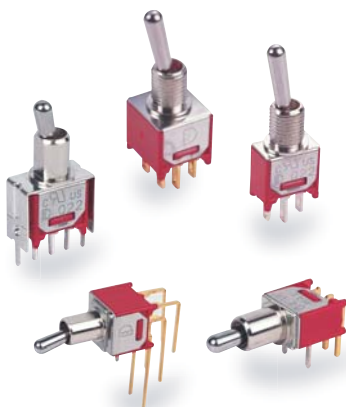


2M Series

Sub-Miniature Toggle Switches



2M
Toggle Switches

SPECIFICATIONS

CONTACT RATING: Dependent upon contact material See Page 29.

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: -30°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.







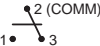
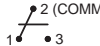



TERMINAL/CONTACT: Brass, with Silver or gold plated.
(See Page 29)



HOW TO ORDER

MODEL NO.	ACTUATOR	BUSHING	TERMINATIONS	TERMINAL PLATING	SEAL	RoHS SOLDERING
<div> <div></div> <div></div> <div></div> <div></div> </div> <p>Model NO.</p> <p> 2MS1 SP On-None-On 2MS2 SP On-None-Mom. 2MS3 SP On- Off -On 2MS4 SP Mom.-Off-Mom. 2MS5 SP On- Off -Mom. 2MS6 SP Off- None -On. 2MD1 DP On-None-On 2MD2 DP On-None-Mom. 2MD3 DP On- Off -On. 2MD6 DP On- On -On. </p>	<div> <div></div> <div></div> </div> <p>Actuator</p> <p> T1 9.40 high T2 5.33 high T3 7.37 high T4 10.41 high T5 5.59 high TL1 Locking lever 16.00 high TL2 Locking lever 16.26 high </p>	<div> <div></div> <div></div> <div></div> </div> <p>Bushing</p> <p> B1 5.59 high,flat (thd) 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) </p>	<div> <div></div> <div></div> <div></div> </div> <p>Terminations</p> <p> M1 Solder Lug M2 PC thru-hole M5 Wire wrap M6 Right angle, PC thru-hole M6N Right angle, snap-in, PC thru-hole M7 Vertical right angle, PC thru-hole M7N Vertical right angle, snap-in, PC thru-hole VS2 V-bracket V2N Snap-in V-bracket VS3 V-bracket V3N Snap-in V-bracket </p>	<div> <div></div> </div> <p>Terminal plating</p> <p> Q Silver R Gold G Gold,pure-tin S Silver,pure-tin C Gold over silver K Gold over silver,pure-tin </p>	<div> <div></div> </div> <p>Seal</p> <p> E EPOXY (std) N NO EPOXY </p>	<div> <div></div> </div> <p>RoHS soldering</p> <p> <input type="checkbox"/> RoHS Compliant <input checked="" type="checkbox"/> RoHS & Lead Free </p>

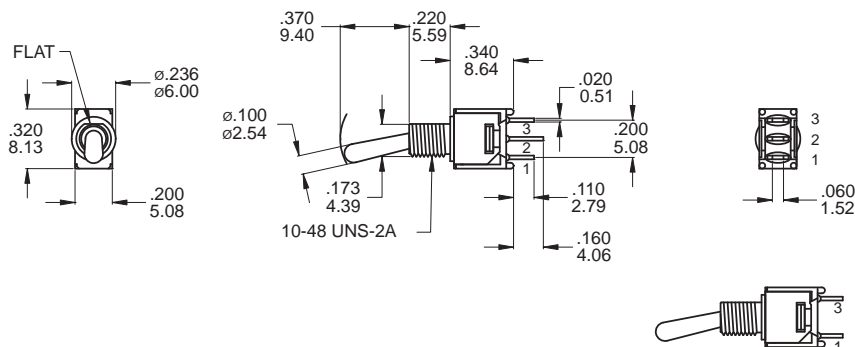
SWITCH FUNCTION

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

MOM=MOMENTARY

▲ Please check the availability in advance before order

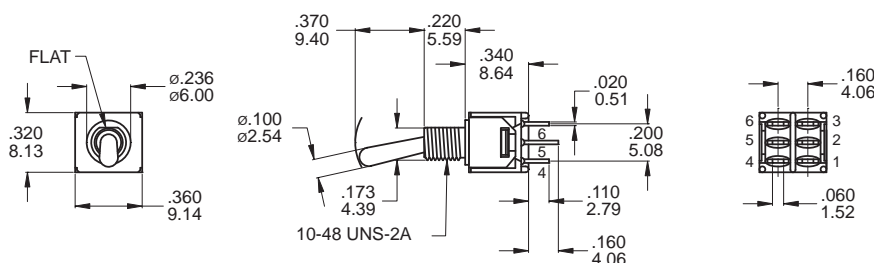
POLE OPTIONS



SPDT

2MS6 Models : Omit 2nd terminal

Part No. Shown : 2MS1T1B1M1QE



DPDT

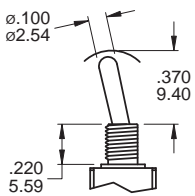
Part No. Shown : 2MD1T1B1M1RE

2M Series

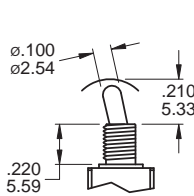
Sub-Miniature Toggle Switches

ACTUATOR OPTIONS

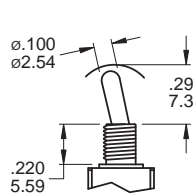
T1



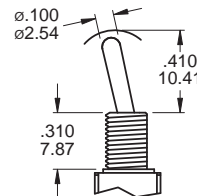
T2



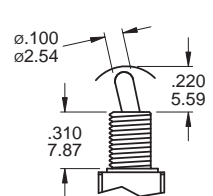
T3



T4



T5

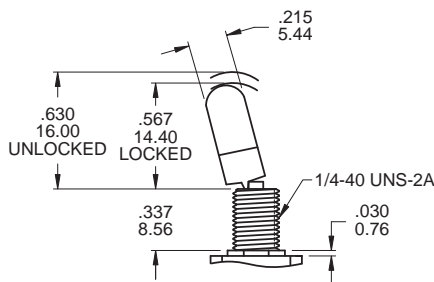


NONE: T1,T2,T3 Actuator shown with B1 to B4 bushing, subtract 0.09 (2.29) for B5 bushing, subtract 0.04 (1.02) for B7 bushing.

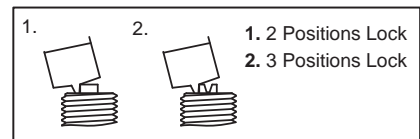
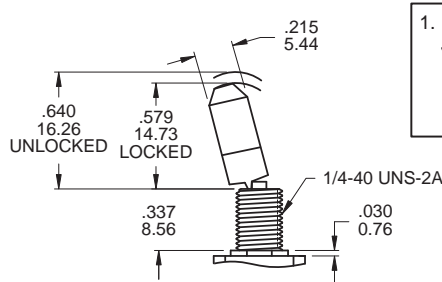
T4,T5 Actuator shown with B5,B6 bushing, add 0.09 (2.29) for B1 to B3 bushing, add 0.05 (1.27) for B7 bushing.

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

TL1B25

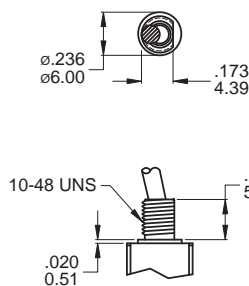


TL2B25

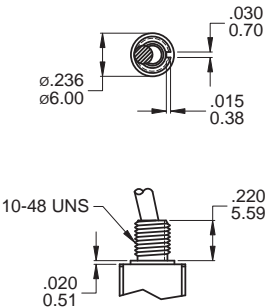


BUSHING OPTIONS

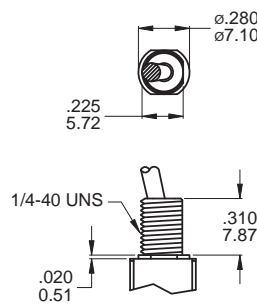
B1 THD
B2 NON-THD



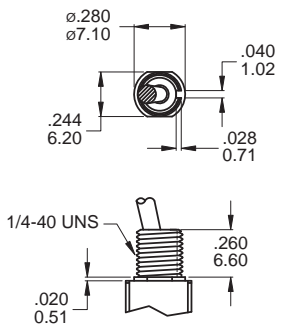
B3 THD
B4 NON-THD



B5 THD
B6 NON-THD

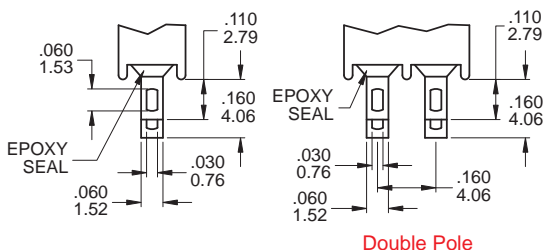


B7 THD
B8 NON-THD



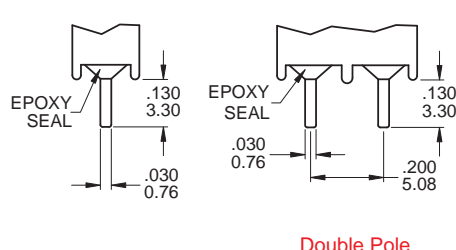
TERMINATION OPTIONS

M1 Solder lug



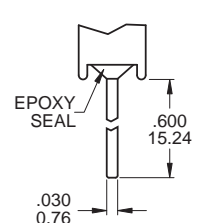
.020(0.51) THK.

M2 PC Thru-hole



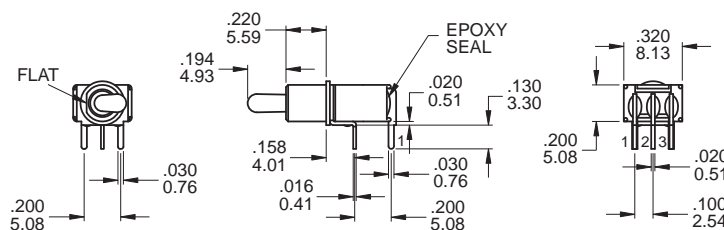
.020(0.51) THK.

M5 Wire Wrap

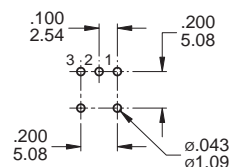


.020(0.51) THK.

M6



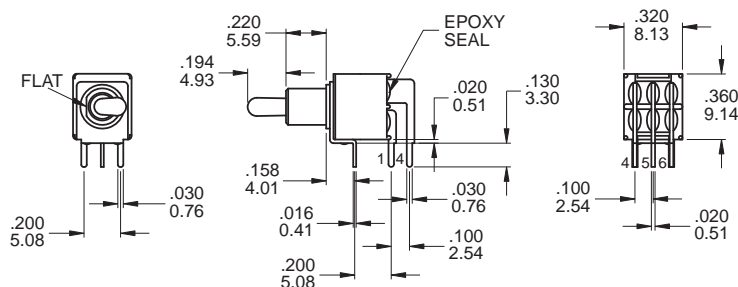
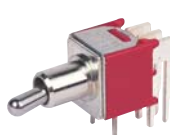
P.C. MOUNTING



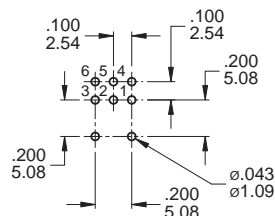
SPDT

Part No. Shown : 2MS1T2B2M6RE

M6



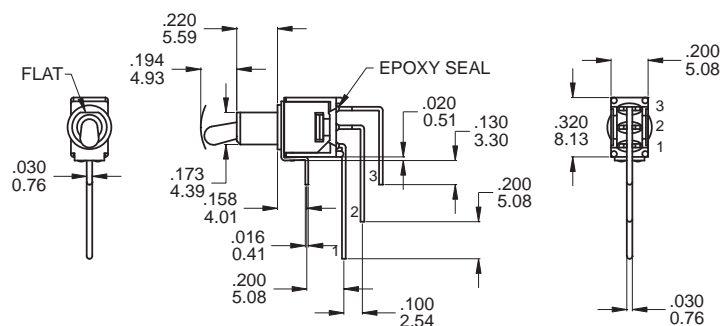
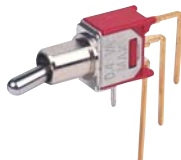
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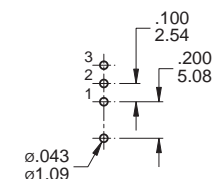
DPDT

Part No. Shown : 2MD1T2B2M6QE

M7



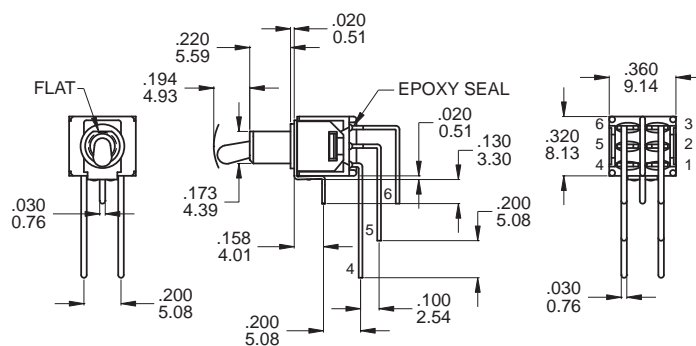
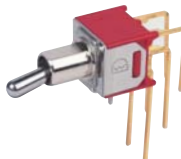
P.C. MOUNTING



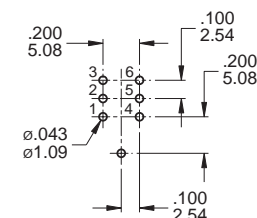
SPDT

Part No. Shown : 2MS1T2B2M7RE

M7



P.C. MOUNTING



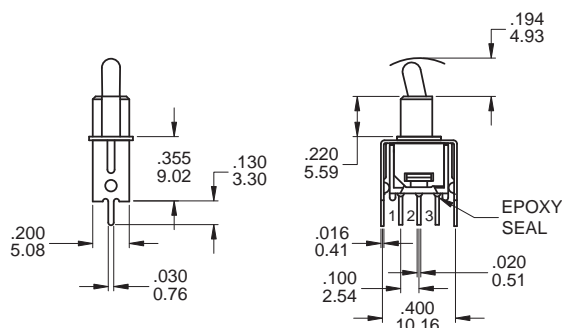
DPDT

Part No. Shown : 2MD1T2B2M7RE

Sub-Miniature Toggle Switches

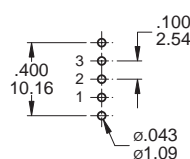
2M Toggle Switches

SPDT

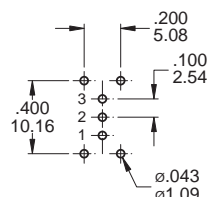


Part No. Shown : 2MS1T2B2VS2QE

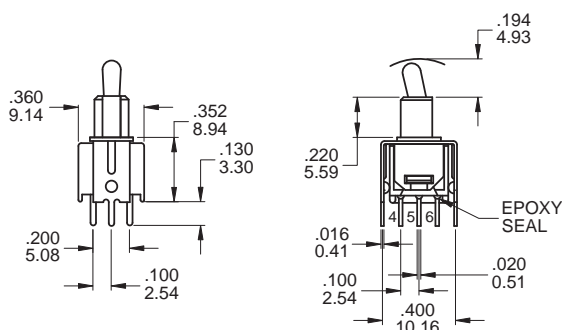
VS2



VS3

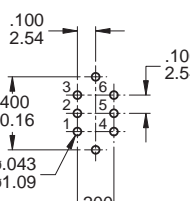


DPDT

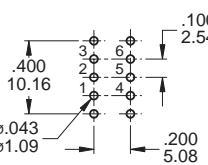


Part No. Shown : 2MD1T2B2VS2QE

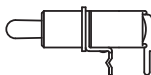
VS2



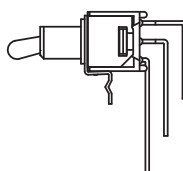
VS3



M6N



M7N



V2N

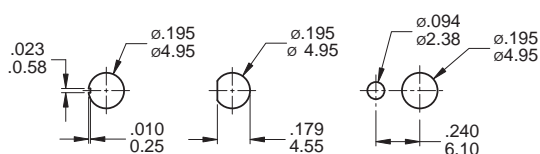


V3N



PANEL MOUNTING

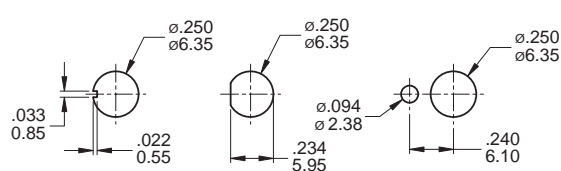
10-48 BUSHING



Without locking ring

With std. locking ring

1/4 IN. BUSHING

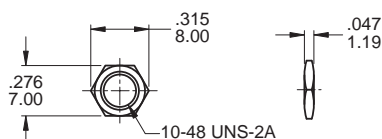


Without locking ring

With std. locking ring

HARDWARE

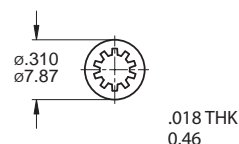
10-48 NUT



MNU-2M01

Supplied standard with
B1/ B3 bushing

LOCK WASHER



MNU-2M03

Supplied standard with
B1 / B3 bushing

CONTACT MATERIAL OPTIONS

	CONTACT PLATING	TERMINAL PLATING	RATINGS
Q	Silver	Q = Silver	3 Amps with resistant load @ 120VAC or 28VDC 1 Amps with resistant load @ 250VAC
S		S = Silver,pure - tin	
C	Gold over Silver	C = Gold over silver	
K		K = Gold over silver,pure - tin	
R	Gold	R = Gold	0.4 Volt - Amps (VA) max. @ 20V max. (AC or DC)
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: Max 5 sec. (PCB is 1.6mm in thickness)

