

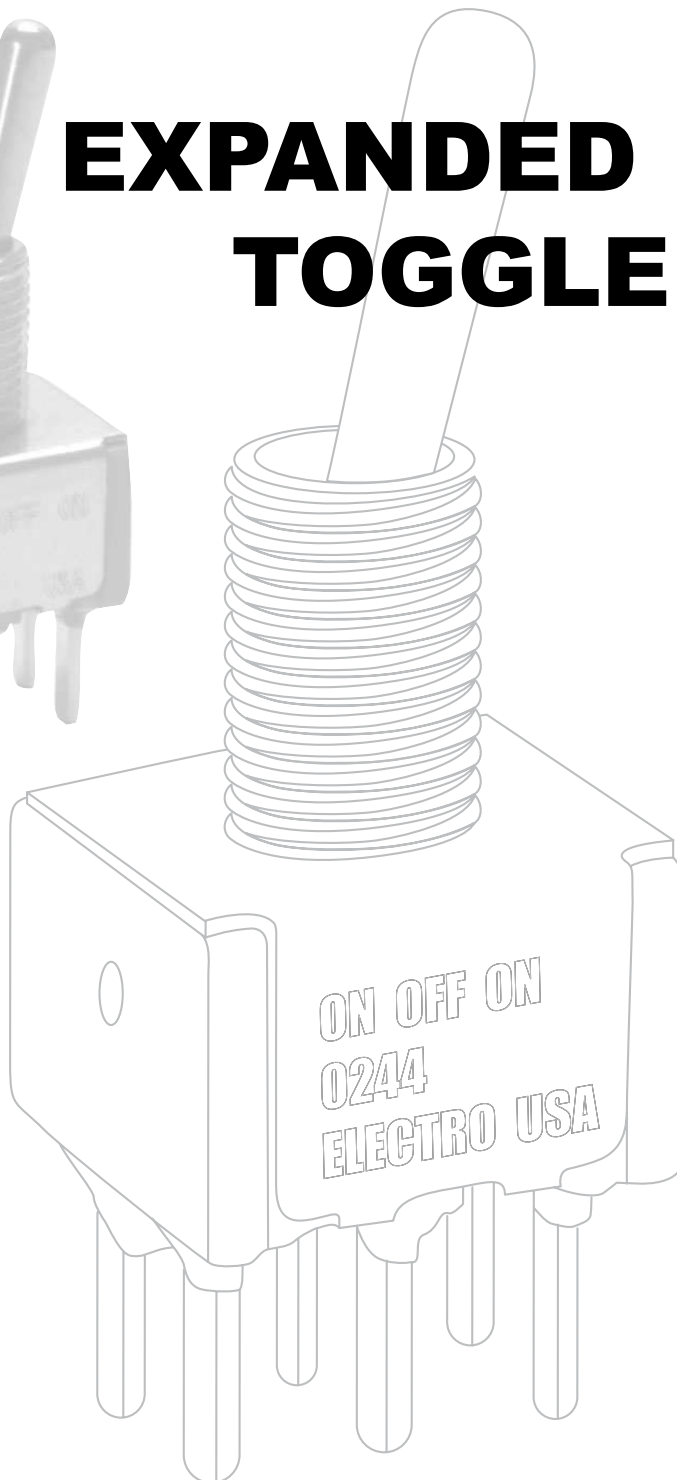


**ELECTROSWITCH**  
• *ELECTRONIC PRODUCTS*  

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*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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## **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**

**E-Switch 100 and 100A Series**

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](http://www.electro-nc.com)

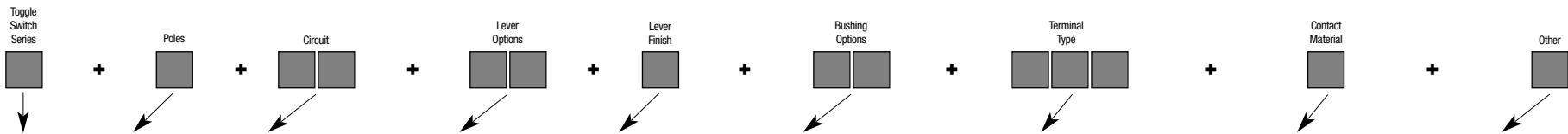


# MINIATURE SWITCHES

## 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			Type	Code	Finish	Code	Type	Code	Type	Code	Type	Code	Type	Code			
A	1 Pole	1	ON	OFF	ON	21	S	Bright Chrome	1	.350 Threaded (Std.)	Y	Solder Lugs (Std.)	Z	Gold/Nickel/Brass Gold/Nickel/Silver Coin Silver  <b>Optional Platings</b> Same as B, G, Q, respectively Terminals tin-lead alloy Terminals tin-lead alloy Terminals tin-lead alloy K,L,M not available with Z&Z3	B G Q	Epoxy Sealed Terminals Anti-Rotation	Std. P			
	2 Pole	2	ON	NONE	ON	23		Satin Chrome	2	.370 Threaded High Torque	Y1	Quick Connect	Z3							
	3 Pole	3	ON	NONE	ON*	26	Black	3	.370 Threaded High Torque w/ Flat	Y4	Right Angle PC (Std.)	A								
	4 Pole	4	ON*	OFF	ON*	27	<b>Flatted Bats</b>	.437 Threaded	Y5	Right Angle PC / Snap-in	A3									
			ON	OFF	ON*	31		.840 Flat	P1	.350 Smooth with Keyway	Y91	Right Angle PC .156	A2							
			ON	ON	ON	32		.450 (Std.)	P3	.350 Smooth	Y9	Right Angle PC .200	A7							
			ON	ON	ON*	33	.250 Flat	P4	.280 Threaded (Std.)	D	Vertical PC .100 Spacing	AV								
			NONE	ON	ON*	34	<b>Longer Bats</b>	.280 Smooth with keyway	D91	Vertical PC .150 Spacing (Std.)	AV2	<b>Optional Platings</b> Same as B, G, Q, respectively Terminals tin-lead alloy Terminals tin-lead alloy Terminals tin-lead alloy	K L M							
			ON*	ON	ON*	35		.840 Bat	L0	.280 Smooth	D9							Vertical PC .150 Snap-in	AV3	
			NONE	ON	ON	53		.640 Bat	L1	.280 Smooth with Flat	D8							Right Angle extended PC	AW	
			NONE	ON	ON		.550 Bat	L2	.350 Flatted with Shoulder	H	Right Angle extended PC	AW1	K,L,M not available with Z&Z3							
			* Momentary Contact				<b>Plastic Bats</b>	.350 Keyway with Shoulder	H3	Right Angle extended PC	H31	Right Angle extended PC						AW3		
								.840 Plastic	L3	.315 Threaded High Torque	H4	Right Angle extended PC						AW4		
								.571 Plastic	L4	8mm Threaded High Torque	CW	Printed Circuit Terminals (Std.)						C		
							<b>Large Bats</b> <b>15/32" Bushing</b>	<b>L3 and L4 Colors</b> Black Nylon Red Nylon White Nylon	4	4	Right Angle Same Throw	R						K,L,M not available with Z&Z3		
									.468 Large	T1	Splashproof lever & Bushing Seal	T							Right Angle Opposite Throw	R2
									.687 Large	T	Splashproof lever Seal Only CX	TW							.555 PC Support Bracket	V20
							.610 Flatted	T2		TX	.555 PC Snap-In Bracket <b>HD</b>	V21								
							<b>Lever Locking Actuators</b> Std. taper threaded Dome threaded Dome unthreaded Taper threaded Taper unthreaded	K1 K2 K9 K12 K19	For Locking Lever Only	K	.460 PC Support Bracket (Std.)	V30								
											.460 PC Snap-In Bracket	V31								
											.630 PC Support Bracket	V40								
											.630 PC Snap-In Bracket	V41								
											.460 PC Support Bracket	V60								
											.460 PC Snap-In Bracket <b>HD</b>	V61								
										.630 PC Support Bracket	V70									
										.630 PC Snap-In Bracket <b>HD</b>	V71									
										.953 PC Support Bracket	V80									
										.953 PC Snap-In Bracket <b>HD</b>	V81									
										1.150 PC Support Bracket	V90									
										1.150 PC Snap-In Bracket	V91									
										.750 Wire Wrap	W									
										.964 Wire Wrap	W1									
										.425 Wire Wrap	W3									
										1.062 Wire Wrap	W4									

## 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

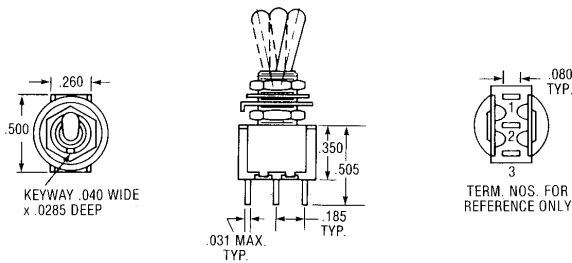
**Center Terminal**

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

Letter Code Q,M - Silver plated brass.

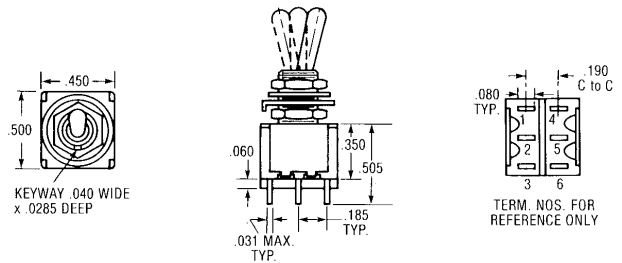
**Epoxy sealed terminals are supplied as standard**

## STANDARD DIMENSIONS & PART NUMBERS



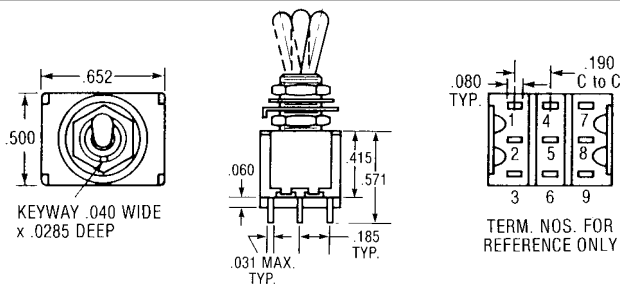
### ONE POLE

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



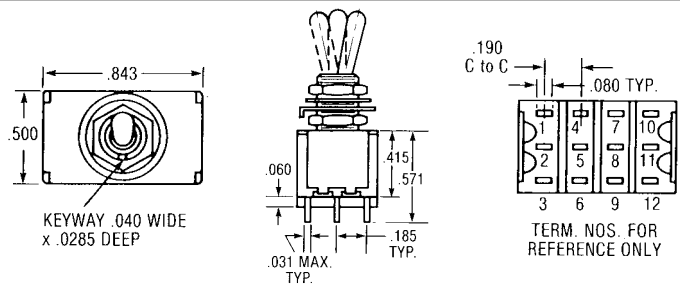
### TWO POLE

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

## LEVER LOCK BUSHING STYLES

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

<b>CX</b>	Threaded with Lever Seal
<b>Y</b>	Threaded
<b>Y9</b>	Smooth (No Keyway)
<b>Y91</b>	Smooth w / Keyway

**NEW**

<b>D</b>	Threaded
<b>D9</b>	Smooth (No Keyway)
<b>D91</b>	Smooth w / Keyway
<b>D8</b>	Smooth w / Flat

**NEW**

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

<b>H</b>	High Torque Flatted with Shoulder
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WILL WITHSTAND 12 IN.-LBS. OF TORQUE WITH NO DISTORTION

<b>H4</b>	8mm Threaded High Torque
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**NEW**

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

<b>H3</b>	High Torque
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WILL WITHSTAND 12 IN.-LB of TORQUE WITH NO DISTORTION. FOR H3 OPTION SUBTRACT .020 FROM ALL TOGGLE LENGTHS.

<b>H31</b>	(.315") Threaded High Torque
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**NEW**

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

<b>Y1</b>	(.370") Threaded High Torque
<b>Y4</b>	(.370") Flat Threaded High Torque

**NEW**

<b>Y5</b>	Long Bushing (.437")
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<b>T&amp;TX</b>	Bushing for T, T1 and T2 Bats
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<b>CW</b>	Splashproof Sealed Lever and Panel Seal
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<b>TW</b>	Splashproof Sealed Lever and Panel Seal
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<b>P</b>	Anti-Rotation
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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

<b>A</b> <b>A3</b>	Right Angle PC Std. Right Angle Snap in					
<b>ONE POLE</b>		Terminal bend radii manufacturing option.				
<b>A</b> <b>A3</b>	Right Angle PC Std. Right Angle Snap in					
<b>TWO POLE</b>		Terminal bend radii manufacturing option.				
<b>A</b> <b>A3</b>	Right Angle PC Std. Right Angle Snap in					
<b>THREE POLE</b>		Terminal bend radii manufacturing option.				

# EXTENDED TERMINAL OPTIONS (Right Angle PC Terminals)

<b>AW</b>	<b>AW1</b>	<b>AW3</b>	<b>AW4</b>	Right Angle, Extended PC Thru-Hole	<b>AW</b>	<b>AW1</b>	<b>AW4</b>	Right Angle, Extended PC Thru-Hole	<b>AW4</b>	Right Angle, Extended PC Thru-Hole															
<b>NEW</b>		<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	<b>NEW</b>		<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	<b>NEW</b>	
OPTION CODE	DIM "A"																								
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AW1	.40																								
AW4	.50																								
<b>ONE POLE</b>		<b>TWO POLE</b>		<b>THREE POLE</b>																					

# 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**

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

KEYWAY .040 WIDE X .0285 DEEP

SWITCH SUPPORT

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

KEYWAY .040 WIDE X .0285 DEEP

SWITCH SUPPORT

Contacts Make on Opposite Side Toggle Throw

**ONE POLE**

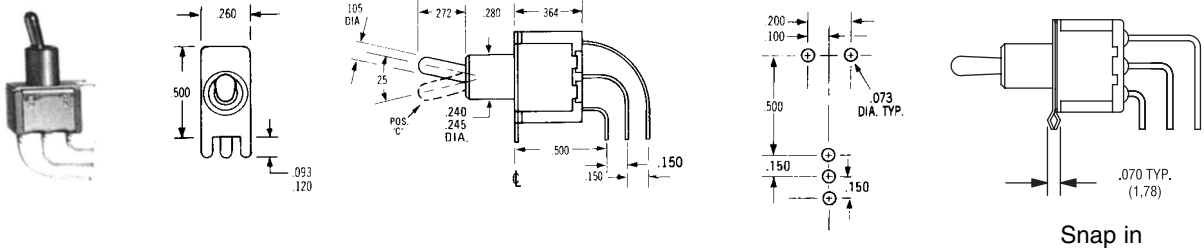
Not available w/ CW, H, H3, T, TX, TW, T1, K2, K9, K19, H4, Y1, & Y4. Large bushing and shoulders interfere with printed circuit board.



# TERMINATION / MOUNTING OPTIONS

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

**NEW**

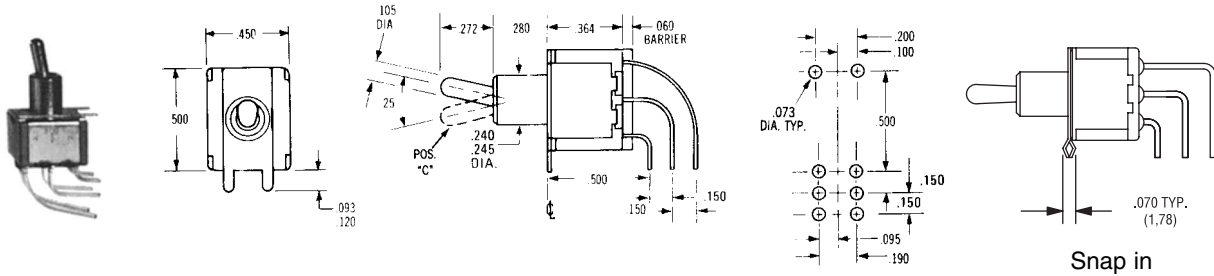


**ONE POLE**

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**

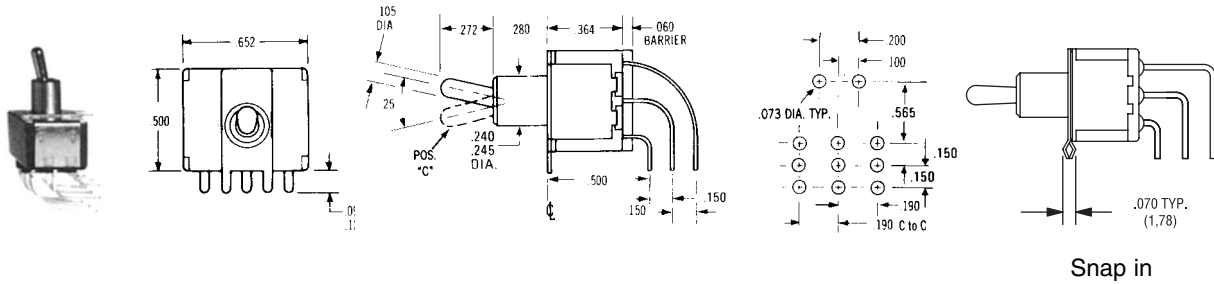


**TWO POLE**

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**

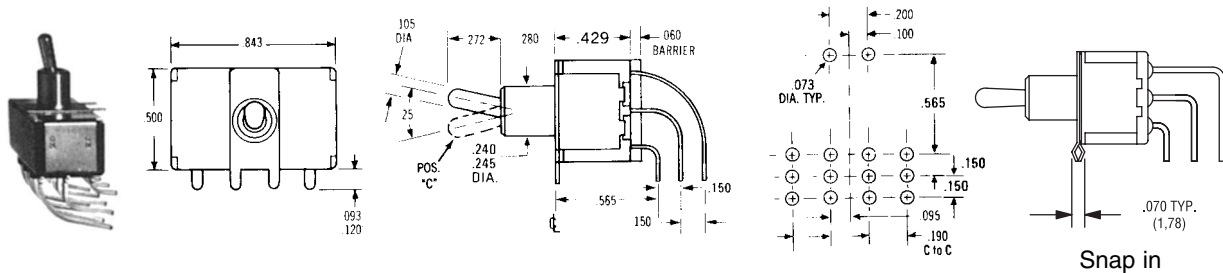


**THREE POLE**

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**

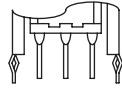
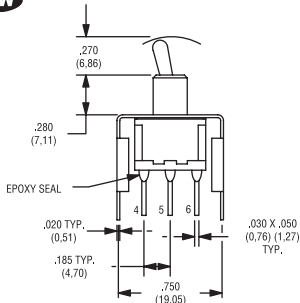
Terminal bend radii manufacturing option.

# TERMINATION MOUNTING OPTIONS

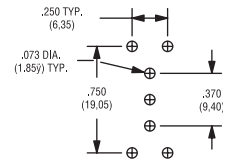
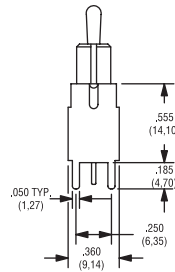
**V20** .555" high bracket HD

**V21** Snap In HD

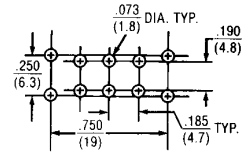
**NEW**



Snap in



**ONE POLE**

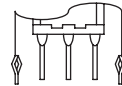
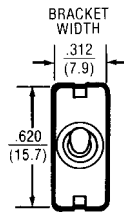
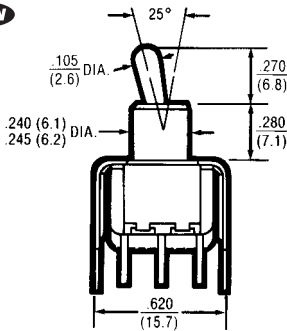


**TWO POLE**

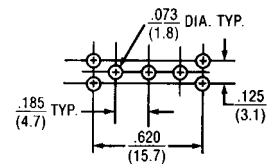
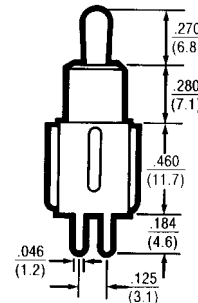
**V30** .460" high bracket

**V31** Snap In

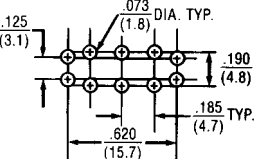
**NEW**



Snap in



**ONE POLE**

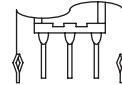
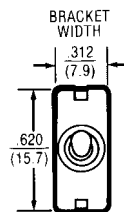
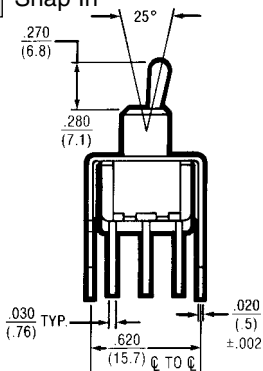


**TWO POLE**

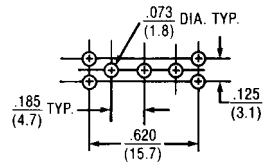
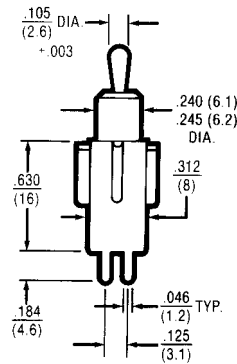
**V40** .630" high bracket

**V41** Snap In

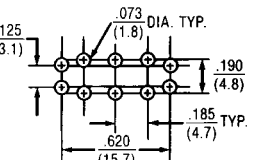
**NEW**



Snap in



**ONE POLE**

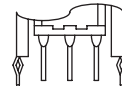
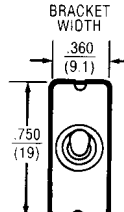
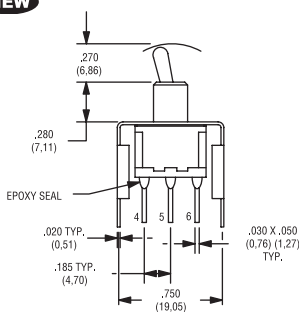


**TWO POLE**

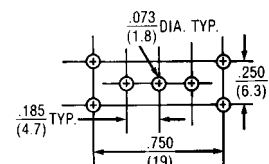
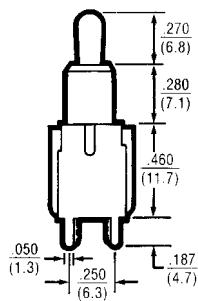
**V60** .460" high bracket HD

**V61** Snap In HD

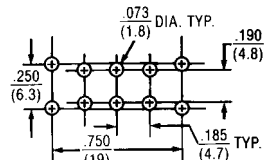
**NEW**



Snap in



**ONE POLE**

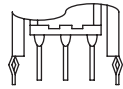
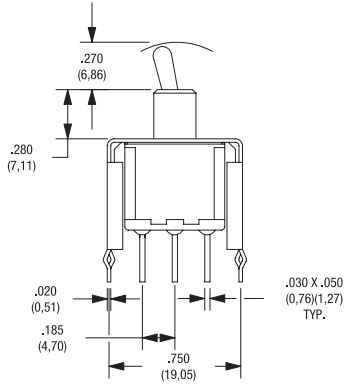


**TWO POLE**

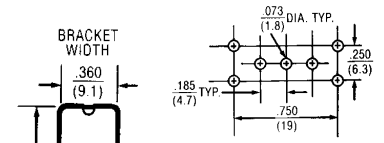
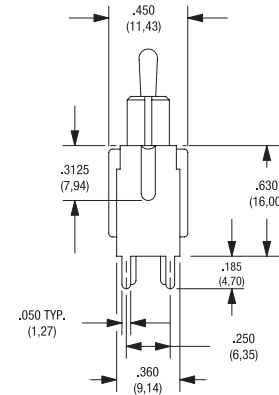
# TERMINATION / MOUNTING OPTIONS

**V70** .630" high bracket HD  
**V71** Snap In HD

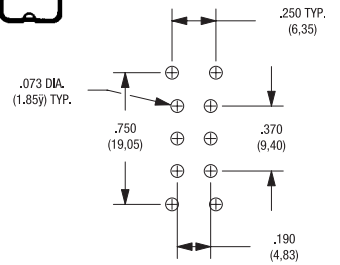
**NEW**



Snap in



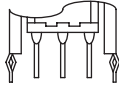
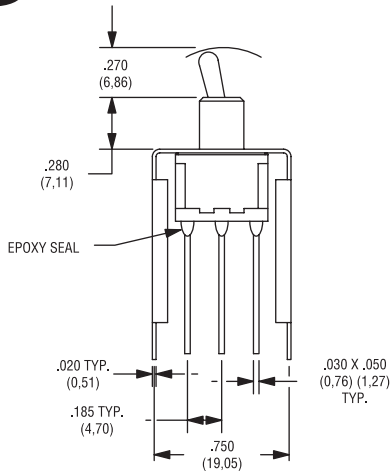
**ONE POLE**



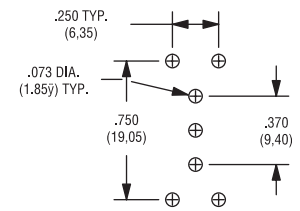
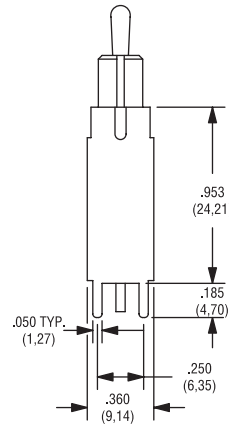
**TWO POLE**

**V80** .953" high bracket HD  
**V81** Snap In HD

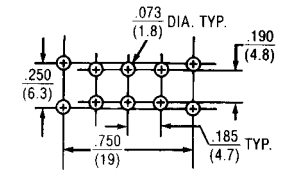
**NEW**



Snap in



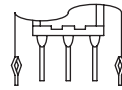
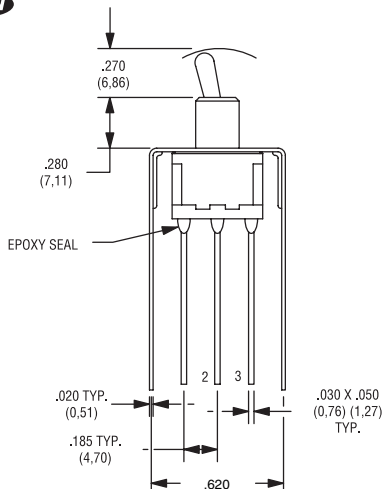
**ONE POLE**



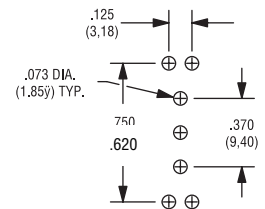
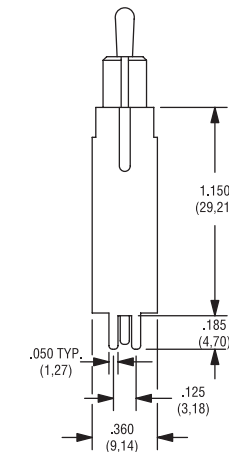
**TWO POLE**

**V90** 1.150" high bracket  
**V91** Snap In

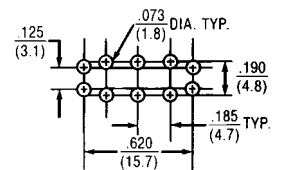
**NEW**



Snap in



**ONE POLE**



**TWO POLE**



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