

## SPECIFICATIONS

**CONTACT RATING:** Dependent upon contact material See Page 130.

**MECHANICAL LIFE:** 50,000 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).

**PLUNGER:** Thermoplastic Polyester-black.

**BUSHING:** Brass or zinc,nickel plated.

**HOUSING:** Stainless Steel.

**SWITCH SUPPORT:** Brass.tin plated.

**CONTACT/TERMINAL:** Brass, with silver or gold plated.

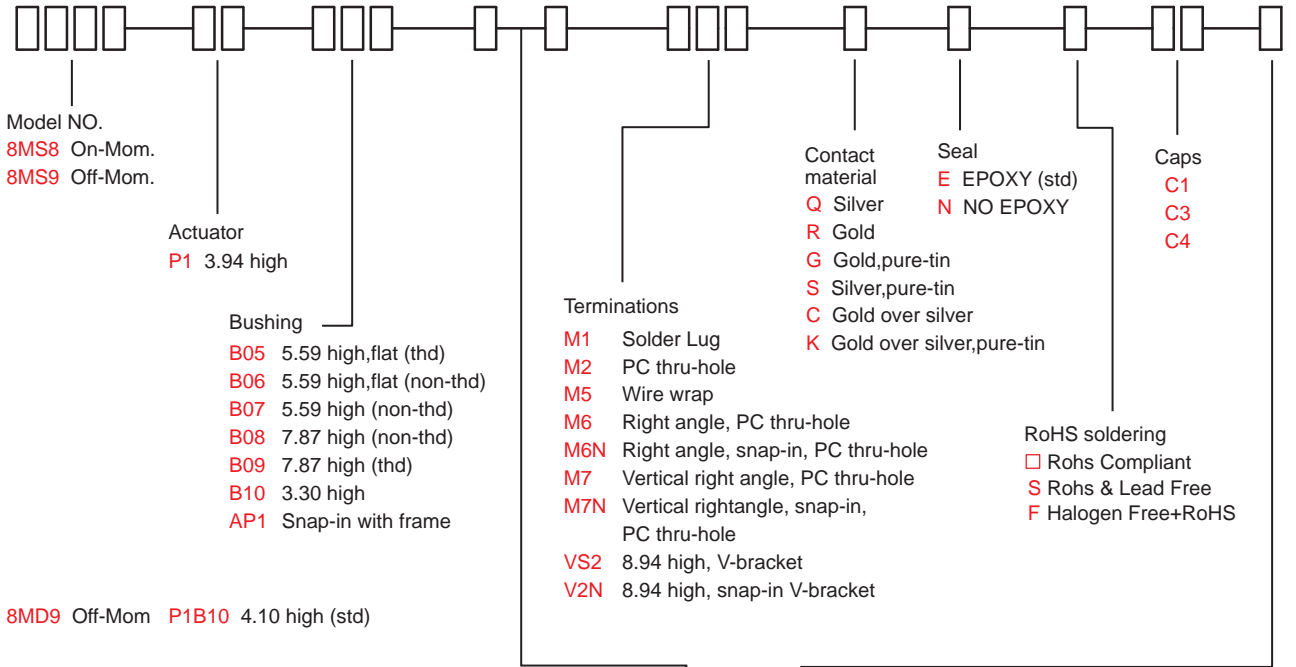
(See Page 130)



## HOW TO ORDER

MODEL NO. ACTUATOR BUSHING FRAME COLOR CAP COLOR TERMINATIONS CONTACT MATERIAL SEAL RoHS SOLDERING CAPS CAP COLOR

See below  
(only for bushing AP1)



Model NO. Actuator Bushing  
8MSL On-On P1 4.29 high B05 5.24 high,flat (thd)  
B06 5.24 high,flat (non-thd)

### Frame/Cap color

ITEM NO	COLOR
1	White
2	Black (Std)
3	Red
4	Orange
5	Yellow
6	Green
7	Blue
8	Brown
9	Gray

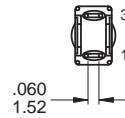
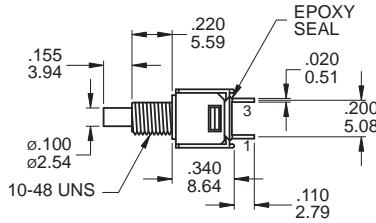
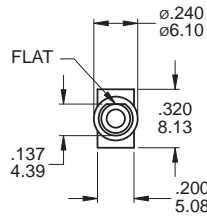


## SWITCH FUNCTION

NO. POLES	UL/CSA MODEL NO.	MODEL NO.	SWITCH FUNCTION		CONNECTED TERMINALS / SCHEMATIC			
			POS.1	POS.2	POS.1		POS.2	
SP	Q2818	8MS8	ON	MOM	2-1		2-3	
	Q2819	8MS9	OFF	MOM	OPEN		1-3	
DP	Q2829	8MD9	OFF	MOM	OPEN		1-3,4-6	

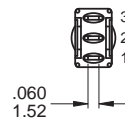
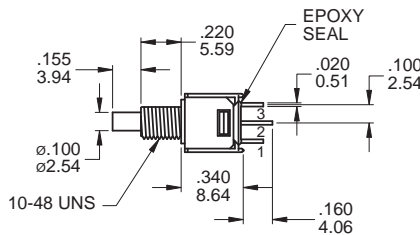
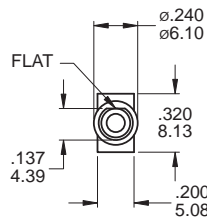
MOM=MOMENTARY

## POLE OPTIONS



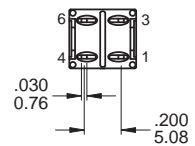
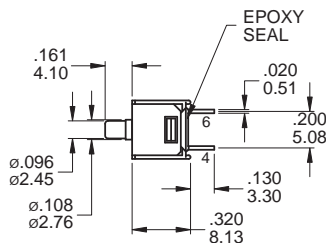
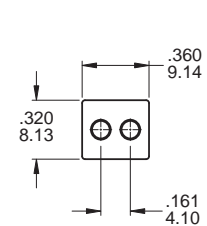
**SPST**

Part No. Shown : 8MS9P1B05M1QE



**SPDT**

Part No. Shown : 8MS8P1B05M1QE



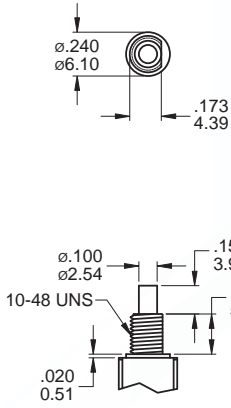
**DPST**

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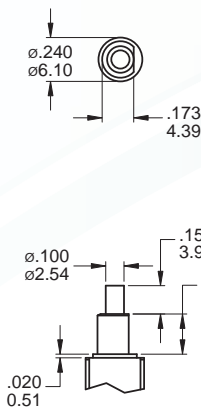


## BUSHING OPTIONS

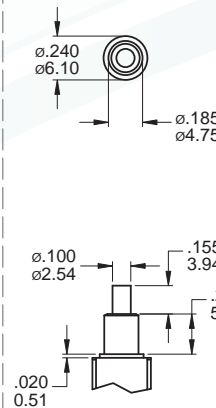
### B05 THD



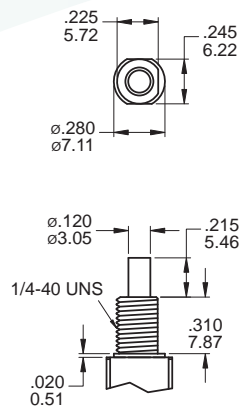
### B06 NON-THD



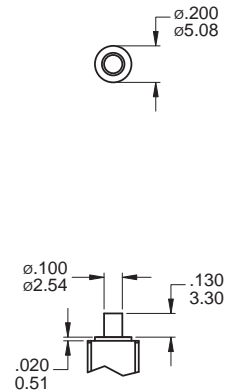
### B07 NON-THD



### B08 NON-THD B09 THD

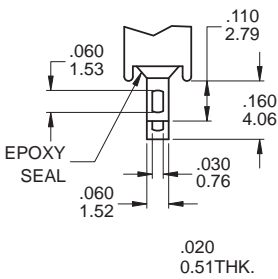


### B10

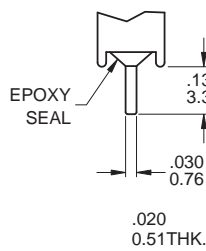


## TERMINATION OPTIONS

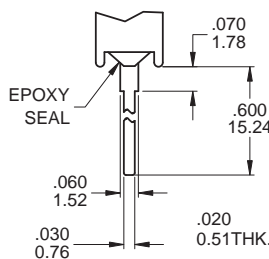
### M1 Solder lug



### M2 PC Thru-hole



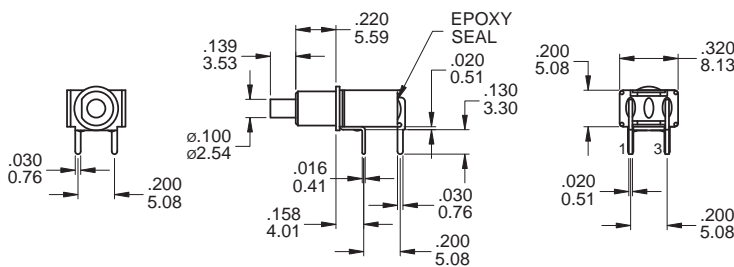
### M5 Wire Wrap



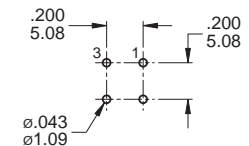
### OTHER TERMINATION OPTIONS

- M6** RIGHT ANGLE P.C. MOUNT
- M6N** RIGHT ANGLE P.C. MOUNT WITH SNP-IN BRACKET
- M7** RIGHT ANGLE P.C. MOUNT
- VS2** VERTICAL BRACKET P.C. MOUNT

### M6



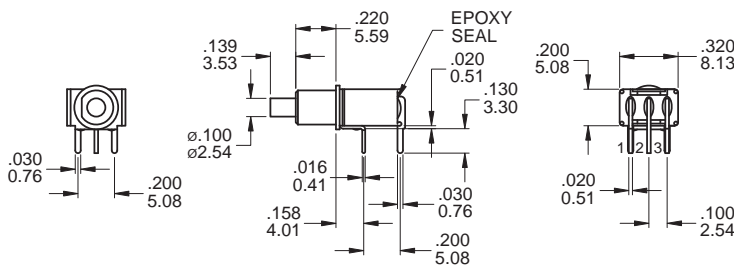
### P.C. MOUNTING



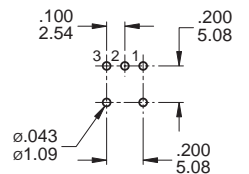
### SPST

Part No. Shown : 8MS9P1B06M6RE

### M6



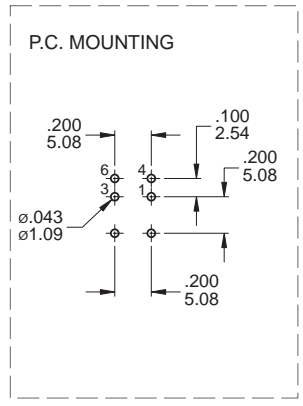
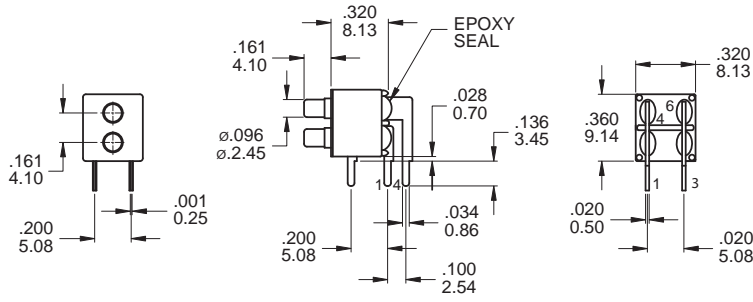
### P.C. MOUNTING



### SPDT

Part No. Shown : 8MS8P1B06M6QE

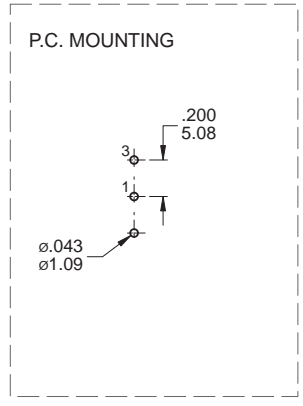
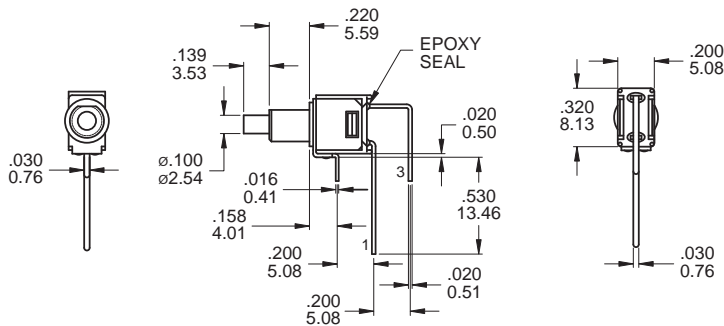
## M6



## DPST

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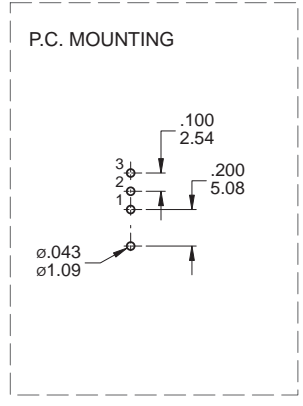
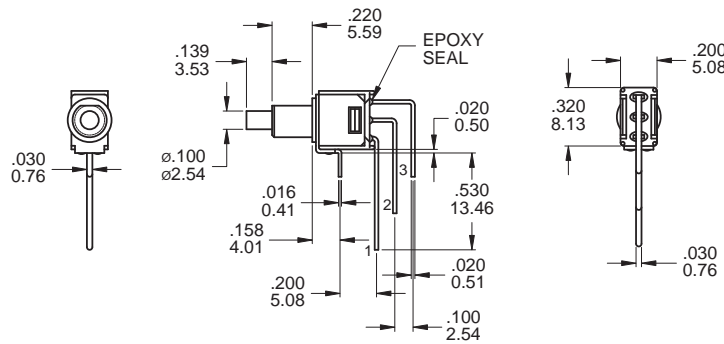
## M7



## SPST

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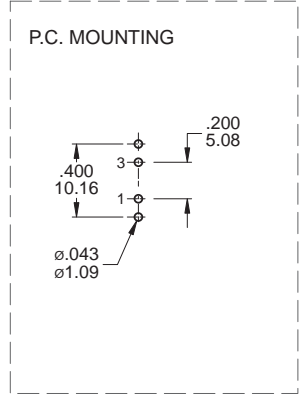
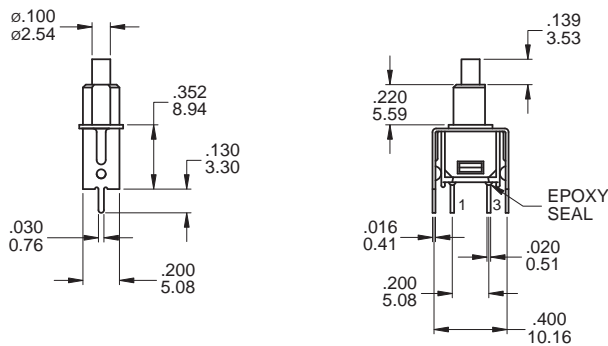
## M7



## SPDT

Part No. Shown : 8MS8P1B06M7QE

## VS2

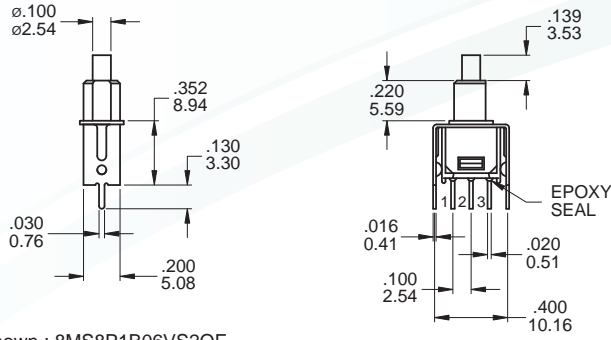


## SPST

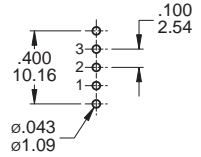
Part No. Shown : 8MS9P1B06VS2QE



VS2



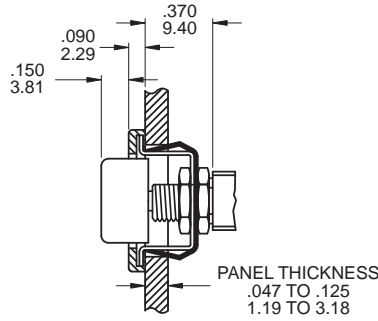
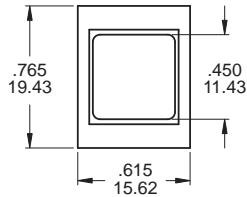
P.C. MOUNTING



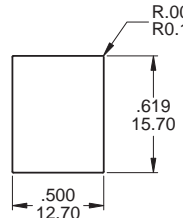
SPDT

Part No. Shown : 8MS8P1B06VS2QE

AP1



PANEL MOUNTING

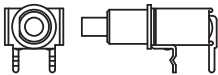


SPST

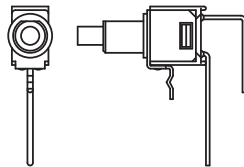
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## SNAP-IN TERMINATION OPTIONS

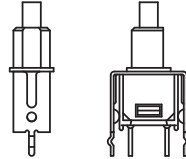
M6N



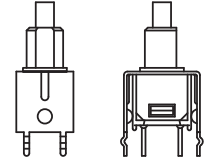
M7N



V2N

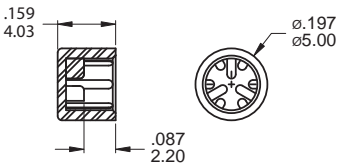


V3N

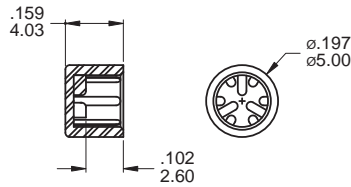


## CAP OPTIONS

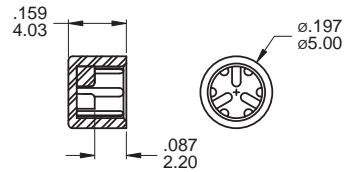
C1 For 8M Series ONLY



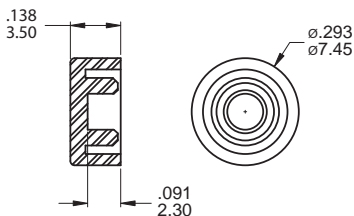
C2 For 8A,8B Series ONLY



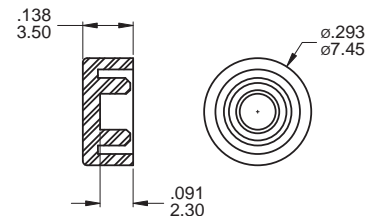
C3 For 8M Series B8,B9 Bushing ONLY



C4 For 8M Series ONLY



C5 For 8A,8B Series ONLY



Cap Color : White, Black, Red, Green



## SWITCH FUNCTION

NO. POLES	UL/CSA MODEL NO.	MODEL NO.	SWITCH FUNCTION	
			POS.1	POS.2
SP	Q28	8MSL	ON	ON
CONNECTED TERMINALS / SCHEMATIC				
POS.1		POS.2		

### SPECIFICATIONS

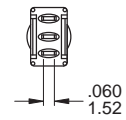
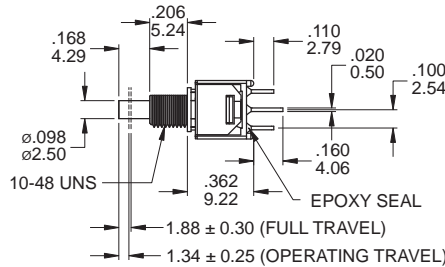
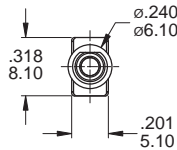
**RATING:** 1A 250VAC, 3A 120VAC or 28VDC  
**MECHANICAL LIFE:** 6,000 cycles.  
**CONTACT RESISTANCE:** R=20 mΩ max., Q=50 mΩ max.  
**INSULATION RESISTANCE:** 1,000 MΩ min., 1000VDC  
**DIELECTRIC STRENGTH:** 1,000 VAC for 1 Minute.  
**OPERATING TEMPERATURE:** -30°C to 85°C.  
**FULL TRAVEL:** 1.88±0.30mm  
**OPERATING TRAVEL:** 1.34±0.25mm  
**OPERATING FORCE:** 350±100g

### MATERIALS

**CASE:** Diallyl phthalate(DAP) (UL94V-0).  
**PLUNGER:** Nylon glass fiber.  
**BUSHING:** Brass,nickel plated.  
**HOUSING:** Stainless.  
**SWITCH SUPPORT:** Brass,tin plated.  
**CONTACT/TERMINAL:**Brass, with silver or gold plated. (See Page 129)

## POLE OPTIONS

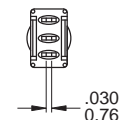
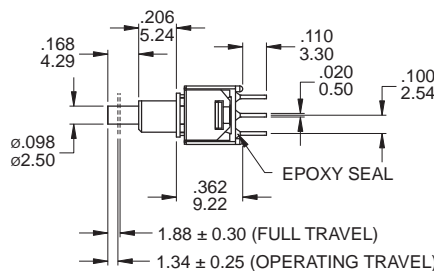
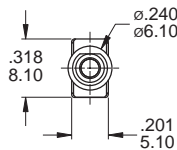
### M1



### SPDT

Part No. Shown : 8MSLP1B05M1QE

### M2

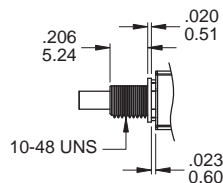
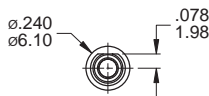


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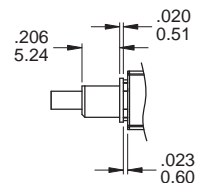
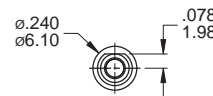
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## BUSHING AND TERMINATION OPTIONS

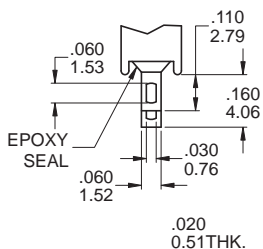
### B05 THD



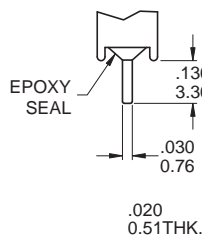
### B06 NON-THD



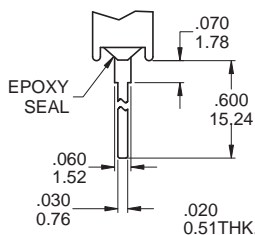
### M1 Solder lug



### M2 PC Thru-hole



### M5 Wire Wrap

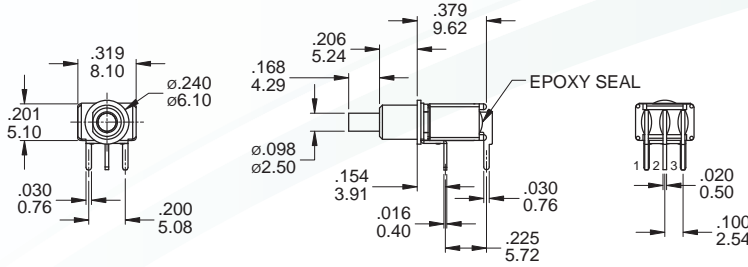


### OTHER TERMINATION OPTIONS

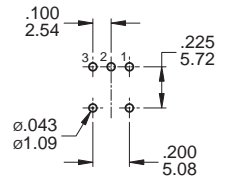
- M6** RIGHT ANGLE P.C. MOUNT
- M7** RIGHT ANGLE P.C. MOUNT
- VS2** VERTICAL BRACKET P.C. MOUNT



## M6



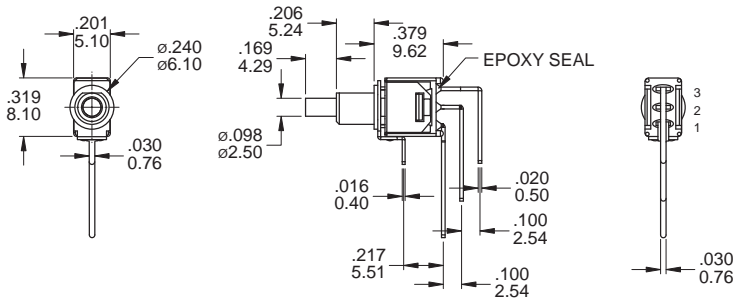
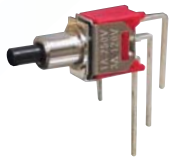
### P.C. MOUNTING



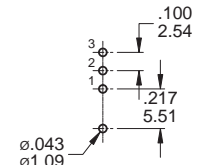
## SPDT

Part No. Shown : 8MSLP1B06M6QE

## M7



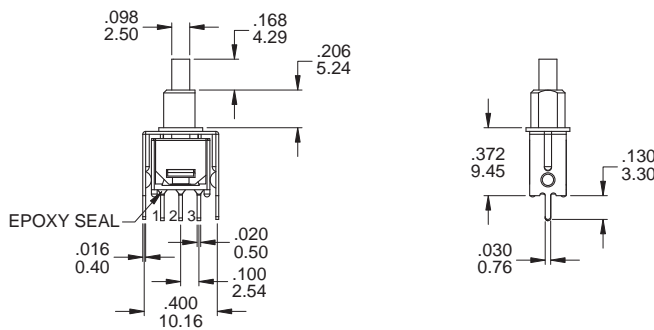
### P.C. MOUNTING



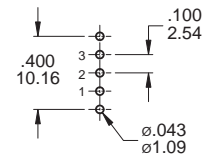
## SPDT

Part No. Shown : 8MSLP1B06M7QE

## VS2



### P.C. MOUNTING



## SPDT

Part No. Shown : 8MSLP1B06VS2QE

## 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)