

### SPECIFICATIONS

**CONTACT RATING:** Dependent upon contact material See Page 74.

**MECHANICAL LIFE:** 30,000 make-and-break cycles.

**CONTACT RESISTANCE:** 20mΩ 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 & BUSHING :** Glass filled nylon 6/6, flame retardant, heat stabilized (UL94V-0).

**ACTUATOR:** Nylon, black std. Internal O-ring seal standard with all actuators.

**SWITCH SUPPORT:** Brass or steel, tin plated.

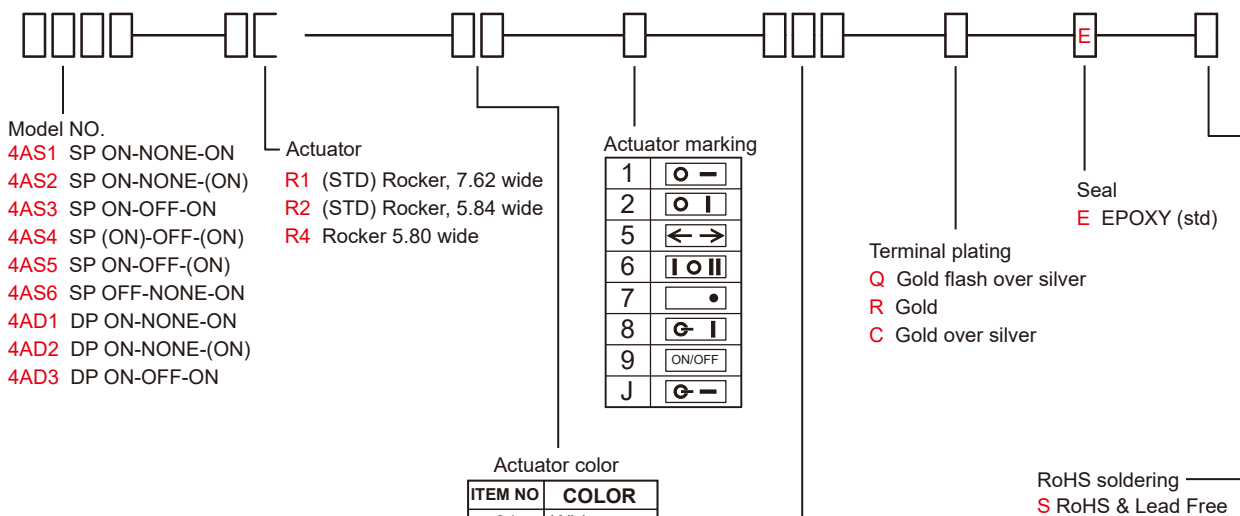
**TERMINAL/CONTACT:** Silver or gold plated copper alloy.  
(See Page 74)

IP 67  
ACCORDING TO  
EN 60529:1989+A1:2001  
IEC 60529:2001



## HOW TO ORDER

MODEL NO.	ACTUATOR	ACTUATOR COLOR	ACTUATOR MARKING	TERMINATIONS	TERMINAL PLATING	SEAL	RoHS SOLDERING
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ITEM NO	COLOR
01	White
02	Black (Std)
03	Red
04	Orange
05	Yellow
06	Green
07	Blue
08	Brown
09	Gray

\* Besides standard color, other colors need to check stocks available.

- 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

\* 4AS6 model type not applicable to M6/M6N/M7/M7N terminations

**SWITCH FUNCTION**

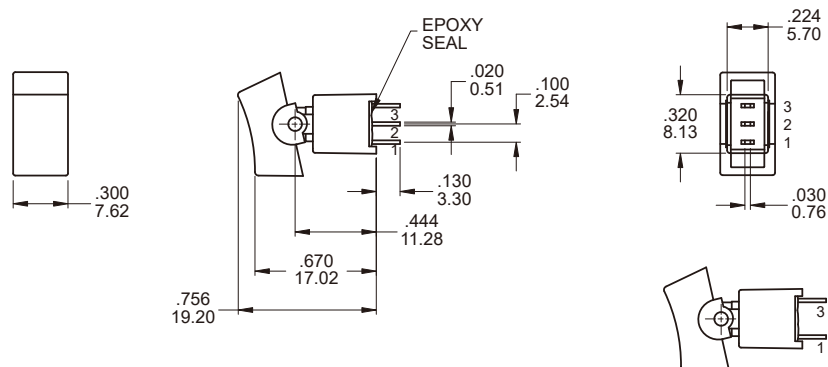
NO. POLES	UL/CSA MODEL NO.	MODEL NO.	SWITCH FUNCTION			CONNECTED TERMINALS / SCHEMATIC		
			POS.1	POS.2	POS.3	POS.1	POS.2	POS.3
SP	Q24A11	4AS1	ON	NONE	ON	2-3	N/A	2-1
	Q24A12	4AS2	ON	NONE	(ON)			
	Q24A13	4AS3	ON	OFF	ON		OPEN	
	Q24A14	4AS4	(ON)	OFF	(ON)			
	Q24A15	4AS5	ON	OFF	(ON)			
		Q24A16	4AS6	OFF	NONE	ON	OPEN	N/A
DP	Q24A21	4AD1	ON	NONE	ON	2-3,5-6	N/A	2-1,5-4
	Q24A22	4AD2	ON	NONE	(ON)			
	Q24A23	4AD3	ON	OFF	ON		OPEN	

( )=MOMENTARY

**POLE OPTIONS**

**SPDT**

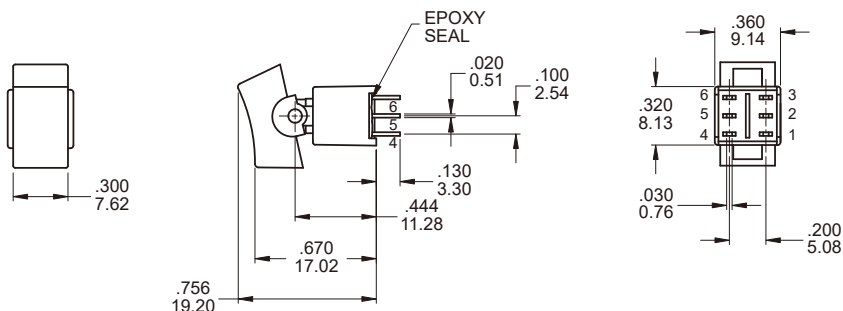
Part No. Shown : 4AS1R102M2RES

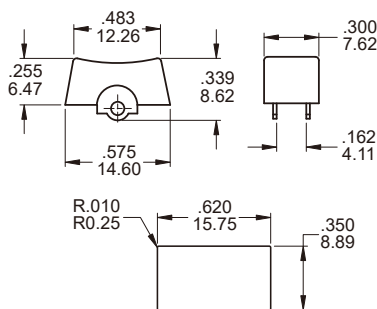


4AS6 Models : Omit 2nd terminal

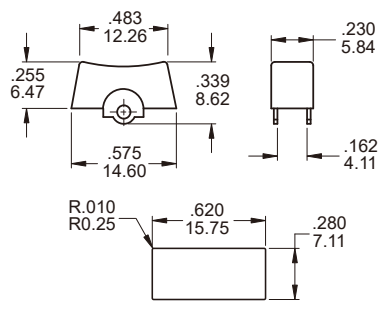

**DPDT**

Part No. Shown : 4AD1R102M2QES

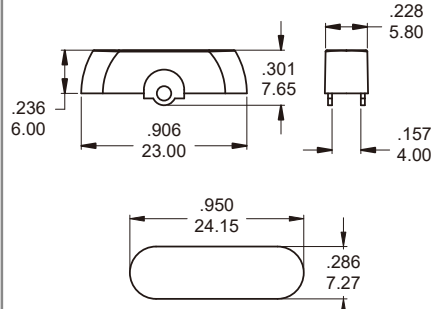


**ACTUATOR OPTIONS - PANEL MOUNT**
**R1**


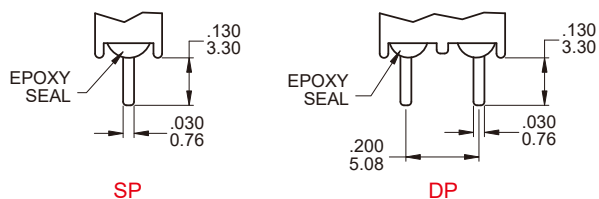
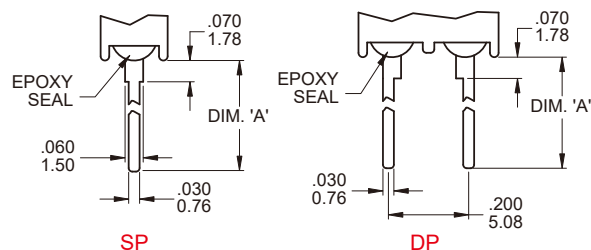
PANEL MOUNTING - R1

**R2**


PANEL MOUNTING - R2

**R4**


PANEL MOUNTING - R4

**TERMINATION OPTIONS**
**M2 PC Thru-hole**

**SP**
**DP**
**M5 Wire Wrap**

**SP**
**DP**
**OTHER TERMINATION OPTIONS**
**M6** Right angle P.C. Mount

**M6N** Right angle P.C. Mount with snap-in bracket

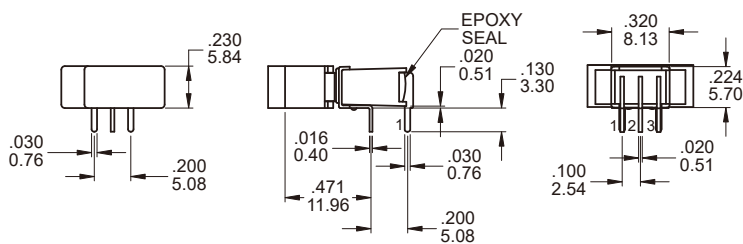
**M7** Right angle P.C. Mount

**M7N** Right angle P.C. Mount with snap-in bracket

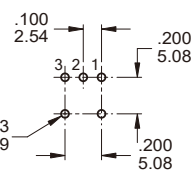
**VS2** Vertical bracket P.C. Mount

**V2N** Vertical bracket P.C. Mount with snap-in bracket

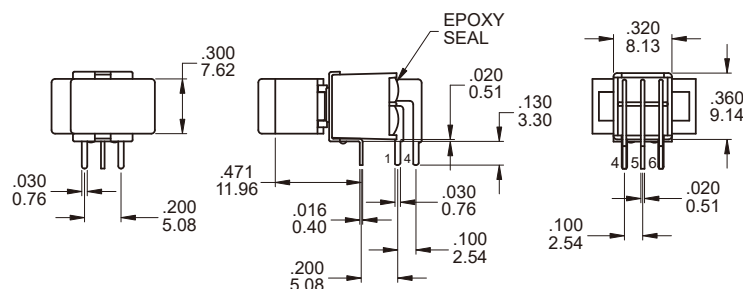
OPTION CODE	DIM. 'A'
M51	.614 ( 15.60 )
M52	.236 ( 6.00 )

**M6**


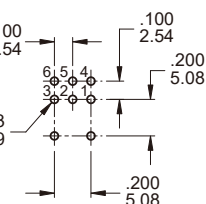
P.C. MOUNTING


**SPDT**

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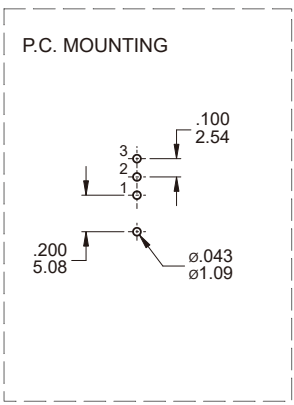
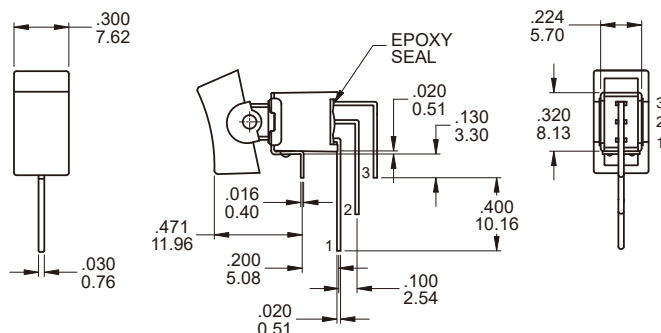
**M6**


P.C. MOUNTING


**DPDT**

Part No. Shown : 4AD1R102M6QES

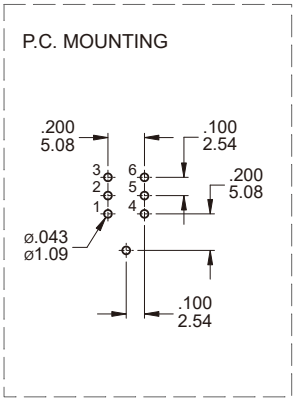
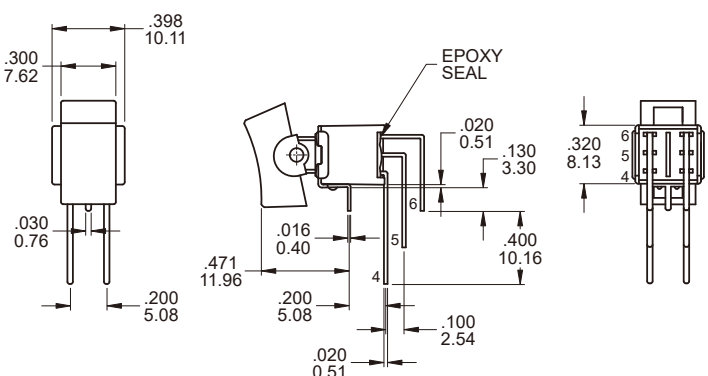
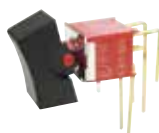
**M7**



**SPDT**

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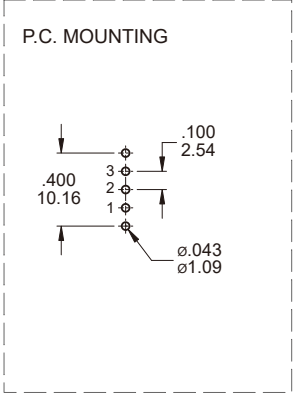
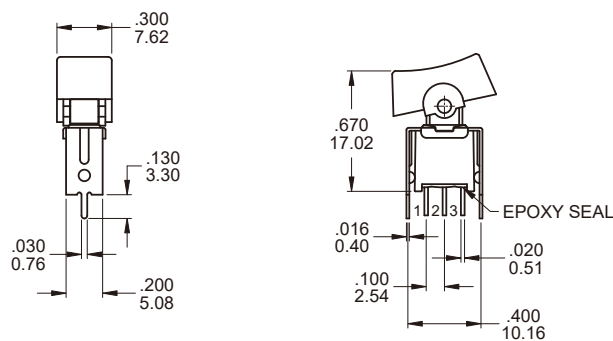
**M7**



**DPDT**

Part No. Shown : 4AD1R102M7RES

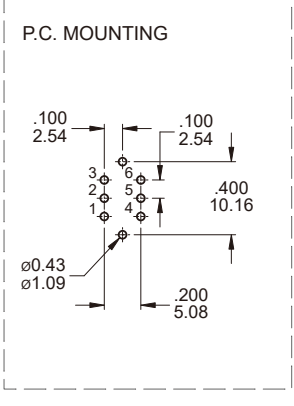
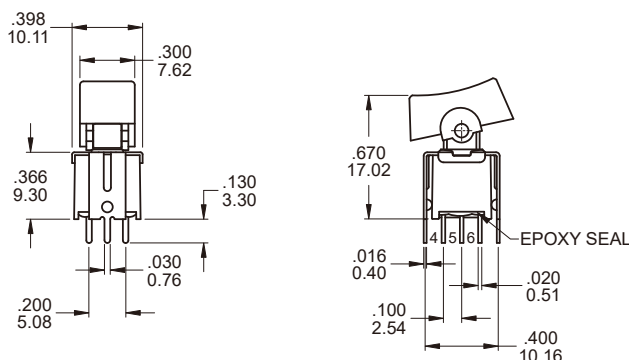
**VS2**



**SPDT**

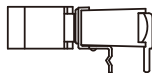
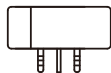
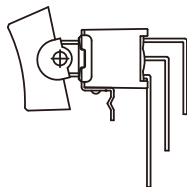
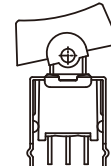
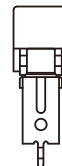
Part No. Shown : 4AS1R102VS2RES

**VS2**



**DPDT**

Part No. Shown : 4AD1R102VS2QES

**SNAP-IN TERMINATION OPTIONS**
**M6N**

**M7N**

**V2N**

**CONTACT MATERIAL OPTIONS**

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