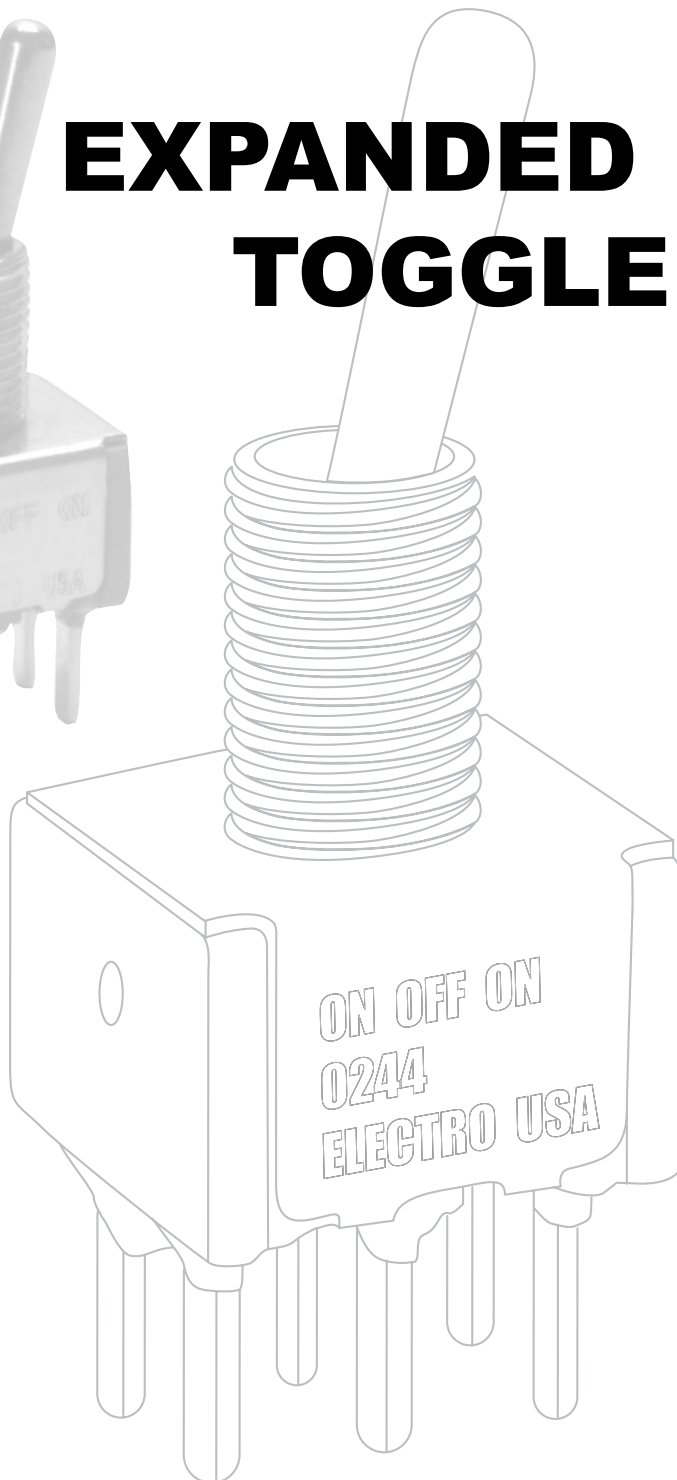




ELECTROSWITCH
• **ELECTRONIC PRODUCTS**

UNIT OF ELECTRO SWITCH CORP.

EXPANDED "A SERIES" TOGGLE SWITCHES



ISO 9001 Registered

Phone: 888-768-2797 or 919-833-0707

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Web site: <http://www.electro-nc.com>

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Electroswitch Offers New Toggle Combinations to Cross Competition.

Electroswitch is pleased to present this new expanded toggle brochure created to provide many additional crosses against competition:

C&K 7000 and E Series

Alco A and MTA Series

NKK M2T and M Series

Apem ST and 5000 Series

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All the new toggle switch combinations are produced at our plant in Raleigh, NC and you get the value of over 55 years of Electroswitch quality.

In the coming months we plan to further expand our miniature switch line to include competitive crosses for rockers and washables.

For information on all of our miniature and rotary switches, please check our web site at www.electro-nc.com

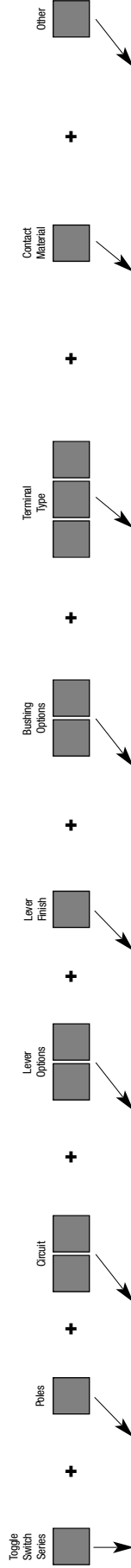


MINIATURE SWITCHES

Ordering Table – Standard Toggle Switches

Following the table from left to right, the designer is able to specify the options wanted. The options are described and illustrated. To determine a part number select the options desired and fill in the boxes in the selection guides illustrated below.

Toggle Switch Selection Guide



| Series | Poles | | Circuits | | Lever Options | | Finishes | | Bushing Options | | Terminal/Mounting Options | | Contact Material | | Other Options | |
|--------|--------|------|------------------------|------|--------------------------------|------|-------------------------|------|--|------|----------------------------------|------|-------------------------------|---|---------------|------|
| | No. | Code | Keyway | Code | Type | Code | Finish | Type | Code | Type | Type | Code | Type | Code | Type | Code |
| A | 1 Pole | 1 | *Momentary Contact | 21 | .410 Bat (Std.) | S | Bright Chrome | 1 | .350 Threaded (Std.) | Y | Solder Lugs (Std.) | Z | Gold/Nickel/Brass | Epoxy Sealed Terminals Anti-Rotation | Std. P | |
| | 2 Pole | 2 | | 23 | .200 Bat (Std.) | M | Satin Chrome | 2 | .370 Threaded High Torque | Y1 | Quick Connect | Z3 | Gold/Nickel/Brass | | | |
| | 3 Pole | 3 | | 26 | Flattened Bats | P1 | Black | 3 | .437 Threaded High Torque w/ Flat | Y5 | Right Angle PC (Std.) | A | Gold/Nickel/Silver | | | |
| | 4 Pole | 4 | | 27 | .840 Flat | P3 | | 4 | .350 Smooth with Keyway | Y91 | Right Angle PC .156 | A2 | Coin Silver | | | |
| | | | | 31 | .450 (Std.) | P4 | | 5 | .350 Smooth | D | Right Angle PC .100 Spacing | A7 | Optional Platings | | | |
| | | | | 33 | .250 Flat | L0 | | 6 | .280 Smooth with Keyway | D91 | Vertical PC .150 Spacing (Std.) | A2 | Same as B, G, Q, respectively | | | |
| | | | | 34 | Longer Bats | L1 | | | .280 Smooth | D9 | Vertical PC .150 Spacing | AV | Terminals tin-lead alloy | | | |
| | | | | 35 | .840 Bat | L2 | | | .280 Smooth with Flat | D8 | Vertical PC .150 Spacing | AV3 | Terminals tin-lead alloy | | | |
| | | | | 53 | .640 Bat | L3 | L3 and L4 Colors | | .350 Flatted with Shoulder (Std.) | H | Right Angle extended PC | AW | Terminals tin-lead alloy | | | |
| | | | | | .840 Plastic | L4 | Black Nylon | | .350 Keyway with Shoulder | H31 | Right Angle extended PC | AW1 | Terminals tin-lead alloy | | | |
| | | | | | .571 Plastic | L5 | Red Nylon | | .315 Threaded High Torque | H4 | Right Angle extended PC | AW3 | Terminals tin-lead alloy | | | |
| | | | | | Large Bats | L6 | White Nylon | | 8mm Threaded High Torque | CW | Printed Circuit Terminals (Std.) | AW4 | K,L,M not available with Z&Z3 | | | |
| | | | | | 15/32" Bushing | T1 | | | Splashproof lever & Bushing Seal | R | Right Angle Same Throw | C | | | | |
| | | | | | .468 Large | T | | | Splashproof lever Seal Only CX | R2 | Right Angle Opposite Throw | R | | | | |
| | | | | | .687 Large | T2 | | | 15/32" Bushing Options for Large Bats | R2 | Right Angle Opposite Throw | R2 | | | | |
| | | | | | .610 Flatted | | | | 15/32 Dia. (Std.) | V20 | .555 PC Support Bracket | R2 | | | | |
| | | | | | Lever Locking Actuators | K1 | | | 15/32 Splashproof Lever Seal Only | V21 | .555 PC Support Bracket | R2 | | | | |
| | | | | | Std. taper threaded | K2 | | | For Locking Lever Only | V30 | .460 PC Snap-In Bracket | R2 | | | | |
| | | | | | Dome threaded | K9 | | | | V31 | .460 PC Support Bracket (Std.) | R2 | | | | |
| | | | Dome unthreaded | K12 | | | | V40 | .460 PC Support Bracket | R2 | | | | | | |
| | | | Taper threaded | K19 | | | | V41 | .630 PC Support Bracket | R2 | | | | | | |
| | | | Taper unthreaded | | | | | V60 | .460 PC Support Bracket | R2 | | | | | | |
| | | | | | | | | V61 | .460 PC Support Bracket | R2 | | | | | | |
| | | | | | | | | V70 | .630 PC Support Bracket | R2 | | | | | | |
| | | | | | | | | V71 | .630 PC Support Bracket | R2 | | | | | | |
| | | | | | | | | V80 | .953 PC Support Bracket | R2 | | | | | | |
| | | | | | | | | V81 | .953 PC Support Bracket | R2 | | | | | | |
| | | | | | | | | V90 | 1.150 PC Support Bracket | R2 | | | | | | |
| | | | | | | | | V91 | 1.150 PC Support Bracket | R2 | | | | | | |
| | | | | | | | | W | .750 Wire Wrap | R2 | | | | | | |
| | | | | | | | | W1 | .964 Wire Wrap | R2 | | | | | | |
| | | | | | | | | W3 | .425 Wire Wrap | R2 | | | | | | |
| | | | | | | | | W4 | 1.062 Wire Wrap | R2 | | | | | | |

SPECIFICATIONS:

Contact Ratings -

Letter codes G,L and Q,M - 6 amp at 125 VAC, 3 amp @ 250 VAC (U.L. recognized, CSA certified) or 6 amp at 28 VDC resistive. Letter codes B,K and G,L - 0.5 volt-amp (VA) maximum @ 28 V maximum (AC or DC).

Life Under Load - 60,000 make-and-break cycles — resistive load only.

Initial Contact Resistance -10 milliohms maximum initial at 3 VDC, 100 ma for both silver and gold plated contacts.

Insulation Resistance - 1,000 megohms, min.

Dielectric Strength - 1,000 volts RMS minimum at sea level.

Weight (including hardware) - SP 0.19 oz.; DP 0.23 oz.; 3-pole 0.28 oz.; 4-pole 0.32 oz.

STANDARD MATERIALS:

Base (body) - Diallyl Phthalate (DAP).

Lever (toggle) - Brass, chrome plated.

Flat Lever - Brass, satin chrome finish.

Locking Lever Cap - Anodized aluminum.

Bushing - Brass, nickel plated.

Clamp (frame) - Stainless steel.

Support Brackets - Steel, tin plated.

Switching Contacts and Rockers -

Letter Code B,K - gold/nickel/brass

Letter Code G,L - gold/nickel/silver

Letter Code Q,M - Coin silver

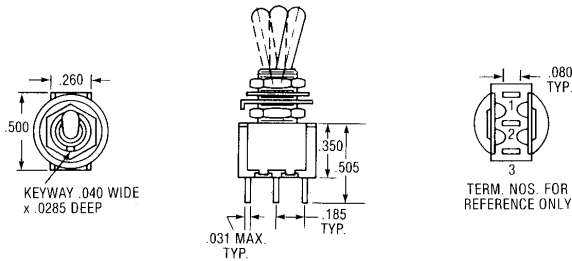
Center Terminal

Letter Codes B,K, G,L - Gold flash/nickel/brass

Letter Code Q,M - Silver plated brass.

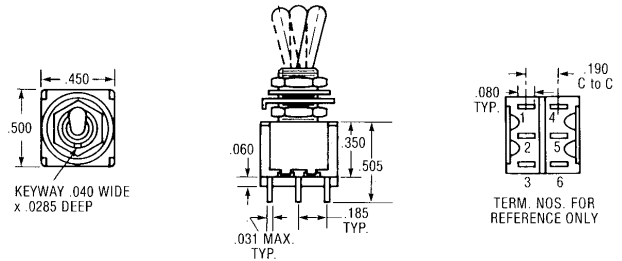
Epoxy sealed terminals are supplied as standard

STANDARD DIMENSIONS & PART NUMBERS



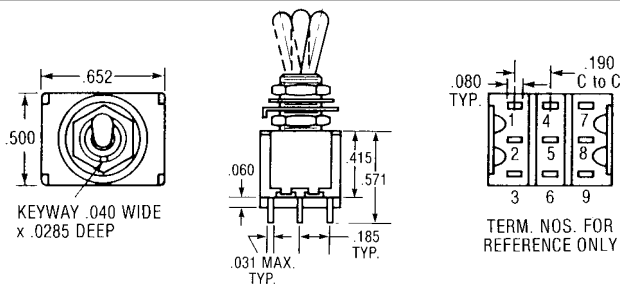
ONE POLE

| Keyway | | | Code | Part Number |
|--------|------|----------|------|-------------|
| ON | OFF | POS. "C" | | |
| ON | OFF | ON | 21 | A121S1YZQ |
| ON | NONE | ON | 23 | A123S1YZQ |
| ON | NONE | ON* | 26 | A126S1YZQ |
| ON* | OFF | ON* | 27 | A127S1YZQ |



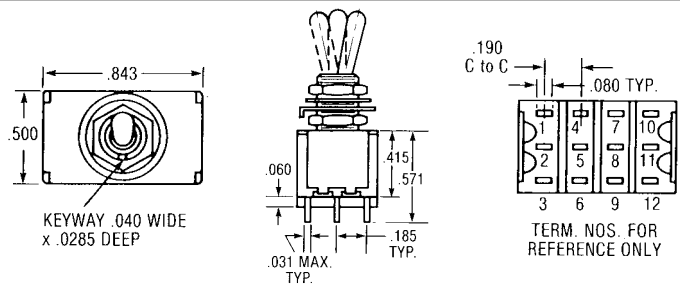
TWO POLE

| Keyway | | | Code | Part Number |
|--------|------|----------|------|-------------|
| ON | OFF | POS. "C" | | |
| ON | OFF | ON | 21 | A221S1YZQ |
| ON | NONE | ON | 23 | A223S1YZQ |
| ON | NONE | ON* | 26 | A226S1YZQ |
| ON* | OFF | ON* | 27 | A227S1YZQ |



THREE POLE

| Keyway | | | Code | Part Number |
|--------|------|----------|------|-------------|
| ON | OFF | POS. "C" | | |
| ON | OFF | ON | 21 | A321S1YZQ |
| ON | NONE | ON | 23 | A323S1YZQ |
| ON | NONE | ON* | 26 | A326S1YZQ |
| ON* | OFF | ON* | 27 | A327S1YZQ |



FOUR POLE

| Keyway | | | Code | Part Number |
|--------|------|----------|------|-------------|
| ON | OFF | POS. "C" | | |
| ON | OFF | ON | 21 | A421S1YZQ |
| ON | NONE | ON | 23 | A423S1YZQ |
| ON | NONE | ON* | 26 | A426S1YZQ |
| ON* | OFF | ON* | 27 | A427S1YZQ |

TOGGLE LEVER OPTIONS

| | | | |
|--|---|---|---|
| <p>S Std. Bat (.410")</p> | <p>T Large Toggle</p> | <p>T1 Large Toggle</p> | <p>T2</p> <p>NEW</p> |
| <p>M Short (.200")</p> | <p>P1 Flatted (.840")</p> <p>Not available with lever seal</p> | <p>P3 Flatted (.448")</p> <p>Not available with lever seal</p> | <p>P4 Flatted (.250")</p> <p>Not available with lever seal</p> |
| <p>L0 Long (.840")</p> <p>Lever shown with dimensions for .352 long bushings</p> | <p>L1 Long (.640")</p> <p>Lever shown with dimensions for .352 long bushings</p> | <p>L2 Long (.550")</p> <p>Lever shown with dimensions for .352 long bushings</p> | <p>L3 Plastic (.840")</p> <p>Lever shown with dimensions for .352 long bushings</p> |
| <p>L4 Plastic (.571")</p> <p>Lever shown with dimensions for .352 long bushings</p> | <p>K1 Locking Lever</p> <p>Lever cap supplied with anodized finish only. No lever seals.</p> | <p>K12 Threaded K19 Unthreaded</p> <p>NEW</p> <p>Lever cap supplied with anodized finish only. No lever seals.</p> | <p>K2 Threaded K9 Unthreaded</p> <p>NEW</p> <p>Lever cap supplied with anodized finish only. No lever seals.</p> |

LEVER LOCK BUSHING STYLES

| | | | | |
|---|---|--|---|--|
| <p>STYLE 1</p> <p>ON-OFF-ON</p> <p>Locked In Three Positions</p> | <p>STYLE 2</p> <p>ON-NONE-ON</p> <p>Locked Out Of Center Positions</p> | <p>STYLE 3</p> <p>ON-NONE-ON*</p> <p>Locked Into Side Opposite Keyway – Momentary Keyway Side</p> | <p>STYLE 4</p> <p>ON*-OFF-ON*</p> <p>Locked In Center Position – Momentary Either Side</p> | <p>STYLE 5</p> <p>ON-OFF-ON*</p> <p>Locked In Center Position – Momentary Keyway Side</p> |
|---|---|--|---|--|

BUSHING OPTIONS

| | |
|------------|--------------------------|
| CX | Threaded with Lever Seal |
| Y | Threaded |
| Y9 | Smooth (No Keyway) |
| Y91 | Smooth w / Keyway |

NEW

| | |
|------------|--------------------|
| D | Threaded |
| D9 | Smooth (No Keyway) |
| D91 | Smooth w / Keyway |
| D8 | Smooth w / Flat |

NEW

Add 0.070 to actuator length when using a .280 long bushing.

| | |
|----------|-----------------------------------|
| H | High Torque Flatted with Shoulder |
|----------|-----------------------------------|

WILL WITHSTAND 12 IN.-LBS. OF TORQUE WITH NO DISTORTION

| | |
|-----------|--------------------------|
| H4 | 8mm Threaded High Torque |
|-----------|--------------------------|

NEW

Will withstand 12 in-lbs of torque with no distortion.

| | |
|-----------|-------------|
| H3 | High Torque |
|-----------|-------------|

WILL WITHSTAND 12 IN.-LB of TORQUE WITH NO DISTORTION. FOR H3 OPTION SUBTRACT .020 FROM ALL TOGGLE LENGTHS.

| | |
|------------|------------------------------|
| H31 | (.315") Threaded High Torque |
|------------|------------------------------|

NEW

Will withstand 12 in-lbs of torque with no distortion.

| | |
|-----------|-----------------------------------|
| Y1 | (.370") Threaded High Torque |
| Y4 | (.370") Flat Threaded High Torque |

NEW

| | |
|-----------|----------------------|
| Y5 | Long Bushing (.437") |
|-----------|----------------------|

| | |
|-----------------|-------------------------------|
| T&TX | Bushing for T, T1 and T2 Bats |
|-----------------|-------------------------------|

| | |
|-----------|---|
| CW | Splashproof Sealed Lever and Panel Seal |
|-----------|---|

| | |
|-----------|---|
| TW | Splashproof Sealed Lever and Panel Seal |
|-----------|---|

| | |
|----------|---------------|
| P | Anti-Rotation |
|----------|---------------|

ANTI-ROTATION (OPTION P) IS AVAILABLE FOR MOST BUSHING TOGGLE COMBINATIONS.

Anti rotation for 15/32" bushing not done w/pin.

TERMINATION SWITCHES

| C | Printed Circuit | W | Wire-Wrap | W1 | Wire-Wrap | W3 | Wire-Wrap | W4 | Wire-Wrap | Z | Standard | Z3 | Quick Connect |
|---|-----------------|---|-----------|----|-----------|----|-----------|--|-----------|---|----------|----|---------------|
| | | | | | | | | Not available in K,L, and M contact materials. | | | | | |

TERMINATION / MOUNTING SWITCHES

| A | Right Angle PC | A3 | Std. Right Angle Snap in |
|-------------------|----------------|---|--------------------------|
| | | | |
| ONE POLE | | Terminal bend radii manufacturing option. | |
| | | | |
| TWO POLE | | Terminal bend radii manufacturing option. | |
| | | | |
| THREE POLE | | Terminal bend radii manufacturing option. | |

EXTENDED TERMINAL OPTIONS (Right Angle PC Terminals)

| AW | AW1 | AW3 | AW4 | Right Angle, Extended PC Thru-Hole | AW | AW1 | AW4 | Right Angle, Extended PC Thru-Hole | AW4 | Right Angle, Extended PC Thru-Hole | | | | | | | | | | | | | | | | | | |
|-------------|---------|---|-------------|------------------------------------|----|-----|-----|------------------------------------|-----|------------------------------------|-----|-----|-----------------|------------|--|--|-------------|---------|----|-----|-----|-----|-----|-----|-----------------|------------|--|-------------------|
| NEW | | <table border="1"> <thead> <tr> <th>OPTION CODE</th> <th>DIM "A"</th> </tr> </thead> <tbody> <tr> <td>AW</td> <td>.50</td> </tr> <tr> <td>AW1</td> <td>.72</td> </tr> <tr> <td>AW3</td> <td>.20</td> </tr> <tr> <td>AW4</td> <td>.83</td> </tr> </tbody> </table> | OPTION CODE | DIM "A" | AW | .50 | AW1 | .72 | AW3 | .20 | AW4 | .83 | ONE POLE | NEW | | <table border="1"> <thead> <tr> <th>OPTION CODE</th> <th>DIM "A"</th> </tr> </thead> <tbody> <tr> <td>AW</td> <td>.19</td> </tr> <tr> <td>AW1</td> <td>.40</td> </tr> <tr> <td>AW4</td> <td>.50</td> </tr> </tbody> </table> | OPTION CODE | DIM "A" | AW | .19 | AW1 | .40 | AW4 | .50 | TWO POLE | NEW | | THREE POLE |
| OPTION CODE | DIM "A" | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| AW | .50 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| AW1 | .72 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| AW3 | .20 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| AW4 | .83 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| OPTION CODE | DIM "A" | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| AW | .19 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| AW1 | .40 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| AW4 | .50 | | | | | | | | | | | | | | | | | | | | | | | | | | | |

TERMINATION / MOUNTING OPTIONS

A2 Right Angle PC .156" Spacing

NEW

Not available w/ CW, H, H3, T, TX, TW, T1, K2, K9, K19, H4, Y1, & Y4. Large bushing and shoulders interfere with printed circuit board.

A4 Right Angle PC .156" Spacing

NEW

Not available w/ CW, H, H3, T, TX, TW, T1, K2, K9, K19, H4, Y1, & Y4. Large bushing and shoulders interfere with printed circuit board.

A7 Right Angle PC .200" Spacing

NEW

SECTION A-A

Not available w/ CW, H, H3, T, TX, TW, T1, K2, K9, K19, H4, Y1, & Y4. Large bushing and shoulders interfere with printed circuit board.

R Right Angle Same Throw

Contacts Make on Same Side Toggle Throw

ONE POLE

Not available w/ CW, H, H3, T, TX, TW, T1, K2, K9, K19, H4, Y1, & Y4. Large bushing and shoulders interfere with printed circuit board. Not UL or CSA recognized.

R2 Right Angle Opposite Throw

Contacts Make on Opposite Side Toggle Throw

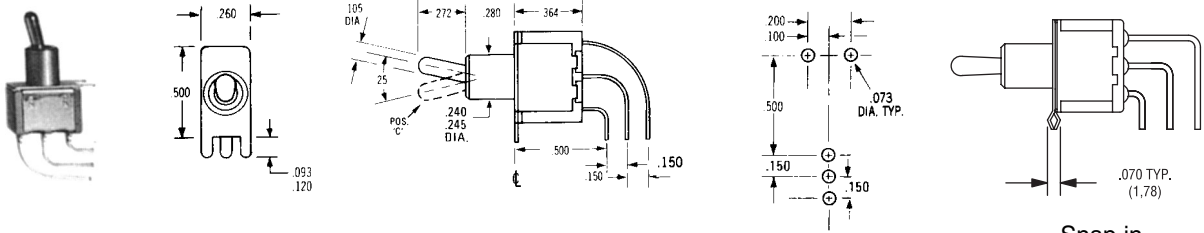
ONE POLE

Not available w/ CW, H, H3, T, TX, TW, T1, K2, K9, K19, H4, Y1, & Y4. Large bushing and shoulders interfere with printed circuit board.

TERMINATION / MOUNTING OPTIONS

- AV** w/.100" Terminal Spacing
- AV2** w/.150" Terminal Spacing (pictured below)
- AV3** w/.150" Terminal Spacing Snap in Bracket

NEW

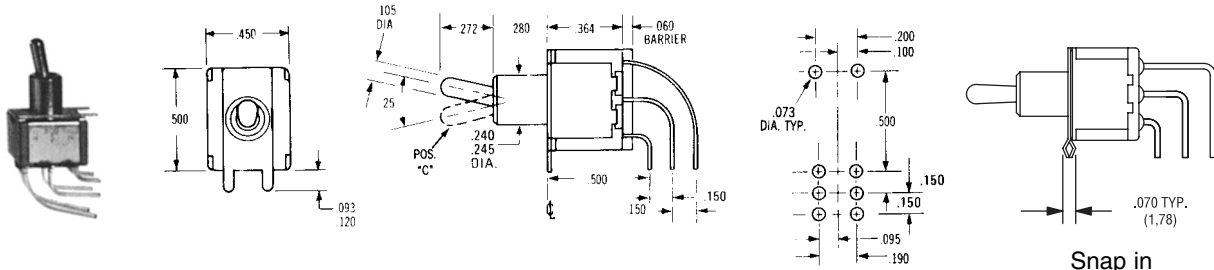


ONE POLE

Terminal bend radii manufacturing option.

- AV** w/.100" Terminal Spacing
- AV2** w/.150" Terminal Spacing (pictured below)
- AV3** w/.150" Terminal Spacing Snap in Bracket

NEW

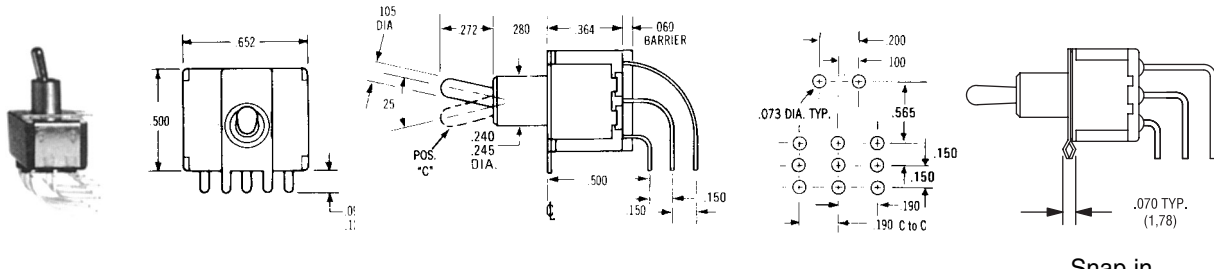


TWO POLE

Terminal bend radii manufacturing option.

- AV** w/.100" Terminal Spacing
- AV2** w/.150" Terminal Spacing (pictured below)
- AV3** w/.150" Terminal Spacing Snap in Bracket

NEW

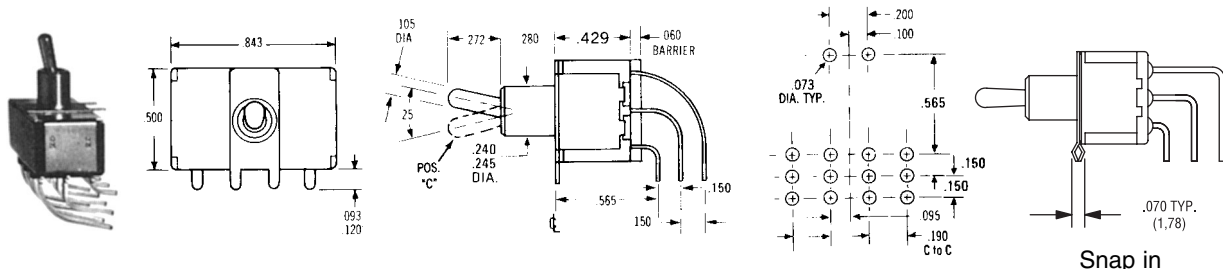


THREE POLE

Terminal bend radii manufacturing option.

- AV** w/.100" Terminal Spacing
- AV2** w/.150" Terminal Spacing (pictured below)
- AV3** w/.150" Terminal Spacing Snap in Bracket

NEW



FOUR POLE

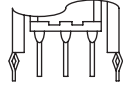
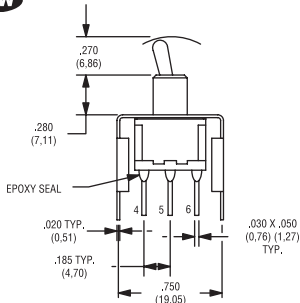
Terminal bend radii manufacturing option.

TERMINATION MOUNTING OPTIONS

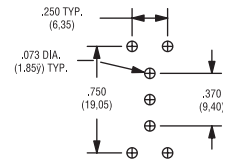
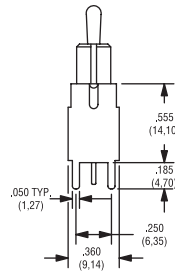
V20 .555" high bracket HD

V21 Snap In HD

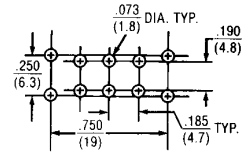
NEW



Snap in



ONE POLE

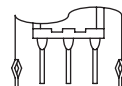
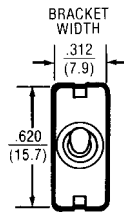
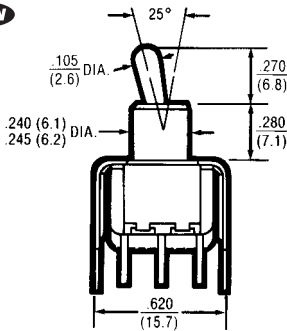


TWO POLE

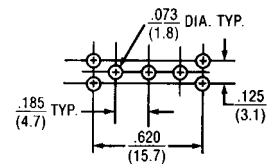
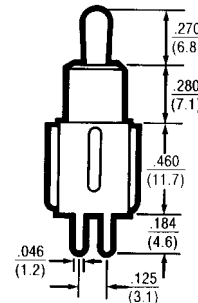
V30 .460" high bracket

V31 Snap In

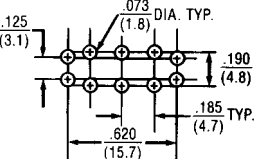
NEW



Snap in



ONE POLE

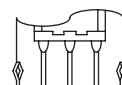
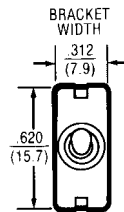
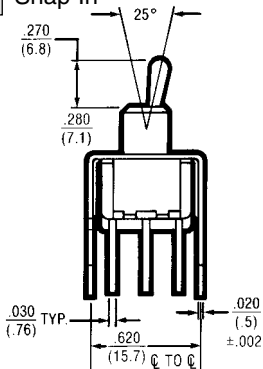


TWO POLE

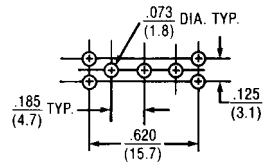
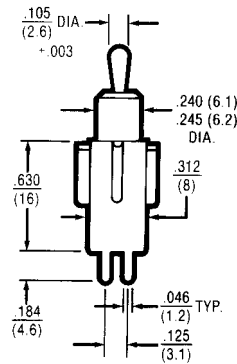
V40 .630" high bracket

V41 Snap In

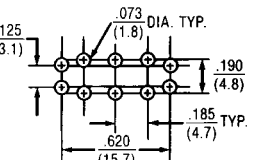
NEW



Snap in



ONE POLE

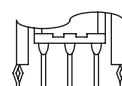
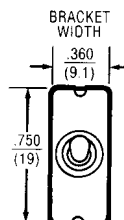
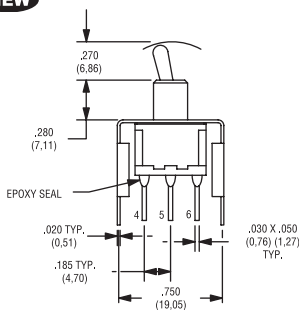


TWO POLE

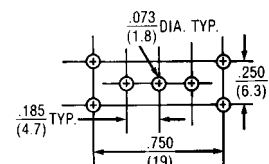
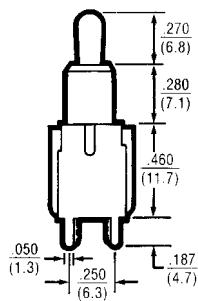
V60 .460" high bracket HD

V61 Snap In HD

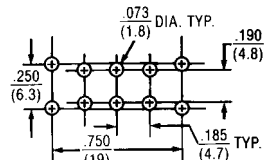
NEW



Snap in



ONE POLE



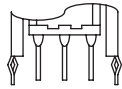
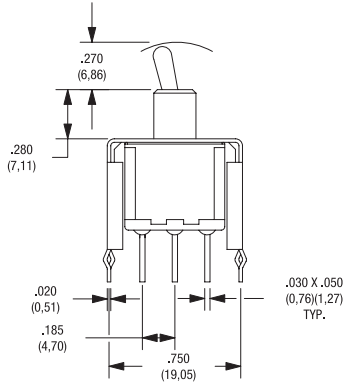
TWO POLE

TERMINATION / MOUNTING OPTIONS

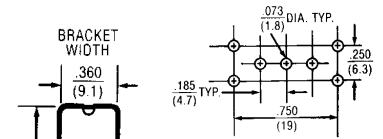
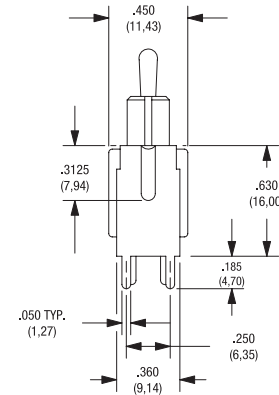
V70 .630" high bracket HD

V71 Snap In HD

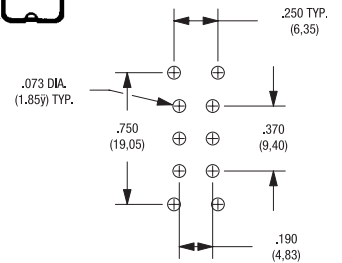
NEW



Snap in



ONE POLE

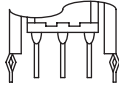
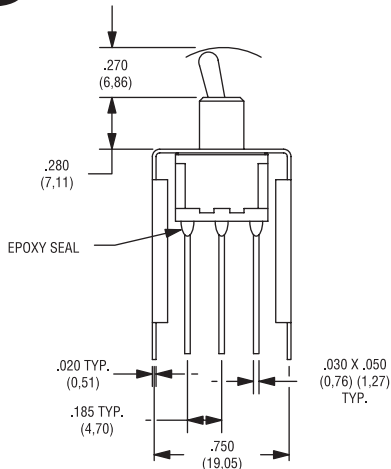


TWO POLE

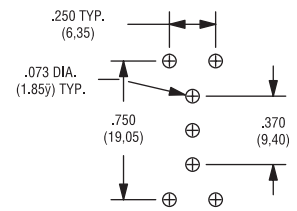
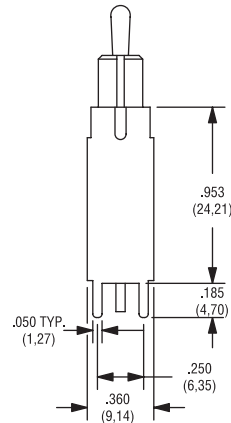
V80 .953" high bracket HD

V81 Snap In HD

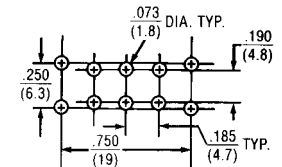
NEW



Snap in



ONE POLE

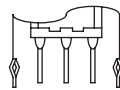
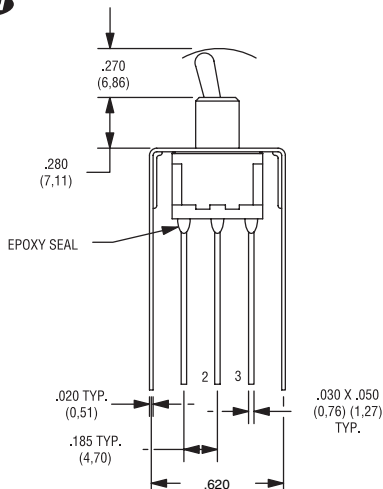


TWO POLE

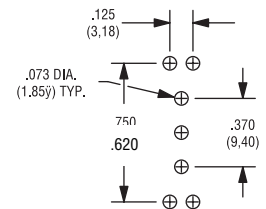
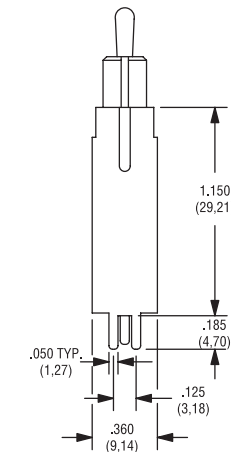
V90 1.150" high bracket

V91 Snap In

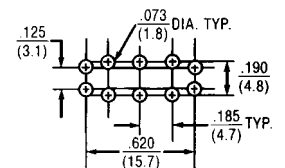
NEW



Snap in



ONE POLE



TWO POLE



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