



# SERIES 200 SWITCHES

## TOGGLE SWITCHES - SUB MINIATURE



### FEATURES & BENEFITS

- ▶ Variety of switching functions
- ▶ Sub-miniature
- ▶ Multiple actuator & bushing options

### APPLICATIONS/MARKETS

- ▶ Telecommunications
- ▶ Instrumentation
- ▶ Networking
- ▶ Medical equipment

### SPECIFICATIONS

Contact Rating:	Dependent upon contact material
Life Expectancy:	30,000 make-and-break cycles at full load
Contact Resistance:	20 mΩ max. typical initial @ 2-4 VDC 100 mA for both silver and gold plated contacts
Insulation Resistance:	1,000 MΩ min.
Dielectric Strength:	1,000 V RMS @ sea level
Operating Temperature:	-30° C to 85° C

### MATERIALS

Case:	Diallyl Phthalate (DAP) or glass filled nylon (UL94-V0)
Toggle Handle:	Brass, chrome plated
Bushing:	Brass, nickel plated
Housing:	Stainless steel
Switch Support:	Brass, tin plated
Contacts / Terminals:	Silver or gold plated copper alloy

### HOW TO ORDER

SERIES	MODEL NO.	ACTUATOR	BUSHING	TERMINATION	CONTACT MATERIAL	SEAL	HARDWARE
200	□ □ □ □	□ □	□ □ □ □	□ □ □ □	□	E	□
	MSP1 MSP2 MSP3 MSP4 MSP5 MSP6* MDP1 MDP2 MDP3	T1 T2 T3 T4 T5	B1 B2 B3 B4 B5 B6 B7 B8	M1 M2 M6 M7 VS2	Q = Silver R = Gold	E = Epoxy Sealed at Base of Terminal	H = Hardware

▶ ▶ ▶ Example Ordering Number  
200-MSP1-T4-B5-M1-R-E-H

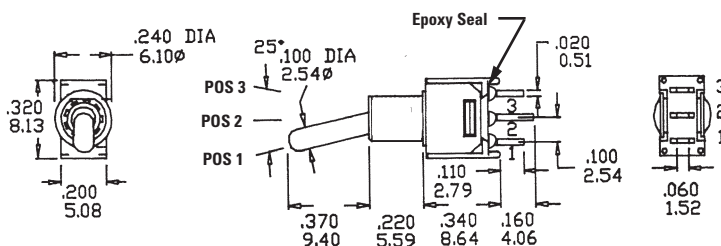
\*MSP6 - not available with M1, M6 & M7 termination

Specifications subject to change without notice.

## SPDT



SCHEMATIC



Model No.	POS 1	POS 2	POS 3
MSP-1	ON	NONE	ON
MSP-2	ON	NONE	(ON)
MSP-3	ON	OFF	ON
MSP-4	(ON)	OFF	(ON)
MSP-5	ON	OFF	(ON)
Term. Comm.	2 - 3	OPEN	2 - 1
MSP-6	OFF	NONE	ON
Term. Comm.	OPEN	NONE	3 - 1

( ) = Momentary

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TACT  
SWITCHES

NAVIGATION  
SWITCHES

PUSHBUTTON  
SWITCHES

TOGGLE  
SWITCHES

ROCKER  
SWITCHES

SLIDE  
SWITCHES

SNAP-ACTION  
SWITCHES

DIP  
SWITCHES

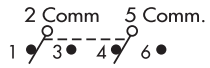
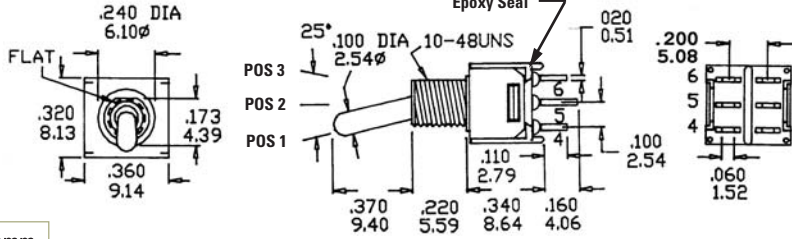
KEYLOCK  
SWITCHES

ROTARY  
SWITCHES

DETECTOR  
SWITCHES

CAP  
OPTIONS

### DPDT

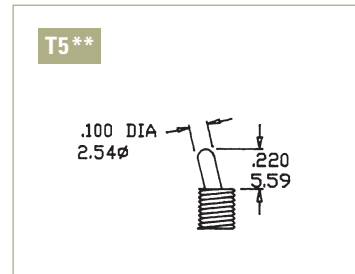
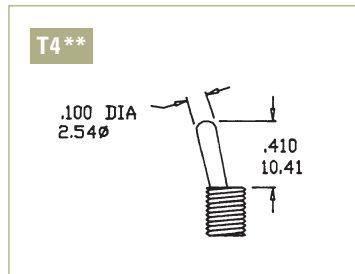
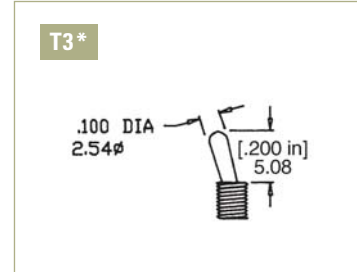
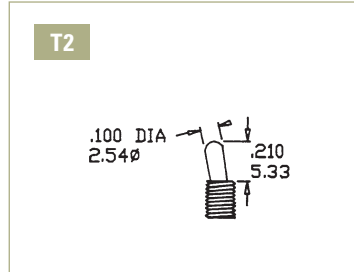
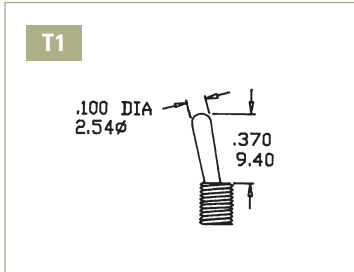


SCHMATIC

Model No.	POS 1	POS 2	POS 3
MDP-1	ON	NONE	ON
MDP-2	ON	NONE	(ON)
MDP-3	ON	OFF	ON
Term. Comm.	2-3, 5-6	OPEN	2-1, 5-4

( ) = Momentary

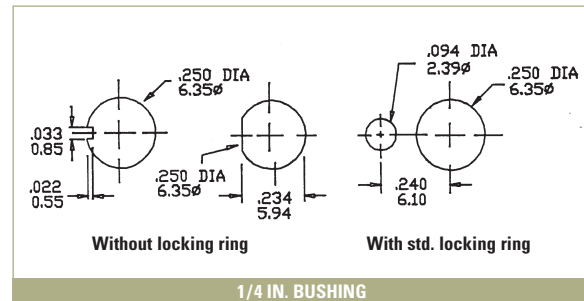
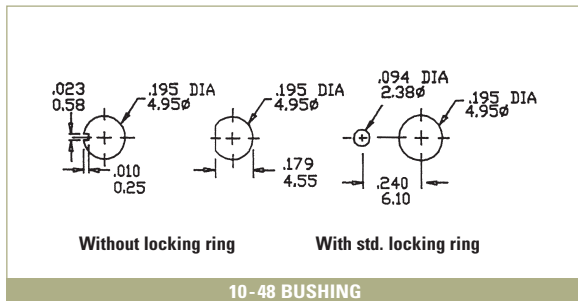
### ACTUATOR OPTIONS



\* Actuator shown with B1, B2, B3, or B4 bushing; subtract 0.09 (2.29) for B5, B6 bushing. Subtract 0.040 (1.02) for B7, B8 bushing.

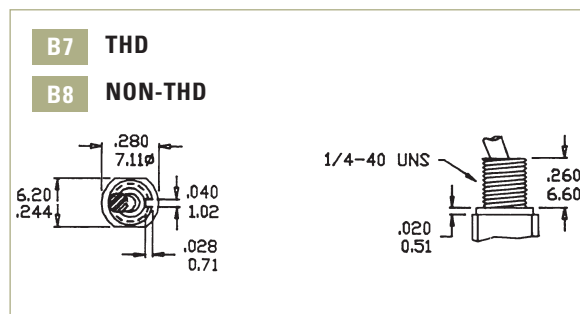
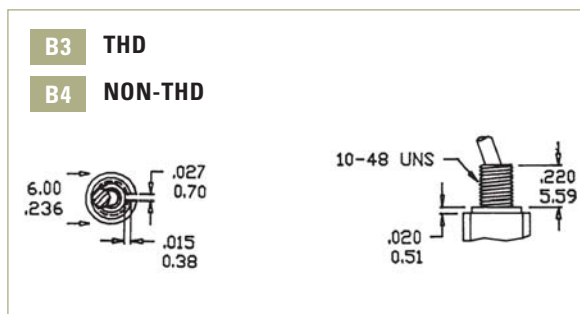
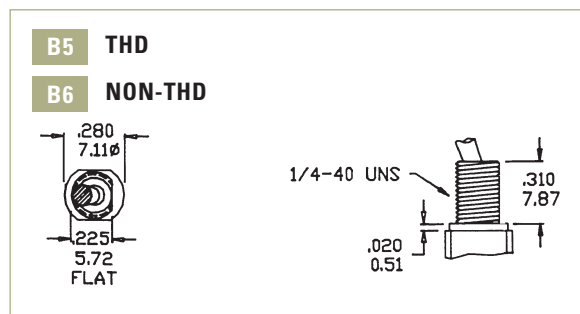
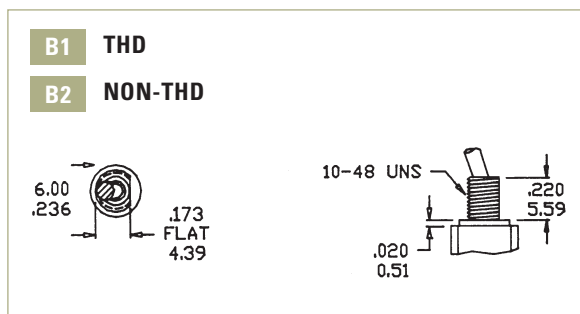
\*\* Actuator shown with B5, B6 bushing; add 0.09 (2.29) for B1, B2, B3, and B4 bushing. Add 0.50 (1.27) for B7, B8 bushing.

### PANEL MOUNTING

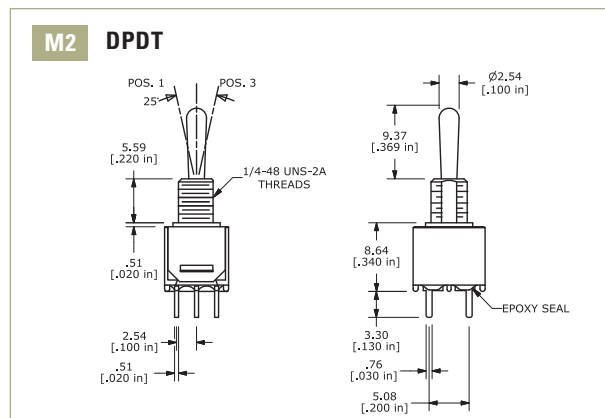
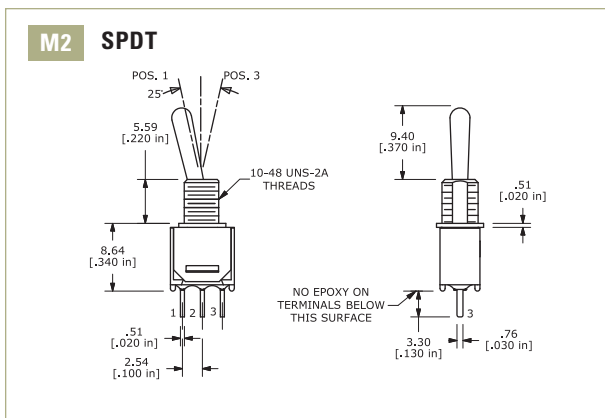
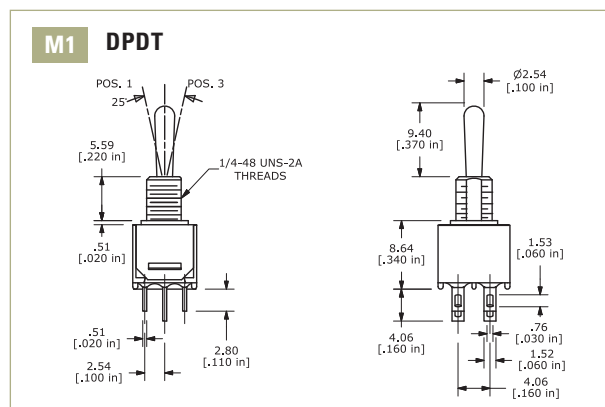
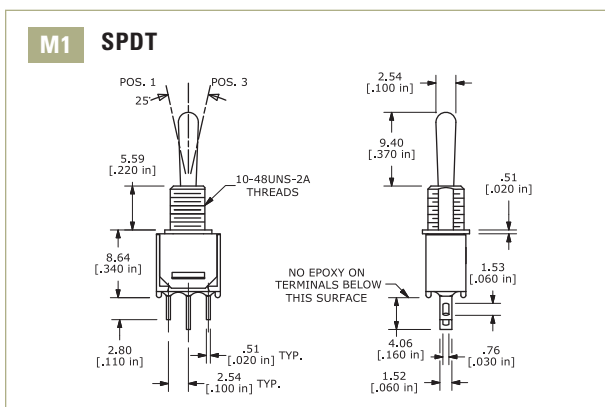




### BUSHING OPTIONS



### TERMINATION OPTIONS



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ROCKER  
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SLIDE  
SWITCHES

SNAP-ACTION  
SWITCHES

DIP  
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KEYLOCK  
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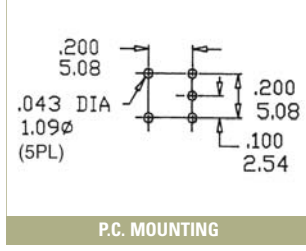
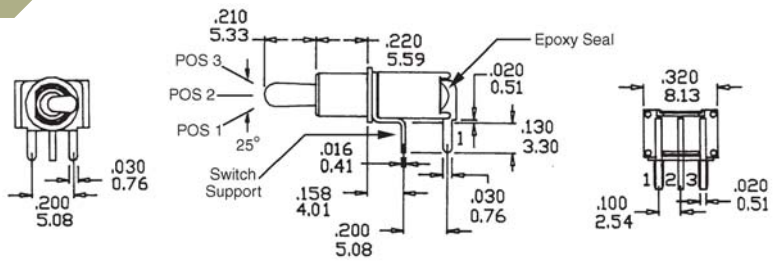
ROTARY  
SWITCHES

DETECTOR  
SWITCHES

CAP  
OPTIONS

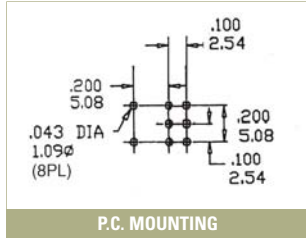
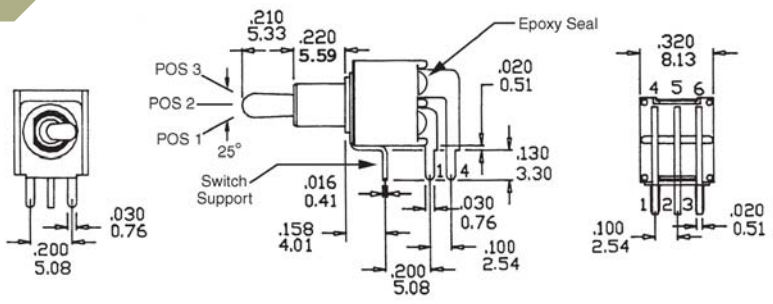
### M6

SPDT



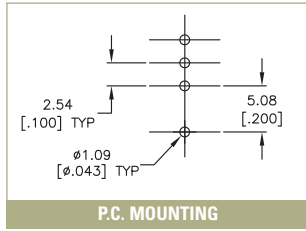
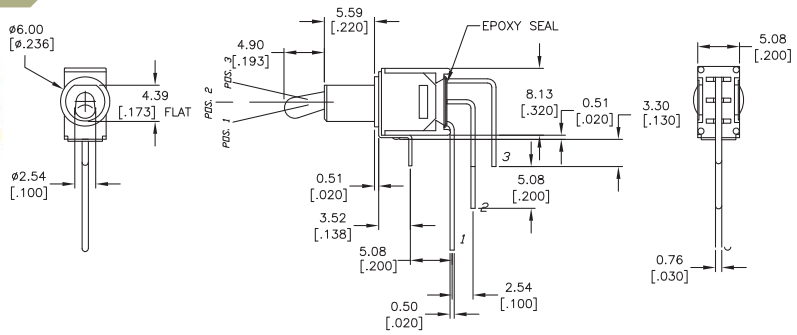
### M6

DPDT



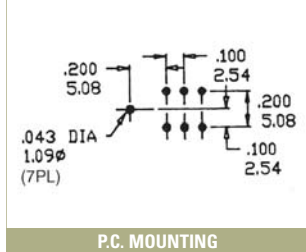
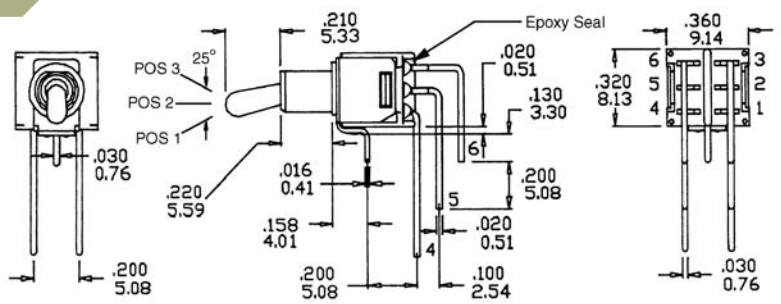
### M7

SPDT



### M7

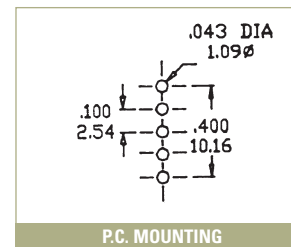
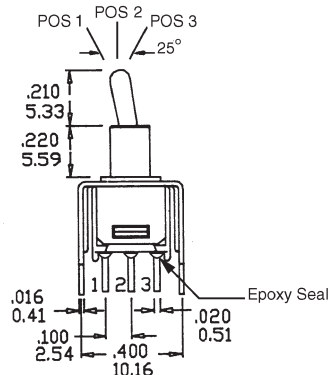
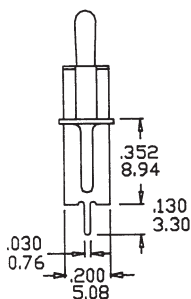
DPDT





### VS2

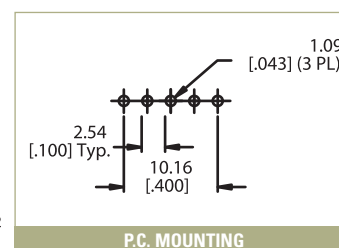
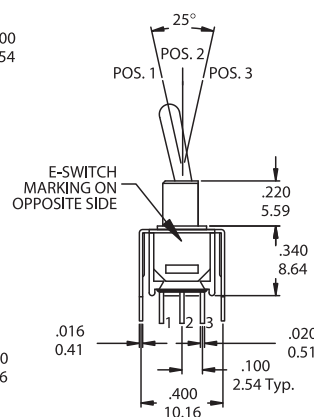
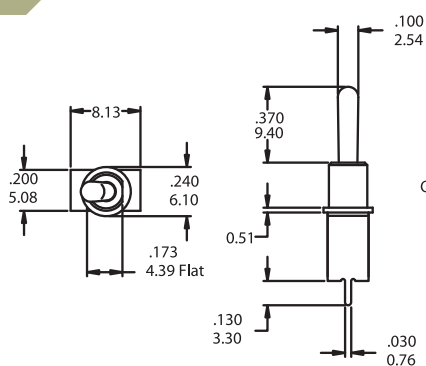
SPDT



P.C. MOUNTING

### VS2

DPDT



P.C. MOUNTING

### CONTACT MATERIAL OPTIONS

**Q**

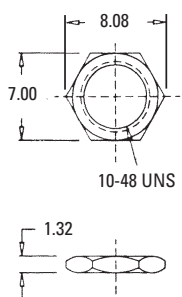
Fixed Terminal:	Silver plated copper alloy
Moving Contact:	Silver plated copper alloy
Rating:	3 Amps @ 120 VAC or 28 VDC; 1 Amp @ 250 VAC

**R**

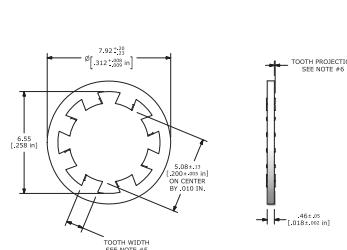
Fixed Terminal:	Copper alloy with gold plate over nickel plate
Moving Contact:	Copper alloy with gold plate over nickel plate
Rating:	0.4 VA max. @ 20 VAC or DC max.

### HARDWARE

#### HDW21 NUT



#### HDW22 LOCK WASHER



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DETECTOR SWITCHES

CAP OPTIONS