

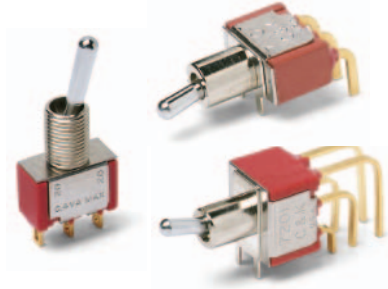
7000 Series Miniature Toggle Switches

Features/Benefits

- Multi-pole and multi-position
- Wide variety of actuator and termination options
- Epoxy terminal-seal compatible with bottom wash cleaning
- RoHS complaint models available

Typical Applications

- Telecommunications
- Instrumentation
- Medical equipment



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 F-15 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 m Ω typ. initial @ 2-4 V DC, 100 mA, for both silver and gold plated contacts.

INSULATION RESISTANCE: 10⁹ Ω min.

DIELECTRIC STRENGTH: 1000 Vrms 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).

For materials see page F-4.

NOTE: Any models supplied with P, S R, Q, B or G contact material are RoHS compliant and compatible.

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

Build-A-Switch

To order, simply select desired option from each category and place in the appropriate box. Available options are shown and described on pages F-4 thru F-16. For additional options not shown in catalog, consult our Customer Service Center.

Switch Function	Actuator	Bushing	Terminations	Contact Material	Seal	Actuator Color/Finish	KXX Actuator Color/Finish	Bushing Finish
7101 SP On-None-On	M .200" high	D .280 high, keyway	A Right angle, PC thru-hole	B Gold	E Epoxy	NONE Bright chrome	NONE Natural aluminum	NONE Nickel on all bushings (except D8, satin chrome)
7103 SP On-Off-On	P3 Flatted, anti-rotation, .450" high	H .296 high, flat	AV2 Vert. right angle, PC thru-hole	P Gold, matte-tin	I Epoxy potted base	2 Black	2 Black anodized aluminum	2 Black
7105 SP Mom.-Off-Mom.	S .420" high	Y .350 high, keyway	C PC Thru-hole	Q Silver		3 Red	3 Red anodized aluminum	
7107 SP On-Off-Mom.	T .687" high, 15/32 bushing	NONE No bushing choice required	V3 .460 high, V-bracket	S Silver, matte-tin		S Satin chrome	7 Blue anodized aluminum	
7108 SP On-None-Mom.	K2 Locking lever, .704" high	CW Splashproof	Z Solder lug	G Gold over silver				
7109 SP None-On-Mom.	D8 .280" high, flat	D9 .280" high, keyway	A2 Right angle, PC thru-hole	R Gold over silver, matte-tin				
7201 DP On-None-On	K9 Locking lever, .704" high	H3 .315" high, keyway	A3 Right angle, PC thru-hole					
7203 DP On-Off-On	K12 Locking lever, .732" high	H4 8mm high, keyway	A4 Right angle, PC thru-hole					
7205 DP Mom.-Off-Mom.	K19 Locking lever, .732" high	Y1 .378" high, keyway	AW1 Right angle, extended, PC thru-hole					
7207 DP On-Off-Mom.	L .840" high	Y3 8.9mm high, keyway	AW4 Right angle, extended, PC thru-hole					
7208 DP On-None-Mom.	L1 .640" high	Y4 .378" high, flat	V2 .555" high, V-bracket					
7211 DP On-On-On	L1P Anti-rotation, .640" high	Y9 .350" high, keyway	V4 .630" high, V-bracket					
7213 DP On-On-Mom.	L2 .550" high		V6 .460" high, V-bracket					
7215 DP Mom.-On-Mom.	L2P Anti-rotation, .550" high		V7 .630" high, V-bracket					
7301 3P On-None-On	L3 Plastic .940" inch		V8 .953" high, V-bracket					
7303 3P On-Off-On	L40 Lever handle without cap		V9 1.150" high, V-bracket					
7305 3P Mom.-Off-Mom.	L41 .531" high lever handle with cap		V21 .555" high, snap-in V-bracket					
7308 3P On-None-Mom.	L42 .838" high lever handle with cap		V31 .460" high, snap-in V-bracket					
7401 4P On-None-On	MP Anti-rotation, .200" high		V41 .630" high, snap-in V-bracket					
7403 4P On-Off-On	P1 Flatted, anti-rotation, .840" high		V71 .630" high, snap-in V-bracket					
7405 4P Mom.-Off-Mom.	P4 Flatted, anti-rotation, .250" high		V81 .953" high, snap-in V-bracket					
7408 4P On-None-Mom.	SP Anti-rotation, .420" high							
7411 4P On-On-On	T1 .487" high, 15/32 bushing							
7413 4P On-On-Mom.	T1P Anti-rotation, .487" high, 15/32 bushing							
7415 4P Mom.-On-Mom.	T2P Flatted, anti-rotation, .610" high, 15/32 bushing							
	TP Anti-rotation, .687" high, 15/32 bushing							

Note: UL models available, see pages F-4 & F-5.

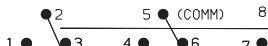


Dimensions are shown: Inches (mm)
Specifications and dimensions subject to change

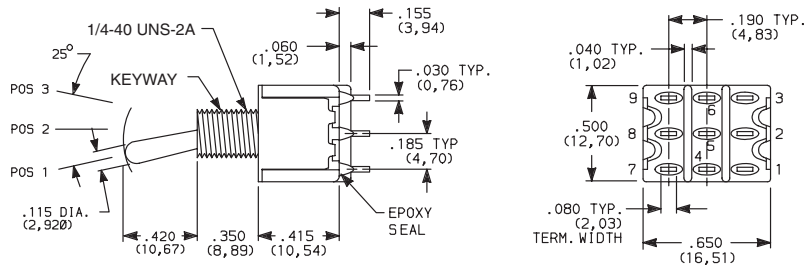


7000 Series Miniature Toggle Switches

SWITCH FUNCTION

NO. POLES	MODEL NO.	UL** MODEL NO.	SWITCH FUNCTION			CONNECTED TERMINALS			SCHEMATIC
			POS. 1	POS. 2	POS. 3	POS. 1	POS. 2	POS. 3	
			KEYWAY 	KEYWAY 	KEYWAY 	KEYWAY 	KEYWAY 	KEYWAY 	
3P	7301	U31	ON	NONE	ON	2-3,5-6,8-9	N/A	2-1,5-4,8-7	
	7303	U33	ON	OFF	ON	2-3,5-6,8-9	OPEN	2-1,5-4,8-7	
	7305	U35	MOM.	OFF	MOM.				
	7307	U37	ON	OFF	MOM.				
	7308	U38	ON	NONE	MOM.	2-3,5-6,8-9	N/A	2-1,5-4,8-7	

3PDT



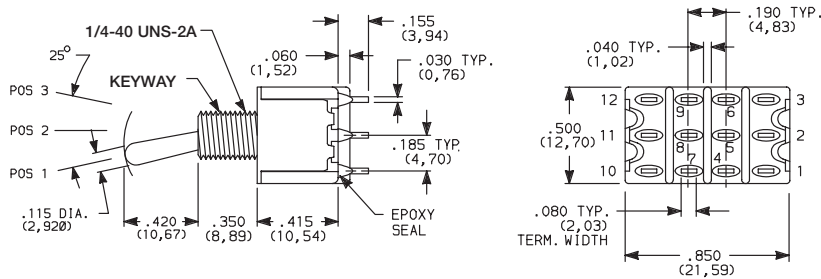
Part number shown: 7301SYZQE

Terminal Numbers
For Reference Only

4P	7401	U41	ON	NONE	ON	2-3,5-6,8-9,11-12	N/A	2-1,5-4,8-7,11-10		
	7403	U43	ON	OFF	ON	2-3,5-6,8-9,11-12	OPEN	2-1,5-4,8-7,11-10		
	7405	U45	MOM.	OFF	MOM.					
	7408	U48	ON	NONE	MOM.					
	7411*	U411*	ON	ON	ON	2-3,5-6,8-9,11-12	2-3,5-4,8-9,11-10	2-1,5-4,8-7,11-10		
	7413*	U413*	ON	ON	MOM.					
	7415*	U415*	MOM.	ON	MOM.					

4PDT

4PDT



Part number shown: 7401SYZQE

Terminal Numbers
For Reference Only

MOM. = Momentary

Wiring for 3-way switch, see Section N.

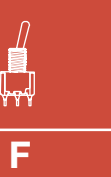
** U11-U415 model nos. with all options when ordered with G, Q, R or S contact material.



Third Angle
Projection

Dimensions are shown: Inches (mm)
Specifications and dimensions subject to change

www.ck-components.com



Toggle

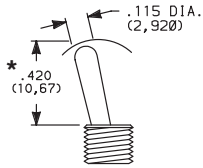
7000 Series Miniature Toggle Switches

ACTUATOR



S .420" HIGH 1

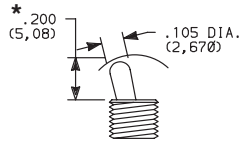
SP ANTIROTATION, .420" HIGH ^{2,3}



S actuator standard when ordered with C, W-W5, Z & Z3 terminations.
Caps are available separately, see page F-16.

M .200" HIGH 1

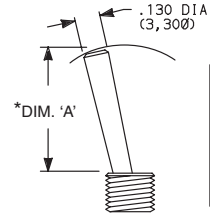
MP ANTIROTATION, .200" HIGH 2,3



M actuator standard when ordered with all terminations except C, W-W5, Z & Z3. Caps are available separately, see page F-16.

L, L1, L2 .840", .640", .550" HIGH 1

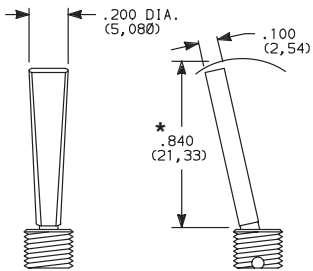
L1P, L2P ANTIROTATION,
.840", .640", .550" HIGH 2,3



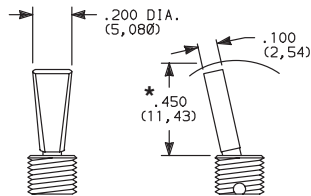
OPTION CODE	DIM 'A'
L	.840 (21,34)
L1, L1P	.640 (16,26)
L2, L2P	.550 (13,97)

Caps are available separately, see page F-16.

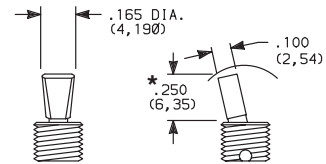
***P1** FLATTED WITH ANTIROTATION, .840" HIGH ^{2,3}



***P3** FLATTED WITH ANTIROTATION,
.450" HIGH ^{2,3}



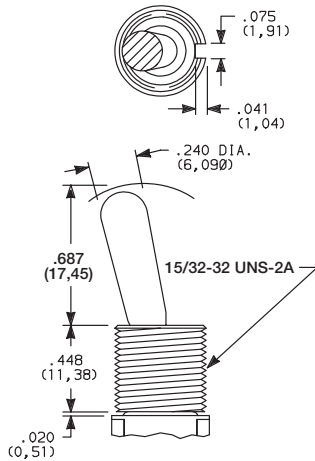
***P4** FLATTED WITH ANTIROTATION, .250" HIGH
2,3



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

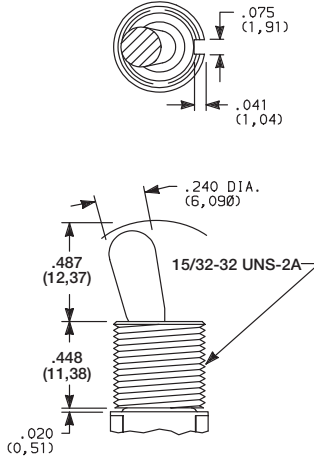
T .687 (17,45) HIGH 1,2

TP ANTIROTATION, .687 (17,45) HIGH,
15/32 BUSHING ^{1,2,3}

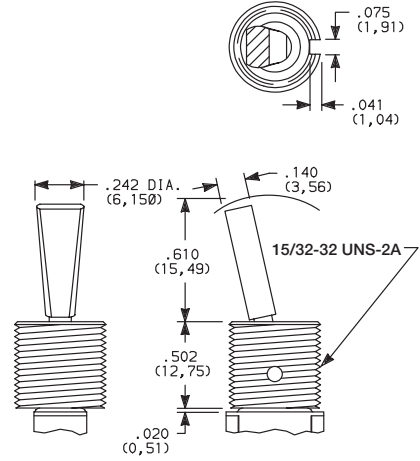


T1 .487 (12,37) HIGH 1,2

T1P ANTIROTATION, .487 (12,37) HIGH,
15/32 BUSHING ^{1,2,3}



T2P FLATTED, ANTIROTATION, .610" HIGH,
15/32 BUSHING 1,2,3



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-A4, AW1-AW4 terminations.

Bushing option code not required. T2P actuator not available with CW splashproof bushing or single pole models with A-A4, AW1-AW4 terminations.



F

Toggle

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

² L1P, L2P, MP, P1, P3, P4, SP & TXX actuators not available with D8 & H4 bushing.

³ 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
NONE	BRIGHT CHROME-With Nickel Plated Bushing
2	BLACK
S	SATIN CHROME

NOTE: Black hardware is supplied when either black actuators or bushings are specified. For additional hardware, see Section N.



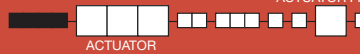
Dimensions are shown: Inches (mm)

Specifications and dimensions subject to change



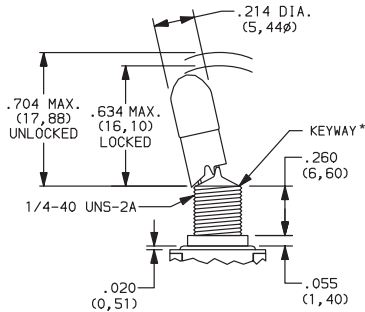
7000 Series Miniature Toggle Switches

ACTUATOR

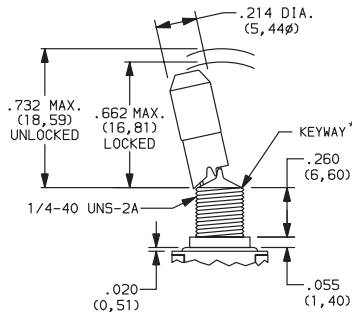


- K2** LOCKING LEVER, .704" HIGH
(threaded)
- K9** LOCKING LEVER, .704" HIGH
(unthreaded)

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



Replaces K, K8



Replaces K1, K18

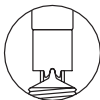
OPTION CODE	ACTUATOR CAP FINISH
NONE	NATURAL ALUMINUM—With Nickle Plated Bushing
2	BLACK ANODIZED ALUMINUM
3	RED ANODIZED ALUMINUM
7	BLUE ANODIZED ALUMINUM

* All KXX models including KXXCW have a keyway

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.

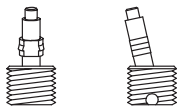
Locking levers supplied with bushing shown.

Bushing option code not required unless CW splashproof bushing ordered.

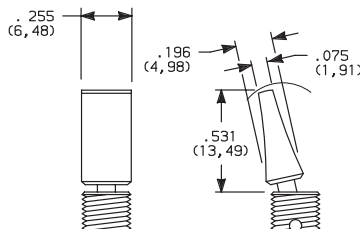
- L40** LEVER HANDLE WITHOUT CAP

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

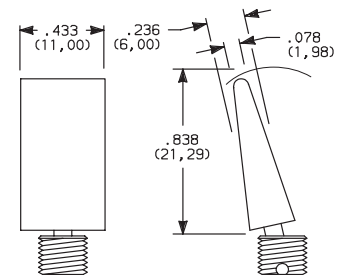
- L42** PLASTIC LEVER HANDLE WITH
ANTIROTATION AND CAP, P/N 4811



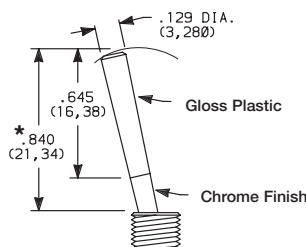
No color choice required



Finish: Matte (L41 & L42).



- L3** PLASTIC .940" HIGH



OPTION CODE	PLASTIC ACTUATOR COLORS
NONE	No Actuator Color (L40 option)
2	BLACK
3	RED

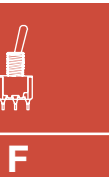
* Add .070 (1,78) for D, D8 & D9 bushings, subtract .020 (0,51) for H3 bushing.

NOTE: Lever handle for L41 & L42 actuators supplied, but not installed. For interchangeability, order L40 actuator option and lever handles separately, see page F-16. L4X actuators not available with H4, Y1, Y4 bushings. Antirotation: Provides anti-'push-in' feature on actuator.



Third Angle
Projection

Dimensions are shown: Inches (mm)
Specifications and dimensions subject to change



7000 Series Miniature Toggle Switches

BUSHING



Y .350" HIGH, THREADED, KEYWAY
Y9 .350" HIGH, UNTHREADED, KEYWAY

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

NONE NO BUSHING

D .280" HIGH, THREADED, KEYWAY
D8 .280" HIGH, UNTHREADED, FLAT ³
D9 .280" HIGH, UNTHREADED, KEYWAY

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.

H .296" HIGH, FLAT THREADED, HIGH TORQUE ^{1,2}

1/4-40 UNS-2A
MF6. OPTION-RELIEF OR IMPERFECT THD.

H3 .315" HIGH, KEYWAY THREADED, HIGH TORQUE ^{1,2}

1/4-40 UNS-2A
MF6. OPTION-RELIEF OR IMPERFECT THD.

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

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

H4 8mm HIGH, KEYWAY, THREADED, METRIC HIGH TORQUE ^{1,2,3}

(M6P 0.75 THD.)
MF6. OPTION-RELIEF OR IMPERFECT THD.

Y1 .378" HIGH, KEYWAY, THREADED, HIGH TORQUE ^{1,2,4}

1/4-40 UNS-2A
MF6. OPTION-RELIEF OR IMPERFECT THD.

Y3 8.9mm HIGH, KEYWAY, THREADED, METRIC

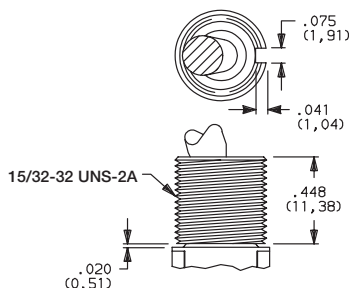
(M6P 0.75 THD.)

Y4 .378" HIGH, FLAT, THREADED, HIGH TORQUE ^{1,2,5}

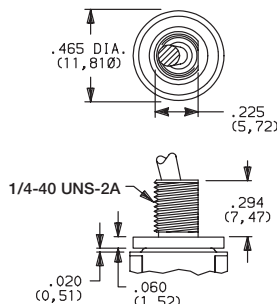
1/4-40 UNS-2A
MF6. OPTION-RELIEF OR IMPERFECT THD.

CW THREADED, SPLASHPROOF ^{1,2}
For T & T1 actuators.

For actuators other than T, T1 and KXX.



IP67 Degree of protection, totally protected against dust, full-scale voltage protection, temporary immersion. Internal actuator seal standard. External bushing seal available separately from APM Hexseal, part # 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. IP65 degree of protection for LXP, MP, PX or SP with CW option.

OPTION CODE	BUSHING FINISH
NONE	NICKEL on all bushings except 'D8' satin chrome.
2	BLACK

- Will withstand 12 in.-lbs. of torque with no distortion.
- CW, H, H3, H4, Y1 & Y4 bushings not available on single pole models with A4 terminations.
- D8 & H4 bushings available only with L, L1, L2, M & S actuators.
- Y1 bushing available only with LXP, MP, PX & SP actuators.
- Y4 bushing not available with L4X actuators.

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 N.

PANEL MOUNTING

1/4 INCH BUSHING

Without locking ring.

With standard locking ring.

With small locking ring.

METRIC BUSHING

Without locking ring.

With locking ring.

15/32 INCH BUSHING

Without locking ring.

With standard locking ring.



Third Angle Projection

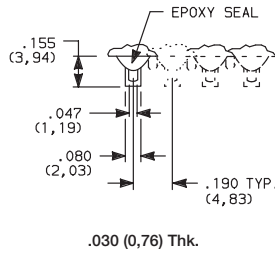
Dimensions are shown: Inches (mm)
Specifications and dimensions subject to change

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7000 Series Miniature Toggle Switches

TERMINATIONS

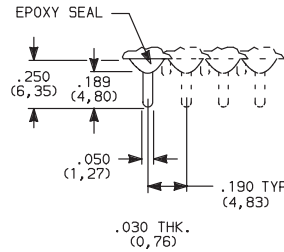
Z SOLDER LUG



SPDT thru 4PDT

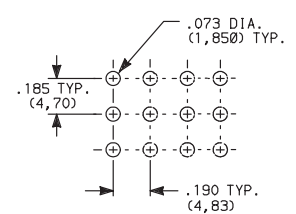
Not available with P, R or S contact materials.

C PC THRU-HOLE

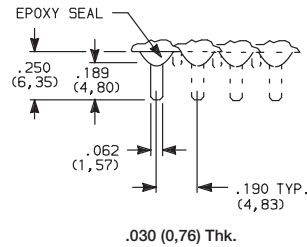


SPDT thru 4PDT

PC MOUNTING



Z3 QUICK CONNECT

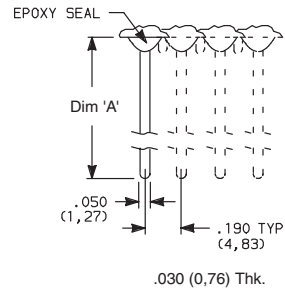


SPDT thru 4PDT

Not available with P, R or S contact materials.
Mating quick connector available, order part number 530100000, page F-16.

W, W1, W3, W4, W5

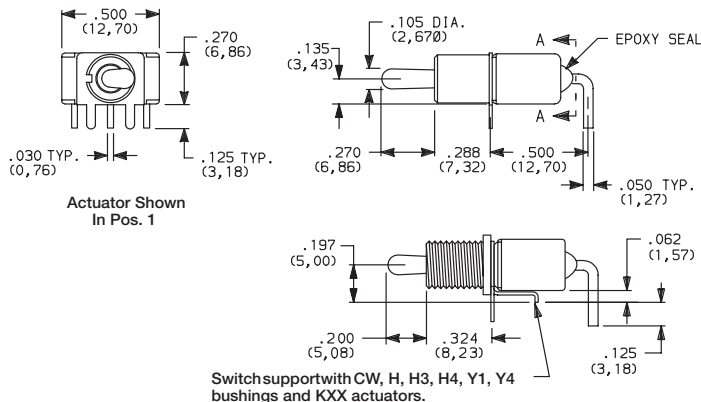
WIRE WRAP



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)

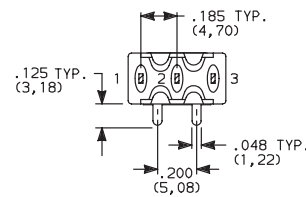
A RIGHT ANGLE, PC THRU-HOLE



Actuator Shown
In Pos. 1

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

Part No. Shown: 7101MHABE



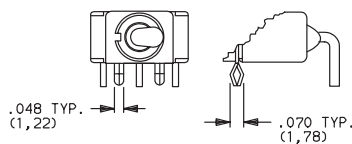
SECTION A-A

Terminal Nos.
For Reference Only



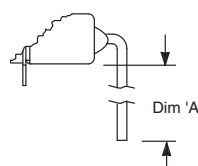
7101MD9ABE
Horizontal Actuation
SPDT

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



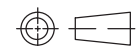
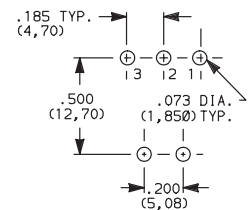
Not available with I seal option.
Terminal bend radii and lead-in manufacturing option.

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



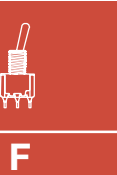
OPTION CODE	DIM 'A'
AW1	.72 (18,3)
AW4	.83 (21,1)

PC MOUNTING



Third Angle
Projection

Dimensions are shown: Inches (mm)
Specifications and dimensions subject to change

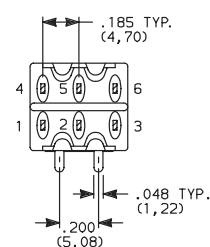


Toggle

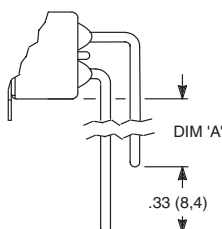
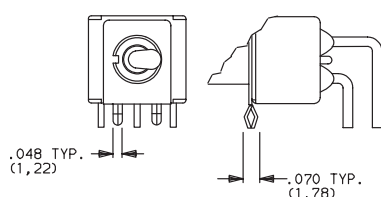
TERMINATIONS

Diagram showing the dimensions of the component:

- Width: .500 (12,70)
- Height: .450 (11,43)
- Thickness: .030 TYP. (0,76)

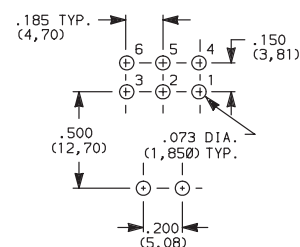


AW1, AW4 RIGHT ANGLE, EXTENDED,
PC THRU-HOLE

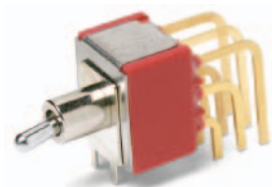


OPTION CODE	DIM 'A'
AW1	.40 (10,2)
AW4	.50 (12,7)

PC MOUNTING

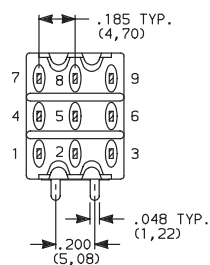


A RIGHT ANGLE, PC THRU-HOLE



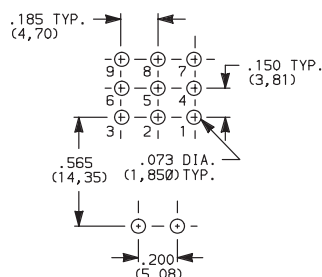
Technical drawing of a component showing dimensions and features:

- Dimensions:**
 - $.105 \text{ DIA. (2,670)}$
 - $.324 (8,23)$
 - $.270 (6,86)$
 - $.288 (7,32)$
 - $.565 (14,35)$
 - $.150 \text{ TYP. (3,81)}$
 - $.050 \text{ TYP. (1,27)}$
- Features:**
 - A**: Points to the top and bottom surfaces of the main body.
 - EPOXY SEAL**: Points to the seal on the top surface.
 - 1, 4, 7**: Points to the three pins on the right side.



SECTION A-A

PC MOUNTING



F-10

Dimensions are shown: Inches (mm)
Specifications and dimensions subject to change

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TERMINATIONS

Technical drawing of a CW, H, H3, H4, Y1, Y4 bushings and KXX actuators. The drawing shows two views of the component with dimensions in inches and millimeters.

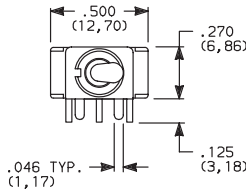
Top View Dimensions:

- .105 DIA. (2,678)
- EP0XY SEAL
- .270 (6,86)
- .288 (7,32)
- .500 (12,70)
- .030 T (0,76)
- .050 TYP. (1,27)

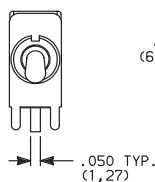
Bottom View Dimensions:

- .197 (5,00)
- .200 (5,08)
- .324 (8,23)
- .062 (1,57)
- .125 (3,18)

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



Technical drawing of a probe assembly. The drawing shows a cylindrical body with a probe tip on the left and a handle on the right. Dimensions are given in inches and millimeters. Labels include: .105 DIA. (2,670), EPOXY SEAL, .050 TYP. (1,27), .03 (0,76), .365 (9,27), .422 (10,72), and .270 (6,86).



Technical drawing of a 3-pin connector assembly. The drawing shows a cross-section of the connector with dimensions and tolerances. Key dimensions include:

- Overall width: .270 (6, 86)
- Pin 1 diameter: .288 (7, 32)
- Pin 2 diameter: .500 (12, 70)
- Pin 3 diameter: .150 TYP. (3, 81)
- Pin 4 diameter: .030 TYP. (0, 76)
- Pin 5 diameter: .125 (3, 1)
- Pin 6 diameter: .125 (3, 1)
- Pin 7 diameter: .125 (3, 1)
- Pin 8 diameter: .125 (3, 1)
- Pin 9 diameter: .125 (3, 1)
- Pin 10 diameter: .125 (3, 1)
- Pin 11 diameter: .125 (3, 1)
- Pin 12 diameter: .125 (3, 1)
- Pin 13 diameter: .125 (3, 1)
- Pin 14 diameter: .125 (3, 1)
- Pin 15 diameter: .125 (3, 1)
- Pin 16 diameter: .125 (3, 1)
- Pin 17 diameter: .125 (3, 1)
- Pin 18 diameter: .125 (3, 1)
- Pin 19 diameter: .125 (3, 1)
- Pin 20 diameter: .125 (3, 1)
- Pin 21 diameter: .125 (3, 1)
- Pin 22 diameter: .125 (3, 1)
- Pin 23 diameter: .125 (3, 1)
- Pin 24 diameter: .125 (3, 1)
- Pin 25 diameter: .125 (3, 1)
- Pin 26 diameter: .125 (3, 1)
- Pin 27 diameter: .125 (3, 1)
- Pin 28 diameter: .125 (3, 1)
- Pin 29 diameter: .125 (3, 1)
- Pin 30 diameter: .125 (3, 1)
- Pin 31 diameter: .125 (3, 1)
- Pin 32 diameter: .125 (3, 1)
- Pin 33 diameter: .125 (3, 1)
- Pin 34 diameter: .125 (3, 1)
- Pin 35 diameter: .125 (3, 1)
- Pin 36 diameter: .125 (3, 1)
- Pin 37 diameter: .125 (3, 1)
- Pin 38 diameter: .125 (3, 1)
- Pin 39 diameter: .125 (3, 1)
- Pin 40 diameter: .125 (3, 1)
- Pin 41 diameter: .125 (3, 1)
- Pin 42 diameter: .125 (3, 1)
- Pin 43 diameter: .125 (3, 1)
- Pin 44 diameter: .125 (3, 1)
- Pin 45 diameter: .125 (3, 1)
- Pin 46 diameter: .125 (3, 1)
- Pin 47 diameter: .125 (3, 1)
- Pin 48 diameter: .125 (3, 1)
- Pin 49 diameter: .125 (3, 1)
- Pin 50 diameter: .125 (3, 1)
- Pin 51 diameter: .125 (3, 1)
- Pin 52 diameter: .125 (3, 1)
- Pin 53 diameter: .125 (3, 1)
- Pin 54 diameter: .125 (3, 1)
- Pin 55 diameter: .125 (3, 1)
- Pin 56 diameter: .125 (3, 1)
- Pin 57 diameter: .125 (3, 1)
- Pin 58 diameter: .125 (3, 1)
- Pin 59 diameter: .125 (3, 1)
- Pin 60 diameter: .125 (3, 1)
- Pin 61 diameter: .125 (3, 1)
- Pin 62 diameter: .125 (3, 1)
- Pin 63 diameter: .125 (3, 1)
- Pin 64 diameter: .125 (3, 1)
- Pin 65 diameter: .125 (3, 1)
- Pin 66 diameter: .125 (3, 1)
- Pin 67 diameter: .125 (3, 1)
- Pin 68 diameter: .125 (3, 1)
- Pin 69 diameter: .125 (3, 1)
- Pin 70 diameter: .125 (3, 1)
- Pin 71 diameter: .125 (3, 1)
- Pin 72 diameter: .125 (3, 1)
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- Pin 74 diameter: .125 (3, 1)
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- Pin 77 diameter: .125 (3, 1)
- Pin 78 diameter: .125 (3, 1)
- Pin 79 diameter: .125 (3, 1)
- Pin 80 diameter: .125 (3, 1)
- Pin 81 diameter: .125 (3, 1)
- Pin 82 diameter: .125 (3, 1)
- Pin 83 diameter: .125 (3, 1)
- Pin 84 diameter: .125 (3, 1)
- Pin 85 diameter: .125 (3, 1)
- Pin 86 diameter: .125 (3, 1)
- Pin 87 diameter: .125 (3, 1)
- Pin 88 diameter: .125 (3, 1)
- Pin 89 diameter: .125 (3, 1)
- Pin 90 diameter: .125 (3, 1)
- Pin 91 diameter: .125 (3, 1)
- Pin 92 diameter: .125 (3, 1)
- Pin 93 diameter: .125 (3, 1)
- Pin 94 diameter: .125 (3, 1)
- Pin 95 diameter: .125 (3, 1)
- Pin 96 diameter: .125 (3, 1)
- Pin 97 diameter: .125 (3, 1)
- Pin 98 diameter: .125 (3, 1)
- Pin 99 diameter: .125 (3, 1)
- Pin 100 diameter: .125 (3, 1)

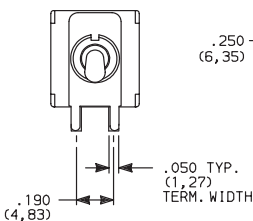
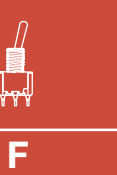


Figure 1 is a cross-sectional view of the assembly. It shows a central component with a central cavity. To the left is a cylindrical component with a conical tip. To the right is a component with a central cavity and a flange. The assembly is held together by an EPOXY SEAL. Dimensions are given in inches and millimeters. Key dimensions include: .250 (6,35) for the height of the left component; .270 (6,86) for the width of the central component; .288 (7,32) for the width of the central cavity; .500 (12,70) for the width of the central component; .150 TYP. (3,81) for the width of the right component; .125 (3,18) for the height of the right component; .030 TYP. (.76) for the width of the right component; and .030 TYP. (.76) for the width of the right component. Section lines A-A are shown across the assembly.



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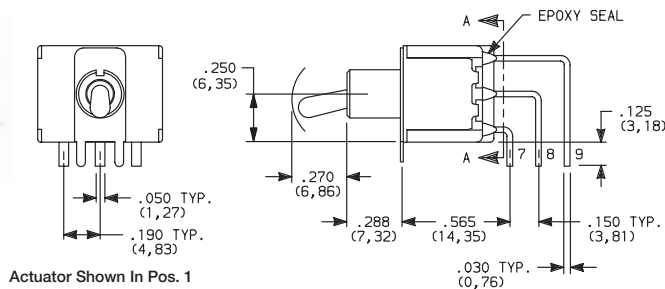
7000 Series Miniature Toggle Switches

TERMINATIONS

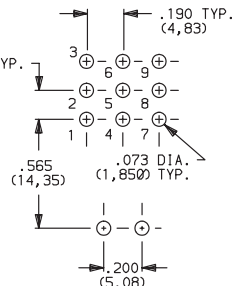
AV2 VERTICAL RIGHT ANGLE, PC THRU-HOLE,
.150" PITCH



7301MD9AV2BE
Vertical Actuation
3PDT



PC MOUNTING

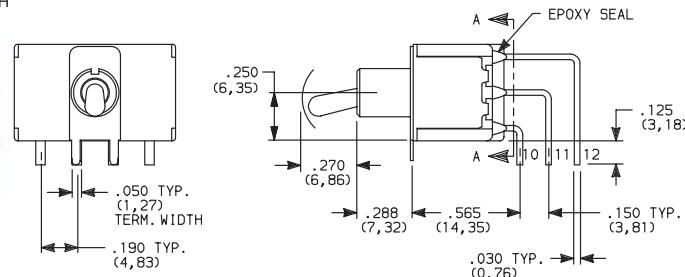


Not available with I seal option.
Terminal bend radii and lead-in manufacturing option.

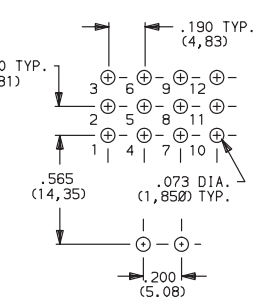
AV2 VERTICAL RIGHT ANGLE, PC THRU-HOLE,
.150" PITCH



7401MD9AV2BE
Vertical Actuation
4PDT



PC MOUNTING



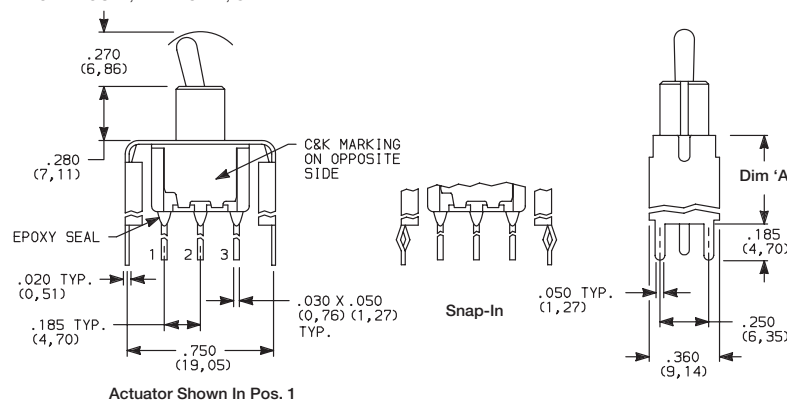
Not available with I seal option.
Terminal bend radii and lead-in manufacturing option.

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

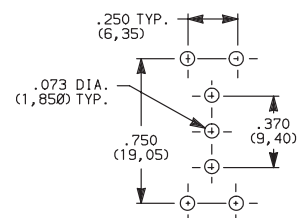
V21, V71, V81 VERTICAL MOUNT, V-BRACKET, SNAP-IN



7101MD9_BE
SPDT



PC MOUNTING



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

Not available with I seal option.



F

Toggle



Dimensions are shown: Inches (mm)
Specifications and dimensions subject to change

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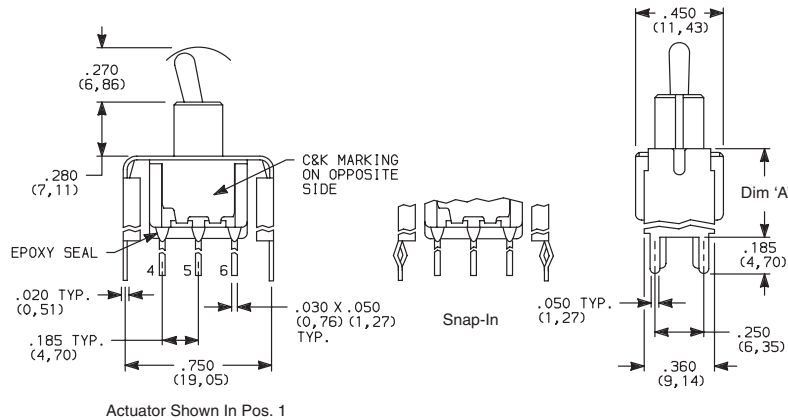
7000 Series Miniature Toggle Switches

TERMINATIONS



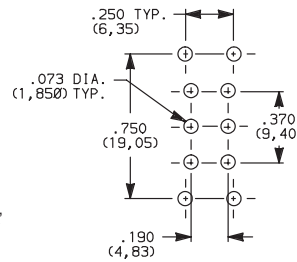
V2, V6, V7, V8 VERTICAL MOUNT, V-BRACKET

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



Not available with I seal option.

PC MOUNTING



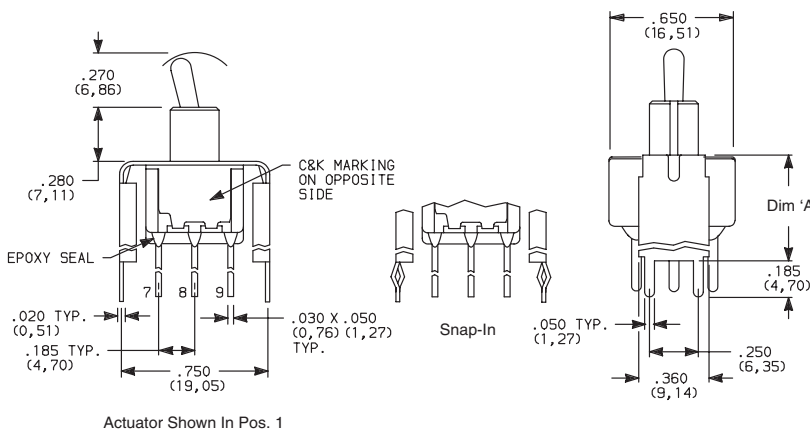
OPTION CODE	DIM 'A'
V2, V21	.555 (14,10)
V6, V61	.460 (11,68)
V7, V71	.630 (16,00)
V8, V81	.953 (24,21)



7201MD9_BE
DPDT

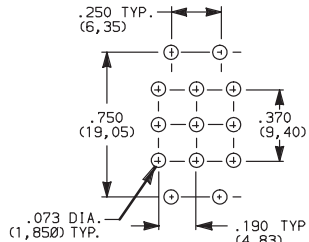
V2, V7, V8 VERTICAL MOUNT, V-BRACKET

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



Not available with I seal option.

PC MOUNTING



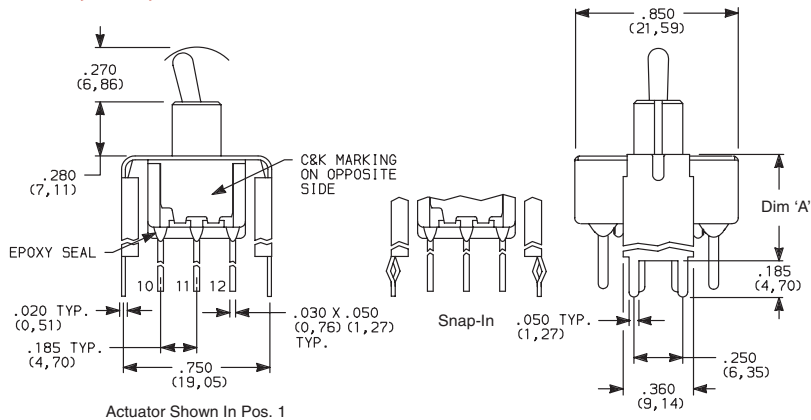
OPTION CODE	DIM 'A'
V2, V21	.555 (14,10)
V7, V71	.630 (16,00)
V8, V81	.953 (24,21)



7301MD9_BE
3PDT

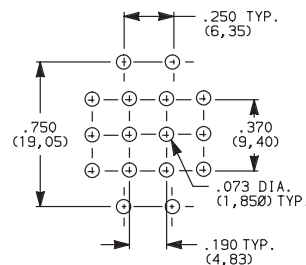
V2, V7, V8 VERTICAL MOUNT, V-BRACKET

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



Not available with I seal option.

PC MOUNTING



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



7401MD9_BE
4PDT



Dimensions are shown: Inches (mm)
Specifications and dimensions subject to change

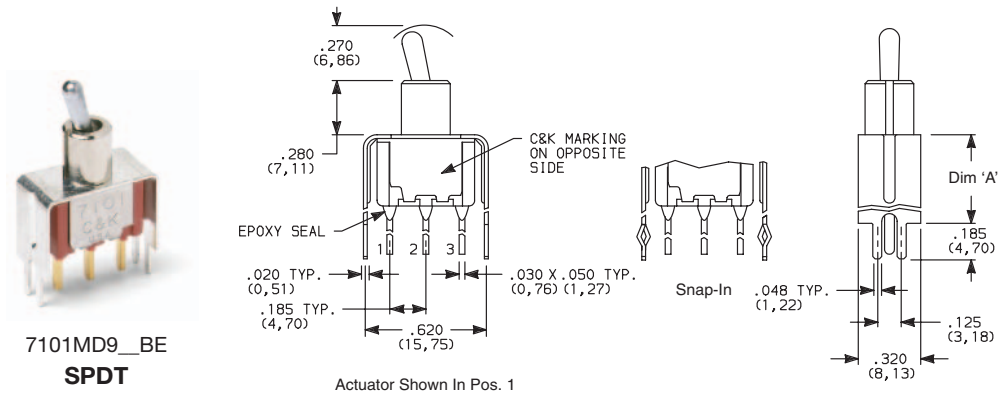


7000 Series Miniature Toggle Switches

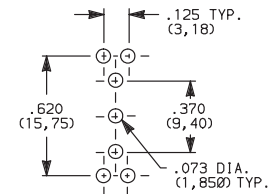
TERMINATIONS

V3, V4, V9 VERTICAL MOUNT, V-BRACKET

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



PC MOUNTING

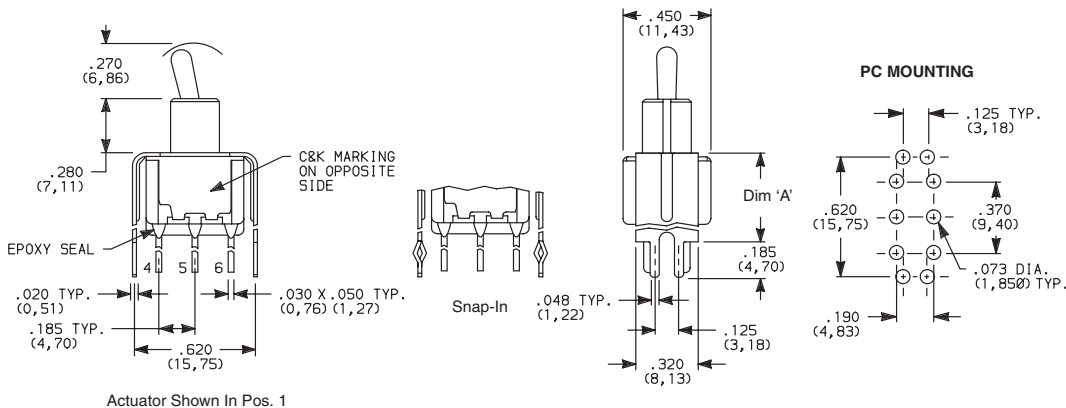


OPTION CODE	DIM 'A'
V3, V31	.460 (11,68)
V4, V41	.630 (16,00)
V9	1.150 (29,21)

Not available with I seal option.

V3, V4, V9 VERTICAL MOUNT, V-BRACKET

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



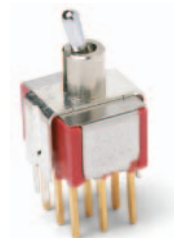
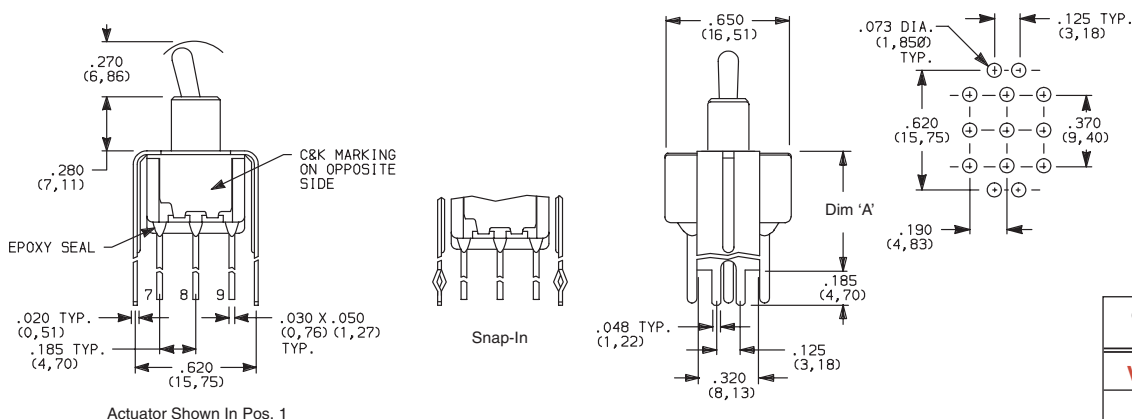
7201MD9_BE
DPDT

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

Not available with I seal option.

V4, V9 VERTICAL MOUNT, V-BRACKET

V41 VERTICAL MOUNT, V-BRACKET, SNAP-IN



7301MD9_BE
3PDT

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

Not available with I seal option.



Dimensions are shown: Inches (mm)
Specifications and dimensions subject to change

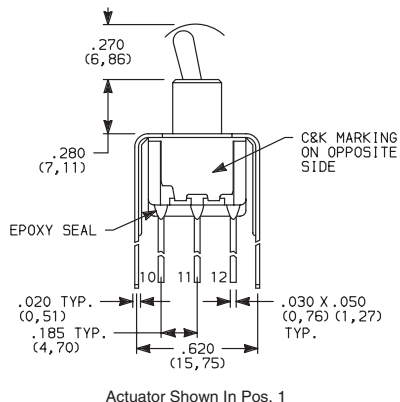
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7000 Series Miniature Toggle Switches

TERMINATIONS

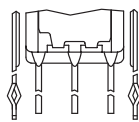
V4, V9 VERTICAL MOUNT, V-BRACKET

V41 VERTICAL MOUNT, V-BRACKET, SNAP-IN

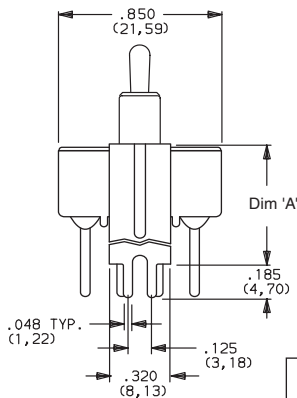


Actuator Shown In Pos. 1

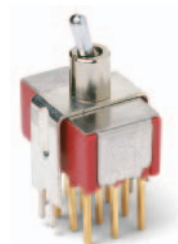
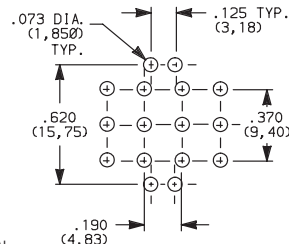
Not available with I seal option.



Snap-In



PC MOUNTING



7401MD9_BE
4PDT

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

CONTACT MATERIAL

OPTION CODE	CONTACT MATERIAL	TERMINAL PLATING	RATINGS	
B	GOLD ¹	GOLD ¹	LOW LEVEL/ DRY CIRCUIT	0.4 VA MAX. @ 20 V AC OR DC MAX.
P		MATTE-TIN ⁶		
Q	SILVER ^{4,5}	SILVER ⁵	POWER	5 AMPS @ 120 V AC OR 28 V DC; 2 AMPS @ 250 V AC.
S		MATTE-TIN ⁶		
G	GOLD OVER SILVER ^{2,3}	GOLD ³	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.
R		MATTE-TIN ⁶		

* Note: See Technical Data section of this catalog for RoHS compliant and compatible definitions and specifications.

¹ CONTACTS & TERMINALS: Copper alloy, with gold plate over nickel plate.

² END CONTACTS: Coin silver, with gold plate over nickel plate.

³ CENTER CONTACTS & ALL TERMINALS: Copper alloy, with gold plate over nickel plate.

⁴ END CONTACTS: Coin silver, silver plated.

⁵ CENTER CONTACT & ALL TERMINALS: Copper alloy, silver plated.

⁶ TERMINALS: Copper alloy, with matte tin alloy nickel plate.

NOTE: Any models supplied with P, S, R, Q, B or G contact material are RoHS compliant.

U11-U415 model numbers **cRLus** with all options when ordered with G, S, R, or Q contact material.

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

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

P, S & R contact materials not available with Z & Z3 terminations.



Third Angle
Projection

Dimensions are shown: Inches (mm)
Specifications and dimensions subject to change

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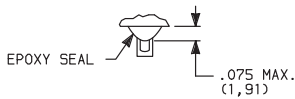


Toggle

7000 Series Miniature Toggle Switches

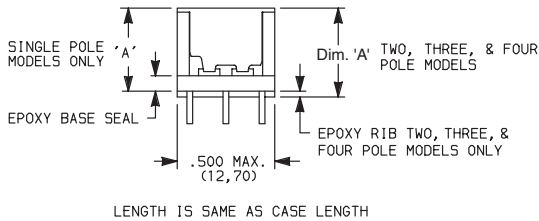
SEAL

E 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.

AVAILABLE HARDWARE

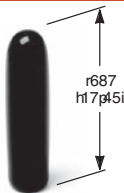
Cap



PART NO.
896801000 WHITE
896802000 BLACK
896803000 RED

Material: Polyethylene
 Finish: Matte

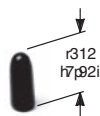
Cap



PART NO.
763701000 WHITE
763702000 BLACK
763703000 RED

Material: Vinyl
 Finish: Matte

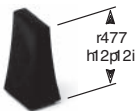
Cap



PART NO.
706201000 WHITE
706202000 BLACK
706203000 RED

Material: Vinyl
 Finish: Matte

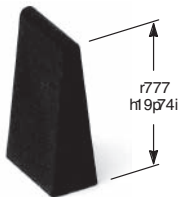
L41 Lever handle



PART NO.
481001000 WHITE
481002263 BLACK
481003000 RED

Material: Nylon
 Finish: Matte

L42 Lever handle



PART NO.
481101000 WHITE
481102263 BLACK
481103000 RED

Material: Nylon
 Finish: Matte

Fits Z3 Termination
female connector



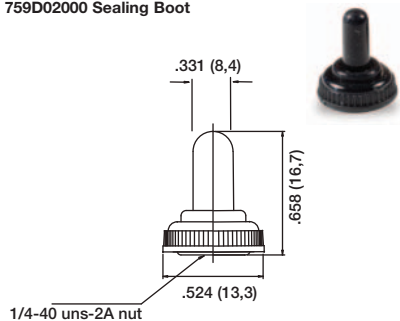
PART NO.
530100000

Available in loose pieces.

NOTE: Additional nuts, locking rings and lockwashers available separately, see Section N.

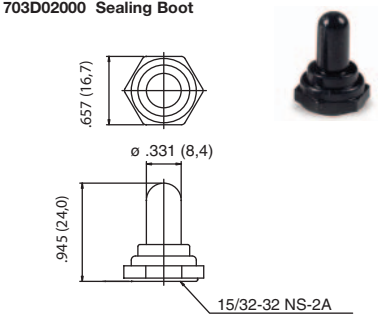
Other colors available, consult Customer Service Center.

759D02000 Sealing Boot



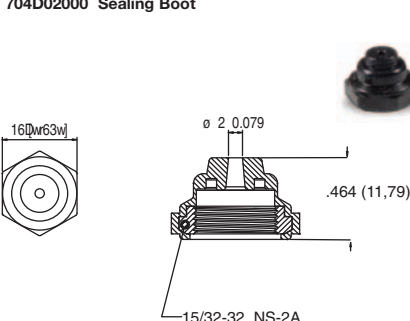
NOTE: For use with S actuator style when combined with D, H, H3, Y, and Y4 bushings

703D02000 Sealing Boot



NOTE: For use with T and TP style actuators. **Can not be used for Switch Functions: 7103, 7203, 7303, 7403, 7107, 7207, 7307, 7407.**

704D02000 Sealing Boot



NOTE: For use with T, TP and T2P style actuators. Can not be used for Switch Functions: 7103, 7203, 7303, 7403, 7107, 7207, 7307, and 7407.



Third Angle
Projection

Dimensions are shown: Inches (mm)
 Specifications and dimensions subject to change

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