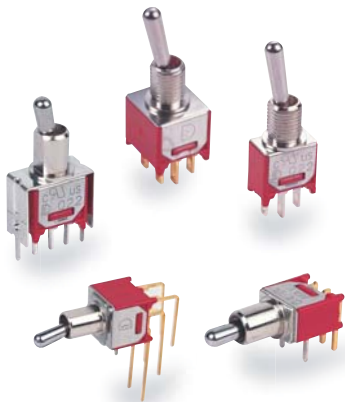


2M Series

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.

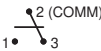
TERMINAL/CONTACT: Brass or copper alloy,with Silver or gold plated.

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	TL1 16.00 high		M7 Vertical right angle, PC thru-hole			
2MD2 DP On-None-Mom.	TL2 Locking lever		M7N Vertical right angle, snap-in, PC thru-hole			
2MD3 DP On- Off -On.	TL2 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

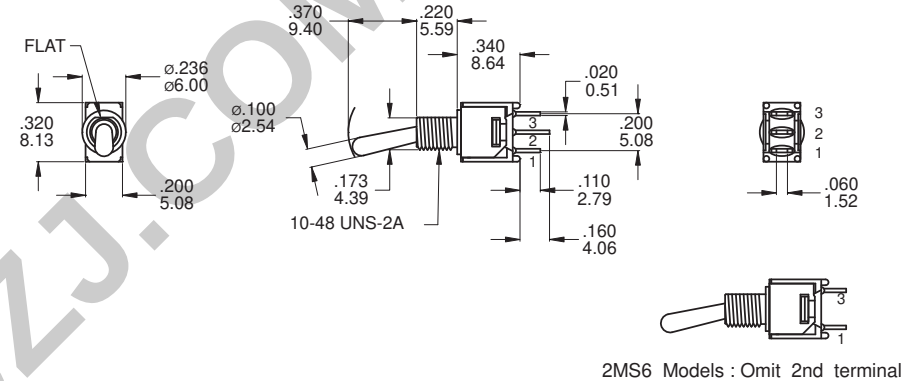
▲ Please check the availability in advance before order

POLE OPTIONS



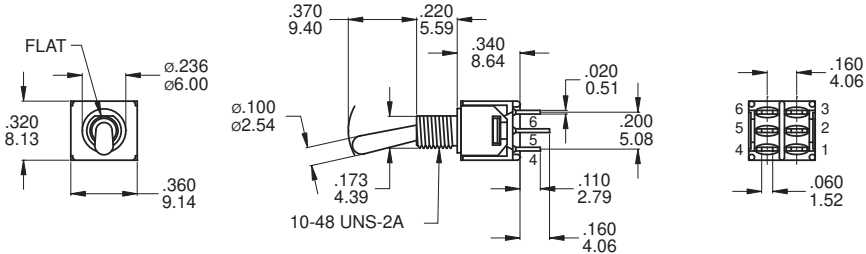
SPDT

Part No. Shown : 2MS1T1B1M1QES



DPDT

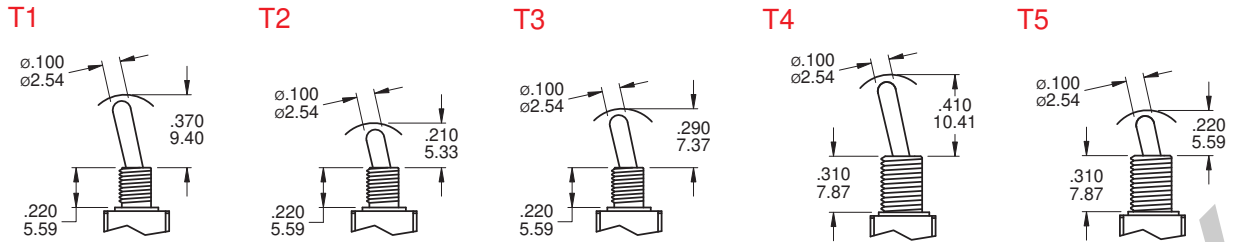
Part No. Shown : 2MD1T1B1M1RES



2M Series

Sub-Miniature Toggle Switches

ACTUATOR OPTIONS

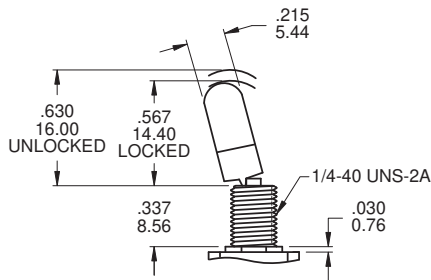


NONE: T1,T2,T3 Actuator shown with B1 to B4 bushing, subtract 0.09 (2.29) for B5 bushing, subtract 0.04 (1.02) for B7 bushing.

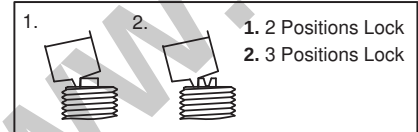
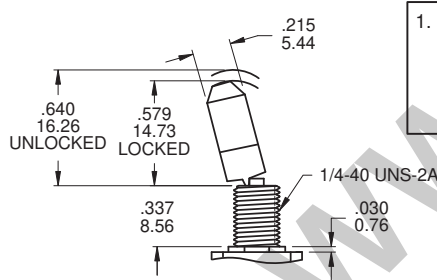
T4,T5 Actuator shown with B5,B6 bushing, add 0.09 (2.29) for B1 to B3 bushing, add 0.05 (1.27) for B7 bushing.

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

TL1B25

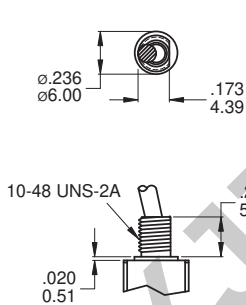


TL2B25

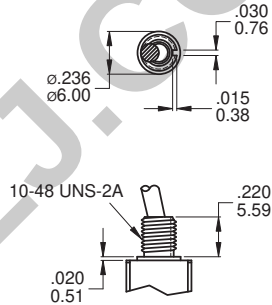


BUSHING OPTIONS

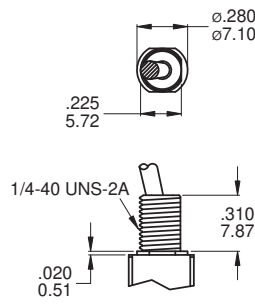
B1 THD B2 NON-THD



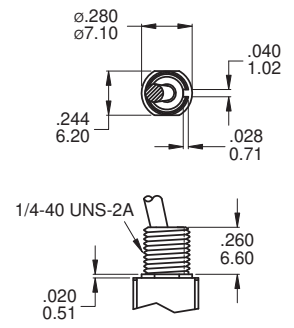
B3 THD B4 NON-THD



B5 THD B6 NON-THD

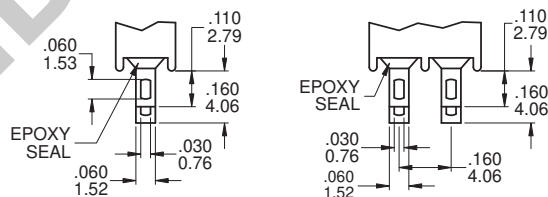


B7 THD B8 NON-THD



TERMINATION OPTIONS

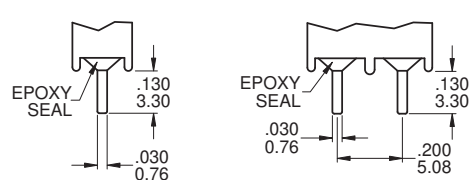
M1 Solder lug



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

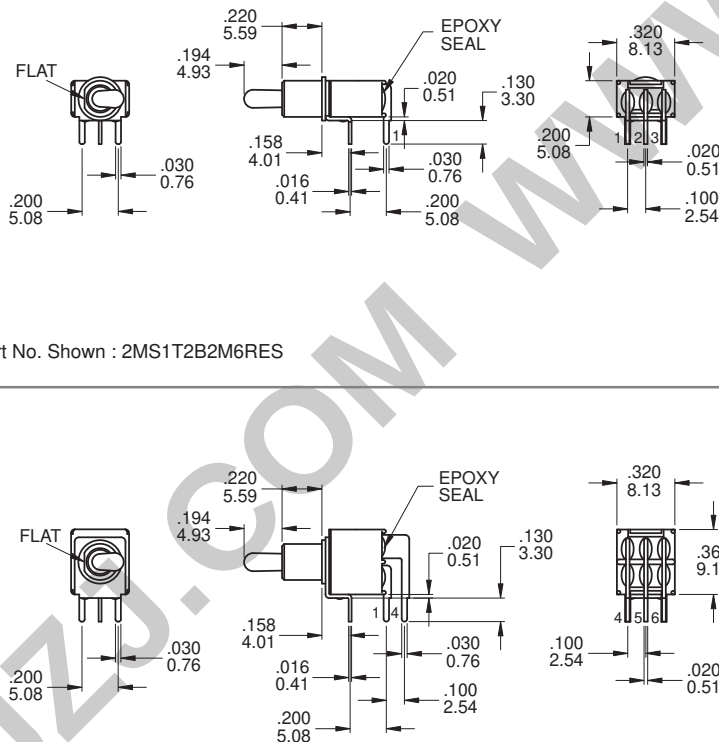
Technical drawing of a tapered shaft. The shaft has a diameter of .030 (0.76) at the bottom. The total length of the shaft is .600 (15.24). An arrow points to the tapered section with the label "EPOXY SEAL".

.020(0.51) THK.

Technical drawing of a probe tip assembly. The drawing shows a cross-section of the assembly with the following dimensions and labels:

- Labels:** "EPOXY SEAL" points to the seal area.
- Dimensions (inches):**
 - Top section: .070
 - Second section: 1.78
 - Third section: .236
 - Fourth section: 6.00
 - Fifth section: .030
 - Sixth section: 0.76
 - Seventh section: .060
 - Eighth section: 1.50

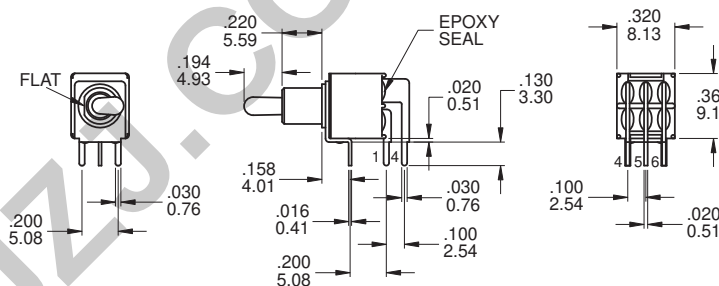
.020(0.51) THK.



P.C. MOUNTING

Technical drawing of a 3-hole punch plate. The plate has three circular holes arranged in a horizontal row. The center hole is labeled '1' and the two side holes are labeled '2'. The distance between the center of the left hole and the center of the right hole is 2.54 inches. The distance from the center of the left hole to the center of the right hole is 2.00 inches. The distance from the center of the right hole to the center of the left hole is 2.00 inches. The diameter of each hole is 0.043 inches. The thickness of the plate is 0.109 inches. The drawing includes dimension lines and arrows indicating the measurements.

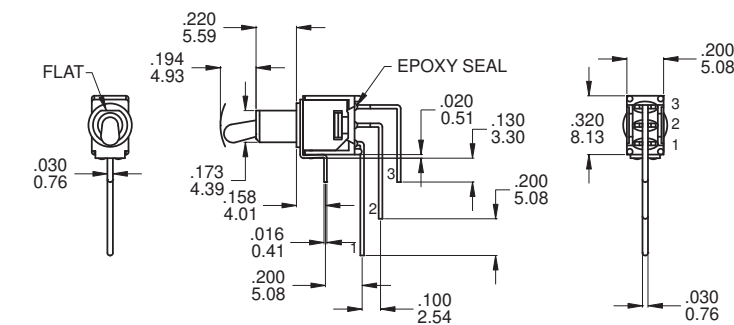
Part No. Shown : 2MS1T2B2M6RES



P.C. MOUNTING

[illegible]

Part No. Shown : 2MD1T2B2M6QES



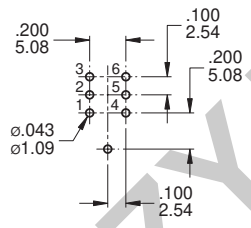
P.C. MOUNTING

Part No. Shown : 2MS1T2B2M7RES

Sub-Miniature Toggle Switches

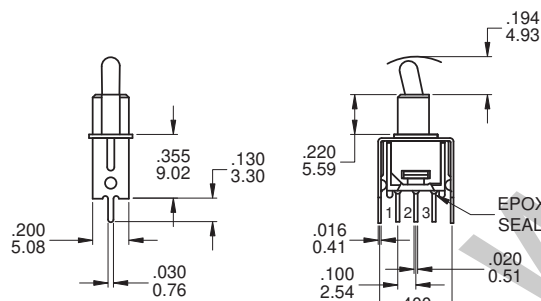


DPDT

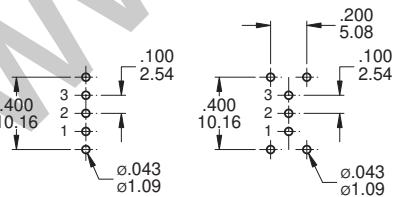


Part No. Shown : 2MD1T2B2M7RES

SPDT



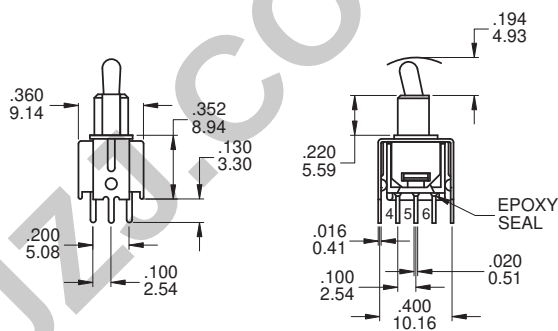
P.C. MOUNTING



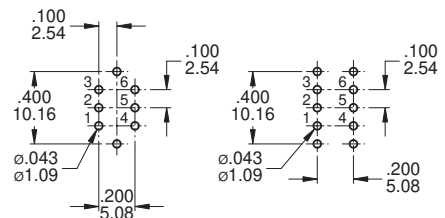
VS3

Part No. Shown : 2MS1T2B2VS2QES

DPDT



P.C. MOUNTING

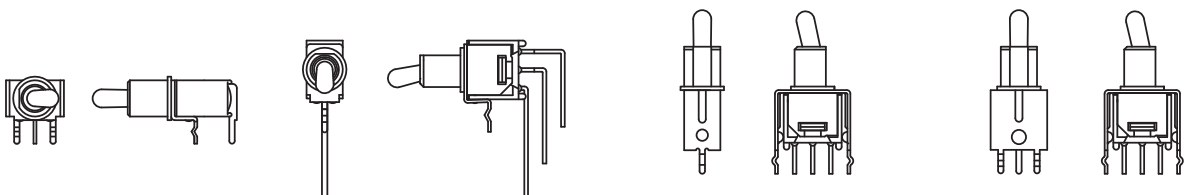


VS3

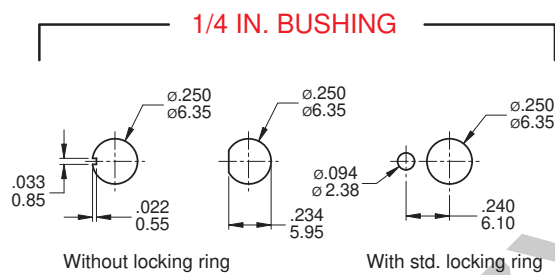
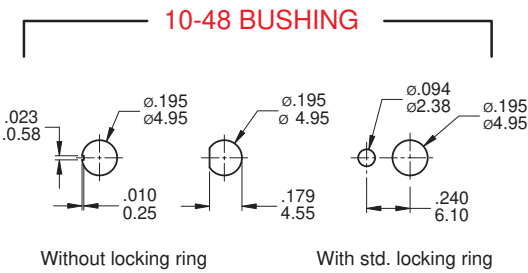
Part No. Shown : 2MD1T2B2VS2QES

SNAP-IN TERMINATION OPTIONS

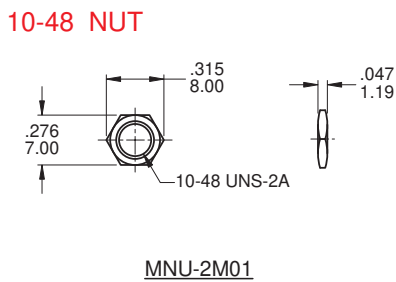
V3N



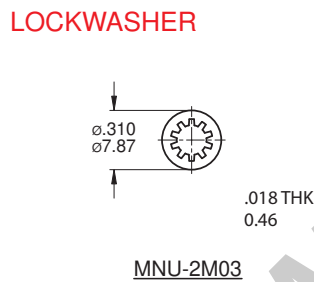
PANEL MOUNTING



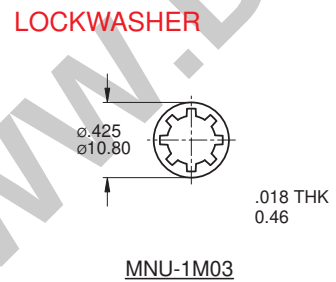
HARDWARE



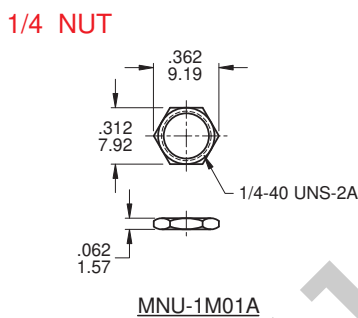
Supplied standard with
B1/ B3 bushing



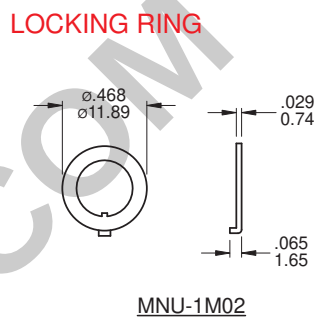
Supplied standard with
B1 / B3 bushing



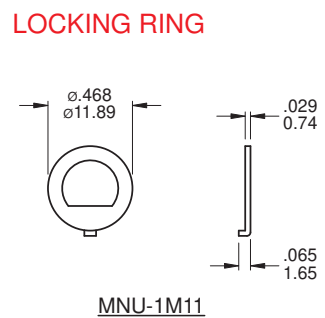
Supplied standard with
B5 / B7 bushing



Supplied standard with
B5/ B7 bushing



Supplied standard with B7 bushing



Supplied standard with B5 bushing

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)