

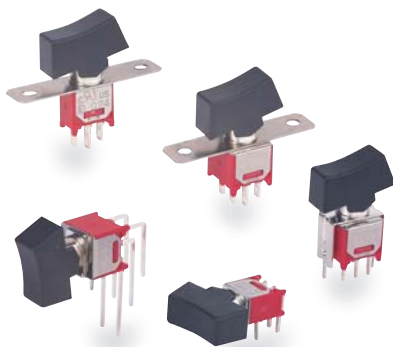


# 4M Series

Sub-Miniature Rocker Switches



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 value) @ 2-4VDC  
100mA for both silver and gold plated contacts.

**INSULATION RESISTANCE:** 1,000 MΩ min./1000VDC

**DIELECTRIC STRENGTH:** 1,000 Vrms min. @ sea level. (initial value)

**OPERATING TEMPERATURE:** -40°C to 85°C.

## MATERIALS

**CASE:** Diallyl phthalate (DAP) (UL94v-0).

**ACTUATOR:** Nylon, black std.

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

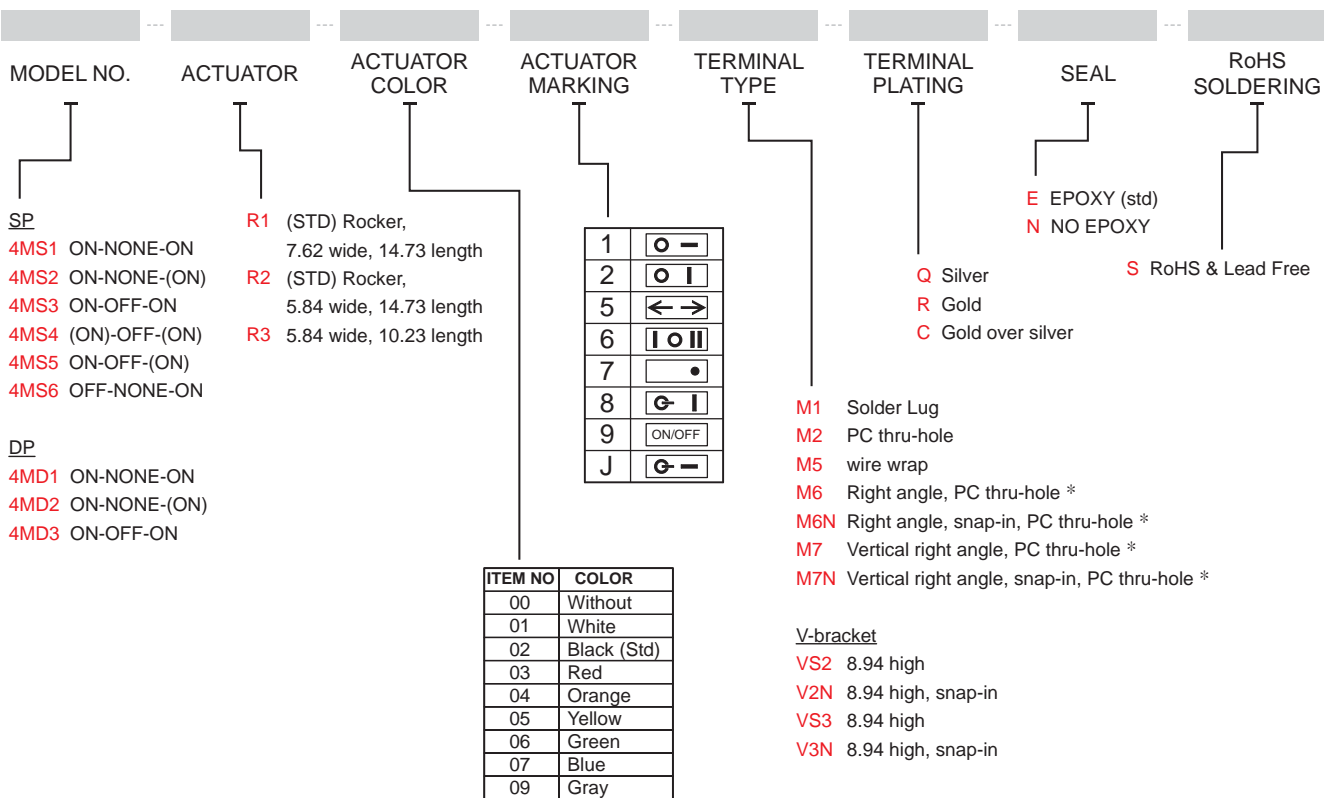
**HOUSING:** Stainless Steel.

**SWITCH SUPPORT:** SUS or brass, tin plated.

**TERMINAL/CONTACT:** Copper or brass with silver or gold plated.

(See page 68)

## HOW TO ORDER



\*\*

\* The terminal type of M6, M6N, M7, M7N are not suitable for 4MS6.  
 \*\* Except standard color, for other colors information please consult sales representativity.

EXAMPLE:

4MS1R1□M1QES (STD)

└ Actuator color

4MS1R1□□M1QES

└ Actuator marking

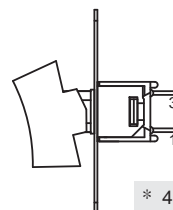
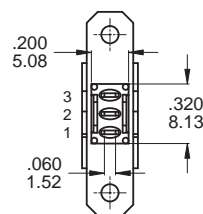
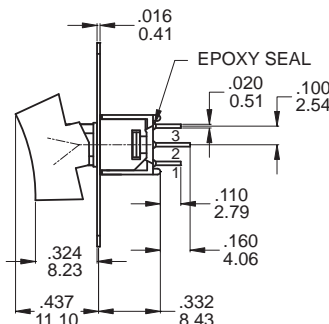
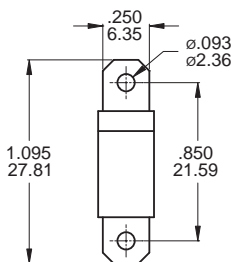
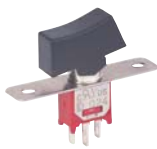
└ Actuator color

▼ 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	(ON)		OPEN 	
	Q2413	4MS3	ON	OFF	ON			
	Q2414	4MS4	(ON)	OFF	(ON)	OPEN	OPEN	
	Q2415	4MS5	ON	OFF	(ON)			
	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	(ON)		OPEN 	
	Q2423	4MD3	ON	OFF	ON			

( )=MOMENTARY

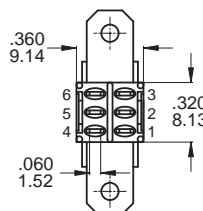
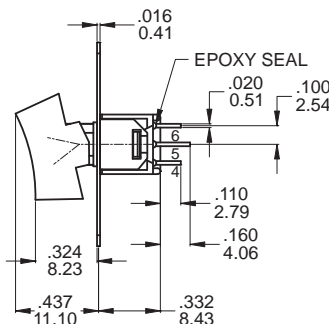
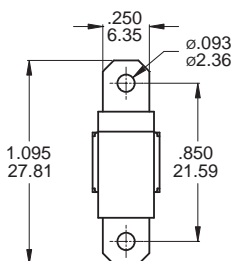
▼ POLE OPTIONS



SPDT

Model name. 4MS1R102M1QES

\* 4MS6 Models: Omit terminal 2



DPDT

Model name. 4MD1R102M1QES



# 4M Series

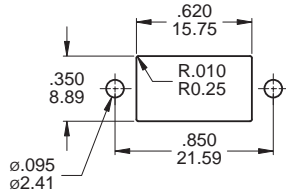
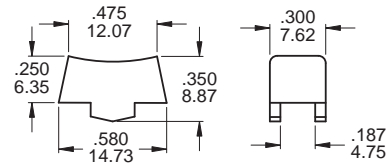
Sub-Miniature Rocker Switches



4M  
Rocker Switches

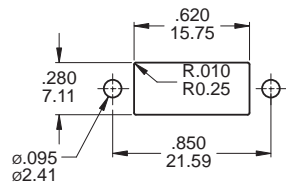
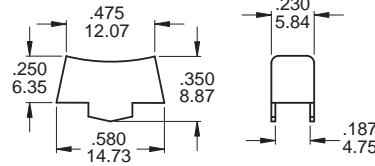
## ▼ TERMINAL OPTIONS

R1



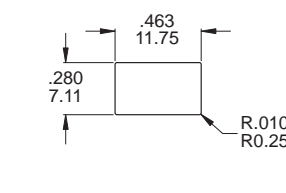
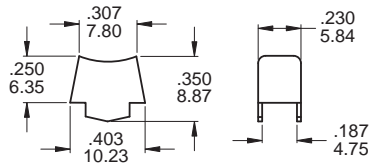
PANEL MOUNTING

R2



PANEL MOUNTING

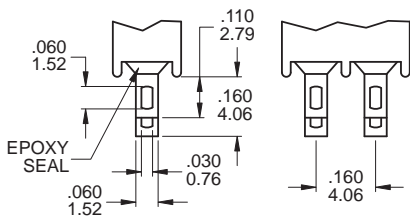
R3



PANEL MOUNTING

## ▼ TERMINAL OPTIONS

M1 Solder lug

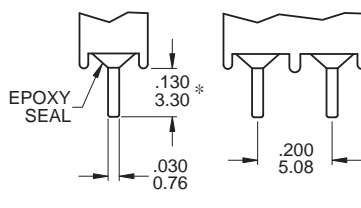


SPDT

DPDT

.020inch(0.51mm) THK.

M2 PC Thru-hole



SPDT

DPDT

.020inch(0.51mm) THK.

\* The wire wrap terminal M51 is .600inch(15.24mm), only for SPDT

### OTHER TERMINAL OPTIONS

M6 Right angle P.C. Mount

M6N Right angle P.C. Mount  
Snap-in bracket

M7 Vertical right angle P.C. Mount

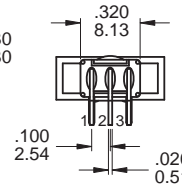
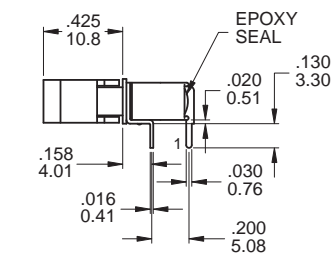
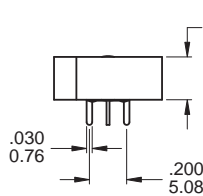
M7N Vertical right angle P.C. Mount  
Snap-in bracket

VS2-VS3 Vertical bracket P.C. Mount

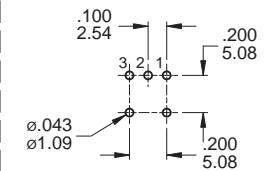
V2N-V3N Vertical bracket P.C. Mount  
Snap-in bracket

M6

(M6N - Snap-in)



PCB MOUNTING



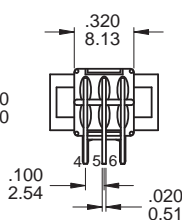
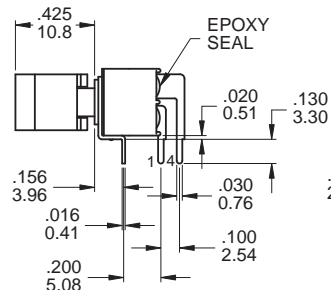
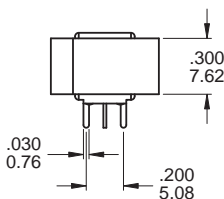
Note: Not available for 4MS6.

SPDT

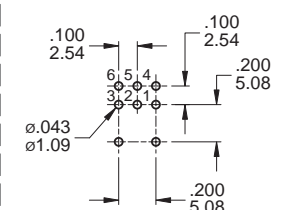
Model name. 4MS1R202M6QES

M6

(M6N - Snap-in)



PCB MOUNTING



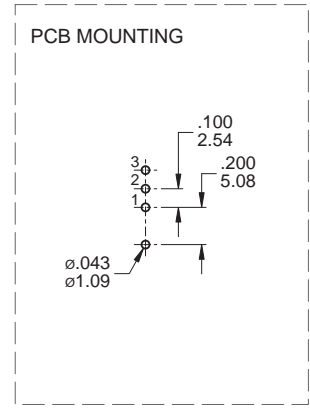
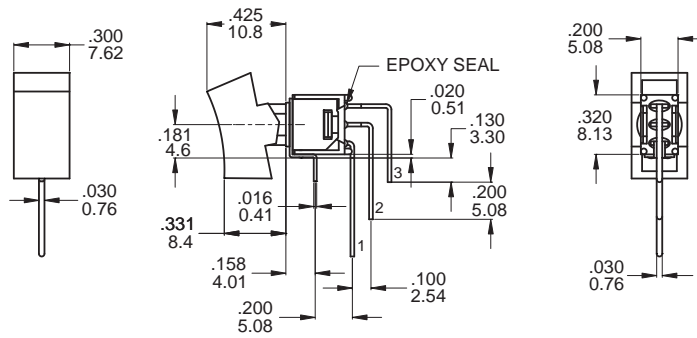
Note: Not available for 4MS6.

DPDT

Model name. 4MD1R102M6QES



**M7**  
(M7N - Snap-in)

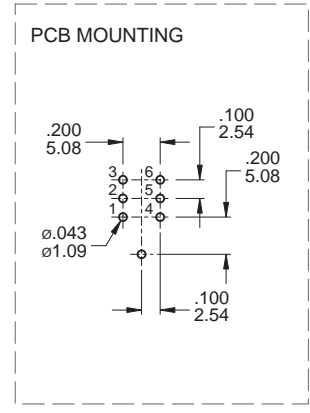
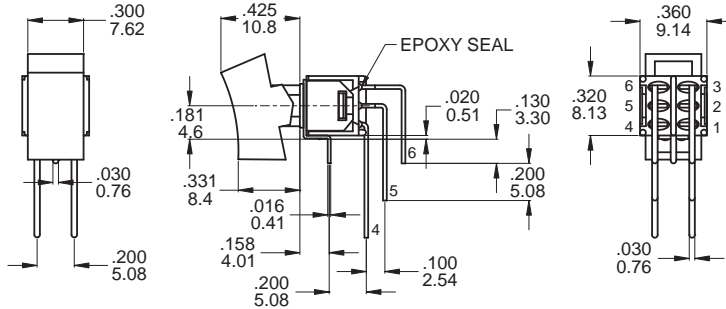


Note: Not available for 4MS6.

**SPDT**

Model name. 4MS1R102M7QES

**M7**  
(M7N - Snap-in)

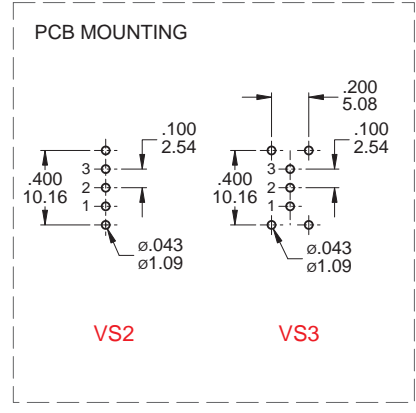
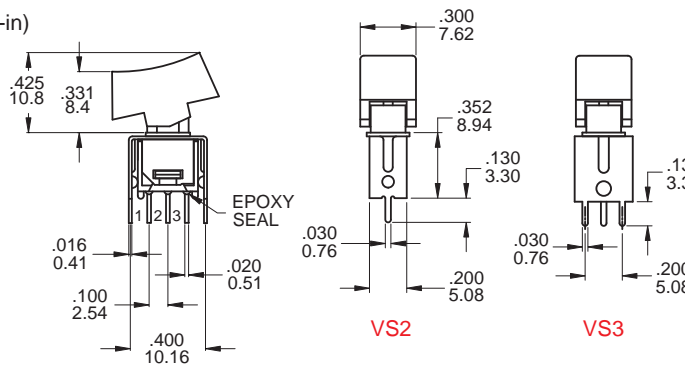


Note: Not available for 4MS6.

**DPDT**

Model name. 4MD1R102M7QES

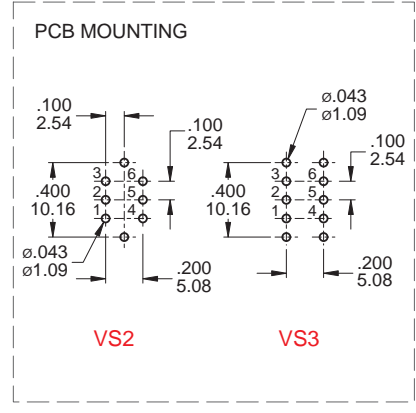
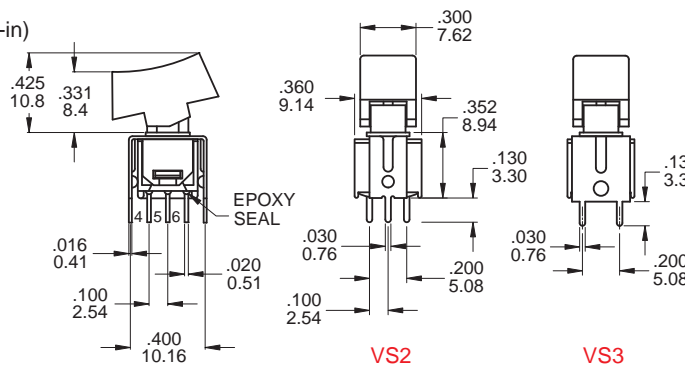
**VS2 - VS3**  
(V2N-V3N - Snap-in)



**SPDT**

Model name. 4MS1R102VS2QES

**VS2 - VS3**  
(V2N-V3N - Snap-in)



**DPDT**

Model name. 4MD1R102VS2QES



# 4M Series

Sub-Miniature Rocker Switches



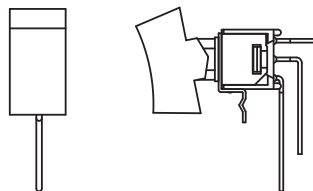
4M  
Rocker Switches

## ▼ SNAP-IN TERMINAL OPTIONS

M6N

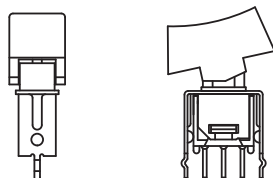


M7N

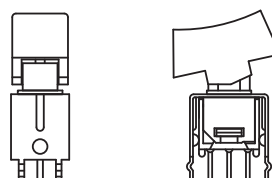


Note: The terminal type of M6N, M7N are not suitable for 4MS6.

V2N



V3N



## ▼ CONTACT & TERMINAL PLATING 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 PROCESS

MANUAL SOLDERING: Use 30 watts soldering iron and controlled the temperature at 350°.

Duration of solder immersion: Max. 5 sec.

WAVE SOLDERING: Recommend soldering temperature: 260 ± 5°C

Duration of solder immersion: Max. 5 sec. (PCB thickness is 1.6mm)