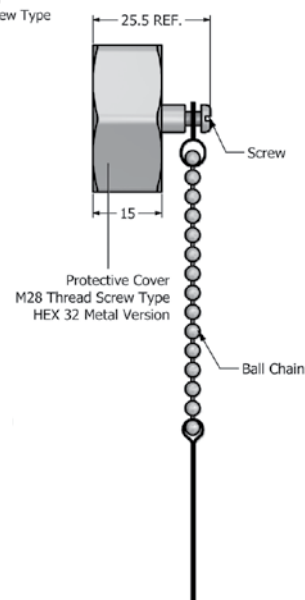
Coupling Cat. 6A



Protection cap Metal Knurled



Protection cap Metal Hex 32



## ORDER DATA

Type	Material	Surface	Design	Protection cap	Part Number
Receptacle Cat. 5e	Metal	nickel plated	Inline coupling shielded		17-100934
Receptacle Cat. 5e	Metal	nickel plated	Inline coupling unshielded		17-101494
Receptacle Cat. 5e	Metal	nickel plated	Inline coupling shielded	with knurled protection cap	17-101604
Receptacle Cat. 5e	Metal	nickel plated	Inline coupling unshielded	with knurled protection cap	17-101614
Receptacle Cat. 5e	Metal	nickel plated	Inline coupling shielded	with hex protection cap	17-101884
Receptacle Cat. 5e	Metal	nickel plated	Inline coupling unshielded	with hex protection cap	17-101894
Receptacle Cat. 6A	Metal	nickel plated	Inline coupling shielded		17-150144
Receptacle Cat. 6A	Metal	nickel plated	Inline coupling shielded	with knurled protection cap	17-150154
Receptacle Cat. 6A	Metal	nickel plated	Inline coupling shielded	with hex protection cap	17-150164

# RJ45-IP67 PANEL MOUNTED RECEPTACLE

Solder termination (PCB) Cat. 5e – M28 thread – Metal



UL listed, File No.: E202784

### DESCRIPTION

- For front- or rear panel mounting up to wall thickness of 3.2 mm
- Design:
  - Metal design, M28 thread
- RJ45 Cat. 5e Solder termination shielded
- Available as a set with protection cap

### PRODUCT DRAWING

Recommended panel-cutout



Protection cap Metal Knurled



### ORDER DATA

Type	Material	Surface	RJ45 Cat.5e design	Sealing	Protection cap	Part Number
Receptacle	Metal	nickel plated	Inline coupling shielded			17-101594
Receptacle	Metal	nickel plated	Inline coupling shielded	Sealing compound		17-101634
Receptacle	Metal	nickel plated	Inline coupling shielded		with knurled protection cap	17-101654
Installation housing	Metal	nickel plated	Inline coupling shielded	Sealing compound	with knurled protection cap	17-101674

# RJ45-IP67 PLUG KIT

Standard version Cat. 5e and Cat. 6A – Bayonet locking – Plastic and Metal



UL listed, File No.: E202784

## DESCRIPTION

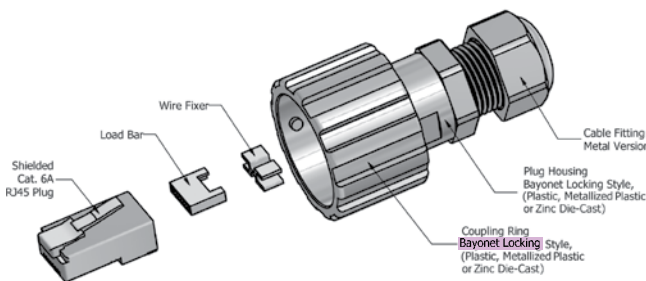
- RJ45 Cat. 5e and Cat. 6A plug connector shielded
- for use with solid or stranded, shielded or unshielded cable size AWG24
- Designs:
  - Black plastic
  - Metallized plastic
  - Zinc die-cast nickel plated

## PRODUCT DRAWING

Standard version Cat. 5e



Standard version Cat. 6A



## ORDER DATA

Type	Material Coupling Ring	Material Housing	Material Cable fitting	Surface	Part Number
Plug kit Cat. 5e	Plastic	Plastic	Plastic	black	17-10001
Plug kit Cat. 5e	Plastic	Plastic	Metall	metallized/nickel plated	17-10013
Plug kit Cat. 5e	Zinc die-cast	Plastic	Metall	metallized/nickel plated	17-10044
Plug kit Cat. 5e	Zinc die-cast	Zinc die-cast	Metall	nickel plated	17-101794
Plug kit Cat. 6A	Plastic	Plastic	Metall	black/nickel plated	17-150234
Plug kit Cat. 6A	Plastic	Plastic	Metall	metallized/nickel plated	17-150244
Plug kit Cat. 6A	Zinc die-cast	Zinc die-cast	Metall	nickel plated	17-150284

# RJ45-IP67 PLUG KIT

Screw version Cat. 5e – M28 thread – Metal



UL listed, File No.: E202784

## DESCRIPTION

- RJ45 Cat. 5e plug connector shielded
- for use with solid or stranded cable size AWG24
- Designs:
  - Metallized plastic,
  - Metal

## PRODUCT DRAWING

Version Cat. 5e  
Knurled



Version Cat. 5e  
Hex 32



## ORDER DATA

Type	Version	Material Coupling Ring	Material Housing	Material Cable fitting	Surface	Part Number
Plug kit Cat. 5e	Knurled	Metal	Plastic	Metal	metallized/nickel plated	17-100944
Plug kit Cat. 5e	Knurled	Metal	Zinc die-cast	Metal	nickel plated	17-103274
Plug kit Cat. 5e	Hex 32	Metal	Zinc die-cast	Metal	nickel plated	17-101864

# RJ45-IP67 PLUG KIT

Strain Relief version IP20 Cat. 5e and Cat. 6A – M28 thread – Plastic and Metal



UL listed, File No.: E202784

## DESCRIPTION

- RJ45 Cat. 5e and Cat. 6A plug connector shielded
- for use with solid or stranded cable size AWG24
- M28 Screw for use inside the enclosure (IP20 protection) suitable for component housings with inline coupler
- Designs:
  - Black plastic
  - Metallized plastic, Cable fitting metal

## PRODUCT DRAWING

Version Cat. 5e



Version Cat. 6A



## ORDER DATA

Type	Material Coupling Ring	Material Housing	Material Cable fitting	Surface	Part Number
Plug kit Cat. 5e	Plastic	Plastic	Plastic	black	17-100464
Plug kit Cat. 5e	Plastic	Plastic	Metal	metallized/nickel plated	17-100474
Plug kit Cat. 6A	Plastic	Plastic	Plastic	black	17-150254
Plug kit Cat. 6A	Plastic	Plastic	Metal	metallized/nickel plated	17-150264

# RJ45-IP67 PLUG KIT

Strain Relief version IP20 Cat. 6A – M28 thread – Metal



UL listed, File No.: E202784

## DESCRIPTION

- RJ45 Cat. 6A plug connector shielded
- For use with solid or stranded cable size AWG24
- M28 thread for installation in equipment (IP20-protection) suitable for component housings with inline coupler
- Design:
  - Metal

## PRODUCT DRAWING

Version Cat. 6A  
Knurled



Version Cat. 6A  
Hex 32

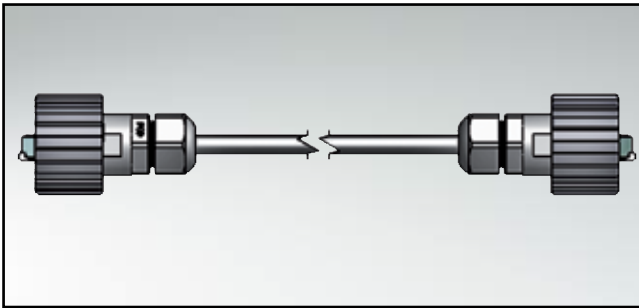


## ORDER DATA

Type	Version	Material Coupling Ring	Material Housing	Material Cable fitting	Surface	Part Number
Plug kit Cat. 6A	Knurled	Metal	Zinc die-cast	Metal	nickel plated	17-150274
Plug kit Cat. 6A	Hex 32	Metal	Zinc die-cast	Metal	nickel plated	17-150754

# RJ45 PATCH CORD

IP67 to IP67 – Cat. 5e and Cat. 6A – Bayonet locking – Plastic and Metal



UL listed, File No.: E202784

## DESCRIPTION

- RJ45 Cat. 5e and Cat. 6A assembled patch cord
- IP67 protection on both cable ends
- Designs:
  - Black plastic
  - Metallized plastic
  - Zinc die-cast
- Cable: UTP unshielded (twisted pair)  
STP, S/STP shielded (twisted pair),
- Outdoor version with cable „Drain wire“ and „Waterproof tape“
- Other lengths on request

## PRODUCT DRAWING

### Patch cord Cat. 5e



### Patch cord Cat. 6A



## ORDER DATA

Type Standard	Material Coupling Ring	Material Housing	Material Cable fitting	Surface	Cable	Length (L)	Part Number Standard	Part Number Outdoor
Patch cord Cat. 5e	Plastic	Plastic	Plastic	black	UTP, unshielded	2 m	17-10003	17-101144
Patch cord Cat. 5e	Plastic	Plastic	Plastic	black	UTP, unshielded	4 m	17-10004	17-101154
Patch cord Cat. 5e	Plastic	Plastic	Plastic	black	UTP, unshielded	5 m	17-10005	17-101164
Patch cord Cat. 5e	Plastic	Plastic	Metal	metallized/nickel plated	STP, shielded	2 m	17-10025	17-101174
Patch cord Cat. 5e	Plastic	Plastic	Metal	metallized/nickel plated	STP, shielded	4 m	17-10026	17-101184
Patch cord Cat. 5e	Plastic	Plastic	Metal	metallized/nickel plated	STP, shielded	5 m	17-10027	17-101194
Patch cord Cat. 5e	Zinc die-cast	Plastic	Metal	metallized/nickel plated	STP, shielded	2 m	17-100514	17-101204
Patch cord Cat. 5e	Zinc die-cast	Plastic	Metal	metallized/nickel plated	STP, shielded	4 m	17-100524	17-101214
Patch cord Cat. 5e	Zinc die-cast	Plastic	Metal	metallized/nickel plated	STP, shielded	5 m	17-100534	17-101224
Patch cord Cat. 5e	Zinc die-cast	Zinc die-cast	Metal	nickel plated	UTP, unshielded	2 m	17-102134	17-102074
Patch cord Cat. 5e	Zinc die-cast	Zinc die-cast	Metal	nickel plated	UTP, unshielded	4 m	17-102144	17-102084
Patch cord Cat. 5e	Zinc die-cast	Zinc die-cast	Metal	nickel plated	UTP, unshielded	5 m	17-102154	17-102094
Patch cord Cat. 5e	Zinc die-cast	Zinc die-cast	Metal	nickel plated	STP, shielded	2 m	17-102104	17-102044
Patch cord Cat. 5e	Zinc die-cast	Zinc die-cast	Metal	nickel plated	STP, shielded	4 m	17-102114	17-102054
Patch cord Cat. 5e	Zinc die-cast	Zinc die-cast	Metal	nickel plated	STP, shielded	5 m	17-102124	17-102064
Patch cord Cat. 6A	Plastic	Plastic	Plastic	black	S/STP, shielded	2 m	17-150304	
Patch cord Cat. 6A	Plastic	Plastic	Plastic	black	S/STP, shielded	4 m	17-150314	
Patch cord Cat. 6A	Plastic	Plastic	Plastic	black	S/STP, shielded	5 m	17-150324	
Patch cord Cat. 6A	Plastic	Plastic	Metal	metallized/nickel plated	S/STP, shielded	2 m	17-150334	
Patch cord Cat. 6A	Plastic	Plastic	Metal	metallized/nickel plated	S/STP, shielded	4 m	17-150344	
Patch cord Cat. 6A	Plastic	Plastic	Metal	metallized/nickel plated	S/STP, shielded	5 m	17-150354	
Patch cord Cat. 6A	Zinc die-cast	Plastic	Metal	metallized/nickel plated	S/STP, shielded	2 m	17-150364	
Patch cord Cat. 6A	Zinc die-cast	Plastic	Metal	metallized/nickel plated	S/STP, shielded	4 m	17-150374	
Patch cord Cat. 6A	Zinc die-cast	Plastic	Metal	metallized/nickel plated	S/STP, shielded	5 m	17-150384	



# RJ45 PATCH CORD

IP67to IP20 – Cat. 5e and Cat. 6A – Bayonet locking – Plastic and Metal



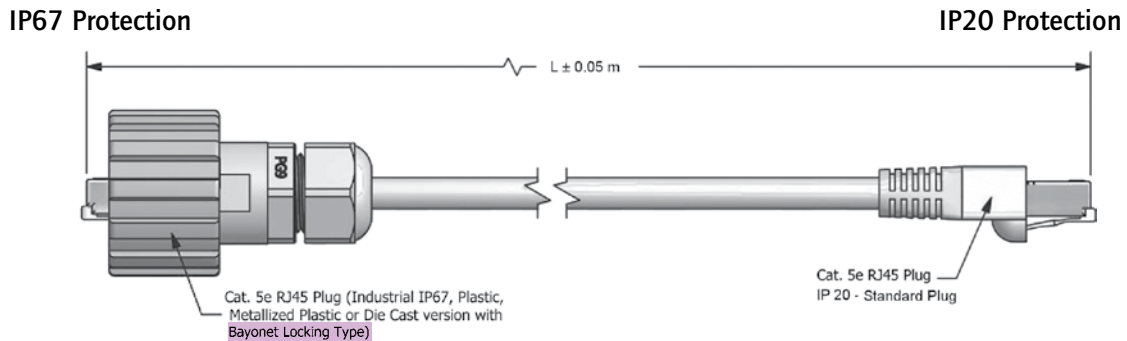
UL listed, File No.: E202784

## DESCRIPTION

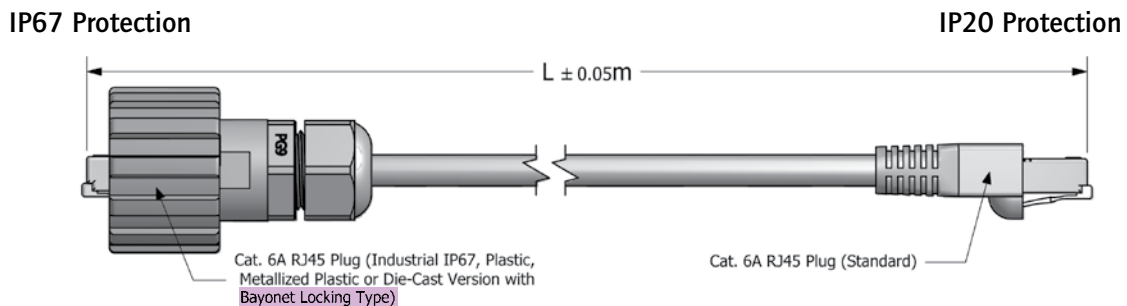
- RJ45 Cat. 5e and Cat. 6A assembled patch cord
- 1 x Industrial RJ45-IP67 – 1 x Standard RJ45-IP20
- Designs:
  - Black plastic
  - Metallized plastic
  - Zinc die-cast
- Cable: UTP unshielded (twisted pair)  
STP, S/STP shielded (twisted pair),
- Outdoor version with cable „Drain wire“ and „Waterproof tape“
- Other lengths on request

## PRODUCT DRAWING

### Patch cord Cat. 5e



### Patch cord Cat. 6A



## ORDER DATA

Type Standard	Material Coupling Ring	Material Housing	Material Cable fitting	Surface	Cable	Length (L)	Part Number Standard	Part Number Outdoor
Patch cord Cat. 5e	Plastic	Plastic	Plastic	black	UTP, unshielded	2 m	17-10006	17-101234
Patch cord Cat. 5e	Plastic	Plastic	Plastic	black	UTP, unshielded	4 m	17-10007	17-101244
Patch cord Cat. 5e	Plastic	Plastic	Plastic	black	UTP, unshielded	5 m	17-10008	17-101254
Patch cord Cat. 5e	Plastic	Plastic	Metal	metallized/nickel plated	STP, shielded	2 m	17-10028	17-101264
Patch cord Cat. 5e	Plastic	Plastic	Metal	metallized/nickel plated	STP, shielded	4 m	17-10029	17-101274
Patch cord Cat. 5e	Plastic	Plastic	Metal	metallized/nickel plated	STP, shielded	5 m	17-10030	17-101284
Patch cord Cat. 5e	Zinc die-cast	Plastic	Metal	metallized/nickel plated	STP, shielded	2 m	17-101264	17-101294
Patch cord Cat. 5e	Zinc die-cast	Plastic	Metal	metallized/nickel plated	STP, shielded	4 m	17-101274	17-101304
Patch cord Cat. 5e	Zinc die-cast	Plastic	Metal	metallized/nickel plated	STP, shielded	5 m	17-101284	17-101314
Patch cord Cat. 5e	Zinc die-cast	Zinc die-cast	Metal	nickel plated	UTP, unshielded	2 m	17-102014	17-101984
Patch cord Cat. 5e	Zinc die-cast	Zinc die-cast	Metal	nickel plated	UTP, unshielded	4 m	17-102024	17-101964
Patch cord Cat. 5e	Zinc die-cast	Zinc die-cast	Metal	nickel plated	UTP, unshielded	5 m	17-102034	17-101974
Patch cord Cat. 5e	Zinc die-cast	Zinc die-cast	Metal	nickel plated	STP, shielded	2 m	17-101984	17-101924
Patch cord Cat. 5e	Zinc die-cast	Zinc die-cast	Metal	nickel plated	STP, shielded	4 m	17-101994	17-101934
Patch cord Cat. 5e	Zinc die-cast	Zinc die-cast	Metal	nickel plated	STP, shielded	5 m	17-102004	17-101944
Patch cord Cat. 6A	Plastic	Plastic	Plastic	black	S/STP, shielded	2 m	17-150424	
Patch cord Cat. 6A	Plastic	Plastic	Plastic	black	S/STP, shielded	4 m	17-150434	
Patch cord Cat. 6A	Plastic	Plastic	Plastic	black	S/STP, shielded	5 m	17-150444	
Patch cord Cat. 6A	Plastic	Plastic	Metal	metallized/nickel plated	S/STP, shielded	2 m	17-150454	
Patch cord Cat. 6A	Plastic	Plastic	Metal	metallized/nickel plated	S/STP, shielded	4 m	17-150464	
Patch cord Cat. 6A	Plastic	Plastic	Metal	metallized/nickel plated	S/STP, shielded	5 m	17-150474	
Patch cord Cat. 6A	Zinc die-cast	Plastic	Metal	metallized/nickel plated	S/STP, shielded	2 m	17-150484	
Patch cord Cat. 6A	Zinc die-cast	Plastic	Metal	metallized/nickel plated	S/STP, shielded	4 m	17-150494	
Patch cord Cat. 6A	Zinc die-cast	Plastic	Metal	metallized/nickel plated	S/STP, shielded	5 m	17-150504	

# RJ45 PATCH CORD

IP67 to IP67 – Cat. 5e and Cat. 6A – M28 thread – Metal



UL listed, File No.: E202784

## DESCRIPTION

- RJ45 Cat. 5e and Cat. 6A assembled patch cord
- 2 x Metall Industrial RJ45-IP67
- Designs:
  - Metallized plastic
  - Metal
- Cable: UTP unshielded (twisted pair)  
STP, S/STP shielded (twisted pair),
- Outdoor version with „Drain wire“ and „Waterproof tape“
- Other lengths on request

## PRODUCT DRAWING

Patch cord Cat. 5e/Cat 6a  
Knurled



Patch cord Cat. 6A  
Hex 32



## ORDER DATA

Type	Material Coupling Ring	Material Housing	Material Cable fitting	Surface	Cable	Length (L)	Part Number Standard	Part Number Outdoor
Knurled								
Patch cord Cat. 5e	Metal	Plastic	Metal	metallized/nickel plated	UTP, unshielded	2 m	17-100994	17-101084
Patch cord Cat. 5e	Metal	Plastic	Metal	metallized/nickel plated	UTP, unshielded	4 m	17-101004	17-101094
Patch cord Cat. 5e	Metal	Plastic	Metal	metallized/nickel plated	UTP, unshielded	5 m	17-101014	17-101104
Patch cord Cat. 5e	Metal	Plastic	Metal	metallized/nickel plated	STP, shielded	2 m		17-101114
Patch cord Cat. 5e	Metal	Plastic	Metal	metallized/nickel plated	STP, shielded	4 m		17-101124
Patch cord Cat. 5e	Metal	Plastic	Metal	metallized/nickel plated	STP, shielded	5 m		17-101134
Patch cord Cat. 6A	Metal	Plastic	Metal	metallized/nickel plated	S/STP, shielded	2 m	17-150724	
Patch cord Cat. 6A	Metal	Plastic	Metal	metallized/nickel plated	S/STP, shielded	4 m	17-150734	
Patch cord Cat. 6A	Metal	Plastic	Metal	metallized/nickel plated	S/STP, shielded	5 m	17-150744	
Hex 32								
Patch cord Cat. 6A	Metal	Plastic	Metal	metallized/nickel plated	S/STP, shielded	2 m	17-150794	
Patch cord Cat. 6A	Metal	Plastic	Metal	metallized/nickel plated	S/STP, shielded	4 m	17-150804	
Patch cord Cat. 6A	Metal	Plastic	Metal	metallized/nickel plated	S/STP, shielded	5 m	17-150814	

# RJ45 PATCH CORD

IP67 to IP20 – Cat. 5e and Cat. 6A – Bayonet locking – Plastic and Metal



UL listed, File No.: E202784

## DESCRIPTION

- RJ45 Cat. 5e and Cat. 6A assembled patch cord
- 1 x Industrial RJ45-IP67 – 1 x Standard RJ45-IP20
- Designs:
  - Metallized plastic
  - Metal
- Cable: UTP unshielded (twisted pair)  
STP, S/STP shielded (twisted pair),
- Outdoor version with cable „Drain wire“ and „Waterproof tape“
- Other lengths on request

## PRODUCT DRAWING

Patch cord Cat. 5e and Cat. 6A  
Knurled



Patch cord Cat. 6A  
Hex 32

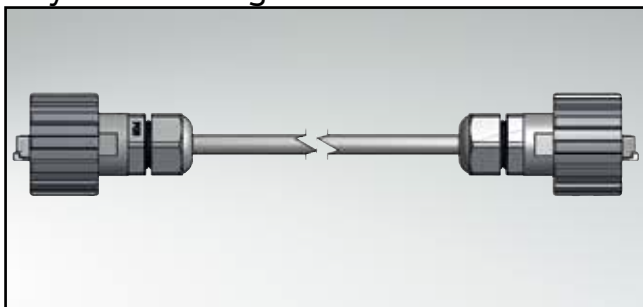


## ORDER DATA

Typ Knurled	Material Coupling Ring	Material Housing	Material Cable fitting	Surface	Cable	Length (L)	Part Number Standard	Part Number Outdoor
Patch cord Cat. 5e	Metal	Plastic	Metal	metallized/nickel plated	UTP, unshielded	2 m		17-101024
Patch cord Cat. 5e	Metal	Plastic	Metal	metallized/nickel plated	UTP, unshielded	4 m		17-101034
Patch cord Cat. 5e	Metal	Plastic	Metal	metallized/nickel plated	UTP, unshielded	5 m		17-101044
Patch cord Cat. 5e	Metal	Plastic	Metal	metallized/nickel plated	STP, shielded	2 m	17-100964	17-101054
Patch cord Cat. 5e	Metal	Plastic	Metal	metallized/nickel plated	STP, shielded	4 m	17-100974	17-101064
Patch cord Cat. 5e	Metal	Plastic	Metal	metallized/nickel plated	STP, shielded	5 m	17-100984	17-101074
Patch cord Cat. 6A	Metal	Plastic	Metal	metallized/nickel plated	S/STP, shielded	2 m	17-150764	
Patch cord Cat. 6A	Metal	Plastic	Metal	metallized/nickel plated	S/STP, shielded	4 m	17-150774	
Patch cord Cat. 6A	Metal	Plastic	Metal	metallized/nickel plated	S/STP, shielded	5 m	17-150784	
<b>Hex 32</b>								
Patch cord Cat. 6A	Metal	Plastic	Metal	metallized/nickel plated	S/STP, shielded	2 m	17-150824	
Patch cord Cat. 6A	Metal	Plastic	Metal	metallized/nickel plated	S/STP, shielded	4 m	17-150834	
Patch cord Cat. 6A	Metal	Plastic	Metal	metallized/nickel plated	S/STP, shielded	5 m	17-150844	

# RJ45 PATCH CORD

Strain relief version IP20 to IP20 or IP20 to IP67 – Cat. 6A –  
 Bayonet locking/M28 thread – Plastic



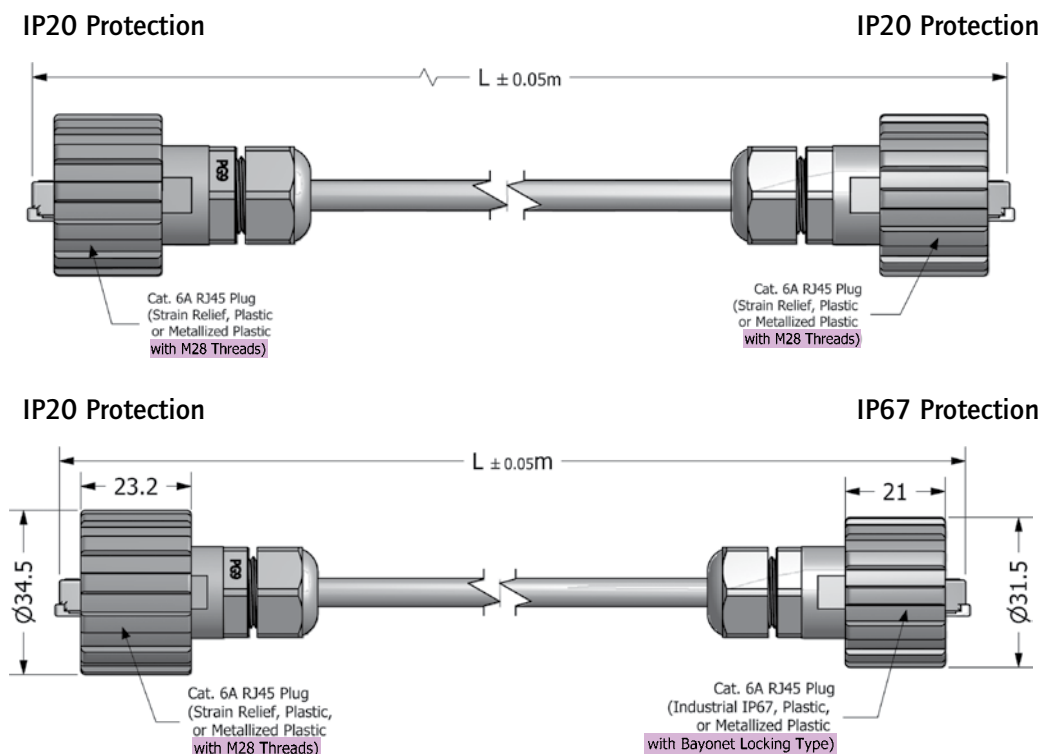
UL listed, File No.: E202784

## DESCRIPTION

- RJ45 Cat. 6A assembled patch cord
- 2 x Industrial RJ45  
 1 x Industrial RJ45-IP67 – 1 x Standard RJ45-IP20
- Strain relief version:  
 - Black plastic and metallized
- IP20 Protection on both cable ends  
 IP20 Protection to IP67 Protection
- Cable: S/STP shielded (twisted pair)
- Other lengths on request

## PRODUCT DRAWING

### PatchCord Cat. 6A

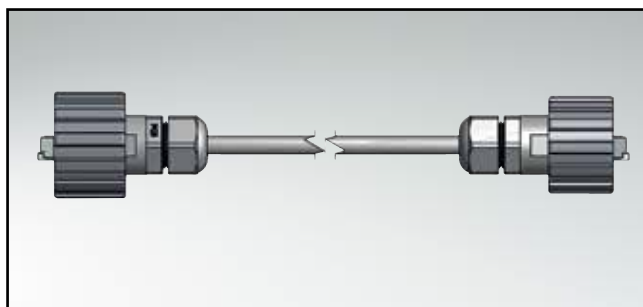


## ORDER DATA

Type Standard	Degree of protection	Material Coupling Ring	Material Housing	Material Cable fitting	Surface	Cable	Length (L)	Part Number
Patch cord Cat. 6A	IP20/ IP20	Plastic	Plastic	Plastic	black	S/STP, shielded	2 m	17-150604
Patch cord Cat. 6A	IP20/ IP20	Plastic	Plastic	Plastic	black	S/STP, shielded	4 m	17-150614
Patch cord Cat. 6A	IP20/ IP20	Plastic	Plastic	Plastic	black	S/STP, shielded	5 m	17-150624
Patch cord Cat. 6A	IP20/ IP20	Plastic	Plastic	Plastic	metallized	S/STP, shielded	2 m	17-150634
Patch cord Cat. 6A	IP20/ IP20	Plastic	Plastic	Plastic	metallized	S/STP, shielded	4 m	17-150644
Patch cord Cat. 6A	IP20/ IP20	Plastic	Plastic	Plastic	metallized	S/STP, shielded	5 m	17-150654
Patch cord Cat. 6A	IP20/ IP67	Plastic	Plastic	Plastic	black	S/STP, shielded	2 m	17-150544
Patch cord Cat. 6A	IP20/ IP67	Plastic	Plastic	Plastic	black	S/STP, shielded	4 m	17-150554
Patch cord Cat. 6A	IP20/ IP67	Plastic	Plastic	Plastic	black	S/STP, shielded	5 m	17-150564
Patch cord Cat. 6A	IP20/ IP67	Plastic	Plastic	Plastic	metallized	S/STP, shielded	2 m	17-150574
Patch cord Cat. 6A	IP20/ IP67	Plastic	Plastic	Plastic	metallized	S/STP, shielded	4 m	17-150584
Patch cord Cat. 6A	IP20/ IP67	Plastic	Plastic	Plastic	metallized	S/STP, shielded	5 m	17-150594

# RJ45 PATCH CORD

Strain relief version IP20 to IP67 – M28 thread / Bayonett locking – Cat. 5e



UL listed, File No.: E202784

## DESCRIPTION

- RJ45 Cat. 5e assembled patch cord  
1 x Industrial RJ45-IP67 – 1 x Standard RJ45-IP20
- Strain relief version:  
Design: Black plastic and metallized
- Cable: UTP unshielded (twisted pair)  
STP shielded (twisted pair),
- Outdoor version with „Drain wire“ and „Waterproof tape“
- Other lengths on request

## PRODUCT DRAWING

PatchCord Cat. 5e



## ORDER DATA

Type Standard	Degree of protection	Material	Cable	Length (L)	Part Number
Patch cord	IP20/ IP67	Black plastic	UTP / Unshielded	2 m	17-101374
Patch cord	IP20/ IP67	Black plastic	UTP / Unshielded	4 m	17-101384
Patch cord	IP20/ IP67	Black plastic	UTP / Unshielded	5 m	17-101394
Patch cord	IP20/ IP67	Metallized plastic	STP / Shielded	2 m	17-101434
Patch cord	IP20/ IP67	Metallized plastic	STP / Shielded	4 m	17-101444
Patch cord	IP20/ IP67	Metallized plastic	STP / Shielded	5 m	17-101454

Type Outdoor	Degree of protection	Material	Cable	Length (L)	Part Number
Patch cord	IP20/ IP67	Black plastic	UTP / Unshielded	2 m	17-101404
Patch cord	IP20/ IP67	Black plastic	UTP / Unshielded	4 m	17-101414
Patch cord	IP20/ IP67	Black plastic	UTP / Unshielded	5 m	17-101424
Patch cord	IP20/ IP67	Metallized plastic	STP / Shielded	2 m	17-101464
Patch cord	IP20/ IP67	Metallized plastic	STP / Shielded	4 m	17-101474
Patch cord	IP20/ IP67	Metallized plastic	STP / Shielded	5 m	17-101484

# RJ45 PATCH CORD

Strain relief version IP20 to IP20 – Cat. 5e to Cat. 6A – M28 thread – Plastic



UL listed, File No.: E202784

## DESCRIPTION

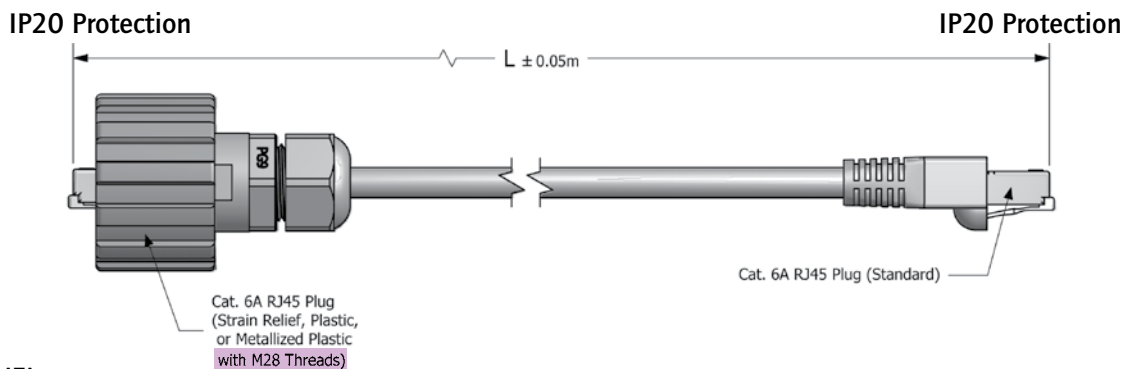
- RJ45 Cat. 5e to Cat. 6A assembled patch cord
- IP20 Protection on both cable ends
- Strain relief version:
  - Black plastic
  - Metallized plastic
- Cable: UTP unshielded (twisted pair)  
STP, S/STP shielded (twisted pair),
- Other lengths on request

## PRODUCT DRAWING

### Patch cord Cat. 5e



### Patch cord Cat. 6A



## ORDER DATA

Type Standard	Degree of protection	Material Coupling Ring	Material Housing	Material Cable fitting	Surface	Cable	Length (L)	Part Number
Patch cord Cat. 5e	IP20/ IP20	Plastic	Plastic	Plastic	black	UTP / Unshielded	2 m	17-100574
Patch cord Cat. 5e	IP20/ IP20	Plastic	Plastic	Plastic	black	UTP / Unshielded	4 m	17-100584
Patch cord Cat. 5e	IP20/ IP20	Plastic	Plastic	Plastic	black	UTP / Unshielded	5 m	17-100594
Patch cord Cat. 5e	IP20/ IP20	Plastic	Plastic	Plastic	metallized	STP / Shielded	2 m	17-100604
Patch cord Cat. 5e	IP20/ IP20	Plastic	Plastic	Plastic	metallized	STP / Shielded	4 m	17-100614
Patch cord Cat. 5e	IP20/ IP20	Plastic	Plastic	Plastic	metallized	STP / Shielded	5 m	17-100624
Patch cord Cat. 6A	IP20/ IP67	Plastic	Plastic	Plastic	black	S/STP / Shielded	2 m	17-150664
Patch cord Cat. 6A	IP20/ IP67	Plastic	Plastic	Plastic	black	S/STP / Shielded	4 m	17-150674
Patch cord Cat. 6A	IP20/ IP67	Plastic	Plastic	Plastic	black	S/STP / Shielded	5 m	17-150684
Patch cord Cat. 6A	IP20/ IP67	Plastic	Plastic	Plastic	metallized	S/STP / Shielded	2 m	17-150694
Patch cord Cat. 6A	IP20/ IP67	Plastic	Plastic	Plastic	metallized	S/STP / Shielded	4 m	17-150704
Patch cord Cat. 6A	IP20/ IP67	Plastic	Plastic	Plastic	metallized	S/STP / Shielded	5 m	17-150714

# RJ45 PATCH CORD

IP20 to IP20 – Cat. 5e or Cat. 6A



UL listed, File No.: E202784

## DESCRIPTION

- RJ45 Cat. 5e or Cat. 6A assembled patch cord
- IP20 Protection on both cable ends
- Kabel: UTP unshielded (twisted pair)  
STP, S/STP shielded (twisted pair),
- Other lengths on request

## PRODUCT DRAWING

Patch cord Cat. 5e or 6A

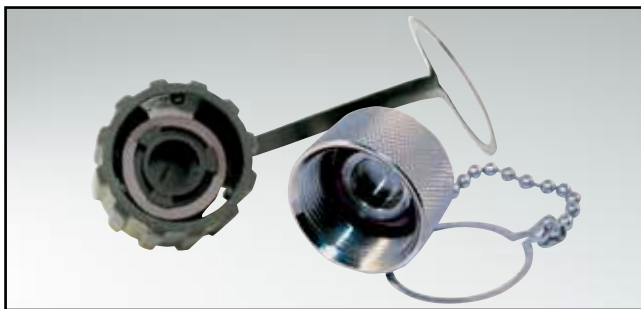


## ORDER DATA

Type Standard	Degree of protection	Cable	Lenght (L)	Part Number black	Part Number blue	Part Number red	Part Number green	Part Number yellow	Part Number white
Patch cord Cat. 5e	IP20/ IP20	STP/Shielded	2 m	17-101324					
Patch cord Cat. 5e	IP20/ IP20	STP/Shielded	4 m	17-101334					
Patch cord Cat. 5e	IP20/ IP20	STP/Shielded	5 m	17-101344					
Patch cord Cat. 5e	IP20/ IP20	UTP/Unshielded	2 m	17-100654	17-100684	17-100714	17-100744	17-100774	17-100804
Patch cord Cat. 5e	IP20/ IP20	UTP/Unshielded	4 m	17-100664	17-100694	17-100724	17-100754	17-100784	17-100814
Patch cord Cat. 5e	IP20/ IP20	UTP/Unshielded	5 m	17-100674	17-100704	17-100734	17-100764	17-100794	17-100824
Patch cord Cat. 6A	IP20/ IP20	S/STP/Shielded	2 m	17-150874					
Patch cord Cat. 6A	IP20/ IP20	S/STP/Shielded	4 m	17-150894					
Patch cord Cat. 6A	IP20/ IP20	S/STP/Shielded	5 m	17-150904					

# RJ45 and USB ACCESSORIES

## Protection cap plastic – Protection cap metal



UL listed, File No.: E202784

### DESCRIPTION

- IP67 Protection unused interfaces
- Protection cap:
  - Black plastic
  - Metallized plastic
  - Metal
- Termination: Bayonet locking or M28 thread
- With tether or ballchain

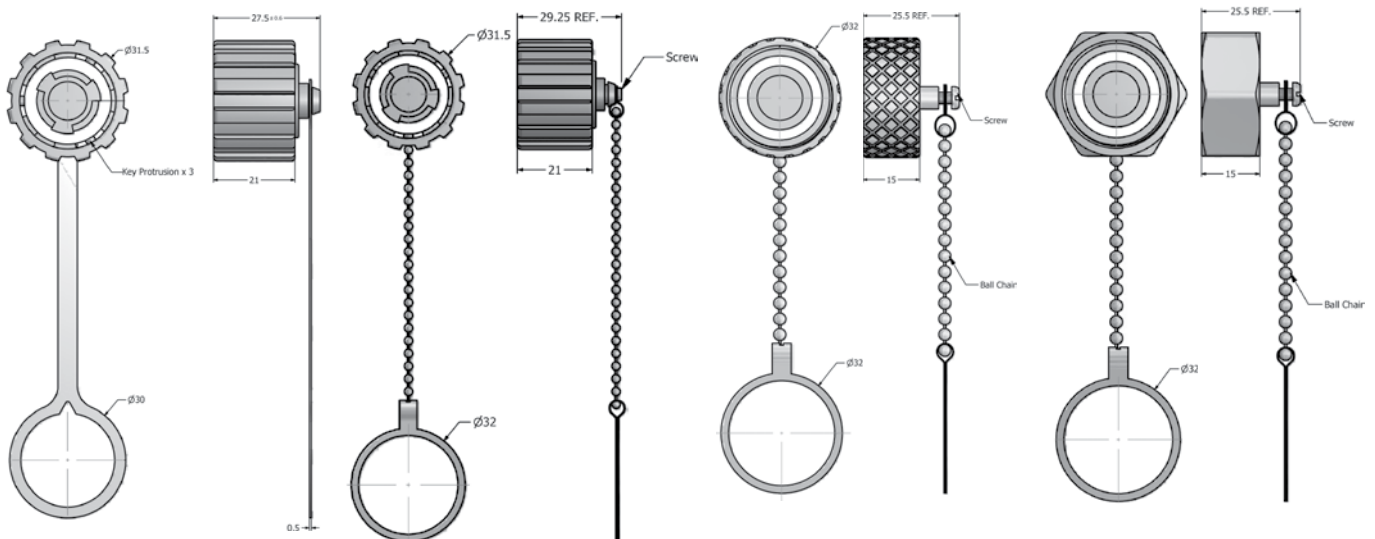
### PRODUCT DRAWING

Plastic version  
Bayonet locking  
Tether

Plastic / Zinc die-cast  
Bayonet locking  
Ball chain

M28 thread metal  
Knurled  
Ball chain

Hex 32  
Ball chain



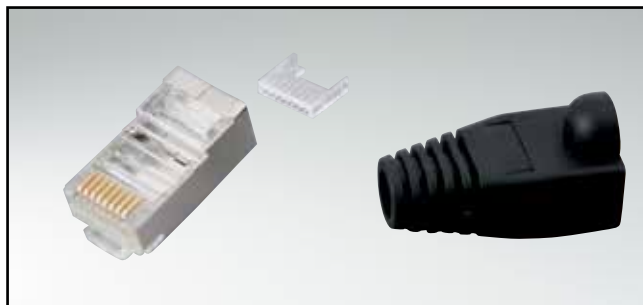
### ORDER DATA

Type	Material	Surface	Locking	Fixing	Part Number
Protection cap	Plastic	Black	Bayonet	Tether	17-10002
Protection cap	Plastic	Metallized	Bayonet	Tether	17-10014
Protection cap	Zinc die-cast	Nickel plated	Bayonet	Ball chain	17-101800
Protection cap	Plastic	Black	Bayonet	Ball chain	17-101710
Protection cap	Plastic	Metallized metallisiert	Bayonet	Ball chain	17-101720
Protection cap	Metal	Nickel plated	M28 thread/Hex 32	Ball chain	17-101870
Protection cap	Metal	Nickel plated	M28 thread/Knurled	Ball chain	17-100950



# ACCESSORIES AND INSTALLATION TOOLS

For RJ45 products



RoHS compliant

**DESCRIPTION**

- RJ45 plug connector Cat. 5e or 6A shielded
- Grommets, Color: black, blue, green, yellow, red or white
- RJ45 plug connector crimp tool
- Insertion tool for RJ45 IDC version
- Cable tester

**PRODUCT DRAWING**

RJ45 Cat.5e or 6A Plug connector, shielded



Grommets



RJ45 plug connector crimp tool



Multi-Modular cable tester



Insertion toll for RJ45 IDC version



**ORDER DATA**

Accessories/Tools	Part Number black	Part Number blue	Part Number green	Part Number yellow	Part Number red	Part Number white	Part Number
Grommet	795-601302	795-601303	795-601304	795-601305	795-601306	795-601307	
RJ45 Cat. 5e Plug connector, shielded							391J00039X
RJ45 Cat. 6A Plug connector, shielded							391J00049X
Crimp tool for RJ45 plug connector							360X30029X
Insertion tool for RJ45 insulation displacement terminatin version (IDC)							360X30049X
Cable tester							360X30039X

## SECTION 12

# MINI USB AND USB 2.0-IP67 CONNECTOR SYSTEM

---

CONEC has added the Mini-USB connector. This Mini-USB IP67 receptacle and plug family, feature a bayonet coupling for use in harsh environments. The "quick – connect" bayonet locking mechanism provides an audible and noticeable feedback to ensure the user that an IP67 watertight connection is made. No further mounting tool is required to make this simple, fast and robust connection. The product line includes a panel receptacle for PCB installation or termination to a flexible circuit. The overall dimensions are compact and require a 12 mm diameter panel cutout. The pre – terminated patch cables with an overmolded IP67 Mini USB Type B plug and an overmolded USB Type A are available in 2, 3 and 5 m length. The housings for the USB 2.0 Type A connectors have a bayonet latching mechanism according to the IEC 61076-3-106 standard. The housing can be mounted on the front or rear side of enclosure panels with thickness up to 3,2 mm. USB 2.0 plug set with solder termination is available for cable side and there are also preassembled patch cords available in various IP protection grades and lengths.





The housings are available in plastic, metalized plastic and nickel plated zinc die-cast. This robust design with IP67 rating ensures reliable protection and easy connection under harsh environmental conditions. Protective covers are available to keep IP67 protection when not in use.

Custom solutions are available upon request, please contact the factory.

**Typical applications:**

- CNC machines
- Communications equipment
- Outdoor wireless
- Bluetooth adapters
- Industrial process control
- Diagnostic and test instruments
- Outdoor displays
- Factory automation
- Outdoor telecommunications systems
- Oil and gas industries
- Mass transportation
- Outdoor monitoring devices
- Outdoor metering
- Outdoor telecommunication systems



## TECHNICAL DATA

<b>Mechanical and electrical characteristics</b>	
Interface connector	USB Connector per USB 2.0 specification
Locking mechanism	Bayonet locking or screw termination M28 thread
IP Degree of protection	IP67
Temperature range	Connector: -40°C to + 85°C / Patch cable: -40°C to +80°C
Current rating	1.5 A max. at 25°C
Voltage	100 VDC
Contact resistance	30 mΩ max.
Insulation resistance	1000 MΩ
Electric strength contact to contact	500 VAC / 60 sec.
Electric strength contact to metal shell	1000 VAC / 60 sec.
<b>Materials</b>	
Housing	PBT, flame protection per UL 94-V0 or Zinc die-cast nickel plated
Fastening nut	Brass nickel plated
Shell sealing	Silicone
USB Socket metal shell	Steel nickel plated
USB Socket and plug connector plastic shell	PBT, flame protection per UL 94-V0
USB Socket and plug contacts	Phosphor bronze, gold plated
Connector housing	PBT, flame protection per UL 94-V0
Metal socket coupling ring	PBT, flame protection per UL 94-V0 or Zinc die-cast nickel plated
Cable termination	PA, flame protection per UL 94-V0 or brass nickel plated
Cable seal	NBR
Interface seal	Silicone
USB plug connector metal shell	Copper alloy, nickel plated
Protection cap	PBT, flame protection per UL 94-V0 or brass/ zinc die-cast nickel plated
Seal	Silicone
Protection cap	PE or brass/zinc die-cast nickel plated

Technical specifications are subject to change without notice.

# MINI USB 2.0 TYPE B IP67 PANEL MOUNTED RECEPTACLE

PC Tail termination, for rigid or flex circuit



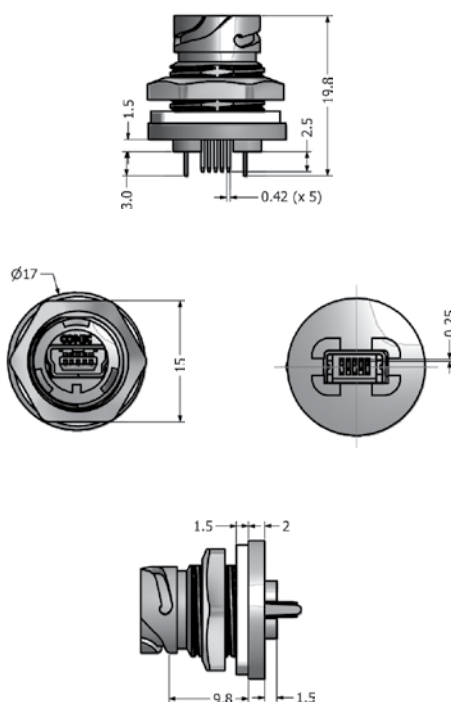
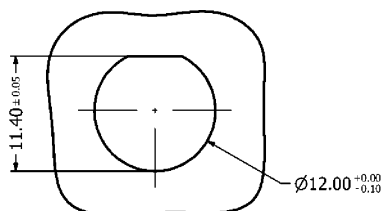
UL listed, File No.: E202784

## DESCRIPTION

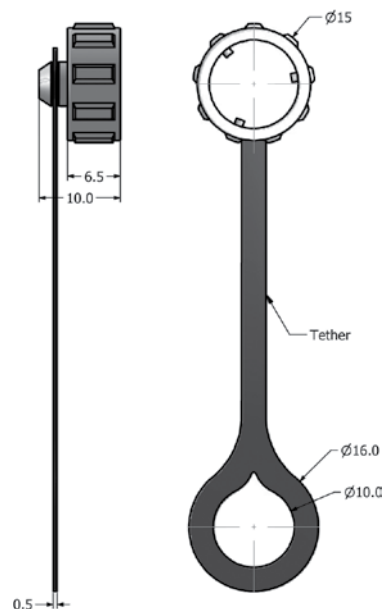
- For rear panel mounting up to wall thickness of 3.2 mm
- Design: Black plastic
- Bayonet locking, IP67 rated in mated condition
- Available as set with protection cap

## PRODUCT DRAWING

Recommended Panel Cutout plastic



Protection cap plastic



## ORDER DATA

Type	Material	Termination	Protection cap	Part Number
Receptacle kit	Black plastic	Bayonet locking	Without protection cap	17-250001
Receptacle kit	Black plastic	Bayonet locking	With protection cap	17-250021
Protection cap	Black plastic	Bayonet locking		17-250010

# MINI USB 2.0 IP67 PATCH CORD

Mini USB 2.0 Type B - Standard USB 2.0 Type A connector



UL listed, File No.: E202784

**DESCRIPTION**

- Design: Black plastic
- Bayonet locking, IP67 rated in mated condition

**PRODUCT DRAWING**

IP67-Protection

IP20-Protection



**ORDER DATA**

Type	Material	Termination	Length	Part Number
Patch cord	Black plastic	Bayonet locking	2 m	17-250031
Patch cord	Black plastic	Bayonet locking	3 m	17-250041
Patch cord	Black plastic	Bayonet locking	5 m	17-250051

# USB 2.0 TYPE A IP67 PANEL MOUNTED RECEPTACLE

Inline coupling – Bayonet locking – Plastic or zinc die-cast



UL listed, File No.: E202784

## DESCRIPTION

- For front- and rear panel mounting up to wall thickness of 3.2 mm
- Design: Black plastic or metallized, zinc die-cast nickel plated
- Termination inside USB 2.0 Type A
- Bayonet locking per IEC 61076-3-106
- IP67-Protection in mated condition
- Available as set with protection cap

## PRODUCT DRAWING

Recommended Panel Cutout for plastic

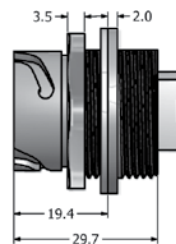


for metal

Single-D Panel Cut-out



Double-D Panel Cut-out



Protection cap plastic



Protection cap metal



## ORDER DATA

Type	Material	Surface	Protection cap	Part Number
Installation housing set	Plastic	black	Without protection cap	17-200001
Installation housing set	Plastic	black	With protection cap	17-200161
Installation housing set	Plastic	metallized	Without protection cap	17-200011
Installation housing set	Plastic	metallized	With protection cap	17-200721
Installation housing set	Zinc die-cast	nickel plated	Without protection cap	17-200601
Installation housing set	Zinc die-cast	nickel plated	With protection cap	17-200611

# USB 2.0 TYPE A IP67 PANEL MOUNTED RECEPTACLE

Solder termination (PCB) – Bayonet locking – Plastic or zinc die-cast



UL listed, File No.: E202784

## DESCRIPTION

- For front- and rear panel mounting up to wall thickness of 3.2 mm
- Design: Black plastic or metallized, zinc die-cast nickel plated
- Solder termination inside (PCB)
- Bayonet locking per IEC 61076-3-106
- Low profile version for rear panel mounting up to wall thickness of 2.0 mm
- IP67 Protection in mated condition

## PRODUCT DRAWING

Recommended Panel Cutout for plastic version



Standard version



Low profile version

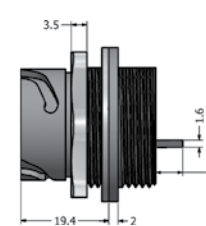
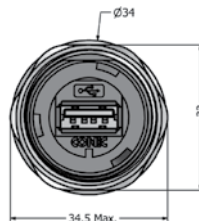
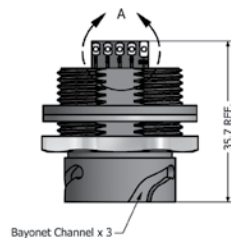


for metal version

Single-D Panel Cut-out



Double-D Panel Cut-out



## ORDER DATA

Type	Material	Surface	Sealing	Part Number
Receptacle connector standard	Plastic	black		17-200881
Receptacle connector standard	Plastic	black	Sealing compound	17-210001
Receptacle connector standard	Plastic	metallized		17-200891
Receptacle connector standard	Plastic	metallized	Sealing compound	17-210011
Receptacle connector standard	Zinc die-cast	nickel plated		17-210151
Receptacle connector standard	Zinc die-cast	nickel plated	Sealing compound	17-210161
Receptacle connector Low profile	Plastic	black		17-210021
Receptacle connector Low profile	Plastic	black	Sealing compound	17-210041
Receptacle connector Low profile	Plastic	metallized		17-210031
Receptacle connector Low profile	Plastic	metallized	Sealing compound	17-210051



# USB 2.0 TYPE A IP67 PANEL MOUNTED RECEPTACLE

Inline coupling – Bayonet locking – Square flange – Zinc die-cast



UL listed, File No.: E202784

## DESCRIPTION

- For front- and rear panel mounting up to wall thickness of 3.2 mm
- Design: Zinc die-cast nickel plated
- Termination inside USB 2.0 Type A
- Bayonet locking per IEC 61076-3-106
- IP67-Protection in mated condition
- Available as set with protection cap
- Accessories:  
Gasket and mounting hardware can be ordered separately
- Mounting hardware includes  
4x (screw M3 + nut + flat washer + spring washer)

## PRODUCT DRAWING

### Recommended Panel Cutout

#### Double-D Panel Cut-out



#### Round Panel Cut-out



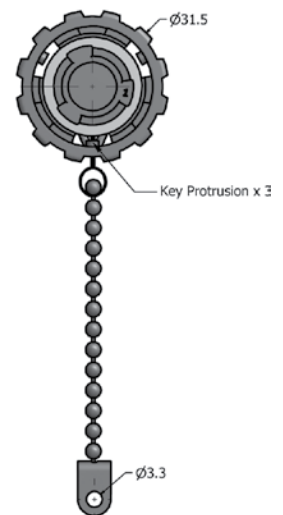
### without assembly



### with assembly



### Protection cap metal



## ORDER DATA

Type	Material	Surface	Protection cap	Part Number
Receptacle without assembly	Zinc die-cast	nickel plated	without Protection cap	17-200781
Panel gasket	Silicone			17-103540
Mounting hardware	Stainless steel			17-103530
Receptacle with assembly	Zinc die-cast	nickel plated	without Protection cap	17-210111
Receptacle with assembly	Zinc die-cast	nickel plated	with Protection cap	17-210121

# USB 2.0 TYPE A IP67 PANEL MOUNTED RECEPTACLE

Inline coupling – both sides Bayonet locking – Plastic



UL listed, File No.: E202784

## DESCRIPTION

- For front- and rear panel mounting up to wall thickness of 3.2 mm
- Design: Black plastic
- Bayonet locking per IEC 61076-3-106
- IP67 protection in mated condition
- Available as set with protection cap

## PRODUCT DRAWING

Recommended Panel Cutout



Protection cap plastic



## ORDER DATA

Type	Material	Surface	Protection cap	Part Number
Receptacle	Plastic	black	without Protection cap	17-210131
Receptacle	Plastic	black	with Protection cap	17-210141

# USB 2.0 TYPE A IP67 PANEL MOUNTED RECEPTACLE

Inline coupling – M28 thread– Zinc die-cast



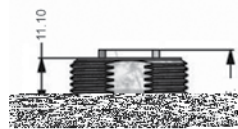
UL listed, File No.: E202784

## DESCRIPTION

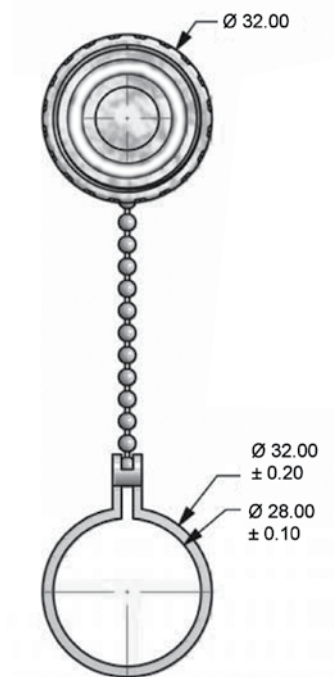
- For front- and rear panel mounting up to wall thickness of 3.2 mm
- Design: Zinc die-cast nickel plated
- Termination inside USB 2.0 Type A
- IP67 protection over M28 thread
- Available as set with or without protection cap

## PRODUCT DRAWING

Recommended Panel Cutout



Protection cap metal  
Knurled



## ORDER DATA

Type	Material	Surface	Design	Protection cap	Part Number
Receptacle	Zinc die-cast	nickel plated	Inline coupling	Without protection cap	17-200321
Receptacle	Zinc die-cast	nickel plated	Inline coupling	With protection cap	17-200431

# USB 2.0 TYPE A IP67 PLUG KIT

Standard version – Bayonet locking – Plastic and metal



UL listed, File No.: E202784

## DESCRIPTION

- Design: Black plastic and metallized, Zinc die-cast nickel plated
- USB Connector per USB 2.0 specification Type A
- Bayonet locking per IEC 61076-3-106
- USB 2.0 Type A can be ordered separately

## PRODUCT DRAWING



## ORDER DATA

Type	Material Coupling ring	Material Housing	Material Cable fitting	Surface	Part Number
Plug kit	Plastic	Plastic	Plastic	black	17-200121
Plug kit	Plastic	Plastic	Metal	metallized/nickel plated	17-200131
Plug kit	Zinc die-cast	Plastic	Metal	metallized/nickel plated	17-200591
Plug USB 2.0 Type A					39-500101

# USB 2.0 TYPE A IP67 PLUG KIT

Standard-/Strain relief version – M28 thread – Plastic and Metal



UL listed, File No.: E202784

## DESCRIPTION

- Strain relief version, threads onto the internal M28 threads of a Receptacle Housing
- Design:
  - Black plastic
  - Metallized plastic
  - Metal version
- USB Connector per USB 2.0 Spezification Type A
- M28 thread
- USB 2.0 Type A can be ordered separately

## PRODUCT DRAWING

Strain relief version  
Plastic



Metal



## ORDER DATA

Type	Material Coupling ring	Material Housing	Material Cable fitting	Surface	Part Number
Plug kit	Plastic	Plastic	Plastic	black	17-200151
Plug kit	Plastic	Plastic	Metal	metallized/nickel plated	17-200731
Plug kit	Metal	Plastic	Metal	metallized/nickel plated	17-200331
Plug USB 2.0 Type A					39-500101

# USB 2.0 TYPE A TO TYPE A PATCH CORD

IP67 to IP67 – Bayonet locking



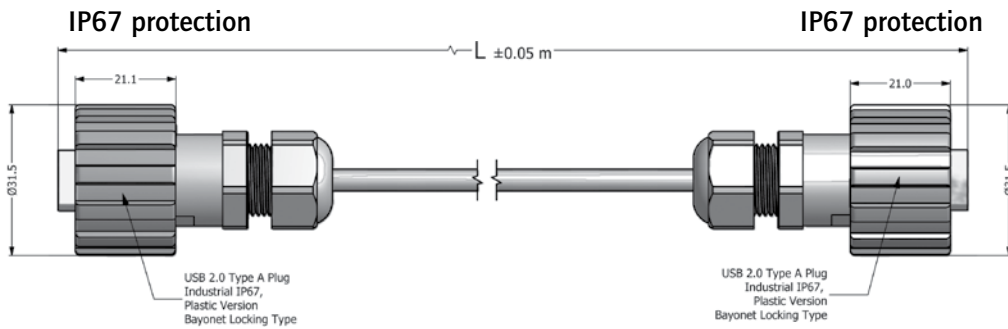
UL listed, File No.: E202784

## DESCRIPTION

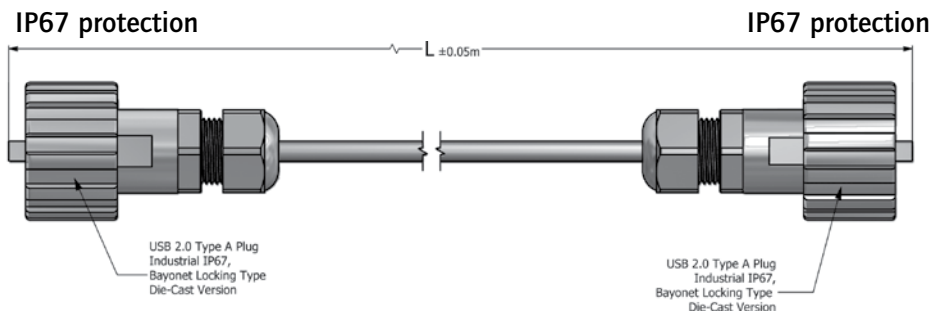
- Assembled patch cord
- Design:
  - Black plastic
  - Zinc die-cast nickel plated
- IP67 protection on both cable ends
- Other lengths on request

## PRODUCT DRAWING

Plastic design



Metal design



## ORDER DATA

Type	Degree of Protection	Material Coupling ring	Material Housing	Material Cable fitting	Surface	Cable	Length (L)	Part Number
Patch cord	IP67-IP67	Plastic	Plastic	Plastic	black	AWM 2725, black	2 m	17-200281
Patch cord	IP67-IP67	Plastic	Plastic	Plastic	black	AWM 2725, black	3 m	17-200291
Patch cord	IP67-IP67	Plastic	Plastic	Plastic	black	AWM 2725, black	4,5m	17-200311
Patch cord	IP67-IP67	Zinc die-cast	Plastic	Plastic	metallized/nickel plated/black	AWM 2725, black	2 m	17-200621
Patch cord	IP67-IP67	Zinc die-cast	Plastic	Plastic	metallized/nickel plated/black	AWM 2725, black	3 m	17-200631
Patch cord	IP67-IP67	Zinc die-cast	Plastic	Plastic	metallized/nickel plated/black	AWM 2725, black	4,5m	17-200641

# USB 2.0 TYPE A TO TYPE A PATCH CORD

IP20 to IP20/IP67 to IP67 – M28 thread



UL listed, File No.: E202784

## DESCRIPTION

- Assembled patch cord
- Strain relief version  
Design: Black plastic
- IP20 Protection on both cable ends
- Metal version
- IP67 Protection on both cable ends
- Other lengths on request

## PRODUCT DRAWING

Strain relief version  
Plastic



Metal



## ORDER DATA

Type	Degree of Protection	Material Coupling ring	Material Housing	Material Cable fitting	Surface	Cable	Length (L)	Part Number
Patch cord	IP20-IP20	Plastic	Plastic	Plastic	black	AWM 2725, black	2 m	17-200811
Patch cord	IP20-IP20	Plastic	Plastic	Plastic	black	AWM 2725, black	3 m	17-200821
Patch cord	IP20-IP20	Plastic	Plastic	Plastic	black	AWM 2725, black	4,5m	17-200831
Patch cord	IP67-IP67	Metal	Plastic	Plastic	metallized/nickel plated/black	AWM 2725, black	2 m	17-200401
Patch cord	IP67-IP67	Metal	Plastic	Plastic	metallized/nickel plated/black	AWM 2725, black	3 m	17-200411
Patch cord	IP67-IP67	Metal	Plastic	Plastic	metallized/nickel plated/black	AWM 2725, black	4,5m	17-200421

# USB 2.0 TYPE A TO TYPE A PATCHCORD

Strain relief version – IP20 to IP67 – M28 thread/Bayonet locking



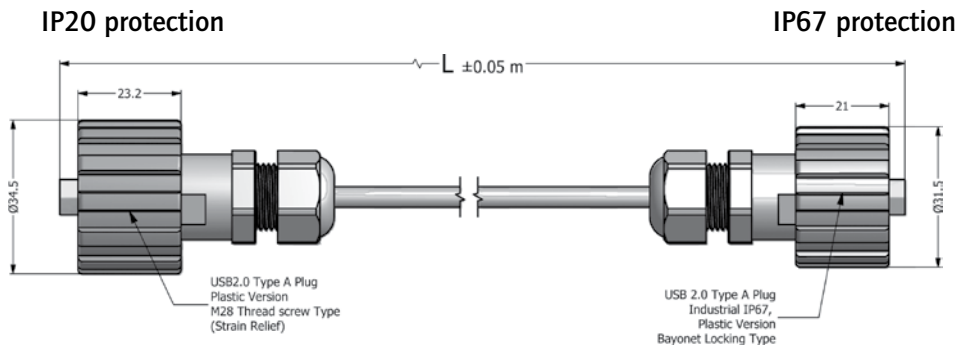
UL listed, File No.: E202784

## DESCRIPTION

- Strain relief version, threads onto the internal M28 threads of a Receptacle Housing
- Assembled patch cord
- Design:
  - Black plastic
- Other lengths on request

## PRODUCT DRAWING

Strain relief version  
Plastic



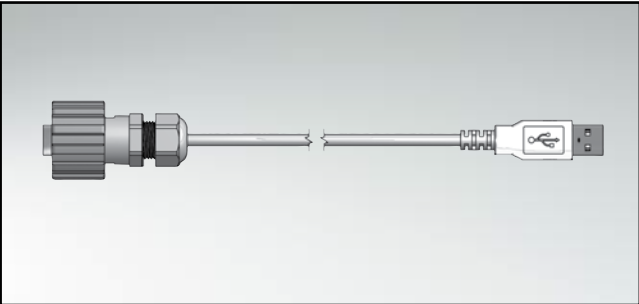
## ORDER DATA

Type	Degree of protection	Material Coupling ring	Material Housing	Material Cable fitting	Surface	Cable	Length (L)	Part Number
Patchcord	IP20-IP67	Plastic	Plastic	Plastic	black	AWM 2725, black	2 m	17-200541
Patchcord	IP20-IP67	Plastic	Plastic	Plastic	black	AWM 2725, black	3 m	17-200551
Patchcord	IP20-IP67	Plastic	Plastic	Plastic	black	AWM 2725, black	4,5m	17-200561



# USB 2.0 TYPE A TO TYPE A PATCH CORD

IP67 to IP20 – Bayonet locking



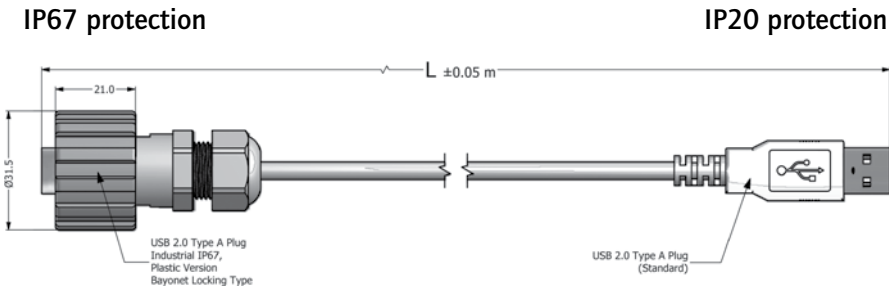
UL listed, File No.: E202784

**DESCRIPTION**

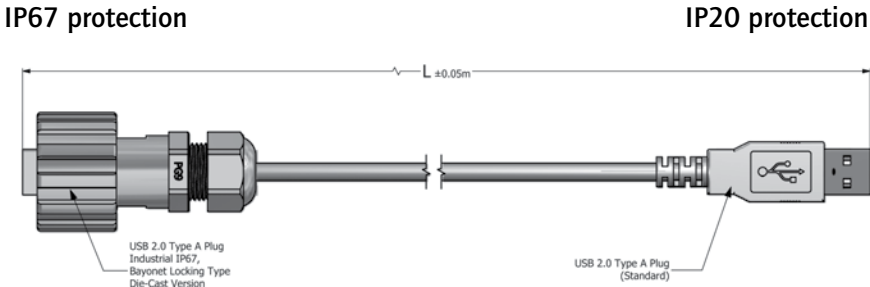
- Assembled patch cord
- USB 2.0 Type A Bayonet locking to USB 2.0 Type A Standard
- Design:
  - Black plastic and metallized
  - Zinc die-cast nickel plated
- Other lengths on request

**PRODUCT DRAWING**

Plastic version



Metal version

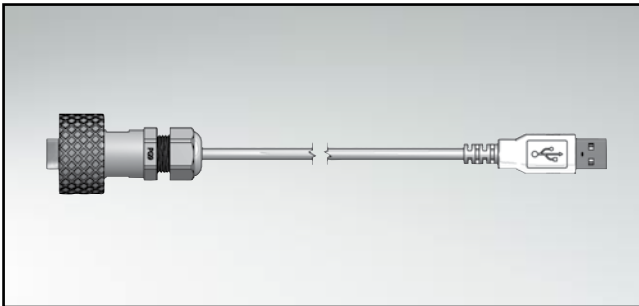


**ORDER DATA**

Type	Degree of protection	Material Coupling ring	Material Housing	Material Cable fitting	Surface	Cable	Length (L)	Part Number
Patchcord	IP67-IP20	Plastic	Plastic	Plastic	black	AWM 2725, black	2 m	17-200231
Patchcord	IP67-IP20	Plastic	Plastic	Plastic	black	AWM 2725, black	3 m	17-200241
Patchcord	IP67-IP20	Plastic	Plastic	Plastic	black	AWM 2725, black	4,5m	17-200261
Patchcord	IP67-IP20	Zinc die-cast	Plastic	Metal	metallized/nickel plated	AWM 2725, black	2 m	17-200681
Patchcord	IP67-IP20	Zinc die-cast	Plastic	Metal	metallized/nickel plated	AWM 2725, black	3 m	17-200691
Patchcord	IP67-IP20	Zinc die-cast	Plastic	Metal	metallized/nickel plated	AWM 2725, black	4,5m	17-200701

# USB 2.0 TYPE A TO TYPE A PATCH CORD

Strain relief version – IP20 to IP20/IP67 to IP20 – M28 thread



UL listed, File No.: E202784

## DESCRIPTION

- Strain relief version, threads onto the internal M28 threads of a Receptacle Housing
- Assembled patch cord
- Strain relief version
- Design: Black plastic
- IP20 Protection both cable ends
- Metal version
- IP67 Protection on one cable end
- Other lengths on request

## PRODUCT DRAWING

Strain relief version  
Plastic



Metal

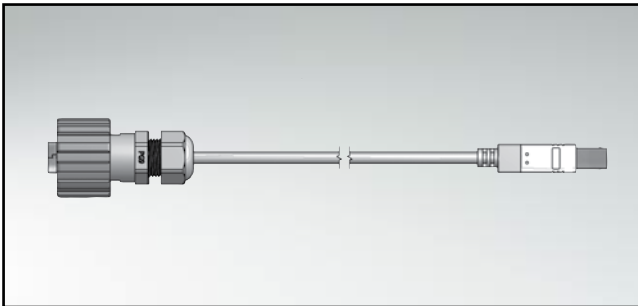


## ORDER DATA

Type	Degree of protection	Material Coupling ring	Material Housing	Material Cable fitting	Surface	Cable	Length (L)	Part Number
Patch cord	IP20-IP20	Plastic	Plastic	Plastic	black	AWM 2725, black	2 m	17-200511
Patch cord	IP20-IP20	Plastic	Plastic	Plastic	black	AWM 2725, black	3 m	17-200521
Patch cord	IP20-IP20	Plastic	Plastic	Plastic	black	AWM 2725, black	4,5m	17-200531
Patch cord	IP67-IP20	Metal	Plastic	Metal	metallized/nickel plated	AWM 2725, black	2 m	17-200371
Patch cord	IP67-IP20	Metal	Plastic	Metal	metallized/nickel plated	AWM 2725, black	3 m	17-200381
Patch cord	IP67-IP20	Metal	Plastic	Metal	metallized/nickel plated	AWM 2725, black	4,5m	17-200391

# USB 2.0 TYPE A TO TYPE B PATCH CORD

IP67 to IP20 – Bayonet locking



UL listed, File No.: E202784

### DESCRIPTION

- Assembled patch cord
- USB 2.0 Type A Bayonet locking to USB 2.0 Type B Standard
- Design:
  - Black plastic
  - Zinc die-cast nickel plated
- Other lengths on request

### PRODUCT DRAWING

Plastic design



Metal design



### ORDER DATA

Type	Degree of protection	Material Coupling ring	Material Housing	Material Cable fitting	Surface	Cable	Length (L)	Part Number
Patch cord	IP67-IP20	Plastic	Plastic	Plastic	black	AWM 2725, black	2 m	17-200181
Patch cord	IP67-IP20	Plastic	Plastic	Plastic	black	AWM 2725, black	3 m	17-200191
Patch cord	IP67-IP20	Plastic	Plastic	Plastic	black	AWM 2725, black	4,5m	17-200211
Patch cord	IP67-IP20	Zinc die-cast	Plastic	Metal	metallized/nickel plated	AWM 2725, black	2 m	17-200651
Patch cord	IP67-IP20	Zinc die-cast	Plastic	Metal	metallized/nickel plated	AWM 2725, black	3 m	17-200661
Patch cord	IP67-IP20	Zinc die-cast	Plastic	Metal	metallized/nickel plated	AWM 2725, black	4,5m	17-200671

# USB 2.0 TYPE A TO TYPE B PATCH CORD

Strain relief version – IP20 to IP20/IP67 to IP20 – M28 thread



UL listed, File No.: E202784

## DESCRIPTION

- Strain relief version, threads onto the internal M28 threads of a Receptacle Housing
- Assembled patch cord
- Strain relief version  
Design: Black plastic
- IP20 Protection both cable ends
- Metal version
- IP67 Protection on one cable end
- Other lengths on request

## PRODUCT DRAWING

Strain relief version  
Plastic



Metal



## ORDER DATA

Type	Degree of protection	Material Coupling ring	Material Housing	Material Cable fitting	Surface	Cable	Length (L)	Part Number
Patch cord	IP20-IP20	Plastic	Plastic	Plastic	black	AWM 2725, black	2 m	17-200481
Patch cord	IP20-IP20	Plastic	Plastic	Plastic	black	AWM 2725, black	3 m	17-200491
Patch cord	IP20-IP20	Plastic	Plastic	Plastic	black	AWM 2725, black	4,5m	17-200501
Patch cord	IP67-IP20	Metal	Plastic	Metal	metallized/nickel plated	AWM 2725, black	2 m	17-200341
Patch cord	IP67-IP20	Metal	Plastic	Metal	metallized/nickel plated	AWM 2725, black	3 m	17-200351
Patch cord	IP67-IP20	Metal	Plastic	Metal	metallized/nickel plated	AWM 2725, black	4,5m	17-200361

# USB 2.0 TYPE A TO TYPE A OR TYPE B PATCH CORD

IP20 to IP20



UL listed, File No.: E202784

## DESCRIPTION

- Assembled patch cord
- IP20 Protection on both cable ends
- USB 2.0 Connector Type A to Typ A or Type A to Type B
- Other lengths on request

## PRODUCT DRAWING

Type A to type A



Type A to type B



## ORDER DATA

Type	Degree of protection	Material	Cable	Length (L)	Part Number
Patch cord	IP20 Type A-IP20 Type A	Plastic	AWM 2725, black	2 m	17-201031
Patch cord	IP20 Type A-IP20 Type A	Plastic	AWM 2725, black	3 m	17-201041
Patch cord	IP20 Type A-IP20 Type A	Plastic	AWM 2725, black	4,5m	17-201061
Patch cord	IP20 Type A-IP20 Type B	Plastic	AWM 2725, black	2 m	17-201081
Patch cord	IP20 Type A-IP20 Type B	Plastic	AWM 2725, black	3 m	17-201091
Patch cord	IP20 Type A-IP20 Type B	Plastic	AWM 2725, black	4,5m	17-201111

SECTION 13

# IP67 FIBER OPTIC INDUSTRIAL CONNECTORS

---

CONEC has developed an ODVA compatible IP67 Fiber Optic connection for harsh indoor and outdoor environment. The new system is a bayonet locking enclosure with integrated LC Duplex Connectors and Adapters. The bayonet locking enclosure provides an easy and secured connection also under adverse conditions. The available materials for the housings are plastic or nickel plated zinc die-cast for extreme harsh conditions.

The LC connections are available for single mode or multimode transmission, depending on the requirements of the operated system.

The major application for these connectors are connections from base stations to the transmission modules based on antenna poles or for network connections on the last mile into end users homes. This program is supplemented by preassembled patch cables in various lengths.





For a variety of different Fiber Optic connections Conec supplies a wide range of Fiber Optic adapters.

To support different application requirements in regards to transmission Conec adapters are available with Phosphor-Bronze or ceramic sleeves for precise positioning of the connector ferrules to each other.

Adapters are available in both, plastic or zinc die-cast housing. The adapters are offered in simplex and duplex configurations. For installation of the Fiber Optic adapters Conec offers a stainless steel clip for push-in installation or adapters with integrated threads for simple fastening by screws.

All CONEC Fiber Optic Adapters are supplied with preinstalled dust caps.



# IP67 Fiber Optic Industrial Duplex LC Connector

## Receptacle Assembly Kit – Bayonet locking – Plastic or Zinc die-cast



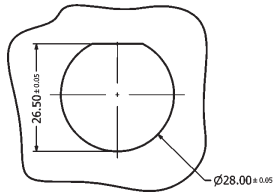
RoHS compliant

### Description

- Industrial version with bayonet coupling
- For front or rear panel mount to a max. panel thickness of 3,2 mm
- Receptacle housing: Black plastic UL 94 V-0, zinc die-cast
- Protection cap: Black plastic, zinc die-cast nickel plated
- Available as a set with protection cap
- Operating temperature: -40°C to +85°C

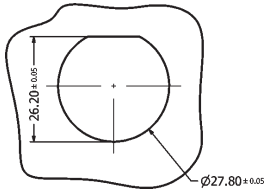
### Product drawing

#### Recommended Panel Cut-out for plastic version

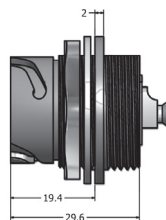
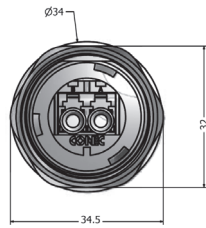
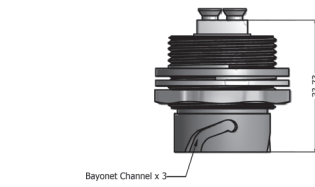
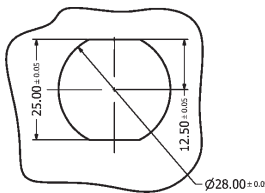


#### for metal version

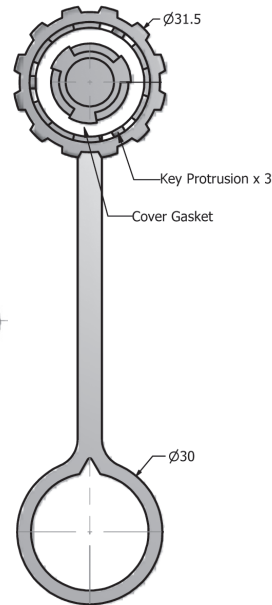
##### Single-D Panel Cut-out



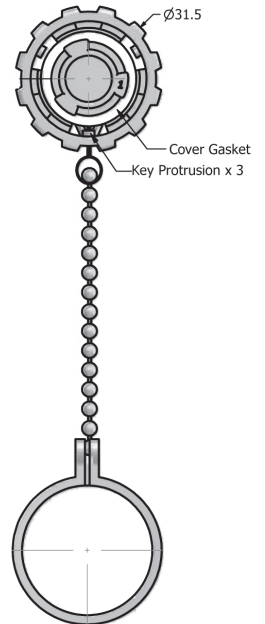
##### Double-D Panel Cut-out



#### Protection cap plastic



#### Protection cap metal



### Order data

Type	Material	Surface	SM/MM/APC SM	Protection cap	Part Number
Receptacle Assembly Kit	Plastic	black	Single Mode		17-300010
Receptacle Assembly Kit	Plastic	black	Multi Mode		17-300020
Receptacle Assembly Kit	Plastic	black	APC Single Mode		17-300170
Receptacle Assembly Kit	Plastic	black	Single Mode	with protection cap	17-300230
Receptacle Assembly Kit	Plastic	black	Multi Mode	with protection cap	17-300240
Receptacle Assembly Kit	Plastic	black	APC Single Mode	with protection cap	17-300250
Receptacle Assembly Kit	Zinc die cast	nickel plated	Single Mode		17-300060
Receptacle Assembly Kit	Zinc die cast	nickel plated	Multi Mode		17-300070
Receptacle Assembly Kit	Zinc die cast	nickel plated	APC Single Mode		17-300180
Receptacle Assembly Kit	Zinc die cast	nickel plated	Single Mode	with protection cap	17-300380
Receptacle Assembly Kit	Zinc die cast	nickel plated	Multi Mode	with protection cap	17-300390
Receptacle Assembly Kit	Zinc die cast	nickel plated	APC Single Mode	with protection cap	17-300400



# IP67 FIBER OPTIC INDUSTRIAL DUPLEX LC CONNECTOR

Inline coupler – on both sides Bayonet termination – Plastic



RoHS compliant

## DESCRIPTION

- For front- or rear panel mounting up to wall thickness of .130"/3.2 mm
- Design: Black plastic
- Available as a set with protection cap
- Operating temperature: -40°C to +85°C

## PRODUCT DRAWING

Recommended Panel Cut-out

Protection cap plastic



## ORDER DATA

Type	Material	Surface	SM/MM/APC SM	Protection cap	Part Number
Inline coupler	Plastic	black	Single Mode		17-300790
Inline coupler	Plastic	black	Multi Mode		17-300800
Inline coupler	Plastic	black	APC Single Mode		17-300810
Inline coupler	Plastic	black	Single Mode	with protection cap	17-300820
Inline coupler	Plastic	black	Multi Mode	with protection cap	17-300830
Inline coupler	Plastic	black	APC Single Mode	with protection cap	17-300840

# IP67 FIBER OPTIC INDUSTRIAL DUPLEX LC CONNECTOR

## Plug Kit

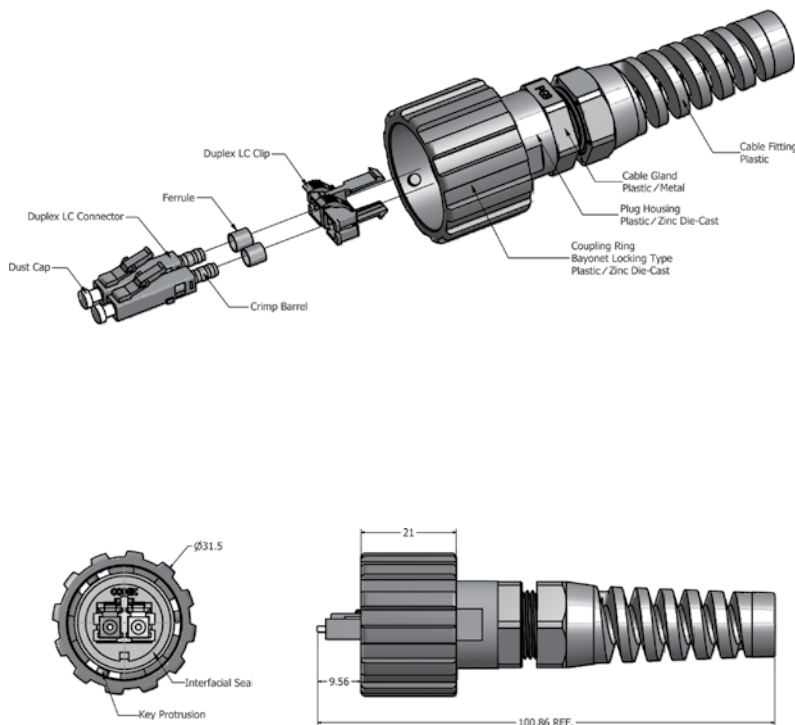


RoHS compliant

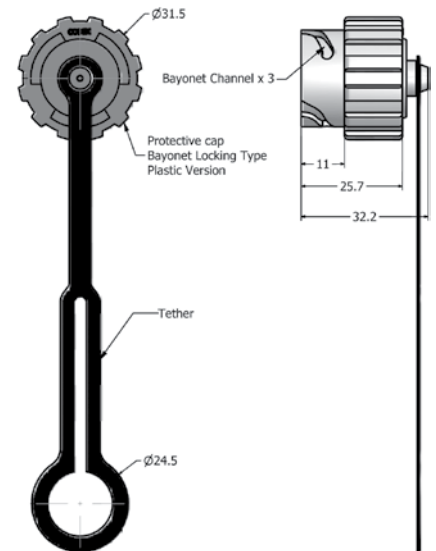
### DESCRIPTION

- Industrial version with bayonet coupling
- Connector: Black plastic UL 94 V-0, zinc die-cast
- Available as a set with protection cap
- Operating temperature: -40°C to +85°C

### PRODUCT DRAWING



### Protection cap plastic

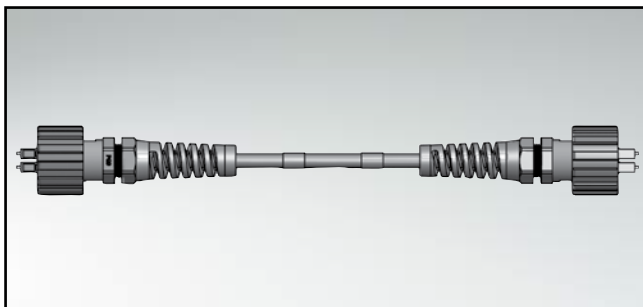


### ORDER DATA

Type	Material	Surface	SM/MM/APC SM	Protection cap	Part Number
Plug Kit	Plastic	black	Single Mode		17-300030
Plug Kit	Plastic	black	Multi Mode		17-300040
Plug Kit	Plastic	black	APC Single Mode		17-300110
Plug Kit	Plastic	black	Single Mode	with protection cap	17-300200
Plug Kit	Plastic	black	Multi Mode	with protection cap	17-300210
Plug Kit	Plastic	black	APC Single Mode	with protection cap	17-300220
Plug Kit	Zinc die cast	nickel plated	Single Mode		17-300080
Plug Kit	Zinc die cast	nickel plated	Multi Mode		17-300090
Plug Kit	Zinc die cast	nickel plated	APC Single Mode		17-300120
Plug Kit	Zinc die cast	nickel plated	Single Mode	with protection cap	17-300410
Plug Kit	Zinc die cast	nickel plated	Multi Mode	with protection cap	17-300420
Plug Kit	Zinc die cast	nickel plated	APC Single Mode	with protection cap	17-300430
Protective cover	Plastic	black			17-300050

# IP67 FIBER OPTIC INDUSTRIAL DUPLEX LC PATCH CORD

## IP67 Industrial to IP67 Industrial Duplex LC



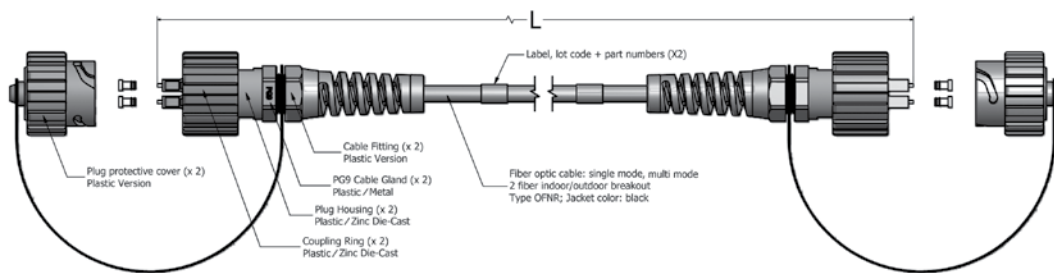
RoHS compliant

### DESCRIPTION

- Single Mode, Multi Mode and Single Mode APC
- Multi Mode: maximum connector insertion loss (ILI): 0.5 dB, plus cable attenuation of 3.5 dB/km AT 850nm
- Single Mode: maximum connector insertion loss (il): 0.2 db, plus cable attenuation of 0.78 db/km at 1310nm
- Cables are indoor and outdoor OFNR type
- Plug protective cover (2x)
- Other lengths on request

### PRODUCT DRAWING

Single Mode  
Multi Mode  
Single Mode APC

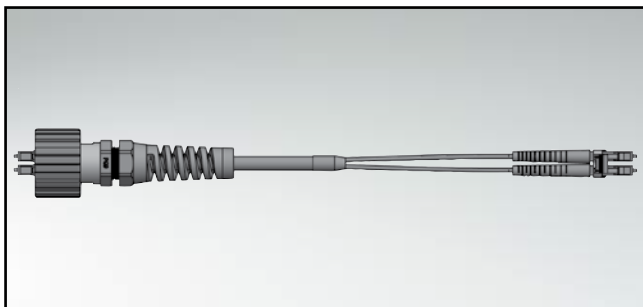


### ORDER DATA

Type	Material	surface	SM/MM/APC SM	Length L	Part Number
Patch cord	Plastic	black	Single Mode	2 m	17-300320-02
Patch cord	Plastic	black	Single Mode	5 m	17-300320-05
Patch cord	Plastic	black	Single Mode	10 m	17-300320-10
Patch cord	Plastic	black	Multi Mode	2 m	17-300190-02
Patch cord	Plastic	black	Multi Mode	5 m	17-300190-05
Patch cord	Plastic	black	Multi Mode	10 m	17-300190-10
Patch cord	Plastic	black	Single Mode APC	2 m	17-300340-02
Patch cord	Plastic	black	Single Mode APC	5 m	17-300340-05
Patch cord	Plastic	black	Single Mode APC	10 m	17-300340-10
Patch cord	Zinc die cast	nickel plated	Single Mode	2 m	17-300330-02
Patch cord	Zinc die cast	nickel plated	Single Mode	5 m	17-300330-05
Patch cord	Zinc die cast	nickel plated	Single Mode	10 m	17-300330-10
Patch cord	Zinc die cast	nickel plated	Multi Mode	2 m	17-300310-02
Patch cord	Zinc die cast	nickel plated	Multi Mode	5 m	17-300310-05
Patch cord	Zinc die cast	nickel plated	Multi Mode	10 m	17-300310-10
Patch cord	Zinc die cast	nickel plated	Single Mode APC	2 m	17-300350-02
Patch cord	Zinc die cast	nickel plated	Single Mode APC	5 m	17-300350-05
Patch cord	Zinc die cast	nickel plated	Single Mode APC	10 m	17-300350-10

# IP67 FIBER OPTIC INDUSTRIAL DUPLEX LC PATCH CORD

IP67 Industrial to IP20



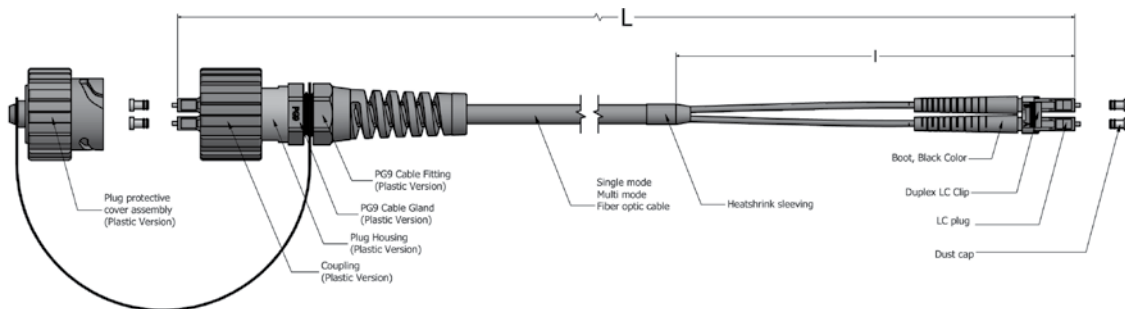
RoHS compliant

## DESCRIPTION

- Single Mode, Multi Mode and Single Mode APC
- Multi Mode: maximum connector insertion loss (ILI): 0.5 dB, plus cable attenuation of 3.5 dB/km AT 850nm
- Single Mode: maximum connector insertion loss (il): 0.2 db, plus cable attenuation of 0.78 db/km at 1310nm
- protective cover shall be installed when unmated
- Other lengths on request

## PRODUCT DRAWING

Single Mode  
Multi Mode  
Single Mode APC

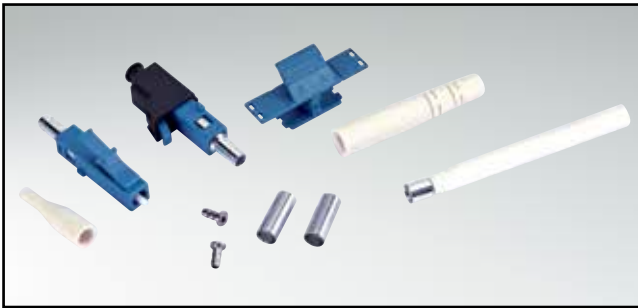


## ORDER DATA

Type	Material	Surface	SM/MM/APC SM	Length L	Length I	Part Number
Patch cord	Plastic	black	Single Mode	1 m	0.10 m	17-300290-001
Patch cord	Plastic	black	Single Mode	30 m	2.66 m	17-300290-030
Patch cord	Plastic	black	Single Mode	60 m	2.66 m	17-300290-060
Patch cord	Plastic	black	Single Mode	100 m	2.66 m	17-300290-100
Patch cord	Plastic	black	Single Mode	200 m	2.66 m	17-300290-200
Patch cord	Plastic	black	Single Mode	300 m	2.66 m	17-300290-300
Patch cord	Plastic	black	Multi Mode	1 m	0.10 m	17-300300-001
Patch cord	Plastic	black	Multi Mode	30 m	2.66 m	17-300300-030
Patch cord	Plastic	black	Multi Mode	60 m	2.66 m	17-300300-060
Patch cord	Plastic	black	Multi Mode	100 m	2.66 m	17-300300-100
Patch cord	Plastic	black	Multi Mode	200 m	2.66 m	17-300300-200
Patch cord	Plastic	black	Multi Mode	300 m	2.66 m	17-300300-300
Patch cord	Plastic	black	Single Mode APC	1 m	0.10 m	17-300370-001
Patch cord	Plastic	black	Single Mode APC	30 m	2.66 m	17-300370-030
Patch cord	Plastic	black	Single Mode APC	60 m	2.66 m	17-300370-060
Patch cord	Plastic	black	Single Mode APC	100 m	2.66 m	17-300370-100
Patch cord	Plastic	black	Single Mode APC	200 m	2.66 m	17-300370-200
Patch cord	Plastic	black	Single Mode APC	300 m	2.66 m	17-300370-300

# LC UNIBODY CONNECTOR

Singlemode – Multimode – Singlemode APC



RoHS compliant

## DESCRIPTION

- Housing material: Plastic (UL94V-0)
- Ferrule: Ceramic
- Temperature range: -40°C to +75°C
- Mating cycles: 1000
- Set with cable boot and crimp sleeve for cable Ø 2,0 mm
- Connector with Dust cap

## PRODUCT DRAWING

Connector



Crimp assembly 2.0



Crimp assembly 3.0



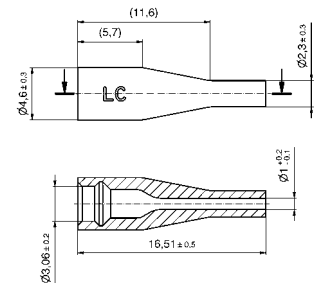
Duplex clip



Boot for 2.0 & 3.0mm



Boot for 0.9mm



## ORDER DATA

Type	SM/MM/APC	Color	Part Number
Connector with Dust cap	Single Mode	blue	18-000010
Connector with Dust cap	Multi Mode	beige	18-000020
Connector with Dust cap	Single Mode APC	green	18-000030
Crimp assembly for 2.0mm cables			18-000040
Crimp assembly for 3.0mm cables			18-000050
Duplex clip	Single Mode	blue	18-000100
Duplex clip	Multi Mode	beige	18-000110
Duplex clip	Single Mode APC	green	18-000120
Boot for 2.0 & 3.0mm cables		white	18-000080
Boot for 2.0 & 3.0mm cables		black	18-000090
Boot for 0.9mm fiber		white	18-000060
Boot for 0.9 mm fiber		black	18-000070

# LC DUPLEX-ADAPTERS PLASTIC

Single Mode – Multi Mode – Single Mode APC



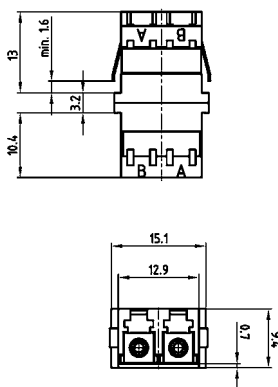
RoHS compliant

## DESCRIPTION

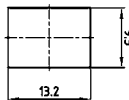
- Housing material: Plastic (UL 94V-0)
- Sleeve: Ceramic, Phosphor-bronze
- Clip: Stainless steel
- Adapters are supplied with dust caps
- Adapter flange available with different mounting options: clip and screws

## PRODUCT DRAWING

Adapter



Panel cutout



Wall thickness



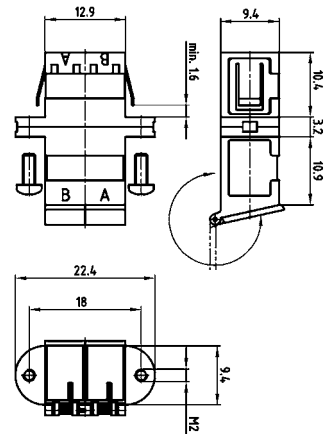
Adapter with flange



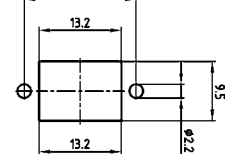
Panel cutout



Adapter with shutter



Panel cutout

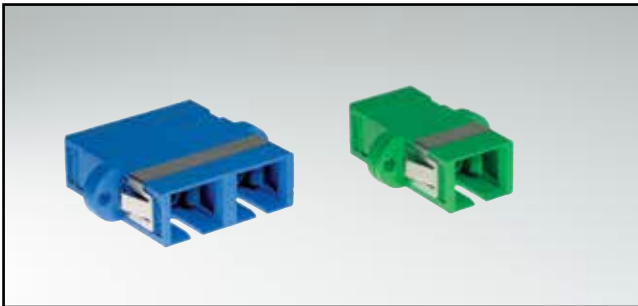


## ORDER DATA

Type	Material sleeve	SM/MM/APC SM	Mount	Housing color	Part Number
Adapter	ceramic	Single Mode	Clip	blue	18-007900
Adapter	ceramic	Multi Mode	Clip	beige	18-007920
Adapter	phosphor-bronze	Multi Mode	Clip	beige	18-007940
Adapter	ceramic	APC 8°= Single Mode	Clip	green	18-007880
Adapter with flange	ceramic	Single Mode	M2x6 screw	blue	18-007980
Adapter with flange	ceramic	Multi Mode	M2x6 screw	beige	18-008000
Adapter with flange	phosphor-bronze	Multi Mode	M2x6 screw	beige	18-008020
Adapter with flange	ceramic	APC 8°= Single Mode	M2x6 screw	green	18-007960
Adapter with flange	ceramic	Single Mode	Clip	blue	18-008060
Adapter with flange	ceramic	Multi Mode	Clip	beige	18-008080
Adapter with flange	phosphor-bronze	Multi Mode	Clip	beige	18-008100
Adapter with flange	ceramic	APC 8°= Single Mode	Clip	green	18-008040
Adapter with shutter	ceramic	Single Mode	M2x6 screw	blue	18-008140
Adapter with shutter	ceramic	APC 8°= Single Mode	M2x6 screw	green	18-008120
Adapter with shutter	ceramic	Single Mode	Clip	blue	18-008180
Adapter with shutter	ceramic	APC 8°= Single Mode	Clip	green	18-008160

# SC SIMPLEX-/DUPLEX-ADAPTERS PLASTIC

Single Mode – Multi Mode – Single Mode APC



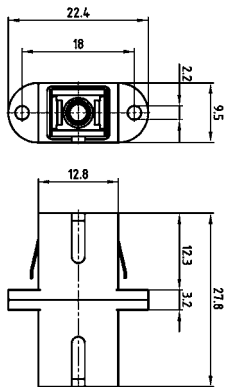
RoHS compliant

## DESCRIPTION

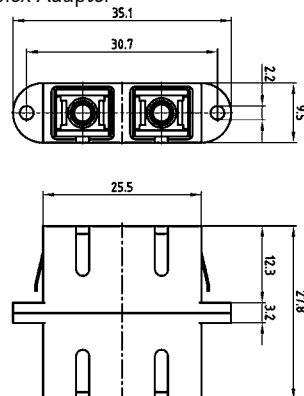
- Housing material: Plastic (UL 94V-0)
- Sleeve: Ceramic, Phosphor-bronze
- Clip: Stainless steel
- Adapters are supplied with dust caps
- Mounting options: clip

## PRODUCT DRAWING

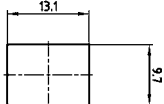
Simplex-Adapter



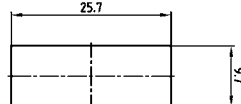
Duplex-Adapter



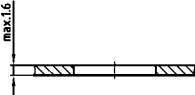
Panel cutout



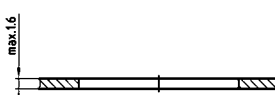
Panel cutout



Wall thickness



Wall thickness



## ORDER DATA

Type	Material sleeve	SM/MM/APC SM	Housing color	Part Number
Duplex adapter	ceramic	Single Mode	blue	18-007080
Duplex adapter	phosphor-bronze	Multi Mode	beige	18-007100
Duplex adapter	ceramic	APC 8°= Single Mode	green	18-007060
Simplex adapter	ceramic	Single Mode	blue	18-007020
Simplex adapter	phosphor-bronze	Multi Mode	beige	18-007040
Simplex adapter	ceramic	APC 8°= Single Mode	green	18-007000

# SC SIMPLEX-/DUPLEX-ADAPTERS METAL

Single Mode – Multi Mode – Single Mode APC



RoHS compliant

## DESCRIPTION

- Housing material: Zinc die-cast
- Sleeve: Phosphor-Bronze; Ceramic
- Clip: Stainless steel
- Adapters are supplied with dust caps
- Available with different mounting options: clip or screws

## PRODUCT DRAWING

Simplex-Adapter



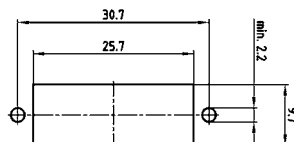
Duplex-Adapter



Panel cutout



Panel cutout



## ORDER DATA

Type	Material sleeve	SM/MM/APC SM	Inner housing color	Mount	Part Number
Simplex adapter	ceramic	Single Mode	blue	M2x6 screw	18-007140
Simplex adapter	ceramic	Multi Mode	beige	M2x6 screw	18-007160
Simplex adapter	phosphor-bronze	Multi Mode	beige	M2x6 screw	18-007180
Simplex adapter	ceramic	APC 8°= Single Mode	green	M2x6 screw	18-007120
Simplex adapter	ceramic	Single Mode	blue	Clip	18-007220
Simplex adapter	ceramic	Multi Mode	beige	Clip	18-007240
Simplex adapter	phosphor-bronze	Multi Mode	beige	Clip	18-007260
Simplex adapter	ceramic	APC 8°= Single Mode	green	Clip	18-007200
Duplex adapter	ceramic	Single Mode	blue	M2x6 screw	18-007300
Duplex adapter	ceramic	Multi Mode	beige	M2x6 screw	18-007320
Duplex adapter	phosphor-bronze	Multi Mode	beige	M2x6 screw	18-007340
Duplex adapter	ceramic	APC 8°= Single Mode	green	M2x6 screw	18-007280
Duplex adapter	ceramic	Single Mode	blue	Clip	18-007380
Duplex adapter	ceramic	Multi Mode	beige	Clip	18-007400
Duplex adapter	phosphor-bronze	Multi Mode	beige	Clip	18-007420
Duplex adapter	ceramic	APC 8°= Single Mode	green	Clip	18-007360



# ST SIMPLEX-/DUPLEX-ADAPTERS PLASTIC

Single Mode – Multi Mode



RoHS compliant

### DESCRIPTION

- Housing material: Plastic (UL 94V-0)
- Sleeve: Ceramic, Phosphor-bronze
- Adapters are supplied with dust caps

### PRODUCT DRAWING

Simplex-Adapter



Duplex-Adapter



Panel cutout



Panel cutout



### ORDER DATA

Type	Material sleeve	SM/MM	Housing color	Part Number
Simplex adapter	ceramic	Single Mode	blue	18-007680
Simplex adapter	phosphor-bronze	Multi Mode	beige	18-007700
Duplex adapter	ceramic	Single Mode	blue	18-007720
Duplex adapter	phosphor-bronze	Multi Mode	beige	18-007740

# ST SIMPLEX-METAL ADAPTERS

Single Mode – Multi Mode



RoHS compliant

## DESCRIPTION

- Housing material: Zinc die-cast, nickel plated
- Sleeve: Phosphor-Bronze; Ceramic
- Adapters are supplied with dust caps

## PRODUCT DRAWING



Panel cutout



## ORDER DATA

Type	Material sleeve	SM/MM	Housing material	Part Number
Simplex adapter	ceramic	Single Mode	zinc diecast	18-007760
Simplex adapter	ceramic	Multi Mode	zinc diecast	18-007780
Simplex adapter	phosphor-bronze	Multi Mode	zinc diecast	18-007800

# FC SIMPLEX-/DUPLEX-ADAPTERS PLASTIC AND METAL

Single Mode – Multi Mode



RoHS compliant

**DESCRIPTION**

- Housing material: Plastic (UL 94V-0), zinc die-cast nickel plated
- FC-Duplex Adapter: Screws M2x6
- Sleeve: Ceramic, Phosphor-bronze
- Adapters are supplied with dust caps

**PRODUCT DRAWING**

Simplex-Adapter plastic



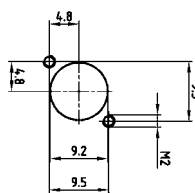
Panel cutout



Simplex-Adapter metal



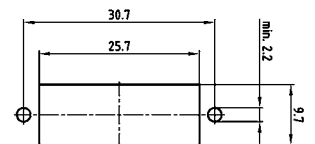
Panel cutout



Duplex-Adapter metal



Panel cutout



**ORDER DATA**

Type	Material sleeve	SM/MM	Housing color/ Housing material	Part Number
Simplex adapter plastic	ceramic	Single Mode	blue	18-007480
Simplex adapter plastic	phosphor-bronze	Multi Mode	beige	18-007500
Simplex adapter metal	ceramic	Single Mode	zinc die-cast	18-007540
Simplex adapter metal	ceramic	Multi Mode	zinc die-cast	18-007560
Simplex adapter metal	phosphor-bronze	Multi Mode	zinc die-cast	18-007580
Duplex adapter metal	ceramic	Single Mode	zinc die-cast	18-007620
Duplex adapter metal	ceramic	Multi Mode	zinc die-cast	18-007640
Duplex adapter metal	phosphor-bronze	Multi Mode	zinc die-cast	18-007660

# SC/ST SIMPLEX-/DUPLEX ADAPTERS PLASTIC AND METAL

Single Mode – Multi Mode



RoHS compliant

## DESCRIPTION

- Housing material: Plastic (UL 94V-0) and zinc die-cast, nickel plated
- Sleeve: ceramic, phosphor-bronze
- Clip: Stainless steel
- Adapters are supplied with dust caps

## PRODUCT DRAWING

Simplex-Adapter plastic



Duplex-Adapter plastic



Simplex-Adapter metal



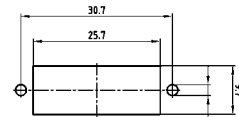
Duplex-Adapter metal



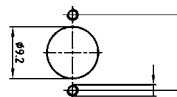
Panel cutout



Panel cutout



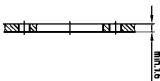
Panel cutout



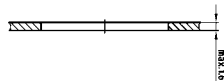
Panel cutout



Wall thickness



Wall thickness



## ORDER DATA

Type	Material sleeve	SM/MM	Inner housing color	Part Number
Simplex hybrid adapter plastic	ceramic	Single Mode	blue	18-010300
Simplex hybrid adapter plastic	phosphor-bronze	Multi Mode	beige	18-010320
Duplex hybrid adapter plastic	ceramic	Single Mode	blue	18-010340
Duplex hybrid adapter plastic	phosphor-bronze	Multi Mode	beige	18-010360
Simplex hybrid adapter metal	ceramic	Single Mode	blue	18-010500
Simplex hybrid adapter metal	ceramic	Multi Mode	beige	18-010520
Simplex hybrid adapter metal	phosphor-bronze	Multi Mode	beige	18-010540
Duplex hybrid adapter metal, M2x6	ceramic	Single Mode	blue	18-010380
Duplex hybrid adapter metal, M2x6	ceramic	Multi Mode	beige	18-010400
Duplex hybrid adapter metal, M2x6	phosphor-bronze	Multi Mode	beige	18-010420
Duplex hybrid adapter metal, clip	ceramic	Single Mode	blue	18-010440
Duplex hybrid adapter metal, clip	ceramic	Multi Mode	beige	18-010460
Duplex hybrid adapter metal, clip	phosphor-bronze	Multi Mode	beige	18-010480

# FC/ST SIMPLEX-ADAPTERS METAL

Single Mode – Multi Mode



RoHS compliant

## DESCRIPTION

- Housing material: zinc die-cast, nickel plated
- Sleeve: Ceramic, Phosphor-bronze
- Adapters are supplied with dust caps

## PRODUCT DRAWING

Simplex-adapter Metal



## ORDER DATA

Type	Material sleeve	SM/MM	Housing material	Part Number
Simplex adapter metal	ceramic	Single Mode	zinc die-cast	18-010560
Simplex adapter metal	ceramic	Multi Mode	zinc die-cast	18-010580
Simplex adapter metal	phosphor-bronze	Multi Mode	zinc die-cast	18-010600

SECTION 14

# INSTALLATION AND ASSEMBLY TOOLS



For standard, High Density  
and Combination D-SUB  
Connector series

CONEC offers a variety of special tools to facilitate the reliable, rational assembly of contacts and connectors in its line of input/output connectors. These tools are practice-proven and ensure the optimal handling of our products.



For technical support and handling technic  
please contact the factory.





DESCRIPTION \_\_\_\_\_

**Installing tool**  
for D-SUB High Density contacts  
**Part Number** 360X10339X

**Removal tool**  
for D-SUB High Density contacts  
**Part Number** 360X10349X



DESCRIPTION \_\_\_\_\_

**Crimp tool**  
for D-SUB standard stamped and formed contacts  
**Part Number** 360X10079X



DESCRIPTION \_\_\_\_\_

**Spool Crimp tool**  
for D-SUB stamped contacts  
**Part Number** 360X10069X



DESCRIPTION \_\_\_\_\_

**Insertion and extraction tool**  
for D-SUB crimp signal contacts  
**Part Number** 360X12009X





DESCRIPTION \_\_\_\_\_

Hand Crimp tool for high power contacts

Part Number 360X10409X



DESCRIPTION \_\_\_\_\_

Insert for above hand crimp tool

Part Number 360X20029X



DESCRIPTION \_\_\_\_\_

Extraction tool  
for D-SUB combination connectors with coaxial, high power and high voltage contacts and with an insert for DIN EN 60603-2 high power and coaxial contacts

Part Number 360X10219X

Extraction tool (not shown)  
only for D-SUB combination connectors with coaxial, high power and high voltage contacts

Part Number 360X10319X



DESCRIPTION \_\_\_\_\_

Hand Crimp tool  
for high power contact (solder / crimp) / angled

Part Number 360X12269X



**DESCRIPTION**

**Hand Crimp tool**

for coaxial contacts (inner conductor) and D-SUB signal crimp contacts standard and High Density (Inserts must be ordered separately)

**Part Number** 360X10329X



**DESCRIPTION**

Inserts for above hand crimp tool

**Inserts for hand crimp tool for use with hand crimp tool 360X0329X/D-SUB Combination**

Plug Connector	Socket connector	Tool insert	Insert cavity
131J21019X	132J21019X	360X11049X	depends on wire select cavity
131J21029X	132J21029X	360X11049X	
131J21039X	132J21039X	360X11049X	AWG Cavity
131J23019X	132J23019X	360X11059X	24 → 5
131J31019X	132J31019X	360X11049X	26 → 5
131J31029X	132J31029X	360X11049X	28 → 4
131J33019X	132J33019X	360X11059X	30 → 3

**Inserts for hand crimp tool for use with hand crimp tool 360X10329X/D-SUB Standard and High Density**

Part Number	Tool insert	Wire Gauge (Sel#)	Wire Gauge (Sel#)	Wire Gauge (Sel#)	Wire Gauge (Sel#)
161A18299X	360X20069X	20 (7)	22 (6)	24 (5)	
162A18709X	360X20069X	20 (7)	22 (6)	24 (5)	
161A18309X	360X20069X	24 (7)	26 (6)	28 (5)	
162A18719X	360X20069X	24 (7)	26 (6)	28 (5)	
161A18009X	360X10629X	22 (4)	24 (3)	26 (2)	28 (1)
162A18419X	360X10629X	22 (4)	24 (3)	26 (2)	28 (1)
131C15019X	360X20039X	20 (7)	22 (6)	24 (5)	
132C15019X	360X20039X	20 (7)	22 (6)	24 (5)	
131C15029X	360X20039X	26 (6)	28 (5)	24 (7)	
132C15029X	360X20039X	26 (6)	28 (5)	24 (7)	



**DESCRIPTION**

**Hand Crimp tool**  
for coaxial contacts (outer conductor),  
(Inserts must be ordered separately)

**Part Number**            360X10519X



**DESCRIPTION**

Inserts for above hand crimp tool

**Inserts for hand crimp tool coaxial contacts (outer conductor)  
for use with hand crimp tool 360X0519X**

Plug Connector	Socket connector	Tool insert	Insert cavity
131J20019X	132J20019X	360X11019X	C
131J20029X	132J20029X	360X11019X	B
131J20039X	132J20039X	360X11019X	A
131J20049X	132J20049X	360X11029X	A
131J20059X	132J20059X	360X11039X	B
131J21019X	132J21019X	360X11019X	B
131J21029X	132J21029X	360X11039X	B
131J21039X	132J21039X	360X11029X	A
131J22019X	132J22019X	360X11019X	B
131J22029X	132J22029X	360X11019X	C
131J22039X	132J22039X	360X11039X	B
131J23019X	132J23019X	360X11019X	B
131J30019X	132J30019X	360X11019X	B
131J30029X	132J30029X	360X11019X	B
131J31019X	132J31019X	360X11019X	B
131J31029X	132J31029X	360X11019X	A
131J33019X	132J33019X	360X11019X	B



**DESCRIPTION**

Manually operated lever press

Part Number 360X12369X



**DESCRIPTION**

**PRESS IN TOOL SETS**

Design	Type	Bestellnummer
Combination D-SUB Connectors	2W2C	360X00159A
Combination D-SUB Connectors	3W3	360X00169A
Combination D-SUB Connectors	3W3C	360X00169A
Combination D-SUB Connectors	5W5	360X00179A
Combination D-SUB Connectors	8W8	360X00189A
Plug Connector	9 pos. /15 pos. HD	360X15019X
Plug Connector	15 pos. /26 pos. HD	360X15029X
Plug Connector	25 pos. /44 pos. HD	360X15039X
Plug Connector	37 pos. /62 pos. HD	360X15049X
Plug Connector	50 pos. /78 pos. HD	360X15059X
Socket Connector	9 pos. /15 pos. HD	360X15069X
Socket Connector	15 pos. /26 pos. HD	360X15079X
Socket Connector	25 pos. /44 pos. HD	360X15089X
Socket Connector	37 pos. /62 pos. HD	360X15099X
Socket Connector	50 pos. /78 pos. HD	360X15109X



INNOVATIONS OF CONEC

# Connecting with quality

CONEC – the specialist for connecting technology

- Filter technology (EMI/RFI)
- Connectors for harsh environments
- Combination connectors (Power and Coax)
- Connectors referring to PICMG standard (ATCA,  $\mu$ TCA, CPCI)
- M12 circular connectors for High Temp, Food+Beverage amongst others

CONEC offers the ideal solution for your application too.  
Ask for information right now!



[www.conec.com](http://www.conec.com)

**CONEC**<sup>®</sup>  
TECHNOLOGY IN CONNECTORS<sup>™</sup>

SECTION 15

# PART NUMBERS

---



On the following pages you will find the CONEC catalogue program sorted by part numbers.

6658

66589

**66589B 74**



9B 75

6 589B 76

B 77





Part Number	Section	Page	Part Number	Section	Page	Part Number	Section	Page	Part Number	Section	Page
3F3SPA22S43A30X	4	6	3F3SSA22S44A20X	4	6	3H15W4PAT99H80X	2	27	3H45W2PAR99E20X	2	29
3F3SPA22S44A10X	4	6	3F3SSA22S44A30X	4	6	3H15W4SAM99A10X	2	26	3H45W2PAR99F20X	2	29
3F3SPA22S44A20X	4	6	3F3SSA22S48A10X	4	12	3H15W4SAM99A20X	2	26	3H45W2PAR99F40X	2	29
3F3SPA22S44A30X	4	6	3F3SSA22S48A30X	4	13	3H15W4SAM99A30X	2	26	3H45W2PAT99G60X	2	27
3F3SPA22S48A10X	4	12	3F3SSA22S48A50X	4	13	3H15W4SAR99A10X	2	28	3H45W2PAT99G80X	2	27
3F3SPA22S48A30X	4	13	3F3SSA22S48E20X	4	13	3H15W4SAR99A30X	2	28	3H45W2PAT99H60X	2	27
3F3SPA22S48A50X	4	13	3F3SSA22S49A10X	4	12	3H15W4SAR99A50X	2	29	3H45W2PAT99H80X	2	27
3F3SPA22S48E20X	4	13	3F3SSA22S49A30X	4	13	3H15W4SAR99E20X	2	29	3H45W2SAM99A10X	2	26
3F3SPA22S49A10X	4	12	3F3SSA22S49A50X	4	13	3H15W4SAR99E40X	2	29	3H45W2SAM99A20X	2	26
3F3SPA22S49A30X	4	13	3F3SSA22S49E20X	4	13	3H15W4SAR99E40X	2	29	3H45W2SAM99A30X	2	26
3F3SPA22S49A50X	4	13	3F3SSA22S50A10X	4	12	3H15W4SAR99F20X	2	29	3H45W2SAR99A10X	2	28
3F3SPA22S49E20X	4	13	3F3SSA22S50A30X	4	13	3H15W4SAR99F40X	2	29	3H45W2SAR99A30X	2	28
3F3SPA22S50A10X	4	12	3F3SSA22S50A50X	4	13	3H15W4SAT99G60X	2	27	3H45W2SAR99A50X	2	29
3F3SPA22S50A30X	4	13	3F3SSA22S50E20X	4	13	3H15W4SAT99G80X	2	27	3H45W2SAR99E20X	2	29
3F3SPA22S50A50X	4	13	3F3SSA22S51A10X	4	12	3H15W4SAT99H60X	2	27	3H45W2SAR99E40X	2	29
3F3SPA22S50E20X	4	13	3F3SSA22S51A30X	4	13	3H15W4SAT99H80X	2	27	3H45W2SAR99F20X	2	29
3F3SPA22S51A10X	4	12	3F3SSA22S51A50X	4	13	3H19W1PAM99A10X	2	26	3H45W2SAR99F40X	2	29
3F3SPA22S51A30X	4	13	3F3SSA22S51E20X	4	13	3H19W1PAM99A20X	2	26	3H45W2SAT99G60X	2	27
3F3SPA22S51A50X	4	13	3F3SSA22S51E40X	4	13	3H19W1PAM99A30X	2	26	3H45W2SAT99G80X	2	27
3F3SPA22S51E20X	4	13	3F3SSA22S51E60X	4	13	3H19W1PAR99A10X	2	28	3H45W2SAT99H60X	2	27
3F3SPA22S51E40X	4	13	3F3SSA22S52A10X	4	12	3H19W1PAR99A30X	2	28	3H45W2SAT99H80X	2	27
3F3SPA22S51E60X	4	13	3F3SSA22S52A30X	4	13	3H19W1PAR99A50X	2	29	4HDD15PAM99A10X	8	15
3F3SPA22S52A10X	4	12	3F3SSA22S52A50X	4	13	3H19W1PAR99E20X	2	29	4HDD15SAM99A10X	8	15
3F3SPA22S52A30X	4	13	3F3SSA22S52E20X	4	13	3H19W1PAR99F20X	2	29	4HDD26PAM99A10X	8	15
3F3SPA22S52A50X	4	13	3F3SSA22S52E40X	4	13	3H19W1PAR99F40X	2	29	4HDD26SAM99A10X	8	15
3F3SPA22S52E20X	4	13	3F3SSA22S52E60X	4	13	3H19W1PAT99G60X	2	27	4HDD44PAM99A10X	8	15
3F3SPA22S52E40X	4	13	3F3SSA22S56K20X	4	21	3H19W1PAT99G80X	2	27	4HDD44SAM99A10X	8	15
3F3SPA22S56K20X	4	21	3F3SSA22S56K40X	4	21	3H19W1PAT99H60X	2	27	4HDD62PAM99A10X	8	15
3F3SPA22S56K40X	4	21	3F3SSA22S57K20X	4	21	3H19W1PAT99H80X	2	27	4HDD62SAM99A10X	8	15
3F3SPA22S57K20X	4	21	3F3SSA22S58K20X	4	21	3H19W1SAM99A10X	2	26	4HDD78PAM99A10X	8	15
3F3SPA22S57K40X	4	21	3F3SSA22S58K40X	4	21	3H19W1SAM99A20X	2	26	4HDD78SAM99A10X	8	15
3F3SPA22S58K20X	4	21	3F3SSA22SP1AA0X	4	26	3H19W1SAM99A30X	2	26	4STD09PAM99A10X	8	10
3F3SPA22S58K40X	4	21	3F3SSA22SP1W40X	4	26	3H19W1SAR99A10X	2	28	4STD09SAM99A10X	8	10
3F3SPA22SP1AA0X	4	26	3F3SSA22SP2AA0X	4	26	3H19W1SAR99A30X	2	28	4STD15PAM99A10X	8	10
3F3SPA22SP1W40X	4	26	3F3SSA22SP2W40X	4	26	3H19W1SAR99A50X	2	29	4STD15SAM99A10X	8	10
3F3SPA22SP2AA0X	4	26	3F3SSA22SP4AA0X	4	26	3H19W1SAR99E20X	2	29	4STD25PAM99A10X	8	10
3F3SPA22SP2W40X	4	26	3F3SSA22SP4W40X	4	26	3H19W1SAR99E40X	2	29	4STD25SAM99A10X	8	10
3F3SPA22SP4AA0X	4	26	3H15W4PAM99A10X	2	26	3H19W1SAR99E40X	2	29	4STD37PAM99A10X	8	10
3F3SPA22SP4W40X	4	26	3H15W4PAM99A20X	2	26	3H19W1SAR99F20X	2	29	4STD37SAM99A10X	8	10
3F3SSA22S41A10X	4	6	3H15W4PAM99A30X	2	26	3H19W1SAT99G60X	2	27	4STD50PAM99A10X	8	10
3F3SSA22S41A20X	4	6	3H15W4PAR99A10X	2	28	3H19W1SAT99G80X	2	27	4STD50SAM99A10X	8	10
3F3SSA22S41A30X	4	6	3H15W4PAR99A30X	2	28	3H19W1SAT99H60X	2	27	4STF09PAM01A10X	10	16
3F3SSA22S42A10X	4	6	3H15W4PAR99A50X	2	29	3H19W1SAT99H80X	2	27	4STF09PAM03A10X	10	17
3F3SSA22S42A20X	4	6	3H15W4PAR99E20X	2	29	3H45W2PAM99A10X	2	26	4STF09PAM04A10X	10	17
3F3SSA22S42A30X	4	6	3H15W4PAR99F20X	2	29	3H45W2PAM99A20X	2	26	4STF09PAM05A10X	10	17
3F3SSA22S43A10X	4	6	3H15W4PAR99F40X	2	29	3H45W2PAM99A30X	2	26	4STF15PAM01A10X	10	16
3F3SSA22S43A20X	4	6	3H15W4PAT99G60X	2	27	3H45W2PAR99A10X	2	28	4STF15PAM03A10X	10	17
3F3SSA22S43A30X	4	6	3H15W4PAT99G80X	2	27	3H45W2PAR99A30X	2	28	4STF15PAM04A10X	10	17
3F3SSA22S44A10X	4	6	3H15W4PAT99H60X	2	27	3H45W2PAR99A50X	2	29	4STF15PAM05A10X	10	17

## PART NUMBERS

## Part Number Section | Page

4STF25PAM01A10X	10   16
4STF25PAM03A10X	10   17
4STF25PAM04A10X	10   17
4STF25PAM05A10X	10   17
4STF37PAM01A10X	10   16
4STF37PAM03A10X	10   17
4STF37PAM04A10X	10   17
4STF37PAM05A10X	10   17
4STF50PAM01A10X	10   16
4STF50PAM03A10X	10   17
4STF50PAM04A10X	10   17
4STF50PAM05A10X	10   17
5F5SPA22S41A10X	4   8
5F5SPA22S41A20X	4   8
5F5SPA22S41A30X	4   8
5F5SPA22S42A10X	4   8
5F5SPA22S42A20X	4   8
5F5SPA22S42A30X	4   8
5F5SPA22S43A10X	4   8
5F5SPA22S43A20X	4   8
5F5SPA22S43A30X	4   8
5F5SPA22S44A10X	4   8
5F5SPA22S44A20X	4   8
5F5SPA22S44A30X	4   8
5F5SPA22S48A10X	4   16
5F5SPA22S48A30X	4   17
5F5SPA22S48A50X	4   17
5F5SPA22S48E20X	4   17
5F5SPA22S49A10X	4   16
5F5SPA22S49A30X	4   17
5F5SPA22S49A50X	4   17
5F5SPA22S49E20X	4   17
5F5SPA22S50A10X	4   16
5F5SPA22S50A30X	4   17
5F5SPA22S50A50X	4   17
5F5SPA22S50E20X	4   17
5F5SPA22S51A10X	4   16
5F5SPA22S51A30X	4   17
5F5SPA22S51A50X	4   17
5F5SPA22S51E20X	4   17
5F5SPA22S51E40X	4   17
5F5SPA22S51E60X	4   17
5F5SPA22S52A10X	4   16
5F5SPA22S52A30X	4   17
5F5SPA22S52A50X	4   17
5F5SPA22S52E20X	4   17
5F5SPA22S52E40X	4   17
5F5SPA22S52E60X	4   17
5F5SPA22S56K20X	4   23
5F5SPA22S56K40X	4   23

## Part Number Section | Page

5F5SPA22S57K20X	4   23
5F5SPA22S57K40X	4   23
5F5SPA22S58K20X	4   23
5F5SPA22S58K40X	4   23
5F5SPA22SP1AA0X	4   28
5F5SPA22SP1W40X	4   28
5F5SPA22SP2AA0X	4   28
5F5SPA22SP2W40X	4   28
5F5SPA22SP4AA0X	4   28
5F5SPA22SP4W40X	4   28
5F5SSA22S41A10X	4   8
5F5SSA22S41A20X	4   8
5F5SSA22S41A30X	4   8
5F5SSA22S42A10X	4   8
5F5SSA22S42A20X	4   8
5F5SSA22S42A30X	4   8
5F5SSA22S43A10X	4   8
5F5SSA22S43A20X	4   8
5F5SSA22S43A30X	4   8
5F5SSA22S44A10X	4   8
5F5SSA22S44A20X	4   8
5F5SSA22S44A30X	4   8
5F5SSA22S48A10X	4   16
5F5SSA22S48A30X	4   17
5F5SSA22S48A50X	4   17
5F5SSA22S48E20X	4   17
5F5SSA22S49A10X	4   16
5F5SSA22S49A30X	4   17
5F5SSA22S49A50X	4   17
5F5SSA22S49E20X	4   17
5F5SSA22S50A10X	4   16
5F5SSA22S50A30X	4   17
5F5SSA22S50A50X	4   17
5F5SSA22S50E20X	4   17
5F5SSA22S51A10X	4   16
5F5SSA22S51A30X	4   17
5F5SSA22S51A50X	4   17
5F5SSA22S51E20X	4   17
5F5SSA22S51E40X	4   17
5F5SSA22S51E60X	4   17
5F5SSA22S52A10X	4   16
5F5SSA22S52A30X	4   17
5F5SSA22S52A50X	4   17
5F5SSA22S52E20X	4   17
5F5SSA22S52E40X	4   17
5F5SSA22S52E60X	4   17
5F5SSA22S56K20X	4   23
5F5SSA22S56K40X	4   23
5F5SSA22S57K20X	4   23
5F5SSA22S57K40X	4   23

## Part Number Section | Page

5F5SSA22S58K20X	4   23
5F5SSA22S58K40X	4   23
5F5SSA22SP1AA0X	4   28
5F5SSA22SP1W40X	4   28
5F5SSA22SP2AA0X	4   28
5F5SSA22SP2W40X	4   28
5F5SSA22SP4AA0X	4   28
5F5SSA22SP4W40X	4   28
6HDD15PAM99B20X	8   11
6HDD15PAM99B30X	8   11
6HDD15PAM99B40X	8   14
6HDD15PAM99B50X	8   14
6HDD15PAM99B70X	8   14
6HDD15PAR99B20X	8   12
6HDD15PAR99B30X	8   12
6HDD15PAR99E10X	8   12
6HDD15PAR99E20X	8   12
6HDD15PAY99R10X	8   13
6HDD15PAY99R20X	8   13
6HDD15PAY99R30X	8   13
6HDD15PAY99R40X	8   13
6HDD15SAM99B20X	8   11
6HDD15SAM99B30X	8   11
6HDD15SAM99B40X	8   14
6HDD15SAM99B50X	8   14
6HDD15SAM99B70X	8   14
6HDD15SAR99B20X	8   12
6HDD15SAR99B30X	8   12
6HDD15SAR99E10X	8   12
6HDD15SAR99E20X	8   12
6HDD15SAY99R10X	8   13
6HDD15SAY99R20X	8   13
6HDD15SAY99R30X	8   13
6HDD15SAY99R40X	8   13
6HDD26PAM99B20X	8   11
6HDD26PAM99B30X	8   11
6HDD26PAM99B40X	8   14
6HDD26PAM99B50X	8   14
6HDD26PAM99B70X	8   14
6HDD26PAR99B20X	8   12
6HDD26PAR99B30X	8   12
6HDD26PAR99E10X	8   12
6HDD26PAR99E20X	8   12
6HDD26PAY99R10X	8   13
6HDD26PAY99R20X	8   13
6HDD26PAY99R30X	8   13
6HDD26PAY99R40X	8   13
6HDD26SAM99B20X	8   11
6HDD26SAM99B30X	8   11
6HDD26SAM99B40X	8   14

## Part Number Section | Page

6HDD26SAM99B50X	8   14
6HDD26SAM99B70X	8   14
6HDD26SAR99B20X	8   12
6HDD26SAR99B30X	8   12
6HDD26SAR99E10X	8   12
6HDD26SAR99E20X	8   12
6HDD26SAY99R10X	8   13
6HDD26SAY99R20X	8   13
6HDD26SAY99R30X	8   13
6HDD26SAY99R40X	8   13
6HDD44PAM99B20X	8   11
6HDD44PAM99B30X	8   11
6HDD44PAM99B40X	8   14
6HDD44PAM99B50X	8   14
6HDD44PAM99B70X	8   14
6HDD44PAR99B20X	8   12
6HDD44PAR99B30X	8   12
6HDD44PAR99E10X	8   12
6HDD44PAR99E20X	8   12
6HDD44PAY99R10X	8   13
6HDD44PAY99R20X	8   13
6HDD44PAY99R30X	8   13
6HDD44PAY99R40X	8   13
6HDD44SAM99B20X	8   11
6HDD44SAM99B30X	8   11
6HDD44SAM99B40X	8   14
6HDD44SAM99B50X	8   14
6HDD44SAM99B70X	8   14
6HDD44SAR99B20X	8   12
6HDD44SAR99B30X	8   12
6HDD44SAR99E10X	8   12
6HDD44SAR99E20X	8   12
6HDD44SAY99R10X	8   13
6HDD44SAY99R20X	8   13
6HDD44SAY99R30X	8   13
6HDD44SAY99R40X	8   13
6HDD62PAM99B20X	8   11
6HDD62PAM99B30X	8   11
6HDD62PAM99B40X	8   14
6HDD62PAM99B50X	8   14
6HDD62PAM99B70X	8   14
6HDD62PAR99B20X	8   12
6HDD62PAR99B30X	8   12
6HDD62PAR99E10X	8   12
6HDD62PAR99E20X	8   12
6HDD62PAY99R10X	8   13
6HDD62PAY99R20X	8   13
6HDD62PAY99R30X	8   13
6HDD62PAY99R40X	8   13
6HDD62SAM99B20X	8   11

Part Number Section | Page

6HDD62SAM99B30X	8   11
6HDD62SAM99B40X	8   14
6HDD62SAM99B50X	8   14
6HDD62SAM99B70X	8   14
6HDD62SAR99B20X	8   12
6HDD62SAR99B30X	8   12
6HDD62SAR99E10X	8   12
6HDD62SAR99E20X	8   12
6HDD62SAY99R10X	8   13
6HDD62SAY99R20X	8   13
6HDD62SAY99R30X	8   13
6HDD62SAY99R40X	8   13
6HDD78PAM99B20X	8   11
6HDD78PAM99B30X	8   11
6HDD78PAM99B40X	8   14
6HDD78PAM99B50X	8   14
6HDD78PAM99B70X	8   14
6HDD78PAR99B20X	8   12
6HDD78PAR99B30X	8   12
6HDD78PAR99E10X	8   12
6HDD78PAR99E20X	8   12
6HDD78PAY99R10X	8   13
6HDD78PAY99R20X	8   13
6HDD78PAY99R30X	8   13
6HDD78PAY99R40X	8   13
6HDD78SAM99B20X	8   11
6HDD78SAM99B30X	8   11
6HDD78SAM99B40X	8   14
6HDD78SAM99B50X	8   14
6HDD78SAM99B70X	8   14
6HDD78SAR99B20X	8   12
6HDD78SAR99B30X	8   12
6HDD78SAR99E10X	8   12
6HDD78SAR99E20X	8   12
6HDD78SAY99R10X	8   13
6HDD78SAY99R20X	8   13
6HDD78SAY99R30X	8   13
6HDD78SAY99R40X	8   13
6HDF15PAR01B20X	10   18
6HDF15PAR01B30X	10   18
6HDF15PAR01E10X	10   18
6HDF15PAR01E20X	10   18
6HDF15PAR03B20X	10   19
6HDF15PAR03B30X	10   19
6HDF15PAR03E10X	10   19
6HDF15PAR03E20X	10   19
6HDF15PAR04B20X	10   19
6HDF15PAR04B30X	10   19
6HDF15PAR04E10X	10   19
6HDF15PAR04E20X	10   19

Part Number Section | Page

6HDF15PAY01R10X	10   20
6HDF15PAY01R20X	10   20
6HDF15PAY01R30X	10   20
6HDF15PAY01R40X	10   20
6HDF15PAY03R10X	10   21
6HDF15PAY03R20X	10   21
6HDF15PAY03R30X	10   21
6HDF15PAY03R40X	10   21
6HDF15PAY04R10X	10   21
6HDF15PAY04R20X	10   21
6HDF15PAY04R30X	10   21
6HDF15PAY04R40X	10   21
6HDF26PAR01B20X	10   18
6HDF26PAR01B30X	10   18
6HDF26PAR01E10X	10   18
6HDF26PAR01E20X	10   18
6HDF26PAR03B20X	10   19
6HDF26PAR03B30X	10   19
6HDF26PAR03E10X	10   19
6HDF26PAR03E20X	10   19
6HDF26PAR04B20X	10   19
6HDF26PAR04B30X	10   19
6HDF26PAR04E10X	10   19
6HDF26PAR04E20X	10   19
6HDF26PAY01R10X	10   20
6HDF26PAY01R20X	10   20
6HDF26PAY01R30X	10   20
6HDF26PAY01R40X	10   20
6HDF26PAY03R10X	10   21
6HDF26PAY03R20X	10   21
6HDF26PAY03R30X	10   21
6HDF26PAY03R40X	10   21
6HDF26PAY04R10X	10   21
6HDF26PAY04R20X	10   21
6HDF26PAY04R30X	10   21
6HDF26PAY04R40X	10   21
6HDF44PAR01B20X	10   18
6HDF44PAR01B30X	10   18
6HDF44PAR01E10X	10   18
6HDF44PAR01E20X	10   18
6HDF44PAR03B20X	10   19
6HDF44PAR03B30X	10   19
6HDF44PAR03E10X	10   19
6HDF44PAR03E20X	10   19
6HDF44PAR04B20X	10   19
6HDF44PAR04B30X	10   19
6HDF44PAR04E10X	10   19
6HDF44PAR04E20X	10   19
6HDF44PAY01R10X	10   20
6HDF44PAY01R20X	10   20

Part Number Section | Page

6HDF44PAY01R30X	10   20
6HDF44PAY01R40X	10   20
6HDF44PAY03R10X	10   21
6HDF44PAY03R20X	10   21
6HDF44PAY03R30X	10   21
6HDF44PAY03R40X	10   21
6HDF44PAY04R10X	10   21
6HDF44PAY04R20X	10   21
6HDF44PAY04R30X	10   21
6HDF44PAY04R40X	10   21
6HDF62PAR01B20X	10   18
6HDF62PAR01B30X	10   18
6HDF62PAR01E10X	10   18
6HDF62PAR01E20X	10   18
6HDF62PAR03B20X	10   19
6HDF62PAR03B30X	10   19
6HDF62PAR03E10X	10   19
6HDF62PAR03E20X	10   19
6HDF62PAR04B20X	10   19
6HDF62PAR04B30X	10   19
6HDF62PAR04E10X	10   19
6HDF62PAR04E20X	10   19
6HDF62PAY01R10X	10   20
6HDF62PAY01R20X	10   20
6HDF62PAY01R30X	10   20
6HDF62PAY01R40X	10   20
6HDF62PAY03R10X	10   21
6HDF62PAY03R20X	10   21
6HDF62PAY03R30X	10   21
6HDF62PAY03R40X	10   21
6HDF62PAY04R10X	10   21
6HDF62PAY04R20X	10   21
6HDF62PAY04R30X	10   21
6HDF62PAY04R40X	10   21
6STD09AAA99B90X	8   24
6STD09PAM99B20X	8   4
6STD09PAM99B30X	8   4
6STD09PAM99B40X	8   9
6STD09PAM99B50X	8   9
6STD09PAR99B20X	8   5
6STD09PAR99B30X	8   5
6STD09PAR99E10X	8   5
6STD09PAR99E20X	8   5
6STD09PAT99S10X	8   6
6STD09PAT99S20X	8   6
6STD09PAT99S30X	8   6
6STD09PAT99S40X	8   6
6STD09PAU99R10X	8   7
6STD09PAU99R20X	8   7

Part Number Section | Page

6STD09PAU99R30X	8   7
6STD09PAU99R40X	8   7
6STD09PAZ99S10X	8   8
6STD09PAZ99S20X	8   8
6STD09PAZ99S30X	8   8
6STD09PAZ99S40X	8   8
6STD09SAM99B20X	8   4
6STD09SAM99B30X	8   4
6STD09SAM99B40X	8   9
6STD09SAM99B50X	8   9
6STD09SAM99B70X	8   9
6STD09SAR99B20X	8   5
6STD09SAR99B30X	8   5
6STD09SAR99E10X	8   5
6STD09SAR99E20X	8   5
6STD09SAT99S10X	8   6
6STD09SAT99S20X	8   6
6STD09SAT99S30X	8   6
6STD09SAT99S40X	8   6
6STD09SAU99R10X	8   7
6STD09SAU99R20X	8   7
6STD09SAU99R30X	8   7
6STD09SAU99R40X	8   7
6STD09SAZ99S10X	8   8
6STD09SAZ99S20X	8   8
6STD09SAZ99S30X	8   8
6STD09SAZ99S40X	8   8
6STD15AAA99B90X	8   24
6STD15PAM99B20X	8   4
6STD15PAM99B30X	8   4
6STD15PAM99B40X	8   9
6STD15PAM99B50X	8   9
6STD15PAM99B70X	8   9
6STD15PAR99B20X	8   5
6STD15PAR99B30X	8   5
6STD15PAR99E10X	8   5
6STD15PAR99E20X	8   5
6STD15PAT99S10X	8   6
6STD15PAT99S20X	8   6
6STD15PAT99S30X	8   6
6STD15PAT99S40X	8   6
6STD15PAU99R10X	8   7
6STD15PAU99R20X	8   7
6STD15PAU99R30X	8   7
6STD15PAU99R40X	8   7
6STD15PAZ99S10X	8   8
6STD15PAZ99S20X	8   8
6STD15PAZ99S30X	8   8
6STD15PAZ99S40X	8   8
6STD15SAM99B20X	8   4



Part Number	Section	Page	Part Number	Section	Page	Part Number	Section	Page	Part Number	Section	Page
6STF09PAU05R10X	10	11	6STF15PAR05E10X	10	7	6STF25PAM01B20X	10	4	6STF25PAU01R30X	10	10
6STF09PAU05R20X	10	11	6STF15PAR05E20X	10	7	6STF25PAM01B30X	10	4	6STF25PAU01R40X	10	10
6STF09PAU05R30X	10	11	6STF15PAT01S10X	10	8	6STF25PAM01B40X	10	14	6STF25PAU03R10X	10	11
6STF09PAU05R40X	10	11	6STF15PAT01S20X	10	8	6STF25PAM01B50X	10	14	6STF25PAU03R20X	10	11
6STF09PAZ01S10X	10	12	6STF15PAT01S20X	10	8	6STF25PAM03B20X	10	5	6STF25PAU03R30X	10	11
6STF09PAZ01S20X	10	12	6STF15PAT01S30X	10	8	6STF25PAM03B30X	10	5	6STF25PAU03R40X	10	11
6STF09PAZ01S30X	10	12	6STF15PAT01S40X	10	8	6STF25PAM03B40X	10	15	6STF25PAU04R10X	10	11
6STF09PAZ01S40X	10	12	6STF15PAT03S10X	10	9	6STF25PAM03B50X	10	15	6STF25PAU04R20X	10	11
6STF09PAZ03S10X	10	13	6STF15PAT03S20X	10	9	6STF25PAM04B20X	10	5	6STF25PAU04R30X	10	11
6STF09PAZ03S20X	10	13	6STF15PAT03S30X	10	9	6STF25PAM04B30X	10	5	6STF25PAU04R40X	10	11
6STF09PAZ03S30X	10	13	6STF15PAT03S40X	10	9	6STF25PAM05B20X	10	5	6STF25PAU05R10X	10	11
6STF09PAZ03S40X	10	13	6STF15PAT04S10X	10	9	6STF25PAM05B30X	10	5	6STF25PAU05R20X	10	11
6STF09PAZ04S10X	10	13	6STF15PAT04S20X	10	9	6STF25PAM05B40X	10	15	6STF25PAU05R30X	10	11
6STF09PAZ04S20X	10	13	6STF15PAT04S30X	10	9	6STF25PAM05B50X	10	15	6STF25PAU05R40X	10	11
6STF09PAZ04S30X	10	13	6STF15PAT04S40X	10	9	6STF25PAR01B20X	10	6	6STF25PAZ01S10X	10	12
6STF09PAZ04S40X	10	13	6STF15PAT05S10X	10	9	6STF25PAR01B30X	10	6	6STF25PAZ01S20X	10	12
6STF09PAZ05S10X	10	13	6STF15PAT05S20X	10	9	6STF25PAR01E10X	10	6	6STF25PAZ01S30X	10	12
6STF09PAZ05S20X	10	13	6STF15PAT05S30X	10	9	6STF25PAR01E20X	10	6	6STF25PAZ01S40X	10	12
6STF09PAZ05S30X	10	13	6STF15PAT05S40X	10	9	6STF25PAR03B20X	10	7	6STF25PAZ03S10X	10	13
6STF09PAZ05S40X	10	13	6STF15PAU01R10X	10	10	6STF25PAR03B30X	10	7	6STF25PAZ03S20X	10	13
6STF15PAM01B20X	10	4	6STF15PAU01R20X	10	10	6STF25PAR03E10X	10	7	6STF25PAZ03S30X	10	13
6STF15PAM01B30X	10	4	6STF15PAU01R30X	10	10	6STF25PAR03E20X	10	7	6STF25PAZ03S40X	10	13
6STF15PAM01B40X	10	14	6STF15PAU01R40X	10	10	6STF25PAR04B20X	10	7	6STF25PAZ04S10X	10	13
6STF15PAM01B50X	10	14	6STF15PAU03R10X	10	11	6STF25PAR04B30X	10	7	6STF25PAZ04S20X	10	13
6STF15PAM03B20X	10	5	6STF15PAU03R20X	10	11	6STF25PAR04B40X	10	7	6STF25PAZ04S30X	10	13
6STF15PAM03B30X	10	5	6STF15PAU03R30X	10	11	6STF25PAR04E10X	10	7	6STF25PAZ04S40X	10	13
6STF15PAM03B40X	10	15	6STF15PAU03R40X	10	11	6STF25PAR04E20X	10	7	6STF25PAZ05S10X	10	13
6STF15PAM03B50X	10	15	6STF15PAU04R10X	10	11	6STF25PAR05B20X	10	7	6STF25PAZ05S20X	10	13
6STF15PAM04B20X	10	5	6STF15PAU04R20X	10	11	6STF25PAR05B30X	10	7	6STF25PAZ05S30X	10	13
6STF15PAM04B30X	10	5	6STF15PAU04R30X	10	11	6STF25PAR05B40X	10	7	6STF25PAZ05S40X	10	13
6STF15PAM04B40X	10	15	6STF15PAU04R40X	10	11	6STF25PAR05E10X	10	7	6STF37PAM01B20X	10	4
6STF15PAM04B50X	10	15	6STF15PAU05R10X	10	11	6STF25PAR05E20X	10	7	6STF37PAM01B30X	10	4
6STF15PAM05B20X	10	5	6STF15PAU05R20X	10	11	6STF25PAT01S10X	10	8	6STF37PAM01B40X	10	14
6STF15PAM05B30X	10	5	6STF15PAU05R30X	10	11	6STF25PAT01S20X	10	8	6STF37PAM01B50X	10	14
6STF15PAM05B40X	10	15	6STF15PAU05R40X	10	11	6STF25PAT01S30X	10	8	6STF37PAM03B20X	10	5
6STF15PAM05B50X	10	15	6STF15PAZ01S10X	10	12	6STF25PAT01S40X	10	8	6STF37PAM03B30X	10	5
6STF15PAR01B20X	10	6	6STF15PAZ01S20X	10	12	6STF25PAT03S10X	10	9	6STF37PAM03B40X	10	15
6STF15PAR01B30X	10	6	6STF15PAZ01S30X	10	12	6STF25PAT03S20X	10	9	6STF37PAM03B50X	10	15
6STF15PAR01E10X	10	6	6STF15PAZ01S40X	10	12	6STF25PAT03S30X	10	9	6STF37PAM04B20X	10	5
6STF15PAR01E20X	10	6	6STF15PAZ03S10X	10	13	6STF25PAT03S40X	10	9	6STF37PAM04B30X	10	5
6STF15PAR03B20X	10	7	6STF15PAZ03S20X	10	13	6STF25PAT04S10X	10	9	6STF37PAM04B40X	10	15
6STF15PAR03B30X	10	7	6STF15PAZ03S30X	10	13	6STF25PAT04S20X	10	9	6STF37PAM04B50X	10	15
6STF15PAR03E10X	10	7	6STF15PAZ03S40X	10	13	6STF25PAT04S30X	10	9	6STF37PAM05B20X	10	5
6STF15PAR03E20X	10	7	6STF15PAZ04S10X	10	13	6STF25PAT04S40X	10	9	6STF37PAM05B30X	10	5
6STF15PAR04B20X	10	7	6STF15PAZ04S20X	10	13	6STF25PAT05S10X	10	9	6STF37PAM05B40X	10	15
6STF15PAR04B30X	10	7	6STF15PAZ04S30X	10	13	6STF25PAT05S20X	10	9	6STF37PAM05B50X	10	15
6STF15PAR04E10X	10	7	6STF15PAZ04S40X	10	13	6STF25PAT05S30X	10	9	6STF37PAR01B20X	10	6
6STF15PAR04E20X	10	7	6STF15PAZ05S10X	10	13	6STF25PAT05S40X	10	9	6STF37PAR01B30X	10	6
6STF15PAR05B20X	10	7	6STF15PAZ05S20X	10	13	6STF25PAU01R10X	10	10	6STF37PAR01E10X	10	6
6STF15PAR05B30X	10	7	6STF15PAZ05S30X	10	13	6STF25PAU01R20X	10	10	6STF37PAR01E20X	10	6
			6STF15PAZ05S40X	10	13						

# PART NUMBERS

**Part Number Section | Page**

6STF37PAR03B20X	10   7
6STF37PAR03B30X	10   7
6STF37PAR03E10X	10   7
6STF37PAR03E20X	10   7
6STF37PAR04B20X	10   7
6STF37PAR04B30X	10   7
6STF37PAR04E10X	10   7
6STF37PAR04E20X	10   7
6STF37PAR05B20X	10   7
6STF37PAR05B30X	10   7
6STF37PAR05E10X	10   7
6STF37PAR05E20X	10   7
6STF37PAT01S10X	10   8
6STF37PAT01S20X	10   8
6STF37PAT01S30X	10   8
6STF37PAT01S40X	10   8
6STF37PAT03S10X	10   9
6STF37PAT03S20X	10   9
6STF37PAT03S30X	10   9
6STF37PAT03S40X	10   9
6STF37PAT04S10X	10   9
6STF37PAT04S20X	10   9
6STF37PAT04S30X	10   9
6STF37PAT04S40X	10   9
6STF37PAT05S10X	10   9
6STF37PAT05S20X	10   9
6STF37PAT05S30X	10   9
6STF37PAT05S40X	10   9
6STF37PAU01R10X	10   10
6STF37PAU01R20X	10   10
6STF37PAU01R30X	10   10
6STF37PAU01R40X	10   10
6STF37PAU03R10X	10   11
6STF37PAU03R20X	10   11
6STF37PAU03R30X	10   11
6STF37PAU03R40X	10   11
6STF37PAU04R10X	10   11
6STF37PAU04R20X	10   11
6STF37PAU04R30X	10   11
6STF37PAU04R40X	10   11
6STF37PAU05R10X	10   11
6STF37PAU05R20X	10   11
6STF37PAU05R30X	10   11
6STF37PAU05R40X	10   11
6STF37PAZ01S10X	10   12
6STF37PAZ01S20X	10   12
6STF37PAZ01S30X	10   12
6STF37PAZ01S40X	10   12
6STF37PAZ03S10X	10   13
6STF37PAZ03S20X	10   13

**Part Number Section | Page**

6STF37PAZ03S30X	10   13
6STF37PAZ03S40X	10   13
6STF37PAZ04S10X	10   13
6STF37PAZ04S20X	10   13
6STF37PAZ04S30X	10   13
6STF37PAZ04S40X	10   13
6STF37PAZ05S10X	10   13
6STF37PAZ05S20X	10   13
6STF37PAZ05S30X	10   13
6STF37PAZ05S40X	10   13
6STF50PAM01B20X	10   4
6STF50PAM01B30X	10   4
6STF50PAM01B40X	10   14
6STF50PAM01B50X	10   14
6STF50PAM03B20X	10   5
6STF50PAM03B30X	10   5
6STF50PAM03B40X	10   15
6STF50PAM03B50X	10   15
6STF50PAM04B20X	10   5
6STF50PAM04B30X	10   5
6STF50PAM04B40X	10   15
6STF50PAM04B50X	10   15
6STF50PAM05B20X	10   5
6STF50PAM05B30X	10   5
6STF50PAM05B40X	10   15
6STF50PAM05B50X	10   15
6STF50PAR01B20X	10   6
6STF50PAR01B30X	10   6
6STF50PAR01E10X	10   6
6STF50PAR01E20X	10   6
6STF50PAR03B20X	10   7
6STF50PAR03B30X	10   7
6STF50PAR03E10X	10   7
6STF50PAR03E20X	10   7
6STF50PAR04B20X	10   7
6STF50PAR04B30X	10   7
6STF50PAR04E10X	10   7
6STF50PAR04E20X	10   7
6STF50PAR05B20X	10   7
6STF50PAR05B30X	10   7
6STF50PAR05E10X	10   7
6STF50PAR05E20X	10   7
6STF50PAU01R10X	10   10
6STF50PAU01R20X	10   10
6STF50PAU01R30X	10   10
6STF50PAU01R40X	10   10
6STF50PAU03R10X	10   11
6STF50PAU03R20X	10   11
6STF50PAU03R30X	10   11
6STF50PAU03R40X	10   11

**Part Number Section | Page**

6STF50PAU04R10X	10   11
6STF50PAU04R20X	10   11
6STF50PAU04R30X	10   11
6STF50PAU04R40X	10   11
6STF50PAU05R10X	10   11
6STF50PAU05R20X	10   11
6STF50PAU05R30X	10   11
6STF50PAU05R40X	10   11
8F8SPA22S41A10X	4   9
8F8SPA22S41A20X	4   9
8F8SPA22S41A30X	4   9
8F8SPA22S42A10X	4   9
8F8SPA22S42A20X	4   9
8F8SPA22S42A30X	4   9
8F8SPA22S43A10X	4   9
8F8SPA22S43A20X	4   9
8F8SPA22S43A30X	4   9
8F8SPA22S44A10X	4   9
8F8SPA22S44A20X	4   9
8F8SPA22S44A30X	4   9
8F8SPA22S44A40X	4   9
8F8SPA22S44A50X	4   18
8F8SPA22S48A10X	4   19
8F8SPA22S48A20X	4   19
8F8SPA22S48A30X	4   19
8F8SPA22S48A40X	4   19
8F8SPA22S48A50X	4   19
8F8SPA22S49A10X	4   18
8F8SPA22S49A20X	4   18
8F8SPA22S49A30X	4   19
8F8SPA22S49A40X	4   19
8F8SPA22S49A50X	4   19
8F8SPA22S50A10X	4   18
8F8SPA22S50A20X	4   18
8F8SPA22S50A30X	4   19
8F8SPA22S50A40X	4   19
8F8SPA22S50A50X	4   19
8F8SPA22S51A10X	4   18
8F8SPA22S51A20X	4   18
8F8SPA22S51A30X	4   19
8F8SPA22S51A40X	4   19
8F8SPA22S51A50X	4   19
8F8SPA22S51E20X	4   19
8F8SPA22S51E40X	4   19
8F8SPA22S51E60X	4   19
8F8SPA22S52A10X	4   18
8F8SPA22S52A20X	4   18
8F8SPA22S52A30X	4   19
8F8SPA22S52A40X	4   19
8F8SPA22S52A50X	4   19
8F8SPA22S52E20X	4   19
8F8SPA22S52E40X	4   19
8F8SPA22S52E60X	4   19
8F8SPA22S56K20X	4   24
8F8SPA22S56K40X	4   24
8F8SPA22S57K20X	4   24
8F8SPA22S57K40X	4   24
8F8SPA22S58K20X	4   24
8F8SPA22S58K40X	4   24
8F8SPA22S58K20X	4   24
8F8SPA22S58K40X	4   24

**Part Number Section | Page**

8F8SPA22SP1AA0X	4   29
8F8SPA22SP1W40X	4   29
8F8SPA22SP2AA0X	4   29
8F8SPA22SP2W40X	4   29
8F8SPA22SP4AA0X	4   29
8F8SPA22SP4W40X	4   29
8F8SSA22S41A10X	4   9
8F8SSA22S41A20X	4   9
8F8SSA22S41A30X	4   9
8F8SSA22S42A10X	4   9
8F8SSA22S42A20X	4   9
8F8SSA22S42A30X	4   9
8F8SSA22S43A10X	4   9
8F8SSA22S43A20X	4   9
8F8SSA22S43A30X	4   9
8F8SSA22S44A10X	4   9
8F8SSA22S44A20X	4   9
8F8SSA22S44A30X	4   9
8F8SSA22S48A10X	4   18
8F8SSA22S48A30X	4   19
8F8SSA22S48A50X	4   19
8F8SSA22S48E20X	4   19
8F8SSA22S49A10X	4   18
8F8SSA22S49A30X	4   19
8F8SSA22S49A50X	4   19
8F8SSA22S49E20X	4   19
8F8SSA22S50A10X	4   18
8F8SSA22S50A30X	4   19
8F8SSA22S50A50X	4   19
8F8SSA22S50E20X	4   19
8F8SSA22S51A10X	4   18
8F8SSA22S51A30X	4   19
8F8SSA22S51A50X	4   19
8F8SSA22S51E20X	4   19
8F8SSA22S51E40X	4   19
8F8SSA22S51E60X	4   19
8F8SSA22S52A10X	4   18
8F8SSA22S52A30X	4   19
8F8SSA22S52A50X	4   19
8F8SSA22S52E20X	4   19
8F8SSA22S52E40X	4   19
8F8SSA22S52E60X	4   19
8F8SSA22S56K20X	4   24
8F8SSA22S56K40X	4   24
8F8SSA22S57K20X	4   24
8F8SSA22S57K40X	4   24
8F8SSA22S58K20X	4   24
8F8SSA22S58K40X	4   24
8F8SSA22SP1AA0X	4   29
8F8SSA22SP1W40X	4   29

Part Number Section | Page

8F8SSA22SP2AAOX	4   29
8F8SSA22SP2W40X	4   29
8F8SSA22SP4AAOX	4   29
8F8SSA22SP4W40X	4   29
13-000011	5   4
13-000021	5   4
13-000031	5   6
13-000041	5   6
13-000051	5   7
13-000061	5   7
13-000071	5   9
13-000081	5   9
13-000091	5   10
13-000101	5   10
13-000131	5   14
13-000141	5   14
13-000151	5   14
13-000161	5   14
13-000171	5   14
13-000181	5   14
13-000190	5   14
13-000201	5   14
13-000210	5   16
13-000210	7   35
13-000220	5   16
13-000220	7   35
13-000231	5   16
13-000241	5   16
13-000291	5   15
13-000301	5   15
13-000311	5   15
13-000321	5   15
13-000370	5   16
13-000370	7   35
13-000380	5   16
13-000380	7   35
13-000391	5   16
13-000401	5   16
13-001013	2   55
13-001023	2   55
13-001033	2   55
13-001043	2   55
13-001053	2   55
13-001063	2   55
13-001073	2   55
13-001083	2   55
13-001093	2   55
13-001103	2   55
13-001113	2   55
13-001123	2   55

Part Number Section | Page

13-001133	2   55
13-001143	2   55
13-001153	2   55
13-001163	2   55
13-001173	2   55
13-001183	2   55
13-001193	2   55
13-001203	2   55
13-001213	2   55
13-001223	2   55
13-001233	2   55
13-001243	2   55
13-001253	2   55
13-001263	2   55
13-001273	2   55
13-001283	2   55
13-001293	2   55
13-001303	2   55
13-001313	2   55
13-001323	2   55
13-001333	2   55
13-001343	2   55
13-001353	2   55
13-001363	2   55
13-001373	2   55
13-001383	2   55
13-001393	2   55
13-001403	2   55
13-001413	2   57
13-001423	2   57
13-001433	2   57
13-001443	2   57
13-001453	2   57
13-001463	2   57
13-001473	2   57
13-001483	2   57
13-001493	2   57
13-001503	2   57
13-001513	2   57
13-001523	2   57
13-001533	2   57
13-001543	2   57
13-001553	2   57
13-001563	2   57
13-001573	2   57
13-001583	2   57
13-001593	2   57
13-001603	2   57
13-001613	2   57
13-001623	2   57

Part Number Section | Page

13-001633	2   57
13-001643	2   57
13-001653	2   57
13-001663	2   57
13-001673	2   57
13-001683	2   57
13-001693	2   57
13-001703	2   57
13-001713	2   57
13-001723	2   57
13-001733	2   57
13-001743	2   57
13-001753	2   57
13-001763	2   57
13-001773	2   57
13-001783	2   57
13-001793	2   57
13-001803	2   57
13-002750	7   35
13-002760	7   35
13-002770	7   35
13-002780	7   35
13-003003	2   47
13-003004	2   47
13-003013	2   47
13-003014	2   47
13-003023	2   47
13-003024	2   47
13-003033	2   47
13-003034	2   47
13-003043	2   47
13-003044	2   47
13-003053	2   47
13-003054	2   47
13-003063	2   47
13-003064	2   47
13-003073	2   47
13-003074	2   47
13-003083	2   47
13-003084	2   47
13-003093	2   47
13-003094	2   47
13-003103	2   47
13-003104	2   47
13-003113	2   47
13-003114	2   47
13-003123	2   47
13-003124	2   47
13-003133	2   47
13-003134	2   47

Part Number Section | Page

13-003143	2   48
13-003144	2   48
13-003153	2   48
13-003154	2   48
13-003163	2   48
13-003164	2   48
13-003173	2   48
13-003174	2   48
13-003183	2   48
13-003184	2   48
13-003193	2   48
13-003194	2   48
13-003203	2   48
13-003204	2   48
13-003213	2   48
13-003214	2   48
13-003223	2   48
13-003224	2   48
13-003233	2   48
13-003234	2   48
13-003243	2   49
13-003244	2   49
13-003253	2   49
13-003254	2   49
13-003263	2   49
13-003264	2   49
13-003273	2   49
13-003274	2   49
13-003283	2   49
13-003284	2   49
13-003293	2   49
13-003294	2   49
13-003303	2   50
13-003304	2   50
13-003313	2   50
13-003314	2   50
13-003323	2   50
13-003324	2   50
13-003333	2   50
13-003334	2   50
13-003343	2   51
13-003344	2   51
13-003353	2   51
13-003354	2   51
13-003363	2   51
13-003364	2   51
13-003373	2   51
13-003374	2   51
13-003383	2   52
13-003384	2   52

## PART NUMBERS

## Part Number Section | Page

13-003393	2   52
13-003394	2   52
13-003403	2   52
13-003404	2   52
13-003413	2   52
13-003414	2   52
13-003423	2   52
13-003424	2   52
13-003433	2   52
13-003434	2   52
13-003443	2   52
13-003444	2   52
13-003453	2   52
13-003454	2   52
13-003463	2   53
13-003464	2   53
13-003473	2   53
13-003474	2   53
13-003483	2   53
13-003484	2   53
13-003493	2   53
13-003494	2   53
13-003501	2   39
13-003503	2   39
13-003511	2   39
13-003513	2   39
13-003521	2   39
13-003523	2   39
13-003531	2   39
13-003533	2   39
13-003541	2   39
13-003543	2   39
13-003551	2   39
13-003553	2   39
13-003561	2   39
13-003563	2   39
13-003571	2   39
13-003573	2   39
13-003581	2   39
13-003591	2   39
13-003601	2   39
13-003611	2   39
13-003621	2   41
13-003623	2   41
13-003631	2   41
13-003633	2   41
13-003641	2   41
13-003643	2   41
13-003651	2   41
13-003653	2   41

## Part Number Section | Page

13-003661	2   41
13-003663	2   41
13-003671	2   41
13-003673	2   41
13-003681	2   41
13-003683	2   41
13-003691	2   41
13-003693	2   41
13-003701	2   41
13-003711	2   41
13-003721	2   41
13-003731	2   41
15-000010	7   47
15-000020	7   47
15-000030	7   47
15-000040	7   47
15-000050	7   47
15-000060	7   47
15-000070	7   47
15-000080	7   47
15-000090	7   47
15-000100	7   47
15-000110	7   47
15-000120	7   47
15-000130	7   47
15-000140	7   47
15-000150	7   47
15-000160	7   47
15-000170	7   47
15-000180	7   47
15-000190	7   47
15-000200	7   47
15-000413	8   17
15-000423	8   17
15-000433	8   17
15-000443	8   17
15-000453	8   17
15-000463	8   17
15-000473	8   17
15-000483	8   17
15-000493	8   21
15-000503	8   21
15-000513	8   21
15-000523	8   21
15-000533	8   21
15-000543	8   21
15-000553	8   21
15-000563	8   21
15-000573	8   16
15-000583	8   16

## Part Number Section | Page

15-000593	8   16
15-000603	8   16
15-000613	8   16
15-000623	8   16
15-000633	8   16
15-000643	8   16
15-000653	8   20
15-000663	8   20
15-000673	8   20
15-000683	8   20
15-000693	8   20
15-000703	8   20
15-000713	8   20
15-000723	8   20
15-000733	8   18
15-000743	8   18
15-000753	8   18
15-000763	8   18
15-000773	8   18
15-000783	8   18
15-000793	8   18
15-000803	8   18
15-000813	8   19
15-000823	8   19
15-000833	8   19
15-000843	8   19
15-000853	8   19
15-000863	8   19
15-000873	8   19
15-000883	8   19
15-000893	8   23
15-000893	8   23
15-000903	8   23
15-000903	8   23
15-000913	8   23
15-000913	8   23
15-000923	8   23
15-000923	8   23
15-000933	8   23
15-000933	8   23
15-000943	8   23
15-000943	8   23
15-000953	8   23
15-000953	8   23
15-000963	8   23
15-000963	8   23
15-001063	9   26
15-001073	9   26
15-001083	9   26
15-001093	9   26

## Part Number Section | Page

15-001103	9   23
15-001113	9   26
15-001123	9   26
15-001133	9   26
15-001423	9   28
15-001433	9   28
15-001443	9   28
15-001453	9   28
15-001463	9   25
15-001473	9   28
15-001483	9   28
15-001493	9   28
15-001503	9   25
15-001613	9   26
15-001653	9   26
15-001783	9   27
15-001793	9   27
15-001803	9   27
15-001813	9   27
15-001823	9   24
15-001833	9   27
15-001843	9   27
15-001853	9   27
15-001863	9   24
15-001963	9   28
15-001993	9   28
15-002023	9   27
15-002053	8   17
15-002063	8   17
15-002073	8   21
15-002093	8   16
15-002103	8   16
15-002113	8   20
15-002123	8   20
15-002133	8   18
15-002143	8   18
15-002153	8   19
15-002163	8   19
15-002183	8   21
15-002193	8   22
15-002203	8   22
15-002213	8   22
15-002223	8   22
15-002233	8   22
15-002243	8   22
15-002253	8   22
15-002263	8   22
15-002273	8   22
15-002283	8   22
15-002293	9   25



Part Number Section | Page

15-002323	9   25
15-002333	9   25
15-004453	9   23
15-004543	9   23
15-004553	9   23
15-004563	9   23
15-004593	9   23
15-004593	9   25
15-004643	9   23
15-004670	7   37
15-004680	7   37
15-004690	7   37
15-004700	7   37
15-004710	7   37
15-004720	7   37
15-004730	7   37
15-004740	7   37
15-004750	7   37
15-004770	7   37
15-004780	7   37
15-004790	7   37
15-004800	7   37
15-004810	7   37
15-004820	7   37
15-004830	7   37
15-004840	7   37
15-004850	7   37
15-005063	9   23
15-005073	9   23
15-005083	9   23
15-005093	9   23
15-005103	9   23
15-005113	9   23
15-005123	9   23
15-005133	9   23
15-005143	9   23
15-005153	9   23
15-005163	9   23
15-005183	9   23
15-005193	9   23
15-005203	9   23
15-005213	9   23
15-005223	9   23
15-005233	9   23
15-005243	9   23
15-005253	9   23
15-005263	9   23
15-005273	9   23
15-005283	9   23
15-005293	9   23

Part Number Section | Page

15-005303	9   23
15-005313	9   23
15-005323	9   24
15-005333	9   24
15-005343	9   24
15-005353	9   24
15-005363	9   24
15-005373	9   24
15-005383	9   24
15-005393	9   24
15-005403	9   24
15-005413	9   24
15-005423	9   24
15-005433	9   24
15-005443	9   24
15-005453	9   24
15-005463	9   24
15-005473	9   24
15-005483	9   24
15-005493	9   24
15-005503	9   24
15-005513	9   24
15-005523	9   24
15-005533	9   24
15-005543	9   24
15-005553	9   24
15-005563	9   24
15-005573	9   24
15-005583	9   24
15-005593	9   24
15-005603	9   24
15-005613	9   24
15-005623	9   25
15-005633	9   25
15-005643	9   25
15-005653	9   25
15-005663	9   25
15-005673	9   25
15-005683	9   25
15-005693	9   25
15-005703	9   25
15-005713	9   25
15-005723	9   25
15-005733	9   25
15-005743	9   25
15-005753	9   25
15-005763	9   25
15-005773	9   25
15-005783	9   25
15-005793	9   25

Part Number Section | Page

15-005803	9   25
15-005813	9   25
15-005823	9   25
15-005833	9   25
15-005843	9   25
15-005853	9   25
15-005863	9   25
15-005873	9   25
15-005883	9   27
15-005893	9   29
15-005903	9   29
15-005913	9   29
15-005923	9   29
15-005933	9   29
15-005943	9   29
15-005953	9   30
15-005963	9   30
15-005973	9   30
15-005983	9   30
15-005993	9   30
15-006003	9   30
15-006013	9   31
15-006023	9   31
15-006033	9   31
15-006043	9   31
15-006053	9   31
15-006063	9   31
16-000010	5   17
16-000010	7   34
16-000230	7   44
16-000240	7   44
16-000250	7   44
16-000260	7   44
16-000270	7   44
16-000280	7   44
16-000290	7   44
16-000300	7   44
16-000310	7   44
16-000320	7   44
16-000330	7   44
16-000340	7   44
16-000350	7   44
16-000360	7   44
16-000370	7   44
16-000380	7   44
16-000390	7   44
16-000400	7   44
16-000410	7   44
16-000420	7   44
16-000790	7   44

Part Number Section | Page

16-000800	7   44
16-000810	7   44
16-000820	7   44
16-000830	7   44
16-000840	7   44
16-000850	7   44
16-000860	7   44
16-000870	7   44
16-000890	7   44
16-000900	7   44
16-000910	7   44
16-000920	7   44
16-000930	7   44
16-000940	7   44
16-000950	7   44
16-000960	7   44
16-000970	7   44
16-000980	7   44
16-000990	7   44
16-001000	7   43
16-001010	7   43
16-001020	7   43
16-001030	7   43
16-001040	7   43
16-001050	7   43
16-001060	7   43
16-001070	7   43
16-001080	7   43
16-001090	7   43
16-001100	7   43
16-001110	7   43
16-001120	7   43
16-001130	7   43
16-001140	7   43
16-001150	7   43
16-001160	7   43
16-001170	7   43
16-001180	7   43
16-001190	7   43
16-505750	7   49
17-10000	11   3
17-10001	11   14
17-10002	11   26
17-10003	11   18
17-10004	11   18
17-10005	11   18
17-10006	11   19
17-10007	11   19
17-10008	11   19
17-10009	11   3

# PART NUMBERS

Part Number	Section	Page	Part Number	Section	Page	Part Number	Section	Page	Part Number	Section	Page
17-10011	11	3	17-100754	11	25	17-101324	11	25	17-102044	11	18
17-10012	11	3	17-100764	11	25	17-101334	11	25	17-102054	11	18
17-10013	11	14	17-100774	11	25	17-101344	11	25	17-102064	11	18
17-10014	11	26	17-100784	11	25	17-101374	11	23	17-102074	11	18
17-10015	11	11	17-100794	11	25	17-101384	11	23	17-102084	11	18
17-10016	11	11	17-100804	11	25	17-101394	11	23	17-102094	11	18
17-10017	11	8	17-100814	11	25	17-101404	11	23	17-102104	11	18
17-10018	11	8	17-100824	11	25	17-101414	11	23	17-102114	11	18
17-10019	11	3	17-100934	11	12	17-101424	11	23	17-102124	11	18
17-10020	11	3	17-100944	11	15	17-101434	11	23	17-102134	11	18
17-10021	11	11	17-100950	11	26	17-101444	11	23	17-102144	11	18
17-10022	11	11	17-100964	11	21	17-101454	11	23	17-102154	11	18
17-10023	11	8	17-100974	11	21	17-101464	11	23	17-102174	11	11
17-10024	11	8	17-100984	11	21	17-101474	11	23	17-102184	11	8
17-10025	11	18	17-100994	11	20	17-101484	11	23	17-102194	11	11
17-10026	11	18	17-101004	11	20	17-101494	11	12	17-102204	11	8
17-10027	11	18	17-101014	11	20	17-101594	11	13	17-103274	11	15
17-10028	11	19	17-101024	11	21	17-101604	11	12	17-103530	11	4
17-10029	11	19	17-101034	11	21	17-101614	11	12	17-103530	11	7
17-10030	11	19	17-101044	11	21	17-101634	11	13	17-103530	11	10
17-10033	11	11	17-101054	11	21	17-101654	11	13	17-103530	12	7
17-10034	11	11	17-101064	11	21	17-101674	11	13	17-103540	11	4
17-10035	11	8	17-101074	11	21	17-101710	11	26	17-103540	11	7
17-10036	11	8	17-101084	11	20	17-101720	11	26	17-103540	11	10
17-10037	11	11	17-101094	11	20	17-101754	11	3	17-103540	12	7
17-10038	11	11	17-101104	11	20	17-101764	11	3	17-110004	11	5
17-10039	11	8	17-101114	11	20	17-101774	11	11	17-110014	11	5
17-10040	11	8	17-101124	11	20	17-101784	11	8	17-110024	11	5
17-10044	11	14	17-101134	11	20	17-101794	11	14	17-110034	11	5
17-100464	11	16	17-101144	11	18	17-101800	11	26	17-110054	11	6
17-100474	11	16	17-101154	11	18	17-101814	11	3	17-110114	11	6
17-100514	11	18	17-101164	11	18	17-101824	11	3	17-110174	11	6
17-100524	11	18	17-101174	11	18	17-101834	11	11	17-110184	11	6
17-100534	11	18	17-101184	11	18	17-101844	11	8	17-110194	11	6
17-100574	11	24	17-101194	11	18	17-101864	11	15	17-110204	11	6
17-100584	11	24	17-101204	11	18	17-101870	11	26	17-110214	11	4
17-100594	11	24	17-101214	11	18	17-101884	11	12	17-110224	11	4
17-100604	11	24	17-101224	11	18	17-101894	11	12	17-110234	11	4
17-100614	11	24	17-101234	11	19	17-101924	11	19	17-110244	11	4
17-100624	11	24	17-101244	11	19	17-101934	11	19	17-110264	11	8
17-100654	11	25	17-101254	11	19	17-101944	11	19	17-110324	11	8
17-100664	11	25	17-101264	11	19	17-101964	11	19	17-110384	11	8
17-100674	11	25	17-101264	11	19	17-101974	11	19	17-110394	11	8
17-100684	11	25	17-101274	11	19	17-101984	11	19	17-110404	11	8
17-100694	11	25	17-101274	11	19	17-101984	11	19	17-110414	11	8
17-100704	11	25	17-101284	11	19	17-101994	11	19	17-110424	11	9
17-100714	11	25	17-101284	11	19	17-102004	11	19	17-110484	11	9
17-100724	11	25	17-101294	11	19	17-102014	11	19	17-110544	11	9
17-100734	11	25	17-101304	11	19	17-102024	11	19	17-110554	11	9
17-100744	11	25	17-101314	11	19	17-102034	11	19	17-110564	11	9

Part Number Section | Page

17-110574	11   9
17-110594	11   6
17-110654	11   6
17-110714	11   6
17-110724	11   6
17-110734	11   6
17-110744	11   6
17-110754	11   8
17-110814	11   8
17-110874	11   8
17-110884	11   8
17-110894	11   8
17-110904	11   8
17-110914	11   9
17-110974	11   9
17-111034	11   9
17-111044	11   9
17-111054	11   9
17-111064	11   9
17-111074	11   7
17-111084	11   7
17-111094	11   10
17-111104	11   10
17-111114	11   10
17-111124	11   10
17-111134	11   7
17-111144	11   7
17-111154	11   10
17-111164	11   10
17-111174	11   10
17-111184	11   10
17-111194	11   7
17-111204	11   7
17-111214	11   10
17-111224	11   10
17-111234	11   10
17-111244	11   10
17-150004	11   3
17-150014	11   3
17-150124	11   3
17-150134	11   3
17-150144	11   12
17-150154	11   12
17-150164	11   12
17-150174	11   3
17-150184	11   3
17-150214	11   4
17-150234	11   14
17-150244	11   14
17-150254	11   16

Part Number Section | Page

17-150264	11   16
17-150274	11   17
17-150284	11   14
17-150304	11   18
17-150314	11   18
17-150324	11   18
17-150334	11   18
17-150344	11   18
17-150354	11   18
17-150364	11   18
17-150374	11   18
17-150384	11   18
17-150424	11   19
17-150434	11   19
17-150444	11   19
17-150454	11   19
17-150464	11   19
17-150474	11   19
17-150484	11   19
17-150494	11   19
17-150504	11   19
17-150544	11   22
17-150554	11   22
17-150564	11   22
17-150574	11   22
17-150584	11   22
17-150594	11   22
17-150604	11   22
17-150614	11   22
17-150624	11   22
17-150634	11   22
17-150644	11   22
17-150654	11   22
17-150664	11   24
17-150674	11   24
17-150684	11   24
17-150694	11   24
17-150704	11   24
17-150714	11   24
17-150724	11   20
17-150734	11   20
17-150744	11   20
17-150754	11   17
17-150764	11   21
17-150774	11   21
17-150784	11   21
17-150794	11   20
17-150804	11   20
17-150814	11   20
17-150824	11   21

Part Number Section | Page

17-150834	11   21
17-150844	11   21
17-150874	11   25
17-150894	11   25
17-150904	11   25
17-160004	11   4
17-160014	11   4
17-200001	12   5
17-200011	12   5
17-200161	12   5
17-200181	12   17
17-200191	12   17
17-200211	12   17
17-200231	12   15
17-200241	12   15
17-200261	12   15
17-200281	12   12
17-200291	12   12
17-200311	12   12
17-200321	12   9
17-200341	12   18
17-200351	12   18
17-200361	12   18
17-200371	12   16
17-200381	12   16
17-200391	12   16
17-200401	12   13
17-200411	12   13
17-200421	12   13
17-200431	12   9
17-200481	12   18
17-200491	12   18
17-200501	12   18
17-200511	12   16
17-200521	12   16
17-200531	12   16
17-200541	12   14
17-200551	12   14
17-200561	12   14
17-200601	12   5
17-200611	12   5
17-200621	12   12
17-200631	12   12
17-200641	12   12
17-200651	12   17
17-200661	12   17
17-200671	12   17
17-200681	12   15
17-200691	12   15
17-200701	12   15

Part Number Section | Page

17-200721	12   5
17-200781	12   7
17-200811	12   13
17-200821	12   13
17-200831	12   13
17-200881	12   6
17-200891	12   6
17-201031	12   19
17-201041	12   19
17-201061	12   19
17-201081	12   19
17-201091	12   19
17-201111	12   19
17-210001	12   6
17-210011	12   6
17-210021	12   6
17-210031	12   6
17-210041	12   6
17-210051	12   6
17-210111	12   7
17-210121	12   7
17-210151	12   6
17-210161	12   6
17-250001	12   3
17-250010	12   3
17-250021	12   3
17-250031	12   4
17-250041	12   4
17-250051	12   4
17-300010	13   2
17-300020	13   2
17-300030	13   4
17-300040	13   4
17-300050	13   4
17-300060	13   2
17-300070	13   2
17-300080	13   4
17-300090	13   4
17-300110	13   4
17-300120	13   4
17-300170	13   2
17-300180	13   2
17-300190-02	13   5
17-300190-05	13   5
17-300190-10	13   5
17-300200	13   4
17-300210	13   4
17-300220	13   4
17-300230	13   2
17-300240	13   2

# PART NUMBERS

**Part Number Section | Page**

17-300250	13   2
17-300290-001	13   6
17-300290-030	13   6
17-300290-060	13   6
17-300290-100	13   6
17-300290-200	13   6
17-300290-300	13   6
17-300300-001	13   6
17-300300-030	13   6
17-300300-060	13   6
17-300300-100	13   6
17-300300-200	13   6
17-300300-300	13   6
17-300310-02	13   5
17-300310-05	13   5
17-300310-10	13   5
17-300320-02	13   5
17-300320-05	13   5
17-300320-10	13   5
17-300330-02	13   5
17-300330-05	13   5
17-300330-10	13   5
17-300340-02	13   5
17-300340-05	13   5
17-300340-10	13   5
17-300350-02	13   5
17-300350-05	13   5
17-300350-10	13   5
17-300370-001	13   6
17-300370-030	13   6
17-300370-060	13   6
17-300370-100	13   6
17-300370-200	13   6
17-300370-300	13   6
17-300380	13   2
17-300390	13   2
17-300400	13   2
17-300410	13   4
17-300420	13   4
17-300430	13   4
17-300790	13   3
17-300800	13   3
17-300810	13   3
17-300820	13   3
17-300830	13   3
17-300840	13   3
18-000010	13   7
18-000020	13   7
18-000030	13   7
18-000040	13   7

**Part Number Section | Page**

18-000050	13   7
18-000060	13   7
18-000070	13   7
18-000080	13   7
18-000090	13   7
18-000100	13   7
18-000110	13   7
18-000120	13   7
18-007000	13   9
18-007020	13   9
18-007040	13   9
18-007060	13   9
18-007080	13   9
18-007100	13   9
18-007120	13   10
18-007140	13   10
18-007160	13   10
18-007180	13   10
18-007200	13   10
18-007220	13   10
18-007240	13   10
18-007260	13   10
18-007280	13   10
18-007300	13   10
18-007320	13   10
18-007340	13   10
18-007360	13   10
18-007380	13   10
18-007400	13   10
18-007420	13   10
18-007480	13   13
18-007500	13   13
18-007540	13   13
18-007560	13   13
18-007580	13   13
18-007680	13   11
18-007700	13   11
18-007760	13   12
18-007780	13   12
18-007800	13   12
18-007880	13   8
18-007900	13   8
18-007920	13   8
18-007940	13   8
18-007960	13   8
18-007980	13   8
18-008000	13   8
18-008020	13   8
18-008040	13   8
18-008060	13   8

**Part Number Section | Page**

18-008080	13   8
18-008100	13   8
18-008120	13   8
18-008140	13   8
18-008160	13   8
18-008180	13   8
18-010300	13   14
18-010320	13   14
18-010340	13   14
18-010360	13   14
18-010380	13   14
18-010400	13   14
18-010420	13   14
18-010440	13   14
18-010460	13   14
18-010480	13   14
18-010500	13   14
18-010520	13   14
18-010540	13   14
18-010560	13   15
18-010580	13   15
18-010600	13   15
24-000011	5   5
24-000031	5   5
24-000041	5   5
24-000051	5   5
24-000061	5   8
24-000071	5   8
24-000081	5   8
24-000091	5   8
24-000101	5   11
24-000111	5   11
24-000121	5   11
24-000131	5   11
131A10019X	2   39
131A10029X	2   39
131A10039X	2   39
131A10049X	2   39
131A11019X	2   41
131A11029X	2   41
131A11039X	2   41
131A11049X	2   41
131A12019X	2   44
131A12029X	2   44
131A12039X	2   44
131A12049X	2   44
131A12059X	2   44
131A13009X	2   43
131A13019X	2   43
131A13029X	2   43

**Part Number Section | Page**

131A13039X	2   43
131A13049X	2   43
131A13059X	2   43
131A13060X	2   43
131A13070X	2   43
131A15019X	2   38
131A15029X	2   38
131A16019X	2   42
131A16029X	2   42
131A16039X	2   42
131A16049X	2   42
131A20019X	2   47
131A20029X	2   47
131A20039X	2   47
131A20049X	2   47
131A20059X	2   47
131A21019X	2   48
131A21029X	2   48
131A21039X	2   48
131A22019X	2   49
131A22029X	2   49
131A22039X	2   49
131A23019X	2   50
131A24019X	2   51
131A25019X	2   52
131A25029X	2   52
131A25519X	2   53
131A30019X	2   47
131A30029X	2   47
131A31019X	2   48
131A31029X	2   48
131A33019X	2   50
131A34019X	2   51
131A35019X	2   52
131A35029X	2   52
131A35519X	2   53
131A36009X	2   40
131C00319A	2   45
131C00389A	2   45
131C10019X	2   39
131C10029X	2   39
131C10039X	2   39
131C10049X	2   39
131C10119X	2   39
131C10129X	2   39
131C10139X	2   39
131C10149X	2   39
131C11019X	2   41
131C11029X	2   41
131C11039X	2   41

Part Number Section | Page

131C11049X	2   41
131C11119X	2   41
131C11129X	2   41
131C11139X	2   41
131C11149X	2   41
131C12019X	2   44
131C12029X	2   44
131C12039X	2   44
131C12049X	2   44
131C12059X	2   44
131C12119X	2   44
131C12129X	2   44
131C12139X	2   44
131C12149X	2   44
131C12159X	2   44
131C13009X	2   43
131C13019X	2   43
131C13029X	2   43
131C13039X	2   43
131C13049X	2   43
131C13059X	2   43
131C13060X	2   43
131C13070X	2   43
131C13109X	2   43
131C13119X	2   43
131C13129X	2   43
131C13139X	2   43
131C13149X	2   43
131C13159X	2   43
131C13160X	2   43
131C13170X	2   43
131C15019X	2   38
131C15029X	2   38
131C16019X	2   42
131C16029X	2   42
131C16039X	2   42
131C16049X	2   42
131C16119X	2   42
131C16129X	2   42
131C16139X	2   42
131C16149X	2   42
131C19019X	2   45
131C36009X	2   40
131C36109X	2   40
131J14019X	2   46
131J14519X	2   46
131J20019X	2   47
131J20029X	2   47
131J20039X	2   47
131J20049X	2   47

Part Number Section | Page

131J20059X	2   47
131J21019X	2   48
131J21029X	2   48
131J21039X	2   48
131J22019X	2   49
131J22029X	2   49
131J22039X	2   49
131J23019X	2   50
131J24019X	2   51
131J25019X	2   52
131J25029X	2   52
131J25519X	2   53
131J30019X	2   47
131J30029X	2   47
131J31019X	2   48
131J31029X	2   48
131J33019X	2   50
131J34019X	2   51
131J35019X	2   52
131J35029X	2   52
131J35519X	2   53
132A10019X	2   39
132A10029X	2   39
132A10039X	2   39
132A10049X	2   39
132A11019X	2   41
132A11029X	2   41
132A11039X	2   41
132A11049X	2   41
132A12019X	2   44
132A12029X	2   44
132A12039X	2   44
132A12049X	2   44
132A12059X	2   44
132A13009X	2   43
132A13019X	2   43
132A13029X	2   43
132A13039X	2   43
132A13049X	2   43
132A13059X	2   43
132A13060X	2   43
132A13070X	2   43
132A16019X	2   42
132A16029X	2   42
132A16039X	2   42
132A16049X	2   42
132A20019X	2   47
132A20029X	2   47
132A20039X	2   47
132A20049X	2   47

Part Number Section | Page

132A20059X	2   47
132A21019X	2   48
132A21029X	2   48
132A21039X	2   48
132A22019X	2   49
132A22029X	2   49
132A22039X	2   49
132A23019X	2   50
132A24019X	2   51
132A25019X	2   52
132A25029X	2   52
132A25519X	2   53
132A30019X	2   47
132A30029X	2   47
132A31019X	2   48
132A31029X	2   48
132A33019X	2   50
132A34019X	2   51
132A35019X	2   52
132A35029X	2   52
132A35519X	2   53
132A36009X	2   40
132C00229A	2   45
132C00299A	2   45
132C10019X	2   39
132C10029X	2   39
132C10039X	2   39
132C10049X	2   39
132C11019X	2   41
132C11019X	5   15
132C11029X	2   41
132C11029X	5   15
132C11039X	2   41
132C11039X	5   15
132C11049X	2   41
132C12019X	2   44
132C12029X	2   44
132C12039X	2   44
132C12049X	2   44
132C12059X	2   44
132C13009X	2   43
132C13019X	2   43
132C13029X	2   43
132C13039X	2   43
132C13049X	2   43
132C13059X	2   43
132C13060X	2   43
132C13070X	2   43
132C15019X	2   38
132C15019X	5   15

Part Number Section | Page

132C15029X	2   38
132C16019X	2   42
132C16029X	2   42
132C16039X	2   42
132C16049X	2   42
132C19019X	2   45
132C36009X	2   40
132J14019X	2   46
132J14519X	2   46
132J20019X	2   47
132J20029X	2   47
132J20039X	2   47
132J20059X	2   47
132J21019X	2   48
132J21029X	2   48
132J21039X	2   48
132J22019X	2   49
132J22029X	2   49
132J22039X	2   49
132J23019X	2   50
132J24019X	2   51
132J25019X	2   52
132J25029X	2   52
132J25519X	2   53
132J30019X	2   47
132J30029X	2   47
132J31019X	2   48
132J31029X	2   48
132J33019X	2   50
132J34019X	2   51
132J35019X	2   52
132J35029X	2   52
132J35519X	2   53
160X00470A	7   49
160X10139X	7   7
160X10139X	7   8
160X10139X	7   9
160X10139X	7   9
160X10149X	7   7
160X10159X	7   51
160X10169X	7   51
160X10179X	7   51
160X10189X	7   51
160X10199X	7   51
160X10209X	7   51
160X10219X	7   52
160X10229X	7   52
160X10239X	7   50
160X10259X	7   49
160X10329X	7   48

## PART NUMBERS

Part Number	Section	Page	Part Number	Section	Page	Part Number	Section	Page	Part Number	Section	Page
160X10359X	7	48	161A13439X	1	31	163A11439X	1	4	163A13829X	1	17
160X10379X	7	48	161A18009X	1	43	163A11449X	1	4	163A13839X	1	17
160X10409X	7	39	161A18299X	1	31	163A11459X	1	4	163A13849X	1	17
160X10419X	7	39	161A18309X	1	31	163A11469X	1	10	163A13859X	1	17
160X10429X	7	39	162A11819X	1	31	163A11479X	1	10	163A13879X	1	17
160X10439X	7	39	162A11829X	1	31	163A11489X	1	10	163A13889X	1	17
160X10449X	7	39	162A11839X	1	31	163A11499X	1	10	163A13899X	1	17
160X10459X	7	39	162A11849X	1	31	163A11509X	1	10	163A13909X	1	17
160X10469X	7	39	162A11859X	1	31	163A11519X	1	10	163A14119X	1	16
160X10479X	7	39	162A11869X	1	31	163A11529X	1	10	163A14129X	1	16
160X10529X	7	48	162A11879X	1	31	163A11539X	1	10	163A14139X	1	16
160X10609X	7	52	162A11889X	1	31	163A11549X	1	10	163A14149X	1	16
160X10619X	7	52	162A18419X	1	43	163A11559X	1	10	163A14169X	1	16
160X10639X	7	48	162A18709X	1	31	163A11719X	1	16	163A14179X	1	16
160X10659X	7	49	162A18709X	2	38	163A11729X	1	16	163A14189X	1	16
160X10689X	7	51	162A18719X	1	31	163A11739X	1	16	163A14199X	1	16
160X10699X	7	51	162A18719X	2	38	163A11749X	1	16	163A14439X	1	5
160X10709X	7	51	162C18709X	5	15	163A11759X	1	16	163A14449X	1	5
160X10719X	7	51	163A11069X	1	2	163A12019X	1	18	163A14459X	1	5
160X10729X	7	51	163A11079X	1	2	163A12029X	1	18	163A14469X	1	5
160X10839X	3	62	163A11089X	1	2	163A12039X	1	18	163A14479X	1	5
160X10849X	3	62	163A11099X	1	2	163A12049X	1	18	163A14489X	1	17
160X10859X	3	62	163A11109X	1	2	163A12069X	1	18	163A14499X	1	17
160X10869X	3	62	163A11119X	1	4	163A12079X	1	18	163A14509X	1	17
160X10879X	3	62	163A11129X	1	4	163A12089X	1	18	163A14519X	1	17
160X10889X	7	53	163A11139X	1	4	163A12099X	1	18	163A14529X	1	17
160X10899X	7	53	163A11149X	1	4	163A13069X	1	12	163A14539X	1	17
160X10909X	7	53	163A11159X	1	4	163A13079X	1	12	163A14549X	1	17
160X10919X	7	53	163A11169X	1	10	163A13089X	1	12	163A14559X	1	17
160X10929X	7	53	163A11179X	1	10	163A13099X	1	12	163A14609X	1	17
160X10949X	7	53	163A11189X	1	10	163A13629X	1	5	163A14619X	1	17
160X10959X	7	39	163A11189X	1	10	163A13639X	1	5	163A14629X	1	17
160X10969X	7	39	163A11199X	1	10	163A13649X	1	5	163A14639X	1	17
160X11189X	7	4	163A11209X	1	10	163A13659X	1	5	163A14649X	1	17
160X11189X	7	4	163A11269X	1	2	163A13659X	1	5	163A14659X	1	17
160X11189X	7	5	163A11279X	1	2	163A13669X	1	5	163A14669X	1	17
160X11189X	7	5	163A11289X	1	2	163A13679X	1	5	163A14679X	1	17
160X11189X	7	5	163A11299X	1	2	163A13689X	1	5	163A14679X	1	17
160X11189X	7	6	163A11309X	1	2	163A13699X	1	5	163A14959X	1	12
160X11199X	7	4	163A11319X	1	2	163A13709X	1	5	163A14969X	1	12
160X11199X	7	4	163A11329X	1	2	163A13719X	1	5	163A14979X	1	12
160X11199X	7	5	163A11339X	1	2	163A13729X	1	5	163A14989X	1	12
160X11199X	7	5	163A11349X	1	2	163A13739X	1	5	163A15199X	1	25
160X11199X	7	6	163A11359X	1	2	163A13749X	1	5	163A15209X	1	25
161A13369X	1	31	163A11369X	1	4	163A13759X	1	5	163A15219X	1	25
161A13379X	1	31	163A11379X	1	4	163A13769X	1	5	163A15229X	1	25
161A13389X	1	31	163A11379X	1	4	163A13779X	1	5	163A15239X	1	25
161A13399X	1	31	163A11389X	1	4	163A13779X	1	5	163A15249X	1	25
161A13409X	1	31	163A11399X	1	4	163A13789X	1	5	163A15249X	1	25
161A13419X	1	31	163A11409X	1	4	163A13799X	1	5	163A15259X	1	25
161A13429X	1	31	163A11419X	1	4	163A13809X	1	5	163A15269X	1	25
			163A11429X	1	4	163A13819X	1	5	163A15279X	1	25

Part Number	Section	Page	Part Number	Section	Page	Part Number	Section	Page	Part Number	Section	Page
163A15289X	1	25	163A15789X	1	27	163A16689X	1	32	163A17569X	1	13
163A15299X	1	25	163A15799X	1	27	163A16699X	1	32	163A17579X	1	13
163A15309X	1	25	163A15809X	1	27	163A16709X	1	32	163A17589X	1	13
163A15319X	1	25	163A15819X	1	27	163A16719X	1	32	163A17599X	1	13
163A15329X	1	25	163A15829X	1	27	163A16729X	1	32	163A17609X	1	38
163A15339X	1	25	163A16159X	1	5	163A16739X	1	32	163A17619X	1	38
163A15349X	1	25	163A16169X	1	5	163A16749X	1	34	163A17629X	1	38
163A15359X	1	25	163A16179X	1	5	163A16759X	1	34	163A17639X	1	38
163A15369X	1	25	163A16189X	1	5	163A16769X	1	34	163A17649X	1	38
163A15379X	1	25	163A16199X	1	5	163A16779X	1	34	163A17659X	1	38
163A15389X	1	25	163A16209X	1	5	163A16789X	1	34	163A17669X	1	38
163A15399X	1	25	163A16219X	1	5	163A16799X	1	34	163A17679X	1	38
163A15409X	1	25	163A16229X	1	5	163A16809X	1	34	163A17689X	1	39
163A15419X	1	25	163A16239X	1	5	163A16819X	1	34	163A17699X	1	39
163A15429X	1	25	163A16249X	1	5	163A16829X	1	34	163A17709X	1	39
163A15439X	1	25	163A16259X	1	5	163A16839X	1	34	163A17719X	1	39
163A15449X	1	25	163A16269X	1	5	163A16849X	1	34	163A17729X	1	39
163A15459X	1	25	163A16279X	1	5	163A16859X	1	34	163A17739X	1	39
163A15469X	1	25	163A16289X	1	5	163A16869X	1	34	163A17749X	1	39
163A15479X	1	25	163A16299X	1	5	163A16879X	1	34	163A17759X	1	39
163A15489X	1	25	163A16309X	1	5	163A16889X	1	34	163A17769X	1	40
163A15499X	1	25	163A16319X	1	5	163A16899X	1	35	163A17779X	1	40
163A15509X	1	25	163A16329X	1	5	163A16909X	1	35	163A17789X	1	40
163A15519X	1	27	163A16339X	1	5	163A16919X	1	35	163A17799X	1	40
163A15529X	1	27	163A16349X	1	5	163A16929X	1	35	163A17809X	1	40
163A15539X	1	27	163A16359X	1	18	163A16939X	1	35	163A17819X	1	40
163A15549X	1	27	163A16369X	1	18	163A16949X	1	35	163A17829X	1	40
163A15559X	1	27	163A16379X	1	18	163A16959X	1	35	163A17839X	1	40
163A15569X	1	27	163A16389X	1	18	163A16969X	1	35	163A17849X	1	40
163A15579X	1	27	163A16399X	1	18	163A16979X	1	35	163A17859X	1	40
163A15589X	1	27	163A16409X	1	18	163A16989X	1	35	163A17869X	1	40
163A15599X	1	27	163A16419X	1	18	163A16999X	1	35	163A17879X	1	40
163A15609X	1	27	163A16429X	1	18	163A17009X	1	35	163A17889X	1	40
163A15619X	1	27	163A16519X	1	13	163A17019X	1	35	163A17899X	1	40
163A15629X	1	27	163A16529X	1	13	163A17029X	1	35	163A17909X	1	40
163A15639X	1	27	163A16539X	1	13	163A17039X	1	35	163A17919X	1	40
163A15649X	1	27	163A16549X	1	13	163A17049X	1	35	163A18219X	1	40
163A15659X	1	27	163A16559X	1	13	163A17059X	1	35	163A18229X	1	40
163A15669X	1	27	163A16569X	1	13	163A17069X	1	35	163A18239X	1	40
163A15679X	1	27	163A16579X	1	13	163A17079X	1	35	163A18249X	1	40
163A15689X	1	27	163A16589X	1	13	163A17089X	1	35	163A18319X	1	18
163A15699X	1	27	163A16599X	1	32	163A17099X	1	35	163A18329X	1	18
163A15709X	1	27	163A16609X	1	32	163A17109X	1	35	163A18339X	1	18
163A15719X	1	27	163A16619X	1	32	163A17119X	1	35	163A18349X	1	18
163A15729X	1	27	163A16629X	1	32	163A17129X	1	35	163A18389X	1	14
163A15739X	1	27	163A16639X	1	32	163A17139X	1	35	163A18399X	1	14
163A15749X	1	27	163A16649X	1	32	163A17529X	1	13	163A18409X	1	14
163A15759X	1	27	163A16659X	1	32	163A17539X	1	13	163A18419X	1	14
163A15769X	1	27	163A16669X	1	32	163A17549X	1	13	163A18429X	1	14
163A15779X	1	27	163A16679X	1	32	163A17559X	1	13	163A18439X	1	14

## PART NUMBERS

## Part Number Section | Page

163A18449X	1   14
163A18459X	1   14
163A18469X	1   14
163A18479X	1   14
163A18489X	1   14
163A18499X	1   14
163A18509X	1   14
163A18519X	1   14
163A18529X	1   14
163A18539X	1   14
163A18549X	1   12
163A18559X	1   12
163A18569X	1   13
163A18579X	1   13
163A18589X	1   13
163A18599X	1   13
163A18609X	1   13
163A18619X	1   13
163A18629X	1   13
163A18639X	1   13
163A18649X	1   13
163A18659X	1   13
163A18669X	1   13
163A18679X	1   13
163A18689X	1   13
163A18699X	1   13
163A18709X	1   17
163A18719X	1   17
163A18729X	1   17
163A18739X	1   17
163A19089X	1   22
163A19099X	1   22
163A19109X	1   22
163A19119X	1   22
163A19129X	1   22
163A19139X	1   22
163A19149X	1   22
163A19159X	1   22
163A19169X	1   20
163A19179X	1   20
163A19189X	1   20
163A19199X	1   20
163A19209X	1   21
163A19219X	1   21
163A19229X	1   21
163A19239X	1   21
163A19249X	1   21
163A19259X	1   21
163A19269X	1   21
163A19279X	1   21

## Part Number Section | Page

163A19289X	1   21
163A19299X	1   21
163A19309X	1   21
163A19319X	1   21
163A19329X	1   25
163A19339X	1   25
163A19349X	1   25
163A19359X	1   25
163A19369X	1   25
163A19379X	1   25
163A19389X	1   25
163A19399X	1   25
163A19409X	1   25
163A19419X	1   25
163A19429X	1   25
163A19439X	1   25
163A19449X	1   25
163A19459X	1   25
163A19469X	1   25
163A19479X	1   25
163A19489X	1   27
163A19499X	1   27
163A19509X	1   27
163A19519X	1   27
163A19529X	1   27
163A19539X	1   27
163A19549X	1   27
163A19559X	1   27
163A19569X	1   27
163A19579X	1   27
163A19589X	1   27
163A19599X	1   27
163A19609X	1   27
163A19619X	1   27
163A19629X	1   27
163A19639X	1   27
163A19649X	1   27
163A19659X	1   27
163A19669X	1   27
163A19679X	1   27
163A19689X	1   27
163A19699X	1   27
163A19709X	1   27
163A19719X	1   27
163A19729X	1   27
163A19739X	1   27
163A19749X	1   27
163A19759X	1   27
163A19769X	1   27
163A19779X	1   27

## Part Number Section | Page

163A19789X	1   27
163A19799X	1   27
163A19969X	1   25
163A19979X	1   25
163A19989X	1   25
163A19999X	1   25
163A20009X	1   25
163A20019X	1   25
163A20029X	1   25
163A20039X	1   25
163A20049X	1   25
163A20059X	1   25
163A20069X	1   25
163A20079X	1   25
163A20089X	1   25
163A20099X	1   25
163A20109X	1   25
163A20119X	1   25
163A20489X	1   39
163A20499X	1   39
163A20509X	1   39
163A20519X	1   39
163A20529X	1   39
163A20539X	1   39
163A20549X	1   39
163A20559X	1   39
163A20569X	1   39
163A20579X	1   39
163A20589X	1   39
163A20599X	1   39
163A20609X	1   39
163A20619X	1   39
163A20629X	1   39
163A20639X	1   39
163A50009X	1   45
163A50019X	1   45
163A50029X	1   45
163A50039X	1   45
163A50049X	1   45
163A50059X	1   45
163A50069X	1   45
163A50079X	1   45
163A50089X	1   45
163A50099X	1   45
163X10019X	1   30
163X10029X	1   30
163X10039X	1   30
163X10049X	1   30
163X10059X	1   30
163X10169X	1   42

## Part Number Section | Page

163X10179X	1   42
163X10189X	1   42
163X10199X	1   42
163X10209X	1   42
164A03399X	1   44
164A03919X	1   44
164A03929X	1   44
164A03939X	1   44
164A03949X	1   44
164A03959X	1   44
164A03969X	1   44
164A03979X	1   44
164A10019X	1   2
164A10029X	1   2
164A10039X	1   2
164A10049X	1   2
164A10059X	1   2
164A10069X	1   4
164A10079X	1   4
164A10089X	1   4
164A10099X	1   4
164A10109X	1   4
164A10119X	1   10
164A10129X	1   10
164A10139X	1   10
164A10149X	1   10
164A10159X	1   10
164A10219X	1   2
164A10229X	1   2
164A10239X	1   2
164A10249X	1   2
164A10259X	1   2
164A10269X	1   2
164A10279X	1   2
164A10289X	1   2
164A10299X	1   2
164A10309X	1   2
164A10319X	1   4
164A10329X	1   4
164A10339X	1   4
164A10349X	1   4
164A10359X	1   4
164A10369X	1   4
164A10379X	1   4
164A10389X	1   4
164A10399X	1   4
164A10409X	1   4
164A10419X	1   10
164A10429X	1   10
164A10439X	1   10



Part Number Section | Page

164A10449X	1   10
164A10459X	1   10
164A10469X	1   10
164A10479X	1   10
164A10489X	1   10
164A10499X	1   10
164A10509X	1   10
164A10669X	1   16
164A10679X	1   16
164A10689X	1   16
164A10699X	1   16
164A10709X	1   16
164A10969X	1   18
164A10979X	1   18
164A10989X	1   18
164A10999X	1   18
164A11019X	1   18
164A11029X	1   18
164A11039X	1   18
164A11049X	1   18
164A11519X	1   12
164A11529X	1   12
164A11539X	1   12
164A11549X	1   12
164A12029X	1   5
164A12039X	1   5
164A12049X	1   5
164A12059X	1   5
164A12069X	1   5
164A12079X	1   5
164A12089X	1   5
164A12099X	1   5
164A12109X	1   5
164A12119X	1   5
164A12129X	1   5
164A12139X	1   5
164A12149X	1   5
164A12159X	1   5
164A12169X	1   5
164A12179X	1   5
164A12189X	1   5
164A12199X	1   5
164A12209X	1   5
164A12219X	1   5
164A12229X	1   17
164A12239X	1   17
164A12249X	1   17
164A12259X	1   17
164A12279X	1   17
164A12289X	1   17

Part Number Section | Page

164A12299X	1   17
164A12309X	1   17
164A12329X	1   16
164A12339X	1   16
164A12349X	1   16
164A12359X	1   16
164A12519X	1   16
164A12529X	1   16
164A12539X	1   16
164A12549X	1   16
164A12919X	1   5
164A12929X	1   5
164A12939X	1   5
164A12949X	1   5
164A12959X	1   5
164A12969X	1   17
164A12979X	1   17
164A12989X	1   17
164A12999X	1   17
164A13009X	1   17
164A13019X	1   17
164A13029X	1   17
164A13039X	1   17
164A13089X	1   17
164A13099X	1   17
164A13109X	1   17
164A13119X	1   17
164A13129X	1   17
164A13139X	1   17
164A13149X	1   17
164A13159X	1   17
164A13439X	1   12
164A13449X	1   12
164A13459X	1   12
164A13469X	1   12
164A15609X	1   25
164A15619X	1   25
164A15629X	1   25
164A15639X	1   25
164A15649X	1   25
164A15659X	1   25
164A15669X	1   25
164A15679X	1   25
164A15689X	1   25
164A15699X	1   25
164A15709X	1   25
164A15719X	1   25
164A15729X	1   25
164A15739X	1   25
164A15749X	1   25

Part Number Section | Page

164A15759X	1   25
164A15769X	1   25
164A15779X	1   25
164A15789X	1   25
164A15799X	1   25
164A15809X	1   25
164A15819X	1   25
164A15829X	1   25
164A15839X	1   25
164A15849X	1   25
164A15859X	1   25
164A15869X	1   25
164A15879X	1   25
164A15889X	1   25
164A15899X	1   25
164A15909X	1   25
164A15919X	1   25
164A15929X	1   27
164A15939X	1   27
164A15949X	1   27
164A15959X	1   27
164A15969X	1   27
164A15979X	1   27
164A15989X	1   27
164A15999X	1   27
164A16009X	1   27
164A16019X	1   27
164A16029X	1   27
164A16039X	1   27
164A16049X	1   27
164A16059X	1   27
164A16069X	1   27
164A16079X	1   27
164A16089X	1   27
164A16099X	1   27
164A16109X	1   27
164A16119X	1   27
164A16129X	1   27
164A16139X	1   27
164A16149X	1   27
164A16159X	1   27
164A16169X	1   27
164A16179X	1   27
164A16189X	1   27
164A16199X	1   27
164A16209X	1   27
164A16219X	1   27
164A16229X	1   27
164A16239X	1   27
164A16569X	1   5

Part Number Section | Page

164A16579X	1   5
164A16589X	1   5
164A16599X	1   5
164A16609X	1   5
164A16619X	1   5
164A16629X	1   5
164A16639X	1   5
164A16649X	1   5
164A16659X	1   5
164A16669X	1   5
164A16679X	1   5
164A16689X	1   5
164A16699X	1   5
164A16709X	1   5
164A16719X	1   5
164A16729X	1   5
164A16739X	1   5
164A16749X	1   5
164A16759X	1   5
164A16769X	1   18
164A16779X	1   18
164A16789X	1   18
164A16799X	1   18
164A16809X	1   18
164A16819X	1   18
164A16829X	1   18
164A16839X	1   18
164A16929X	1   13
164A16939X	1   13
164A16949X	1   13
164A16959X	1   13
164A16969X	1   13
164A16979X	1   13
164A16989X	1   13
164A16999X	1   13
164A17009X	1   32
164A17019X	1   32
164A17029X	1   32
164A17039X	1   32
164A17049X	1   32
164A17059X	1   32
164A17069X	1   32
164A17079X	1   32
164A17089X	1   32
164A17099X	1   32
164A17109X	1   32
164A17119X	1   32
164A17129X	1   32
164A17139X	1   32
164A17149X	1   32

# PART NUMBERS

## Part Number Section | Page

164A17159X	1   34
164A17169X	1   34
164A17179X	1   34
164A17189X	1   34
164A17199X	1   34
164A17209X	1   34
164A17219X	1   34
164A17229X	1   34
164A17239X	1   34
164A17249X	1   34
164A17259X	1   34
164A17269X	1   34
164A17279X	1   34
164A17289X	1   34
164A17299X	1   34
164A17309X	1   35
164A17319X	1   35
164A17329X	1   35
164A17339X	1   35
164A17349X	1   35
164A17359X	1   35
164A17369X	1   35
164A17379X	1   35
164A17389X	1   35
164A17399X	1   35
164A17409X	1   35
164A17419X	1   35
164A17429X	1   35
164A17439X	1   35
164A17449X	1   35
164A17459X	1   35
164A17469X	1   35
164A17479X	1   35
164A17489X	1   35
164A17499X	1   35
164A17509X	1   35
164A17519X	1   35
164A17529X	1   35
164A17539X	1   35
164A17549X	1   35
164A17939X	1   13
164A17949X	1   13
164A17959X	1   13
164A17969X	1   13
164A17979X	1   13
164A17989X	1   13
164A17999X	1   13
164A18009X	1   13
164A18019X	1   38
164A18029X	1   38

## Part Number Section | Page

164A18039X	1   38
164A18049X	1   38
164A18059X	1   38
164A18069X	1   38
164A18079X	1   38
164A18089X	1   38
164A18099X	1   39
164A18109X	1   39
164A18119X	1   39
164A18129X	1   39
164A18139X	1   39
164A18149X	1   39
164A18159X	1   39
164A18169X	1   39
164A18179X	1   40
164A18189X	1   40
164A18199X	1   40
164A18209X	1   40
164A18219X	1   40
164A18229X	1   40
164A18239X	1   40
164A18249X	1   40
164A18259X	1   40
164A18269X	1   40
164A18279X	1   40
164A18289X	1   40
164A18299X	1   40
164A18309X	1   40
164A18319X	1   40
164A18329X	1   40
164A18629X	1   40
164A18639X	1   40
164A18649X	1   40
164A18659X	1   40
164A18739X	1   18
164A18749X	1   18
164A18759X	1   18
164A18769X	1   18
164A18809X	1   14
164A18819X	1   14
164A18829X	1   14
164A18839X	1   14
164A18849X	1   14
164A18859X	1   14
164A18869X	1   14
164A18879X	1   14
164A18889X	1   14
164A18899X	1   14
164A18909X	1   14
164A18919X	1   14

## Part Number Section | Page

164A18929X	1   14
164A18939X	1   14
164A18949X	1   14
164A18959X	1   14
164A18969X	1   12
164A18979X	1   12
164A18989X	1   13
164A18999X	1   13
164A19019X	1   13
164A19029X	1   13
164A19039X	1   13
164A19049X	1   13
164A19059X	1   13
164A19069X	1   13
164A19079X	1   13
164A19089X	1   13
164A19099X	1   13
164A19109X	1   13
164A19119X	1   13
164A19129X	1   13
164A19139X	1   17
164A19149X	1   17
164A19159X	1   17
164A19169X	1   17
164A19519X	1   22
164A19529X	1   22
164A19539X	1   22
164A19549X	1   22
164A19559X	1   22
164A19569X	1   22
164A19579X	1   22
164A19589X	1   22
164A19599X	1   20
164A19609X	1   20
164A19619X	1   20
164A19629X	1   20
164A19639X	1   21
164A19649X	1   21
164A19659X	1   21
164A19669X	1   21
164A19679X	1   21
164A19689X	1   21
164A19699X	1   21
164A19709X	1   21
164A19719X	1   21
164A19729X	1   21
164A19739X	1   21
164A19749X	1   21
164A19759X	1   25
164A19769X	1   25

## Part Number Section | Page

164A19779X	1   25
164A19789X	1   25
164A19799X	1   25
164A19809X	1   25
164A19819X	1   25
164A19829X	1   25
164A19839X	1   25
164A19849X	1   25
164A19859X	1   25
164A19869X	1   25
164A19879X	1   25
164A19889X	1   25
164A19899X	1   25
164A19909X	1   25
164A19919X	1   27
164A19929X	1   27
164A19939X	1   27
164A19949X	1   27
164A19959X	1   27
164A19969X	1   27
164A19979X	1   27
164A19989X	1   27
164A19999X	1   27
164A20009X	1   27
164A20019X	1   27
164A20029X	1   27
164A20039X	1   27
164A20049X	1   27
164A20059X	1   27
164A20069X	1   27
164A20079X	1   27
164A20089X	1   27
164A20099X	1   27
164A20109X	1   27
164A20119X	1   27
164A20129X	1   27
164A20139X	1   27
164A20149X	1   27
164A20159X	1   27
164A20169X	1   27
164A20179X	1   27
164A20189X	1   27
164A20199X	1   27
164A20209X	1   27
164A20219X	1   27
164A20229X	1   27
164A20409X	1   25
164A20419X	1   25
164A20429X	1   25
164A20439X	1   25

Part Number Section | Page

164A20449X	1   25
164A20459X	1   25
164A20469X	1   25
164A20479X	1   25
164A20489X	1   25
164A20499X	1   25
164A20509X	1   25
164A20519X	1   25
164A20529X	1   25
164A20539X	1   25
164A20549X	1   25
164A20559X	1   25
164A20929X	1   39
164A20939X	1   39
164A20949X	1   39
164A20959X	1   39
164A20969X	1   39
164A20979X	1   39
164A20989X	1   39
164A20999X	1   39
164A21009X	1   39
164A21019X	1   39
164A21029X	1   39
164A21039X	1   39
164A21049X	1   39
164A21059X	1   39
164A21069X	1   39
164A21079X	1   39
164X11769X	1   30
164X11779X	1   30
164X11789X	1   30
164X11799X	1   30
164X11809X	1   30
164X11949X	1   42
164X11959X	1   42
164X11969X	1   42
164X11979X	1   42
164X11989X	1   42
165X00779A	7   13
165X00789A	7   13
165X00799A	7   13
165X00809A	7   13
165X00819A	7   13
165X00829A	7   13
165X00839A	7   13
165X00849A	7   13
165X00859A	7   13
165X00869A	7   13
165X02609X	7   11
165X02619X	7   11

Part Number Section | Page

165X02629X	7   11
165X02639X	7   11
165X02649X	7   11
165X02659X	7   11
165X02669X	7   11
165X02679X	7   11
165X02689X	7   12
165X02699X	7   12
165X02709X	7   12
165X02719X	7   12
165X02729X	7   12
165X02739X	7   12
165X02749X	7   12
165X02759X	7   12
165X03309A	7   16
165X03319A	7   16
165X03329A	7   16
165X03339A	7   16
165X03349A	7   16
165X03359A	7   16
165X03369A	7   16
165X03379A	7   16
165X03389A	7   16
165X03399A	7   16
165X10119X	7   6
165X10119X	7   20
165X10129X	7   6
165X10139X	7   14
165X10149X	7   14
165X10159X	7   14
165X10169X	7   14
165X10179X	7   14
165X10189X	7   14
165X10199X	7   14
165X10209X	7   14
165X10219X	7   14
165X10229X	7   14
165X10239X	7   15
165X10249X	7   15
165X10259X	7   15
165X10269X	7   15
165X10279X	7   15
165X10289X	7   15
165X10299X	7   15
165X10309X	7   15
165X10319X	7   15
165X10329X	7   15
165X10389X	7   27
165X10399X	7   27
165X10409X	7   27

Part Number Section | Page

165X10419X	7   27
165X10429X	7   27
165X10439X	7   27
165X10449X	7   27
165X10459X	7   27
165X10469X	7   27
165X10479X	7   27
165X10489X	7   26
165X10499X	7   26
165X10509X	7   26
165X10519X	7   26
165X10529X	7   26
165X10819X	7   4
165X10829X	7   4
165X10839X	7   4
165X10849X	7   4
165X10859X	7   4
165X10869X	7   4
165X10879X	7   4
165X10889X	7   4
165X10899X	7   4
165X10909X	7   14
165X10919X	7   14
165X10929X	7   14
165X10939X	7   14
165X10949X	7   14
165X10959X	7   14
165X10969X	7   14
165X10979X	7   14
165X10989X	7   14
165X10999X	7   14
165X11009X	7   15
165X11019X	7   15
165X11029X	7   15
165X11039X	7   15
165X11049X	7   15
165X11059X	7   15
165X11069X	7   15
165X11079X	7   15
165X11089X	7   15
165X11099X	7   15
165X11159X	7   4
165X11239X	7   20
165X11249X	7   20
165X11259X	7   20
165X11269X	7   20
165X11279X	7   20
165X11289X	7   20
165X11299X	7   20
165X11309X	7   20

Part Number Section | Page

165X11319X	7   20
165X11329X	7   20
165X11339X	7   20
165X11349X	7   20
165X11359X	7   20
165X11369X	7   20
165X11379X	7   20
165X11389X	7   20
165X11419X	7   25
165X11459X	7   25
165X11559X	7   26
165X11569X	7   26
165X11579X	7   26
165X11589X	7   26
165X11599X	7   26
165X11609X	7   5
165X11619X	7   5
165X11629X	7   5
165X11639X	7   5
165X11649X	7   5
165X11659X	7   6
165X11669X	7   6
165X11679X	7   6
165X11689X	7   6
165X11699X	7   6
165X11709X	7   13
165X11719X	7   13
165X11729X	7   13
165X11739X	7   13
165X11749X	7   13
165X11759X	7   13
165X11769X	7   13
165X11779X	7   13
165X11789X	7   13
165X11799X	7   13
165X11869X	7   18
165X11879X	7   18
165X11889X	7   18
165X11899X	7   18
165X11909X	7   18
165X11919X	7   18
165X11929X	7   18
165X11939X	7   18
165X11949X	7   18
165X11959X	7   18
165X12919X	7   31
165X12929X	7   31
165X12939X	7   31
165X12949X	7   31
165X12969X	7   40

## PART NUMBERS

## Part Number Section | Page

165X12979X	7   40
165X12989X	7   40
165X12999X	7   40
165X13009X	7   40
165X13019X	7   23
165X13029X	7   23
165X13039X	7   23
165X13049X	7   23
165X13059X	7   23
165X13079X	7   23
165X13089X	7   23
165X13099X	7   23
165X13109X	7   23
165X13119X	7   23
165X13129X	7   40
165X13139X	7   40
165X13149X	7   40
165X13159X	7   40
165X13169X	7   40
165X13179X	7   24
165X13199X	7   24
165X13209X	7   24
165X13219X	7   28
165X13239X	7   28
165X13269X	7   25
165X13369X	7   16
165X13379X	7   16
165X13389X	7   16
165X13399X	7   16
165X13409X	7   16
165X13419X	7   17
165X13429X	7   17
165X13439X	7   17
165X13449X	7   17
165X13459X	7   17
165X13469X	7   16
165X13479X	7   16
165X13489X	7   16
165X13499X	7   16
165X13509X	7   16
165X13519X	7   17
165X13529X	7   17
165X13539X	7   17
165X13549X	7   17
165X13559X	7   17
165X14029X	7   30
165X14039X	7   30
165X14069X	7   30
165X14079X	7   30
165X14109X	7   14

## Part Number Section | Page

165X14119X	7   14
165X14129X	7   14
165X14139X	7   14
165X14149X	7   14
165X14159X	7   14
165X14169X	7   14
165X14179X	7   14
165X14189X	7   14
165X14199X	7   14
165X14209X	7   15
165X14219X	7   15
165X14229X	7   15
165X14239X	7   15
165X14249X	7   15
165X14259X	7   15
165X14269X	7   15
165X14279X	7   15
165X14289X	7   15
165X14299X	7   15
165X14409X	7   5
165X14419X	7   5
165X14429X	7   5
165X14439X	7   5
165X14449X	7   5
165X14509X	7   16
165X14519X	7   16
165X14529X	7   16
165X14539X	7   16
165X14549X	7   16
165X14559X	7   17
165X14569X	7   17
165X14579X	7   17
165X14589X	7   17
165X14599X	7   17
165X14609X	7   16
165X14619X	7   16
165X14629X	7   16
165X14639X	7   16
165X14649X	7   16
165X14659X	7   17
165X14669X	7   17
165X14679X	7   17
165X14689X	7   17
165X14699X	7   17
165X14719X	7   45
165X14729X	7   45
165X14739X	7   45
165X14749X	7   45
165X14759X	7   45
165X14769X	7   45

## Part Number Section | Page

165X14779X	7   45
165X14789X	7   45
165X14799X	7   45
165X14809X	7   45
165X14819X	7   36
165X14829X	7   36
165X14839X	7   36
165X14849X	7   36
165X14859X	7   36
165X14869X	7   36
165X14879X	7   36
165X14889X	7   36
165X14899X	7   36
165X14909X	7   36
165X15019X	7   36
165X15029X	7   36
165X15039X	7   36
165X15049X	7   36
165X15059X	7   36
165X15069X	7   36
165X15079X	7   36
165X15089X	7   36
165X15099X	7   36
165X15109X	7   36
165X15119X	7   36
165X15129X	7   36
165X15139X	7   36
165X15149X	7   36
165X15159X	7   36
165X15169X	7   36
165X15179X	7   36
165X15189X	7   36
165X15199X	7   36
165X15209X	7   36
165X15319X	7   36
165X15329X	7   36
165X15339X	7   36
165X15349X	7   36
165X15359X	7   36
165X15369X	7   36
165X15379X	7   36
165X15389X	7   36
165X15399X	7   36
165X15409X	7   36
165X16019X	7   13
165X16029X	7   13
165X16039X	7   13
165X16049X	7   13
165X16059X	7   13
165X16069X	7   13

## Part Number Section | Page

165X16079X	7   13
165X16089X	7   13
165X16099X	7   13
165X16109X	7   13
165X16119X	7   13
165X16129X	7   13
165X16139X	7   13
165X16149X	7   13
165X16159X	7   13
165X16169X	7   13
165X16179X	7   13
165X16189X	7   13
165X16199X	7   13
165X16209X	7   13
165X16219X	7   19
165X16229X	7   19
165X16239X	7   19
165X16249X	7   19
165X16299X	7   19
165X16309X	7   19
165X16319X	7   19
165X16329X	7   19
165X16379X	7   19
165X16389X	7   19
165X16399X	7   19
165X16409X	7   19
165X16459X	7   19
165X16469X	7   19
165X16479X	7   19
165X16489X	7   19
165X16539X	7   20
165X16549X	7   20
165X16559X	7   20
165X16569X	7   20
165X16609X	7   20
165X16619X	7   45
165X16629X	7   45
165X16639X	7   45
165X16649X	7   45
165X16659X	7   45
165X16669X	7   45
165X16679X	7   45
165X16689X	7   45
165X16699X	7   45
165X16709X	7   45
165X16719X	7   41
165X16729X	7   41
165X16739X	7   41
165X16749X	7   41
165X16759X	7   41

Part Number Section | Page

165X16769X	7   41
165X16779X	7   41
165X16789X	7   41
165X16799X	7   41
165X16809X	7   41
165X16859X	7   42
165X16869X	7   42
165X16879X	7   42
165X16889X	7   42
165X16899X	7   42
165X16909X	7   42
165X16919X	7   42
165X16929X	7   42
165X16939X	7   42
165X16949X	7   42
165X16959X	7   42
165X16969X	7   42
165X16979X	7   42
165X16989X	7   42
165X16999X	7   42
165X17009X	7   42
165X17019X	7   42
165X17029X	7   42
165X17039X	7   42
165X17049X	7   42
165X17109X	7   46
165X17119X	7   46
165X17129X	7   46
165X17139X	7   46
165X17149X	7   46
165X17159X	7   46
165X17169X	7   46
165X17179X	7   46
165X17189X	7   46
165X17199X	7   46
165X17209X	7   46
165X17219X	7   46
165X17229X	7   46
165X17239X	7   46
165X17249X	7   46
165X17259X	7   46
165X17269X	7   46
165X17279X	7   46
165X17289X	7   46
165X17299X	7   46
165X17309X	7   2
165X17319X	7   2
165X17329X	7   2
165X17339X	7   2
165X17349X	7   2

Part Number Section | Page

165X17359X	7   2
165X17369X	7   2
165X17379X	7   2
165X17389X	7   2
165X17399X	7   2
165X17409X	7   2
165X17419X	7   2
165X17429X	7   2
165X17439X	7   2
165X17449X	7   2
165X17459X	7   2
165X17469X	7   2
165X17479X	7   2
165X17489X	7   2
165X17499X	7   2
165X17509X	7   36
165X17519X	7   36
165X17529X	7   36
165X17539X	7   36
165X17549X	7   36
165X17559X	7   3
165X17569X	7   3
165X17579X	7   3
165X17589X	7   3
165X17599X	7   3
165X17609X	7   3
165X17619X	7   3
165X17629X	7   3
165X17639X	7   3
165X17649X	7   3
165X17729X	7   29
165X17889X	7   32
165X17899X	7   33
165X17949X	7   32
165X17959X	7   32
165X17969X	7   32
165X17979X	7   33
165X17989X	7   33
165X17999X	7   33
165X18169X	7   33
240X10019X	3   63
240X10029X	3   63
240X10039X	3   63
240X10049X	3   63
240X10069X	3   63
240X10079X	3   63
241A10010X	3   9
241A10020X	3   9
241A10030X	3   9
241A10040X	3   9

Part Number Section | Page

241A10050X	3   9
241A10060X	3   9
241A10070X	3   9
241A10080X	3   9
241A10090X	3   9
241A10100X	3   9
241A10110X	3   9
241A10120X	3   9
241A10130X	3   9
241A10140X	3   9
241A10150X	3   9
241A10160X	3   9
241A10170X	3   9
241A10180X	3   9
241A10190X	3   9
241A10200X	3   9
241A10210X	3   9
241A10220X	3   9
241A10230X	3   9
241A10240X	3   9
241A10250X	3   9
241A10260X	3   9
241A10270X	3   9
241A10280X	3   9
241A10290X	3   9
241A10300X	3   9
241A10310X	3   9
241A10320X	3   9
241A10330X	3   9
241A10340X	3   9
241A10350X	3   9
241A10360X	3   9
241A10370X	3   11
241A10380X	3   11
241A10390X	3   11
241A10400X	3   11
241A10410X	3   11
241A10420X	3   11
241A10430X	3   11
241A10440X	3   11
241A10450X	3   11
241A10460X	3   11
241A10470X	3   11
241A10480X	3   11
241A10490X	3   11
241A10500X	3   11
241A10510X	3   11
241A10520X	3   11
241A10530X	3   11
241A10540X	3   11

Part Number Section | Page

241A10550X	3   11
241A10560X	3   11
241A10570X	3   11
241A10580X	3   11
241A10590X	3   11
241A10600X	3   11
241A10610X	3   11
241A10620X	3   11
241A10630X	3   11
241A10640X	3   11
241A10650X	3   11
241A10660X	3   11
241A10670X	3   11
241A10680X	3   11
241A10690X	3   11
241A10700X	3   11
241A10710X	3   11
241A10720X	3   11
241A10730X	3   11
241A10740X	3   11
241A10750X	3   11
241A10760X	3   11
241A10770X	3   11
241A10780X	3   11
241A10790X	3   11
241A10800X	3   11
241A10810X	3   11
241A10820X	3   11
241A10830X	3   11
241A10840X	3   11
241A10970X	3   17
241A10980X	3   17
241A10990X	3   17
241A11000X	3   17
241A11010X	3   17
241A11020X	3   17
241A11030X	3   17
241A11040X	3   17
241A11050X	3   17
241A11060X	3   17
241A11070X	3   17
241A11080X	3   17
241A11090X	3   17
241A11100X	3   17
241A11110X	3   17
241A11120X	3   17
241A11130X	3   17
241A11140X	3   17
241A11150X	3   17
241A11160X	3   17

## PART NUMBERS

## Part Number Section | Page

241A11170X	3   17
241A11180X	3   17
241A11190X	3   17
241A11200X	3   17
241A11210X	3   17
241A11220X	3   17
241A11230X	3   17
241A11240X	3   17
241A11250X	3   17
241A11260X	3   17
241A11270X	3   17
241A11280X	3   17
241A11290X	3   17
241A11300X	3   17
241A11310X	3   17
241A11320X	3   17
241A11600X	3   5
241A11610X	3   5
241A11620X	3   5
241A11630X	3   5
241A11640X	3   5
241A11650X	3   5
241A11660X	3   5
241A11670X	3   5
241A11680X	3   5
241A11690X	3   5
241A11700X	3   5
241A11710X	3   5
241A11720X	3   5
241A11730X	3   5
241A11740X	3   5
241A11750X	3   5
241A11760X	3   5
241A11770X	3   5
241A11780X	3   5
241A11790X	3   5
241A11800X	3   5
241A11810X	3   5
241A11820X	3   5
241A11830X	3   5
241A11840X	3   5
241A11850X	3   5
241A11860X	3   5
241A11870X	3   5
241A11880X	3   5
241A11890X	3   5
241A11900X	3   5
241A11910X	3   5
241A11920X	3   5
241A11930X	3   5

## Part Number Section | Page

241A11940X	3   5
241A11950X	3   5
241A12320X	3   15
241A12330X	3   15
241A12340X	3   15
241A12350X	3   15
241A12360X	3   15
241A12370X	3   15
241A12380X	3   15
241A12390X	3   15
241A12400X	3   15
241A12410X	3   15
241A12420X	3   15
241A12430X	3   15
241A12560X	3   23
241A12570X	3   23
241A12580X	3   23
241A12590X	3   23
241A12600X	3   23
241A12610X	3   23
241A12620X	3   23
241A12630X	3   23
241A12640X	3   23
241A12650X	3   23
241A12660X	3   23
241A12670X	3   23
241A12680X	3   19
241A12690X	3   19
241A12700X	3   19
241A12710X	3   19
241A12720X	3   19
241A12730X	3   19
241A12740X	3   19
241A12750X	3   19
241A12760X	3   19
241A12770X	3   19
241A12780X	3   19
241A12790X	3   19
241A12800X	3   19
241A12810X	3   19
241A12820X	3   19
241A12830X	3   19
241A12840X	3   19
241A12850X	3   19
241A12860X	3   19
241A12870X	3   19
241A12880X	3   19
241A12890X	3   19
241A12900X	3   19
241A12910X	3   19

## Part Number Section | Page

241A12920X	3   19
241A12930X	3   19
241A12940X	3   19
241A12950X	3   19
241A12960X	3   19
241A12970X	3   19
241A12980X	3   19
241A12990X	3   19
241A13000X	3   19
241A13010X	3   19
241A13020X	3   19
241A13030X	3   19
241A14130X	3   27
241A14140X	3   27
241A14150X	3   27
241A14160X	3   27
241A14170X	3   27
241A14180X	3   27
241A14190X	3   27
241A14200X	3   27
241A14210X	3   27
241A14220X	3   27
241A14230X	3   27
241A14240X	3   27
241A14250X	3   27
241A14260X	3   27
241A14270X	3   27
241A14280X	3   27
241A14290X	3   27
241A14300X	3   27
241A14310X	3   27
241A14320X	3   27
241A14330X	3   27
241A14340X	3   27
241A14350X	3   27
241A14360X	3   27
241A14370X	3   27
241A14380X	3   27
241A14390X	3   27
241A14400X	3   27
241A14410X	3   27
241A14420X	3   27
241A14430X	3   27
241A14440X	3   27
241A14450X	3   27
241A14460X	3   27
241A14470X	3   27
241A14480X	3   27
241A14490X	3   27
241A14500X	3   27

## Part Number Section | Page

241A14510X	3   27
241A14520X	3   27
241A14530X	3   27
241A14540X	3   27
241A14550X	3   27
241A14560X	3   27
241A14570X	3   27
241A14580X	3   27
241A14590X	3   27
241A14600X	3   27
241A14610X	3   29
241A14620X	3   29
241A14630X	3   29
241A14640X	3   29
241A14650X	3   29
241A14660X	3   29
241A14670X	3   29
241A14680X	3   29
241A14690X	3   29
241A14700X	3   29
241A14710X	3   29
241A14720X	3   29
241A14730X	3   29
241A14740X	3   29
241A14750X	3   29
241A14760X	3   29
241A14770X	3   29
241A14780X	3   29
241A14790X	3   29
241A14800X	3   29
241A14810X	3   29
241A14820X	3   29
241A14830X	3   29
241A14840X	3   29
241A14850X	3   29
241A14860X	3   29
241A14870X	3   29
241A14880X	3   29
241A14890X	3   29
241A14900X	3   29
241A14910X	3   29
241A14920X	3   29
241A14930X	3   29
241A14940X	3   29
241A14950X	3   29
241A14960X	3   29
241A14970X	3   29
241A14980X	3   29
241A14990X	3   29
241A15000X	3   29

Part Number	Section	Page	Part Number	Section	Page	Part Number	Section	Page	Part Number	Section	Page
241A15010X	3	29	241A15510X	3	13	241A16080X	3	15	241A16740X	3	43
241A15020X	3	29	241A15520X	3	13	241A16090X	3	15	241A16750X	3	43
241A15030X	3	29	241A15530X	3	13	241A16100X	3	15	241A16760X	3	43
241A15040X	3	29	241A15540X	3	13	241A16110X	3	15	241A16770X	3	43
241A15050X	3	29	241A15550X	3	13	241A16120X	3	15	241A16780X	3	43
241A15060X	3	29	241A15560X	3	13	241A16130X	3	15	241A16790X	3	43
241A15070X	3	29	241A15570X	3	13	241A16140X	3	15	241A16800X	3	43
241A15080X	3	29	241A15580X	3	13	241A16150X	3	15	241A16810X	3	43
241A15090X	3	13	241A15590X	3	13	241A16160X	3	15	241A16820X	3	43
241A15100X	3	13	241A15600X	3	13	241A16170X	3	15	241A16830X	3	43
241A15110X	3	13	241A15610X	3	13	241A16180X	3	14	241A16840X	3	43
241A15120X	3	13	241A15620X	3	13	241A16190X	3	14	241A16850X	3	43
241A15130X	3	13	241A15630X	3	13	241A16200X	3	14	241A16860X	3	43
241A15140X	3	13	241A15640X	3	13	241A16210X	3	14	241A16870X	3	43
241A15150X	3	13	241A15650X	3	13	241A16380X	3	41	241A16880X	3	43
241A15160X	3	13	241A15660X	3	13	241A16390X	3	41	241A16890X	3	43
241A15170X	3	13	241A15670X	3	13	241A16400X	3	41	241A16900X	3	43
241A15180X	3	13	241A15680X	3	13	241A16410X	3	41	241A16910X	3	43
241A15190X	3	13	241A15690X	3	9	241A16420X	3	41	241A16920X	3	43
241A15200X	3	13	241A15700X	3	9	241A16430X	3	41	241A16930X	3	43
241A15210X	3	13	241A15710X	3	9	241A16440X	3	41	241A17100X	3	47
241A15220X	3	13	241A15720X	3	9	241A16450X	3	41	241A17110X	3	47
241A15230X	3	13	241A15730X	3	9	241A16460X	3	41	241A17120X	3	47
241A15240X	3	13	241A15740X	3	9	241A16470X	3	41	241A17130X	3	47
241A15250X	3	13	241A15750X	3	9	241A16480X	3	41	241A17140X	3	47
241A15260X	3	13	241A15760X	3	9	241A16490X	3	41	241A17150X	3	47
241A15270X	3	13	241A15770X	3	9	241A16500X	3	41	241A17160X	3	47
241A15280X	3	13	241A15780X	3	11	241A16510X	3	41	241A17170X	3	47
241A15290X	3	13	241A15790X	3	11	241A16520X	3	41	241A17180X	3	47
241A15300X	3	13	241A15800X	3	11	241A16530X	3	41	241A17190X	3	47
241A15310X	3	13	241A15810X	3	11	241A16540X	3	41	241A17200X	3	47
241A15320X	3	13	241A15820X	3	11	241A16550X	3	41	241A17210X	3	47
241A15330X	3	13	241A15830X	3	11	241A16560X	3	41	241A17220X	3	47
241A15340X	3	13	241A15840X	3	11	241A16570X	3	41	241A17230X	3	47
241A15350X	3	13	241A15850X	3	11	241A16580X	3	41	241A17240X	3	47
241A15360X	3	13	241A15860X	3	11	241A16590X	3	41	241A17250X	3	47
241A15370X	3	13	241A15870X	3	11	241A16600X	3	41	241A17260X	3	47
241A15380X	3	13	241A15880X	3	11	241A16610X	3	41	241A17270X	3	47
241A15390X	3	13	241A15890X	3	11	241A16620X	3	43	241A17280X	3	47
241A15400X	3	13	241A15930X	3	5	241A16630X	3	43	241A17290X	3	47
241A15410X	3	13	241A15940X	3	5	241A16640X	3	43	241A17300X	3	47
241A15420X	3	13	241A15950X	3	5	241A16650X	3	43	241A17310X	3	47
241A15430X	3	13	241A15960X	3	5	241A16660X	3	43	241A17320X	3	47
241A15440X	3	13	241A15970X	3	5	241A16670X	3	43	241A17330X	3	47
241A15450X	3	13	241A15980X	3	5	241A16680X	3	43	241A17340X	3	47
241A15460X	3	13	241A15990X	3	5	241A16690X	3	43	241A17350X	3	47
241A15470X	3	13	241A16000X	3	5	241A16700X	3	43	241A17360X	3	47
241A15480X	3	13	241A16010X	3	5	241A16710X	3	43	241A17370X	3	47
241A15490X	3	13	241A16060X	3	15	241A16720X	3	43	241A17380X	3	47
241A15500X	3	13	241A16070X	3	15	241A16730X	3	43	241A17390X	3	47

## PART NUMBERS

Part Number	Section	Page	Part Number	Section	Page	Part Number	Section	Page	Part Number	Section	Page
241A17400X	3	47	241A18220X	3	49	241A18870X	3	10	241A19620X	3	18
241A17410X	3	47	241A18230X	3	49	241A18880X	3	10	241A19630X	3	18
241A17420X	3	26	241A18240X	3	49	241A18890X	3	10	241A19640X	3	18
241A17430X	3	26	241A18250X	3	49	241A18900X	3	10	241A19650X	3	18
241A17440X	3	26	241A18260X	3	49	241A18910X	3	10	241A19660X	3	18
241A17450X	3	26	241A18270X	3	49	241A18920X	3	10	241A19670X	3	18
241A17460X	3	26	241A18280X	3	49	241A18930X	3	10	241A19680X	3	18
241A17470X	3	26	241A18290X	3	49	241A18940X	3	10	241A19690X	3	18
241A17480X	3	26	241A18300X	3	49	241A18950X	3	10	241A19700X	3	18
241A17490X	3	26	241A18310X	3	49	241A18960X	3	10	241A19710X	3	18
241A17500X	3	28	241A18320X	3	49	241A18970X	3	10	241A19800X	3	14
241A17510X	3	28	241A18330X	3	49	241A18980X	3	10	241A19810X	3	14
241A17520X	3	28	241A18340X	3	49	241A18990X	3	10	241A19820X	3	14
241A17530X	3	28	241A18350X	3	49	241A19000X	3	10	241A19830X	3	14
241A17540X	3	28	241A18360X	3	49	241A19010X	3	10	241A19880X	3	22
241A17550X	3	28	241A18370X	3	49	241A19020X	3	10	241A19890X	3	22
241A17560X	3	28	241A18530X	3	4	241A19080X	3	12	241A19900X	3	22
241A17570X	3	28	241A18540X	3	4	241A19090X	3	12	241A19910X	3	22
241A17580X	3	23	241A18550X	3	4	241A19100X	3	12	241A20440X	3	24
241A17590X	3	23	241A18560X	3	4	241A19110X	3	12	241A20450X	3	24
241A17600X	3	23	241A18570X	3	4	241A19120X	3	12	241A20460X	3	24
241A17610X	3	23	241A18580X	3	4	241A19130X	3	12	241A20470X	3	24
241A17620X	3	23	241A18590X	3	4	241A19140X	3	12	241A20480X	3	25
241A17630X	3	23	241A18600X	3	4	241A19150X	3	12	241A20490X	3	25
241A17640X	3	23	241A18610X	3	4	241A19160X	3	12	241A20500X	3	25
241A17650X	3	23	241A18620X	3	4	241A19170X	3	12	241A20510X	3	25
241A17660X	3	23	241A18630X	3	4	241A19180X	3	12	241A20520X	3	25
241A17670X	3	23	241A18640X	3	4	241A19190X	3	12	241A20530X	3	25
241A17680X	3	23	241A18650X	3	4	241A19200X	3	12	241A20540X	3	25
241A17690X	3	23	241A18660X	3	4	241A19210X	3	12	241A20550X	3	25
241A17700X	3	22	241A18670X	3	4	241A19220X	3	12	241A20560X	3	25
241A17710X	3	22	241A18680X	3	8	241A19230X	3	12	241A20570X	3	25
241A17720X	3	22	241A18690X	3	8	241A19240X	3	12	241A20580X	3	25
241A17730X	3	22	241A18700X	3	8	241A19250X	3	12	241A20590X	3	25
241A17900X	3	49	241A18710X	3	8	241A19260X	3	12	241A20600X	3	24
241A17910X	3	49	241A18720X	3	8	241A19270X	3	12	241A20610X	3	24
241A17920X	3	49	241A18730X	3	8	241A19400X	3	16	241A20620X	3	24
241A17930X	3	49	241A18740X	3	8	241A19410X	3	16	241A20630X	3	24
241A17940X	3	49	241A18750X	3	8	241A19420X	3	16	241A20640X	3	25
241A17950X	3	49	241A18760X	3	8	241A19430X	3	16	241A20650X	3	25
241A17960X	3	49	241A18770X	3	8	241A19440X	3	16	241A20660X	3	25
241A17970X	3	49	241A18780X	3	8	241A19450X	3	16	241A20670X	3	25
241A17980X	3	49	241A18790X	3	8	241A19460X	3	16	241A20680X	3	25
241A17990X	3	49	241A18800X	3	8	241A19470X	3	16	241A20690X	3	25
241A18000X	3	49	241A18810X	3	8	241A19480X	3	16	241A20700X	3	25
241A18010X	3	49	241A18820X	3	8	241A19490X	3	16	241A20710X	3	25
241A18020X	3	49	241A18830X	3	10	241A19500X	3	16	241A20720X	3	25
241A18030X	3	49	241A18840X	3	10	241A19510X	3	16	241A20730X	3	25
241A18040X	3	49	241A18850X	3	10	241A19600X	3	18	241A20740X	3	25
241A18050X	3	49	241A18860X	3	10	241A19610X	3	18	241A20750X	3	25



Part Number Section | Page

241A20760X	3   45
241A20770X	3   45
241A20780X	3   45
241A20790X	3   45
241A20800X	3   45
241A20810X	3   45
241A20820X	3   45
241A20830X	3   45
241A20840X	3   45
241A20850X	3   45
241A20860X	3   45
241A20870X	3   45
241A20880X	3   45
241A20890X	3   45
241A20900X	3   45
241A20910X	3   45
241A20920X	3   45
241A20930X	3   45
241A20940X	3   45
241A20950X	3   45
241A20960X	3   45
241A20970X	3   45
241A20980X	3   45
241A20990X	3   45
241A21480X	3   45
241A21490X	3   45
241A21500X	3   45
241A21510X	3   45
241A21520X	3   45
241A21530X	3   45
241A21540X	3   45
241A21550X	3   45
241A21560X	3   20
241A21570X	3   20
241A21580X	3   20
241A21590X	3   20
241A21600X	3   21
241A21610X	3   21
241A21620X	3   21
241A21630X	3   21
241A21640X	3   21
241A21650X	3   21
241A21660X	3   21
241A21670X	3   21
241A21680X	3   21
241A21690X	3   21
241A21700X	3   21
241A21710X	3   21
241A21720X	3   20
241A21730X	3   20

Part Number Section | Page

241A21740X	3   20
241A21750X	3   20
241A21760X	3   21
241A21770X	3   21
241A21780X	3   21
241A21790X	3   21
241A21800X	3   21
241A21810X	3   21
241A21820X	3   21
241A21830X	3   21
241A21840X	3   21
241A21850X	3   21
241A21860X	3   21
241A21870X	3   21
241A22300X	3   26
241A22310X	3   26
241A22320X	3   26
241A22330X	3   26
241A22340X	3   26
241A22350X	3   26
241A22360X	3   26
241A22370X	3   26
241A22380X	3   28
241A22390X	3   28
241A22400X	3   28
241A22410X	3   28
241A22420X	3   28
241A22430X	3   28
241A22440X	3   28
241A22450X	3   28
241A22500X	3   20
241A22510X	3   20
241A22520X	3   20
241A22530X	3   20
241A22540X	3   21
241A22550X	3   21
241A22560X	3   21
241A22570X	3   21
241A22580X	3   21
241A22590X	3   21
241A22600X	3   21
241A22610X	3   21
241A22620X	3   21
241A22630X	3   21
241A22640X	3   21
241A22650X	3   21
241A22660X	3   20
241A22670X	3   20
241A22680X	3   20
241A22690X	3   20

Part Number Section | Page

241A22700X	3   21
241A22710X	3   21
241A22720X	3   21
241A22730X	3   21
241A22740X	3   21
241A22750X	3   21
241A22760X	3   21
241A22770X	3   21
241A22780X	3   21
241A22790X	3   21
241A22800X	3   21
241A22810X	3   21
241A24080X	3   18
241A24090X	3   19
241A24100X	3   19
241A24110X	3   19
241A24120X	3   18
241A24130X	3   19
241A24140X	3   19
241A24150X	3   19
241A24160X	3   18
241A24170X	3   19
241A24180X	3   19
241A24190X	3   19
241A24760X	3   30
241A24770X	3   30
241A24780X	3   30
241A24790X	3   30
241A24800X	3   31
241A24810X	3   31
241A24820X	3   31
241A24830X	3   31
241A24840X	3   31
241A24850X	3   31
241A24860X	3   31
241A24870X	3   31
241A24880X	3   31
241A24890X	3   31
241A24900X	3   31
241A24910X	3   31
241A24920X	3   30
241A24930X	3   30
241A24940X	3   30
241A24950X	3   30
241A24960X	3   31
241A24970X	3   31
241A24980X	3   31
241A24990X	3   31
241A25000X	3   31
241A25010X	3   31

Part Number Section | Page

241A25020X	3   31
241A25030X	3   31
241A25040X	3   31
241A25050X	3   31
241A25060X	3   31
241A25070X	3   31
241A25080X	3   32
241A25090X	3   32
241A25100X	3   32
241A25110X	3   32
241A25120X	3   33
241A25130X	3   33
241A25140X	3   33
241A25150X	3   33
241A25160X	3   33
241A25170X	3   33
241A25180X	3   33
241A25190X	3   33
241A25200X	3   33
241A25210X	3   33
241A25220X	3   33
241A25230X	3   33
241A25240X	3   32
241A25250X	3   32
241A25260X	3   32
241A25270X	3   32
241A25280X	3   33
241A25290X	3   33
241A25300X	3   33
241A25310X	3   33
241A25320X	3   33
241A25330X	3   33
241A25340X	3   33
241A25350X	3   33
241A25360X	3   33
241A25370X	3   33
241A25380X	3   33
241A25390X	3   33
241A25400X	3   32
241A25410X	3   32
241A25420X	3   32
241A25430X	3   32
241A25440X	3   33
241A25450X	3   33
241A25460X	3   33
241A25470X	3   33
241A25480X	3   33
241A25490X	3   33
241A25500X	3   33
241A25510X	3   33

## PART NUMBERS

Part Number	Section	Page	Part Number	Section	Page	Part Number	Section	Page	Part Number	Section	Page
241A25520X	3	33	241A26020X	3	51	241A26520X	3	36	241A27020X	3	6
241A25530X	3	33	241A26030X	3	51	241A26530X	3	36	241A27030X	3	6
241A25540X	3	33	241A26040X	3	38	241A26540X	3	36	241A27040X	3	7
241A25550X	3	33	241A26050X	3	38	241A26550X	3	36	241A27050X	3	7
241A25560X	3	32	241A26060X	3	38	241A26560X	3	37	241A27060X	3	7
241A25570X	3	32	241A26070X	3	38	241A26570X	3	37	241A27070X	3	7
241A25580X	3	32	241A26080X	3	39	241A26580X	3	37	241A27080X	3	7
241A25590X	3	32	241A26090X	3	39	241A26590X	3	37	241A27090X	3	7
241A25600X	3	33	241A26100X	3	39	241A26600X	3	37	241A27100X	3	7
241A25610X	3	33	241A26110X	3	39	241A26610X	3	37	241A27110X	3	7
241A25620X	3	33	241A26120X	3	39	241A26620X	3	37	241A27120X	3	7
241A25630X	3	33	241A26130X	3	39	241A26630X	3	37	241A27130X	3	7
241A25640X	3	33	241A26140X	3	39	241A26640X	3	37	241A27140X	3	7
241A25650X	3	33	241A26150X	3	39	241A26650X	3	37	241A27150X	3	7
241A25660X	3	33	241A26160X	3	39	241A26660X	3	37	241A27160X	3	6
241A25670X	3	33	241A26170X	3	39	241A26670X	3	37	241A27170X	3	6
241A25680X	3	33	241A26180X	3	39	241A26680X	3	50	241A27180X	3	6
241A25690X	3	33	241A26190X	3	39	241A26690X	3	50	241A27190X	3	6
241A25700X	3	33	241A26200X	3	38	241A26700X	3	50	241A27200X	3	7
241A25710X	3	33	241A26210X	3	38	241A26710X	3	50	241A27210X	3	7
241A25720X	3	51	241A26220X	3	38	241A26720X	3	50	241A27220X	3	7
241A25730X	3	51	241A26230X	3	38	241A26730X	3	50	241A27230X	3	7
241A25740X	3	51	241A26240X	3	39	241A26740X	3	50	241A27240X	3	7
241A25750X	3	51	241A26250X	3	39	241A26750X	3	50	241A27250X	3	7
241A25760X	3	51	241A26260X	3	39	241A26760X	3	50	241A27260X	3	7
241A25770X	3	51	241A26270X	3	39	241A26770X	3	50	241A27270X	3	7
241A25780X	3	51	241A26280X	3	39	241A26780X	3	50	241A27280X	3	7
241A25790X	3	51	241A26290X	3	39	241A26790X	3	50	241A27290X	3	7
241A25800X	3	51	241A26300X	3	39	241A26800X	3	50	241A27300X	3	7
241A25810X	3	51	241A26310X	3	39	241A26810X	3	50	241A27310X	3	7
241A25820X	3	51	241A26320X	3	39	241A26820X	3	50	241A27320X	3	20
241A25830X	3	51	241A26330X	3	39	241A26830X	3	50	241A27330X	3	21
241A25840X	3	51	241A26340X	3	39	241A26840X	3	6	241A27340X	3	21
241A25850X	3	51	241A26350X	3	39	241A26850X	3	6	241A27350X	3	21
241A25860X	3	51	241A26360X	3	36	241A26860X	3	6	241A27360X	3	20
241A25870X	3	51	241A26370X	3	36	241A26870X	3	6	241A27370X	3	21
241A25880X	3	51	241A26380X	3	36	241A26880X	3	7	241A27380X	3	21
241A25890X	3	51	241A26390X	3	36	241A26890X	3	7	241A27390X	3	21
241A25900X	3	51	241A26400X	3	37	241A26900X	3	7	241A27400X	3	20
241A25910X	3	51	241A26410X	3	37	241A26910X	3	7	241A27410X	3	21
241A25920X	3	51	241A26420X	3	37	241A26920X	3	7	241A27420X	3	21
241A25930X	3	51	241A26430X	3	37	241A26930X	3	7	241A27430X	3	21
241A25940X	3	51	241A26440X	3	37	241A26940X	3	7	241A27440X	3	20
241A25950X	3	51	241A26450X	3	37	241A26950X	3	7	241A27450X	3	21
241A25960X	3	51	241A26460X	3	37	241A26960X	3	7	241A27460X	3	21
241A25970X	3	51	241A26470X	3	37	241A26970X	3	7	241A27470X	3	21
241A25980X	3	51	241A26480X	3	37	241A26980X	3	7	241A27480X	3	40
241A25990X	3	51	241A26490X	3	37	241A26990X	3	7	241A27490X	3	40
241A26000X	3	51	241A26500X	3	37	241A27000X	3	6	241A27500X	3	40
241A26010X	3	51	241A26510X	3	37	241A27010X	3	6	241A27510X	3	40

Part Number	Section	Page	Part Number	Section	Page	Part Number	Section	Page	Part Number	Section	Page
241A27520X	3	40	241A28060X	3	46	241A29360X	3	35	242A10310X	3	9
241A27530X	3	40	241A28070X	3	46	241A29370X	3	35	242A10320X	3	9
241A27540X	3	40	241A28080X	3	46	241A29380X	3	35	242A10330X	3	9
241A27550X	3	40	241A28090X	3	46	241A29390X	3	35	242A10340X	3	9
241A27560X	3	40	241A28100X	3	46	241A29400X	3	34	242A10350X	3	9
241A27570X	3	40	241A28110X	3	46	241A29410X	3	34	242A10360X	3	9
241A27580X	3	40	241A28120X	3	48	241A29420X	3	34	242A10370X	3	11
241A27590X	3	40	241A28130X	3	48	241A29430X	3	34	242A10380X	3	11
241A27600X	3	42	241A28140X	3	48	241A29440X	3	35	242A10390X	3	11
241A27610X	3	42	241A28150X	3	48	241A29450X	3	35	242A10400X	3	11
241A27620X	3	42	241A28160X	3	48	241A29460X	3	35	242A10410X	3	11
241A27630X	3	42	241A28170X	3	48	241A29470X	3	35	242A10420X	3	11
241A27640X	3	42	241A28180X	3	48	241A29480X	3	35	242A10430X	3	11
241A27650X	3	42	241A28190X	3	48	241A29490X	3	35	242A10440X	3	11
241A27660X	3	42	241A28280X	3	48	241A29500X	3	35	242A10450X	3	11
241A27670X	3	42	241A28290X	3	48	241A29510X	3	35	242A10460X	3	11
241A27680X	3	42	241A28300X	3	48	241A29520X	3	35	242A10470X	3	11
241A27690X	3	42	241A28310X	3	48	241A29530X	3	35	242A10480X	3	11
241A27700X	3	42	241A28320X	3	48	241A29540X	3	35	242A10490X	3	11
241A27710X	3	42	241A28330X	3	48	241A29550X	3	35	242A10500X	3	11
241A27720X	3	42	241A28340X	3	48	242A10010X	3	9	242A10510X	3	11
241A27730X	3	42	241A28350X	3	48	242A10020X	3	9	242A10520X	3	11
241A27740X	3	42	241A29080X	3	34	242A10030X	3	9	242A10530X	3	11
241A27750X	3	42	241A29090X	3	34	242A10040X	3	9	242A10540X	3	11
241A27800X	3	44	241A29100X	3	34	242A10050X	3	9	242A10550X	3	11
241A27810X	3	44	241A29110X	3	34	242A10060X	3	9	242A10560X	3	11
241A27820X	3	44	241A29120X	3	35	242A10070X	3	9	242A10570X	3	11
241A27830X	3	44	241A29130X	3	35	242A10080X	3	9	242A10580X	3	11
241A27840X	3	44	241A29140X	3	35	242A10090X	3	9	242A10590X	3	11
241A27850X	3	44	241A29150X	3	35	242A10100X	3	9	242A10600X	3	11
241A27860X	3	44	241A29160X	3	35	242A10110X	3	9	242A10610X	3	11
241A27870X	3	44	241A29170X	3	35	242A10120X	3	9	242A10620X	3	11
241A27880X	3	44	241A29180X	3	35	242A10130X	3	9	242A10630X	3	11
241A27890X	3	44	241A29190X	3	35	242A10140X	3	9	242A10640X	3	11
241A27900X	3	44	241A29200X	3	35	242A10150X	3	9	242A10650X	3	11
241A27910X	3	44	241A29210X	3	35	242A10160X	3	9	242A10660X	3	11
241A27920X	3	44	241A29220X	3	35	242A10170X	3	9	242A10670X	3	11
241A27930X	3	44	241A29230X	3	35	242A10180X	3	9	242A10680X	3	11
241A27940X	3	44	241A29240X	3	34	242A10190X	3	9	242A10690X	3	11
241A27950X	3	44	241A29250X	3	34	242A10200X	3	9	242A10700X	3	11
241A27960X	3	46	241A29260X	3	34	242A10210X	3	9	242A10710X	3	11
241A27970X	3	46	241A29270X	3	34	242A10220X	3	9	242A10720X	3	11
241A27980X	3	46	241A29280X	3	35	242A10230X	3	9	242A10730X	3	11
241A27990X	3	46	241A29290X	3	35	242A10240X	3	9	242A10740X	3	11
241A28000X	3	46	241A29300X	3	35	242A10250X	3	9	242A10750X	3	11
241A28010X	3	46	241A29310X	3	35	242A10260X	3	9	242A10760X	3	11
241A28020X	3	46	241A29320X	3	35	242A10270X	3	9	242A10770X	3	11
241A28030X	3	46	241A29330X	3	35	242A10280X	3	9	242A10780X	3	11
241A28040X	3	46	241A29340X	3	35	242A10290X	3	9	242A10790X	3	11
241A28050X	3	46	241A29350X	3	35	242A10300X	3	9	242A10800X	3	11

## PART NUMBERS

## Part Number Section | Page

242A10810X	3   11
242A10820X	3   11
242A10830X	3   11
242A10840X	3   11
242A10970X	3   17
242A10980X	3   17
242A10990X	3   17
242A11000X	3   17
242A11010X	3   17
242A11020X	3   17
242A11030X	3   17
242A11040X	3   17
242A11050X	3   17
242A11060X	3   17
242A11070X	3   17
242A11080X	3   17
242A11090X	3   17
242A11100X	3   17
242A11110X	3   17
242A11120X	3   17
242A11130X	3   17
242A11140X	3   17
242A11150X	3   17
242A11160X	3   17
242A11170X	3   17
242A11180X	3   17
242A11190X	3   17
242A11200X	3   17
242A11210X	3   17
242A11220X	3   17
242A11230X	3   17
242A11240X	3   17
242A11250X	3   17
242A11260X	3   17
242A11270X	3   17
242A11280X	3   17
242A11290X	3   17
242A11300X	3   17
242A11310X	3   17
242A11320X	3   17
242A11610X	3   5
242A11620X	3   5
242A11630X	3   5
242A11640X	3   5
242A11650X	3   5
242A11660X	3   5
242A11670X	3   5
242A11680X	3   5
242A11690X	3   5
242A11700X	3   5

## Part Number Section | Page

242A11710X	3   5
242A11720X	3   5
242A11730X	3   5
242A11740X	3   5
242A11750X	3   5
242A11760X	3   5
242A11770X	3   5
242A11780X	3   5
242A11790X	3   5
242A11800X	3   5
242A11810X	3   5
242A11820X	3   5
242A11830X	3   5
242A11840X	3   5
242A11850X	3   5
242A11860X	3   5
242A11870X	3   5
242A11880X	3   5
242A11890X	3   5
242A11900X	3   5
242A11910X	3   5
242A11920X	3   5
242A11930X	3   5
242A11940X	3   5
242A11950X	3   5
242A11960X	3   5
242A12340X	3   15
242A12350X	3   15
242A12360X	3   15
242A12370X	3   15
242A12380X	3   15
242A12390X	3   15
242A12400X	3   15
242A12410X	3   15
242A12420X	3   15
242A12430X	3   15
242A12440X	3   15
242A12450X	3   15
242A12580X	3   23
242A12590X	3   23
242A12600X	3   23
242A12610X	3   23
242A12620X	3   23
242A12630X	3   23
242A12640X	3   23
242A12650X	3   23
242A12660X	3   23
242A12670X	3   23
242A12680X	3   23
242A12690X	3   23

## Part Number Section | Page

242A12700X	3   19
242A12710X	3   19
242A12720X	3   19
242A12730X	3   19
242A12740X	3   19
242A12750X	3   19
242A12760X	3   19
242A12770X	3   19
242A12780X	3   19
242A12790X	3   19
242A12800X	3   19
242A12810X	3   19
242A12820X	3   19
242A12830X	3   19
242A12840X	3   19
242A12850X	3   19
242A12860X	3   19
242A12870X	3   19
242A12880X	3   19
242A12890X	3   19
242A12900X	3   19
242A12910X	3   19
242A12920X	3   19
242A12930X	3   19
242A12940X	3   19
242A12950X	3   19
242A12960X	3   19
242A12970X	3   19
242A12980X	3   19
242A12990X	3   19
242A13000X	3   19
242A13010X	3   19
242A13020X	3   19
242A13030X	3   19
242A13040X	3   19
242A13050X	3   19
242A14020X	3   27
242A14030X	3   27
242A14040X	3   27
242A14050X	3   27
242A14060X	3   27
242A14070X	3   27
242A14080X	3   27
242A14090X	3   27
242A14100X	3   27
242A14110X	3   27
242A14120X	3   27
242A14130X	3   27
242A14140X	3   27
242A14150X	3   27

## Part Number Section | Page

242A14160X	3   27
242A14170X	3   27
242A14180X	3   27
242A14190X	3   27
242A14200X	3   27
242A14210X	3   27
242A14220X	3   27
242A14230X	3   27
242A14240X	3   27
242A14250X	3   27
242A14260X	3   27
242A14270X	3   27
242A14280X	3   27
242A14290X	3   27
242A14300X	3   27
242A14310X	3   27
242A14320X	3   27
242A14330X	3   27
242A14340X	3   27
242A14350X	3   27
242A14360X	3   27
242A14370X	3   27
242A14380X	3   27
242A14390X	3   27
242A14400X	3   27
242A14410X	3   27
242A14420X	3   27
242A14430X	3   27
242A14440X	3   27
242A14450X	3   27
242A14460X	3   27
242A14470X	3   27
242A14480X	3   27
242A14490X	3   27
242A14500X	3   29
242A14510X	3   29
242A14520X	3   29
242A14530X	3   29
242A14540X	3   29
242A14550X	3   29
242A14560X	3   29
242A14570X	3   29
242A14580X	3   29
242A14590X	3   29
242A14600X	3   29
242A14610X	3   29
242A14620X	3   29
242A14630X	3   29
242A14640X	3   29
242A14650X	3   29

Part Number	Section	Page	Part Number	Section	Page	Part Number	Section	Page	Part Number	Section	Page
242A14660X	3	29	242A15160X	3	13	242A15660X	3	9	242A16190X	3	8
242A14670X	3	29	242A15170X	3	13	242A15670X	3	11	242A16200X	3	8
242A14680X	3	29	242A15180X	3	13	242A15680X	3	11	242A16210X	3	10
242A14690X	3	29	242A15190X	3	13	242A15690X	3	11	242A16220X	3	10
242A14700X	3	29	242A15200X	3	13	242A15700X	3	11	242A16230X	3	10
242A14710X	3	29	242A15210X	3	13	242A15710X	3	11	242A16240X	3	10
242A14720X	3	29	242A15220X	3	13	242A15720X	3	11	242A16250X	3	10
242A14730X	3	29	242A15230X	3	13	242A15730X	3	11	242A16260X	3	10
242A14740X	3	29	242A15240X	3	13	242A15740X	3	11	242A16270X	3	10
242A14750X	3	29	242A15250X	3	13	242A15750X	3	11	242A16280X	3	10
242A14760X	3	29	242A15260X	3	13	242A15760X	3	11	242A16290X	3	10
242A14770X	3	29	242A15270X	3	13	242A15770X	3	11	242A16300X	3	10
242A14780X	3	29	242A15280X	3	13	242A15780X	3	11	242A16310X	3	10
242A14790X	3	29	242A15290X	3	13	242A15820X	3	5	242A16320X	3	10
242A14800X	3	29	242A15300X	3	13	242A15830X	3	5	242A16330X	3	10
242A14810X	3	29	242A15310X	3	13	242A15840X	3	5	242A16340X	3	10
242A14820X	3	29	242A15320X	3	13	242A15850X	3	5	242A16350X	3	10
242A14830X	3	29	242A15330X	3	13	242A15860X	3	5	242A16360X	3	10
242A14840X	3	29	242A15340X	3	13	242A15870X	3	5	242A16370X	3	10
242A14850X	3	29	242A15350X	3	13	242A15880X	3	5	242A16380X	3	10
242A14860X	3	29	242A15360X	3	13	242A15890X	3	5	242A16390X	3	10
242A14870X	3	29	242A15370X	3	13	242A15900X	3	5	242A16400X	3	10
242A14880X	3	29	242A15380X	3	13	242A15910X	3	4	242A16460X	3	12
242A14890X	3	29	242A15390X	3	13	242A15920X	3	4	242A16470X	3	12
242A14900X	3	29	242A15400X	3	13	242A15930X	3	4	242A16480X	3	12
242A14910X	3	29	242A15410X	3	13	242A15940X	3	4	242A16490X	3	12
242A14920X	3	29	242A15420X	3	13	242A15950X	3	4	242A16500X	3	12
242A14930X	3	29	242A15430X	3	13	242A15960X	3	4	242A16510X	3	12
242A14940X	3	29	242A15440X	3	13	242A15970X	3	4	242A16520X	3	12
242A14950X	3	29	242A15450X	3	13	242A15980X	3	4	242A16530X	3	12
242A14960X	3	29	242A15460X	3	13	242A15990X	3	4	242A16540X	3	12
242A14970X	3	29	242A15470X	3	13	242A16000X	3	4	242A16550X	3	12
242A14980X	3	13	242A15480X	3	13	242A16010X	3	4	242A16560X	3	12
242A14990X	3	13	242A15490X	3	13	242A16020X	3	4	242A16570X	3	12
242A15000X	3	13	242A15500X	3	13	242A16030X	3	4	242A16580X	3	12
242A15010X	3	13	242A15510X	3	13	242A16040X	3	4	242A16590X	3	12
242A15020X	3	13	242A15520X	3	13	242A16050X	3	4	242A16600X	3	12
242A15030X	3	13	242A15530X	3	13	242A16060X	3	8	242A16610X	3	12
242A15040X	3	13	242A15540X	3	13	242A16070X	3	8	242A16620X	3	12
242A15050X	3	13	242A15550X	3	13	242A16080X	3	8	242A16630X	3	12
242A15060X	3	13	242A15560X	3	13	242A16090X	3	8	242A16640X	3	12
242A15070X	3	13	242A15570X	3	13	242A16100X	3	8	242A16650X	3	12
242A15080X	3	13	242A15580X	3	9	242A16110X	3	8	242A16780X	3	16
242A15090X	3	13	242A15590X	3	9	242A16120X	3	8	242A16790X	3	16
242A15100X	3	13	242A15600X	3	9	242A16130X	3	8	242A16800X	3	16
242A15110X	3	13	242A15610X	3	9	242A16140X	3	8	242A16810X	3	16
242A15120X	3	13	242A15620X	3	9	242A16150X	3	8	242A16820X	3	16
242A15130X	3	13	242A15630X	3	9	242A16160X	3	8	242A16830X	3	16
242A15140X	3	13	242A15640X	3	9	242A16170X	3	8	242A16840X	3	16
242A15150X	3	13	242A15650X	3	9	242A16180X	3	8	242A16850X	3	16

# PART NUMBERS

## Part Number Section | Page

242A16860X	3   16
242A16870X	3   16
242A16880X	3   16
242A16890X	3   16
242A16980X	3   18
242A16990X	3   18
242A17000X	3   18
242A17010X	3   18
242A17020X	3   18
242A17030X	3   18
242A17040X	3   18
242A17050X	3   18
242A17060X	3   18
242A17070X	3   18
242A17080X	3   18
242A17090X	3   18
242A17180X	3   14
242A17190X	3   14
242A17200X	3   14
242A17210X	3   14
242A17260X	3   22
242A17270X	3   22
242A17280X	3   22
242A17290X	3   22
242A17660X	3   15
242A17670X	3   15
242A17680X	3   15
242A17690X	3   15
242A17700X	3   15
242A17710X	3   15
242A17720X	3   15
242A17730X	3   15
242A17740X	3   15
242A17750X	3   15
242A17760X	3   15
242A17770X	3   15
242A17780X	3   14
242A17790X	3   14
242A17800X	3   14
242A17810X	3   14
242A17980X	3   41
242A17990X	3   41
242A18000X	3   41
242A18010X	3   41
242A18020X	3   41
242A18030X	3   41
242A18040X	3   41
242A18050X	3   41
242A18060X	3   41
242A18070X	3   41

## Part Number Section | Page

242A18080X	3   41
242A18090X	3   41
242A18100X	3   41
242A18110X	3   41
242A18120X	3   41
242A18130X	3   41
242A18140X	3   41
242A18150X	3   41
242A18160X	3   41
242A18170X	3   41
242A18180X	3   41
242A18190X	3   41
242A18200X	3   41
242A18210X	3   41
242A18220X	3   43
242A18230X	3   43
242A18240X	3   43
242A18250X	3   43
242A18260X	3   43
242A18270X	3   43
242A18280X	3   43
242A18290X	3   43
242A18300X	3   43
242A18310X	3   43
242A18320X	3   43
242A18330X	3   43
242A18340X	3   43
242A18350X	3   43
242A18360X	3   43
242A18370X	3   43
242A18380X	3   43
242A18390X	3   43
242A18400X	3   43
242A18410X	3   43
242A18420X	3   43
242A18430X	3   43
242A18440X	3   43
242A18450X	3   43
242A18460X	3   43
242A18470X	3   43
242A18480X	3   43
242A18490X	3   43
242A18500X	3   43
242A18510X	3   43
242A18520X	3   43
242A18530X	3   43
242A18690X	3   47
242A18700X	3   47
242A18710X	3   47
242A18720X	3   47

## Part Number Section | Page

242A18730X	3   47
242A18740X	3   47
242A18750X	3   47
242A18760X	3   47
242A18770X	3   47
242A18780X	3   47
242A18790X	3   47
242A18800X	3   47
242A18810X	3   47
242A18820X	3   47
242A18830X	3   47
242A18840X	3   47
242A18850X	3   47
242A18860X	3   47
242A18870X	3   47
242A18880X	3   47
242A18890X	3   47
242A18900X	3   47
242A18910X	3   47
242A18920X	3   47
242A18930X	3   47
242A18940X	3   47
242A18950X	3   47
242A18960X	3   47
242A18970X	3   47
242A18980X	3   47
242A18990X	3   47
242A19000X	3   47
242A19170X	3   23
242A19180X	3   23
242A19190X	3   23
242A19200X	3   23
242A19210X	3   23
242A19220X	3   23
242A19230X	3   23
242A19240X	3   23
242A19250X	3   23
242A19260X	3   23
242A19270X	3   23
242A19280X	3   23
242A19290X	3   22
242A19300X	3   22
242A19310X	3   22
242A19320X	3   22
242A19490X	3   49
242A19500X	3   49
242A19510X	3   49
242A19520X	3   49
242A19530X	3   49
242A19540X	3   49

## Part Number Section | Page

242A19550X	3   49
242A19560X	3   49
242A19570X	3   49
242A19580X	3   49
242A19590X	3   49
242A19600X	3   49
242A19610X	3   49
242A19620X	3   49
242A19630X	3   49
242A19640X	3   49
242A19810X	3   49
242A19820X	3   49
242A19830X	3   49
242A19840X	3   49
242A19850X	3   49
242A19860X	3   49
242A19870X	3   49
242A19880X	3   49
242A19890X	3   49
242A19900X	3   49
242A19910X	3   49
242A19920X	3   49
242A19930X	3   49
242A19940X	3   49
242A19950X	3   49
242A19960X	3   49
242A20290X	3   24
242A20300X	3   24
242A20310X	3   24
242A20320X	3   24
242A20330X	3   25
242A20340X	3   25
242A20350X	3   25
242A20360X	3   25
242A20370X	3   25
242A20380X	3   25
242A20390X	3   25
242A20400X	3   25
242A20410X	3   25
242A20420X	3   25
242A20430X	3   25
242A20440X	3   25
242A20450X	3   24
242A20460X	3   24
242A20470X	3   24
242A20480X	3   24
242A20490X	3   25
242A20500X	3   25
242A20510X	3   25
242A20520X	3   25

Part Number	Section	Page	Part Number	Section	Page	Part Number	Section	Page	Part Number	Section	Page
242A20530X	3	25	242A21510X	3	21	242A22280X	3	28	242A24680X	3	30
242A20540X	3	25	242A21520X	3	21	242A22290X	3	28	242A24690X	3	30
242A20550X	3	25	242A21530X	3	21	242A22300X	3	28	242A24700X	3	31
242A20560X	3	25	242A21540X	3	21	242A22310X	3	28	242A24710X	3	31
242A20570X	3	25	242A21550X	3	21	242A22400X	3	20	242A24720X	3	31
242A20580X	3	25	242A21560X	3	21	242A22410X	3	20	242A24730X	3	31
242A20590X	3	25	242A21570X	3	20	242A22420X	3	20	242A24740X	3	31
242A20600X	3	25	242A21580X	3	20	242A22430X	3	20	242A24750X	3	31
242A20610X	3	45	242A21590X	3	20	242A22440X	3	21	242A24760X	3	31
242A20620X	3	45	242A21600X	3	20	242A22450X	3	21	242A24770X	3	31
242A20630X	3	45	242A21610X	3	21	242A22460X	3	21	242A24780X	3	31
242A20640X	3	45	242A21620X	3	21	242A22470X	3	21	242A24790X	3	31
242A20650X	3	45	242A21630X	3	21	242A22480X	3	21	242A24800X	3	31
242A20660X	3	45	242A21640X	3	21	242A22490X	3	21	242A24810X	3	31
242A20670X	3	45	242A21650X	3	21	242A22500X	3	21	242A24820X	3	30
242A20680X	3	45	242A21660X	3	21	242A22510X	3	21	242A24830X	3	30
242A20690X	3	45	242A21670X	3	21	242A22520X	3	21	242A24840X	3	30
242A20700X	3	45	242A21680X	3	21	242A22530X	3	21	242A24850X	3	30
242A20710X	3	45	242A21690X	3	21	242A22540X	3	21	242A24860X	3	31
242A20720X	3	45	242A21700X	3	21	242A22550X	3	21	242A24870X	3	31
242A20730X	3	45	242A21710X	3	21	242A22560X	3	20	242A24880X	3	31
242A20740X	3	45	242A21720X	3	21	242A22570X	3	20	242A24890X	3	31
242A20750X	3	45	242A22000X	3	26	242A22580X	3	20	242A24900X	3	31
242A20760X	3	45	242A22010X	3	26	242A22590X	3	20	242A24910X	3	31
242A20770X	3	45	242A22020X	3	26	242A22600X	3	21	242A24920X	3	31
242A20780X	3	45	242A22030X	3	26	242A22610X	3	21	242A24930X	3	31
242A20790X	3	45	242A22040X	3	26	242A22620X	3	21	242A24940X	3	31
242A20800X	3	45	242A22050X	3	26	242A22630X	3	21	242A24950X	3	31
242A20810X	3	45	242A22060X	3	26	242A22640X	3	21	242A24960X	3	31
242A20820X	3	45	242A22070X	3	26	242A22650X	3	21	242A24970X	3	31
242A20830X	3	45	242A22080X	3	26	242A22660X	3	21	242A24980X	3	32
242A20840X	3	45	242A22090X	3	26	242A22670X	3	21	242A24990X	3	32
242A20850X	3	45	242A22100X	3	26	242A22680X	3	21	242A25000X	3	32
242A20860X	3	45	242A22110X	3	26	242A22690X	3	21	242A25010X	3	32
242A20870X	3	45	242A22120X	3	26	242A22700X	3	21	242A25020X	3	33
242A20880X	3	45	242A22130X	3	26	242A22710X	3	21	242A25030X	3	33
242A20890X	3	45	242A22140X	3	26	242A23980X	3	18	242A25040X	3	33
242A20900X	3	45	242A22150X	3	26	242A23990X	3	19	242A25050X	3	33
242A20910X	3	45	242A22160X	3	28	242A24000X	3	19	242A25060X	3	33
242A20920X	3	45	242A22170X	3	28	242A24010X	3	19	242A25070X	3	33
242A21410X	3	20	242A22180X	3	28	242A24020X	3	18	242A25080X	3	33
242A21420X	3	20	242A22190X	3	28	242A24030X	3	19	242A25090X	3	33
242A21430X	3	20	242A22200X	3	28	242A24040X	3	19	242A25100X	3	33
242A21440X	3	20	242A22210X	3	28	242A24050X	3	19	242A25110X	3	33
242A21450X	3	21	242A22220X	3	28	242A24060X	3	18	242A25120X	3	33
242A21460X	3	21	242A22230X	3	28	242A24070X	3	19	242A25130X	3	33
242A21470X	3	21	242A22240X	3	28	242A24080X	3	19	242A25140X	3	32
242A21480X	3	21	242A22250X	3	28	242A24090X	3	19	242A25150X	3	32
242A21490X	3	21	242A22260X	3	28	242A24660X	3	30	242A25160X	3	32
242A21500X	3	21	242A22270X	3	28	242A24670X	3	30	242A25170X	3	32

## PART NUMBERS

Part Number	Section	Page	Part Number	Section	Page	Part Number	Section	Page	Part Number	Section	Page
242A25180X	3	33	242A25680X	3	51	242A26180X	3	39	242A26680X	3	50
242A25190X	3	33	242A25690X	3	51	242A26190X	3	39	242A26690X	3	50
242A25200X	3	33	242A25700X	3	51	242A26200X	3	39	242A26700X	3	50
242A25210X	3	33	242A25710X	3	51	242A26210X	3	39	242A26710X	3	50
242A25220X	3	33	242A25720X	3	51	242A26220X	3	39	242A26720X	3	50
242A25230X	3	33	242A25730X	3	51	242A26230X	3	39	242A26730X	3	50
242A25240X	3	33	242A25740X	3	51	242A26240X	3	39	242A26740X	3	6
242A25250X	3	33	242A25750X	3	51	242A26250X	3	39	242A26750X	3	6
242A25260X	3	33	242A25760X	3	51	242A26260X	3	36	242A26760X	3	6
242A25270X	3	33	242A25770X	3	51	242A26270X	3	36	242A26770X	3	6
242A25280X	3	33	242A25780X	3	51	242A26280X	3	36	242A26780X	3	7
242A25290X	3	33	242A25790X	3	51	242A26290X	3	36	242A26790X	3	7
242A25300X	3	32	242A25800X	3	51	242A26300X	3	37	242A26800X	3	7
242A25310X	3	32	242A25810X	3	51	242A26310X	3	37	242A26810X	3	7
242A25320X	3	32	242A25820X	3	51	242A26320X	3	37	242A26820X	3	7
242A25330X	3	32	242A25830X	3	51	242A26330X	3	37	242A26830X	3	7
242A25340X	3	33	242A25840X	3	51	242A26340X	3	37	242A26840X	3	7
242A25350X	3	33	242A25850X	3	51	242A26350X	3	37	242A26850X	3	7
242A25360X	3	33	242A25860X	3	51	242A26360X	3	37	242A26860X	3	7
242A25370X	3	33	242A25870X	3	51	242A26370X	3	37	242A26870X	3	7
242A25380X	3	33	242A25880X	3	51	242A26380X	3	37	242A26880X	3	7
242A25390X	3	33	242A25890X	3	51	242A26390X	3	37	242A26890X	3	7
242A25400X	3	33	242A25900X	3	51	242A26400X	3	37	242A26900X	3	6
242A25410X	3	33	242A25910X	3	51	242A26410X	3	37	242A26910X	3	6
242A25420X	3	33	242A25920X	3	51	242A26420X	3	36	242A26920X	3	6
242A25430X	3	33	242A25930X	3	51	242A26430X	3	36	242A26930X	3	6
242A25440X	3	33	242A25940X	3	38	242A26440X	3	36	242A26940X	3	7
242A25450X	3	33	242A25950X	3	38	242A26450X	3	36	242A26950X	3	7
242A25460X	3	32	242A25960X	3	38	242A26460X	3	37	242A26960X	3	7
242A25470X	3	32	242A25970X	3	38	242A26470X	3	37	242A26970X	3	7
242A25480X	3	32	242A25980X	3	39	242A26480X	3	37	242A26980X	3	7
242A25490X	3	32	242A25990X	3	39	242A26490X	3	37	242A26990X	3	7
242A25500X	3	33	242A26000X	3	39	242A26500X	3	37	242A27000X	3	7
242A25510X	3	33	242A26010X	3	39	242A26510X	3	37	242A27010X	3	7
242A25520X	3	33	242A26020X	3	39	242A26520X	3	37	242A27020X	3	7
242A25530X	3	33	242A26030X	3	39	242A26530X	3	37	242A27030X	3	7
242A25540X	3	33	242A26040X	3	39	242A26540X	3	37	242A27040X	3	7
242A25550X	3	33	242A26050X	3	39	242A26550X	3	37	242A27050X	3	7
242A25560X	3	33	242A26060X	3	39	242A26560X	3	37	242A27060X	3	6
242A25570X	3	33	242A26070X	3	39	242A26570X	3	37	242A27070X	3	6
242A25580X	3	33	242A26080X	3	39	242A26580X	3	50	242A27080X	3	6
242A25590X	3	33	242A26090X	3	39	242A26590X	3	50	242A27090X	3	6
242A25600X	3	33	242A26100X	3	38	242A26600X	3	50	242A27100X	3	7
242A25610X	3	33	242A26110X	3	38	242A26610X	3	50	242A27110X	3	7
242A25620X	3	51	242A26120X	3	38	242A26620X	3	50	242A27120X	3	7
242A25630X	3	51	242A26130X	3	38	242A26630X	3	50	242A27130X	3	7
242A25640X	3	51	242A26140X	3	39	242A26640X	3	50	242A27140X	3	7
242A25650X	3	51	242A26150X	3	39	242A26650X	3	50	242A27150X	3	7
242A25660X	3	51	242A26160X	3	39	242A26660X	3	50	242A27160X	3	7
242A25670X	3	51	242A26170X	3	39	242A26670X	3	50	242A27170X	3	7



**Part Number Section | Page**

242A27180X	3   7
242A27190X	3   7
242A27200X	3   7
242A27210X	3   7
242A27220X	3   20
242A27230X	3   21
242A27240X	3   21
242A27250X	3   21
242A27260X	3   20
242A27270X	3   21
242A27280X	3   21
242A27290X	3   21
242A27300X	3   20
242A27310X	3   21
242A27320X	3   21
242A27330X	3   21
242A27340X	3   20
242A27350X	3   21
242A27360X	3   21
242A27370X	3   21
242A27380X	3   40
242A27390X	3   40
242A27400X	3   40
242A27410X	3   40
242A27420X	3   40
242A27430X	3   40
242A27440X	3   40
242A27450X	3   40
242A27460X	3   40
242A27470X	3   40
242A27480X	3   40
242A27490X	3   40
242A27500X	3   42
242A27510X	3   42
242A27520X	3   42
242A27530X	3   42
242A27540X	3   42
242A27550X	3   42
242A27560X	3   42
242A27570X	3   42
242A27580X	3   42
242A27590X	3   42
242A27600X	3   42
242A27610X	3   42
242A27620X	3   42
242A27630X	3   42
242A27640X	3   42
242A27650X	3   42
242A27700X	3   44
242A27710X	3   44

**Part Number Section | Page**

242A27720X	3   44
242A27730X	3   44
242A27740X	3   44
242A27750X	3   44
242A27760X	3   44
242A27770X	3   44
242A27780X	3   44
242A27790X	3   44
242A27800X	3   44
242A27810X	3   44
242A27820X	3   44
242A27830X	3   44
242A27840X	3   44
242A27850X	3   44
242A27860X	3   46
242A27870X	3   46
242A27880X	3   46
242A27890X	3   46
242A27900X	3   46
242A27910X	3   46
242A27920X	3   46
242A27930X	3   46
242A27940X	3   46
242A27950X	3   46
242A27960X	3   46
242A27970X	3   46
242A27980X	3   46
242A27990X	3   46
242A28000X	3   46
242A28010X	3   46
242A28020X	3   48
242A28030X	3   48
242A28040X	3   48
242A28050X	3   48
242A28060X	3   48
242A28070X	3   48
242A28080X	3   48
242A28090X	3   48
242A28180X	3   48
242A28190X	3   48
242A28200X	3   48
242A28210X	3   48
242A28220X	3   48
242A28230X	3   48
242A28240X	3   48
242A28250X	3   48
242A28980X	3   34
242A28990X	3   34
242A29000X	3   34
242A29010X	3   34

**Part Number Section | Page**

242A29020X	3   35
242A29030X	3   35
242A29040X	3   35
242A29050X	3   35
242A29060X	3   35
242A29070X	3   35
242A29080X	3   35
242A29090X	3   35
242A29100X	3   35
242A29110X	3   35
242A29120X	3   35
242A29130X	3   35
242A29140X	3   34
242A29150X	3   34
242A29160X	3   34
242A29170X	3   34
242A29180X	3   35
242A29190X	3   35
242A29200X	3   35
242A29210X	3   35
242A29220X	3   35
242A29230X	3   35
242A29240X	3   35
242A29250X	3   35
242A29260X	3   35
242A29270X	3   35
242A29280X	3   35
242A29290X	3   35
242A29300X	3   34
242A29310X	3   34
242A29320X	3   34
242A29330X	3   34
242A29340X	3   35
242A29350X	3   35
242A29360X	3   35
242A29370X	3   35
242A29380X	3   35
242A29390X	3   35
242A29400X	3   35
242A29410X	3   35
242A29420X	3   35
242A29430X	3   35
242A29440X	3   35
242A29450X	3   35
243A10010X	3   55
243A10020X	3   55
243A10030X	3   55
243A10040X	3   55
243A10050X	3   55
243A10060X	3   55

**Part Number Section | Page**

243A10070X	3   55
243A10080X	3   55
243A10090X	3   55
243A10100X	3   55
243A10110X	3   55
243A10120X	3   55
243A10130X	3   55
243A10140X	3   55
243A10150X	3   55
243A10510X	3   55
243A10520X	3   55
243A10530X	3   55
243A10540X	3   55
243A10550X	3   55
243A10560X	3   55
243A10570X	3   55
243A10580X	3   55
243A10590X	3   55
243A10600X	3   55
243A10610X	3   55
243A10620X	3   55
243A10630X	3   55
243A10640X	3   55
243A10650X	3   55
243A11030X	3   54
243A11040X	3   54
243A11050X	3   54
243A11060X	3   54
243A11070X	3   54
243A11080X	3   54
243A11090X	3   54
243A11100X	3   54
243A11110X	3   54
243A11120X	3   54
243A11600X	3   60
243A11610X	3   60
243A11620X	3   60
243A11630X	3   60
243A11640X	3   60
243A11650X	3   60
243A11660X	3   60
243A11670X	3   60
243A11680X	3   60
243A11690X	3   60
243A11700X	3   60
243A11710X	3   60
243A11720X	3   60
243A11730X	3   60
243A11740X	3   60
243A11750X	3   60

## PART NUMBERS

Part Number	Section	Page	Part Number	Section	Page	Part Number	Section	Page	Part Number	Section	Page
243A11760X	3	60	243A12900X	3	57	243A13400X	3	53	243A13920X	3	61
243A11770X	3	60	243A12910X	3	57	243A13410X	3	53	243A13930X	3	61
243A11780X	3	60	243A12920X	3	57	243A13420X	3	53	243A13940X	3	61
243A11790X	3	60	243A12930X	3	57	243A13430X	3	53	243A13950X	3	61
243A11800X	3	60	243A12940X	3	57	243A13440X	3	56	243A13960X	3	61
243A11810X	3	60	243A12950X	3	57	243A13450X	3	56	243A13970X	3	61
243A11820X	3	60	243A12960X	3	56	243A13460X	3	56	243A13980X	3	61
243A11830X	3	60	243A12970X	3	56	243A13470X	3	56	243A13990X	3	61
243A12160X	3	52	243A12980X	3	56	243A13480X	3	57	243A14000X	3	61
243A12170X	3	52	243A12990X	3	56	243A13490X	3	57	243A14010X	3	61
243A12180X	3	52	243A13000X	3	57	243A13500X	3	57	300X10109X	7	22
243A12190X	3	52	243A13010X	3	57	243A13510X	3	57	300X10119X	7	22
243A12200X	3	53	243A13020X	3	57	243A13520X	3	57	300X10149X	7	22
243A12210X	3	53	243A13030X	3	57	243A13530X	3	57	300X10159X	7	22
243A12220X	3	53	243A13040X	3	57	243A13540X	3	57	300X10169X	7	22
243A12230X	3	53	243A13050X	3	57	243A13550X	3	57	300X10179X	7	22
243A12240X	3	53	243A13060X	3	57	243A13560X	3	57	300X10209X	7	22
243A12250X	3	53	243A13070X	3	57	243A13570X	3	57	300X10219X	7	22
243A12260X	3	53	243A13080X	3	57	243A13580X	3	57	300X10729X	7	38
243A12270X	3	53	243A13090X	3	57	243A13590X	3	57	300X10739X	7	38
243A12280X	3	53	243A13100X	3	57	243A13600X	3	56	300X10749X	7	38
243A12290X	3	53	243A13110X	3	57	243A13610X	3	56	300X10759X	7	38
243A12300X	3	53	243A13120X	3	52	243A13620X	3	56	300X10779X	7	38
243A12310X	3	53	243A13130X	3	52	243A13630X	3	56	300X10789X	7	38
243A12320X	3	52	243A13140X	3	52	243A13640X	3	57	300X10799X	7	38
243A12330X	3	52	243A13150X	3	52	243A13650X	3	57	300X10809X	7	38
243A12340X	3	52	243A13160X	3	53	243A13660X	3	57	300X10829X	7	22
243A12350X	3	52	243A13170X	3	53	243A13670X	3	57	300X10839X	7	22
243A12360X	3	53	243A13180X	3	53	243A13680X	3	57	300X10859X	7	22
243A12370X	3	53	243A13190X	3	53	243A13690X	3	57	300X10869X	7	22
243A12380X	3	53	243A13200X	3	53	243A13700X	3	57	300X10879X	7	22
243A12390X	3	53	243A13210X	3	53	243A13710X	3	57	300X10889X	7	22
243A12400X	3	53	243A13220X	3	53	243A13720X	3	57	300X10909X	7	22
243A12410X	3	53	243A13230X	3	53	243A13730X	3	57	300X10919X	7	22
243A12420X	3	53	243A13240X	3	53	243A13740X	3	57	300X11129X	7	10
243A12430X	3	53	243A13250X	3	53	243A13750X	3	57	300X11139X	7	10
243A12440X	3	53	243A13260X	3	53	243A13780X	3	61	300X11149X	7	10
243A12450X	3	53	243A13270X	3	53	243A13790X	3	61	300X11159X	7	10
243A12460X	3	53	243A13280X	3	52	243A13800X	3	61	300X11169X	7	10
243A12470X	3	53	243A13290X	3	52	243A13810X	3	61	300X11179X	7	10
243A12800X	3	56	243A13300X	3	52	243A13820X	3	61	300X11189X	7	10
243A12810X	3	56	243A13310X	3	52	243A13830X	3	61	300X11199X	7	10
243A12820X	3	56	243A13320X	3	53	243A13840X	3	61	300X11209X	7	10
243A12830X	3	56	243A13330X	3	53	243A13850X	3	61	300X11219X	7	10
243A12840X	3	57	243A13340X	3	53	243A13860X	3	61	301A10019X	1	3
243A12850X	3	57	243A13350X	3	53	243A13870X	3	61	301A10029X	1	3
243A12860X	3	57	243A13360X	3	53	243A13880X	3	61	301A10059X	1	3
243A12870X	3	57	243A13370X	3	53	243A13890X	3	61	301A10069X	1	3
243A12880X	3	57	243A13380X	3	53	243A13900X	3	61	301A10079X	1	3
243A12890X	3	57	243A13390X	3	53	243A13910X	3	61	301A10089X	1	11

Part Number	Section	Page	Part Number	Section	Page	Part Number	Section	Page	Part Number	Section	Page
301A10099X	1	11	302A11249X	1	15	303W3CPXX99H20X	2	35	321WA4PAR99F40X	2	15
301A10109X	1	11	302A11259X	1	15	303W3CPXX99H40X	2	35	321WA4PAT99N20X	2	22
301A10119X	1	11	302A11269X	1	15	303W3CPXX99N20X	2	32	321WA4PAT99N40X	2	23
301A10129X	1	33	302A11279X	1	15	303W3CPXX99N40X	2	33	321WA4PAT99P20X	2	23
301A10139X	1	33	302A11289X	1	23	303W3CPXX99P20X	2	33	321WA4PAT99P40X	2	23
301A10149X	1	33	302A11289X	1	23	303W3CPXX99P40X	2	33	321WA4PAU99G20X	2	24
301A10159X	1	33	302A11299X	1	23	303W3CSXX99A10X	2	30	321WA4PAU99G40X	2	25
301A10679X	1	19	302A11309X	1	23	303W3CSXX99A30X	2	30	321WA4PAU99H20X	2	25
301A10689X	1	19	302A11319X	1	23	303W3CSXX99A50X	2	31	321WA4PAU99H40X	2	25
301A10699X	1	19	302A11329X	1	33	303W3CSXX99E20X	2	31	321WA4PXX99A10X	2	36
301A10709X	1	19	302A11339X	1	15	303W3CSXX99E40X	2	31	321WA4PXX99A20X	2	37
301A10869X	1	41	302A11349X	1	15	303W3CSXX99E60X	2	31	321WA4PXX99A30X	2	37
301A10879X	1	41	302A11359X	1	15	303W3CSXX99G20X	2	34	321WA4SAM99A10X	2	10
301A10889X	1	41	302A11369X	1	15	303W3CSXX99G40X	2	35	321WA4SAM99A20X	2	11
301A10899X	1	41	302A11629X	1	41	303W3CSXX99H20X	2	35	321WA4SAM99A30X	2	11
301A10939X	1	15	302W2CPXX99A10X	2	30	303W3CSXX99H40X	2	35	321WA4SAM99A60X	2	11
301A10949X	1	15	302W2CPXX99A30X	2	30	303W3CSXX99N20X	2	32	321WA4SAN99A10X	2	20
301A10959X	1	15	302W2CPXX99A50X	2	31	303W3CSXX99N40X	2	33	321WA4SAN99A20X	2	21
301A10969X	1	15	302W2CPXX99E20X	2	31	303W3CSXX99N20X	2	33	321WA4SAN99A30X	2	21
301A10979X	1	23	302W2CPXX99E40X	2	31	303W3CSXX99P20X	2	33	321WA4SAP99A70X	2	18
301A10989X	1	23	302W2CPXX99E60X	2	31	303W3CSXX99P40X	2	33	321WA4SAP99A80X	2	19
301A10999X	1	23	302W2CPXX99G20X	2	34	320X10549X	1	46	321WA4SAP99W10X	2	19
301A11009X	1	23	302W2CPXX99G40X	2	35	320X10559X	1	46	321WA4SAP99W20X	2	19
301A11019X	1	33	302W2CPXX99H20X	2	35	320X12509X	1	46	321WA4SAR99A10X	2	12
301A11029X	1	15	302W2CPXX99H40X	2	35	320X12519X	1	46	321WA4SAR99A20X	2	13
301A11039X	1	15	302W2CPXX99N20X	2	32	320X12529X	1	46	321WA4SAR99A30X	2	13
301A11049X	1	15	302W2CPXX99N40X	2	33	320X12539X	1	46	321WA4SAR99A40X	2	13
301A11059X	1	15	302W2CPXX99P20X	2	33	320X12549X	1	46	321WA4SAR99A50X	2	13
301A11059X	1	15	302W2CPXX99P40X	2	33	320X12559X	1	46	321WA4SAR99C20X	2	16
301A11369X	1	41	302W2CSXX99A10X	2	30	321WA4PAM99A10X	2	10	321WA4SAR99C40X	2	17
302A10019X	1	3	302W2CSXX99A30X	2	30	321WA4PAM99A20X	2	11	321WA4SAR99C60X	2	17
302A10029X	1	3	302W2CSXX99A50X	2	31	321WA4PAM99A30X	2	11	321WA4SAR99E20X	2	14
302A10059X	1	3	302W2CSXX99E20X	2	31	321WA4PAM99A60X	2	11	321WA4SAR99E40X	2	15
302A10069X	1	3	302W2CSXX99E40X	2	31	321WA4PAN99A10X	2	20	321WA4SAR99F20X	2	15
302A10079X	1	3	302W2CSXX99E60X	2	31	321WA4PAN99A20X	2	21	321WA4SAR99F40X	2	15
302A10089X	1	11	302W2CSXX99E60X	2	31	321WA4PAN99A20X	2	21	321WA4SAT99N20X	2	22
302A10099X	1	11	302W2CSXX99G20X	2	34	321WA4PAN99A30X	2	21	321WA4SAT99N40X	2	23
302A10109X	1	11	302W2CSXX99G40X	2	35	321WA4PAP99A70X	2	18	321WA4SAT99P20X	2	23
302A10119X	1	11	302W2CSXX99H20X	2	35	321WA4PAP99A80X	2	19	321WA4SAT99P40X	2	23
302A10119X	1	11	302W2CSXX99H40X	2	35	321WA4PAP99W10X	2	19	321WA4SAU99G20X	2	24
302A10129X	1	33	302W2CSXX99H40X	2	35	321WA4PAP99W20X	2	19	321WA4SAU99G40X	2	25
302A10139X	1	33	302W2CSXX99N20X	2	32	321WA4PAR99A10X	2	12	321WA4SAU99H20X	2	25
302A10139X	1	33	302W2CSXX99N40X	2	33	321WA4PAR99A20X	2	13	321WA4SAU99H40X	2	25
302A10149X	1	33	302W2CSXX99P20X	2	33	321WA4PAR99A20X	2	13	321WA4SXX99A10X	2	36
302A10159X	1	33	302W2CSXX99P40X	2	33	321WA4PAR99A30X	2	13	321WA4SXX99A20X	2	37
302A10779X	1	19	302W2CSXX99P40X	2	33	321WA4PAR99A40X	2	13	321WA4SXX99A30X	2	37
302A10789X	1	19	303W3CPXX99A10X	2	30	321WA4PAR99A40X	2	13	360X00159X	14	6
302A10799X	1	19	303W3CPXX99A30X	2	30	321WA4PAR99A50X	2	13	360X00169X	14	6
302A10809X	1	19	303W3CPXX99A50X	2	31	321WA4PAR99C20X	2	16	360X00179X	14	6
302A10869X	1	41	303W3CPXX99E20X	2	31	321WA4PAR99C40X	2	17	360X00189X	14	6
302A10869X	1	41	303W3CPXX99E20X	2	31	321WA4PAR99C60X	2	17			
302A10879X	1	41	303W3CPXX99E40X	2	31	321WA4PAR99E20X	2	14			
302A10879X	1	41	303W3CPXX99E60X	2	31	321WA4PAR99E40X	2	15			
302A10889X	1	41	303W3CPXX99G20X	2	34	321WA4PAR99F20X	2	15			
302A10889X	1	41	303W3CPXX99G40X	2	35						
302A10899X	1	41									

## PART NUMBERS

Part Number	Section	Page	Part Number	Section	Page	Part Number	Section	Page	Part Number	Section	Page
360X10069X	14	2	600X51315X	7	9	603W3CSXX59S20X	9	18	795-601306	11	27
360X10079X	14	2	600X51325X	7	9	603W3CSXX59S40X	9	18	795-601307	11	27
360X10219X	14	3	600X51609X	7	9	603W3CSXX61B30X	9	17	795-907600	7	16
360X10329X	14	4	600X51615X	7	9	603W3CSXX61B50X	9	22	795-907600	7	17
360x10339x	14	2	600X51625X	7	9	603W3CSXX68E20X	9	17	795-907700	7	16
360X10409X	14	3	600X54009X	7	21	621WA4PAM61B30X	9	8	795-907700	7	17
360X10519X	14	5	600X54015X	7	21	621WA4PAM61B50X	9	21	795-907800	7	16
360X10629X	14	4	600X54025X	7	21	621WA4PAR68B30X	9	9	795-907800	7	17
360X11019X	14	5	600X54037X	7	21	621WA4PAR68E20X	9	10	3003W3PXX99A10X	2	30
360X11029X	14	5	600X54050X	7	21	621WA4PAT59S20X	9	11	3003W3PXX99A30X	2	30
360X11039X	14	5	600X55009X	7	21	621WA4PAT59S40X	9	12	3003W3PXX99A50X	2	31
360X11049X	14	4	600X55015X	7	21	621WA4PAU59R20X	9	13	3003W3PXX99E20X	2	31
360X11059X	14	4	600X55025X	7	21	621WA4PAU59R40X	9	14	3003W3PXX99E40X	2	31
360X12009X	14	2	600X55037X	7	21	621WA4PAZ59S20X	9	15	3003W3PXX99E60X	2	31
360X12269X	14	3	600X55050X	7	21	621WA4PAZ59S40X	9	16	3003W3PXX99G20X	2	34
360X12369X	14	6	600X56009X	7	21	621WA4SAM61B30X	9	8	3003W3PXX99G40X	2	35
360X15019X	14	6	600X56015X	7	21	621WA4SAM61B50X	9	21	3003W3PXX99H20X	2	35
360X15029X	14	6	600X56025X	7	21	621WA4SAR68B30X	9	9	3003W3PXX99H40X	2	35
360X15039X	14	6	600X56037X	7	21	621WA4SAR68E20X	9	10	3003W3PXX99N20X	2	32
360X15049X	14	6	600X56050X	7	21	621WA4SAT59S20X	9	11	3003W3PXX99N40X	2	33
360X15059X	14	6	600X57009X	7	21	621WA4SAT59S40X	9	12	3003W3PXX99P20X	2	33
360X15069X	14	6	600X57015X	7	21	621WA4SAU59R20X	9	13	3003W3PXX99P40X	2	33
360X15079X	14	6	600X57025X	7	21	621WA4SAU59R40X	9	14	3003W3SXX99A10X	2	30
360X15089X	14	6	600X57037X	7	21	621WA4SAZ59S20X	9	15	3003W3SXX99A30X	2	30
360X15099X	14	6	600X57050X	7	21	621WA4SAZ59S40X	9	16	3003W3SXX99A50X	2	31
360X15109X	14	6	600X517009X	7	39	740-320170	7	48	3003W3SXX99E20X	2	31
360X20029X	14	3	600X517015X	7	39	740-320570	7	48	3003W3SXX99E40X	2	31
360X20039X	14	4	600X517025X	7	39	740-331370	7	48	3003W3SXX99E60X	2	31
360X20069X	14	4	600X517037X	7	39	740-331570	7	48	3003W3SXX99G20X	2	34
360X30029X	11	27	600X517050X	7	39	740-331670	7	48	3003W3SXX99G40X	2	35
360X30039X	11	27	600X518009X	7	39	740-331870	7	48	3003W3SXX99H20X	2	35
360X30049X	11	27	600X518015X	7	39	740-342470	7	48	3003W3SXX99H40X	2	35
391J00039X	11	27	600X518025X	7	39	740-344970	7	48	3003W3SXX99N20X	2	32
391J00049X	11	27	600X518037X	7	39	740-353770	7	48	3003W3SXX99N40X	2	33
402W2CPXX61A10X	9	20	600X518050X	7	39	740-354370	7	48	3003W3SXX99P20X	2	33
402W2CSXX61A10X	9	20	602W2CPXX59S20X	9	18	740-354470	7	48	3003W3SXX99P40X	2	33
403W3CPXX61A10X	9	20	602W2CPXX59S40X	9	18	740-365270	7	48	3005W1PAM99A10X	2	10
403W3CSXX61A10X	9	20	602W2CPXX61B30X	9	17	765-329570	7	48	3005W1PAM99A20X	2	11
421WA4PAM61A10X	9	19	602W2CPXX61B50X	9	22	765-329670	7	48	3005W1PAM99A30X	2	11
421WA4SAM61A10X	9	19	602W2CPXX68E20X	9	17	765-329770	7	48	3005W1PAM99A60X	2	11
500X10015MP	7	29	602W2CSXX59S20X	9	18	765-329870	7	48	3005W1PAN99A10X	2	20
600X51109X	7	7	602W2CSXX59S40X	9	18	795-305420	7	36	3005W1PAN99A20X	2	21
600X51115X	7	7	602W2CSXX61B30X	9	17	795-305490	7	36	3005W1PAN99A30X	2	21
600X51125X	7	7	602W2CSXX61B50X	9	22	795-305580	7	36	3005W1PAP99A70X	2	18
600X51137X	7	7	602W2CSXX68E20X	9	17	795-305640	7	36	3005W1PAP99A80X	2	19
600X51150X	7	7	603W3CPXX59S20X	9	18	795-305710	7	36	3005W1PAP99W10X	2	19
600X51209X	7	8	603W3CPXX59S40X	9	18	795-601302	11	27	3005W1PAP99W20X	2	19
600X51215X	7	8	603W3CPXX61B30X	9	17	795-601303	11	27	3005W1PAR99A10X	2	12
600X51225X	7	8	603W3CPXX61B50X	9	22	795-601304	11	27	3005W1PAR99A20X	2	13
600X51309X	7	9	603W3CPXX68E20X	9	17	795-601305	11	27	3005W1PAR99A30X	2	13







## PART NUMBERS

Part Number	Section	Page	Part Number	Section	Page	Part Number	Section	Page	Part Number	Section	Page
3021W1PAR99A40X	2	13	3021W1SAU99H40X	2	25	3024W7SAR99A20X	2	13	3025W3PAU99G40X	2	25
3021W1PAR99A50X	2	13	3021W1SXX99A10X	2	36	3024W7SAR99A30X	2	13	3025W3PAU99H20X	2	25
3021W1PAR99C20X	2	16	3021W1SXX99A20X	2	37	3024W7SAR99A40X	2	13	3025W3PAU99H40X	2	25
3021W1PAR99C40X	2	17	3021W1SXX99A30X	2	37	3024W7SAR99A50X	2	13	3025W3PXX99A10X	2	36
3021W1PAR99C60X	2	17	3024W7PAM99A10X	2	10	3024W7SAR99C20X	2	16	3025W3PXX99A20X	2	37
3021W1PAR99E20X	2	14	3024W7PAM99A20X	2	11	3024W7SAR99C40X	2	17	3025W3PXX99A30X	2	37
3021W1PAR99E40X	2	15	3024W7PAM99A30X	2	11	3024W7SAR99C60X	2	17	3025W3SAM99A10X	2	10
3021W1PAR99F20X	2	15	3024W7PAM99A60X	2	11	3024W7SAR99E20X	2	14	3025W3SAM99A20X	2	11
3021W1PAR99F40X	2	15	3024W7PAN99A10X	2	20	3024W7SAR99E40X	2	15	3025W3SAM99A30X	2	11
3021W1PAT99N20X	2	22	3024W7PAN99A20X	2	21	3024W7SAR99F20X	2	15	3025W3SAM99A60X	2	11
3021W1PAT99N40X	2	23	3024W7PAN99A30X	2	21	3024W7SAR99F40X	2	15	3025W3SAN99A10X	2	20
3021W1PAT99P20X	2	23	3024W7PAP99A70X	2	18	3024W7SAT99N20X	2	22	3025W3SAN99A20X	2	21
3021W1PAT99P40X	2	23	3024W7PAP99A80X	2	19	3024W7SAT99N40X	2	23	3025W3SAN99A30X	2	21
3021W1PAU99G20X	2	24	3024W7PAP99W10X	2	19	3024W7SAT99P20X	2	23	3025W3SAP99A70X	2	18
3021W1PAU99G40X	2	25	3024W7PAP99W20X	2	19	3024W7SAT99P40X	2	23	3025W3SAP99A80X	2	19
3021W1PAU99H20X	2	25	3024W7PAR99A10X	2	12	3024W7SAU99G20X	2	24	3025W3SAP99W10X	2	19
3021W1PAU99H40X	2	25	3024W7PAR99A20X	2	13	3024W7SAU99G40X	2	25	3025W3SAP99W20X	2	19
3021W1PXX99A10X	2	36	3024W7PAR99A30X	2	13	3024W7SAU99H20X	2	25	3025W3SAR99A10X	2	12
3021W1PXX99A20X	2	37	3024W7PAR99A40X	2	13	3024W7SAU99H40X	2	25	3025W3SAR99A20X	2	13
3021W1PXX99A30X	2	37	3024W7PAR99A50X	2	13	3024W7SXX99A10X	2	36	3025W3SAR99A30X	2	13
3021W1SAM99A10X	2	10	3024W7PAR99C20X	2	16	3024W7SXX99A20X	2	37	3025W3SAR99A40X	2	13
3021W1SAM99A20X	2	11	3024W7PAR99C40X	2	17	3024W7SXX99A30X	2	37	3025W3SAR99A50X	2	13
3021W1SAM99A30X	2	11	3024W7PAR99C60X	2	17	3025W3PAM99A10X	2	10	3025W3SAR99C20X	2	16
3021W1SAM99A60X	2	11	3024W7PAR99E20X	2	14	3025W3PAM99A20X	2	11	3025W3SAR99C40X	2	17
3021W1SAN99A10X	2	20	3024W7PAR99E40X	2	15	3025W3PAM99A30X	2	11	3025W3SAR99C60X	2	17
3021W1SAN99A20X	2	21	3024W7PAR99F20X	2	15	3025W3PAM99A60X	2	11	3025W3SAR99E20X	2	14
3021W1SAN99A30X	2	21	3024W7PAR99F40X	2	15	3025W3PAN99A10X	2	20	3025W3SAR99E40X	2	15
3021W1SAP99A70X	2	18	3024W7PAT99N20X	2	22	3025W3PAN99A20X	2	21	3025W3SAR99F20X	2	15
3021W1SAP99A80X	2	19	3024W7PAT99N40X	2	23	3025W3PAN99A30X	2	21	3025W3SAR99F40X	2	15
3021W1SAP99W10X	2	19	3024W7PAT99P20X	2	23	3025W3PAP99A70X	2	18	3025W3SAT99N20X	2	22
3021W1SAP99W20X	2	19	3024W7PAT99P40X	2	23	3025W3PAP99A80X	2	19	3025W3SAT99N40X	2	23
3021W1SAR99A10X	2	12	3024W7PAU99G20X	2	24	3025W3PAP99W10X	2	19	3025W3SAT99P20X	2	23
3021W1SAR99A20X	2	13	3024W7PAU99G40X	2	25	3025W3PAP99W20X	2	19	3025W3SAT99P40X	2	23
3021W1SAR99A30X	2	13	3024W7PAU99H20X	2	25	3025W3PAR99A10X	2	12	3025W3SAU99G20X	2	24
3021W1SAR99A40X	2	13	3024W7PAU99H40X	2	25	3025W3PAR99A20X	2	13	3025W3SAU99G40X	2	25
3021W1SAR99A50X	2	13	3024W7PXX99A10X	2	36	3025W3PAR99A30X	2	13	3025W3SAU99H20X	2	25
3021W1SAR99C20X	2	16	3024W7PXX99A20X	2	37	3025W3PAR99A40X	2	13	3025W3SAU99H40X	2	25
3021W1SAR99C40X	2	17	3024W7PXX99A30X	2	37	3025W3PAR99A50X	2	13	3025W3SXX99A10X	2	36
3021W1SAR99C60X	2	17	3024W7SAM99A10X	2	10	3025W3PAR99C20X	2	16	3025W3SXX99A20X	2	37
3021W1SAR99E20X	2	14	3024W7SAM99A20X	2	11	3025W3PAR99C40X	2	17	3025W3SXX99A30X	2	37
3021W1SAR99E40X	2	15	3024W7SAM99A30X	2	11	3025W3PAR99C60X	2	17	3027W2PAM99A10X	2	10
3021W1SAR99F20X	2	15	3024W7SAM99A60X	2	11	3025W3PAR99E20X	2	14	3027W2PAM99A20X	2	11
3021W1SAR99F40X	2	15	3024W7SAN99A10X	2	20	3025W3PAR99E40X	2	15	3027W2PAM99A30X	2	11
3021W1SAT99N20X	2	22	3024W7SAN99A20X	2	21	3025W3PAR99F20X	2	15	3027W2PAM99A60X	2	11
3021W1SAT99N40X	2	23	3024W7SAN99A30X	2	21	3025W3PAR99F40X	2	15	3027W2PAN99A10X	2	20
3021W1SAT99P20X	2	23	3024W7SAP99A70X	2	18	3025W3PAT99N20X	2	22	3027W2PAN99A20X	2	21
3021W1SAT99P40X	2	23	3024W7SAP99A80X	2	19	3025W3PAT99N40X	2	23	3027W2PAN99A30X	2	21
3021W1SAU99G20X	2	24	3024W7SAP99W10X	2	19	3025W3PAT99P20X	2	23	3027W2PAN99A10X	2	20
3021W1SAU99G40X	2	25	3024W7SAP99W20X	2	19	3025W3PAT99P40X	2	23	3027W2PAN99A20X	2	21
3021W1SAU99H20X	2	25	3024W7SAR99A10X	2	12	3025W3PAU99G20X	2	24	3027W2PAP99A70X	2	18



Part Number	Section	Page	Part Number	Section	Page	Part Number	Section	Page	Part Number	Section	Page
3027W2PAP99W20X	2	19	3027W2SAT99P40X	2	23	3036W4SAP99A80X	2	19	3043W2PAT99N40X	2	23
3027W2PAR99A10X	2	12	3027W2SAU99G20X	2	24	3036W4SAP99W10X	2	19	3043W2PAT99P20X	2	23
3027W2PAR99A20X	2	13	3027W2SAU99G40X	2	25	3036W4SAP99W20X	2	19	3043W2PAT99P40X	2	23
3027W2PAR99A30X	2	13	3027W2SAU99H20X	2	25	3036W4SAR99A10X	2	12	3043W2PAU99G20X	2	24
3027W2PAR99A40X	2	13	3027W2SAU99H40X	2	25	3036W4SAR99A20X	2	13	3043W2PAU99G40X	2	25
3027W2PAR99A50X	2	13	3027W2SXX99A10X	2	36	3036W4SAR99A30X	2	13	3043W2PAU99H20X	2	25
3027W2PAR99C20X	2	16	3027W2SXX99A20X	2	37	3036W4SAR99A40X	2	13	3043W2PAU99H40X	2	25
3027W2PAR99C40X	2	17	3027W2SXX99A30X	2	37	3036W4SAR99A50X	2	13	3043W2PXX99A10X	2	36
3027W2PAR99E20X	2	14	3036W4PAM99A10X	2	10	3036W4SAR99C20X	2	16	3043W2PXX99A20X	2	37
3027W2PAR99E40X	2	15	3036W4PAM99A20X	2	11	3036W4SAR99C40X	2	17	3043W2PXX99A30X	2	37
3027W2PAR99F20X	2	15	3036W4PAM99A30X	2	11	3036W4SAR99C60X	2	17	3043W2SAM99A10X	2	10
3027W2PAR99F40X	2	15	3036W4PAM99A60X	2	11	3036W4SAR99E20X	2	14	3043W2SAM99A20X	2	11
3027W2PAT99N20X	2	22	3036W4PAN99A10X	2	20	3036W4SAR99E40X	2	15	3043W2SAM99A30X	2	11
3027W2PAT99N40X	2	23	3036W4PAN99A20X	2	21	3036W4SAR99F20X	2	15	3043W2SAM99A60X	2	11
3027W2PAT99P20X	2	23	3036W4PAN99A30X	2	21	3036W4SAR99F40X	2	15	3043W2SAN99A10X	2	20
3027W2PAT99P40X	2	23	3036W4PAP99A70X	2	18	3036W4SAT99N20X	2	22	3043W2SAN99A20X	2	21
3027W2PAU99G20X	2	24	3036W4PAP99A80X	2	19	3036W4SAT99N40X	2	23	3043W2SAN99A30X	2	21
3027W2PAU99G40X	2	25	3036W4PAP99W10X	2	19	3036W4SAT99P20X	2	23	3043W2SAP99A70X	2	18
3027W2PAU99H20X	2	25	3036W4PAP99W20X	2	19	3036W4SAT99P40X	2	23	3043W2SAP99A80X	2	19
3027W2PAU99H40X	2	25	3036W4PAR99A10X	2	12	3036W4SAU99G20X	2	24	3043W2SAP99W10X	2	19
3027W2PXX99A10X	2	36	3036W4PAR99A20X	2	13	3036W4SAU99G40X	2	25	3043W2SAP99W20X	2	19
3027W2PXX99A20X	2	37	3036W4PAR99A30X	2	13	3036W4SAU99H20X	2	25	3043W2SAR99A10X	2	12
3027W2PXX99A30X	2	37	3036W4PAR99A40X	2	13	3036W4SAU99H40X	2	25	3043W2SAR99A20X	2	13
3027W2SAM99A10X	2	10	3036W4PAR99A50X	2	13	3036W4SXX99A10X	2	36	3043W2SAR99A30X	2	13
3027W2SAM99A20X	2	11	3036W4PAR99C20X	2	16	3036W4SXX99A20X	2	37	3043W2SAR99A40X	2	13
3027W2SAM99A30X	2	11	3036W4PAR99C40X	2	17	3036W4SXX99A30X	2	37	3043W2SAR99A50X	2	13
3027W2SAM99A60X	2	11	3036W4PAR99C60X	2	17	3043W2PAM99A10X	2	10	3043W2SAR99C20X	2	16
3027W2SAN99A10X	2	20	3036W4PAR99E20X	2	14	3043W2PAM99A20X	2	11	3043W2SAR99C40X	2	17
3027W2SAN99A20X	2	21	3036W4PAR99E40X	2	15	3043W2PAM99A30X	2	11	3043W2SAR99C60X	2	17
3027W2SAN99A30X	2	21	3036W4PAR99F20X	2	15	3043W2PAM99A60X	2	11	3043W2SAR99E20X	2	14
3027W2SAP99A70X	2	18	3036W4PAR99F40X	2	15	3043W2PAN99A10X	2	20	3043W2SAR99E40X	2	15
3027W2SAP99A80X	2	19	3036W4PAT99N20X	2	22	3043W2PAN99A20X	2	21	3043W2SAR99F20X	2	15
3027W2SAP99W10X	2	19	3036W4PAT99N40X	2	23	3043W2PAN99A30X	2	21	3043W2SAR99F40X	2	15
3027W2SAP99W20X	2	19	3036W4PAT99P20X	2	23	3043W2PAP99A70X	2	18	3043W2SAT99N20X	2	22
3027W2SAR99A10X	2	12	3036W4PAT99P40X	2	23	3043W2PAP99A80X	2	19	3043W2SAT99N40X	2	23
3027W2SAR99A20X	2	13	3036W4PAU99G20X	2	24	3043W2PAP99W10X	2	19	3043W2SAT99P20X	2	23
3027W2SAR99A30X	2	13	3036W4PAU99G40X	2	25	3043W2PAP99W20X	2	19	3043W2SAT99P40X	2	23
3027W2SAR99A40X	2	13	3036W4PAU99H20X	2	25	3043W2PAR99A10X	2	12	3043W2SAU99G20X	2	24
3027W2SAR99A50X	2	13	3036W4PAU99H40X	2	25	3043W2PAR99A20X	2	13	3043W2SAU99G40X	2	25
3027W2SAR99C20X	2	16	3036W4PXX99A10X	2	36	3043W2PAR99A30X	2	13	3043W2SAU99H20X	2	25
3027W2SAR99C40X	2	17	3036W4PXX99A20X	2	37	3043W2PAR99A40X	2	13	3043W2SAU99H40X	2	25
3027W2SAR99C60X	2	17	3036W4PXX99A30X	2	37	3043W2PAR99A50X	2	13	3043W2SXX99A10X	2	36
3027W2SAR99E20X	2	14	3036W4SAM99A10X	2	10	3043W2PAR99C20X	2	16	3043W2SXX99A20X	2	37
3027W2SAR99E40X	2	15	3036W4SAM99A20X	2	11	3043W2PAR99C40X	2	17	3043W2SXX99A30X	2	37
3027W2SAR99F20X	2	15	3036W4SAM99A30X	2	11	3043W2PAR99C60X	2	17	3047W1PAM99A10X	2	10
3027W2SAR99F40X	2	15	3036W4SAM99A60X	2	11	3043W2PAR99E20X	2	14	3047W1PAM99A20X	2	11
3027W2SAR99F40X	2	15	3036W4SAN99A10X	2	20	3043W2PAR99E40X	2	15	3047W1PAM99A30X	2	11
3027W2SAT99N20X	2	22	3036W4SAN99A20X	2	21	3043W2PAR99F20X	2	15	3047W1PAM99A60X	2	11
3027W2SAT99N40X	2	23	3036W4SAN99A30X	2	21	3043W2PAR99F40X	2	15	3047W1PAN99A10X	2	20
3027W2SAT99P20X	2	23	3036W4SAP99A70X	2	18	3043W2PAT99N20X	2	22	3047W1PAN99A20X	2	21

# PART NUMBERS

## Part Number Section | Page

3047W1PAN99A30X	2   21
3047W1PAP99A70X	2   18
3047W1PAP99A80X	2   19
3047W1PAP99W10X	2   19
3047W1PAP99W20X	2   19
3047W1PAR99A10X	2   12
3047W1PAR99A20X	2   13
3047W1PAR99A30X	2   13
3047W1PAR99A40X	2   13
3047W1PAR99A50X	2   13
3047W1PAR99C20X	2   16
3047W1PAR99C40X	2   17
3047W1PAR99C60X	2   17
3047W1PAR99E20X	2   14
3047W1PAR99E40X	2   15
3047W1PAR99F20X	2   15
3047W1PAR99F40X	2   15
3047W1PAT99N20X	2   22
3047W1PAT99N40X	2   23
3047W1PAT99P20X	2   23
3047W1PAT99P40X	2   23
3047W1PAU99G20X	2   24
3047W1PAU99G40X	2   25
3047W1PAU99H20X	2   25
3047W1PAU99H40X	2   25
3047W1PXX99A10X	2   36
3047W1PXX99A20X	2   37
3047W1PXX99A30X	2   37
3047W1SAM99A10X	2   10
3047W1SAM99A20X	2   11
3047W1SAM99A30X	2   11
3047W1SAM99A60X	2   11
3047W1SAN99A10X	2   20
3047W1SAN99A20X	2   21
3047W1SAN99A30X	2   21
3047W1SAP99A70X	2   18
3047W1SAP99A80X	2   19
3047W1SAP99W10X	2   19
3047W1SAP99W20X	2   19
3047W1SAR99A10X	2   12
3047W1SAR99A20X	2   13
3047W1SAR99A30X	2   13
3047W1SAR99A40X	2   13
3047W1SAR99A50X	2   13
3047W1SAR99C20X	2   16
3047W1SAR99C40X	2   17
3047W1SAR99C60X	2   17
3047W1SAR99E20X	2   14
3047W1SAR99E40X	2   15
3047W1SAR99F20X	2   15

## Part Number Section | Page

3047W1SAR99F40X	2   15
3047W1SAT99N20X	2   22
3047W1SAT99N40X	2   23
3047W1SAT99P20X	2   23
3047W1SAT99P40X	2   23
3047W1SAU99G20X	2   24
3047W1SAU99G40X	2   25
3047W1SAU99H20X	2   25
3047W1SAU99H40X	2   25
3047W1SXX99A10X	2   36
3047W1SXX99A20X	2   37
3047W1SXX99A30X	2   37
4003W3PXX61A10X	9   20
4003W3SXX61A10X	9   20
4005W1PAM61A10X	9   19
4005W1SAM61A10X	9   19
4005W5PXX61A10X	9   20
4005W5SXX61A10X	9   20
4007W2PAM61A10X	9   19
4007W2SAM61A10X	9   19
4008W8PXX61A10X	9   20
4008W8SXX61A10X	9   20
4009W4PAM61A10X	9   19
4009W4SAM61A10X	9   19
4011W1PAM61A10X	9   19
4011W1SAM61A10X	9   19
4013W3PAM61A10X	9   19
4013W3SAM61A10X	9   19
4013W6PAM61A10X	9   19
4013W6SAM61A10X	9   19
4017W2PAM61A10X	9   19
4017W2SAM61A10X	9   19
4017W5PAM61A10X	9   19
4017W5SAM61A10X	9   19
4021W1PAM61A10X	9   19
4021W1SAM61A10X	9   19
4024W7PAM61A10X	9   19
4024W7SAM61A10X	9   19
4025W3PAM61A10X	9   19
4025W3SAM61A10X	9   19
4027W2PAM61A10X	9   19
4027W2SAM61A10X	9   19
4036W4PAM61A10X	9   19
4036W4SAM61A10X	9   19
4043W2PAM61A10X	9   19
4043W2SAM61A10X	9   19
4047W1PAM61A10X	9   19
4047W1SAM61A10X	9   19
6003W3PXX59S20X	9   18
6003W3PXX59S40X	9   18

## Part Number Section | Page

6003W3PXX61B30X	9   17
6003W3PXX61B50X	9   22
6003W3PXX68E20X	9   17
6003W3SXX59S20X	9   18
6003W3SXX59S40X	9   18
6003W3SXX61B30X	9   17
6003W3SXX61B50X	9   22
6003W3SXX68E20X	9   17
6005W1PAM61B30X	9   8
6005W1PAM61B50X	9   21
6005W1PAR68B30X	9   9
6005W1PAR68E20X	9   10
6005W1PAT59S20X	9   11
6005W1PAT59S40X	9   12
6005W1PAU59R20X	9   13
6005W1PAU59R40X	9   14
6005W1PAZ59S20X	9   15
6005W1PAZ59S40X	9   16
6005W1SAM61B30X	9   8
6005W1SAM61B50X	9   21
6005W1SAR68B30X	9   9
6005W1SAR68E20X	9   10
6005W1SAT59S20X	9   11
6005W1SAT59S40X	9   12
6005W1SAU59R20X	9   13
6005W1SAU59R40X	9   14
6005W1SAZ59S20X	9   15
6005W1SAZ59S40X	9   16
6005W5PXX59S20X	9   18
6005W5PXX59S40X	9   18
6005W5PXX61B30X	9   17
6005W5PXX61B50X	9   22
6005W5PXX68E20X	9   17
6005W5SXX59S20X	9   18
6005W5SXX59S40X	9   18
6005W5SXX61B30X	9   17
6005W5SXX61B50X	9   22
6005W5SXX68E20X	9   17
6007W2PAM61B30X	9   8
6007W2PAM61B50X	9   21
6007W2PAR68B30X	9   9
6007W2PAR68E20X	9   10
6007W2PAT59S20X	9   11
6007W2PAT59S40X	9   12
6007W2PAU59R20X	9   13
6007W2PAU59R40X	9   14
6007W2PAZ59S20X	9   15
6007W2PAZ59S40X	9   16
6007W2SAM61B30X	9   8
6007W2SAM61B50X	9   21

## Part Number Section | Page

6007W2SAR68B30X	9   9
6007W2SAR68E20X	9   10
6007W2SAT59S20X	9   11
6007W2SAT59S40X	9   12
6007W2SAU59R20X	9   13
6007W2SAU59R40X	9   14
6007W2SAZ59S20X	9   15
6007W2SAZ59S40X	9   16
6008W8PXX59S20X	9   18
6008W8PXX59S40X	9   18
6008W8PXX61B30X	9   17
6008W8PXX61B50X	9   22
6008W8PXX68E20X	9   17
6008W8SXX59S20X	9   18
6008W8SXX59S40X	9   18
6008W8SXX61B30X	9   17
6008W8SXX61B50X	9   22
6008W8SXX68E20X	9   17
6009W4PAM61B30X	9   8
6009W4PAM61B50X	9   21
6009W4PAR68B30X	9   9
6009W4PAR68E20X	9   10
6009W4PAT59S20X	9   11
6009W4PAT59S40X	9   12
6009W4PAU59R20X	9   13
6009W4PAU59R40X	9   14
6009W4PAZ59S20X	9   15
6009W4PAZ59S40X	9   16
6009W4SAM61B30X	9   8
6009W4SAM61B50X	9   21
6009W4SAR68B30X	9   9
6009W4SAR68E20X	9   10
6009W4SAT59S20X	9   11
6009W4SAT59S40X	9   12
6009W4SAU59R20X	9   13
6009W4SAU59R40X	9   14
6009W4SAZ59S20X	9   15
6009W4SAZ59S40X	9   16
6011W1PAM61B30X	9   8
6011W1PAM61B50X	9   21
6011W1PAR68B30X	9   9
6011W1PAR68E20X	9   10
6011W1PAT59S20X	9   11
6011W1PAT59S40X	9   12
6011W1PAU59R20X	9   13
6011W1PAU59R40X	9   14
6011W1PAZ59S20X	9   15
6011W1PAZ59S40X	9   16
6011W1SAM61B30X	9   8
6011W1SAM61B50X	9   21

Part Number	Section	Page	Part Number	Section	Page	Part Number	Section	Page	Part Number	Section	Page
6011W1SAR68B30X	9	9	6017W2PAR68B30X	9	9	6021W1SAR68B30X	9	9	6027W2PAU59R20X	9	13
6011W1SAR68E20X	9	10	6017W2PAR68E20X	9	10	6021W1SAR68E20X	9	10	6027W2PAU59R40X	9	14
6011W1SAT59S20X	9	11	6017W2PAT59S20X	9	11	6021W1SAT59S20X	9	11	6027W2PAZ59S20X	9	15
6011W1SAT59S40X	9	12	6017W2PAT59S40X	9	12	6021W1SAT59S40X	9	12	6027W2PAZ59S40X	9	16
6011W1SAU59R20X	9	13	6017W2PAU59R20X	9	13	6021W1SAU59R20X	9	13	6027W2SAM61B30X	9	8
6011W1SAU59R40X	9	14	6017W2PAU59R40X	9	14	6021W1SAU59R40X	9	14	6027W2SAM61B50X	9	21
6011W1SAZ59S20X	9	15	6017W2PAZ59S20X	9	15	6021W1SAZ59S20X	9	15	6027W2SAR68B30X	9	9
6011W1SAZ59S40X	9	16	6017W2PAZ59S40X	9	16	6021W1SAZ59S40X	9	16	6027W2SAR68E20X	9	10
6013W3PAM61B30X	9	8	6017W2SAM61B30X	9	8	6024W7PAM61B30X	9	8	6027W2SAT59S20X	9	11
6013W3PAM61B50X	9	21	6017W2SAM61B50X	9	21	6024W7PAM61B50X	9	21	6027W2SAT59S40X	9	12
6013W3PAR68B30X	9	9	6017W2SAR68B30X	9	9	6024W7PAR68B30X	9	9	6027W2SAU59R20X	9	13
6013W3PAR68E20X	9	10	6017W2SAR68E20X	9	10	6024W7PAR68E20X	9	10	6027W2SAU59R40X	9	14
6013W3PAT59S20X	9	11	6017W2SAT59S20X	9	11	6024W7PAT81S20X	9	11	6027W2SAZ59S20X	9	15
6013W3PAT59S40X	9	12	6017W2SAT59S40X	9	12	6024W7PAT81S40X	9	12	6027W2SAZ59S40X	9	16
6013W3PAU59R20X	9	13	6017W2SAU59R20X	9	13	6024W7PAU81R20X	9	13	6036W4PAM61B30X	9	8
6013W3PAU59R40X	9	14	6017W2SAU59R40X	9	14	6024W7PAU81R40X	9	14	6036W4PAM61B50X	9	21
6013W3PAZ59S20X	9	15	6017W2SAZ59S20X	9	15	6024W7SAM61B30X	9	8	6036W4PAR68B30X	9	9
6013W3PAZ59S40X	9	16	6017W2SAZ59S40X	9	16	6024W7SAM61B50X	9	21	6036W4PAR68E20X	9	10
6013W3SAM61B30X	9	8	6017W5PAM61B30X	9	8	6024W7SAR68B30X	9	9	6036W4PAT81S20X	9	11
6013W3SAM61B50X	9	21	6017W5PAM61B50X	9	21	6024W7SAR68E20X	9	10	6036W4PAT81S40X	9	12
6013W3SAR68B30X	9	9	6017W5PAR68B30X	9	9	6024W7SAT81S20X	9	11	6036W4PAU81R20X	9	13
6013W3SAR68E20X	9	10	6017W5PAR68E20X	9	10	6024W7SAT81S40X	9	12	6036W4PAU81R40X	9	14
6013W3SAT59S20X	9	11	6017W5PAT59S20X	9	11	6024W7SAU81R20X	9	13	6036W4SAM61B30X	9	8
6013W3SAT59S40X	9	12	6017W5PAT59S40X	9	12	6024W7SAU81R40X	9	14	6036W4SAM61B50X	9	21
6013W3SAU59R20X	9	13	6017W5PAU59R20X	9	13	6025W3PAM61B30X	9	8	6036W4SAR68B30X	9	9
6013W3SAU59R40X	9	14	6017W5PAU59R40X	9	14	6025W3PAM61B50X	9	21	6036W4SAR68E20X	9	10
6013W3SAZ59S20X	9	15	6017W5PAZ59S20X	9	15	6025W3PAR68B30X	9	9	6036W4SAT81S20X	9	11
6013W3SAZ59S40X	9	16	6017W5PAZ59S40X	9	16	6025W3PAR68E20X	9	10	6036W4SAT81S40X	9	12
6013W6PAM61B30X	9	8	6017W5SAM61B30X	9	8	6025W3PAT59S20X	9	11	6036W4SAU81R20X	9	13
6013W6PAM61B50X	9	21	6017W5SAM61B50X	9	21	6025W3PAT59S40X	9	12	6036W4SAU81R40X	9	14
6013W6PAR68B30X	9	9	6017W5SAR68B30X	9	9	6025W3PAU59R20X	9	13	6043W2PAM61B30X	9	8
6013W6PAR68E20X	9	10	6017W5SAR68E20X	9	10	6025W3PAU59R40X	9	14	6043W2PAM61B50X	9	21
6013W6PAT59S20X	9	11	6017W5SAT59S20X	9	11	6025W3PAZ59S20X	9	15	6043W2PAR68B30X	9	9
6013W6PAT59S40X	9	12	6017W5SAT59S40X	9	12	6025W3PAZ59S40X	9	16	6043W2PAR68E20X	9	10
6013W6PAU59R20X	9	13	6017W5SAU59R20X	9	13	6025W3SAM61B30X	9	8	6043W2PAT81S20X	9	11
6013W6PAU59R40X	9	14	6017W5SAU59R40X	9	14	6025W3SAM61B50X	9	21	6043W2PAT81S40X	9	12
6013W6PAZ59S20X	9	15	6017W5SAZ59S20X	9	15	6025W3SAR68B30X	9	9	6043W2PAU81R20X	9	13
6013W6PAZ59S40X	9	16	6017W5SAZ59S40X	9	16	6025W3SAR68E20X	9	10	6043W2PAU81R40X	9	14
6013W6SAM61B30X	9	8	6021W1PAM61B30X	9	8	6025W3SAT59S20X	9	11	6043W2SAM61B30X	9	8
6013W6SAM61B50X	9	21	6021W1PAM61B50X	9	21	6025W3SAT59S40X	9	12	6043W2SAM61B50X	9	21
6013W6SAR68B30X	9	9	6021W1PAR68B30X	9	9	6025W3SAU59R20X	9	13	6043W2SAR68B30X	9	9
6013W6SAR68E20X	9	10	6021W1PAR68E20X	9	10	6025W3SAU59R40X	9	14	6043W2SAR68E20X	9	10
6013W6SAT59S20X	9	11	6021W1PAT59S20X	9	11	6025W3SAZ59S20X	9	15	6043W2SAT81S20X	9	11
6013W6SAT59S40X	9	12	6021W1PAT59S40X	9	12	6025W3SAZ59S40X	9	16	6043W2SAT81S40X	9	12
6013W6SAU59R20X	9	13	6021W1PAU59R20X	9	13	6027W2PAM61B30X	9	8	6043W2SAU81R20X	9	13
6013W6SAU59R40X	9	14	6021W1PAU59R40X	9	14	6027W2PAM61B50X	9	21	6043W2SAU81R40X	9	14
6013W6SAZ59S20X	9	15	6021W1PAZ59S20X	9	15	6027W2PAR68B30X	9	9	6047W1PAM61B30X	9	8
6013W6SAZ59S40X	9	16	6021W1PAZ59S40X	9	16	6027W2PAR68E20X	9	10	6047W1PAM61B50X	9	21
6017W2PAM61B30X	9	8	6021W1SAR68B30X	9	8	6027W2PAT59S20X	9	11	6047W1PAR68B30X	9	9
6017W2PAM61B50X	9	21	6021W1SAR68E20X	9	10	6027W2PAT59S40X	9	12	6047W1PAR68E20X	9	10

# PART NUMBERS

## Part Number Section | Page

6047W1PAT81S20X	9   11
6047W1PAT81S40X	9   12
6047W1PAU81R20X	9   13
6047W1PAU81R40X	9   14
6047W1SAM61B30X	9   8
6047W1SAM61B50X	9   21
6047W1SAR68B30X	9   9
6047W1SAR68E20X	9   10
6047W1SAT81S20X	9   11
6047W1SAT81S40X	9   12
6047W1SAU81R20X	9   13
6047W1SAU81R40X	9   14
DAH5XAAAR03X	1   44
DAH5XAAAR04X	1   44
DLH1XP8AK53X	1   41
DLH1XS8AK53X	1   41
DLH2XP8AK53X	1   41
DLH2XS8AK53X	1   41
DLH3XP8AK53X	1   41
DLH3XS8AK53X	1   41
DLH4XP8AK53X	1   41
DLH4XS8AK53X	1   41
DLH5XP8AK53X	1   41
DLH5XS8AK53X	1   41
DLS1PP5AN21X	1   29
DLS1PP5AN23X	1   29
DLS1PS5AN21X	1   29
DLS1PS5AN23X	1   29
DLS1SP5AN21X	1   29
DLS1SP5AN23X	1   29
DLS1SS5AN21X	1   29
DLS1SS5AN23X	1   29
DLS1XP4AA35X	1   7
DLS1XP4AA37X	1   7
DLS1XP4AA39X	1   7
DLS1XP4AD01X	1   7
DLS1XP4AG06X	1   7
DLS1XPSAG04X	1   11
DLS1XS4AA35X	1   7
DLS1XS4AA37X	1   7
DLS1XS4AA39X	1   7
DLS1XS4AD01X	1   7
DLS1XS4AG06X	1   7
DLS1XSSAG04X	1   11
DLS2PP5AN21X	1   29
DLS2PP5AN23X	1   29
DLS2PS5AN21X	1   29
DLS2PS5AN23X	1   29
DLS2SP5AN21X	1   29
DLS2SP5AN23X	1   29

## Part Number Section | Page

DLS2SS5AN21X	1   29
DLS2SS5AN23X	1   29
DLS2XP4AA35X	1   7
DLS2XP4AA37X	1   7
DLS2XP4AA39X	1   7
DLS2XP4AD01X	1   7
DLS2XP4AG06X	1   7
DLS2XPSAG04X	1   11
DLS2XS4AA35X	1   7
DLS2XS4AA37X	1   7
DLS2XS4AA39X	1   7
DLS2XS4AD01X	1   7
DLS2XS4AG06X	1   7
DLS2XSSAG04X	1   11
DLS3PP5AN21X	1   29
DLS3PP5AN23X	1   29
DLS3PS5AN21X	1   29
DLS3PS5AN23X	1   29
DLS3SP5AN21X	1   29
DLS3SP5AN23X	1   29
DLS3SS5AN21X	1   29
DLS3SS5AN23X	1   29
DLS3XP4AA35X	1   7
DLS3XP4AA37X	1   7
DLS3XP4AA39X	1   7
DLS3XP4AD01X	1   7
DLS3XP4AG06X	1   7
DLS3XPSAG04X	1   11
DLS3XS4AA35X	1   7
DLS3XS4AA37X	1   7
DLS3XS4AA39X	1   7
DLS3XS4AD01X	1   7
DLS3XS4AG06X	1   7
DLS3XSSAG04X	1   11
DLS4PP5AN21X	1   29
DLS4PP5AN23X	1   29
DLS4PS5AN21X	1   29
DLS4PS5AN23X	1   29
DLS4SP5AN21X	1   29
DLS4SP5AN23X	1   29
DLS4SS5AN21X	1   29
DLS4SS5AN23X	1   29
DLS4XP4AA35X	1   7
DLS4XP4AA37X	1   7
DLS4XP4AA39X	1   7
DLS4XP4AD01X	1   7
DLS4XP4AG06X	1   7
DLS4XPSAG04X	1   11
DLS4XS4AA35X	1   7
DLS4XS4AA37X	1   7

## Part Number Section | Page

DL54XS4AA39X	1   7
DL54XS4AD01X	1   7
DL54XS4AG06X	1   7
DL54XS4AG04X	1   11
DL55XP4AA35X	1   7
DL55XP4AA37X	1   7
DL55XP4AA39X	1   7
DL55XP4AD01X	1   7
DL55XP4AG06X	1   7
DL55XS4AA35X	1   7
DL55XS4AA37X	1   7
DL55XS4AA39X	1   7
DL55XS4AD01X	1   7
DL55XS4AG06X	1   7
DSH1XP4AA48X	1   36
DSH1XP4AA58X	1   37
DSH1XP4AA49X	1   36
DSH1XP4AA54X	1   37
DSH1XSGAA48X	1   36
DSH1XSGAA58X	1   37
DSH1XSHAA49X	1   36
DSH1XSHAA54X	1   37
DSH2XP4AA48X	1   36
DSH2XP4AA58X	1   37
DSH2XP4AA49X	1   36
DSH2XP4AA54X	1   37
DSH2XSGAA48X	1   36
DSH2XSGAA58X	1   37
DSH2XSHAA49X	1   36
DSH2XSHAA54X	1   37
DSH3XP4AA48X	1   36
DSH3XP4AA58X	1   37
DSH3XP4AA49X	1   36
DSH3XP4AA54X	1   37
DSH3XSGAA48X	1   36
DSH3XSGAA58X	1   37
DSH3XSHAA49X	1   36
DSH3XSHAA54X	1   37
DSH4XP4AA48X	1   36
DSH4XP4AA58X	1   37
DSH4XP4AA49X	1   36
DSH4XP4AA54X	1   37
DSH4XSGAA48X	1   36
DSH4XSGAA58X	1   37
DSH4XSHAA49X	1   36
DSH4XSHAA54X	1   37
DSH5XP4AA48X	1   36
DSH5XP4AA58X	1   37
DSH5XP4AA49X	1   36
DSH5XP4AA54X	1   37

## Part Number Section | Page

DSH5XSGAA48X	1   36
DSH5XSGAA58X	1   37
DSH5XSHAA49X	1   36
DSH5XSHAA54X	1   37
DSS1XP4AA49X	1   8
DSS1XP4AA50X	1   8
DSS1XP4AA53X	1   9
DSS1XP4AA54X	1   9
DSS1XP4XG03X	1   30
DSS1XP4XG04X	1   30
DSS1XS4AA49X	1   8
DSS1XS4AA50X	1   8
DSS1XS4AA53X	1   9
DSS1XS4AA54X	1   9
DSS1XS4XG03X	1   30
DSS1XS4XG04X	1   30
DSS2XP4AA49X	1   8
DSS2XP4AA50X	1   8
DSS2XP4AA53X	1   9
DSS2XP4AA54X	1   9
DSS2XP4XG03X	1   30
DSS2XP4XG04X	1   30
DSS2XS4AA49X	1   8
DSS2XS4AA50X	1   8
DSS2XS4AA53X	1   9
DSS2XS4AA54X	1   9
DSS2XS4XG03X	1   30
DSS2XS4XG04X	1   30
DSS3XP4AA49X	1   8
DSS3XP4AA50X	1   8
DSS3XP4AA53X	1   9
DSS3XP4AA54X	1   9
DSS3XP4XG03X	1   30
DSS3XP4XG04X	1   30
DSS3XS4AA49X	1   8
DSS3XS4AA50X	1   8
DSS3XS4AA53X	1   9
DSS3XS4AA54X	1   9
DSS3XS4XG03X	1   30
DSS3XS4XG04X	1   30
DSS4XP4AA49X	1   8
DSS4XP4AA50X	1   8
DSS4XP4AA53X	1   9
DSS4XP4AA54X	1   9
DSS4XP4XG03X	1   30
DSS4XP4XG04X	1   30
DSS4XS4AA49X	1   8
DSS4XS4AA50X	1   8
DSS4XS4AA53X	1   9
DSS4XS4AA54X	1   9

## Part Number Section | Page

DSS4XSXXG03X	1   30
DSS4XSXXG04X	1   30
DSS5XPFAA49X	1   8
DSS5XPFAA50X	1   8
DSS5XPFAA53X	1   9
DSS5XPFAA54X	1   9
DSS5XPXXG03X	1   30
DSS5XPXXG04X	1   30
DSS5XF4A49X	1   8
DSS5XF4A50X	1   8
DSS5XF4A53X	1   9
DSS5XF4A54X	1   9
DSS5XSXXG03X	1   30
DSS5XSXXG04X	1   30
MAP1XAAA01R162X	3   59
MAP1XAAA01R262X	3   59
MAP1XAAA01R361X	3   58
MAP1XAAA01R741X	3   59
MAP1XAAA02R162X	3   59
MAP1XAAA02R262X	3   59
MAP1XAAA02R361X	3   58
MAP1XAAA02R741X	3   59
MAP1XAAA01R162X	3   59
MAP1XAAA01R262X	3   59
MAP1XAAA01R361X	3   58
MAP1XAAA01R741X	3   59
MAP1XAAA02R162X	3   59
MAP1XAAA02R262X	3   59
MAP1XAAA02R361X	3   58
MAP1XAAA02R741X	3   59
MAP2XAAA01R162X	3   59
MAP2XAAA01R262X	3   59
MAP2XAAA01R361X	3   58
MAP2XAAA01R741X	3   59
MAP2XAAA02R162X	3   59
MAP2XAAA02R262X	3   59
MAP2XAAA02R361X	3   58
MAP2XAAA02R741X	3   59
MAP2XAAA01R162X	3   59
MAP2XAAA01R262X	3   59
MAP2XAAA01R361X	3   58
MAP2XAAA01R741X	3   59
MAP2XAAA02R162X	3   59
MAP2XAAA02R262X	3   59
MAP2XAAA02R361X	3   58
MAP2XAAA02R741X	3   59
MAP3XAAA01R162X	3   59
MAP3XAAA01R262X	3   59
MAP3XAAA01R361X	3   58
MAP3XAAA01R741X	3   59

## Part Number Section | Page

MAP3XAAA02R162X	3   59
MAP3XAAA02R262X	3   59
MAP3XAAA02R361X	3   58
MAP3XAAA02R741X	3   59
MAP3XAAA01R162X	3   59
MAP3XAAA01R262X	3   59
MAP3XAAA01R361X	3   58
MAP3XAAA01R741X	3   59
MAP3XAAA02R162X	3   59
MAP3XAAA02R262X	3   59
MAP3XAAA02R361X	3   58
MAP3XAAA02R741X	3   59
MAP4XAAA01R162X	3   59
MAP4XAAA01R262X	3   59
MAP4XAAA01R361X	3   58
MAP4XAAA01R741X	3   59
MAP4XAAA02R162X	3   59
MAP4XAAA02R262X	3   59
MAP4XAAA02R361X	3   58
MAP4XAAA02R741X	3   59
MAP4XAAA01R162X	3   59
MAP4XAAA01R262X	3   59
MAP4XAAA01R361X	3   58
MAP4XAAA01R741X	3   59
MAP4XAAA02R162X	3   59
MAP4XAAA02R262X	3   59
MAP4XAAA02R361X	3   58
MAP4XAAA02R741X	3   59
RJ45JS11AC0N0X	6   5
RJ45JS11AC010X	6   5
RJ45JS11AN0N0X	6   5
RJ45JS11AN010X	6   5
RJ45JS11BC0N0X	6   5
RJ45JS11BC010X	6   5
RJ45JS11BN0N0X	6   5
RJ45JS11BN010X	6   5
RJ45JS21AC0N0X	6   7
RJ45JS21AC010X	6   7
RJ45JS21AN0N0X	6   7
RJ45JS21AN010X	6   7
RJ45JS21BC0N0X	6   7
RJ45JS21BC010X	6   7
RJ45JS21BN0N0X	6   7
RJ45JS21BN010X	6   7
RJ45JS41AC0N0X	6   9
RJ45JS41AC010X	6   9
RJ45JS41AN0N0X	6   9
RJ45JS41AN010X	6   9
RJ45JS41BC0N0X	6   9
RJ45JS41BC010X	6   9

## Part Number Section | Page

RJ45JS41BN0N0X	6   9
RJ45JS41BN010X	6   9
RJ45JS61AC0N0X	6   11
RJ45JS61AC010X	6   11
RJ45JS61AN0N0X	6   11
RJ45JS61AN010X	6   11
RJ45JS61BC0N0X	6   11
RJ45JS61BC010X	6   11
RJ45JS61BN0N0X	6   11
RJ45JS61BN010X	6   11
RJ45JS81AC0N0X	6   13
RJ45JS81AC010X	6   13
RJ45JS81AN0N0X	6   13
RJ45JS81AN010X	6   13
RJ45JS81BC0N0X	6   13
RJ45JS81BC010X	6   13
RJ45JS81BN0N0X	6   13
RJ45JS81BN010X	6   13
RJ45TJS11AC0N0X	6   4
RJ45TJS11AC010X	6   4
RJ45TJS11AN0N0X	6   4
RJ45TJS11AN010X	6   4
RJ45TJS11BC0N0X	6   4
RJ45TJS11BC010X	6   4
RJ45TJS11BN0N0X	6   4
RJ45TJS11BN010X	6   4
RJ45TJS21AC0N0X	6   6
RJ45TJS21AC010X	6   6
RJ45TJS21AN0N0X	6   6
RJ45TJS21AN010X	6   6
RJ45TJS21BC0N0X	6   6
RJ45TJS21BC010X	6   6
RJ45TJS21BN0N0X	6   6
RJ45TJS21BN010X	6   6
RJ45TJS41AC0N0X	6   8
RJ45TJS41AC010X	6   8
RJ45TJS41AN0N0X	6   8
RJ45TJS41AN010X	6   8
RJ45TJS41BC0N0X	6   8
RJ45TJS41BC010X	6   8
RJ45TJS41BN0N0X	6   8
RJ45TJS41BN010X	6   8
RJ45TJS61AC0N0X	6   10
RJ45TJS61AC010X	6   10
RJ45TJS61AN0N0X	6   10
RJ45TJS61AN010X	6   10
RJ45TJS61BC0N0X	6   10
RJ45TJS61BC010X	6   10
RJ45TJS61BN0N0X	6   10
RJ45TJS61BN010X	6   10
RJ45TJS81AC0N0X	6   12

## Part Number Section | Page

RJ45TJS81AC010X	6   12
RJ45TJS81AN0N0X	6   12
RJ45TJS81AN010X	6   12
RJ45TJS81BC0N0X	6   12
RJ45TJS81BC010X	6   12
RJ45TJS81BN0N0X	6   12
RJ45TJS81BN010X	6   12

Internet  
[www.conec.com](http://www.conec.com)



Use the fastest connection to reach us. Behind this address you'll find a company with an international well-known name.

Our web side will support you to find all information about us and our product range.



**CONEC**

Elektronische Bauelemente GmbH  
Ostenfeldmark 16  
59557 Lippstadt  
Deutschland

Tel. +49 2941 765-0  
Fax +49 2941 76565  
E-Mail [info@conec.de](mailto:info@conec.de)  
[www.conec.com](http://www.conec.com)

**CONEC Corporation**

125 Sun Pac Blvd.  
Brampton Ontario  
Canada L6S 5Z6  
Tel. +1 905 790 2200  
Fax +1 905 790 2201  
E-Mail [info@conec.com](mailto:info@conec.com)

**CONEC**

343 Technology Drive  
Garner, NC, USA 27529  
Tel. +1 919 460 8800  
Fax +1 919 460 0141  
E-Mail [info@conec.com](mailto:info@conec.com)

**CONEC (UK) Limited**

Ringway House East  
Kelvin Road  
Newbury, Berkshire  
RG14 2DB  
Tel. +44 1635 36929  
Fax +44 1635 36925  
E-Mail [info@conec.co.uk](mailto:info@conec.co.uk)

**CONEC Polska Sp. zo.o**

ul.Szmaragdowa 10  
52-215 Wrocław  
Tel. +48 713744045  
Fax +48 713744049  
E-Mail [info@conec.pl](mailto:info@conec.pl)

**CONEC s.r.o.**

Loucka 119  
76325 Ujezd  
Czech Republic  
Tel. +42 0577 350132  
Fax +42 0577 350134  
E-Mail [info@conec.cz](mailto:info@conec.cz)

**CONEC France SARL**

202 Rue des Chevreuils  
30320 Poulx  
Tel. +33 9 75267217  
Fax +33 4 66570916  
E-Mail [info@conec.fr](mailto:info@conec.fr)

**CONEC (Shanghai)**

Int. Trading Co., Ltd.  
Rm. 715 Yongding Bldg.  
No. 3388 Gong He Xin Rd.  
200436 Shanghai  
Tel. +86 21 66300930  
Fax +86 21 66300911  
E-Mail [info@conec.cn](mailto:info@conec.cn)

**CONEC GmbH Schatz Electronic**

Schubertstr. 14a  
99096 Erfurt  
Tel. +49 361 340110  
Fax +49 361 3401111  
E-Mail [info@schatz-electronic.de](mailto:info@schatz-electronic.de)