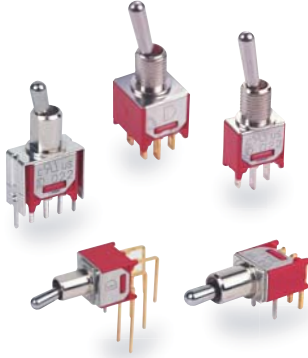




KSD

SWITCH CONNECTOR



SPECIFICATIONS

- CONTACT RATING:** Dependent upon contact material, see page 29.
MECHANICAL LIFE: 30,000 make-and-break cycles.
CONTACT RESISTANCE: 20 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:** Diallyl phthalate (DAP) (UL94v-0).
ACTUATOR: Brass, chrome plated.
BUSHING: Brass or zinc, nickel plated.
HOUSING: Stainless Steel.
SWITCH SUPPORT: Brass, tin plated.
TERMINAL/CONTACT: Brass or copper with silver or gold plated.

(See page 29)

HOW TO ORDER

MODEL NO.	ACTUATOR	BUSHING	TERMINAL TYPE	TERMINAL PLATING	SEAL	RoHS SOLDERING
SP	T1 9.40 high	B1 5.59 high,flat (thd)		Q Silver	E EPOXY (std)	S RoHS & Lead Free
2MS1 ON-NONE-ON	T2 5.33 high	B2 5.59 high,flat (non-thd)		R Gold	N NO EPOXY	
2MS2 ON-NONE-(ON)	T3 7.37 high	B3 5.59 high,keyway (thd)		C Gold over silver		
2MS3 ON-OFF-ON	T4 10.41 high	B4 5.59 high,keyway (non-thd)				
2MS4 (ON)-OFF-(ON)	T5 5.59 high	B5 7.87 high,flat (thd)				
2MS5 ON-OFF-(ON)	<u>Locking lever</u>	B6 7.87 high,flat (non-thd)				
2MS6 OFF-NONE-ON	TL1 16.00 high	B7 6.60 high,keyway (thd)				
	TL2 16.26 high	B8 6.60 high,keyway (non-thd)				
DP		<u>Locking</u>				
2MD1 ON-NONE-ON		B25 8.00 high,keyway, (thd) *		M1 Solder Lug		
2MD2 ON-NONE-(ON)				M2 PC thru-hole		
2MD3 ON-OFF-ON				M51 15.24 high, wire wrap		
2MD6 ON-ON-ON ▲				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 **		
				<u>V-bracket</u>		
				VS2 V-bracket		
				V2N Snap-in V-bracket		
				VS3 V-bracket		
				V3N Snap-in V-bracket		

▲ Please confirm the availability before order.

* Only available for Locking lever.
 ** The terminal type of M6, M6N, M7, M7N are not suitable for 2MS6.

EXAMPLE: 2MS1T1B1M1QES



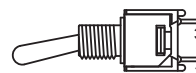
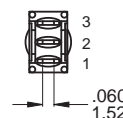
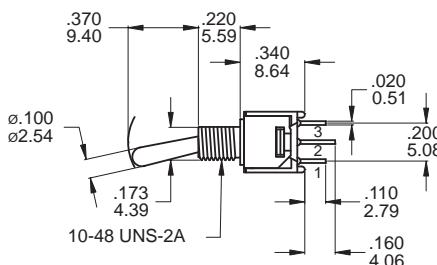
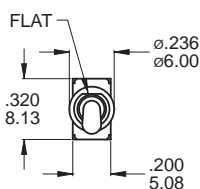
▼ SWITCH FUNCTION

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	Q2211	2MS1	ON	NONE	ON	2-3	N/A	2-1
	Q2212	2MS2	ON	NONE	(ON)			
	Q2213	2MS3	ON	OFF	ON	2 (COMM) 	OPEN	2 (COMM)
	Q2214	2MS4	(ON)	OFF	(ON)			
	Q2215	2MS5	ON	OFF	(ON)	OPEN	N/A	3-1
	Q2216	2MS6*	OFF	NONE	ON			
DP	Q2221	2MD1	ON	NONE	ON	2-3,5-6	N/A	2-1,5-4
	Q2222	2MD2	ON	NONE	(ON)			
	Q2223	2MD3	ON	OFF	ON	2 (COMM) 5 	OPEN	2 (COMM) 5
	▲ Q2226	2MD6	ON	ON	ON			

()=MOMENTARY

▲ Please confirm the availability before order.

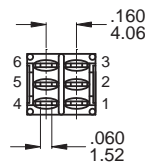
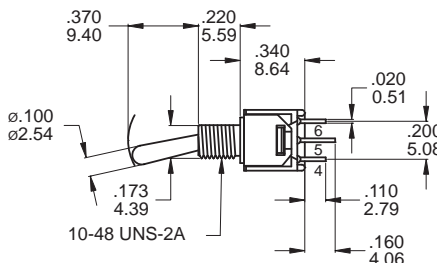
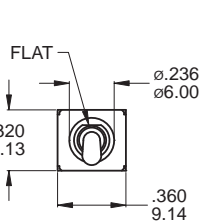
▼ POLE OPTIONS



SPDT

Model name. KSD-2MS1T1B1M1QES

* 2MS6 Models: Omit terminal 2



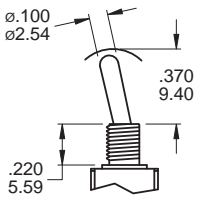
DPDT

Model name. KSD-2MD1T1B1M1RES

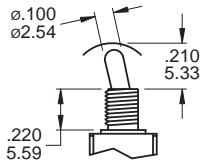


▼ ACTUATOR OPTIONS

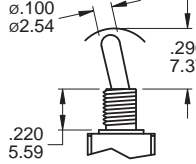
T1



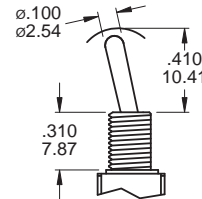
T2



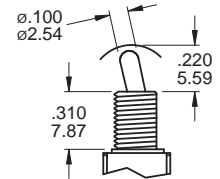
T3



T4



T5



Note:

1. Above schematic T1, T2, T3 are shown with Bushing B1-B4.

For B5 Bushing: - .090inch(2.29mm)

For B7 Bushing: - .040inch(1.02mm)

2. T4, T5 Actuator are shown with Bushing B5, B6.

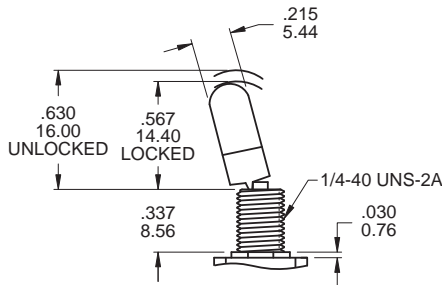
For B1-B3 Bushing: +.090inch(2.29mm)

For B7 Bushing: +.050inch(1.27mm)

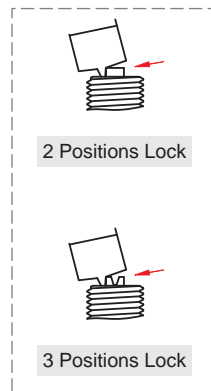
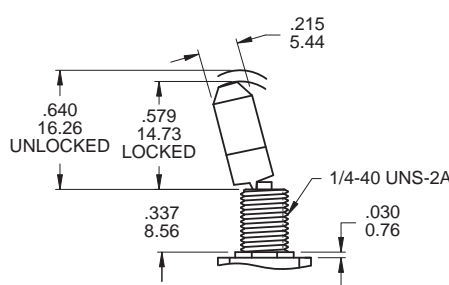
3. T1~T5 Actuator are shown with Terminal M1 and M2.

For M6, M7, VSX: - .016inch(0.40mm)

TL1B25

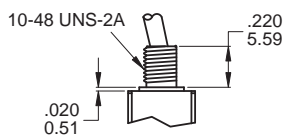
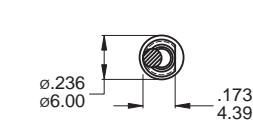


TL2B25

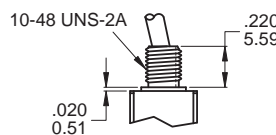
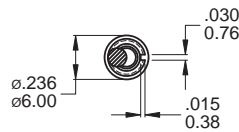


▼ BUSHING OPTIONS

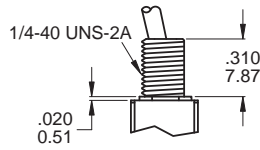
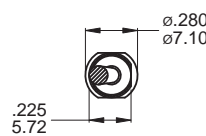
**B1 THD
B2 NON-THD**



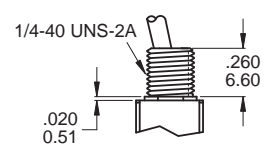
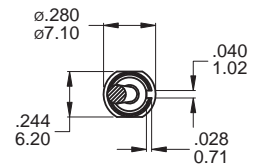
**B3 THD
B4 NON-THD**



**B5 THD
B6 NON-THD**

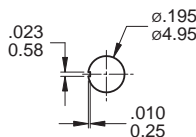


**B7 THD
B8 NON-THD**

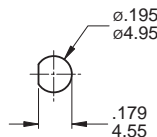


▼ PANEL MOUNTING

10-48 BUSHING



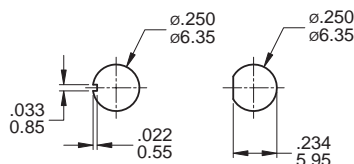
Keyway



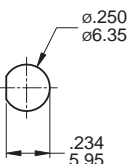
Flat

Without locking ring

1/4 IN BUSHING

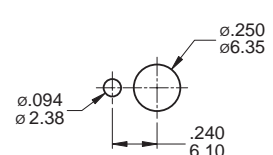


Keyway



Flat

Without locking ring

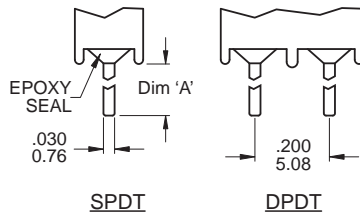
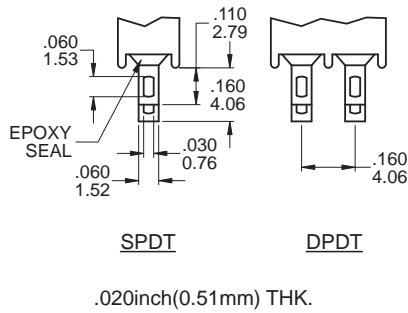


With standard locking ring



▼ TERMINAL OPTIONS

M1 Solder lug



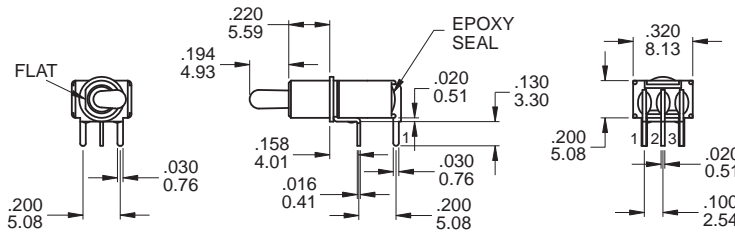
.020inch(0.51mm) THK.

TERMINAL	DIM. 'A'
M2 PC Thru-hole	.130 (3.30)
M51 Wire Wrap	.600 (15.24)

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-VS3** Vertical bracket P.C. Mount
- V2N-V3N** Vertical bracket P.C. Mount
Snap-in bracket

M6 (M6N - Snap-in)

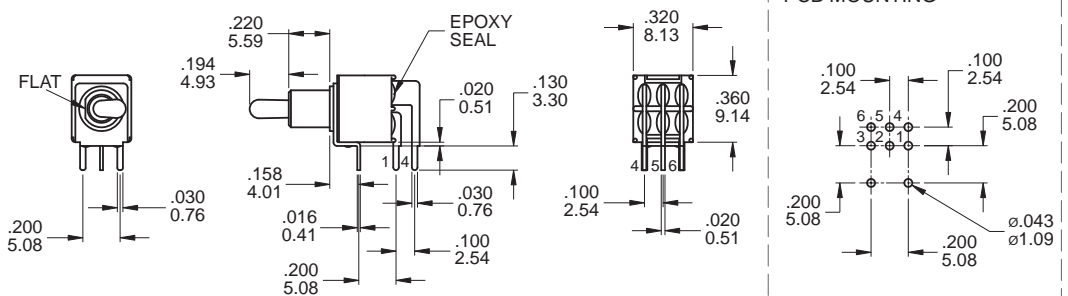


Note: Not available for 2MS6.

SPDT

Model name. KSD-2MS1T2B2M6RES

M6

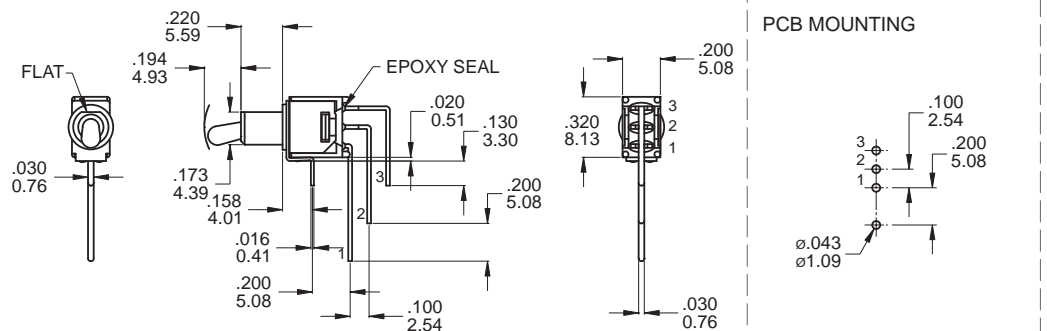


Note: Not available for 2MS6.

DPDT

Model name. KSD-2MD1T2B2M6QES

M7 (M7N - Snap-in)



Note: Not available for 2MS6.

SPDT

Model name. KSD-2MS1T2B2M7RES



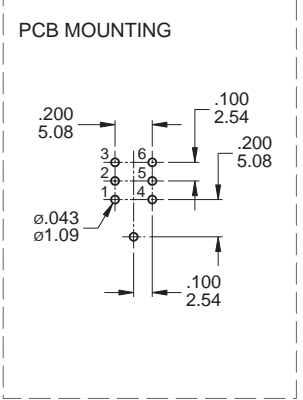
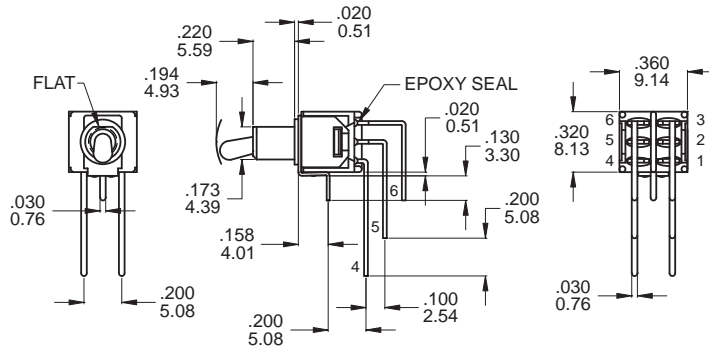
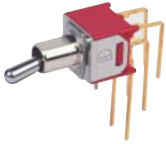
KSD-2M Series

Sub-Miniature Toggle Switches



KSD-2M
Toggle Switches

M7 (M7N - Snap-in)

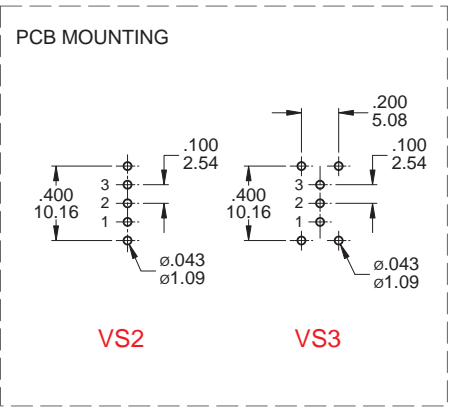
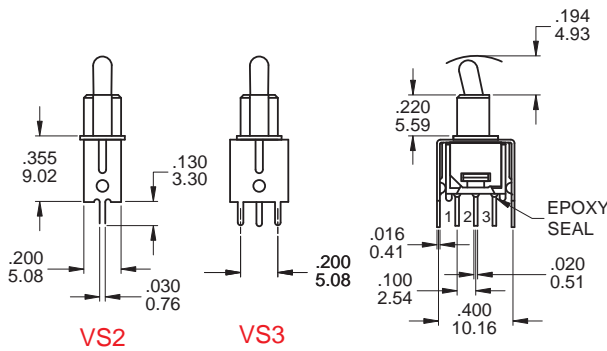


Note: Not available for 2MS6.

DPDT

Model name. KSD-2MD1T2B2M7RES

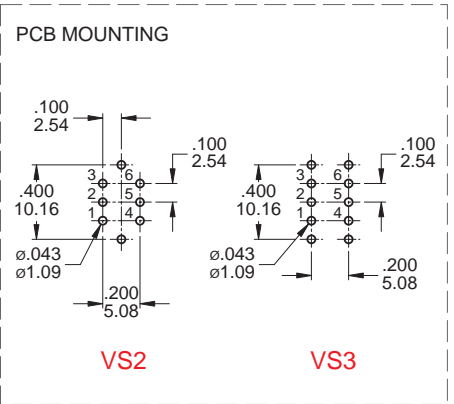
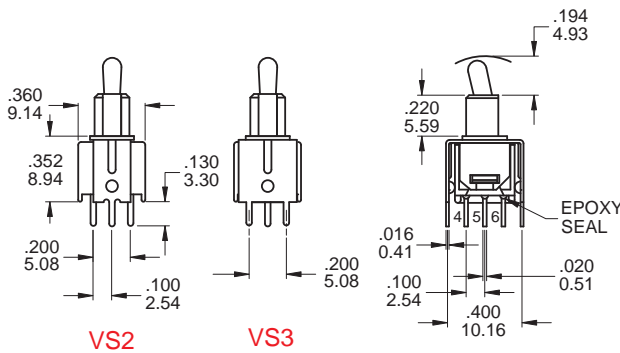
VS2 / VS3 (V2N / V3N - Snap-in)



SPDT

Model name. KSD-2MS1T2B2VS2QES

VS2 / VS3 (V2N / V3N - Snap-in)

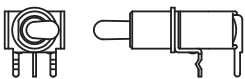


DPDT

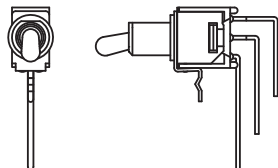
Model name. KSD-2MD1T2B2VS2QES

▼ SNAP-IN TERMINAL OPTIONS

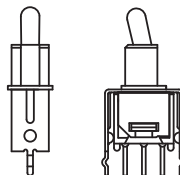
M6N



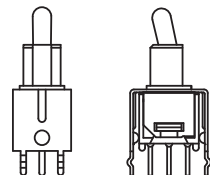
M7N



V2N



V3N



Note: The terminal type of M6N, M7N are not suitable for 2MS6.



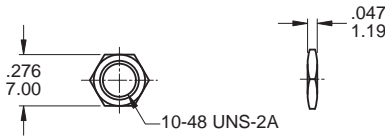
▼ **HARDWARE**

EXAMPLE: -
Model name. 5 Standard hardware

* Standard Hardware: 10-48 Bushing: 2 nut, 1 lockwasher
1/4-40 Bushing: 2 nut, 1 locking ring, 1 lockwasher

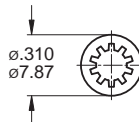
10-48 NUT (Std.)

Model name. MNU-2M01



LOCKWASHER (Std.)

Model name. MNU-2M03

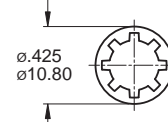


.018inch(0.46mm)THK

Available with bushing B1, B3 only.

LOCKWASHER (Std.)

Model name. MNU-1M03

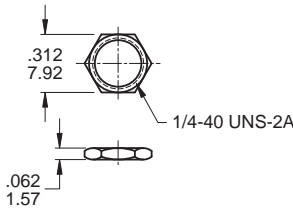


.018inch(0.46mm)THK

Available with bushing B5, B7 only.

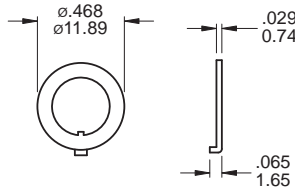
1/4 NUT (Std.)

Model name. MNU--1M01A



LOCKING RING (Std.)

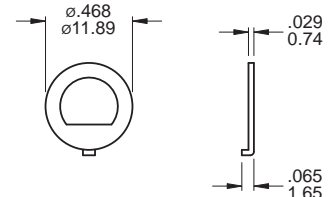
Model name. MNU-1M02



Available with bushing B7 only.

LOCKING RING (Std.)

Model name. MNU-1M11



Available with bushing B5 only.

▼ **CONTACT & TERMINAL PLATING OPTIONS**

	CONTACT PLATING	TERMINAL PLATING	RATINGS
Q	Silver	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)