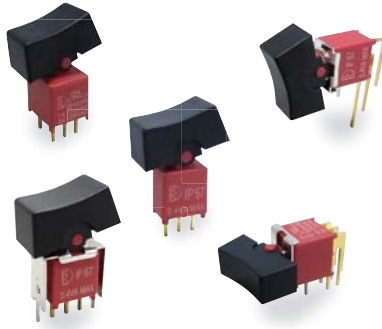


4A Series

Sealed Sub-Miniature Rocker Switches



IP 67
ACCORDING TO
EN 60529:1991+A1:2001
IEC 60529:2001

C_{UL} US
E 187490

RoHS
compliant

Pb
lead-free

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: -30°C to 85°C.

MATERIALS

CASE & BUSHING : Glass filled nylon 6/6, flame retardant, heat stabilized (UL94V-0).

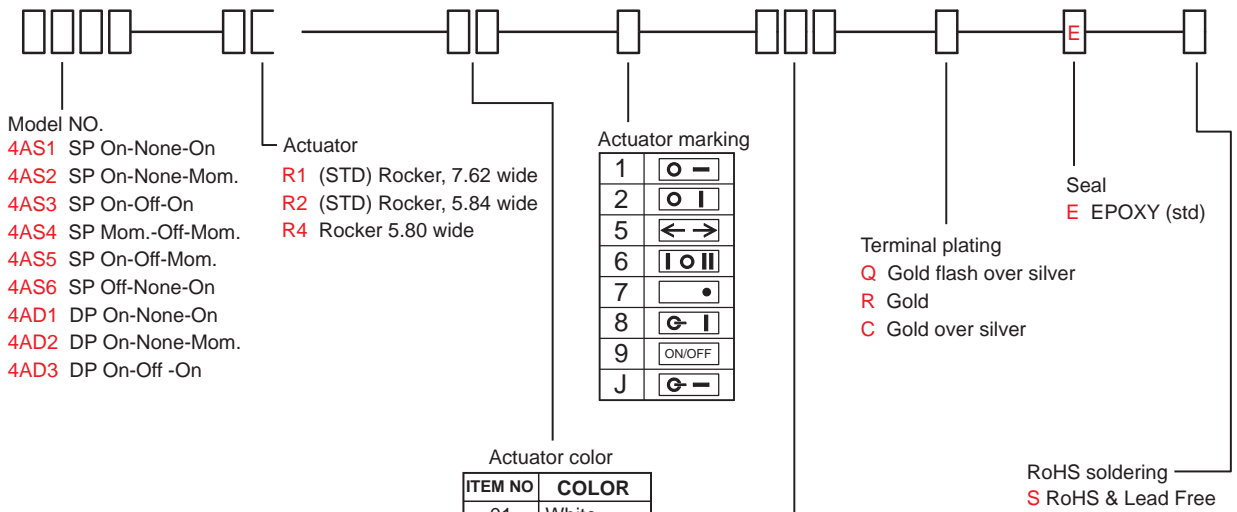
ACTUATOR: Nylon, black std. Internal O-ring seal standard with all actuators.

SWITCH SUPPORT: Brass or steel, tin plated.

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

HOW TO ORDER

MODEL NO. ACTUATOR ACTUATOR COLOR ACTUATOR MARKING TERMINATIONS TERMINAL PLATING SEAL RoHS SOLDERING



Actuator color

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

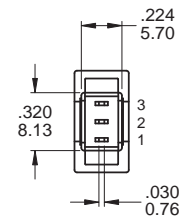
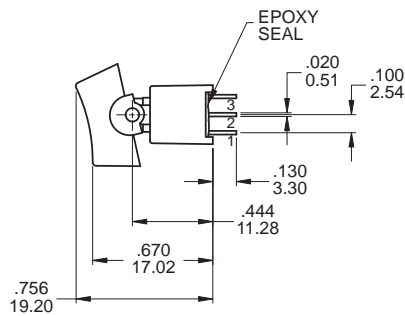
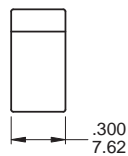
NO. POLES	UL/CSA MODEL NO.	MODEL NO.	SWITCH FUNCTION			CONNECTED TERMINALS / SCHEMATIC		
			POS.1	POS.2	POS.3	POS.1	POS.2	POS.3
SP	Q24A11	4AS1	ON	NONE	ON	2-3	N/A	2-1
	Q24A12	4AS2	ON	NONE	MOM			
	Q24A13	4AS3	ON	OFF	ON			
	Q24A14	4AS4	MOM	OFF	MOM			
	Q24A15	4AS5	ON	OFF	MOM	OPEN	N/A	3-1
	Q24A16	4AS6	OFF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

MOM=MOMENTARY



4A
Rocker Switches

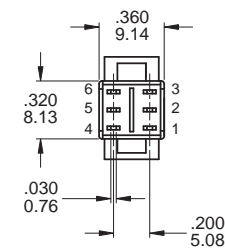
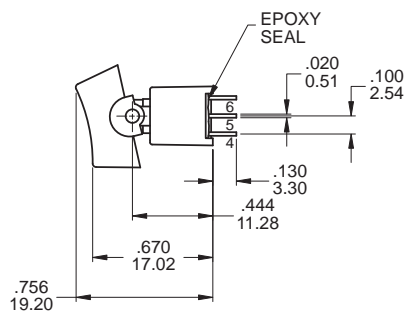
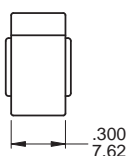
POLE OPTIONS



SPDT

Part No. Shown : 4AS1R102M2RES

4AS6 Models : Omit 2nd terminal



DPDT

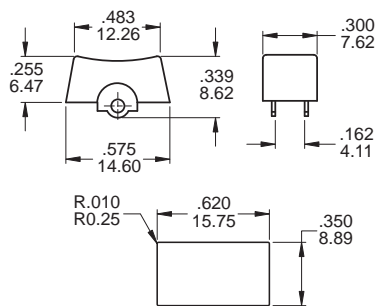
Part No. Shown : 4AD1R102M2QES

4A Series

Sealed Sub-Miniature Rocker Switches

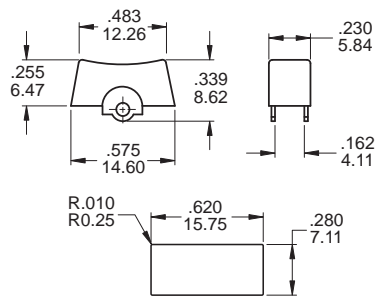
ACTUATOR OPTIONS - PANEL MOUNT

R1



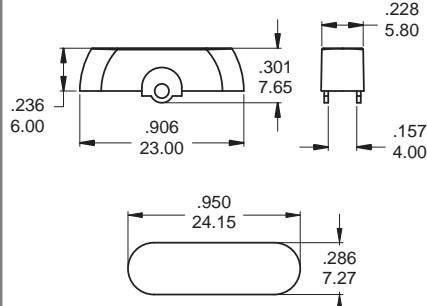
PANEL MOUNTING - R1

R2



PANEL MOUNTING - R2

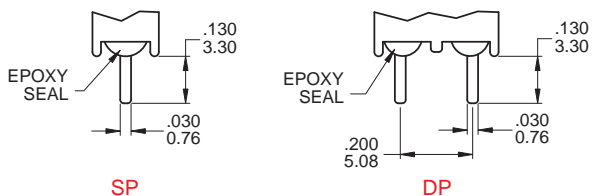
R4



PANEL MOUNTING - R4

TERMINATION OPTIONS

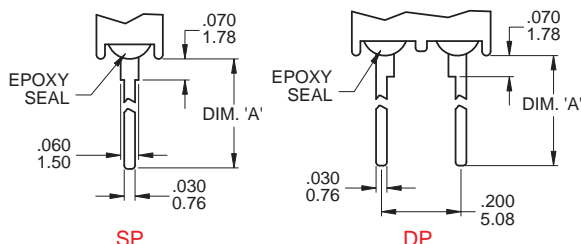
M2 PC Thru-hole



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

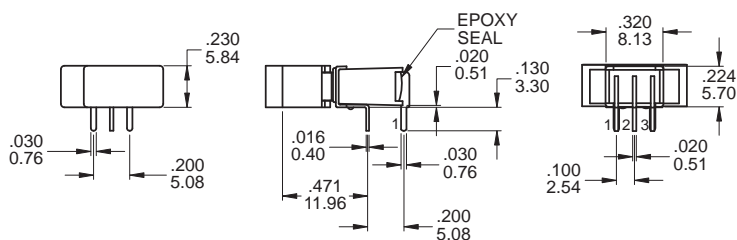
M7N Right angle P.C. Mount with snap-in bracket

VS2 Vertical bracket P.C. Mount

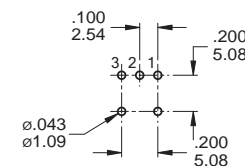
V2N Vertical bracket P.C. Mount with snap-in bracket

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

M6



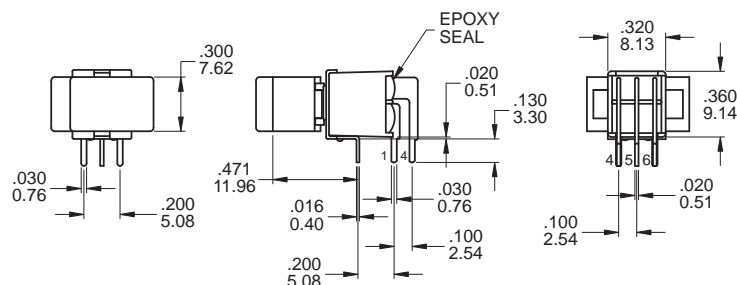
P.C. MOUNTING



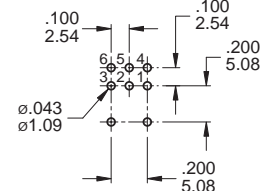
SPDT

Part No. Shown : 4AS1R202M6QES

M6



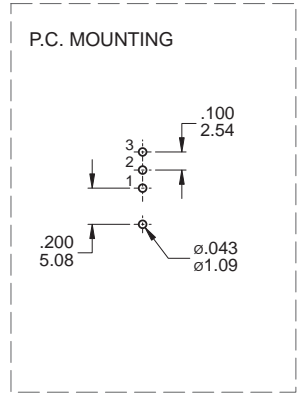
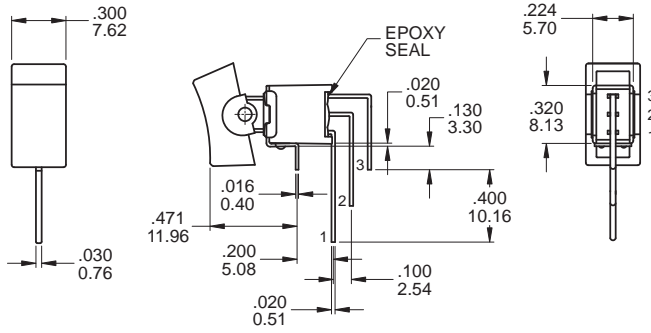
P.C. MOUNTING



DPDT

Part No. Shown : 4AD1R102M6QES

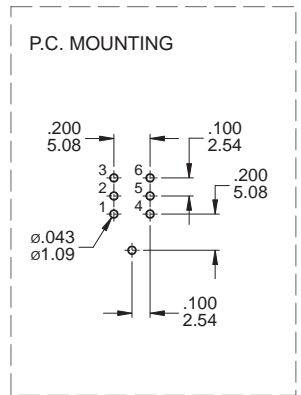
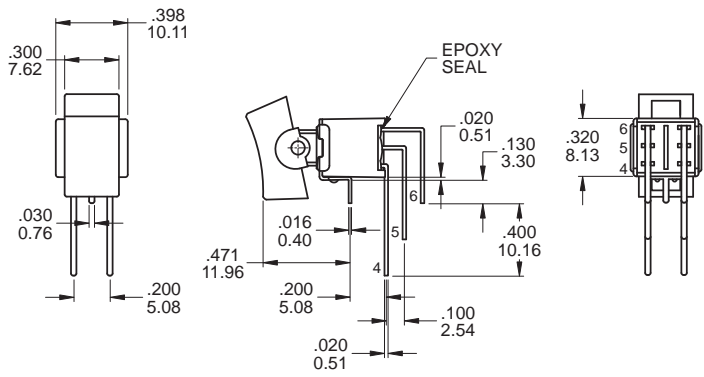
M7



SPDT

Part No. Shown : 4AS1R102M7RES

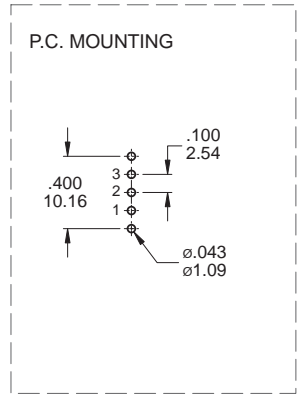
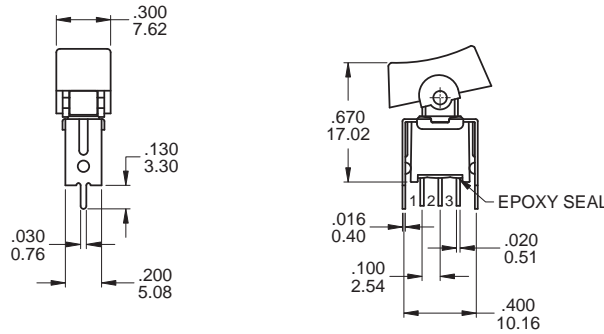
M7



DPDT

Part No. Shown : 4AD1R102M7RES

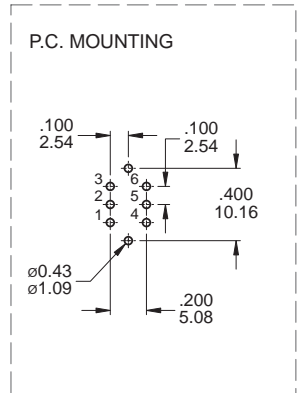
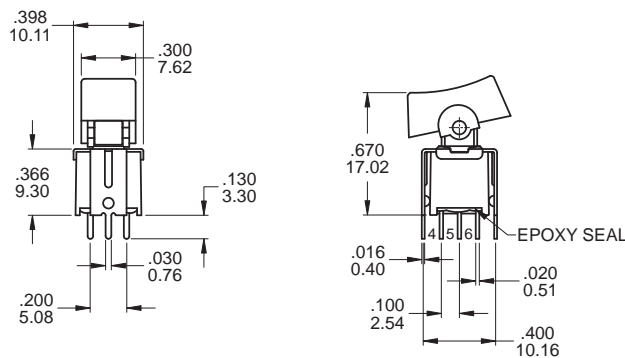
VS2



SPDT

Part No. Shown : 4AS1R102VS2RES

VS2



DPDT

Part No. Shown : 4AD1R102VS2QES

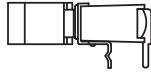
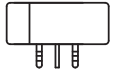


4A Series

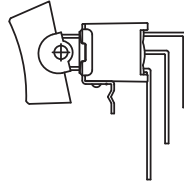
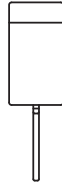
Sealed Sub-Miniature Rocker Switches

SNAP-IN TERMINATION OPTIONS

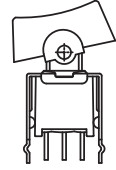
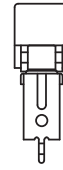
M6N



M7N



V2N



CONTACT MATERIAL OPTIONS

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



4A
Rocker Switches