

Sub-Miniature Toggle

## Specifications

Electrical Ratings	3A @ 120VAC, 28VDC 1A @ 250VAC See Contact Options	Dielectric Resistance	1500Vrms min
Electrical Life	30,000 cycles typical	Insulation Resistance	>100MΩ min
Contact Resistance	<20mΩ initial @ 2-4VDC, 100mA	Operating Temperature	-40°C to 85°C
		Storage Temperature	-40°C to 85°C

## Materials

Actuator	Brass, Chrome Plated
Housing	Dially Phthalate (DAP)
Cover	Stainless Steel
Bushing	Brass, Nickel Plated
Contacts	Copper Alloy, Silver or Gold Plated
Terminals	Brass, Silver or Gold Plated

## Ordering Information

1. Series	BNT	2	1	U	E1	C	Q	E
BNT								
2. Number of Poles 1 = SPDT 2 = DPDT								
3. Switch Function 1 = ON-NONE-ON 2 = ON-NONE-(ON) 3 = ON-OFF-ON 4 = (ON)-OFF-(ON) Only in SPDT models 5 = ON-OFF-(ON) Only in SPDT models								
4. Actuator T = 5.33mm, standard on E, E1, F, F1 bushings U = 7.37mm, standard on E, E1, F, F1 bushings S = 9.40mm, standard on E, E1, F, F1 bushings X = 5.59mm, standard on G, G1, J, J1 bushings V = 10.41mm, standard on G, G1, J, J1 bushings								
5. Bushing E / E1 = 5.59mm, 10-48UNS / non-threaded, flat F / F1 = 5.59mm, 10-48UNS / non-threaded, keyway J / J1 = 6.60mm, 1/4-40NS / non-threaded, keyway G / G1 = 7.87mm, 1/4-40NS / non-threaded, flat								
6. Terminals B = Solder lug C = PC pin H = Horizontal mount, right angle PC pin; HS = Snap-in V = Vertical mount, right angle PC pin; VS = Snap-in A5 = PC pin with support bracket, A5S = Snap-in support bracket								
7. Contacts Q = Silver plated R = Gold plated G = Gold over Silver plated								
8. Epoxy Seal E = Epoxy seal								

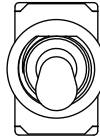
### Switch Function



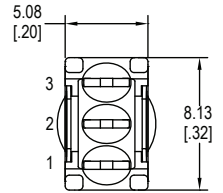
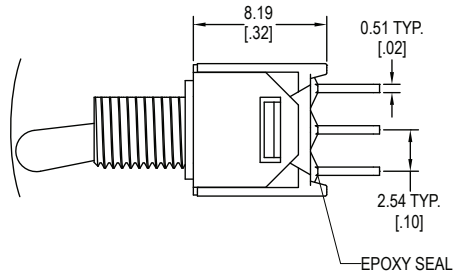
**SPDT**



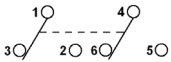
Function	Toggle Position		
1	ON	NONE	ON
2	ON	NONE	(ON)
3	ON	OFF	ON
4	(ON)	OFF	(ON)
5	ON	OFF	(ON)
Terminals	2-3	-	2-1



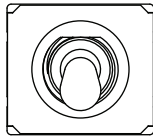
POS. 3  
POS. 2  
POS. 1



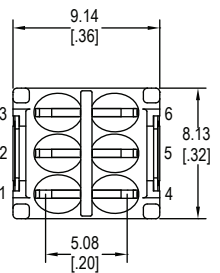
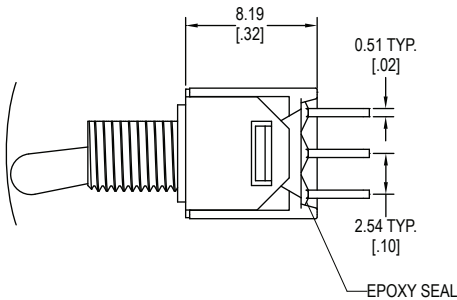
**DPDT**



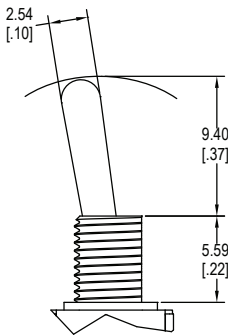
Function	Toggle Position		
1	ON	NONE	ON
2	ON	NONE	(ON)
3	ON	OFF	ON
4	(ON)	OFF	(ON)
5	ON	OFF	(ON)
Terminals	2-3	-	2-1



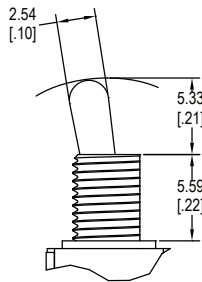
POS. 3  
POS. 2  
POS. 1



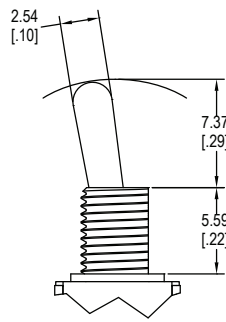
### Actuator Options



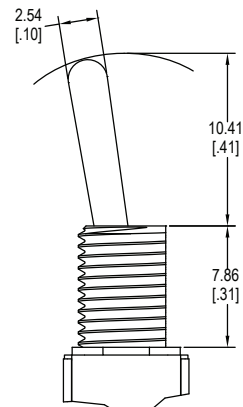
**S**



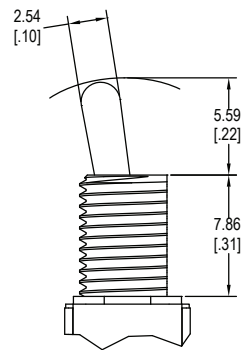
**T**



**U**

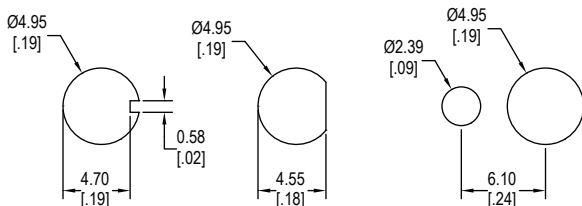


**V**

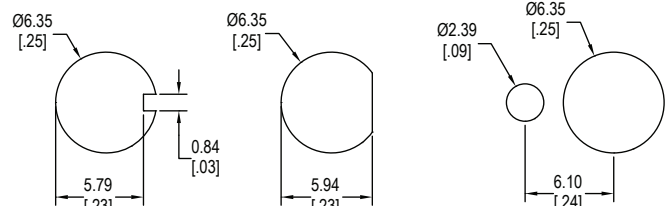


**X**

### Panel Mounting

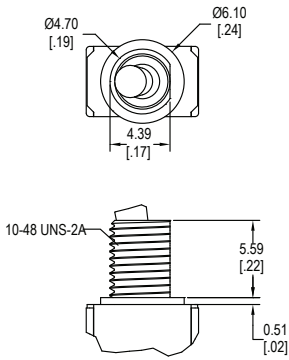


**Used with E, E1, F & F1**

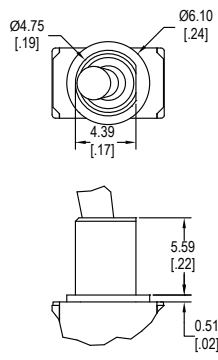


**Used with G, G1, J & J1**

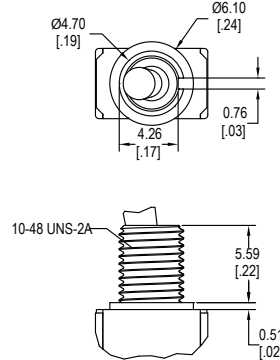
### Bushing Options



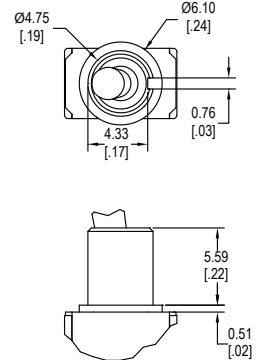
**E**



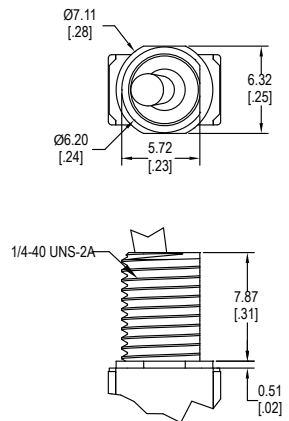
**E1**



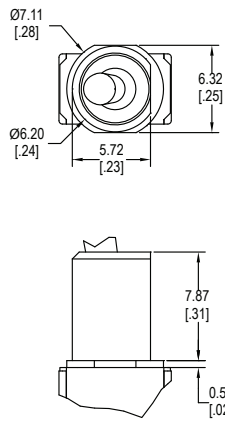
**F**



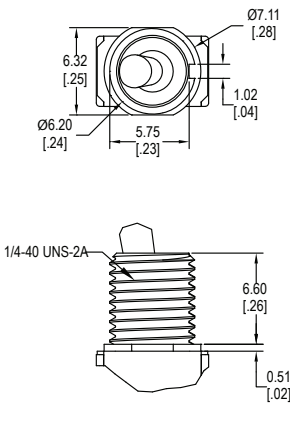
**F1**



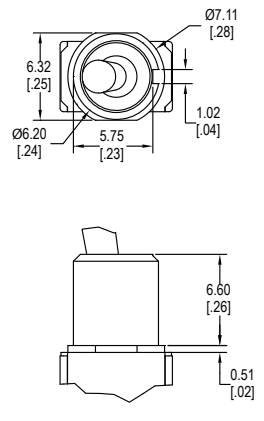
**G**



**G1**

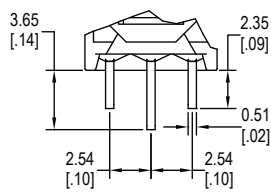


**J**

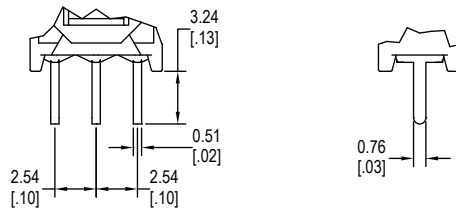


**J1**

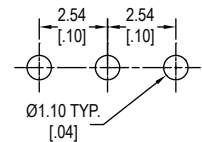
### Terminal Options



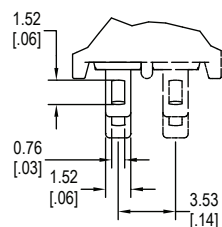
**B - SPDT**



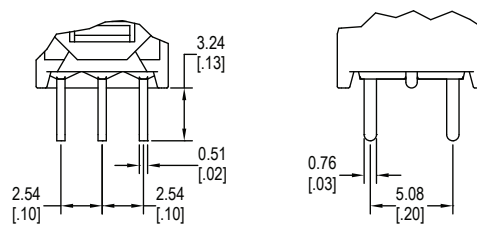
**C - SPDT**



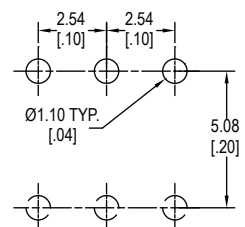
**PC Layout**



**B - DPDT**

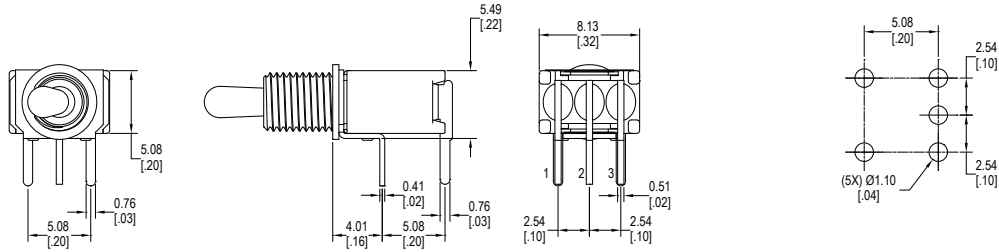


**C - DPDT**

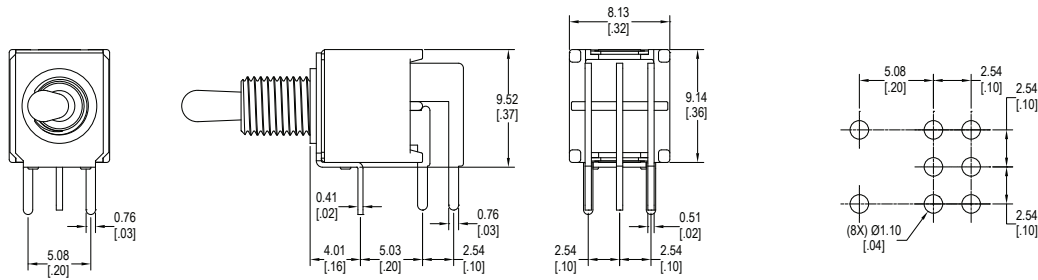


**PC Layout**

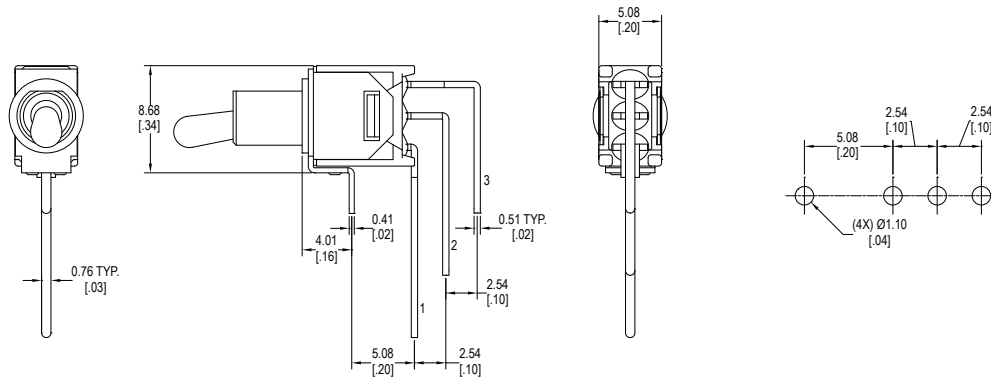
**Terminal Options**



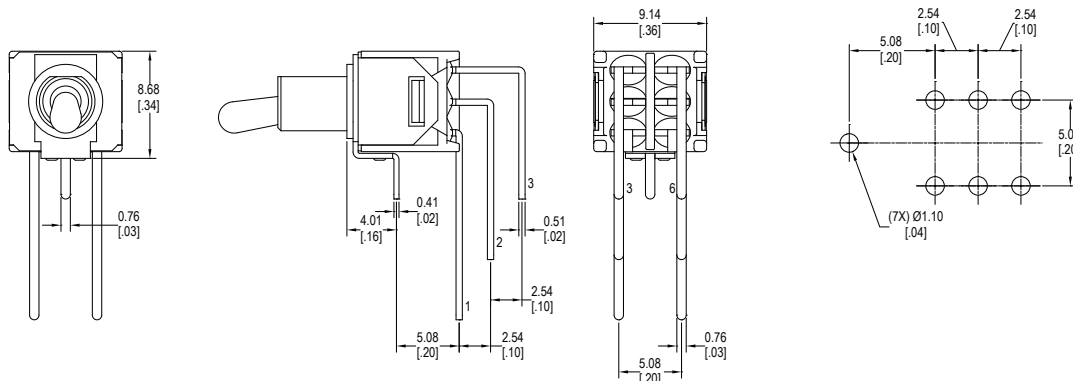
**H = Horizontal mount, right angle PC pins, single pole, single throw**



**H = Horizontal mount, right angle PC pins, double pole, double throw**

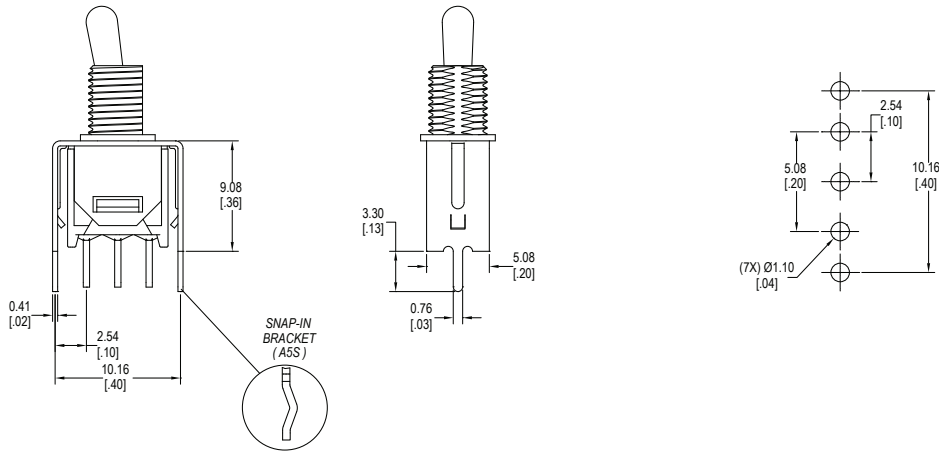


**V = Vertical mount, right angle PC pins, single pole, single throw**

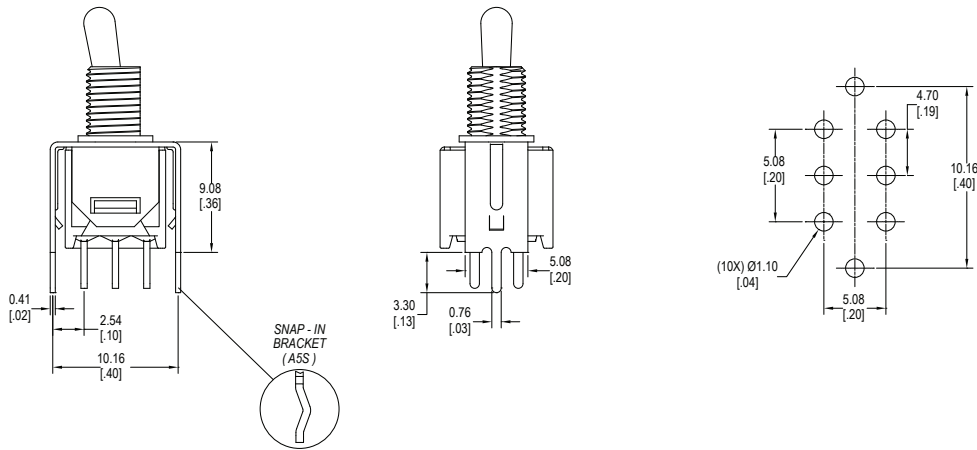


**V = Vertical mount, right angle PC pins, double pole, double throw**

## Terminal Options



**A5 (A5S - Snap in bracket) = PC pins with support bracket, single pole single throw**



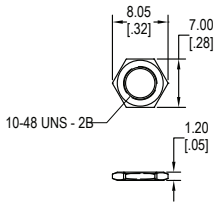
**A5 (A5S - Snap in bracket) = PC pins with support bracket, double pole double throw**

## Contact Options

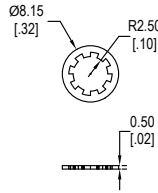
Designator	Contact Material	Terminal Material	Electrical Ratings
Q	Silver Plating	Silver Plating	3A @ 120VAC, 28VDC; 1A @ 250VAC
R	Gold over Nickel Plating	Gold over Nickel Plating	0.4VA max @ 20VAC or VDC max
G	Gold over Silver Plating	Gold over Silver Plating	0.4VA max @ 20VAC or VDC max or 3A @ 120VAC, 28VDC; 1A @ 250VAC

**Hardware**

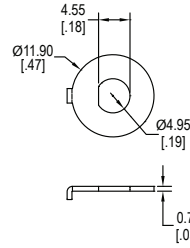
Two hex nuts, one lock washer & one locking ring supplied standard with threaded bushings



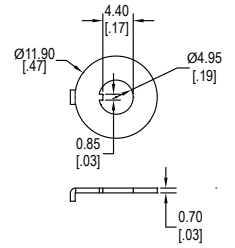
**10 - 48 Hex Nut**



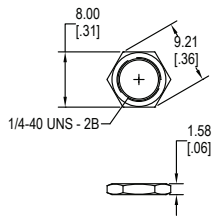
**Lock Washer**



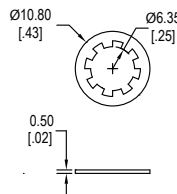
**Locking Ring (Flat)**



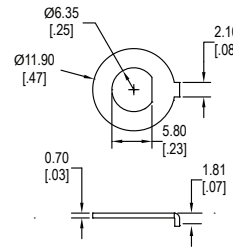
**Locking Ring (Keyway)**



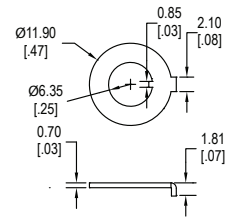
**1/4 - 40 Hex Nut**



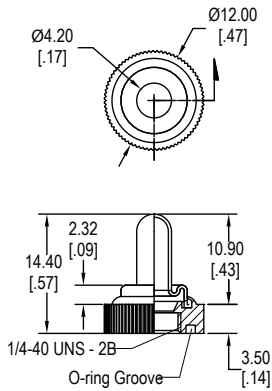
**Lock Washer**



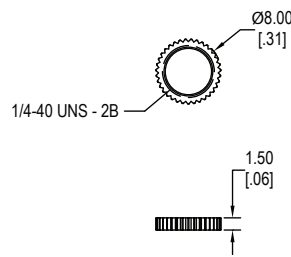
**Locking Ring (Flat)**



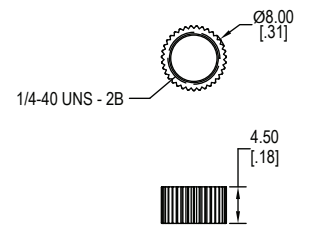
**Locking Ring (Keyway)**



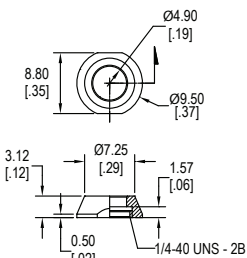
**Sealed Boot - E  
Knurled Nut**



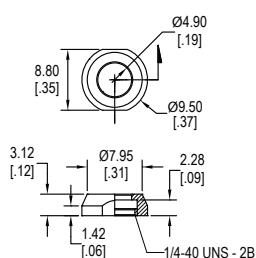
**Knurled Nuts**



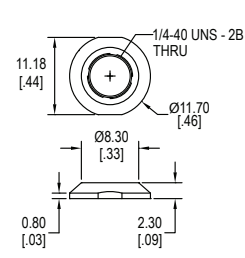
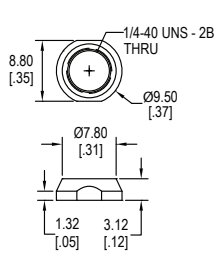
**Hardware - Dress Nut**



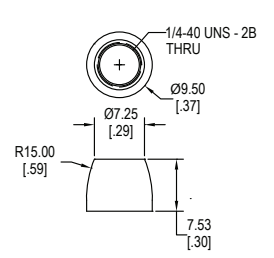
**A**



**B**



**D**



**E**