






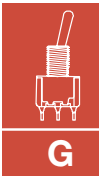


Toggles

Product Selection Guide

Toggles							
Series	7000	Military	E	ET	T	GT	9000
Switch Type	Miniature	Miniature	Miniature	Subminiature	Subminiature	Ultraminiature	Power
Poles/Throws	SPDT, DPDT, 3PDT, 4PDT	SPDT, DPDT,	SPDT, DPDT, 3PDT	SPST, SPDT, DPDT	SPST, SPDT, DPDT	SPST, SPDT, DPST, DPDT	DPDT
Maximum Current Silver/Gold	5 Amps	5 Amps	7.5 Amps/ 5 Amps	3 Amps/ 2 Amps	3 Amps/ 2 Amps	0.4 VA	10 Amps
Process Sealed			•	•		•	
PCB Mount Options							
Vertical	•	•	•	•	•	•	•
Right Angle	•	•	•	•	•	•	
Vertical Right Angle	•	•	•	•	•	•	•
Surface Mount Options							
Vertical						•	
Right Angle				•		•	
Panel Mount Options							
Rear Mount	•	•	•		•		•
Termination Options							
PCB Thru-hole	•	•	•	•	•	•	•
Wire Wrap	•		•	•	•		
Solder Lug	•	•	•		•		•
Quick Connect	•		•				•
Other Available Options							
Support Brackets	•	•	•	•	•	•	•
Snap-in Retention	•		•	•			
ESD Protection	•		•	•	•		
Tape & Reel				•		•	
Bushing Options							
10-48					•		
1/4-40	•	•	•		•		•
15/32	•						•
M6P 0.75 (Metric)	•						
Page No.	G-3	G-17	G-22	G-30	G-37	G-43	G-48



Toggle



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

7000 Series Miniature Toggle Switches

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 G-15 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 above for additional contact materials.

TERMINAL SEAL: Epoxy.

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

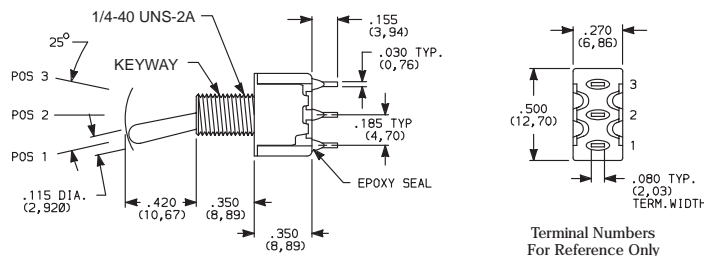
NOTE: Materials listed above are for switches with standard options. For information on specific and custom switches, consult Customer Service Center.

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	
			KEYWAY	KEYWAY	KEYWAY	KEYWAY	KEYWAY	KEYWAY	
SP	7101	U11	ON	NONE	ON	2-3	N/A	2-1	
	7103	U13	ON	OFF	ON	2-3	OPEN	2-1	
	7105	U15	MOM.	OFF	MOM.				
	7107	U17	ON	OFF	MOM.				
	7108	U18	ON	NONE	MOM.	2-3	N/A	2-1	
	7109	U19	NONE	ON	MOM.	N/A	2-3	2-1	

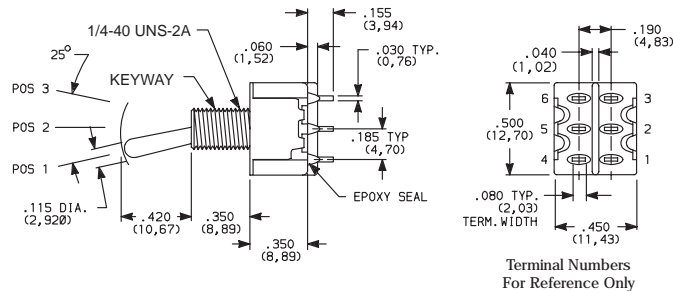
SPDT



Part number shown: 7101SYZBE

DP	7201	U21	ON	NONE	ON	2-3,5-6	N/A	2-1,5-4	
	7203	U23	ON	OFF	ON	2-3,5-6	OPEN	2-1,5-4	
	7205	U25	MOM.	OFF	MOM.				
	7207	U27	ON	OFF	MOM.				
	7208	U28	ON	NONE	MOM.	2-3,5-6	N/A	2-1,5-4	
	7211*	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.				

DPDT



Part number shown: 7201SYZQE

MOM. = Momentary

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

* Wiring for 3-way switch, see Section O.



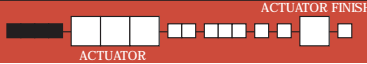
Toggle



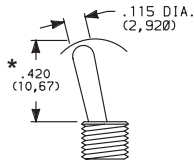
Dimensions are shown: Inch (mm)
Specifications and dimensions subject to change

7000 Series Miniature Toggle Switches

ACTUATOR

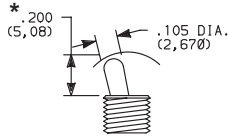


S .420" HIGH ¹
SP ANTIROTATION, .420" HIGH ^{2,3}



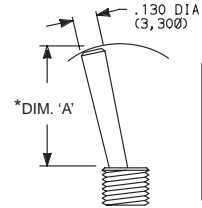
S actuator standard when ordered with C, W-W5, Z & Z3 terminations. Caps are available separately, see page G-16.

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 G-16.

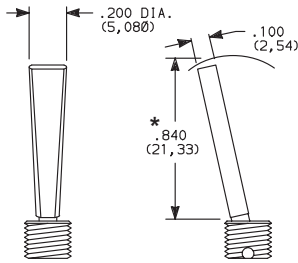
L, L1, L2 .840", .640", .550" HIGH ¹
L1P, L2P ANTIROTATION, .840", .640", .550" HIGH ^{2,3}



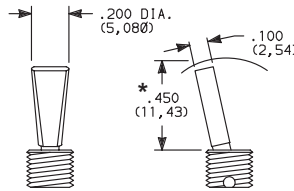
OPTION CODE	DIM 'A'
L	.840 (21,34)
L1, L1P	.640 (16,26)
L2, L2P	.550 (13,97)

Caps are available separately, see page G-16.

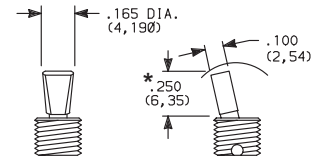
P1 FLATTED WITH ANTIROTATION, .840" HIGH ^{2,3}



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

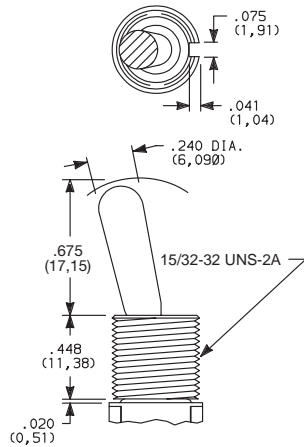


P4 FLATTED WITH ANTIROTATION, .250" HIGH ^{2,3}

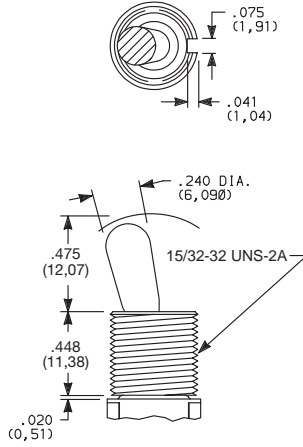


Dress nut part number 709901201 supplied standard with threaded bushing. (Part number 709903201 with metric threaded bushings.)

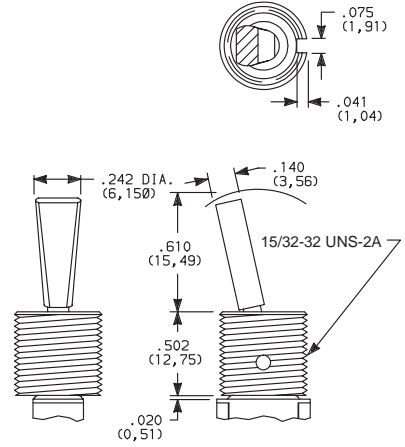
T .675 (17,15) HIGH ^{1,2}
TP ANTIROTATION, .675 (17,15) HIGH, 15/32 BUSHING ^{1,2,3}



T1 .475 (12,07) HIGH ^{1,2}
T1P ANTIROTATION, .475 (12,07) 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.

- 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 O.



Toggle



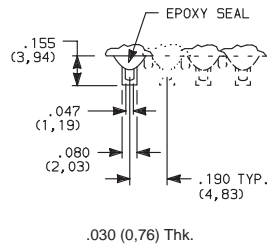
Dimensions are shown: Inch (mm)
 Specifications and dimensions subject to change



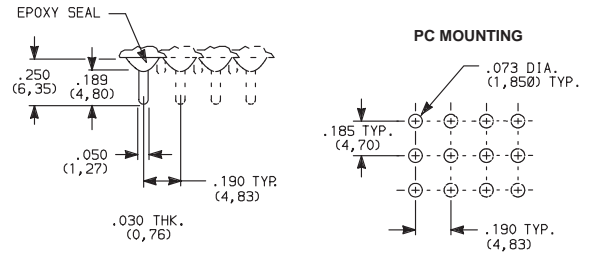
7000 Series Miniature Toggle Switches

TERMINATIONS

Z SOLDER LUG



C PC THRU-HOLE

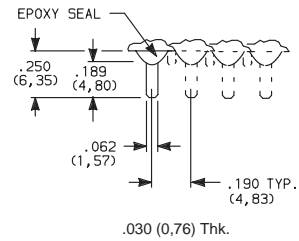


SPDT thru 4PDT

Not available with P, R or S contact materials.

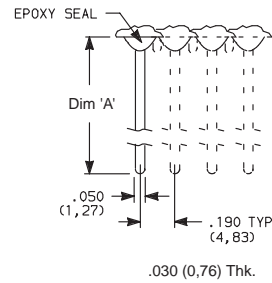
SPDT thru 4PDT

Z3 QUICK CONNECT



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

W, W1, W3, W4, W5 WIRE WRAP

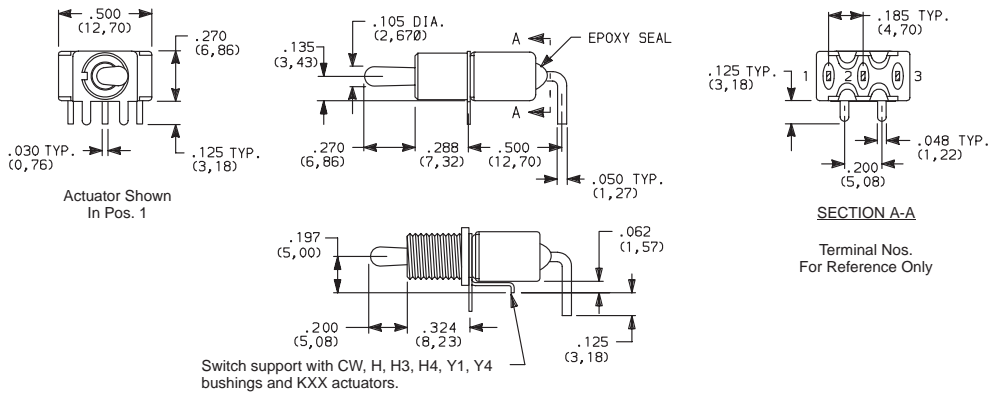


OPTION CODE	DIM 'A'
W	.750 (19,05)
W1	.964 (24,48)
W3	.425 (10,80)
W4	1.062 (26,97)
W5	1.305 (33,15)

SPDT thru 4PDT

SPDT thru 4PDT

A RIGHT ANGLE, PC THRU-HOLE

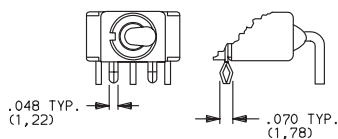


Part No. Shown: 7101MHABE



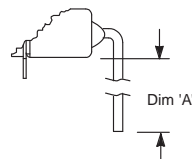
7101MD9ABE
Horizontal Actuation
SPDT

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



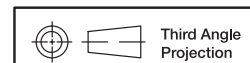
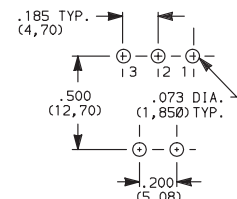
Not available with I seal option.
Terminal bend radii and lead-in manufacturing option.

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

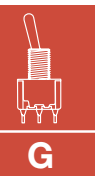


OPTION CODE	DIM 'A'
AW1	.72 (18,3)
AW4	.83 (21,1)

PC MOUNTING



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



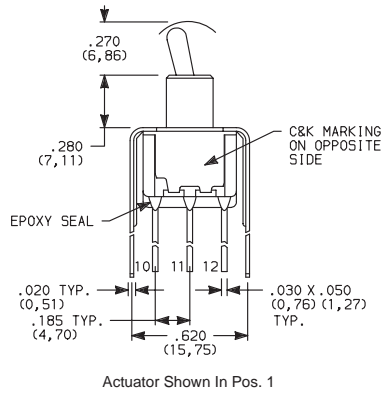
Toggle

7000 Series Miniature Toggle Switches

TERMINATIONS

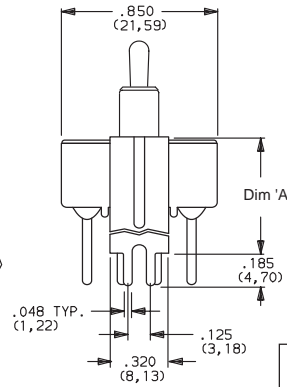
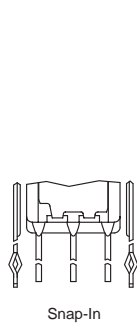
V4, V9 VERTICAL MOUNT, V-BRACKET

V41 VERTICAL MOUNT, V-BRACKET, SNAP-IN

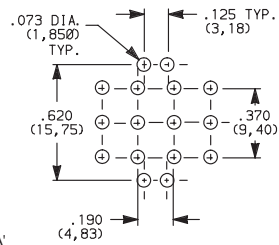


Actuator Shown In Pos. 1

Not available with I seal option.



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.

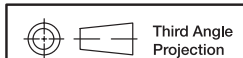
U11-U415 model numbers   with all options when ordered with G, L, S, R, M or Q contact material.

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

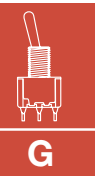
Q contact material standard with C, Z & Z3 terminations.

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

K, L and M options represent Non RoHS tin lead product and are not recommended for new designs. For additional information please contact Customer Service.



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



Toggle

7000 Series Miniature Toggle Switches

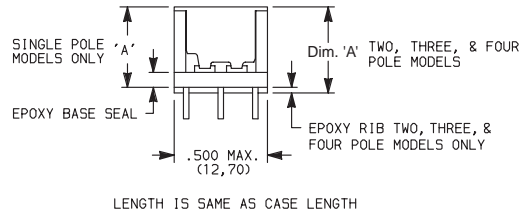
SEAL

E EPOXY SEAL



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

I EPOXY POTTED BASE

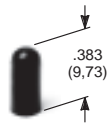


NO. POLES	DIM 'A'
SP	.410 (10,41)
DP	.440 (11,18)
3P	.505 (12,83)
4P	.505 (12,83)

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

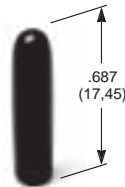
AVAILABLE HARDWARE

Cap



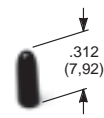
PART NO.
896801000 WHITE
896802000 BLACK
896803000 RED
 Material: Polyethylene
 Finish: Matte

Cap



PART NO.
763701000 WHITE
763702000 BLACK
763703000 RED
 Material: Vinyl
 Finish: Matte

Cap



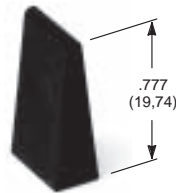
PART NO.
706201000 WHITE
706202000 BLACK
706203000 RED
 Material: Vinyl
 Finish: Matte

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

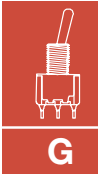
Fits Z3 Termination
female connector



PART NO.
530100000
 Available in loose pieces.

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

Other colors available, consult Customer Service Center.



Toggle



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