

SPECIFICATIONS

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

MECHANICAL LIFE: 100,000 make-and-break cycles
DC 10V & 0.1mA.

CONTACT RESISTANCE: 10 mΩ max.

INSULATION RESISTANCE: 500V 500 MΩ min.

DIELECTRIC STRENGTH: 1,000 Vrms min. @sea level.

OPERATING TEMPERATURE: -30°C to 85°C.

WATER-RESISTANCE: 100 make-and-break cycles min at 10 cm depth for T12 actuator.

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: Brass,with silver or gold plated.(See Page 23)



1F
Toggle Switches

HOW TO ORDER

| MODEL NO. | ACTUATOR | BUSHING | TERMINATIONS | TERMINAL PLATING | SEAL | RoHS SOLDERING |
|---|----------|---------|--------------|------------------|------|----------------|
| <div style="display: flex; justify-content: space-around;"> <div style="width: 15%;"> <p>Model NO.</p> <p>1FS1 SP On-None-On</p> <p>1FS2 SP On-None-Mom.</p> <p>1FS3 SP On- Off -On</p> <p>1FS4 SP Mom.-Off-Mom.</p> <p>1FS5 SP On- Off -Mom.</p> <p>1FD1 DP On-None-On</p> <p>1FD2 DP On-None-Mom.</p> <p>1FD3 DP On- Off -On</p> <p>1FD4 DP Mom.-Off-Mom.</p> <p>1FD5 DP On- Off -Mom.</p> </div> <div style="width: 15%;"> <p>Actuator</p> <p>T1 10.5 high</p> <p>T2 5.4 high</p> <p>T3 14.2 high</p> <p>T4 16.4 high</p> <p>T5 21.4 high</p> <p>T6 11.5 high</p> <p>T61 21.5 high</p> <p>T12 11.2 high</p> </div> <div style="width: 15%;"> <p>Bushing</p> <p>B6 8.00 high</p> <p>BA1 9.00 high</p> <p>B9 7.52 high</p> </div> <div style="width: 15%;"> <p>Terminations</p> <p>M1 Solder Lug</p> <p>M2 PC thru-hole</p> </div> <div style="width: 15%;"> <p>Terminal plating</p> <p>Q Silver</p> <p>R Gold</p> <p>C Gold over silver</p> </div> <div style="width: 15%;"> <p>Seal</p> <p>E EPOXY (std)</p> <p>N NO EPOXY</p> </div> <div style="width: 15%;"> <p>RoHS soldering</p> <p>S RoHS & Lead Free</p> </div> </div> | | | | | | |

1F Series

Miniature Toggle Switches

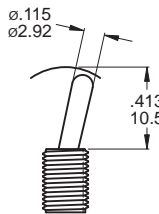
SWITCH FUNCTION

| 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 | 2-3 | 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 | 2-3,5-6 | N/A | 2-1,5-4 | | |
| | 1FD2 | ON | NONE | MOM | | | | | |
| | 1FD3 | ON | OFF | ON | | | | | |
| | 1FD4 | MOM | OFF | MOM | | | | | |
| | 1FD5 | ON | OFF | MOM | | | | | |

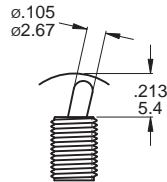
MOM=MOMENTARY

ACTUATOR OPTIONS

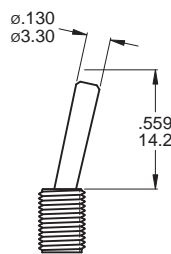
T1 STD



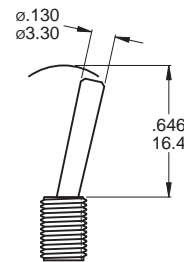
T2



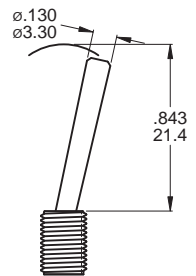
T3



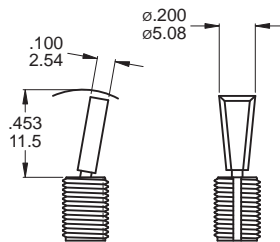
T4



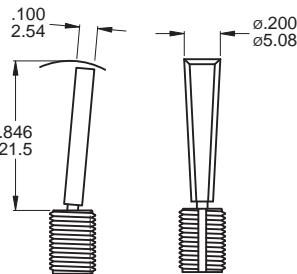
T5



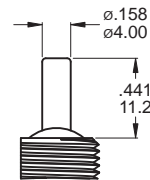
T6 FLATTED WITH ANTIROTATION



T61



T12

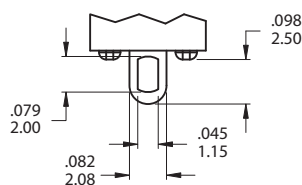


T12 use with BA1 bushing only
*T12 actuator mechanical life 200,000 cycles

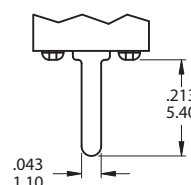
T6,T6-1 use with B6 bushing only

TERMINATION OPTIONS

M1 Solder lug



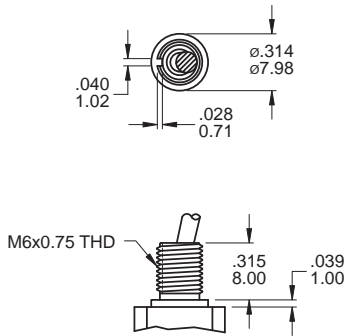
M2 PC Thru - hole



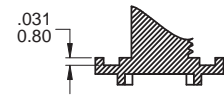
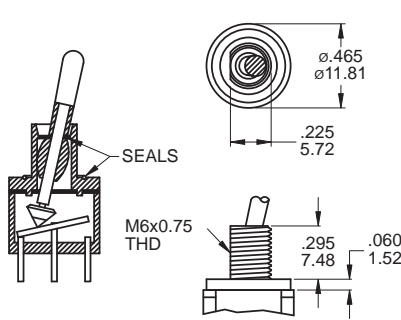
1F
Toggle Switches

BUSHING OPTIONS

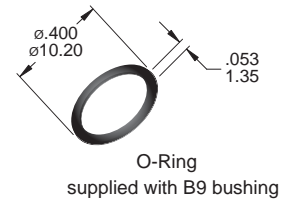
B6 HIGH TORQUE



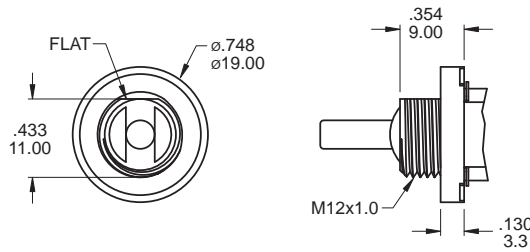
B9 SPLASH PROOF



CP-1TEB



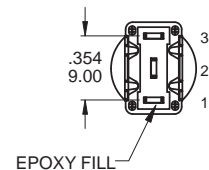
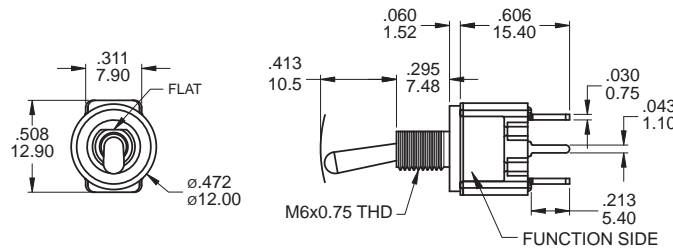
BA1 SPLASH PROOF



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

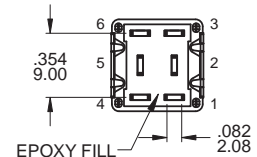
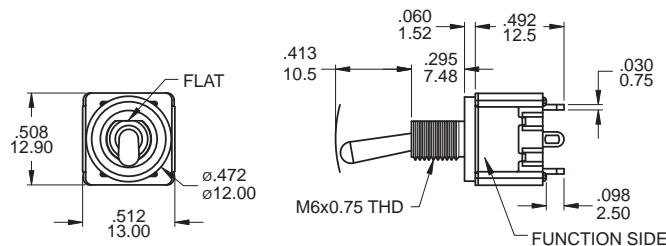
POLE OPTIONS

SPDT



Part No. Shown : 1FS1T1B9M2RES

DPDT



Part No. Shown : 1FD1T1B9M1QES



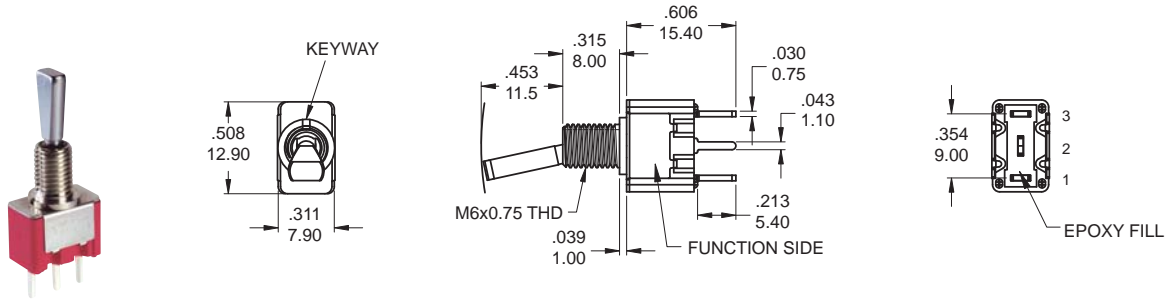
1F
Toggle Switches

1F Series

Miniature Toggle Switches

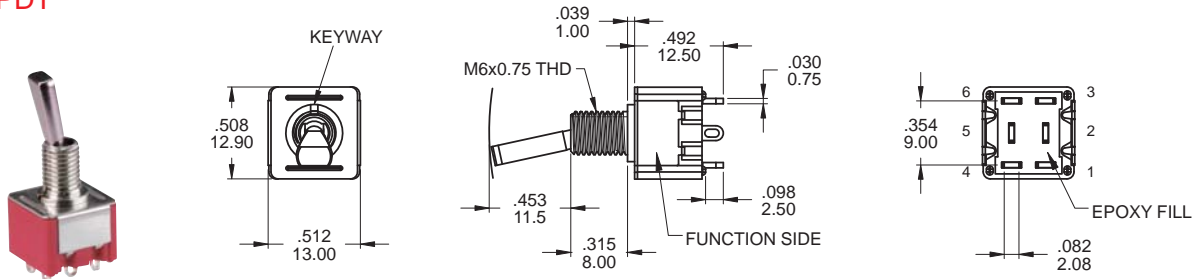
1F
Toggle Switches

SPDT



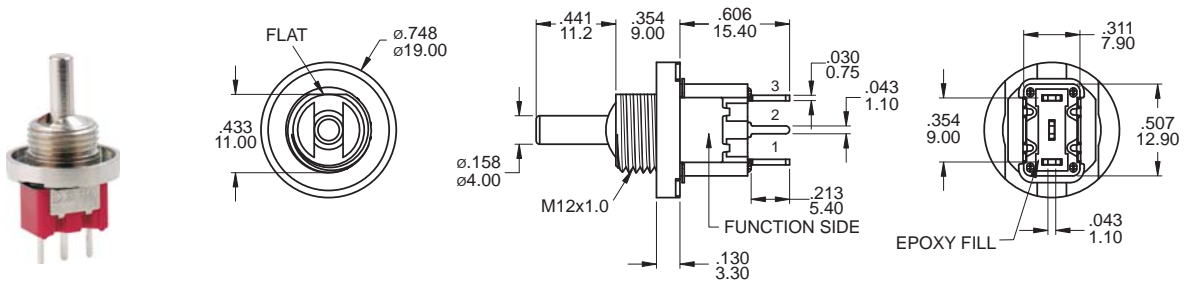
Part No. Shown : 1FS1T6B6M2QES

DPDT



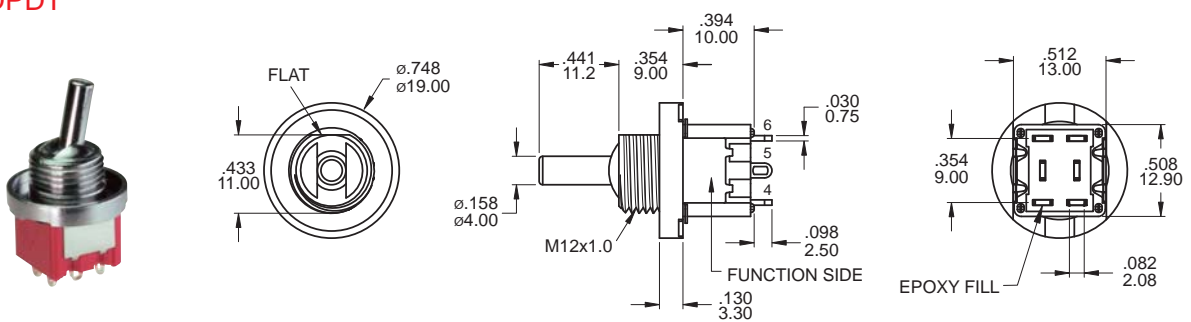
Part No. Shown : 1FD1T6B6M1QES

SPDT



Part No. Shown : 1FS1T12BA1M2QES

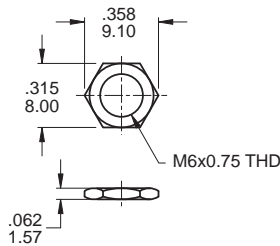
DPDT



Part No. Shown : 1FD1T12BA1M1QES

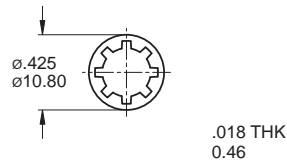
HARDWARE

M6x0.75 NUT



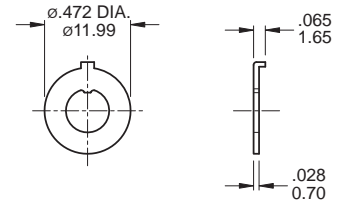
MNU-1M04

LOCKWASHER



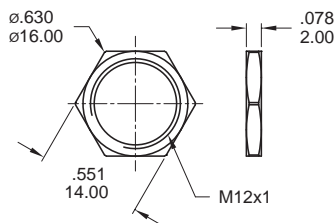
MNU-1M03

LOCKING RING



MNU-1M05

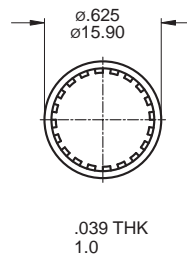
M12x1 NUT



MNU-1M42

Supplied standard with BA1 bushing

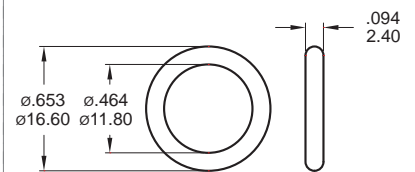
LOCKWASHER



MNU-1M09

Supplied standard with BA1 bushing

O-RING



FCP-1F04

Supplied standard with BA1 bushing

CONTACT MATERIAL OPTIONS

| | CONTACT PLATING | TERMINAL PLATING | RATINGS |
|----------|------------------------|-----------------------------|---|
| Q | Silver | Q = Silver | 6 Amps with resistant load @ 125VAC 3 Amps with resistant load @ 250VAC or 30VDC |
| C | Gold over Silver | C = Gold over silver | |
| R | Gold | R = Gold | 0.4 Volt - Amps (VA) max. @ 20V max. (AC or DC) |

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: 270 ± 5°C

Duration of Solder Immersion: Max 5 sec. (PCB is 1.6mm in thickness)



1F
Toggle Switches