

### 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
TGS04-S1 ON-NONE-ON	T2 5.33 high	B2 5.59 high, flat (non-thd)		R Gold	N NO EPOXY	
TGS04-S2 ON-NONE-(ON)	T3 7.37 high	B3 5.59 high, keyway (thd)		C Gold over silver		
TGS04-S3 ON-OFF-ON	T4 10.41 high	B4 5.59 high, keyway (non-thd)				
TGS04-S4 (ON)-OFF-(ON)	T5 5.59 high	B5 7.87 high, flat (thd)				
TGS04-S5 ON-OFF-(ON)	<u>Locking lever</u>	B6 7.87 high, flat (non-thd)				
TGS04-S6 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>				
TGS04-D1 ON-NONE-ON		B25 8.00 high, keyway, (thd) *		M1 Solder Lug		
TGS04-D2 ON-NONE-(ON)				M2 PC thru-hole		
TGS04-D3 ON-OFF-ON				M51 15.24 high, wire wrap		
TGS04-D6 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.







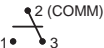
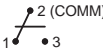


\* Only available for Locking lever.

\*\* The terminal type of M6, M6N, M7, M7N are not suitable for 2MS6.

EXAMPLE: TGS04-S1T1B1M1QES



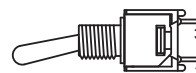
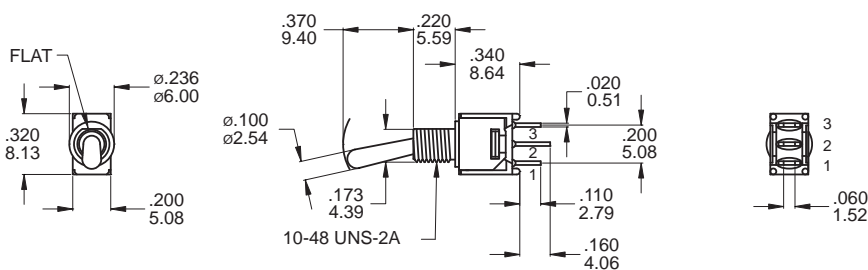
## ▼ SWITCH FUNCTION

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	TGS04-S1	ON	NONE	ON	<div>2-3</div> 	N/A	<div>2-1</div> 
	Q2212	TGS04-S2	ON	NONE	(ON)			
	Q2213	TGS04-S3	ON	OFF	ON			
	Q2214	TGS04-S4	(ON)	OFF	(ON)			
	Q2215	TGS04-S5	ON	OFF	(ON)			
	Q2216	TGS04-S6	OFF	NONE	ON	OPEN	N/A	3-1
DP	Q2221	TGS04-D1	ON	NONE	ON	2-3,5-6	N/A	2-1,5-4
	Q2222	TGS04-D2	ON	NONE	(ON)			OPEN
	Q2223	TGS04-D3	ON	OFF	ON			
		Q2226	TGS04-D6	ON	ON	ON	2-3,5-6	2-3,5-4

( )=MOMENTARY

▲ Please confirm the availability before order.

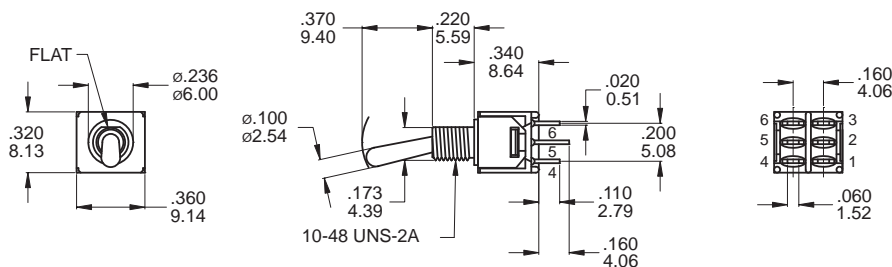
## ▼ POLE OPTIONS



SPDT

Model name. TGS04-S1T1B1M1QES

\* TGS04-S6 Models: Omit terminal 2



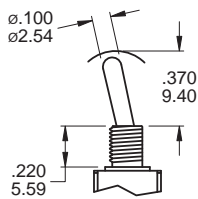
DPDT

Model name. TGS04-D1T1B1M1RES

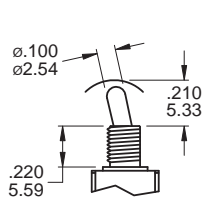


### ▼ ACTUATOR OPTIONS

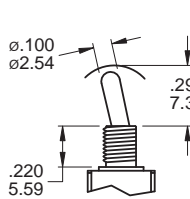
**T1**



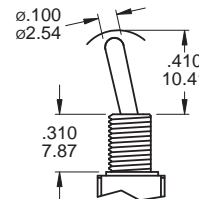
**T2**



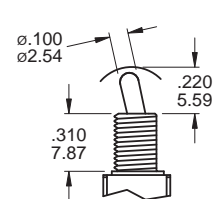
**T3**



**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.

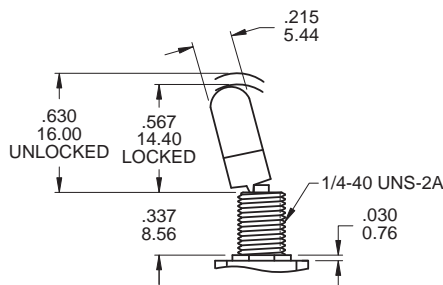
For B1-B3 Bushing: +.090inch(2.29mm)

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

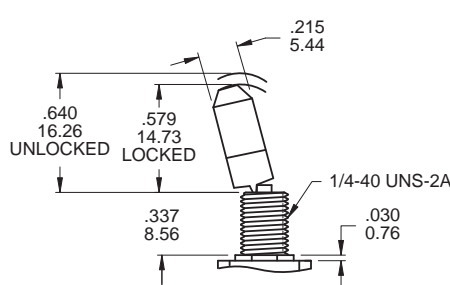
3. T1~T5 Actuator are shown with Terminal M1 and M2.

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

**TL1B25**



**TL2B25**

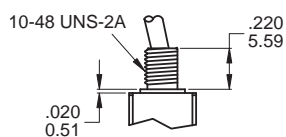
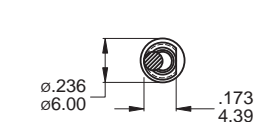


2 Positions Lock

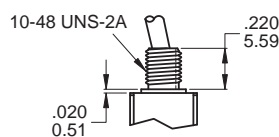
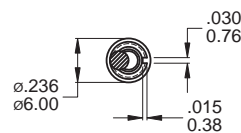
3 Positions Lock

### ▼ BUSHING OPTIONS

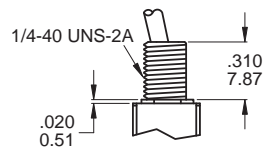
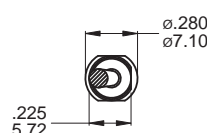
**B1 THD  
B2 NON-THD**



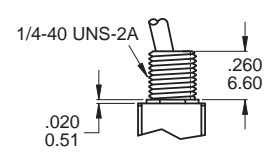
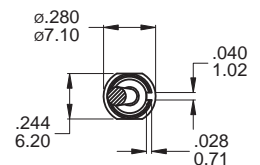
**B3 THD  
B4 NON-THD**



**B5 THD  
B6 NON-THD**

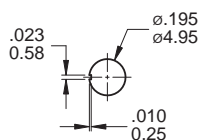


**B7 THD  
B8 NON-THD**

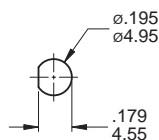


### ▼ PANEL MOUNTING

**10-48 BUSHING**



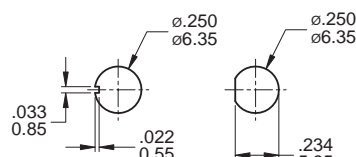
Keyway



Flat

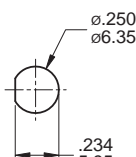
Without locking ring

**1/4 IN BUSHING**

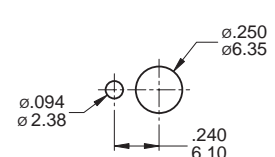


Keyway

Without locking ring



Flat



With standard locking ring

## 027





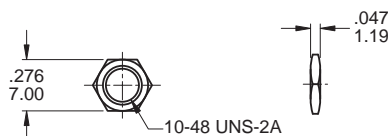
## ▼ HARDWARE

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

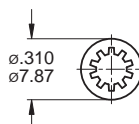
10-48 NUT (Std.)

Model name. MNU-2M01



### LOCKWASHER (Std.)

Model name. MNU-2M03

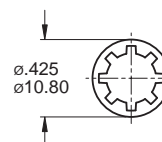


.018inch(0.46mm)THK

Available with bushing B1, B3 only.

### LOCKWASHER (Std.)

Model name. MNU-1M03

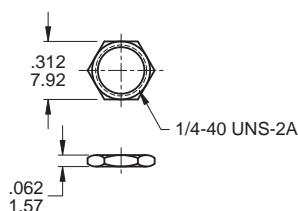


.018inch(0.46mm)THK

Available with bushing B5, B7 only.

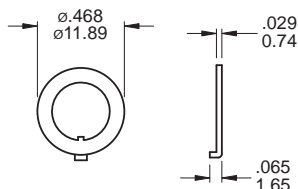
1/4 NUT (Std.)

Model name. MNU--1M01A



### LOCKING RING (Std.)

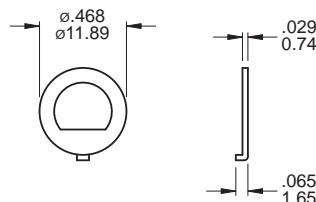
Model name. MNU-1M02



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
C	Gold over Silver	Gold over silver	1 Amps with resistant load @ 250VAC
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:  $260 \pm 5^{\circ}\text{C}$

Duration of solder immersion: Max. 5 sec. (PCB thickness is 1.6mm)