



SPECIFICATIONS

CONTACT RATING: AC 125V 6A, AC 250V 3A, DC 30V 3A

MECHANICAL LIFE: 200,000 make-and-break cycles DC 10V & 0.1mA.

CONTACT RESISTANCE: 10mΩ MAX.

INSULATION RESISTANCE: 500V 500MΩ MIN.

DIELECTRIC STRENGTH: 1,000 V RMS@sea level.

OPERATING TEMPERATURE: -30°C to 85°C.

WATER-RESISTANCE: 100 MAKE-AND-BREK CYCLES MIN AT 10cm DEPTH

MATERIALS

CASE: Diallyl phthalate (DAP) (UL94v-0).

ACTUATOR: Brass, chrome plated.

BUSHING: Brass, nickel plated.

HOUSING: Stainless Steel.

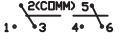
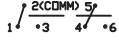
SWITCH SUPPORT: Brass, tin plated.

TERMINAL/CONTACT: Silver or gold plated. (See Page 25)

HOW TO ORDER

MODEL NO.	ACTUATOR	BUSHING	TERMINATIONS	CONTACT MATERIAL	SEAL	ROHS SOLDERING
□□□□	□□	□□□	□□□	□	□	□
MODEL NO. 1FS1 SP On-None-On 1FS2 SP On-None-Mom. 1FS3 SP On- Off -On 1FS4 SP Mom.-Off-Mom. 1FS5 SP On- Off -Mom. 1FD1 DP On-None-On 1FD2 DP On-None-Mom. 1FD3 DP On- Off -On 1FD4 DP Mom.-Off-Mom. 1FD5 DP On- Off -Mom.	ACTUATOR T1 10.5 high T2 5.4 high T3 14.2 high T4 16.4 high T5 21.4 high T6 11.5 high T6-1 21.5 high T7 12.37 high T8 17.56 high T12 11.2 high	BUSHING B6 8.00 high BA1 9.00 high B9 7.52 high B13 11.38 high	TERMINATIONS M1 Solder Lug M2 PC thru-hole	CONTACT MATERIAL Q Silver R Gold G Gold, pure-tin S Silver, pure-tin C Gold over silver K Gold over silver, pure-tin	SEAL E EPOXY (std) N NO EPOXY	ROHS SOLDERING ☐ RoHS Compliant ☐ RoHS & Lead Free

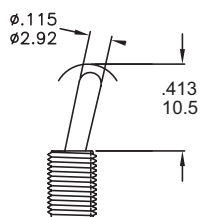
SWITCH FUNCTION

NO. POLES	MODEL NO.	SWITCH FUNCTION			CONNECTED TERMINALS / SCHEMATIC		
		POS.1	POS.2	POS.3	POS.1	POS.2	POS.3
							
SP	1FS1	ON	NONE	ON		N/A	2-1 
	1FS2	ON	NONE	MOM			
	1FS3	ON	OFF	ON			
	1FS4	MOM	OFF	MOM			
	1FS5	ON	OFF	MOM			
DP	1FD1	ON	NONE	ON		N/A	2-1,5-4 
	1FD2	ON	NONE	MOM			
	1FD3	ON	OFF	ON			
	1FD4	MOM	OFF	MOM			
	1FD5	ON	OFF	MOM			

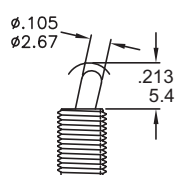
MOM=MOMENTARY

ACTUATOR OPTIONS

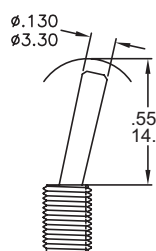
T1 STD



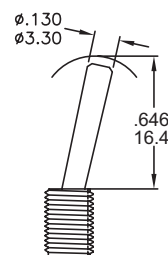
T2



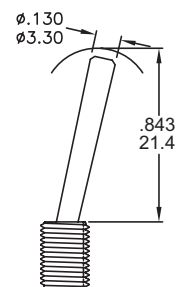
T3



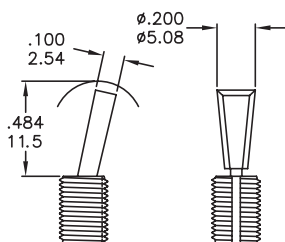
T4



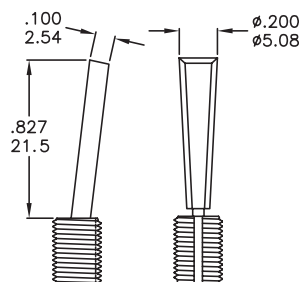
T5



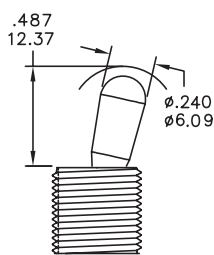
T6 FLATTED WITH ANTIROTATION



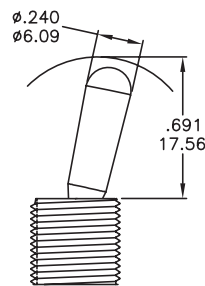
T6-1



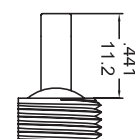
T7



T8



T12



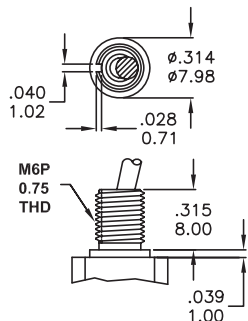
T6.T6-1 use with B6 bushing only

T7.T8 use with B13 bushing only

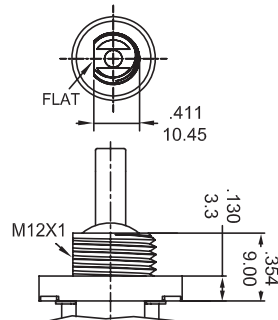
T12 use with BA1 bushing only

BUSHING OPTIONS

B6 HIGH TORQUE

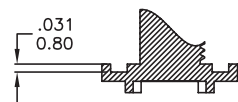
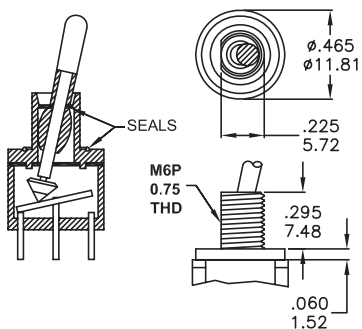


BA1 SPLASH PROOF

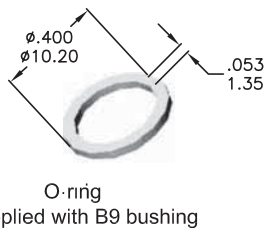


Use with T12 actuators only
BA1 Bear Strength from top of actuator
up to 10kg aside up to 15kg

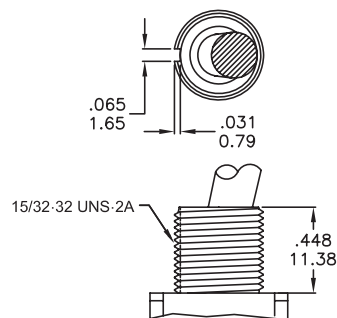
B9 SPLASH PROOF



CP-1TEB

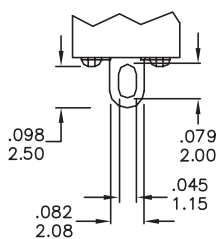


B13

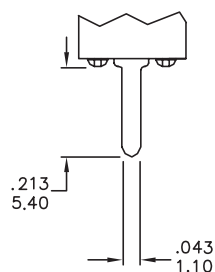


TERMINATION OPTIONS

M1 SOLDER LUG

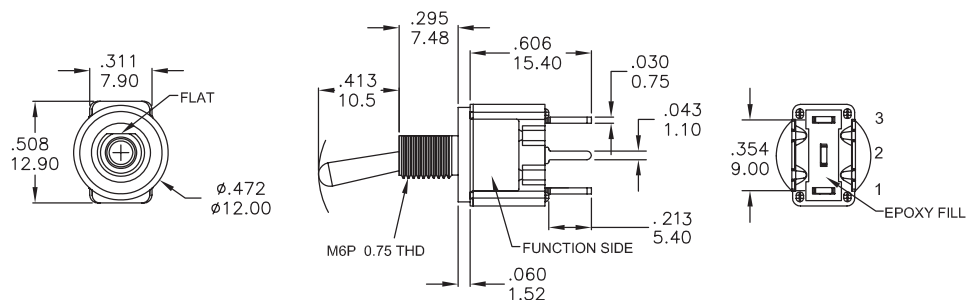


M2 PC THRU-HOLE



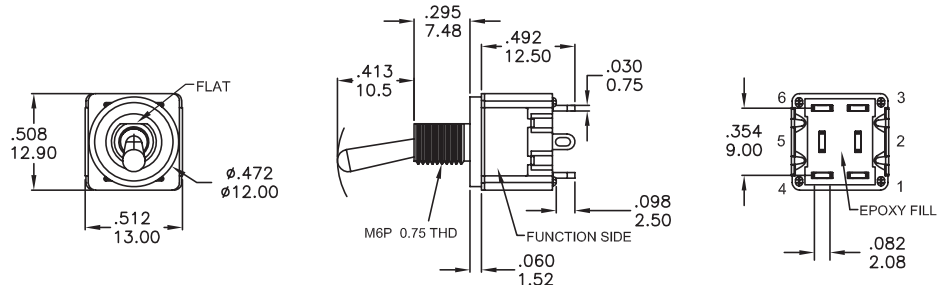
POLE OPTIONS

SPDT



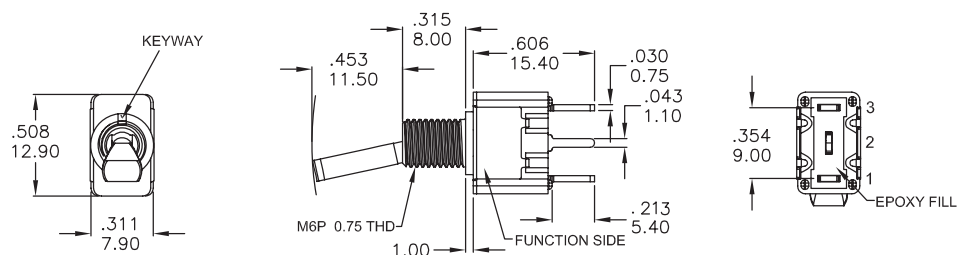
Part No. Shown: 1FS1T1B9M2QES

DPDT



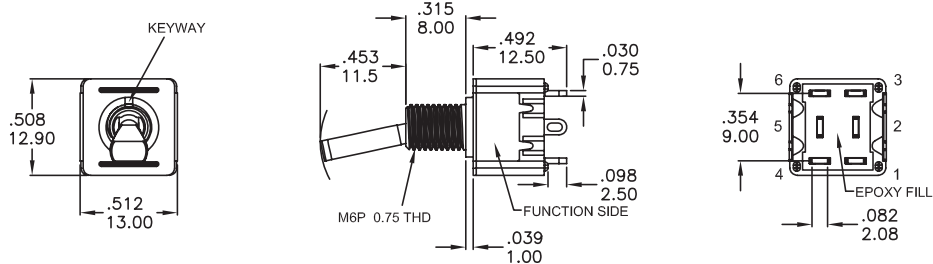
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SPDT



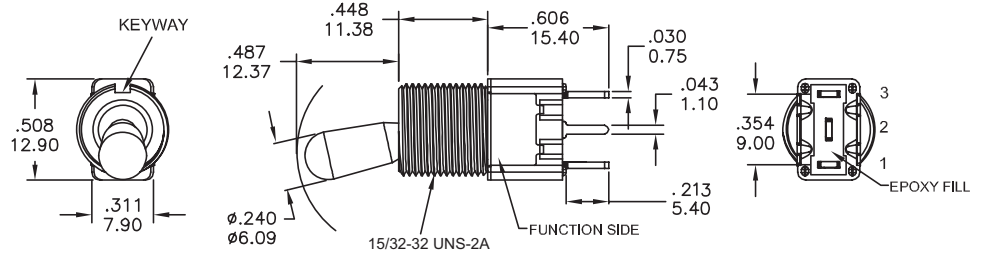
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DPDT



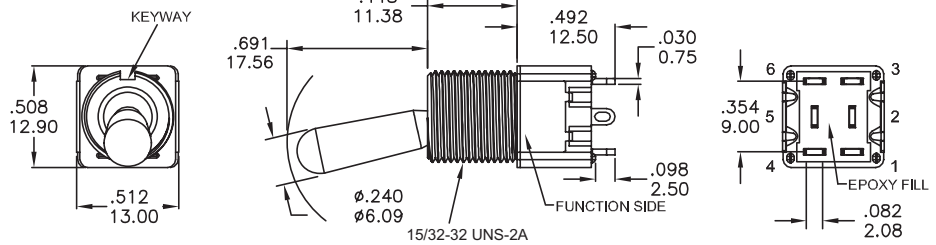
Part No. Shown: 1FD1T6B6M1QES

SPDT



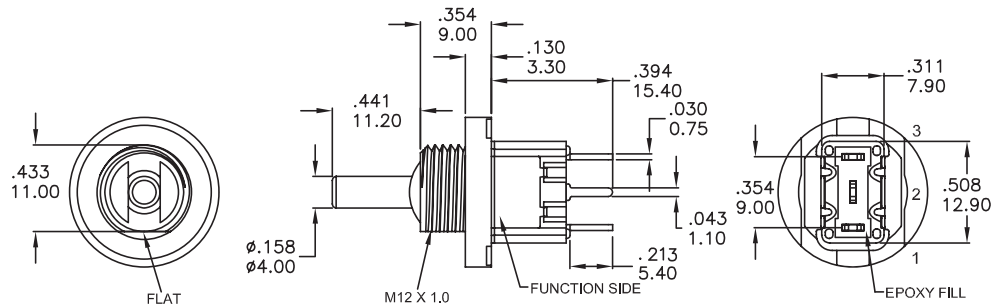
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DPDT



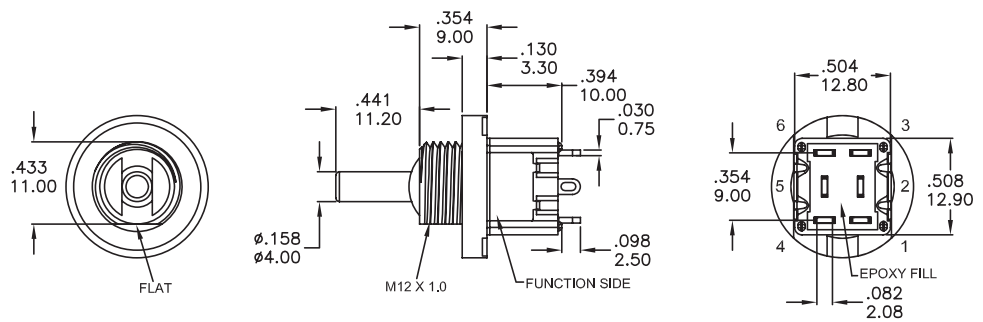
Part No. Shown:1FD1T8B13M1QES

SPDT



Part No. Shown:1FS1T12BA1M2QES

DPDT



Part No. Shown:1FD1T12BA1M1QES

CONTACT MATERIAL OPTIONS

	CONTACT MATERIAL	TERMINAL PLATING	RATINGS
Q	Silver	Q = Silver	6 Amps with resistant load @ 125VAC or 28VDC 3 Amps with resistant load @ 250VAC
S		S = Silver,pure - tin	
C		C = Gold over silver	
K	Gold over Silver	K = Gold over silver,pure - tin	0.4 Volt-Amps(VA)max. @ 20V max. (AC or DC)
R	Gold	R = Gold	
G		G = Gold,pure - tin	



SOLDERING PROCESSES

MANUAL SOLDERING : Use soldering iron of 30 watts, controlled at 350°C approximately 5 seconds while applying solder.

WAVE SOLDERING : Recommended Soldering Temperature: 260±5°C
Duration of Solder Immersion: 5 ±1 seconds
(PCB is 1.6mm in thickness)

SOLDERING : Vapor phase

Temperature Profile

Zone	Room temperature	Time (Sec)
Pre-heat (A)	150°C	Min 120s
Soak (B)	180°C~200°C	Min 150s
Peak (C)	200°C~235°C	Min 30s
Peak (D)	235°C~260°C	Min 40s
Peak (E)	260°C	Max 10s

