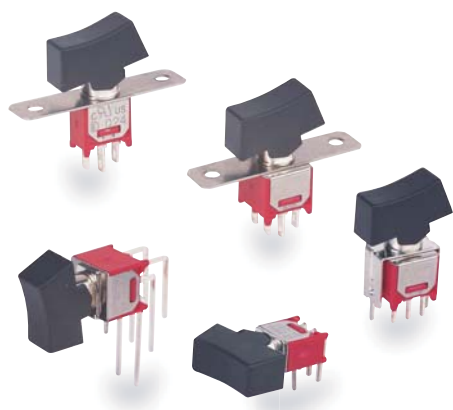




4M
Rocker Switches



SPECIFICATIONS

CONTACT RATING: Dependent upon contact material See Page 68.

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: Nylon,black std.

BUSHING: Brass,nickel plated.

HOUSING: Stainless Steel.

SWITCH SUPPORT: Brass,tin plated.

TERMINAL/CONTACT: Brass,with silver or gold .(See Page 68)

HOW TO ORDER

MODEL NO.	ACTUATOR	ACTUATOR COLOR	CAP MARKING	TERMINATIONS	CONTACT MATERIAL	SEAL	ROHS SOLDERING																																				
MODEL NO. 4MS1 SP On-None-On 4MS2 SP On-None-Mom 4MS3 SP On-Off-On 4MS4 SP Mom-Off-Mom 4MS5 SP On-Off-Mom 4MS6 SP Off-None-On 4MD1 DP On-None-On 4MD2 DP On-None-Mom 4MD3 DP On-Off -On 4MD6 DP On-On-On	ACTUATOR R1 (STD) Rocker, 7.62 wide , 14.73 length R2 (STD) Rocker, 5.84 wide , 14.73 length R3 5.84 wide , 10.23 length	ACTUATOR COLOR <table><tr><th>ITEM NO</th><th>COLOR</th></tr><tr><td>01</td><td>White</td></tr><tr><td>02</td><td>Black (Std)</td></tr><tr><td>03</td><td>Red</td></tr><tr><td>04</td><td>Orange</td></tr><tr><td>05</td><td>Yellow</td></tr><tr><td>06</td><td>Green</td></tr><tr><td>07</td><td>Blue</td></tr><tr><td>08</td><td>Brown</td></tr><tr><td>09</td><td>Gray</td></tr></table>	ITEM NO	COLOR	01	White	02	Black (Std)	03	Red	04	Orange	05	Yellow	06	Green	07	Blue	08	Brown	09	Gray	CAP MARKING <table><tr><td>1</td><td></td></tr><tr><td>2</td><td></td></tr><tr><td>5</td><td></td></tr><tr><td>6</td><td></td></tr><tr><td>7</td><td></td></tr><tr><td>8</td><td></td></tr><tr><td>9</td><td></td></tr><tr><td>F</td><td></td></tr></table>	1		2		5		6		7		8		9		F		TERMINATIONS 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 8.94 high, V-bracket V2N 8.94 high, snap-in V-bracket VS3 8.94 high, V-bracket V3N 8.94 high, snap-in V-bracket	CONTACT MATERIAL Q Silver R Gold G Gold,pure-tin S Silver,pure-tin C Gold over silver K Gold over silver,pure-tin	SEAL E EPOXY (std) N NO EPOXY	ROHS SOLDERING ☐ Rohs Compliant S Rohs & Lead Free F Halogen Free+RoHS
ITEM NO	COLOR																																										
01	White																																										
02	Black (Std)																																										
03	Red																																										
04	Orange																																										
05	Yellow																																										
06	Green																																										
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09	Gray																																										
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F																																											

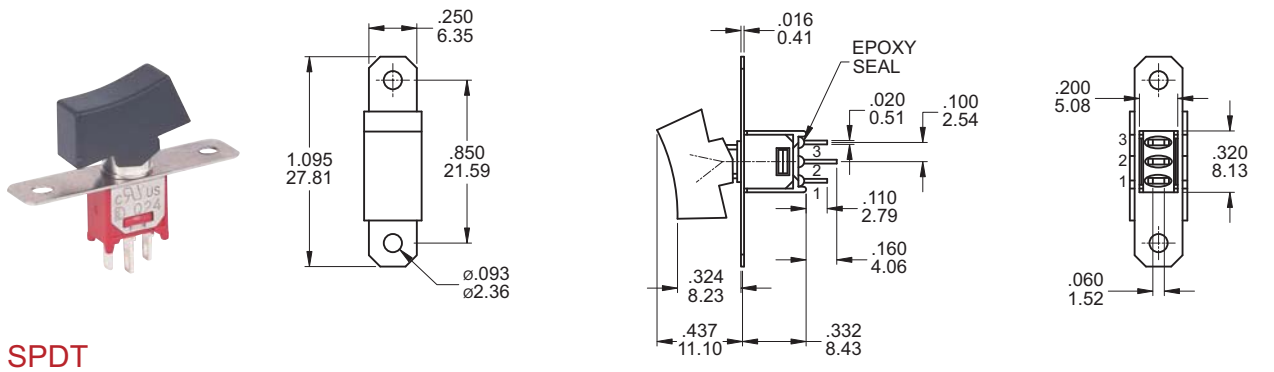
SWITCH FUNCTION

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	Q2411	4MS1	ON	NONE	ON	2-3 	N/A	2-1 
	Q2412	4MS2	ON	NONE	MOM		OPEN	
	Q2413	4MS3	ON	OFF	ON			
	Q2414	4MS4	MOM	OFF	MOM			
	Q2415	4MS5	ON	OFF	MOM			
	Q2416	4MS6	OFF	NONE	ON	OPEN	N/A	3-1
DP	Q2421	4MD1	ON	NONE	ON	2-3,5-6 	N/A	2-1,5-4 
	Q2422	4MD2	ON	NONE	MOM		OPEN	
	Q2423	4MD3	ON	OFF	ON			
		Q2426	4MD6	ON	ON	ON	2-3,5-6	2-3,5-4

MOM=MOMENTARY

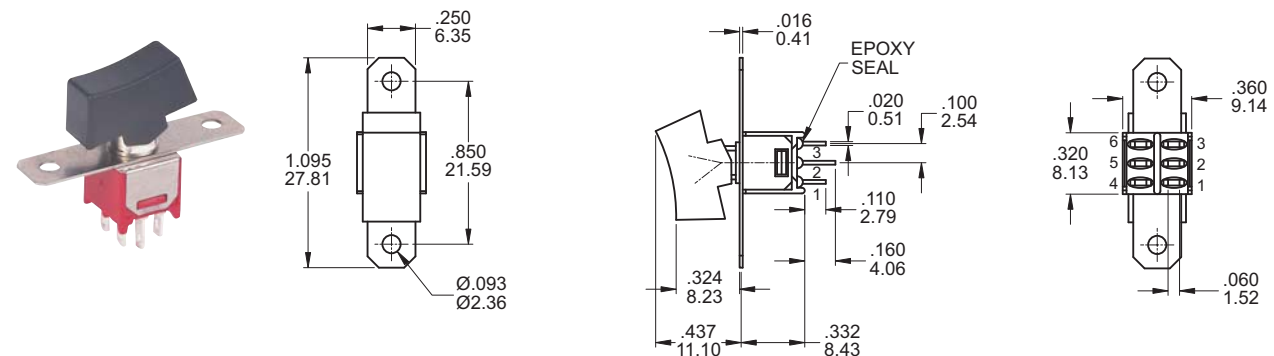
▲ Please check the availability in advance before order

POLE OPTIONS



SPDT

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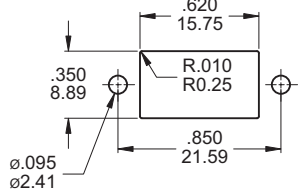


DPDT

Part No. Shown : 4MD1R102M1QE

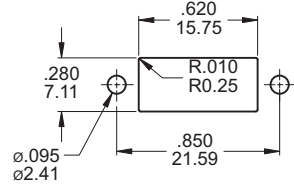
ACTUATOR OPTIONS - PANEL MOUNT

R1



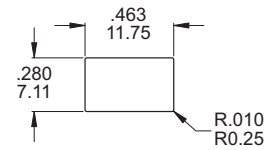
PANEL MOUNTING-R1

R2



PANEL MOUNTING-R2

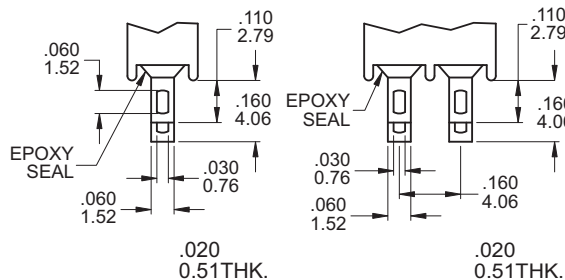
R3



PANEL MOUNTING-R3

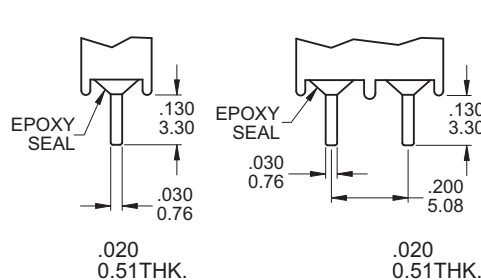
TERMINATION OPTIONS

M1 SOLDER LUG



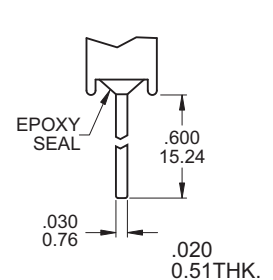
Double Pole

M2 P.C. MOUNT

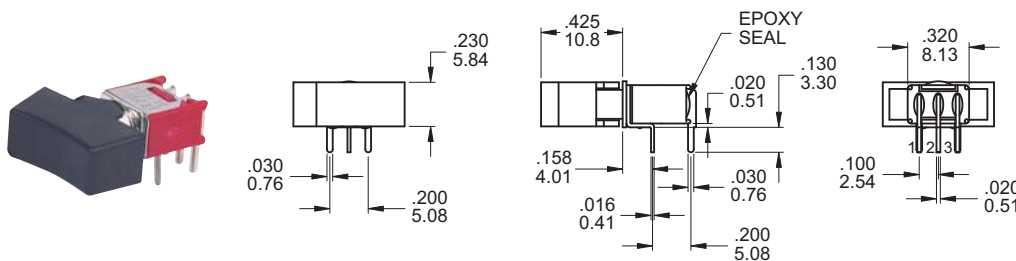


Double Pole

M5 P.C. MOUNT



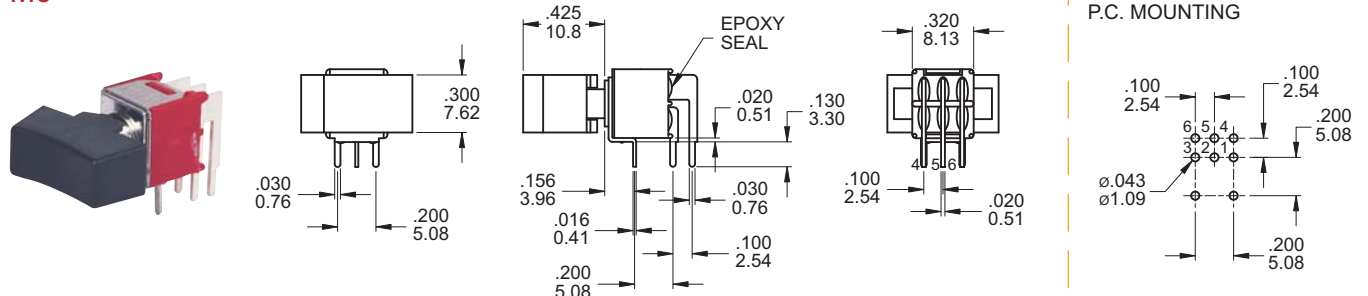
M6



SPDT

Part No. Shown : 4MS1R202M6QE

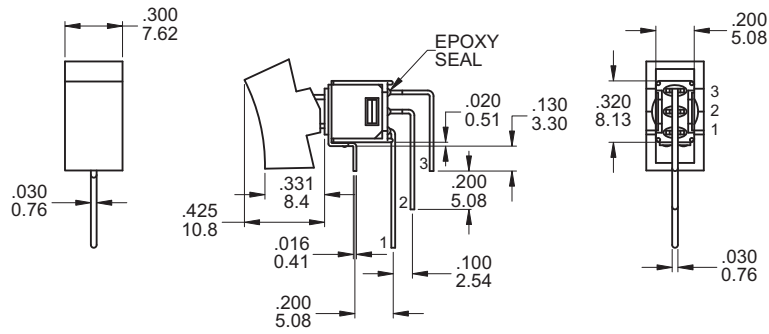
M6



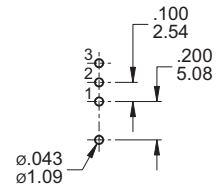
DPDT

Part No. Shown : 4MD1R102M6QE

M7



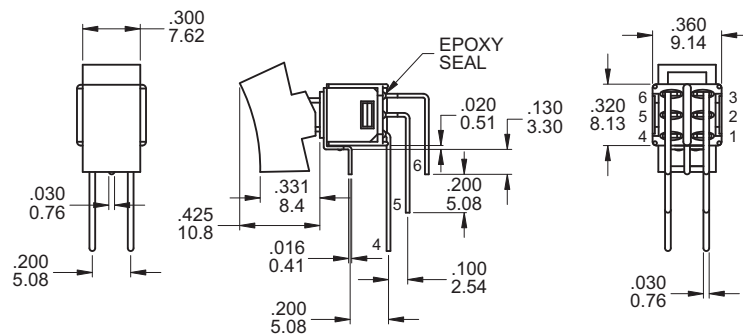
P.C. MOUNTING



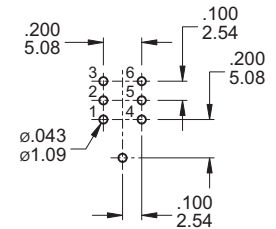
SPDT

Part No. Shown : 4MS1R102M7QE

M7



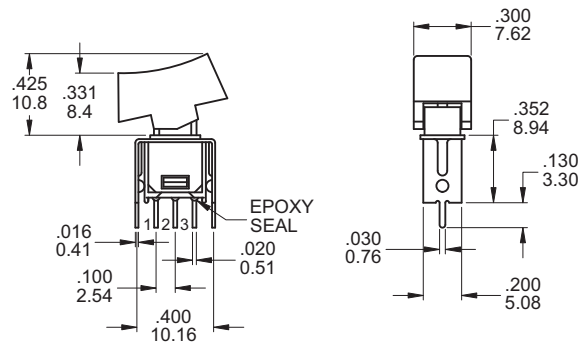
P.C. MOUNTING



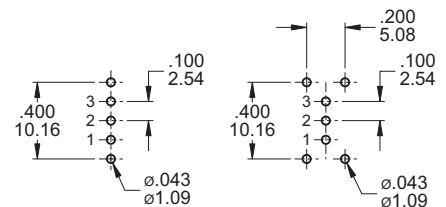
DPDT

Part No. Shown : 4MD1R102M7QE

VS2 - VS3



P.C. MOUNTING



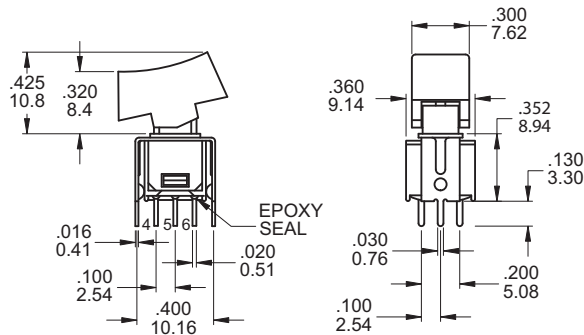
VS2

VS3

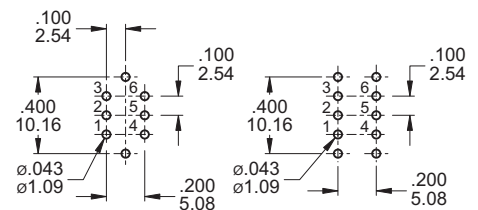
SPDT

Part No. Shown : 4MS1R102VS2QE

VS2 - VS3



P.C. MOUNTING



VS2

VS3

DPDT

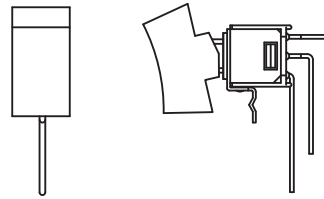
Part No. Shown : 4MD1R102VS2QE

SNAP-IN TERMINATION OPTIONS

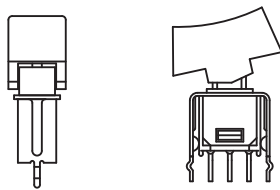
M6N



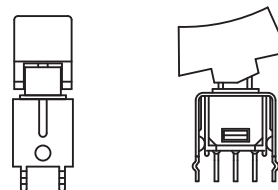
M7N



V2N



V3N



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)

SOLDERING : Vapor phase