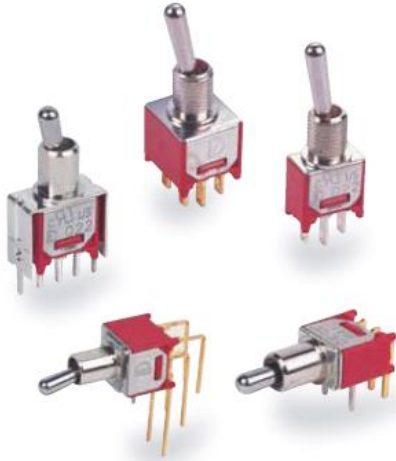


## Datasheet

# Sub-Miniature Toggle Switch



### SPECIFICATIONS

Contact Rating:	Dependent upon contact material.
Mechanical Life:	30,000 make-and-break cycles.
Contact Resistance:	20 m $\Omega$ max. initial @ 2-4VDC 100mA for both silver and gold plated contacts.
Insulation Resistance:	1,000 M $\Omega$ 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.

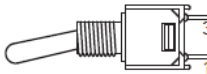
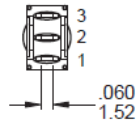
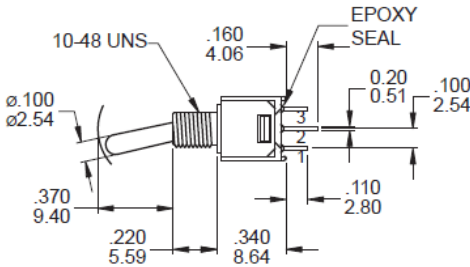
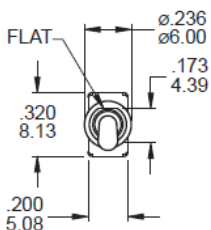
### Switch Function

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			
	Q2213	2MS3	ON	OFF	ON		OPEN	
	Q2214	2MS4	MOM	OFF	MOM			
	Q2215	2MS5	ON	OFF	MOM	OPEN	N/A	3-1
	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			
	Q2223	2MD3	ON	OFF	ON		OPEN	
	Q2226	2MD6	ON	ON	ON			

MOM=MOMENTARY

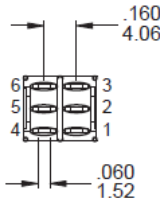
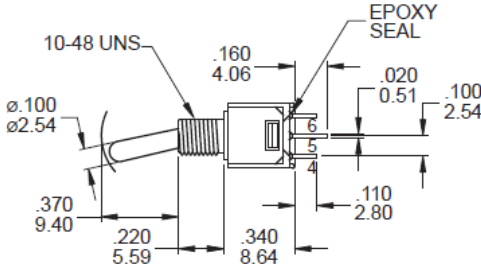
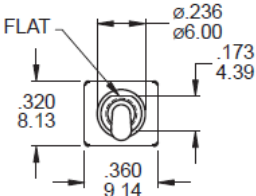
▲ Please check the availability in advance before order

### Pole Options



2MS6 Models : Omit 2nd terminal

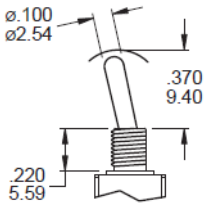
SPDT



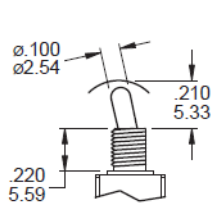
DPDT

## Actuator Options

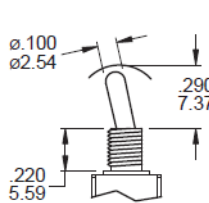
T1



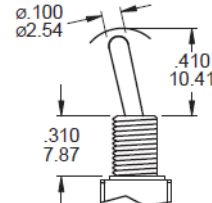
T2



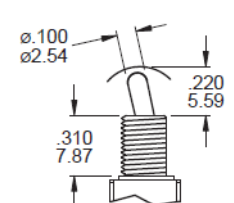
T3



T4

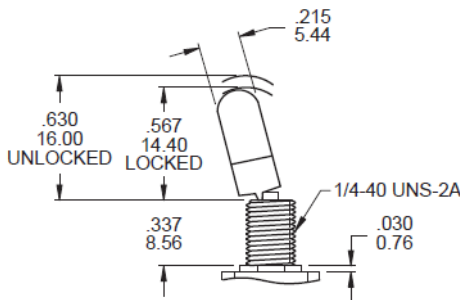


T5

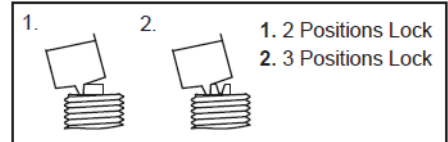
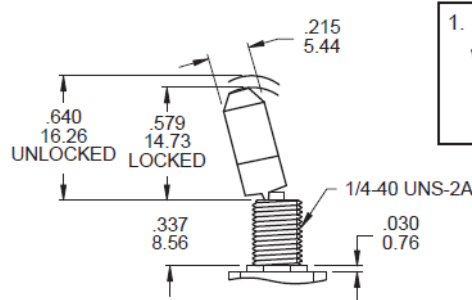


NONE: T1,T2,T3 Actuator shown with B1 to B4 bushing, subtract 0.09 ( 2.29 ) for B5 bushing, subtract 0.04 ( 1.02 ) for B7 bushing.  
 T4,T5 Actuator shown with B5,B6 bushing, add 0.09 ( 2.29 ) for B1 to B3 bushing, add 0.05 ( 1.27 ) for B7 bushing.  
 Std for M1,M2 Terminal sub .016(.040) for M6,M7,VSX

TL1B25

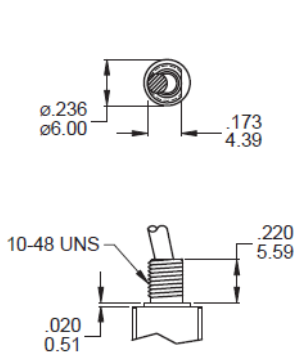


TL2B25

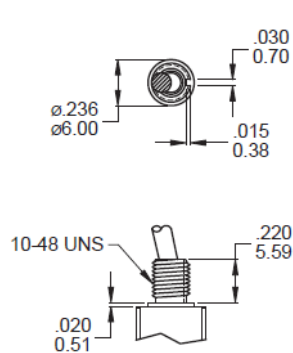


## Bushing Options

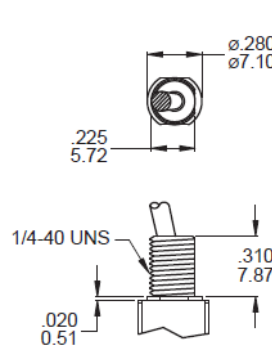
B1 THD  
B2 NON-THD



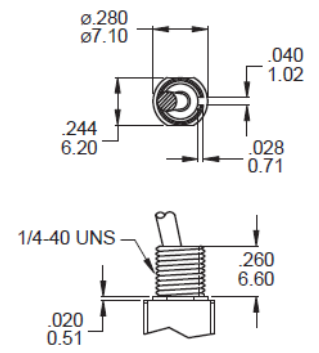
B3 THD  
B4 NON-THD



B5 THD  
B6 NON-THD

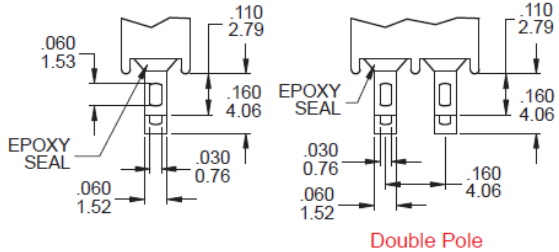


B7 THD  
B8 NON-THD

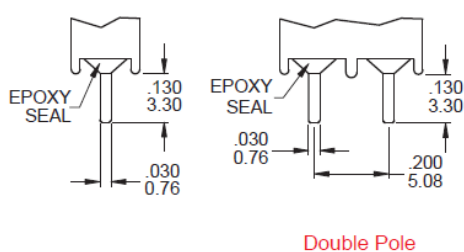


# Termination Options

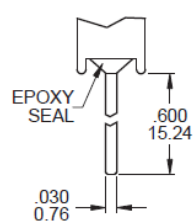
M1 Solder lug



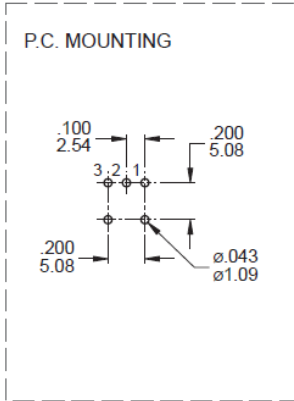
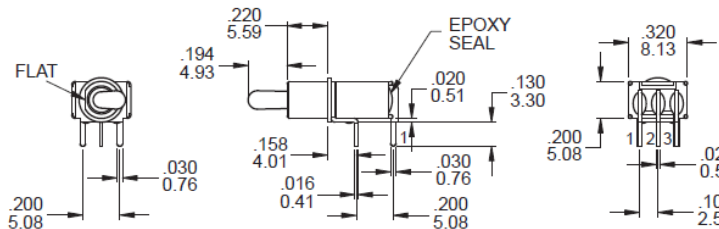
M2 PC Thru-hole



M5 Wire Wrap

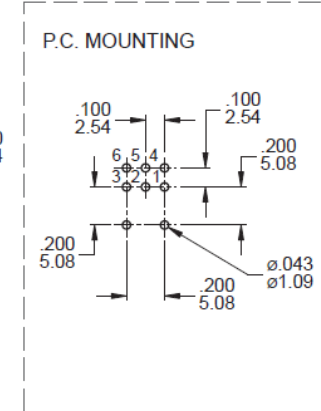
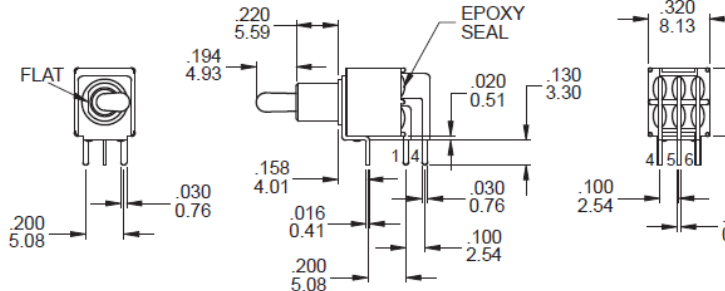


M6



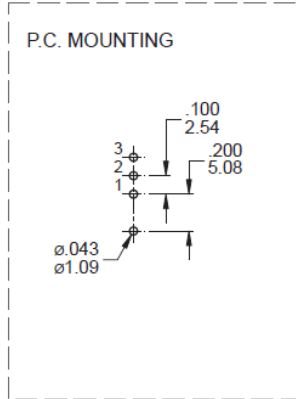
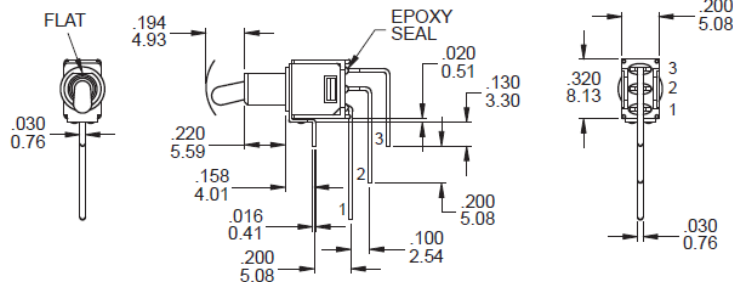
SPDT

M6



DPDT

M7



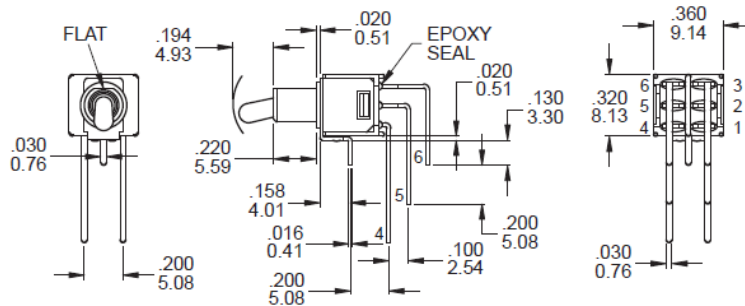
SPDT

Part No. Shown : 2MS1T2B2M7RE

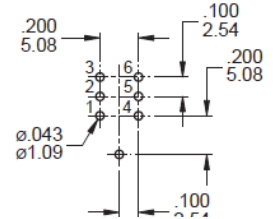


ENGLISH

M7

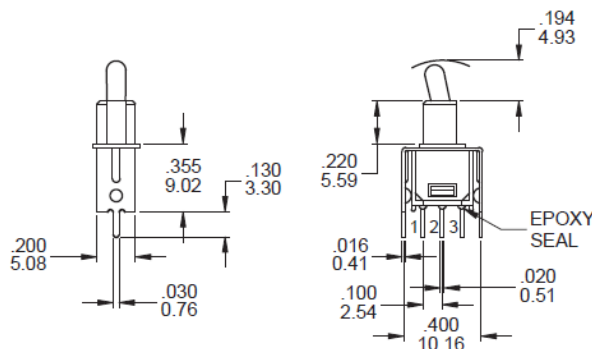


P.C. MOUNTING

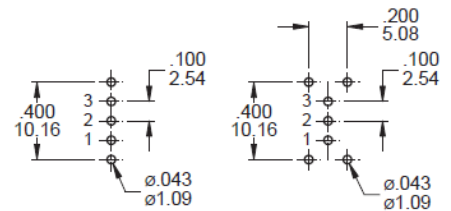


DPDT

VS2 - VS3



P.C. MOUNTING

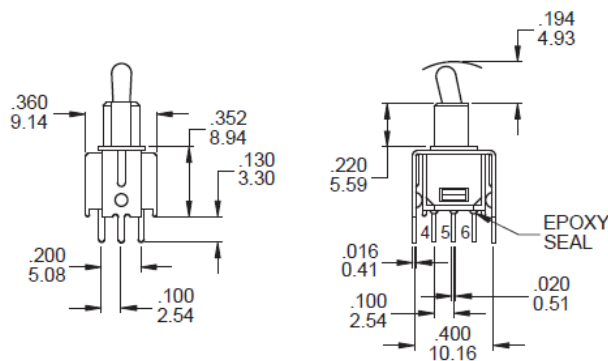


VS2

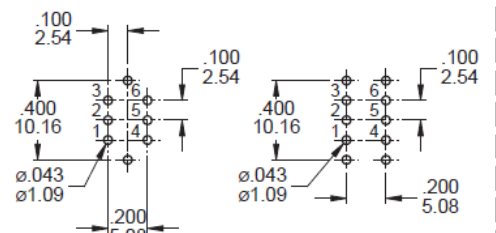
VS3

SPDT

VS2 - VS3



P.C. MOUNTING



VS2

VS3

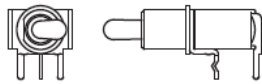
DPDT



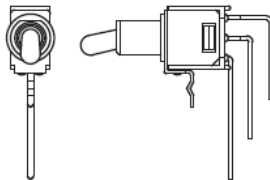
ENGLISH

## Snap In Termination Options

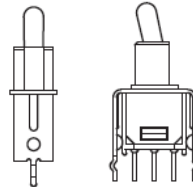
M6N



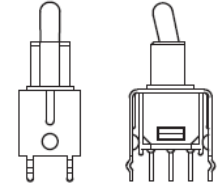
M7N



V2N

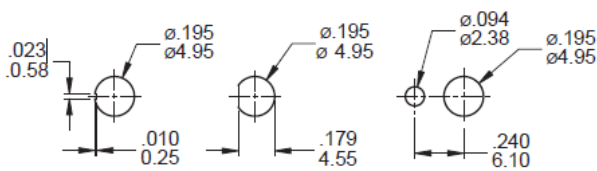


V3N



## Panel Mounting

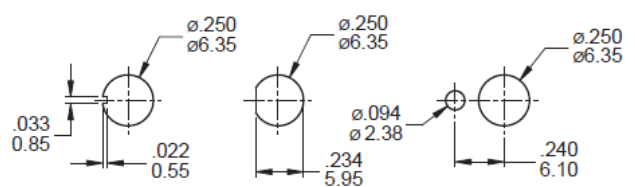
10-48 BUSHING



Without locking ring

With std. locking ring

1/4 IN. BUSHING

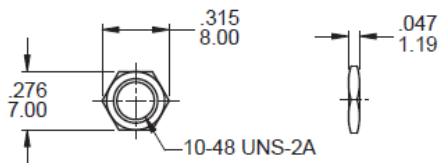


Without locking ring

With std. locking ring

## Hardware

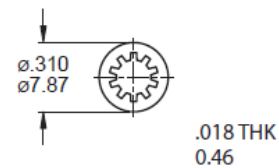
10-48 NUT



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 Process

**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)

## How To Order

MODEL NO.      ACTUATOR      BUSHING      TERMINATIONS      CONTACT MATERIAL      SEAL      RoHS SOLDERING

