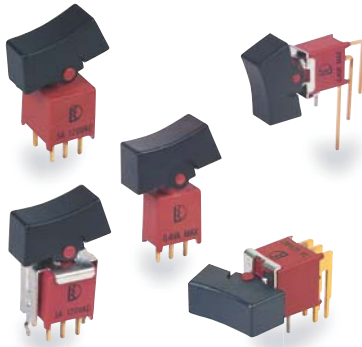


# 4A Series

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 73.

**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 73)



4A  
Rocker Switches

## HOW TO ORDER

MODEL NO.    ACTUATOR    ACTUATOR COLOR    CAP MARKING    TERMINATIONS    TERMINAL MATERIAL    SEAL    RoHS SOLDERING



Model NO.

**4AS1** SP On-None-On  
**4AS2** SP On-None-Mom.  
**4AS3** SP On-Off-On  
**4AS4** SP Mom.-Off-Mom.  
**4AS5** SP On-Off-Mom.  
**4AS6** SP Off-None-On  
**4AD1** DP On-None-On  
**4AD2** DP On-None-Mom.  
**4AD3** DP On-Off -On  
**4AD6** DP On-On-On

Actuator

**R1** (STD) Rocker, 7.62 wide  
**R2** (STD) Rocker, 5.84 wide  
**R4** Rocker 5.80 wide

Cap marking

1	
2	
5	
6	
7	
8	
9	
F	

Actuator color

ITEM NO	COLOR
1	White
2	Black (Std)
3	Red
4	Orange
5	Yellow
6	Green
7	Blue
8	Brown
9	Gray

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

Terminal material

**Q** Gold flash over silver  
**R** Gold  
**G** Gold, pure-tin  
**S** Gold flash over silver, pure-tin  
**C** Gold over silver  
**K** Gold over silver, pure-tin

Seal







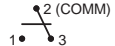
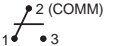
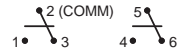
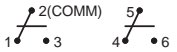

**E** EPOXY (std)

RoHS soldering

**□** RoHS Compliant  
**S** RoHS & Lead Free  
**F** Halogen Free+RoHS



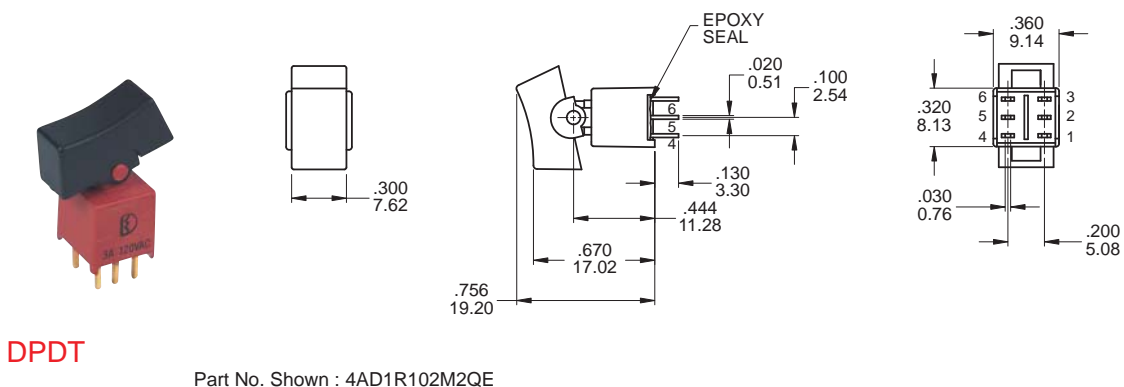
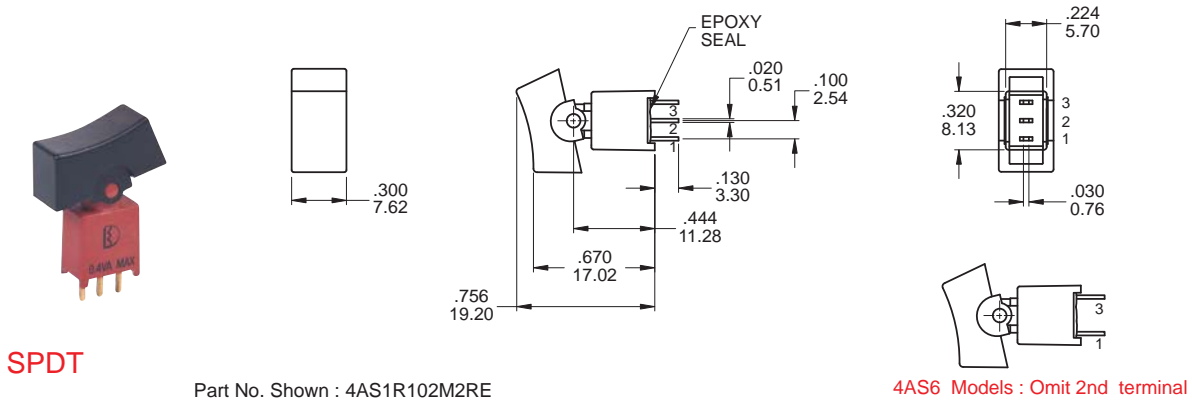
## SWITCH FUNCTION

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		N/A	
	Q24A12	4AS2	ON	NONE	MOM		OPEN	
	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		N/A	
	Q24A22	4AD2	ON	NONE	MOM		OPEN	
	Q24A23	4AD3	ON	OFF	ON			
		Q24A26	4AD6	ON	ON	ON	2-3,5-6	2-3,5-4

MOM=MOMENTARY

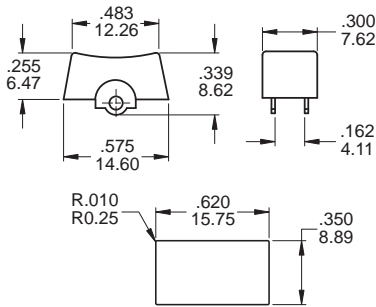
▲ Please check the availability in advance before order

## POLE OPTIONS



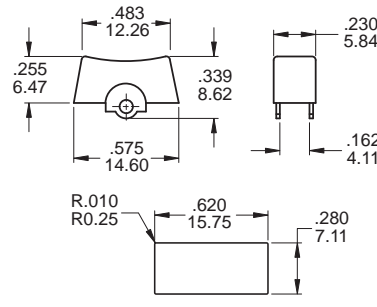
## ACTUATOR OPTIONS - PANEL MOUNT

**R1**



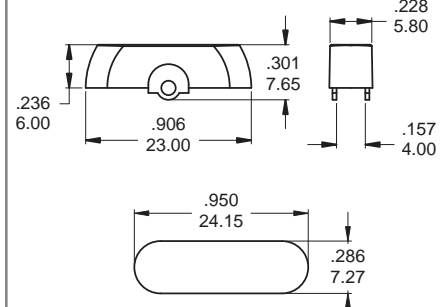
PANEL MOUNTING - R1

**R2**



PANEL MOUNTING - R2

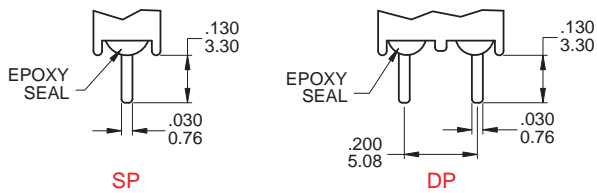
**R4**



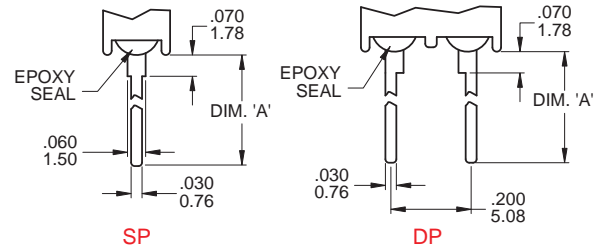
PANEL MOUNTING - R4

## TERMINATION OPTIONS

**M2 PC Thru-hole**



**M5 Wire Wrap**

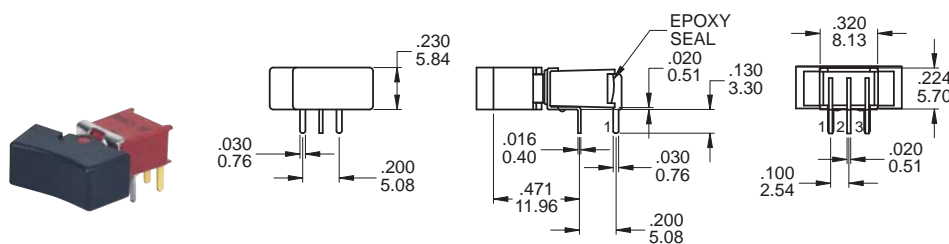


## OTHER TERMINATION OPTIONS

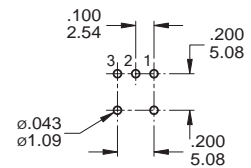
- M6** RIGHT ANGLE P.C. MOUNT
- M7** RIGHT ANGLE P.C. MOUNT
- VS2** VERTICAL BRACKET P.C. MOUNT
- VS3** VERTICAL BRACKET P.C. MOUNT

OPTION CODE	DIM. 'A'
M5-1	.614 ( 15.60 )
M5-2	.236 ( 6.00 )

**M6**



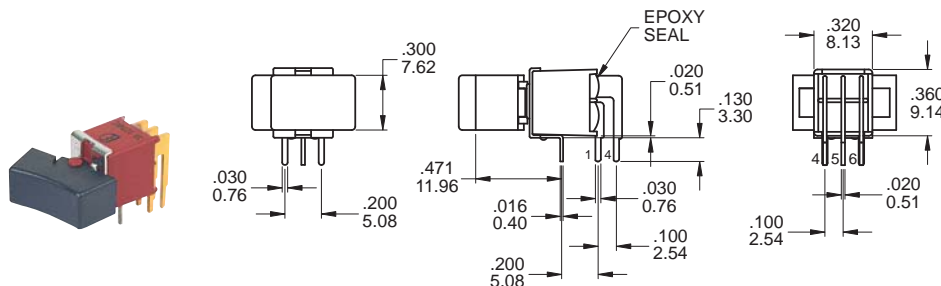
P.C. MOUNTING



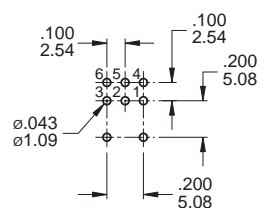
**SPDT**

Part No. Shown : 4AS1R202M6QE

**M6**



P.C. MOUNTING

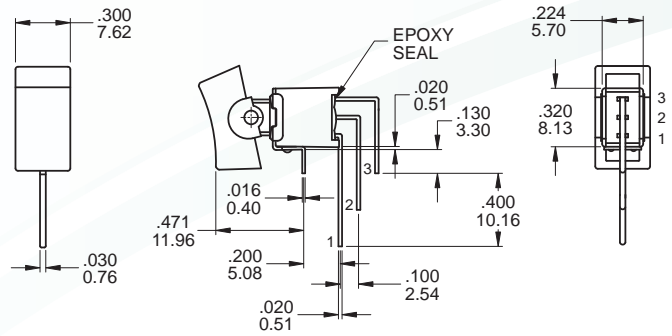


**DPDT**

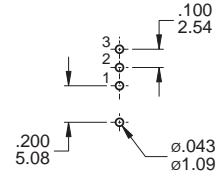
Part No. Shown : 4AD1R102M6QE



M7



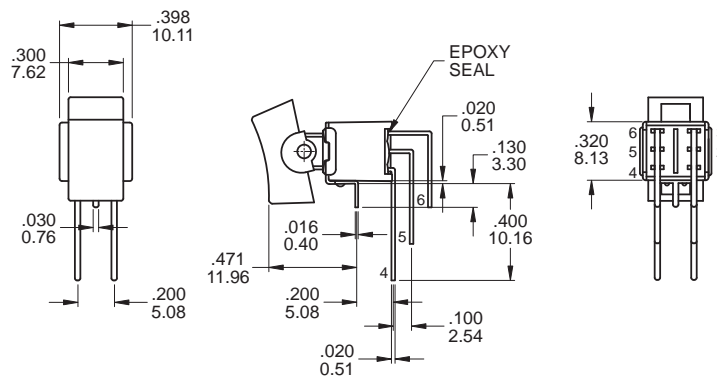
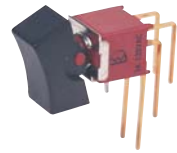
P.C. MOUNTING



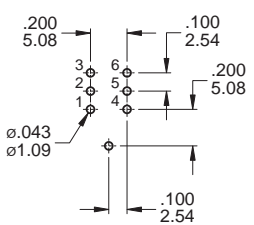
SPDT

Part No. Shown : 4AS1R102M7RE

M7



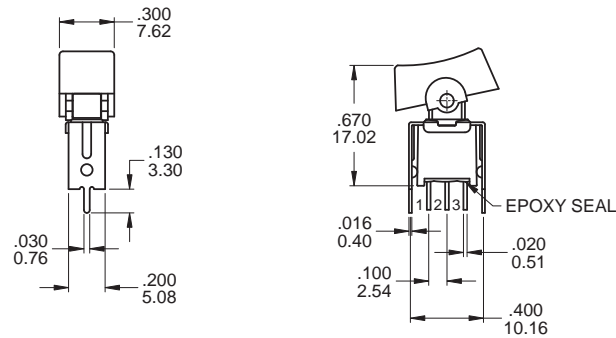
P.C. MOUNTING



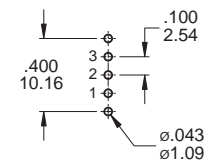
DPDT

Part No. Shown : 4AD1R102M7RE

VS2



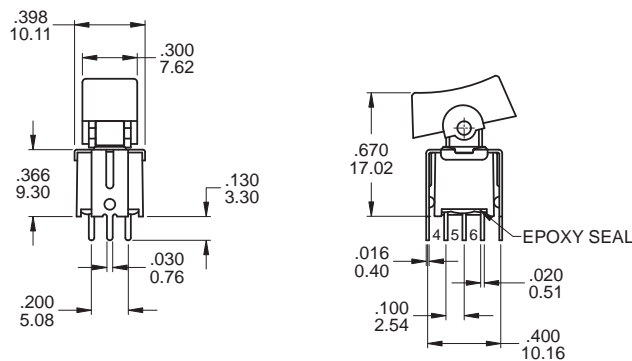
P.C. MOUNTING



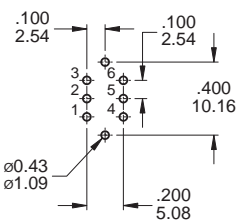
SPDT

Part No. Shown : 4AS1R102VS2RE

VS2



P.C. MOUNTING

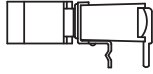
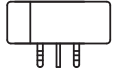


DPDT

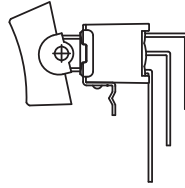
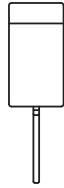
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## SNAP-IN TERMINATION OPTIONS

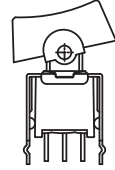
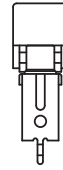
M6N



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 1 Amps with resistant load @ 250VAC
S		S = Gold flash over 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)