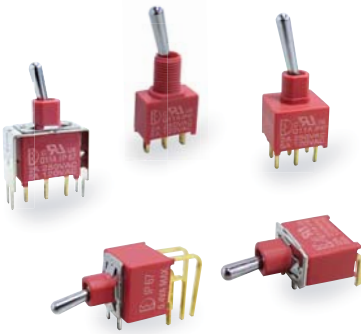




# KSD

SWITCH CONNECTOR



## SPECIFICATIONS

**CONTACT RATING:** Dependent upon contact material, see page 17.

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

**CONTACT RESISTANCE:** 10 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 & BUSHING:** Glass filled nylon 6/6, flame retardant, heat stabilized (UL94v-0).

**ACTUATOR:** Brass with chrome plated, internal o-ring sealed.

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

**SWITCH SUPPORT RETAINER:** Stainless steel.

**CONTACT / TERMINALS:** Copper with silver or gold plated.

(See page 17)

## HOW TO ORDER

MODEL NO.	ACTUATOR	BUSHING	TERMINAL TYPE	TERMINAL PLATING	SEAL	RoHS SOLDERING
<b>SP</b>					<b>E</b> EPOXY (std)	<b>S</b> RoHS & Lead Free
1AS1 ON-NONE-ON	<b>T1</b> 12.70 high					
1AS2 ON-NONE-(ON)	<b>T2</b> 7.62 high					
1AS3 ON-OFF-ON	<b>TA</b> Plastic,black 12.70 high			<b>Q</b> Gold flash over silver		
1AS4 (ON)-OFF-(ON)	<b>TB</b> Plastic,black 7.62 high			<b>R</b> Gold		
1AS5 ON-OFF-(ON)	<b>TC</b> Plastic,silver 12.70 high			<b>C</b> Gold over silver		
<b>DP</b>			<b>B1</b> 8.80 high	<b>M1</b> Solder Lug		
1AD1 ON-NONE-ON			<b>B4</b> 6.10 high	<b>M2</b> PC thru-hole		
1AD2 ON-NONE-(ON)				<b>M51</b> 18.70 high, wire wrap		
1AD3 ON-OFF-ON				<b>M52</b> 24.20 high, wire wrap		
1AD4 (ON)-OFF-(ON)				<b>M53</b> 10.55 high, wire wrap		
1AD5 ON-OFF-(ON)				<b>M54</b> 26.97 high, wire wrap		
1AD6 ON-ON-ON				<b>M6</b> Right angle, PC thru-hole *		
1AD7 (ON)-ON-(ON) ▲				<b>M6N</b> Right angle, snap-in, PC thru-hole *		
1AD8 ON-ON-(ON) ▲				<b>M7</b> Vertical right angle, PC thru-hole *		
<b>3P</b>				<b>V-bracket</b>		
1A31 ON-NONE-ON				<b>VS2</b> 11.68 high *		
1A32 ON-NONE-(ON)				<b>V2N</b> 11.68 high, snap-in. *		
1A33 ON-OFF-ON				<b>VS3</b> 16.00 high *		
1A34 (ON)-OFF-(ON)						
1A35 ON-OFF-(ON) ▲						

▲ Please confirm the availability before order.

\* Only available for B4 bushing.

EXAMPLE: KSD-1AS1T1B1M1QES



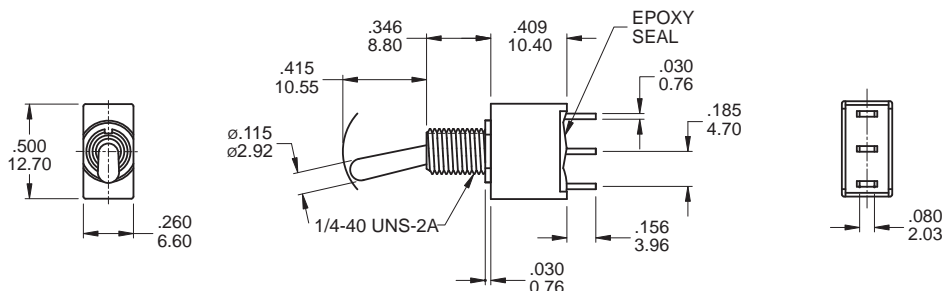
▼ SWITCH FUNCTION

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	Q11A11	1AS1	ON	NONE	ON		N/A	
	Q11A12	1AS2	ON	NONE	(ON)			
	Q11A13	1AS3	ON	OFF	ON			
	Q11A14	1AS4	(ON)	OFF	(ON)			
	Q11A15	1AS5	ON	OFF	(ON)			
DP	Q11A21	1AD1	ON	NONE	ON		N/A	
	Q11A22	1AD2	ON	NONE	(ON)			
	Q11A23	1AD3	ON	OFF	ON			
	Q11A24	1AD4	(ON)	OFF	(ON)			
	Q11A25	1AD5	ON	OFF	(ON)			
	▲ Q11A27	1AD7	(ON)	ON	(ON)			
	▲ Q11A28	1AD8	ON	ON	(ON)			
	3P	Q11A31	1A31	ON	NONE			
Q11A32		1A32	ON	NONE	(ON)			
Q11A33		1A33	ON	OFF	ON			
Q11A34		1A34	(ON)	OFF	(ON)			
▲ Q11A35		1A35	ON	OFF	(ON)			

( ) = MOMENTARY

▲ Please confirm the availability before order.

▼ POLE OPTIONS

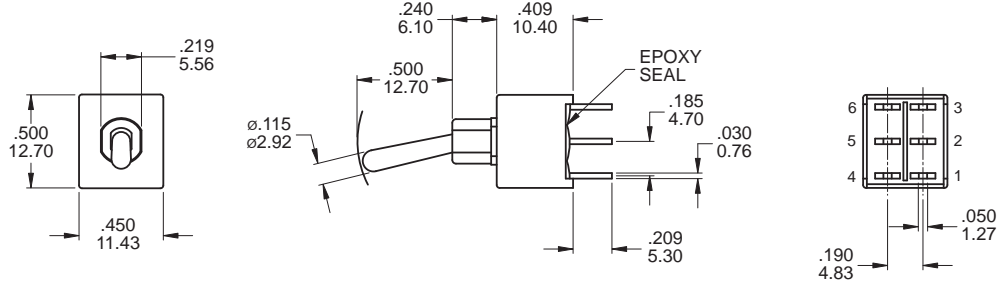


**SPDT**

Model name. KSD-1AS1T1B1M1QES

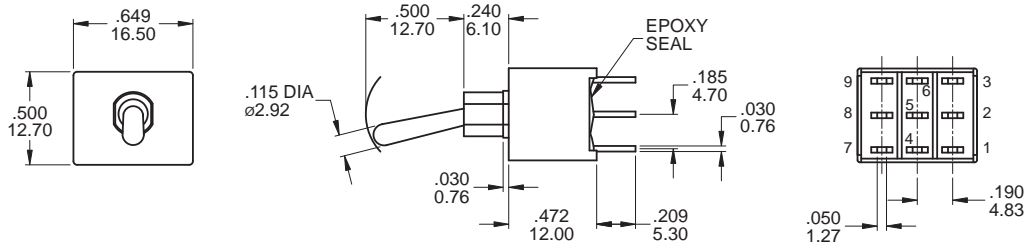


KSD-1A  
Toggle Switches



**DPDT**

Model name. KSD-1AD1T1B4M2QES



**3PDT**

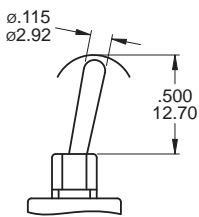
Model name. KSD-1A31T1B4M2QES

## ACTUATOR OPTIONS

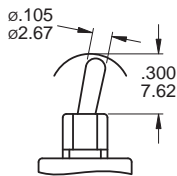
Actuator are shown with Bushing B4(standard)

Note: For B1 Bushing: - .085inch(2.15mm)

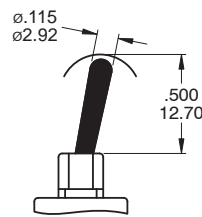
**T1**



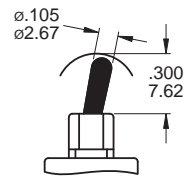
**T2**



**TA**



**TB**

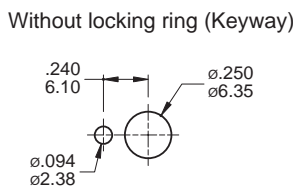
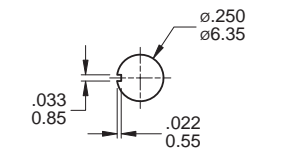
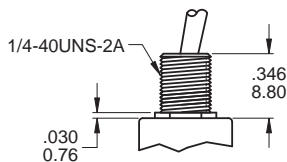


PLASTIC ACTUATOR  
(TC,Silver)

## BUSHING OPTIONS

**B1**

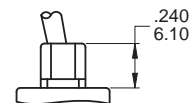
Note: Standard for terminal M1.



With standard locking ring.

**B4**

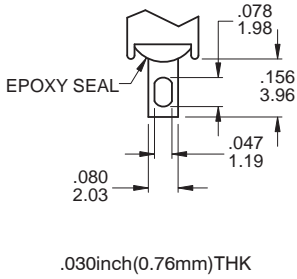
Note: Standard for terminal M2, M6, M7, VS.



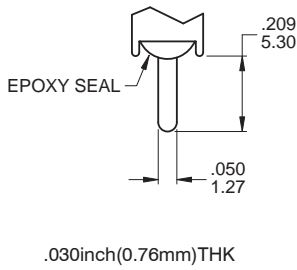


## ▼ TERMINAL OPTIONS

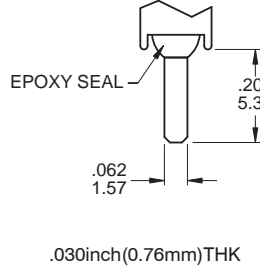
### M1 Solder lug



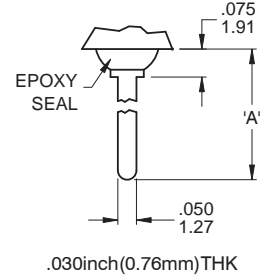
### M2 PC Thru-hole



### M3 Quick connect



### M5 Wire Wrap



## ▼ OTHER TERMINAL OPTIONS

**M6** Right angle P.C. Mount

**M7** Vertical right angle P.C. Mount

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

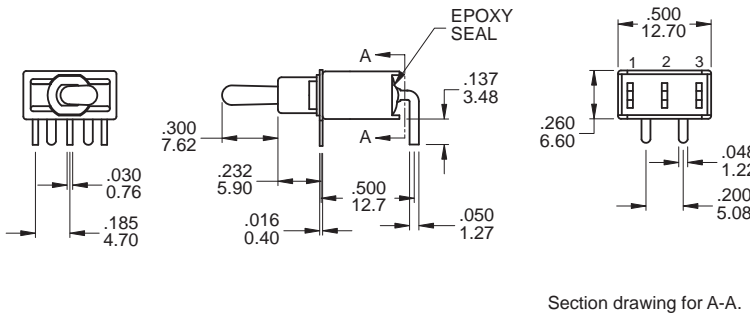
**VS3** Vertical bracket P.C. Mount

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

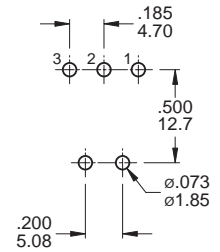
**V2N** Vertical bracket P.C. Mount  
with snap-in bracket

OPTION CODE	DIM. 'A'
M51	.736 ( 18.70 )
M52	.953 ( 24.20 )
M53	.415 ( 10.55 )
M54	1.062 ( 26.97 )

### KSD-M6 (M6N - Snap-in)



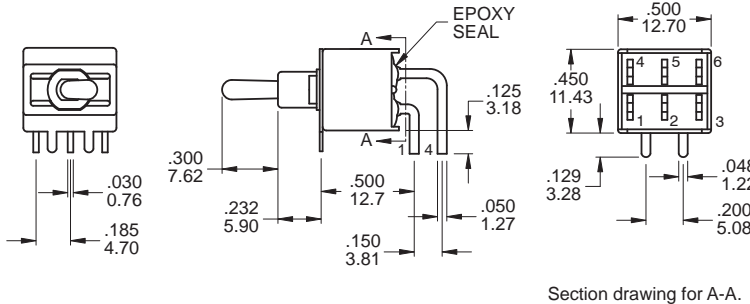
#### PCB MOUNTING



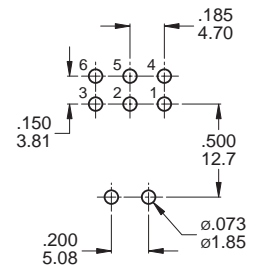
**SPDT**

Model name. KSD-1AS1T2B4M6QES

### KSD-M6



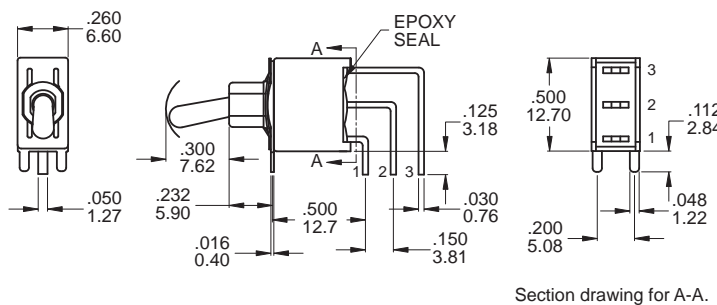
#### PCB MOUNTING



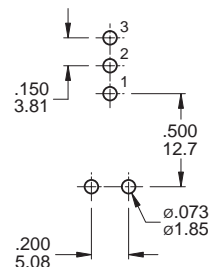
**DPDT**

Model name. KSD-1AD1T2B4M6QES

### KSD-M7



#### PCB MOUNTING

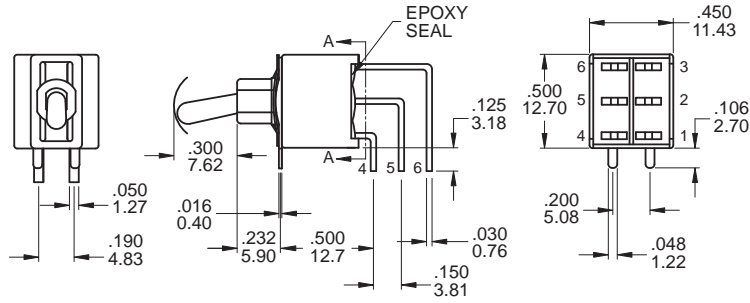
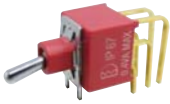


**SPDT**

Model name. KSD-1AS1T2B4M7RES

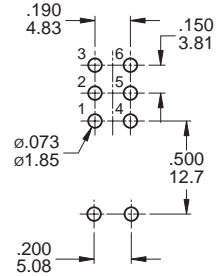


## KSD-M7



Section drawing for A-A.

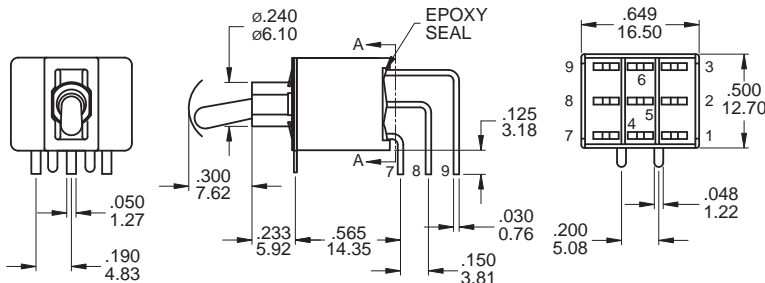
### PCB MOUNTING



### DPDT

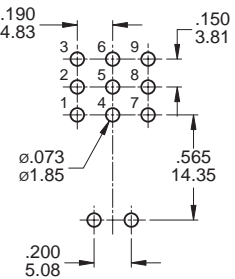
Model name. KSD-1AD1T2B4M7RES

## KSD-M7



Section drawing for A-A.

### PCB MOUNTING

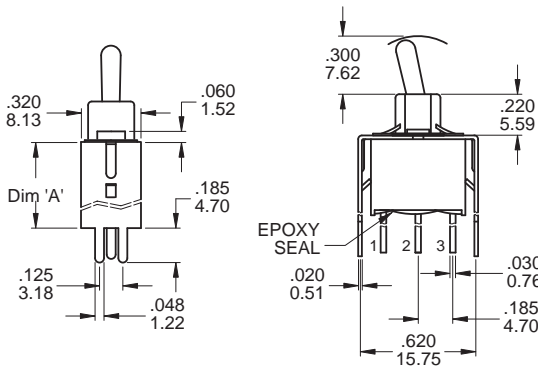


### 3PDT

Model name. KSD-1A31T2B4M7QES

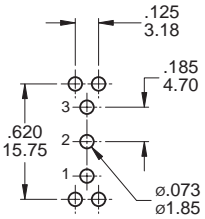
## KSD-VS2 / VS3

(V2N - Snap-in)



OPTION CODE	DIM. 'A'
VS2 (V2N)	.460 11.68
VS3	.630 16.00

### PCB MOUNTING

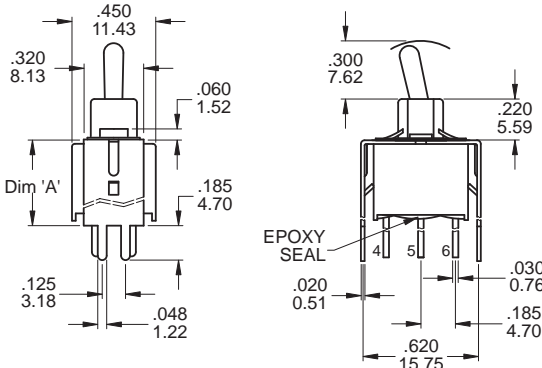


### SPDT

Model name. KSD-1AS1T2B4VS2QES

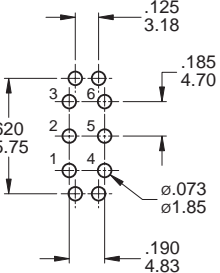
## KSD-VS2 / VS3

(V2N - Snap-in)



OPTION CODE	DIM. 'A'
VS2 (V2N)	.460 11.68
VS3	.630 16.00

### PCB MOUNTING

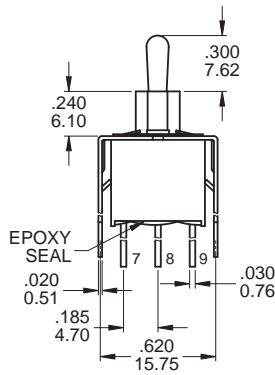
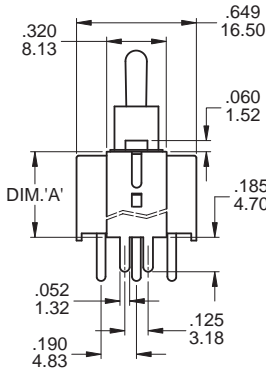


### DPDT

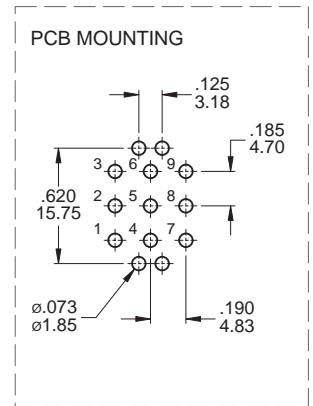
Model name. KSD-1AD1T2B4VS2QES



## KSD-VS2 / VS3 (V2N - Snap-in)



OPTION CODE	DIM. 'A'
VS2 (V2N)	.460 11.68
VS3	.630 16.00

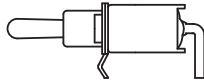


**3PDT**

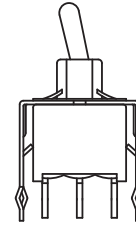
Model name. KSD-1A31T2B4VS2QES

### ▼ SNAP-IN TERMINAL OPTIONS

**M6N**



**V2N**



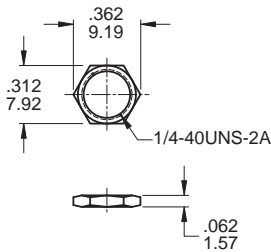
### ▼ HARDWARE

EXAMPLE:  -   
Model name.  5 Standard hardware

\* Standard Hardware: 2 nut, 1 locking ring, 1 lockwasher

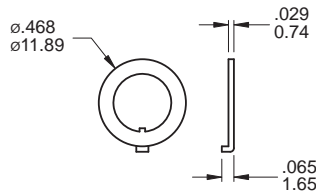
**1/4 NUT (Std.)**

Model name. MNU-1M01A



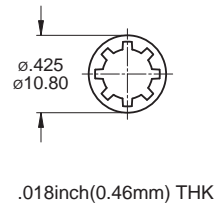
**LOCKING RING (Std.)**

Model name. MNU-1M02



**LOCKWASHER (Std.)**

Model name. MNU-1M03



### ▼ CONTACT & TERMINAL PLATING OPTIONS

	CONTACT PLATING	TERMINAL PLATING	RATINGS
<b>Q</b>	Silver	Gold flash over silver	5 Amps with resistant load @ 120VAC or 28VDC 2 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 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)