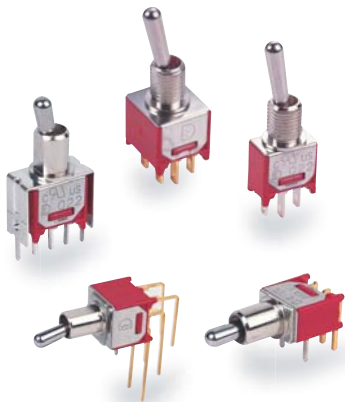


2M Series

Sub-Miniature Toggle Switches

2M
Toggle Switches



SPECIFICATIONS

CONTACT RATING: Dependent upon contact material

MECHANICAL LIFE: 30,000 make-and-break cycles.

CONTACT RESISTANCE: 20 mΩ max. initial @ 2-4VDC
100mA for both silver and gold plated contacts.

INSULATION RESISTANCE: 1,000 MΩ min.

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

OPERATING TEMPERATURE: -40°C to 85°C.

MATERIALS

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

ACTUATOR: Brass, chrome plated.

BUSHING: Brass or zinc, nickel plated.

HOUSING: Stainless Steel.

SWITCH SUPPORT: Brass,tin plated.

TERMINAL/CONTACT: Brass or copper alloy,with Silver or gold plated.

HOW TO ORDER

MODEL NO.	ACTUATOR	BUSHING	TERMINATIONS	TERMINAL PLATING	SEAL	RoHS SOLDERING
□□□□	□□	□□□	□□□□	□	□	□
Model NO.	Actuator		Terminations	Terminal plating	Seal	RoHS soldering
2MS1 SP On-None-On	T1 9.40 high		M1 Solder Lug	Q Silver	E EPOXY (std)	
2MS2 SP On-None-Mom.	T2 5.33 high		M2 PC thru-hole	R Gold	N NO EPOXY	
2MS3 SP On- Off -On	T3 7.37 high		M51 15.24 high, wire wrap	C Gold over silver		
2MS4 SP Mom.-Off-Mom.	T4 10.41 high		M52 6.00 high, wire wrap			
2MS5 SP On- Off -Mom.	T5 5.59 high		M6 Right angle, PC thru-hole			
2MS6 SP Off- None -On.	TL1 Locking lever		M6N Right angle, snap-in, PC thru-hole			
2MD1 DP On-None-On	TL2 Locking lever		M7 Vertical right angle, PC thru-hole			
2MD2 DP On-None-Mom.	16.00 high		M7N Vertical right angle, snap-in, PC thru-hole			
2MD3 DP On- Off -On.	16.26 high		VS2 V-bracket			
2MD6 DP On- On -On.			V2N Snap-in V-bracket			
			VS3 V-bracket			
			V3N Snap-in V-bracket			
Bushing						RoHS soldering
B1 5.59 high,flat (thd)						S RoHS & Lead Free
B2 5.59 high,flat (non-thd)						
B3 5.59 high,keyway (thd)						
B4 5.59 high,keyway (non-thd)						
B5 7.87 high,flat (thd)						
B6 7.87 high,flat (non-thd)						
B7 6.60 high,keyway (thd)						
B8 6.60 high,keyway (non-thd)						
B25 8.00 high,keyway,locking lever (thd)						

* 2MS6 model type not applicable to
M6/M6N/M7/M7N terminations

SWITCH FUNCTION

NO. POLES	UL/CSA MODEL NO.	MODEL NO.	SWITCH FUNCTION			CONNECTED TERMINALS / SCHEMATIC		
			POS.1	POS.2	POS.3	POS.1	POS.2	POS.3
SP	Q2211	2MS1	ON	NONE	ON	2-3 	N/A	2-1
	Q2212	2MS2	ON	NONE	MOM		OPEN	
	Q2213	2MS3	ON	OFF	ON			
	Q2214	2MS4	MOM	OFF	MOM	OPEN	N/A	3-1
	Q2215	2MS5	ON	OFF	MOM			
	Q2216	2MS6	OFF	NONE	ON			
DP	Q2221	2MD1	ON	NONE	ON	2-3,5-6	N/A	2-1,5-4
	Q2222	2MD2	ON	NONE	MOM		OPEN	
	Q2223	2MD3	ON	OFF	ON			
	Q2226	2MD6	ON	ON	ON	2-3,5-6	2-3,5-4	2-1,5-4



2M
Toggle Switches

MOM=MOMENTARY

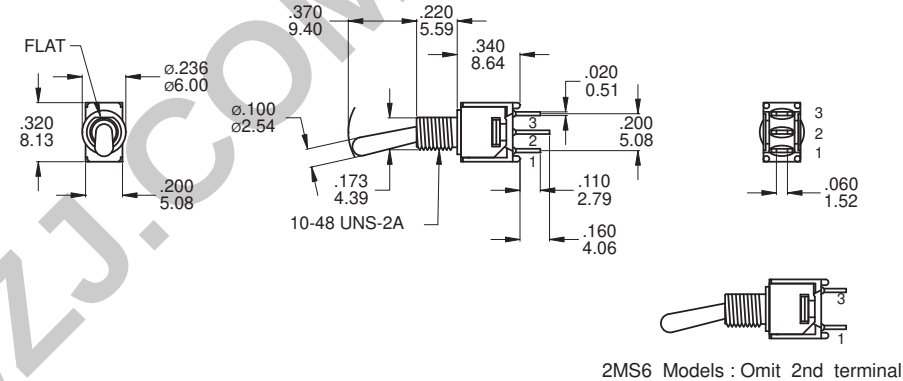
▲ Please check the availability in advance before order

POLE OPTIONS



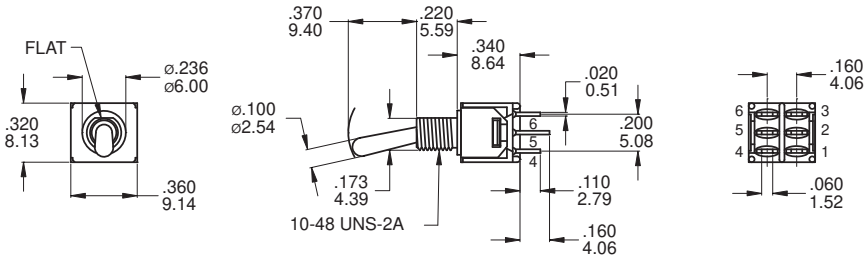
SPDT

Part No. Shown : 2MS1T1B1M1QES



DPDT

Part No. Shown : 2MD1T1B1M1RES

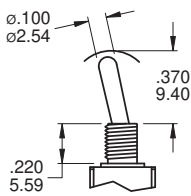


2M Series

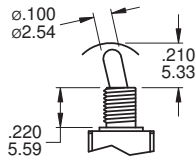
Sub-Miniature Toggle Switches

ACTUATOR OPTIONS

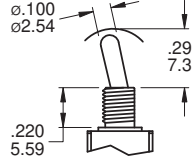
T1



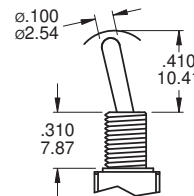
T2



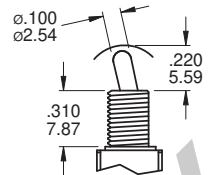
T3



T4



T5

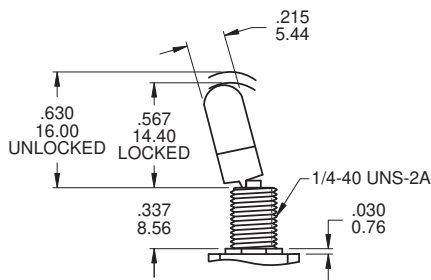


NONE: T1,T2,T3 Actuator shown with B1 to B4 bushing, subtract 0.09 (2.29) for B5 bushing, subtract 0.04 (1.02) for B7 bushing.

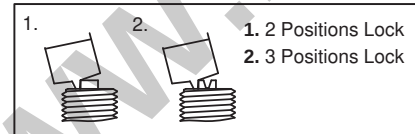
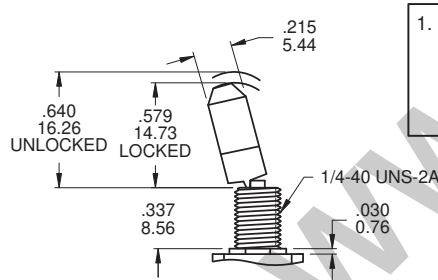
T4,T5 Actuator shown with B5,B6 bushing, add 0.09 (2.29) for B1 to B3 bushing, add 0.05 (1.27) for B7 bushing.

Std for M1,M2 Terminal sub .016(.040) for M6,M7,VSX

TL1B25

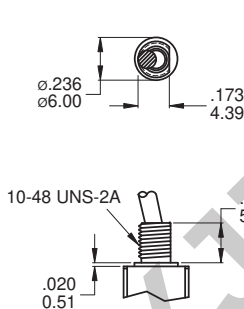


TL2B25

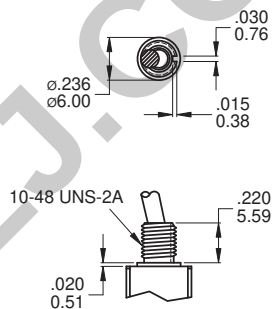


BUSHING OPTIONS

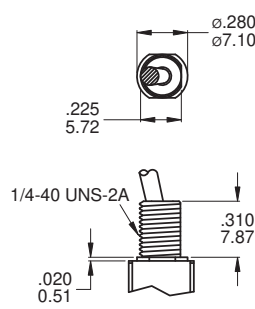
B1 THD
B2 NON-THD



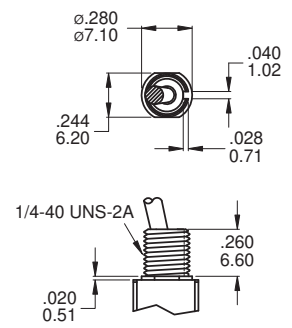
B3 THD
B4 NON-THD



B5 THD
B6 NON-THD

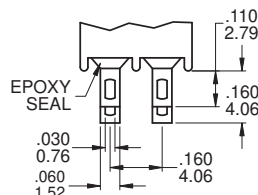
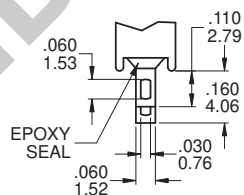


B7 THD
B8 NON-THD



TERMINATION OPTIONS

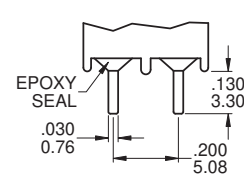
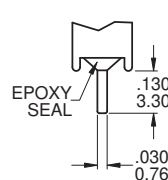
M1 Solder lug



Double Pole

.020(0.51) THK.

M2 PC Thru-hole



Double Pole

.020(0.51) THK.

Sub-Min i a t u r e T o g g l e S w i t c h e s

Technical drawing of a tapered pin. The drawing shows a cross-section of the pin with a tapered body. Key dimensions and labels include:

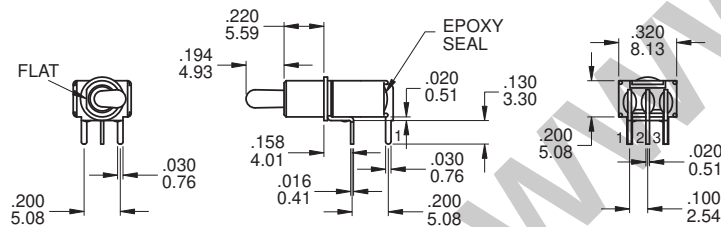
- EPOXY SEAL**: A label pointing to the seal at the top of the pin.
- .600**: A dimension indicating the diameter of the top of the pin.
- 15.24**: A dimension indicating the length of the tapered section.
- .030** and **0.76**: Dimensions indicating the diameter of the bottom of the pin.

.020(0.51) THK.

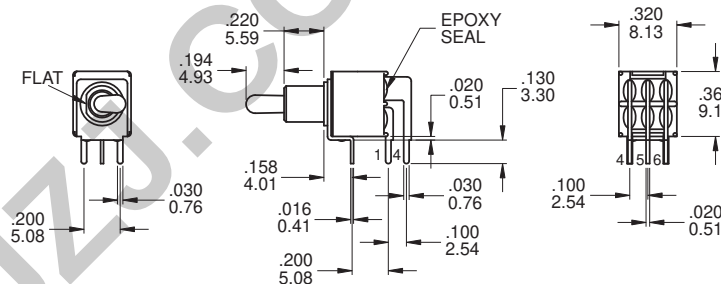
Technical drawing of a probe tip showing dimensions in inches and millimeters. The drawing includes a cross-section of the probe tip with an epoxy seal. Dimensions are given for the tip diameter, the epoxy seal thickness, and the overall length of the probe tip.

Dimension	Value (Inches)	Value (Millimeters)
Tip Diameter	.070	1.78
Epoxy Seal Thickness	.236	6.00
Probe Tip Diameter	.030	0.76
Probe Tip Length	.060	1.50

.020(0.51) THK.

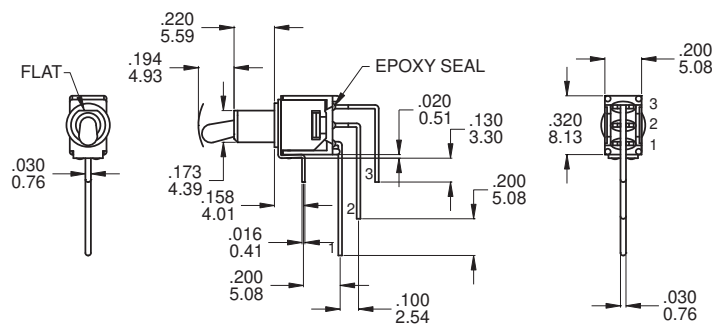


Part No. Shown : 2MS1T2B2M6RES



Technical drawing of a 3-hole punch plate. The drawing shows a rectangular plate with three circular holes arranged in a triangular pattern. Dimensions are provided in inches and millimeters. The overall width is .100 (2.54). The overall height is .200 (5.08). The distance between the centers of the holes is .060 (1.52). The diameter of each hole is .043 (1.09). The drawing includes a section line and a cross-section view showing the thickness of the plate.

Part No. Shown : 2MD1T2B2M6QES

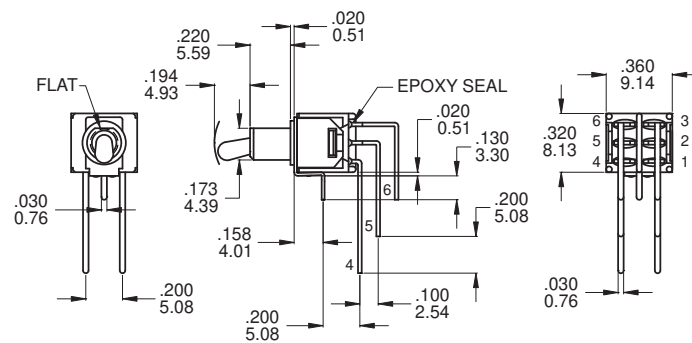
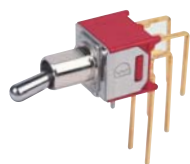


Part No. Shown : 2MS1T2B2M7RES

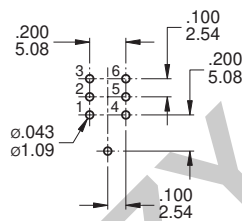
2M Series

Sub-Miniature Toggle Switches

M7



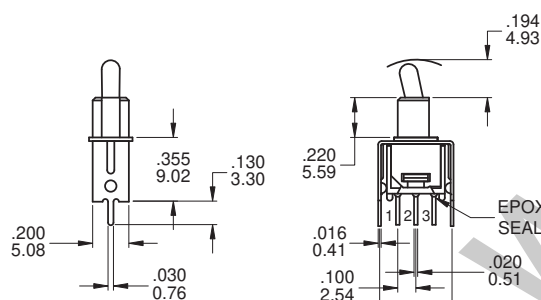
P.C. MOUNTING



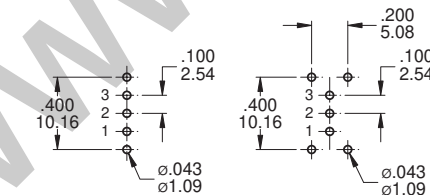
DPDT

Part No. Shown : 2MD1T2B2M7RES

VS2 - VS3



P.C. MOUNTING



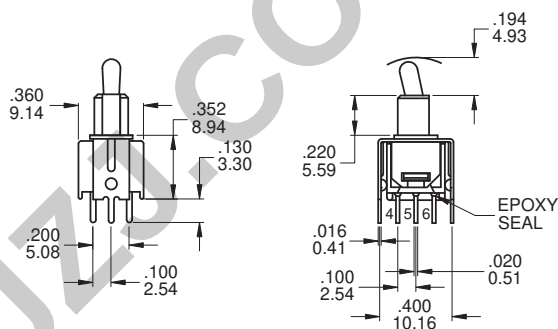
VS2

VS3

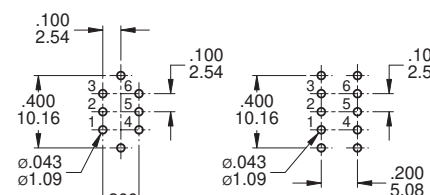
SPDT

Part No. Shown : 2MS1T2B2VS2QES

VS2 - VS3



P.C. MOUNTING



VS2

VS3

DPDT

Part No. Shown : 2MD1T2B2VS2QES

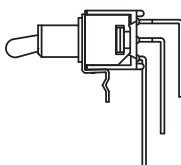
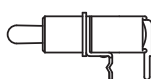
SNAP-IN TERMINATION OPTIONS

M6N

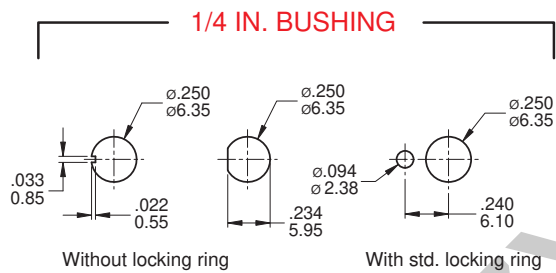
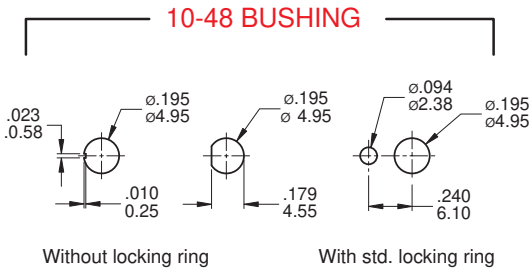
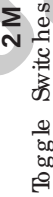
M7N

V2N

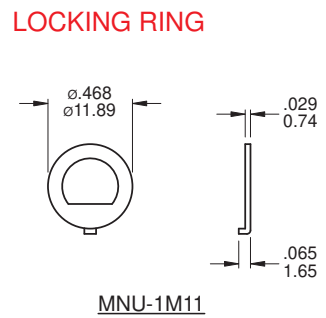
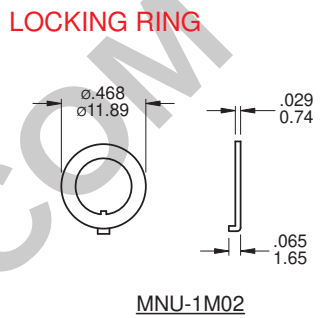
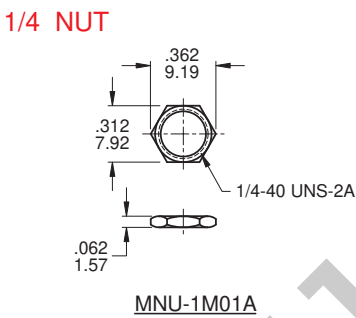
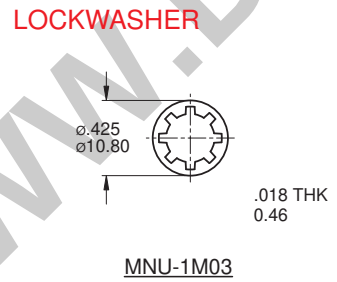
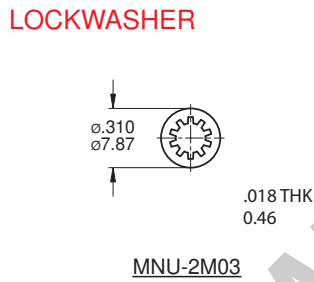
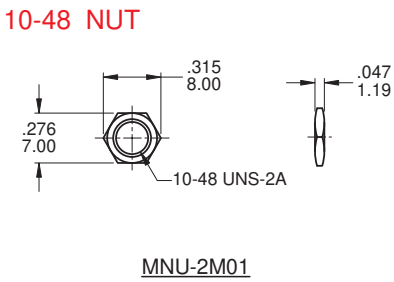
V3N



PANEL MOUNTING



HARDWARE



CONTACT MATERIAL OPTIONS

	CONTACT PLATING	TERMINAL PLATING	RATINGS
Q	Silver	Q = Silver	3 Amps with resistant load @ 120VAC or 28VDC
C	Gold over Silver	C = Gold over silver	1 Amps with resistant load @ 250VAC
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: $270 \pm 5^{\circ}\text{C}$
Duration of Solder Immersion: Max 5 sec. (PCB is 1.6mm in thickness)