
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: -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.(See Page 29)

HOW TO ORDER

MODEL NO. ACTUATOR BUSHING TERMINATIONS TERMINAL PLATING SEAL RoHS SOLDERING



Model NO.

- 2MS1 SP ON-NONE-ON
- 2MS2 SP ON-NONE-(ON)
- 2MS3 SP ON-OFF-ON
- 2MS4 SP (ON)-OFF-(ON)
- 2MS5 SP ON-OFF-(ON)
- 2MS6 SP OFF-NONE-ON
- 2MD1 DP ON-NONE-ON
- 2MD2 DP ON-NONE-(ON)
- 2MD3 DP ON-OFF-ON
- 2MD6 DP ON- ON -ON.

Actuator

- 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

Bushing

- 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)

Terminations

- M1 Solder Lug
- M2 PC thru-hole
- M51 15.24 high, wire wrap
- M52 6.00 high, 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

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

Terminal plating

- Q Silver
- R Gold
- C Gold over silver

Seal

- E EPOXY (std)
- N NO EPOXY

RoHS soldering

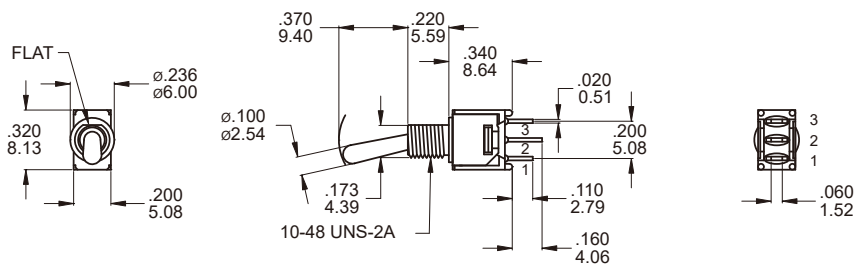
- S RoHS & Lead Free

SWITCH FUNCTION

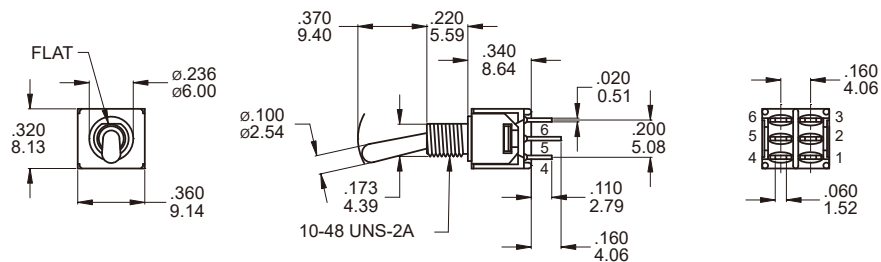
NO. POLES	UL/CSA MODEL NO.	MODEL NO.	SWITCH FUNCTION			CONNECTED TERMINALS / SCHEMATIC		
			POS.1	POS.2	POS.3	POS.1	POS.2	POS.3
SP	Q2211	2MS1	ON	NONE	ON	2-3	N/A	2-1
	Q2212	2MS2	ON	NONE	(ON)			OPEN
	Q2213	2MS3	ON	OFF	ON			
	Q2214	2MS4	(ON)	OFF	(ON)			
	Q2215	2MS5	ON	OFF	(ON)			
	Q2216	2MS6	OFF	NONE	ON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

()=MOMENTARY

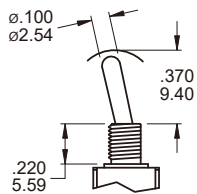
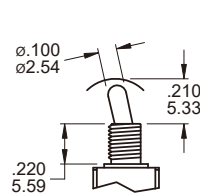
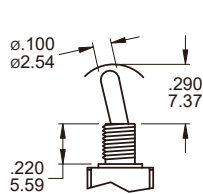
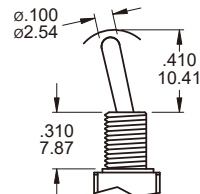
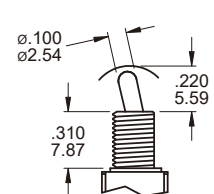
▲ Please check the availability in advance before order

POLE OPTIONS

SPDT

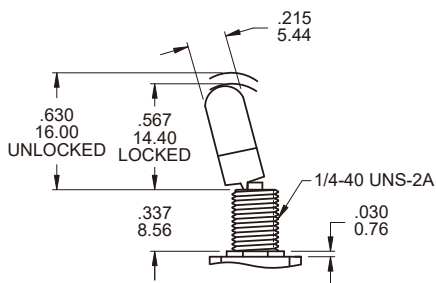
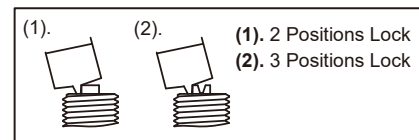
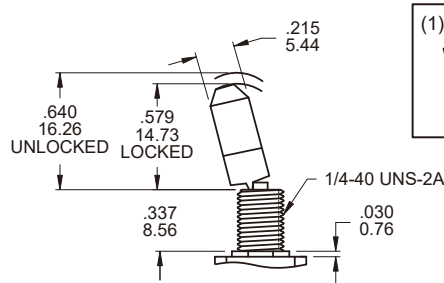
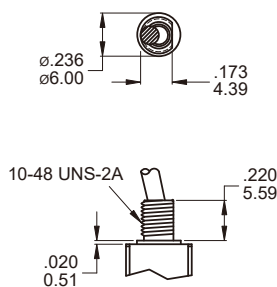
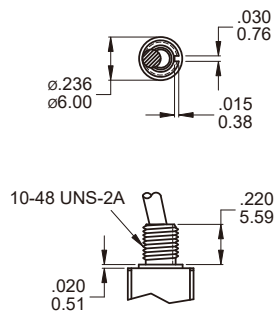
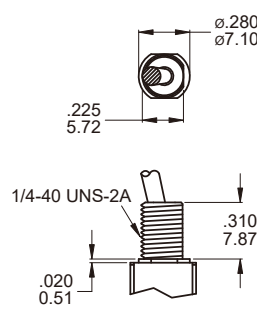
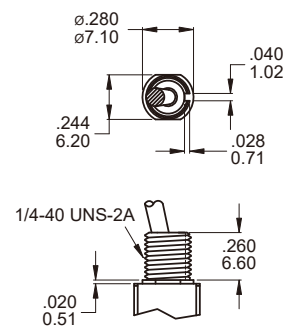
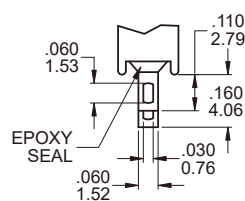
Part No. Shown : 2MS1T1B1M1QES


DPDT

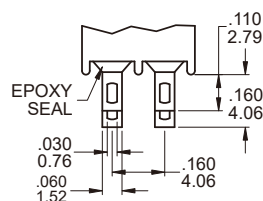
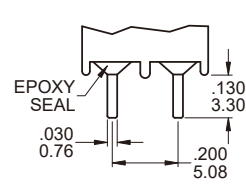
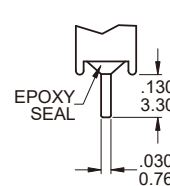
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ACTUATOR OPTIONS
T1

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

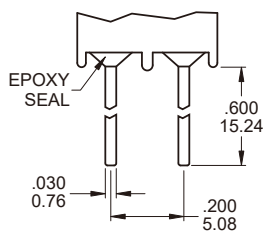
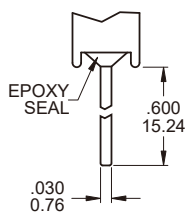
TL1B25

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

Double Pole

Double Pole

.020(0.51) THK.

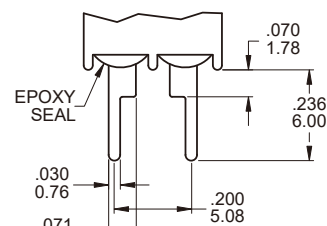
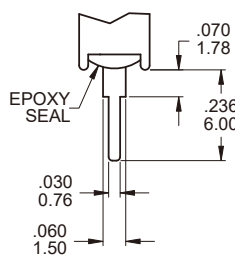
M51 Wire Wrap



Double Pole

.020(0.51) THK.

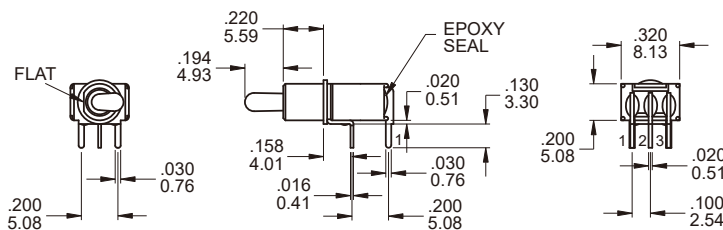
M52 Wire Wrap



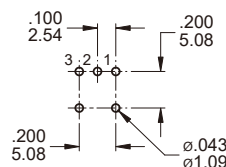
Double Pole

.020(0.51) THK.

M6



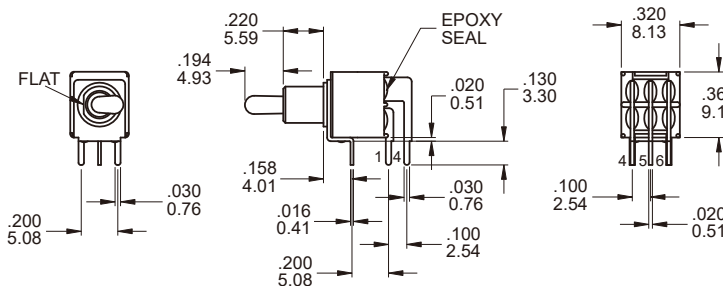
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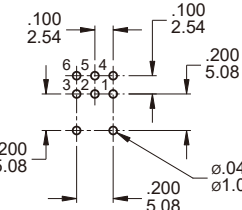
SPDT

Part No. Shown : 2MS1T2B2M6RES

M6



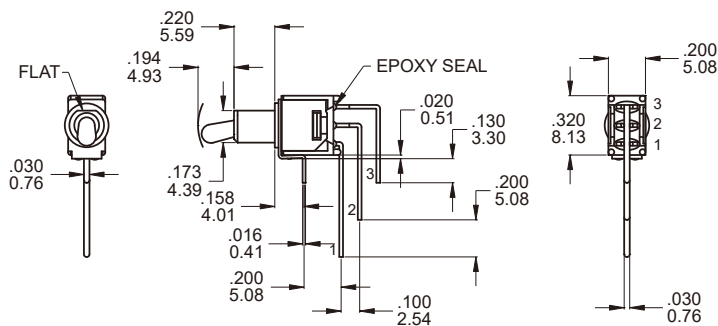
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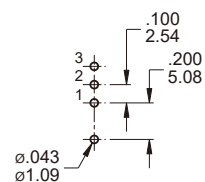
DPDT

Part No. Shown : 2MD1T2B2M6QES

M7



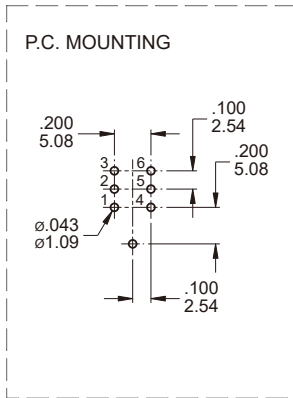
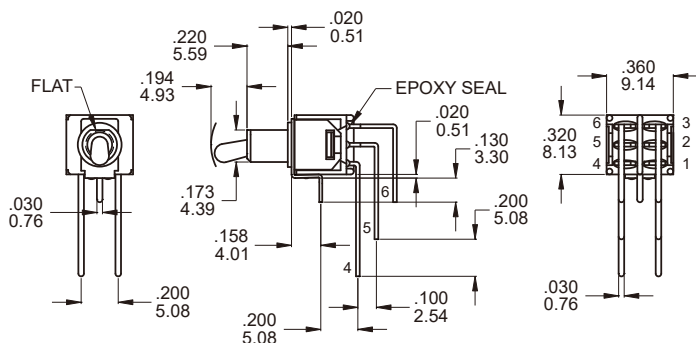
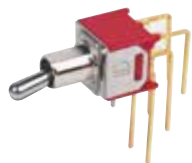
P.C. MOUNTING



SPDT

Part No. Shown : 2MS1T2B2M7RES

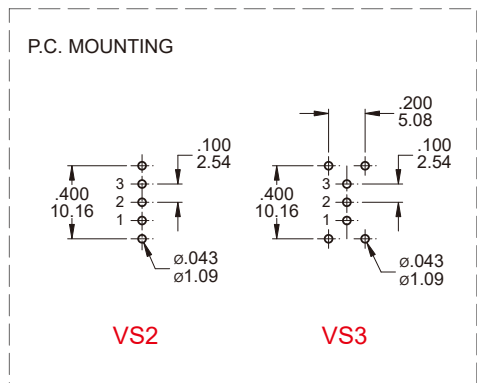
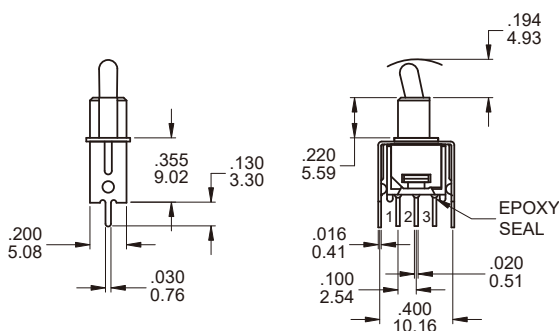
M7



DPDT

Part No. Shown : 2MD1T2B2M7RES

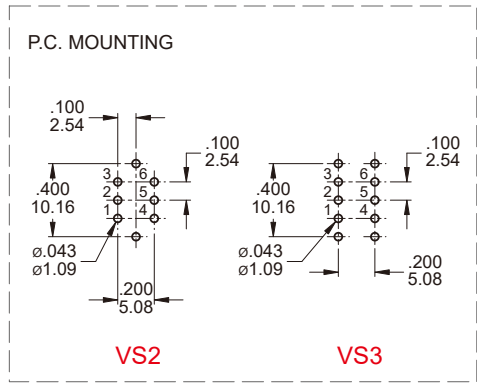
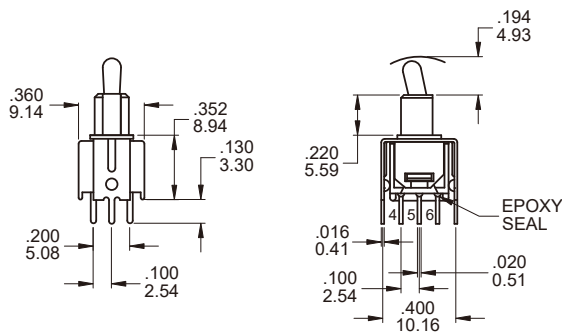
VS2 - VS3



SPDT

Part No. Shown : 2MS1T2B2VS2QES

VS2 - VS3

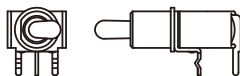


DPDT

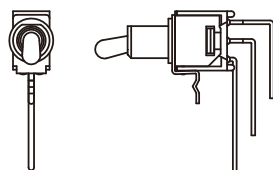
Part No. Shown : 2MD1T2B2VS2QES

SNAP-IN TERMINATION OPTIONS

M6N



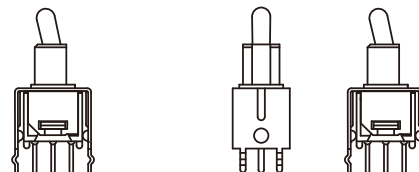
M7N

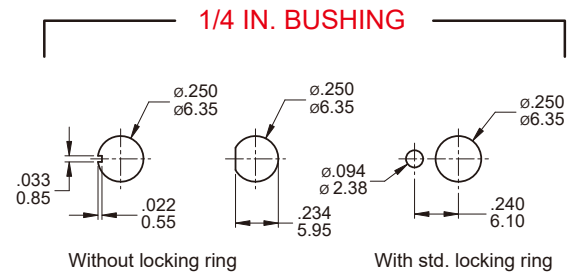
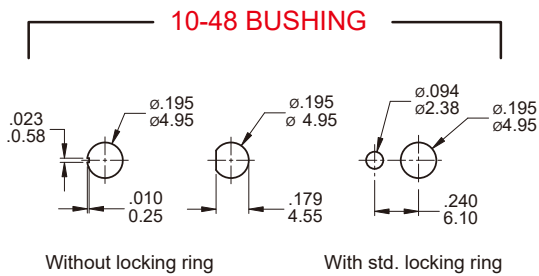
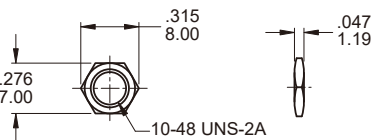


V2N

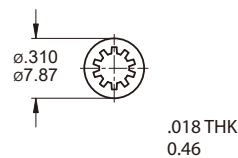


V3N

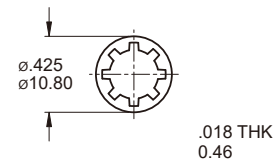


PANEL MOUNTING

HARDWARE
10-48 NUT

MNU-2M01

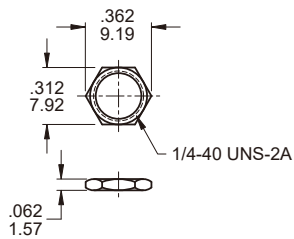
Supplied standard with B1 / B3 bushing

LOCKWASHER

MNU-2M03

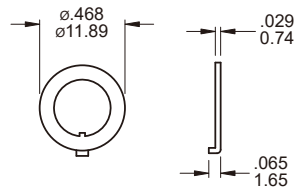
Supplied standard with B1 / B3 bushing

LOCKWASHER

MNU-1M03

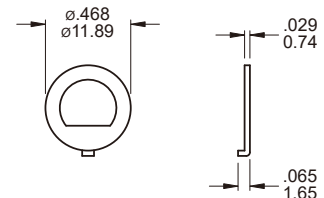
Supplied standard with B5 / B7 bushing

1/4 NUT

MNU-1M01A

Supplied standard with B5 / B7 bushing

LOCKING RING

MNU-1M02

Supplied standard with B7 bushing

LOCKING RING

MNU-1M11

Supplied standard with B5 bushing

CONTACT MATERIAL OPTIONS

	CONTACT PLATING	TERMINAL PLATING	RATINGS
Q	Silver	Silver	3 Amps with resistant load @ 120VAC or 28VDC 1 Amps with resistant load @ 250VAC
C	Gold over Silver	Gold over silver	
R	Gold	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)