

# C&K 7000 Series Miniature Toggle Switches



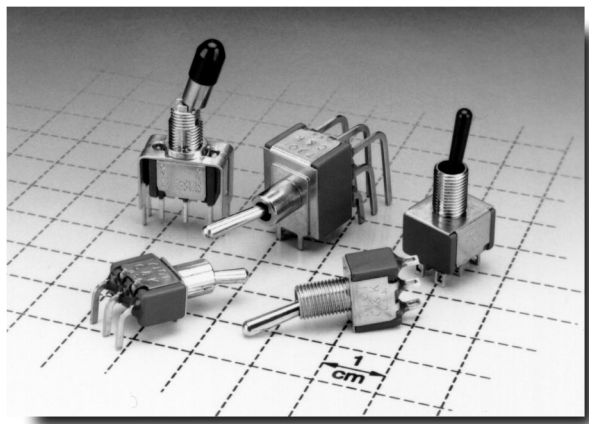
Models Available

## Features/Benefits

- Multi-pole and multi-position
- Wide variety of actuator and termination options
- Epoxy sealed terminals prevent contamination during soldering

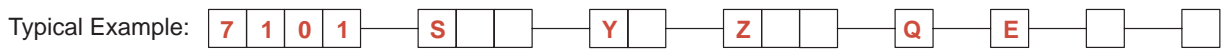
## Typical Applications

- Telecommunications
- Instrumentation
- Medical equipment



## Build-A-Switch

Our easy Build-A-Switch concept allows you to mix and match options to create the switch you need. Below is a complete listing of options shown in catalog. To order, simply select desired option from each category and place in the appropriate box. Switches with standard options are shown on pages A-4 and A-5. Available options are shown and described on pages A-6 thru A-18. For additional options not shown in catalog, consult our Customer Service Center.



### Switch Function

- 7101** (STD.) SP On-None-On
- 7103** (STD.) SP On-Off-On
- 7201** (STD.) DP On-None-On
- 7203** (STD.) DP On-Off-On
- 7211** (STD.) DP On-On-On
- 7301** (STD.) 3P On-None-On
- 7401** (STD.) 4P On-None-On
- 7105** SP Mom.-Off-Mom.
- 7107** SP On-Off-Mom.
- 7108** SP On-None-Mom.
- 7109** SP None-On-Mom.
- 7205** DP Mom.-Off-Mom.
- 7207** DP On-Off-Mom.
- 7208** DP On-None-Mom.
- 7209** DP None-On-Mom.
- 7213** DP On-On-Mom.
- 7215** DP Mom.-On-Mom.
- 7303** 3P On-Off-On
- 7305** 3P Mom.-Off-Mom.
- 7307** 3P On-Off-Mom.
- 7308** 3P On-None-Mom.
- 7309** 3P None-On-Mom.
- 7403** 4P On-Off-On
- 7405** 4P Mom.-Off-Mom.
- 7407** 4P On-Off-Mom.
- 7408** 4P On-None-Mom
- 7409** 4P None-On-Mom.
- 7411** 4P On-On-On
- 7413** 4P On-On-Mom.
- 7415** 4P Mom.-On-Mom.

**Note:** UL/CSA models available, see page A-6.

### Actuator

- M** (STD.) .200" high
- P3** (STD.) Flatted, anti-rotation, .450" high
- S** (STD.) .410" high
- T** (STD.) .687" high, 15/32 bushing
- K2** Locking lever, .704" high
- K9** Locking lever, .704" high
- K12** Locking lever, .732" high
- K19** Locking lever, .732" high
- L** .840" high
- L1** .640" high
- L1P** Anti-rotation, .640" high
- L2** .550" high
- L2P** Anti-rotation, .550" high
- L3** Plastic, .840" high
- L3P** Plastic, anti-rotation, .840" high
- L40** Lever handle without cap
- L41** Lever handle with cap
- L42** Lever handle with cap
- LP** Anti-rotation, .840" high
- MP** Anti-rotation, .200" high
- P1** Flatted, anti-rotation, .840" high
- P4** Flatted, anti-rotation, .250" high
- SP** Anti-rotation, .420" high
- T1** .460" high, 15/32 bushing
- T1P** Anti-rotation, .460" high, 15/32 bushing
- T2P** Flatted, anti-rotation, .610" high, 15/32 bushing,
- TP** Anti-rotation, .687" high, 15/32 bushing

### Bushing

- D** (STD.) .280" high, keyway
- H** (STD.) .296" high, flat
- Y** (STD.) .350" high, keyway
- NONE** No bushing choice required
- CW** Splashproof
- D8** .280" high, flat
- D9** .280" high, keyway
- H3** .315" high, keyway
- H4** 8mm high, keyway
- Y1** .378" high, keyway
- Y3** 8.9mm high, keyway
- Y4** .378" high, flat
- Y9** .350" high, keyway

### Terminations

- A** (STD.) Right angle, PC thru-hole
- AV2** (STD.) Vert. right angle, PC thru-hole
- C** (STD.) PC Thru-hole
- V3** (STD.) .460" high, V-bracket
- Z** (STD.) Solder lug
- A2** Right angle, PC thru-hole
- A3** Right angle, PC thru-hole
- A4** Right angle, PC thru-hole
- A7** Right angle, PC thru-hole
- AV3** Vert. right angle, PC thru-hole
- AW** Right angle, extended, PC thru-hole
- AW1** Right angle, extended, PC thru-hole
- AW3** Right angle, extended, PC thru-hole
- AW4** Right angle, extended, PC thru-hole
- R** Right angle with PCB
- R2** Right angle with PCB
- V2** .555" high, V-bracket
- V4** .630" high, V-bracket
- V6** .460" high, V-bracket
- V7** .630" high, V-bracket
- V8** .953" high, V-bracket
- V9** 1.150" high, V-bracket

### Contact Material

- B** (STD.) Gold
- Q** (STD.) Silver Seal
- K** Gold
- M** Silver
- G** Gold over silver
- L** Gold over silver
- E** (STD.) Epoxy base
- I** Epoxy potted

### Actuator Color/Finish

- NONE** (STD.) Finish
- 0** (STD.) Actuator finish with black bushing
- 1** White
- 2** Black
- 3** Red
- 7** Blue
- S** Satin chrome

### Bushing Finish

- NONE** (STD.) Nickel on all bushings (except D8, satin chrome)
- 2** Black

### KXX Actuator Color/Finish

- NONE** (STD.) Natural aluminum
- 0** (STD.) Natural aluminum with black bushing
- 2** Black anodized aluminum
- 3** Red anodized aluminum
- 7** Blue anodized aluminum
- V21** .555" high, snap-in V-bracket
- V31** .460" high, snap-in V-bracket
- V41** .630" high, snap-in V-bracket
- V61** .460" high, snap-in V-bracket
- V71** .630" high, snap-in V-bracket
- V81** .953" high, snap-in V-bracket
- V91** 1.150" high, snap-in V-bracket
- W** .750" long, wire wrap
- W1** .964" long, wire wrap
- W3** .425" long, wire wrap
- W4** 1.062" long, wire wrap
- W5** 1.305" long, wire wrap
- Z3** Quick connect

# C&K 7000 Series Miniature Toggle Switches

## Specifications

**CONTACT RATING:** B contact material: 0.4 VA max. @ 20 V AC or DC max. Q contact material: 5 AMPS @ 120 V AC or 28 V DC; 2 AMPS @ 250 V AC. See page A-18 for additional ratings.

**ELECTRICAL LIFE:** 7X01 and UX1 models: 100,000 make-and-break cycles at full load. All other models: 40,000 cycles.

**CONTACT RESISTANCE:** Below 10 milliohms typ. initial @ 2-4 V DC, 100 mA, for both silver and gold plated contacts.

**INSULATION RESISTANCE:** 10<sup>9</sup> ohms min.

**DIELECTRIC STRENGTH:** 1000 V RMS min. @ sea level.

**OPERATING TEMPERATURE:** -30°C to 85°C.

**SOLDERABILITY:** Per MIL-STD-202F method 208D, or EIA RS-186E method 9 (1 hour steam aging).

**NOTE:** Specifications and materials listed above are for switches with standard options. For information on specific and custom switches, consult Customer Service Center.

## Materials

**CASE:** Glass filled nylon 6/6, flame retardant, heat stabilized, or diallyl phthalate (DAP) (UL 94V-0).

**ACTUATOR:** Brass, chrome plated.

**BUSHING:** Brass or zinc, nickel plated.

**HOUSING:** Stainless steel.

**SWITCH SUPPORT:** Brass or steel, tin plated.

**END CONTACTS:** B contact material: Copper alloy, with gold plate over nickel plate. Q contact material: Coin silver, silver plated. See page A-18 for additional contact materials.

**CENTER CONTACTS & ALL TERMINALS:** B contact material: Copper alloy, with gold plate over nickel plate. Q contact material: Copper alloy, silver plated. See page A-18 for additional contact materials.

**TERMINAL SEAL:** Epoxy.

**HARDWARE:** Nut & Locking Ring: Brass, nickel plated.  
Lockwasher: Steel, nickel plated.

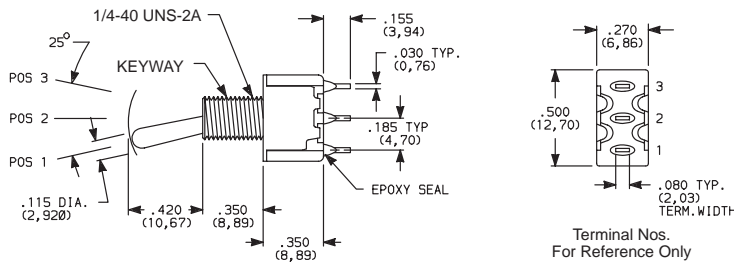
Toggle

A

## SWITCHES WITH STANDARD OPTIONS



7101SYZQE  
SPDT



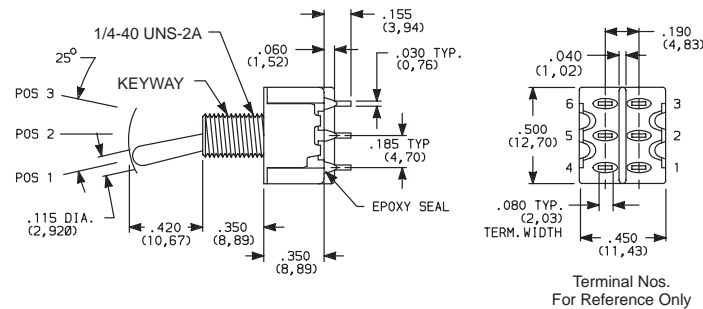
PART NUMBER	NO. POLES	POS. 1	POS. 2	POS. 3
7101SYZBE	SPDT	ON	NONE	ON
7101SYZGE		ON	NONE	ON
7101SYZQE		ON	NONE	ON
7103SYZQE		ON	OFF	ON
7105SYZQE		MOM.	OFF	MOM.
7107SYZQE		ON	OFF	MOM.
7108SYZQE	ON	NONE	MOM.	

MOM. = Momentary

**NOTE:** For PC termination, replace 'Z' with 'C'. For panel mounting information, see page A-9. For PC mounting information, see page A-10.



7201SYZQE  
DPDT



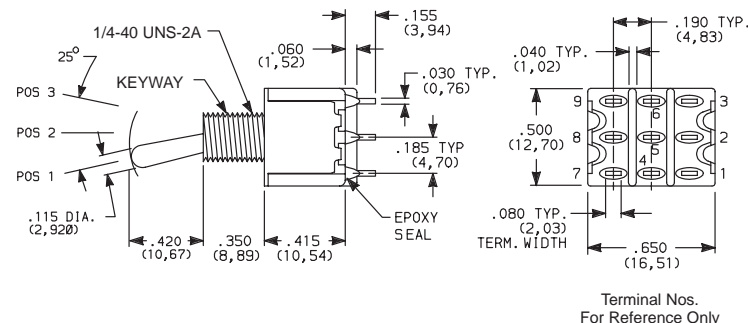
PART NUMBER	NO. POLES	POS. 1	POS. 2	POS. 3
7201SYZQE	DPDT	ON	NONE	ON
7203SYZQE		ON	OFF	ON
7205SYZQE		MOM.	OFF	MOM.
7207SYZQE		ON	OFF	MOM.
7208SYZQE		ON	NONE	MOM.
7211SYZQE		ON	ON	ON

MOM. = Momentary

**NOTE:** For PC termination, replace 'Z' with 'C'. For panel mounting information, see page A-9. For PC mounting information, see page A-10.



7301SYZQE  
3PDT



PART NUMBER	NO. POLES	POS. 1	POS. 2	POS. 3
7301SYZQE	3PDT	ON	NONE	ON
7303SYZQE		ON	OFF	ON

**NOTE:** For PC termination, replace 'Z' with 'C'. For panel mounting information, see page A-9. For PC mounting information, see page A-10.

# C&K 7000 Series Miniature Toggle Switches

## SWITCHES WITH STANDARD OPTIONS

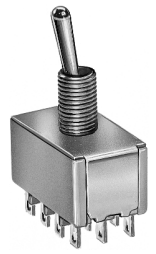
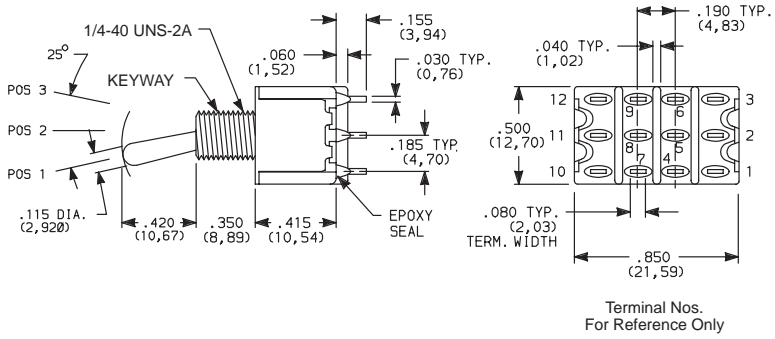


A

Toggle

PART NUMBER	NO. POLES	POS. 1	POS. 2	POS. 3
<b>7401SYZQE</b>	4PDT	ON	NONE	ON
<b>7403SYZQE</b>		ON	OFF	ON
<b>7411SYZQE</b>		ON	ON	ON

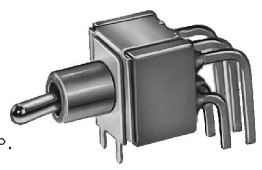
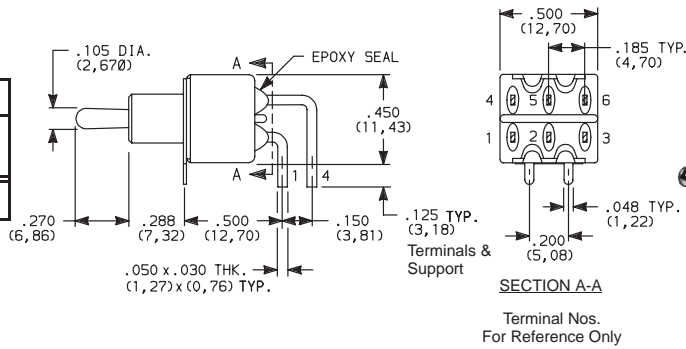
NOTE: For PC termination, replace 'Z' with 'C'.  
For panel mounting information, see page A-9.  
For PC mounting information, see page A-10.



7401SYZQE  
4PDT

PART NUMBER	NO. POLES	POS. 1	POS. 2	POS. 3
<b>7201MD9AQE</b>	DPDT	ON	NONE	ON

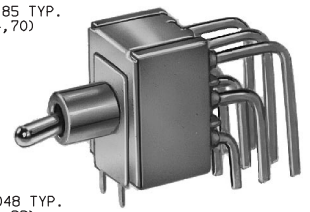
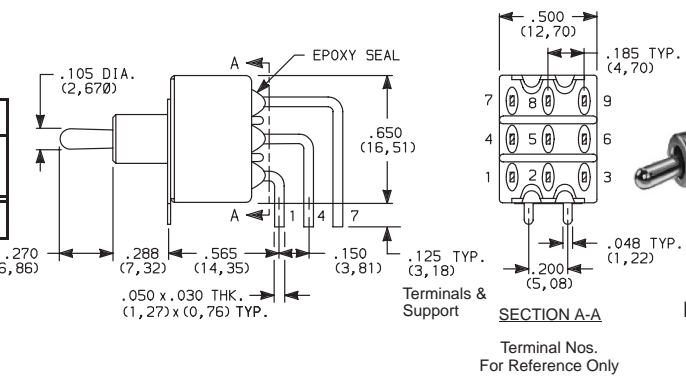
NOTE: For PC mounting information, see page A-11.



7201MD9ABE  
Horizontal Actuation  
DPDT

PART NUMBER	NO. POLES	POS. 1	POS. 2	POS. 3
<b>7301MD9ABE</b>	3PDT	ON	NONE	ON

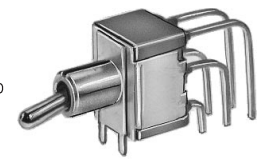
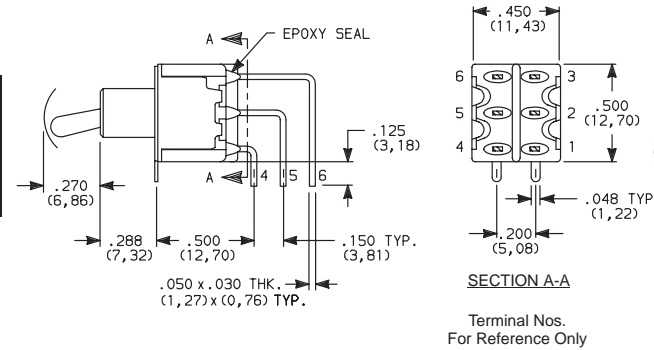
NOTE: For PC mounting information, see page A-11.



7301MD9ABE  
Horizontal Actuation  
3PDT

PART NUMBER	NO. POLES	POS. 1	POS. 2	POS. 3
<b>7201MD9AV2BE</b>	2PDT	ON	NONE	ON

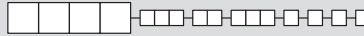
NOTE: For PC mounting information, see page A-13.



7201MD9AV2BE  
Vertical Actuation  
DPDT

# C&K 7000 Series Miniature Toggle Switches

## SWITCH FUNCTION



NO. POLES	MODEL NO.	UL/CSA** MODEL NO.	SWITCH FUNCTION			CONNECTED TERMINALS			SCHEMATIC			
			POS. 1	POS. 2	POS. 3	POS. 1	POS. 2	POS. 3				
SP	7101 (STD.)	U11	ON	NONE	ON	2-3	OPEN	2-1				
	7103 (STD.)	U13	ON	OFF	ON							
	7105	U15	MOM.	OFF	MOM.							
	7107	U17	ON	OFF	MOM.							
	7108	U18	ON	NONE	MOM.							
	7109	U19	NONE	ON	MOM.					N/A	2-3	2-1
DP	7201 (STD.)	U21	ON	NONE	ON	2-3,5-6	OPEN	2-1,5-4				
	7203 (STD.)	U23	ON	OFF	ON							
	7205	U25	MOM.	OFF	MOM.							
	7207	U27	ON	OFF	MOM.							
	7208	U28	ON	NONE	MOM.							
	7209	U29	NONE	ON	MOM.					N/A	2-3,5-6	2-1,5-4
	7211 (STD.)*	U211*	ON	ON	ON							
	7213*	U213*	ON	ON	MOM.					2-3,5-6	2-3,5-4	2-1,5-4
7215*	U215*	MOM.	ON	MOM.								
3P	7301 (STD.)	U31	ON	NONE	ON	2-3,5-6,8-9	OPEN	2-1,5-4,8-7				
	7303	U33	ON	OFF	ON							
	7305	U35	MOM.	OFF	MOM.							
	7307	U37	ON	OFF	MOM.							
	7308	U38	ON	NONE	MOM.							
	7309	U39	NONE	ON	MOM.					N/A	2-3,5-6,8-9	2-1,5-4,8-7
4P	7401 (STD.)	U41	ON	NONE	ON	2-3,5-6,8-9,11-12	OPEN	2-1,5-4,8-7,11-10				
	7403	U43	ON	OFF	ON							
	7405	U45	MOM.	OFF	MOM.							
	7407	U47	ON	OFF	MOM.							
	7408	U48	ON	NONE	MOM.							
	7409	U49	NONE	ON	MOM.					N/A	2-3,5-6,8-9,11-12	2-1,5-4,8-7,11-10
	7411*	U411*	ON	ON	ON							
	7413*	U413*	ON	ON	MOM.					2-3,5-6,8-9,11-12	2-3,5-4,8-9,11-10	2-1,5-4,8-7,11-10
7415*	U415*	MOM.	ON	MOM.								

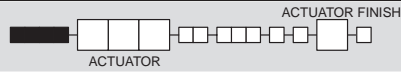
MOM. = Momentary

\* Wiring for 3-way switch, see page L-29.

\*\*U11-U415 model nos. with all options when ordered with G, L, M or Q contact material.

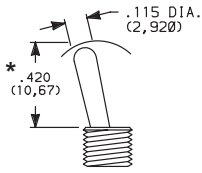
# C&K 7000 Series Miniature Toggle Switches

## ACTUATOR



**S** (STD.) .410" HIGH <sup>1</sup>

**SP** ANTIROTATION, .420" HIGH <sup>2,3</sup>

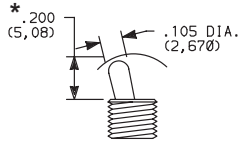


S actuator standard when ordered with C, W-W5, Z & Z3 terminations.

**NOTE:** Caps are available separately, see page L-10.

**M** (STD.) .200" HIGH <sup>1</sup>

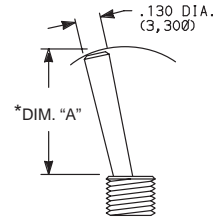
**MP** ANTIROTATION, .200" HIGH <sup>2,3</sup>



M actuator standard when ordered with all terminations except C, W-W5, Z & Z3.

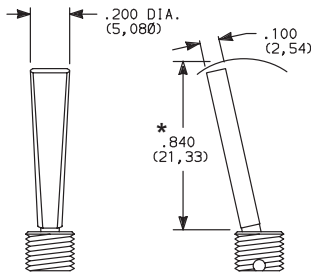
**L, L1, L2** .840", .640", .550" HIGH <sup>1</sup>

**LP, L1P, L2P** ANTIROTATION, .840", .640", .550" HIGH <sup>2,3</sup>

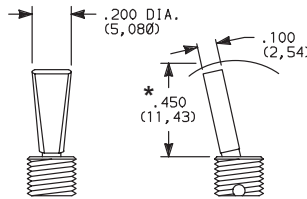


OPTION CODE	DIM. "A"
L, LP	.840 (21,34)
L1, L1P	.640 (16,26)
L2, L2P	.550 (13,97)

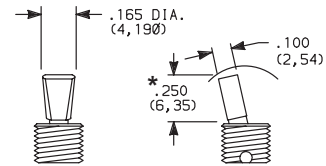
**P1** FLATTED WITH ANTIROTATION, .840" HIGH <sup>2,3</sup>



**P3** (STD.) FLATTED WITH ANTIROTATION, .450" HIGH <sup>2,3</sup>



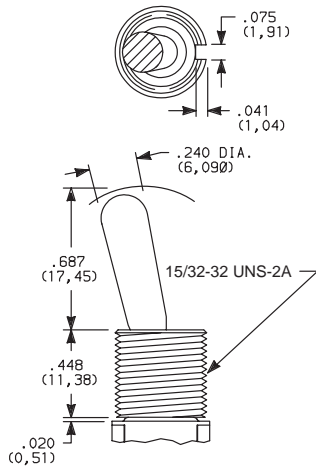
**P4** FLATTED WITH ANTIROTATION, .250" HIGH <sup>2,3</sup>



Dress nut part number 709901201 supplied standard with threaded bushing. (Part number 709903201 with metric threaded bushings.)

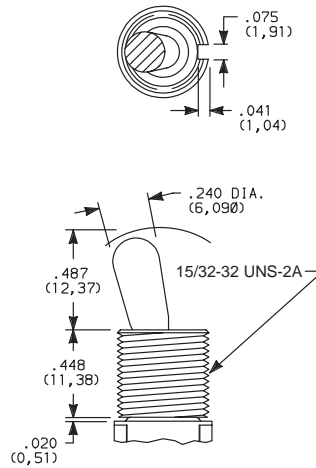
**T** (STD.) .687" HIGH <sup>1,2</sup>

**TP** ANTIROTATION, .687" HIGH, 15/32 BUSHING <sup>1,2,3</sup>

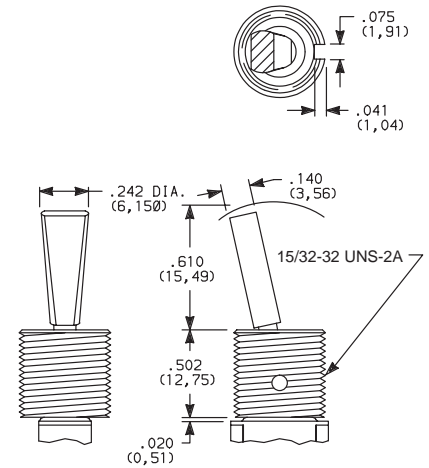


**T1** .460" HIGH <sup>1,2</sup>

**T1P** ANTIROTATION, .460" HIGH, 15/32 BUSHING <sup>1,2,3</sup>



**T2P** FLATTED, ANTIROTATION, .610" HIGH, 15/32 BUSHING <sup>1,2,3</sup>



Bushing option code not required unless CW splashproof bushing ordered. TP & T1P actuators not available with CW splashproof bushing. All TXX actuators not available on single pole models with A-A7, AW-AW4, R & R2 terminations.

Bushing option code not required. T2P actuator not available with CW splashproof bushing or single pole models with A-A7, AW-AW4, R & R2 terminations.

<sup>1</sup> L, L1, L2, M, S & TXX actuators not available with Y1 bushing.

<sup>2</sup> LP, L1P, L2P, MP, P1, P3, P4, SP & TXX actuators not available with D8 & H4 bushing.

<sup>3</sup> Antirotation: Provides anti-'push-in' feature on actuator.

\* Add .070 (1,78) for D, D8 & D9 bushings, subtract .020 (0,51) for H3 bushing.

OPTION CODE	ACTUATOR FINISH
<b>NONE</b>	(STD.) BRIGHT CHROME-With Nickel Plated Bushing
<b>2</b>	(STD.) BLACK
<b>0</b>	BRIGHT CHROME-With Black Bushing
<b>S</b>	SATIN CHROME

**NOTE:** Black hardware is supplied when either black actuators or bushings are specified. All hardware is available separately, see section L.

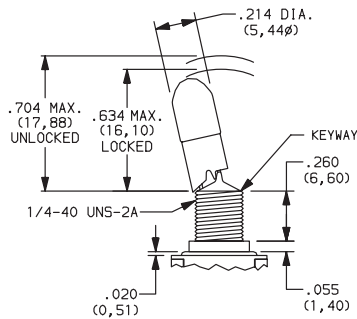
# C&K 7000 Series Miniature Toggle Switches

Toggle  
A

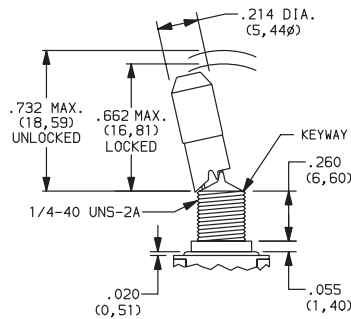
## ACTUATOR

- K2** LOCKING LEVER, .704" HIGH (threaded)
- K9** LOCKING LEVER, .704" HIGH (unthreaded)

- K12** LOCKING LEVER, .732" HIGH (threaded)
- K19** LOCKING LEVER, .732" HIGH (unthreaded)



Replaces K, K8



Replaces K1, K18

OPTION CODE	ACTUATOR CAP FINISH
<b>NONE</b>	(STD.) NATURAL ALUMINUM—With Nickel Plated Bushing
<b>0</b>	(STD.) NATURAL ALUMINUM—With Black Bushing
<b>2</b>	BLACK ANODIZED ALUMINUM
<b>3</b>	RED ANODIZED ALUMINUM
<b>7</b>	BLUE ANODIZED ALUMINUM

### Locking Positions



- 01 Models  
2 Position lock
- 03 & -11 Models  
3 Position lock
- 05, -09 & -15 Models  
1 Position lock
- 07 & -13 Models  
2 Position lock
- 08 Models  
1 Position lock

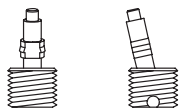
**NOTE:** To prevent accidental actuation, toggle must be lifted before being actuated. When released, toggle will lock in place. Overtightening mounting nut may cause actuator to bind.

Bushing option code not required unless CW splashproof bushing ordered.

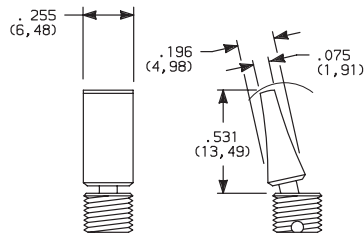
### L40 LEVER HANDLE WITHOUT CAP

### L41 PLASTIC LEVER HANDLE WITH ANTIROTATION AND CAP, P/N 4810

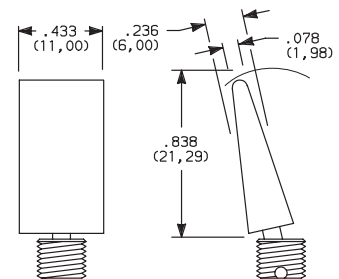
### L42 PLASTIC LEVER HANDLE WITH ANTIROTATION AND CAP, P/N 4811



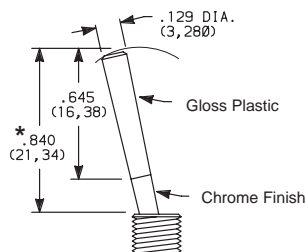
No color choice required.



Finish: Matte (L41 & L42).



- L3** PLASTIC, .840" HIGH
- L3P** ANTIROTATION, .840" HIGH



OPTION CODE	PLASTIC ACTUATOR COLORS
<b>NONE</b>	(STD.) No Actuator Color (L40 option)
<b>2</b>	(STD.) BLACK
<b>1</b>	WHITE
<b>3</b>	RED

\* Add .070 (1,78) for D, D8 & D9 bushings, subtract .020 (0,51) for H3 bushing.

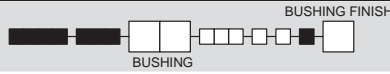
**NOTE:** Lever handle for L41 & L42 actuators supplied, but not installed. For interchangeability, order L40 actuator option and lever handles separately, see section L. L4X actuators not available with H4, Y1, Y4 bushings. Antirotation: Provides anti-'push-in' feature on actuator.

# C&K 7000 Series Miniature Toggle Switches



A  
Toggle

## BUSHING



**Y** (STD.) .350" HIGH, THREADED, KEYWAY

**Y9** .350" HIGH, UNTHREADED, KEYWAY

**NONE** NO BUSHING

No bushing choice required with KXX, TXX actuators. (exception: Specify CW if splashproof bushing desired).

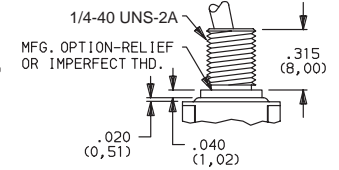
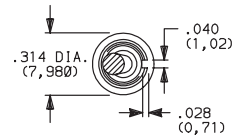
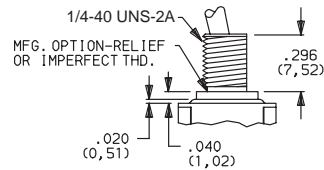
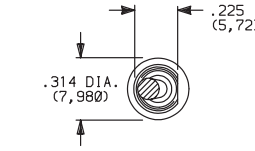
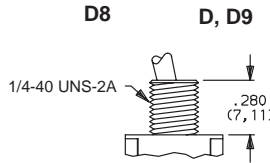
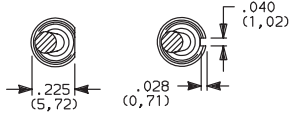
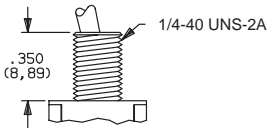
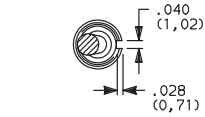
**D** (STD.) .280" HIGH, THREADED, KEYWAY

**D8** .280" HIGH, UNTHREADED, FLAT<sup>3</sup>

**D9** .280" HIGH, UNTHREADED, KEYWAY

**H** (STD.) .296" HIGH, FLAT, THREADED, HIGH TORQUE 1, 2

**H3** .315" HIGH, KEYWAY, THREADED, HIGH TORQUE 1, 2



Y bushing standard with C, W-W5, Z or Z3 terminations.

D9 bushing standard with all terminations except C, W-W5, Z or Z3. Add .070 (1,78) to all actuators lengths with D, D8 & D9 bushings.

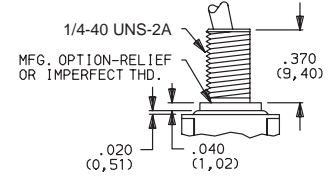
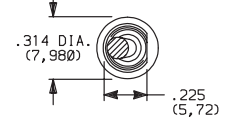
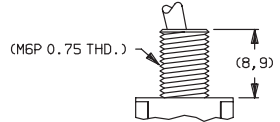
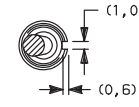
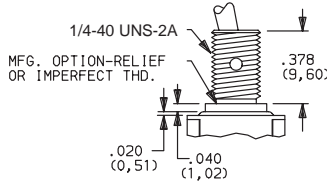
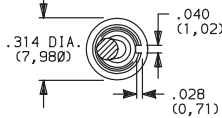
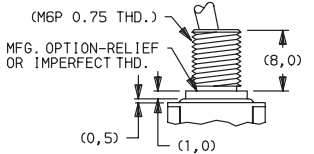
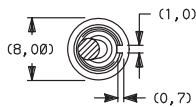
Subtract .020 (0,51) from all actuator lengths for H3 bushing.

**H4** 8mm HIGH, KEYWAY, THREADED, METRIC HIGH TORQUE 1, 2, 3

**Y1** .378" HIGH, KEYWAY, THREADED, HIGH TORQUE 1, 2, 4

**Y3** 8.9mm HIGH, KEYWAY, THREADED, METRIC

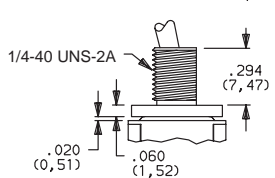
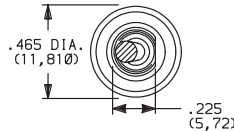
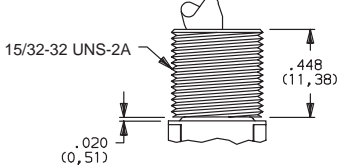
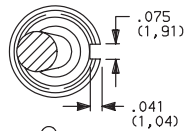
**Y4** .378" HIGH, FLAT, THREADED, HIGH TORQUE 1, 2, 5



**CW** THREADED, SPLASHPROOF 1, 2

For T & T1 actuators.

For actuators other than T & T1.



OPTION CODE	BUSHING FINISH
<b>NONE</b>	(STD.) NICKEL on all bushings except 'D8' satin chrome.
<b>2</b>	BLACK

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

2 CW, H, H3, H4, Y1 & Y4 bushings not available on single pole models with A4, R or R2 terminations.

3 D8 & H4 bushings available only with L, L1, L2, L3, M & S actuators.

4 Y1 bushing available only with LP, LXP, MP, PX & SP actuators.

5 Y4 bushing not available with L4X actuators.

IP67 Degree of protection, totally protected against dust, full-scale voltage protection, temporary immersion. Internal actuator seal standard. External bushing seal washer available from: Multi-Flex Seals, Inc., Hackensack, NJ. Part number: MFS-60064.

IP67 Degree of protection, totally protected against dust, full-scale voltage protection, temporary immersion. Internal actuator seal and external bushing seal washer standard.

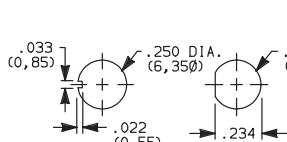
**NOTE:** Two mounting nuts, locking ring and lockwasher supplied standard with threaded bushings. Black hardware is supplied when either black bushings or actuators are specified. Optional mounting nut and locking ring styles and finishes available, see section L.

## PANEL MOUNTING

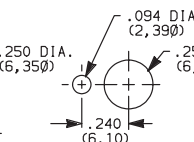
1/4 INCH BUSHING

METRIC BUSHING

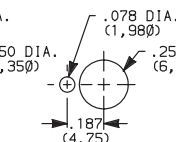
15/32 INCH BUSHING



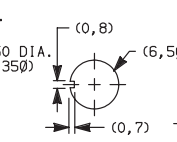
Without locking ring.



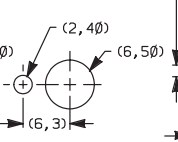
With standard locking ring.



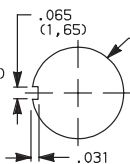
With small locking ring.



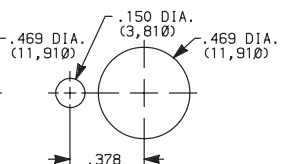
Without locking ring.



With locking ring.

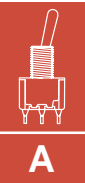


Without locking ring.



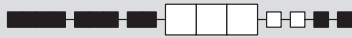
With standard locking ring.

# C&K 7000 Series Miniature Toggle Switches

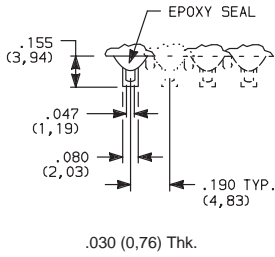


Toggle

## TERMINATIONS



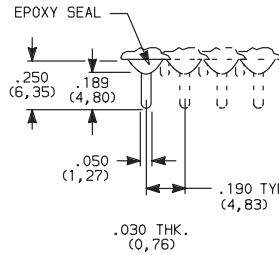
### Z (STD.) SOLDER LUG



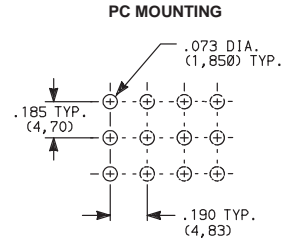
### SPDT thru 4PDT

Not available with K, L or M contact materials.

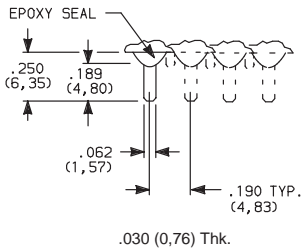
### C (STD.) PC THRU-HOLE



### SPDT thru 4PDT



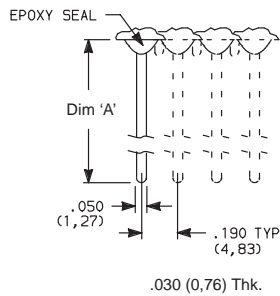
### Z3 QUICK CONNECT



### SPDT thru 4PDT

Not available with K, L or M contact materials.  
Mating quick connector available, order part number 530100000.

### W, W1, W3, W4, W5 WIRE WRAP



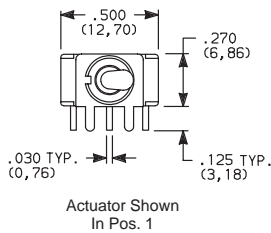
### SPDT thru 4PDT

OPTION CODE	DIM 'A'
W	.750 (19,05)
W1	.964 (24,48)
W3	.425 (10,80)
W4	1.062 (26,97)
W5	1.305 (33,15)

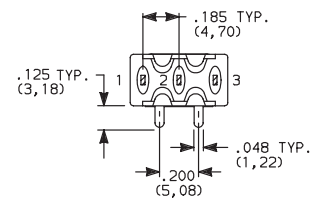
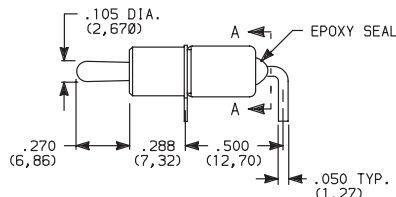
### A (STD.) RIGHT ANGLE, PC THRU-HOLE



7101MD9ABE  
Horizontal Actuation  
SPDT

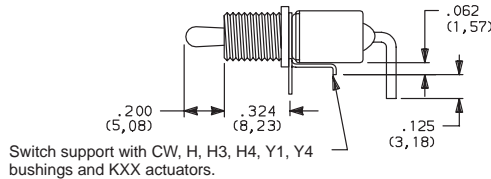


Actuator Shown  
In Pos. 1



SECTION A-A

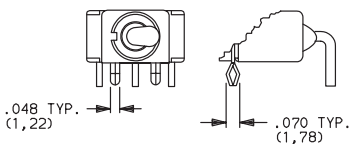
Terminal Nos.  
For Reference Only



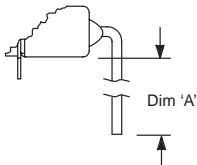
Switch support with CW, H, H3, H4, Y1, Y4 bushings and KXX actuators.

Part No. Shown: 7101MHABE

### A3 RIGHT ANGLE, SNAP-IN, PC THRU-HOLE

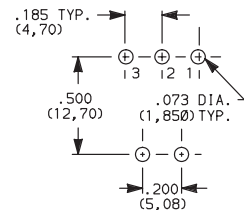


### AW, AW1, AW3, AW4 RIGHT ANGLE, EXTENDED, PC THRU-HOLE



OPTION CODE	DIM 'A'
AW	.50 (12,7)
AW1	.72 (18,3)
AW3	.20 (5,1)
AW4	.83 (21,1)

### PC MOUNTING

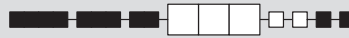


Not available with I seal option.  
Terminal bend radii and lead-in manufacturing option.



# C&K 7000 Series Miniature Toggle Switches

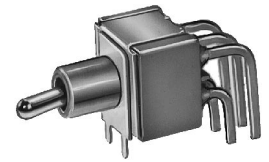
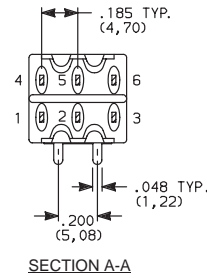
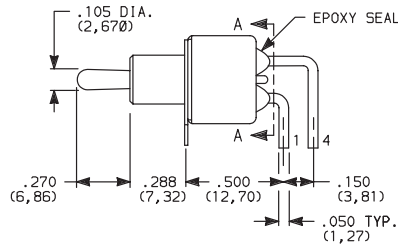
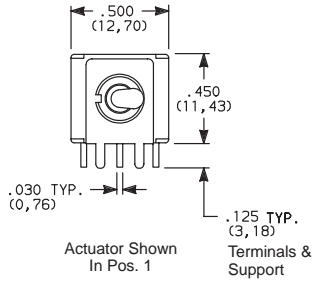
## TERMINATIONS



A

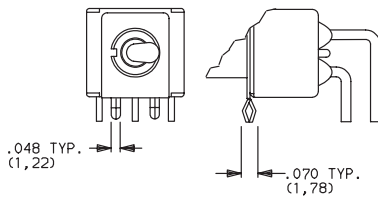
Toggle

### A (STD.) RIGHT ANGLE, PC THRU-HOLE

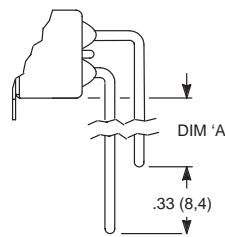


7201MD9ABE  
Horizontal Actuation  
DPDT

### A3 RIGHT ANGLE, SNAP-IN, PC THRU-HOLE

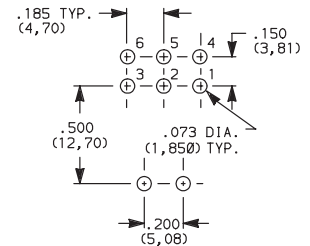


### AW, AW1, AW4 RIGHT ANGLE, EXTENDED, PC THRU-HOLE



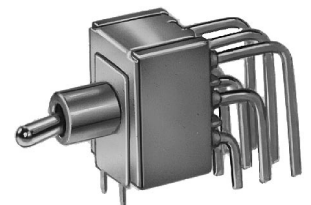
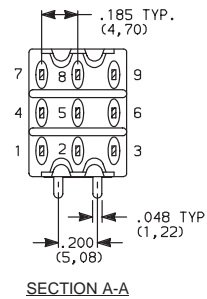
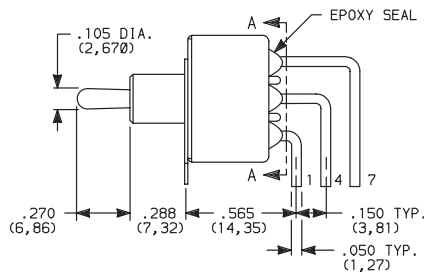
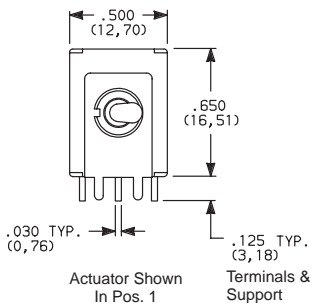
OPTION CODE	DIM 'A'
AW	.19 (4,8)
AW1	.40 (10,2)
AW4	.50 (12,7)

### PC MOUNTING



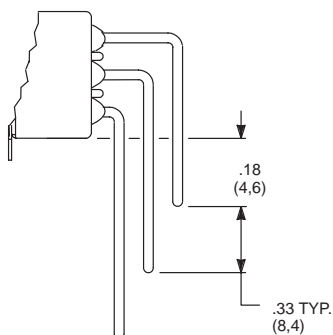
Not available with I seal option.  
Terminal bend radii and lead-in manufacturing option.

### A (STD.) RIGHT ANGLE, PC THRU-HOLE

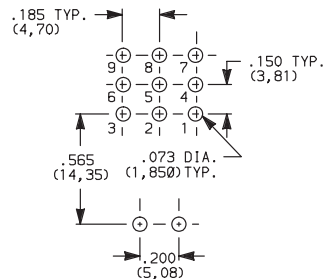


7301MD9ABE  
Horizontal Actuation  
3PDT

### AW4 RIGHT ANGLE, EXTENDED, PC THRU-HOLE



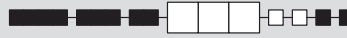
### PC MOUNTING



Not available with I seal option.  
Terminal bend radii and lead-in manufacturing option.

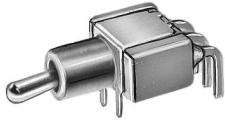
# C&K 7000 Series Miniature Toggle Switches

## TERMINATIONS

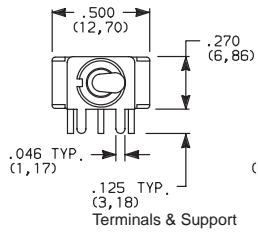


Toggle  
A

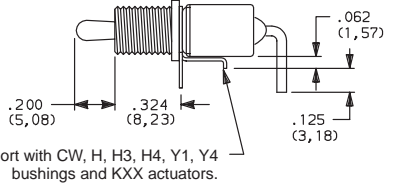
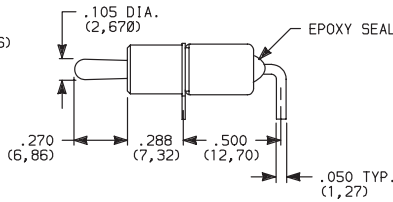
**A2** RIGHT ANGLE, PC THRU-HOLE,  
.156" PITCH



**7101MHA2BE**  
Horizontal Actuation  
SPDT



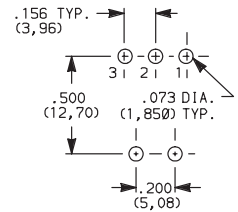
Actuator Shown In Pos. 1



Switch support with CW, H, H3, H4, Y1, Y4 bushings and KXX actuators.

Part No. Shown: 7101MHA2BE

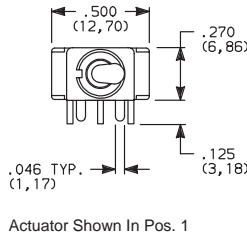
PC MOUNTING



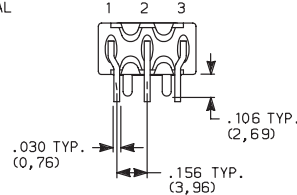
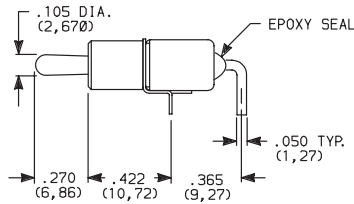
**A4** RIGHT ANGLE, PC THRU-HOLE,  
.156" PITCH



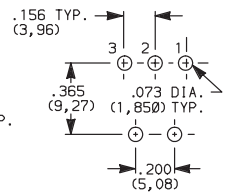
**7101MD9A4BE**  
Horizontal Actuation  
SPDT



Actuator Shown In Pos. 1

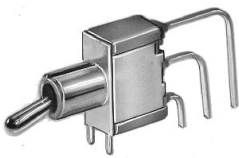


PC MOUNTING

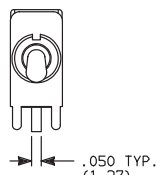


**NOTE:** Termination options A4 & R2 are functionally identical and fit the same PC mounting pattern. The switches, however, are shifted relative to the mounting holes. Unlike the R2, the A4 option is available with any contact material and can be UL recognized and CSA certified. The PC pattern must clear switch support legs.

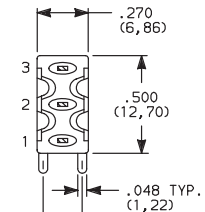
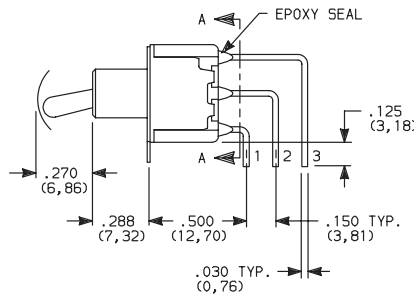
**AV2** (STD.) VERTICAL RIGHT ANGLE, PC THRU-HOLE,  
.150" PITCH



**7101MD9AV2BE**  
Vertical Actuation  
SPDT

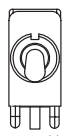


Actuator Shown In Pos. 1

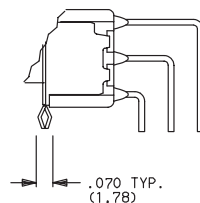


SECTION A-A

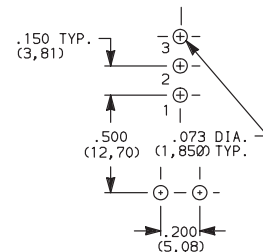
**AV3** VERTICAL RIGHT ANGLE, SNAP-IN, PC THRU-HOLE,  
.150" PITCH



Actuator Shown In Pos. 1



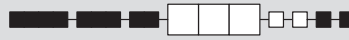
PC MOUNTING



Not available with I seal option.  
Terminal bend radii and lead-in manufacturing option.

# C&K 7000 Series Miniature Toggle Switches

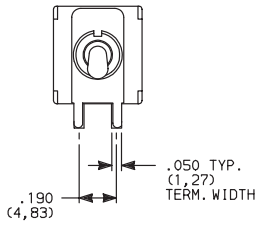
## TERMINATIONS



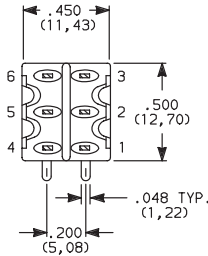
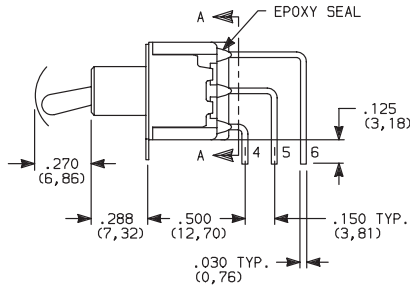
A

Toggle

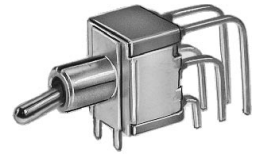
**AV2** (STD.) VERTICAL RIGHT ANGLE, PC THRU-HOLE, .150" PITCH



Actuator Shown In Pos. 1

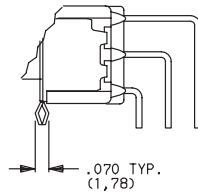
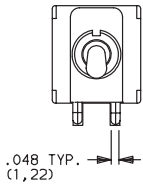


SECTION A-A

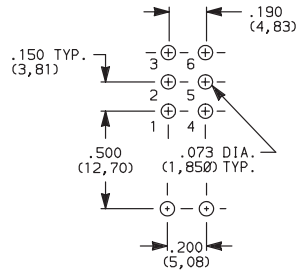


7201MD9AV2BE  
Vertical Actuation  
DPDT

**AV3** VERTICAL RIGHT ANGLE, SNAP-IN, PC THRU-HOLE, .150" PITCH

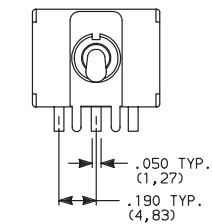


### PC MOUNTING

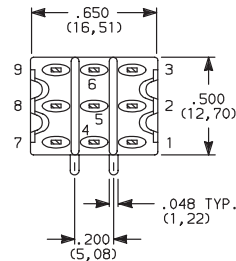
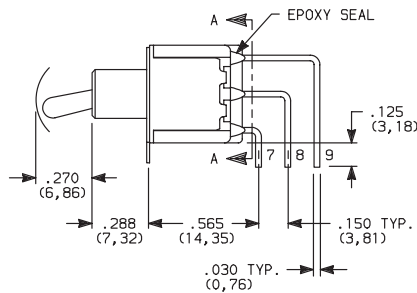


Not available with I seal option.  
Terminal bend radii and lead-in manufacturing option.

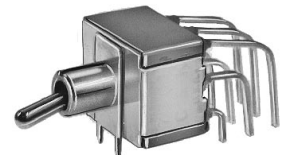
**AV2** (STD.) VERTICAL RIGHT ANGLE, PC THRU-HOLE, .150" PITCH



Actuator Shown In Pos. 1

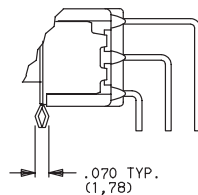
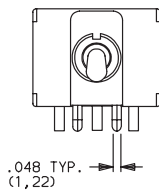


SECTION A-A

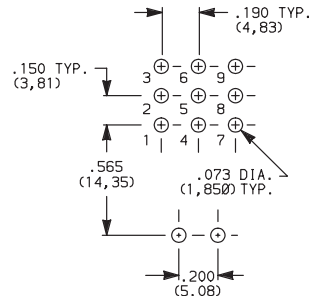


7301MD9AV2BE  
Vertical Actuation  
3PDT

**AV3** VERTICAL RIGHT ANGLE, SNAP-IN, .150" PITCH



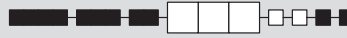
### PC MOUNTING



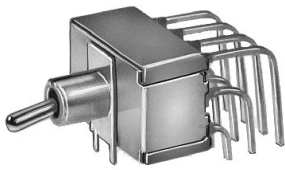
Not available with I seal option.  
Terminal bend radii and lead-in manufacturing option.

# C&K 7000 Series Miniature Toggle Switches

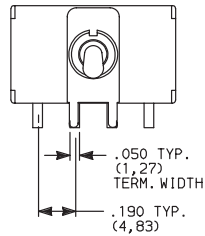
## TERMINATIONS



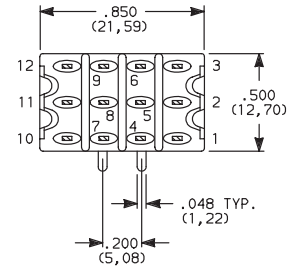
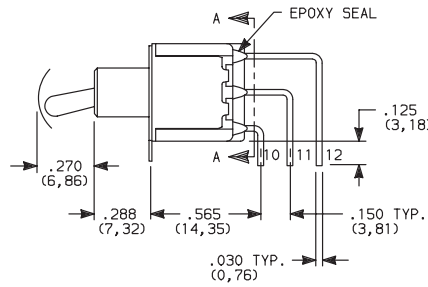
**AV2** (STD.) VERTICAL RIGHT ANGLE, PC THRU-HOLE,  
.150" PITCH



7401MD9AV2BE  
Vertical Actuation  
4PDT

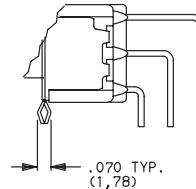
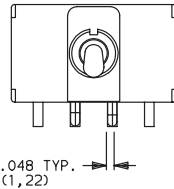


Actuator Shown In Pos. 1

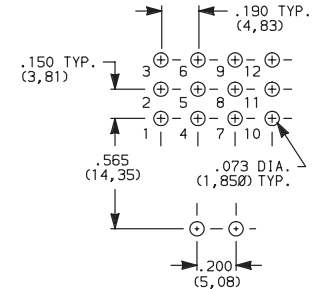


SECTION A-A

**AV3** VERTICAL RIGHT ANGLE, SNAP-IN, PC THRU-HOLE,  
.150" PITCH

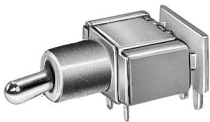


### PC MOUNTING

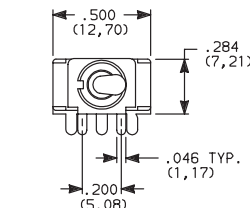


Not available with I seal option.  
Terminal bend radii and lead-in manufacturing option.

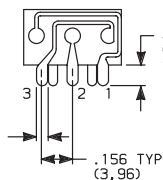
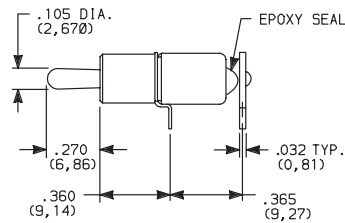
**R** RIGHT ANGLE WITH PCB



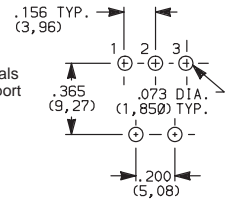
7101MD9RBE  
Horizontal Actuation  
SPDT



Actuator Shown In Pos. 1

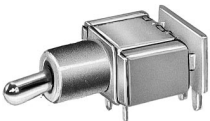


### PC MOUNTING

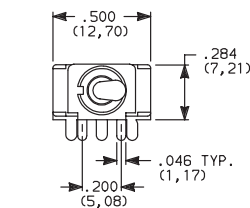


Not available with KXX & TXX actuators, CW, H, H3, H4, Y1 & Y4 bushings.  
Contact makes on same side actuator thrown.

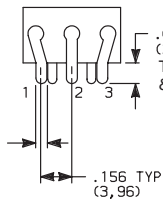
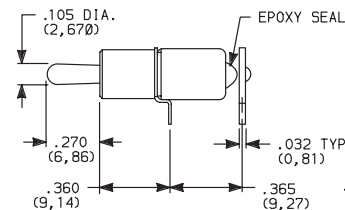
**R2** RIGHT ANGLE WITH PCB



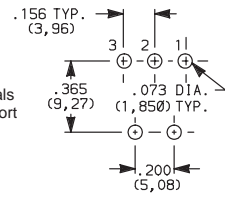
7101MD9R2BE  
Horizontal Actuation  
SPDT



Actuator Shown In Pos. 1



### PC MOUNTING

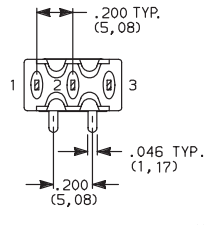
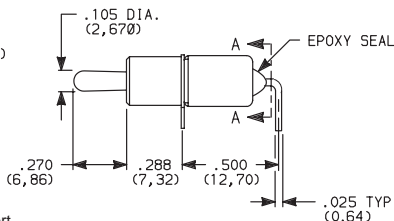
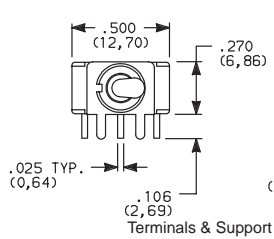


Not available with KXX & TXX actuators, CW, H, H3, H4, Y1 & Y4 bushings.  
Contact makes on opposite side actuator thrown.

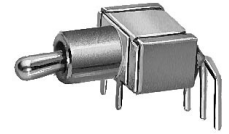
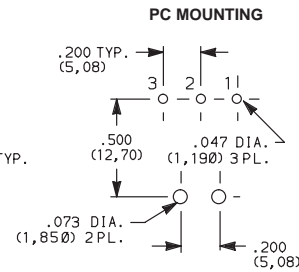
## TERMINATIONS



**A7** RIGHT ANGLE, PC THRU-HOLE,  
.025" SQUARE, .200" PITCH



SECTION A-A



**7101MD9A7BE**  
Horizontal Actuation  
SPDT



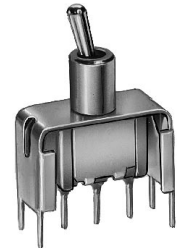
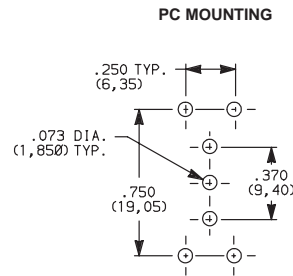
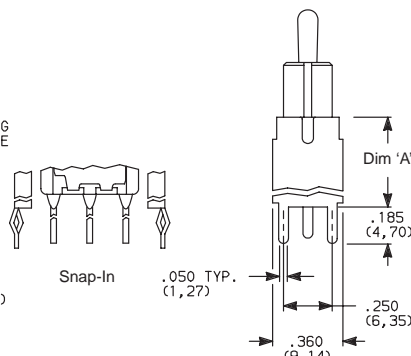
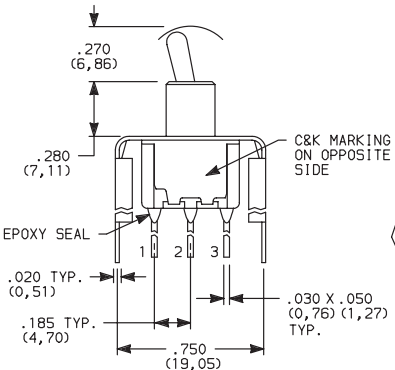
Toggle

Actuator Shown In Pos. 1

Not available with KXX & TXX actuators, H, H3, H4, Y1 & Y4 bushings. I seal option.  
Terminal bend radii and lead-in manufacturing option. Available with B contact material only.

**V2, V6, V7, V8** VERTICAL MOUNT, V-BRACKET

**V21, V61, V71, V81** VERTICAL MOUNT, V-BRACKET, SNAP-IN



**7101MD9\_BE**  
SPDT

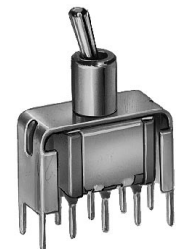
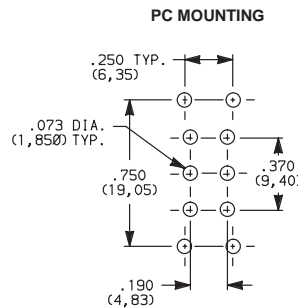
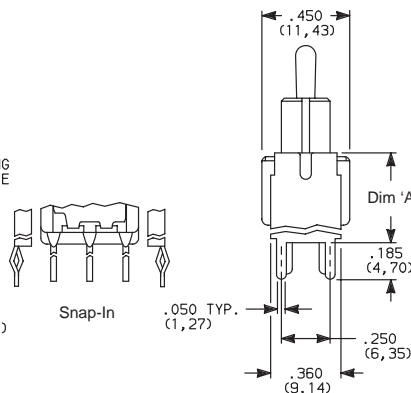
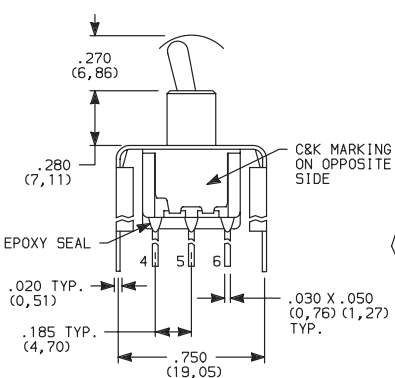
Actuator Shown In Pos. 1

Not available with I seal option.

OPTION CODE	DIM 'A'
<b>V2, V21</b>	.555 (14,10)
<b>V6, V61</b>	.460 (11,68)
<b>V7, V71</b>	.630 (16,00)
<b>V8, V81</b>	.953 (24,21)

**V2, V6, V7, V8** VERTICAL MOUNT, V-BRACKET

**V21, V61, V71, V81** VERTICAL MOUNT, V-BRACKET, SNAP-IN



**7201MD9\_BE**  
DPDT

Actuator Shown In Pos. 1

Not available with I seal option.

OPTION CODE	DIM 'A'
<b>V2, V21</b>	.555 (14,10)
<b>V6, V61</b>	.460 (11,68)
<b>V7, V71</b>	.630 (16,00)
<b>V8, V81</b>	.953 (24,21)

# C&K 7000 Series Miniature Toggle Switches

## TERMINATIONS



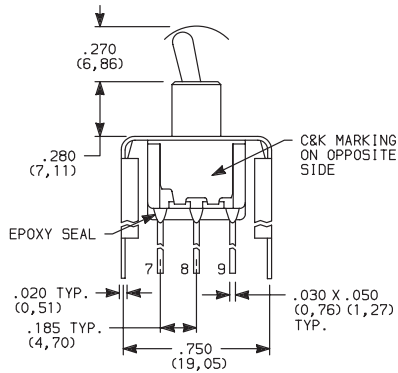
Toggle  
A

**V2, V7, V8** VERTICAL MOUNT, V-BRACKET

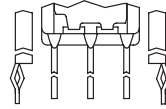
**V21, V71, V81** VERTICAL MOUNT, V-BRACKET, SNAP-IN



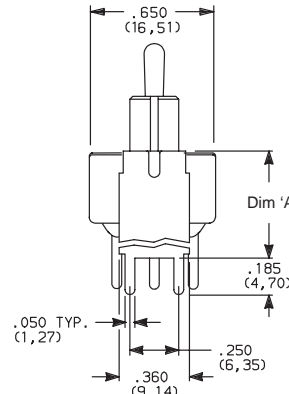
7301MD9\_BE  
3PDT



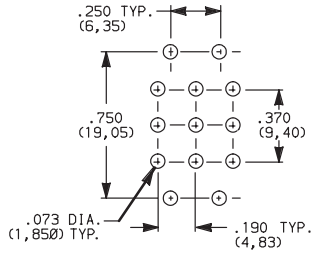
Actuator Shown In Pos. 1



Snap-In



### PC MOUNTING



OPTION CODE	DIM 'A'
<b>V2, V21</b>	.555 (14,10)
<b>V7, V71</b>	.630 (16,00)
<b>V8, V81</b>	.953 (24,21)

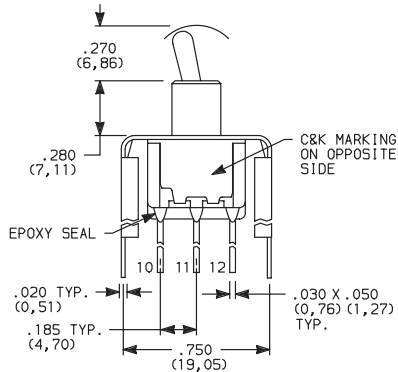
Not available with I seal option.

**V2, V7, V8** VERTICAL MOUNT, V-BRACKET

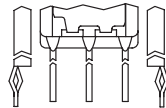
**V21, V71, V81** VERTICAL MOUNT, V-BRACKET, SNAP-IN



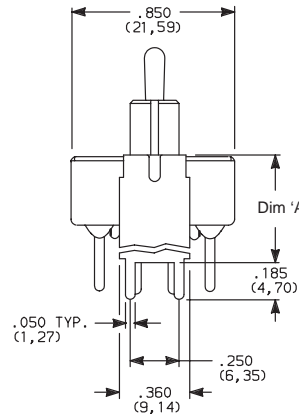
7401MD9\_BE  
4PDT



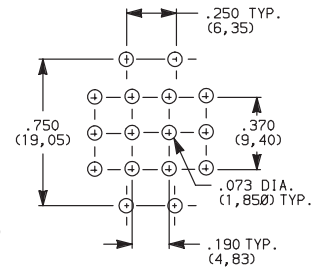
Actuator Shown In Pos. 1



Snap-In



### PC MOUNTING

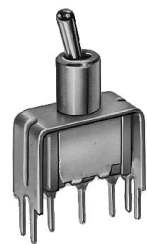


OPTION CODE	DIM 'A'
<b>V2, V21</b>	.555 (14,10)
<b>V7, V71</b>	.630 (16,00)
<b>V8, V81</b>	.953 (24,21)

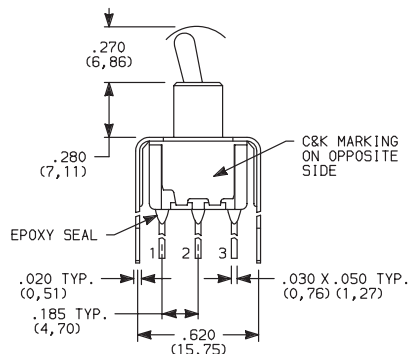
Not available with I seal option.

**V3 (STD.), V4, V9** VERTICAL MOUNT, V-BRACKET

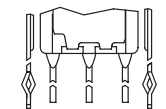
**V31, V41, V91** VERTICAL MOUNT, V-BRACKET, SNAP-IN



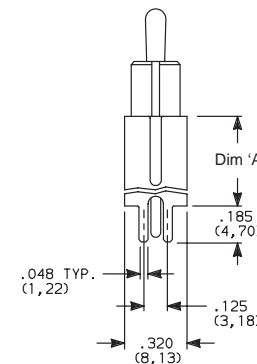
7101MD9\_BE  
SPDT



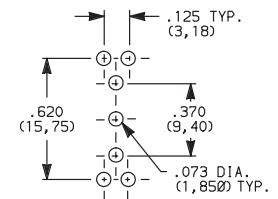
Actuator Shown In Pos. 1



Snap-In



### PC MOUNTING



OPTION CODE	DIM 'A'
<b>V3, V31</b>	.460 (11,68)
<b>V4, V41</b>	.630 (16,00)
<b>V9, V91</b>	1.150 (29,21)

Not available with I seal option.

# C&K 7000 Series Miniature Toggle Switches

## TERMINATIONS

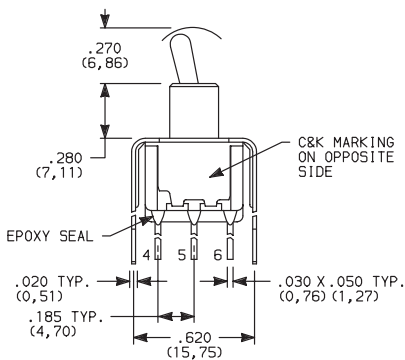


A

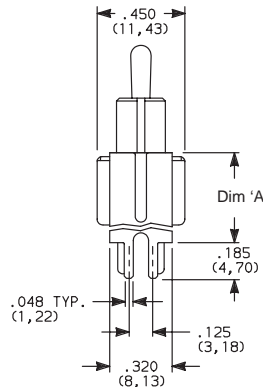
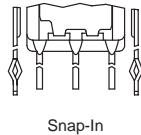
Toggle

**V3 (STD.), V4, V9** VERTICAL MOUNT, V-BRACKET

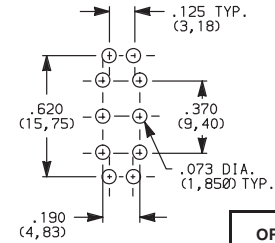
**V31, V41, V91** VERTICAL MOUNT, V-BRACKET, SNAP-IN



Actuator Shown In Pos. 1



### PC MOUNTING



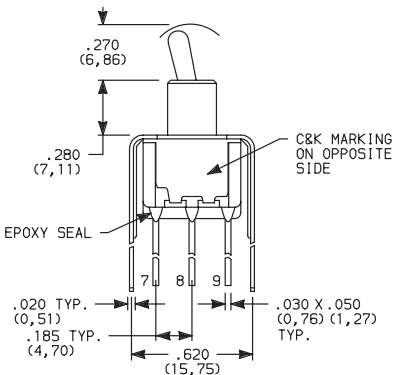
7201MD9\_BE  
DPDT

OPTION CODE	DIM 'A'
V3, V31	.460 (11,68)
V4, V41	.630 (16,00)
V9, V91	1.150 (29,21)

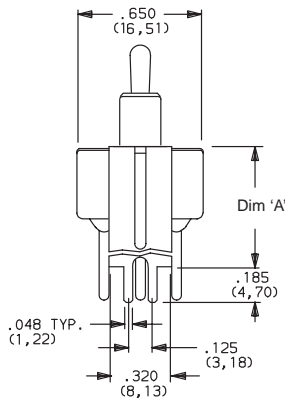
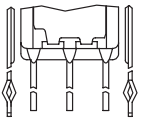
Not available with I seal option.

**V4, V9** VERTICAL MOUNT, V-BRACKET

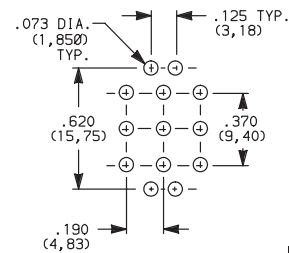
**V41, V91** VERTICAL MOUNT, V-BRACKET, SNAP-IN



Actuator Shown In Pos. 1



### PC MOUNTING



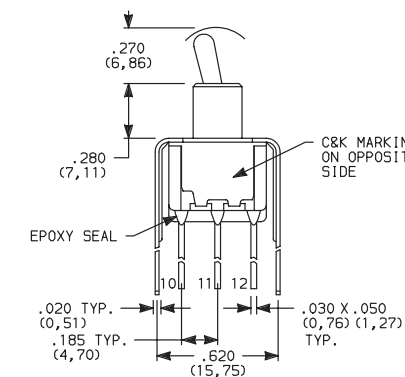
7301MD9\_BE  
3PDT

OPTION CODE	DIM 'A'
V4, V41	.630 (16,00)
V9, V91	1.150 (29,21)

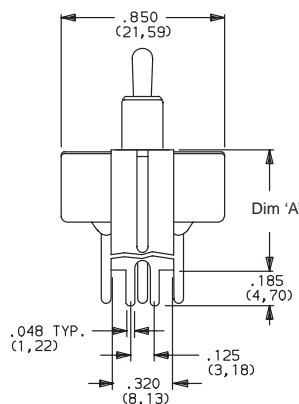
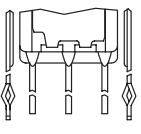
Not available with I seal option.

**V4, V9** VERTICAL MOUNT, V-BRACKET

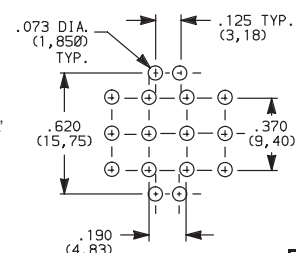
**V41, V91** VERTICAL MOUNT, V-BRACKET, SNAP-IN



Actuator Shown In Pos. 1



### PC MOUNTING



7401MD9\_BE  
4PDT

OPTION CODE	DIM 'A'
V4 V41	.630 (16,00)
V9, V91	1.150 (29,21)

Not available with I seal option.

# C&K 7000 Series Miniature Toggle Switches

Toggle  
A

## CONTACT MATERIAL

OPTION CODE	CONTACT MATERIAL	TERMINAL PLATING	RATINGS	
<b>B (STD.)</b>	GOLD <sup>1</sup>	GOLD <sup>1</sup>	LOW LEVEL/DRY CIRCUIT	0.4 VA MAX. @ 20 V AC OR DC MAX.
<b>K</b>		TIN-LEAD <sup>6</sup>		
<b>Q (STD.)</b>	SILVER <sup>4,5</sup>	SILVER <sup>5</sup>	POWER	5 AMPS @ 120 V AC OR 28 V DC; 2 AMPS @ 250 V AC.
<b>M</b>		TIN-LEAD <sup>6</sup>		
<b>G</b>	GOLD OVER SILVER <sup>2,3</sup>	GOLD <sup>3</sup>	LOW LEVEL/DRY CIRCUIT OR POWER	0.4 VA MAX. @ 20 V AC OR DC MAX. OR 5 AMPS @ 120 V AC OR 28 V DC; 2 AMPS @ 250 V AC.
<b>L</b>		TIN-LEAD <sup>6</sup>		

CONTACT MATERIAL/APPLICATION RECOMMENDATIONS—SEE CHART, PAGE L-31.

- <sup>1</sup> CONTACTS & TERMINALS: Copper alloy, with gold plate over nickel plate.
- <sup>2</sup> END CONTACTS: Coin silver, with gold plate over nickel plate.
- <sup>3</sup> CENTER CONTACTS & ALL TERMINALS: Copper alloy, with gold plate over nickel plate.
- <sup>4</sup> END CONTACTS: Coin silver, silver plated.
- <sup>5</sup> CENTER CONTACT & ALL TERMINALS: Copper alloy, silver plated.
- <sup>6</sup> TERMINALS: Copper alloy, with tin-lead alloy over nickel plate.

U11-U415 model numbers  with all options when ordered with G, L, M or Q contact material.

B contact material standard with all terminations, except C, Z & Z3.

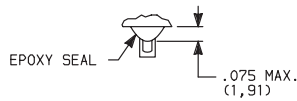
B contact material must be ordered with A7, AW6-AW7, R, R2, W6-W7 terminations.

Q contact material standard with C, Z & Z3 terminations.

**K, L & M contact materials not available with Z & Z3 terminations.**

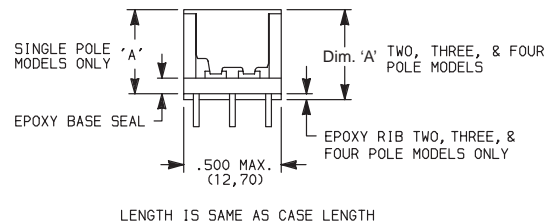
## SEAL

### **E (STD.) EPOXY SEAL**



Compatible with "bottom-wash" PC board cleaning methods.

### **I EPOXY POTTED BASE**



NO. POLES	DIM 'A'
SP	.410 (10,41)
DP	.440 (11,18)
3P	.505 (12,83)
4P	.505 (12,83)

Available with C, W-W5, Z & Z3 terminations only.