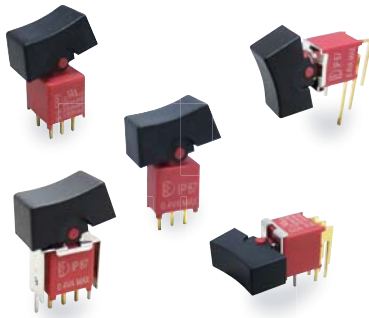




KSD

SWITCH CONNECTOR



KSD-4A
Rocker Switches

SPECIFICATIONS

CONTACT RATING: Dependent upon contact material, see page 73.

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

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

ACTUATOR: Black nylon, internal o-ring sealed.

SWITCH SUPPORT: Brass or steel, tin plated.

TERMINAL/CONTACT: Copper with silver or gold plated.
(See page 73)

HOW TO ORDER

MODEL NO.	ACTUATOR	ACTUATOR COLOR	ACTUATOR MARKING	TERMINAL TYPE	TERMINAL PLATING	SEAL	RoHS SOLDERING																																
SP 4AS1 ON-NONE-ON 4AS2 ON-NONE-(ON) 4AS3 ON-OFF-ON 4AS4 (ON)-OFF-(ON) 4AS5 ON-OFF-(ON) 4AS6 OFF-NONE-ON DP 4AD1 ON-NONE-ON 4AD2 ON-NONE-(ON) 4AD3 ON-OFF-ON	R1 (STD) Rocker, 7.62 wide R2 (STD) Rocker, 5.84 wide R4 Rocker 5.80 wide		<table border="1"> <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>J</td><td></td></tr> </table>	1		2		5		6		7		8		9		J		<table border="1"> <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>J</td><td></td></tr> </table>	1		2		5		6		7		8		9		J		M2 PC thru-hole M52 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 *	E EPOXY (std)	S RoHS & Lead Free
1																																							
2																																							
5																																							
6																																							
7																																							
8																																							
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			<table border="1"> <thead> <tr> <th>ITEM NO</th> <th>COLOR</th> </tr> </thead> <tbody> <tr><td>00</td><td>Without</td></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>09</td><td>Gray</td></tr> </tbody> </table>	ITEM NO	COLOR	00	Without	01	White	02	Black (Std)	03	Red	04	Orange	05	Yellow	06	Green	07	Blue	09	Gray	V -bracket VS2 8.94 high V2N 8.94 high, snap-in															
ITEM NO	COLOR																																						
00	Without																																						
01	White																																						
02	Black (Std)																																						
03	Red																																						
04	Orange																																						
05	Yellow																																						
06	Green																																						
07	Blue																																						
09	Gray																																						

**

* The terminal type of M6, M6N, M7, M7N are not suitable for 4AS6.

** Except standard color, for other colors information please consult sales representativity.

EXAMPLE:

4AS1R1□M2QES (STD)
 └─ Actuator color

4AS1R1□□M2QES
 └─ Actuator marking
 └─ Actuator color



KSD-4A Series

Sealed Sub-Miniature Rocker Switches

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

C₂ AU US
E 187490

RoHS
compliant

Pb
lead-free

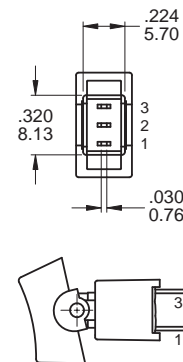
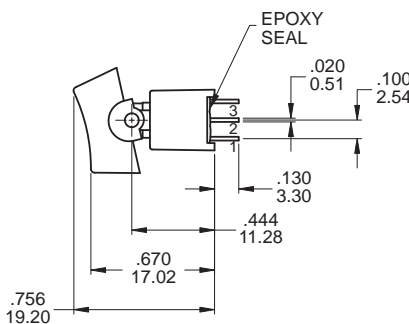
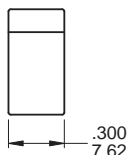
KSD-4A
Rocker Switches

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

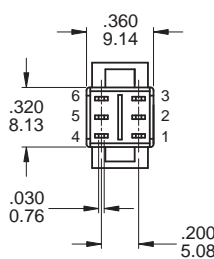
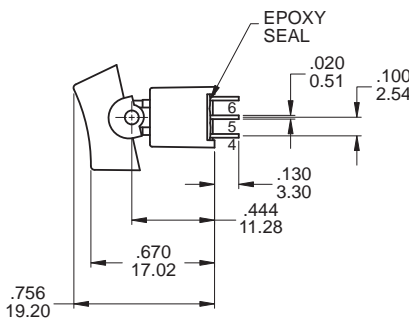
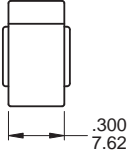
POLE OPTIONS



SPDT

Model name. KSD-4AS1R102M2RES

* 4AS6 Models : Omit terminal 2



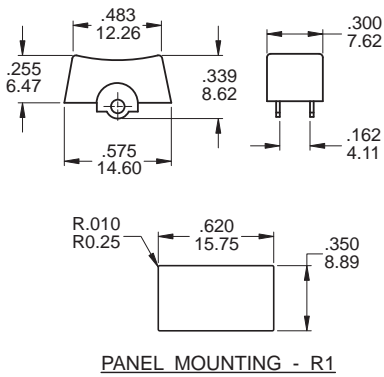
DPDT

Model name. KSD-4AD1R102M2QES

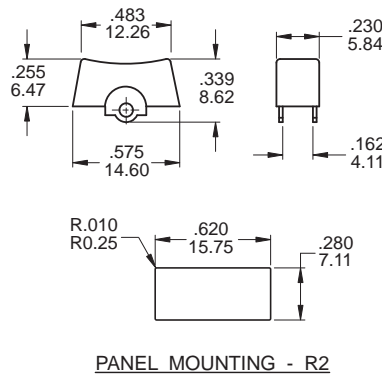


▼ ACTUATOR OPTIONS

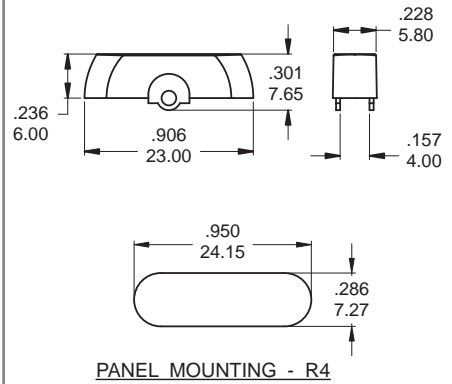
R1



R2

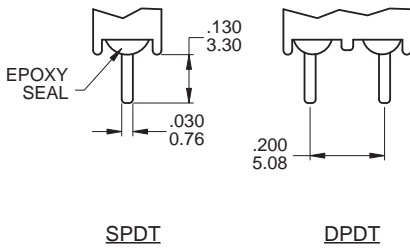


R4



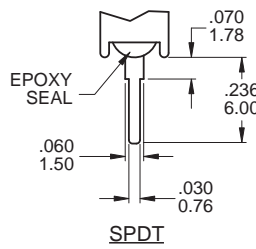
▼ TERMINAL OPTIONS

M2 PC Thru-hole



.020inch(0.51mm) THK.

M5 Wire wrap

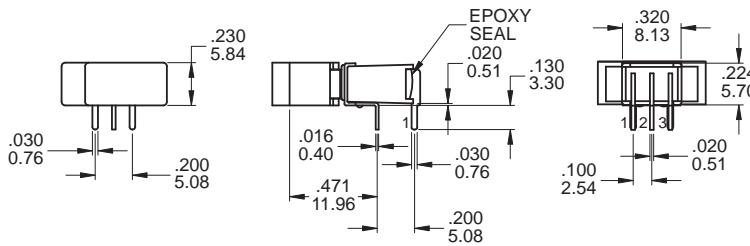


.020inch(0.51mm) THK.

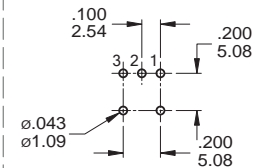
OTHER TERMINAL OPTIONS

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

M6 (M6N - Snap-in)



PCB MOUNTING

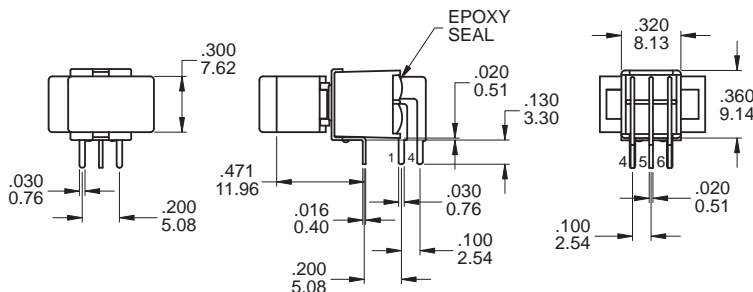


Note: Not available for 4AS6.

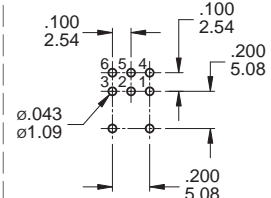
SPDT

Model name. KSD-4AS1R202M6QES

M6 (M6N - Snap-in)



PCB MOUNTING



Note: Not available for 4AS6.

DPDT

Model name. KSD-4AD1R102M6QES



KSD-4A Series

Sealed Sub-Miniature Rocker Switches

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

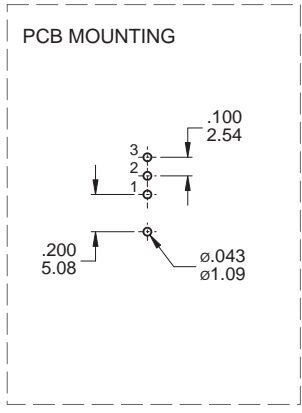
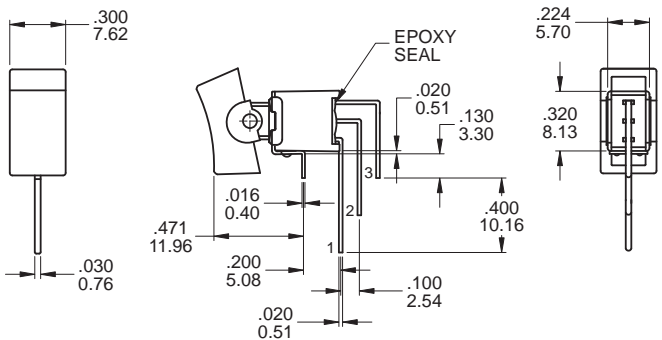
UL US
E 187490

RoHS
compliant

Pb
lead-free

KSD-4A
Rocker Switches

M7
(M7N - Snap-in)

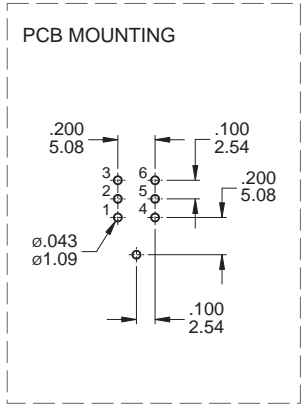
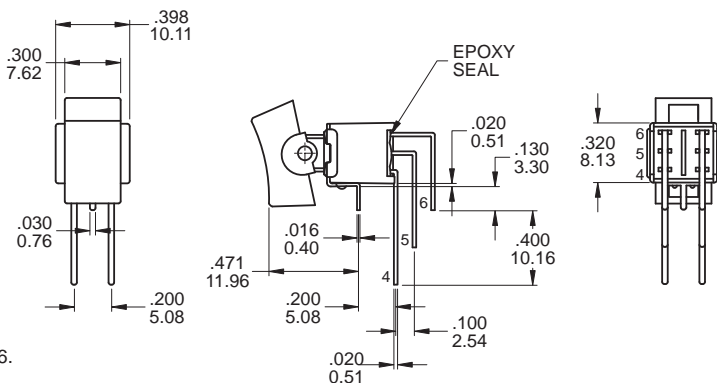


Note: Not available for 4AS6.

SPDT

Model name. KSD-4AS1R102M7RES

M7
(M7N - Snap-in)

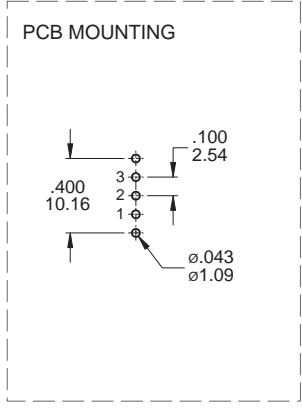
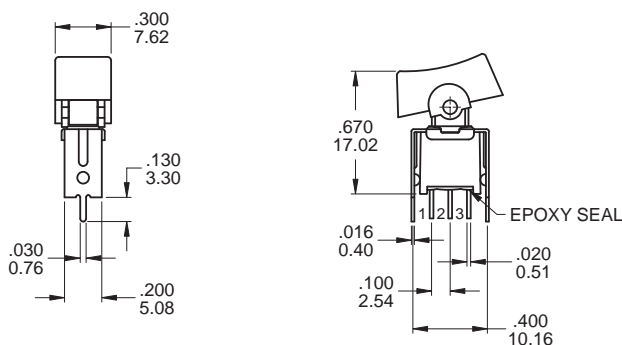


Note: Not available for 4AS6.

DPDT

Model name. KSD-4AD1R102M7RES

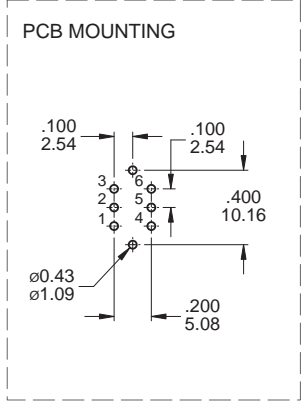
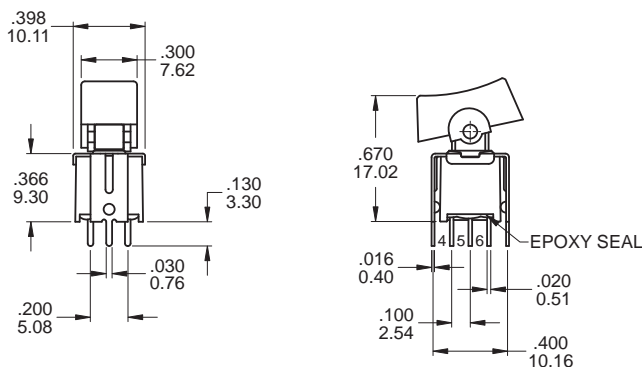
VS2
(V2N - Snap-in)



SPDT

Model name. KSD-4AS1R102VS2RES

VS2
(V2N - Snap-in)



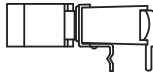
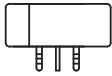
DPDT

Model name. KSD-4AD1R102VS2QES

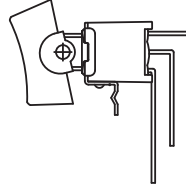
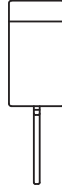


▼ SNAP-IN TERMINAL OPTIONS

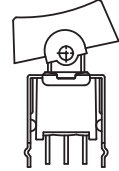
M6N



M7N



V2N



Note: The terminal type of M6N, M7N are not suitable for 4AS6.

▼ CONTACT & TERMINAL PLATING OPTIONS

	CONTACT PLATING	TERMINAL PLATING	RATINGS
Q	Silver	Gold flash over 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)