

- Wide variety of applications from consumer electronics to commercial
- Standard epoxy sealed terminations
- Gold contacts available for low power applications
- Available support brackets for greater stability
- Up to four poles with five functions available
- Many rocker and paddle styles to choose from
- Wide variety of terminal options



**cULus** - E222871

## SPECIFICATIONS

Electrical Ratings	5A @ 120VAC, 28VDC; 2A @ 250VAC See Contact Options
Electrical Life	50,000 cycles typical
Contact Resistance	< 20 mΩ max initial @ 2-4VDC, 100mA
Dielectric Strength	1500Vrms min
Insulation Resistance	> 100MΩ min
Operating Temperature	-40°C to 85°C
Storage Temperature	-40°C to 85°C






## MATERIALS ←RoHS COMPLIANT

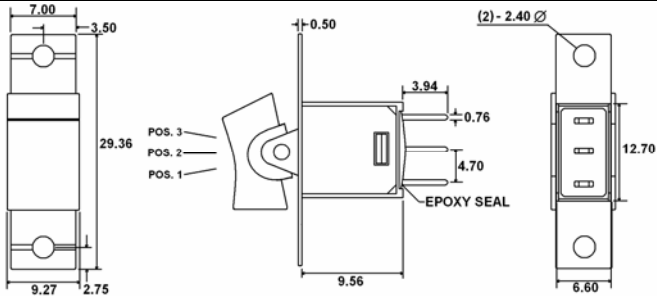
Actuator	ABS
Housing	DAP – Diallyl Phthalate
Frame	6/6 Nylon
Bushing	Brass or Zinc, Nickel Plated
Contacts	Copper Alloy, Silver Plated
Terminals	Brass, Silver Plated

## ORDERING INFORMATION





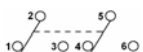
<b>1. Series:</b>	ANR	1	1	R11	2		B	Q	E
<b>2. Number of Poles:</b> 1 = SPDT 2 = DPDT 3 = 3PDT 4 = 4PDT									
<b>3. Switch Function:</b> 1 = ON-NONE-ON 2 = ON-NONE-(ON) 3 = ON-OFF-ON 4 = (ON)-OFF-(ON) 5 = ON-OFF-(ON) 6 = ON-ON-ON ** See Three Way Wiring Section for Details									
<b>4. Actuator:</b> R11P / R11 = Rocker, PC Mount / Panel Mount R15P / R15 = Rocker, PC Mount / Panel Mount R19P / R19 = Rocker, PC Mount / Panel Mount R21P / R21 = Rocker, PC Mount / Panel Mount P13P / P13 = Paddle, PC Mount / Panel Mount P23P / P23 = Paddle, PC Mount / Panel Mount P43P / P43 = Paddle, PC Mount / Panel Mount P47P / P47 = Paddle, PC Mount / Panel Mount P48P / P48 = Paddle, PC Mount / Panel Mount R12 / R22 = Rocker, Snap-in Panel Mount w/ Frame / Snap-in Panel Mount w/o Frame P14 / P24 = Paddle, Snap-in Panel Mount w/ Frame / Snap-in Panel Mount w/o Frame P17 / P27 = Paddle, Snap-in Panel Mount w/ Frame / Snap-in Panel Mount w/o Frame P18 / P28 = Paddle, Snap-in Panel Mount w/ Frame / Snap-in Panel Mount w/o Frame R51R = Rocker, Snap-in Panel Mount w/ Frame and LED (Red LED standard) P53R = Rocker, Snap-in Panel Mount w/ Frame and LED (Red LED standard)									
<b>5. Actuator Color:</b> 1 = White      4 = Yellow      7 = Blue 2 = Black      5 = Green      8 = Brown 3 = Red      6 = Orange      9 = Gray									
<b>6. Frame Color:</b> 1 = White      4 = Yellow      7 = Blue      Blank = No Frame 2 = Black      5 = Green      8 = Brown 3 = Red      6 = Orange      9 = Gray									
<b>7. Actuator Marking Style:</b> Blank = No Marking A, B, C, D, E, F, G									
<b>8. Actuator Marking Color:</b> Blank = No Marking, W = White (Standard), B = Black									
<b>9. Terminals:</b> B = Solder Lug C = PC Pin D = Quick Connect H = Horizontal Mount, Right Angle PC Pin; HS = Snap-in V = Vertical Mount, Right Angle PC Pin S20 or S25 = PC Pin with Support Bracket; V20 or V25 = Snap-in Support Bracket S35 or S40 = PC Pin with Support Bracket; S35 or V40 = Snap-in Support Bracket									
<b>10. Contacts:</b> Q = Silver Plated R = Gold Plated G = Gold over Silver Plated									
<b>11. Epoxy Seal:</b> E = Epoxy Seal									

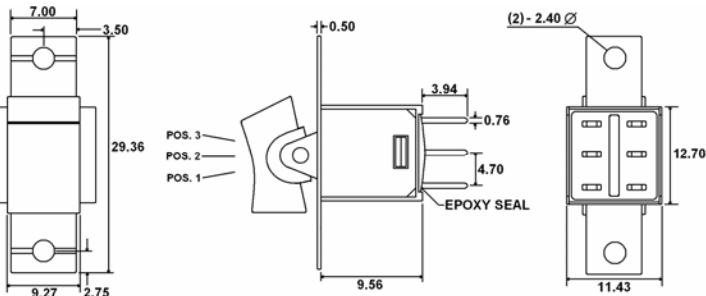
## SWITCH FUNCTION

 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





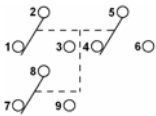


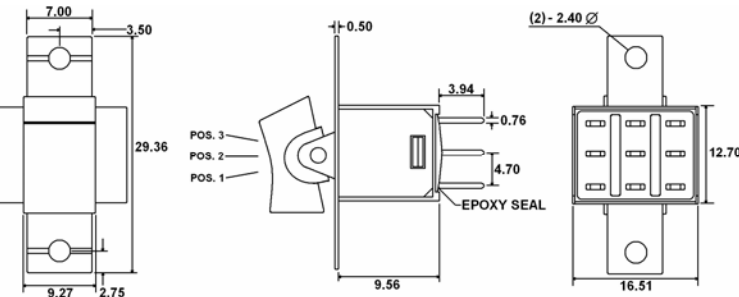
Dimensions: 7.00, 3.50, 29.36, 9.27, 2.75, 0.50, 3.94, 0.76, 4.70, 9.56, (2) - 2.40 Ø, 12.70, 6.60. Labels: POS. 3, POS. 2, POS. 1, EPOXY SEAL.

 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 5-6	---	2-1 5-4
6	ON	ON	ON	ON
Terminals		2-3 5-6	2-3 5-4	2-1 5-4





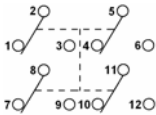


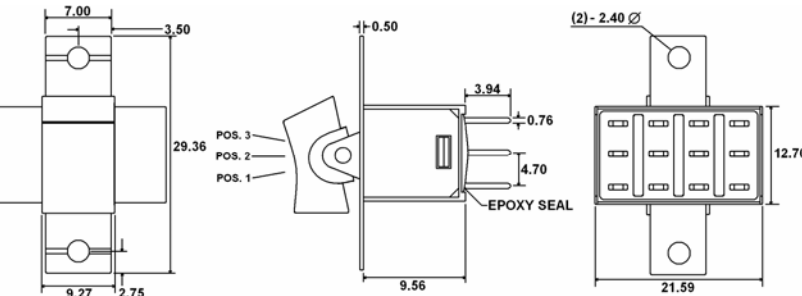
Dimensions: 7.00, 3.50, 29.36, 9.27, 2.75, 0.50, 3.94, 0.76, 4.70, 9.56, (2) - 2.40 Ø, 12.70, 11.43. Labels: POS. 3, POS. 2, POS. 1, EPOXY SEAL.

 3PDT	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 5-6 8-9	---	2-1 5-4 8-7



Dimensions: 7.00, 3.50, 29.36, 9.27, 2.75, 0.50, 3.94, 0.76, 4.70, 9.56, (2) - 2.40 Ø, 12.70, 16.51. Labels: POS. 3, POS. 2, POS. 1, EPOXY SEAL.

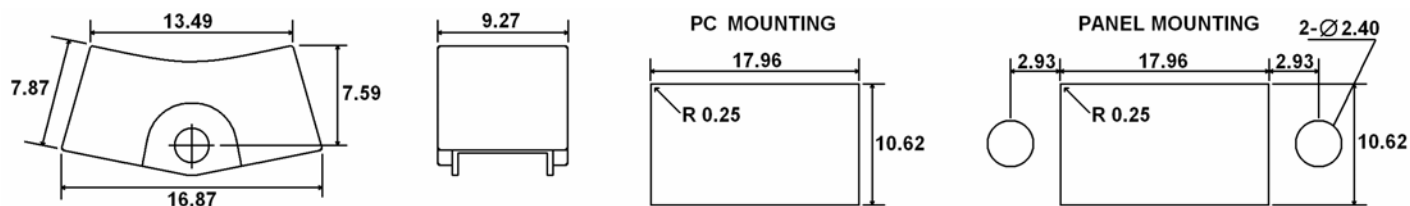
 4PDT	Function	Toggle Position		
				
	1	ON	NONE	ON
	2	ON	NONE	(ON)
	3	ON	OFF	ON
	4	(ON)	OFF	(ON)
	5	ON	OFF	(ON)
Terminals		2-3 5-6 8-9 11-12	---	2-1 5-4 8-7 11-10
6	ON	ON	ON	ON
Terminals		2-3 5-6 8-9 11-12	2-3 5-4 8-9 11-10	2-1 5-4 8-7 11-10



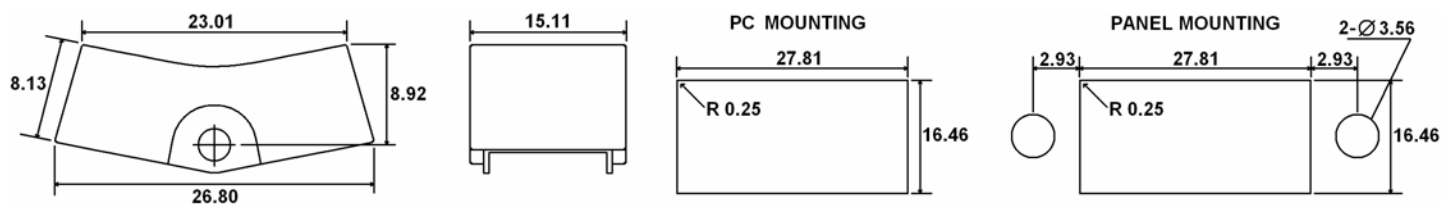
Dimensions: 7.00, 3.50, 29.36, 9.27, 2.75, 0.50, 3.94, 0.76, 4.70, 9.56, (2) - 2.40 Ø, 12.70, 21.59. Labels: POS. 3, POS. 2, POS. 1, EPOXY SEAL.

## ACTUATOR OPTIONS (PC MOUNT / PANEL MOUNT)

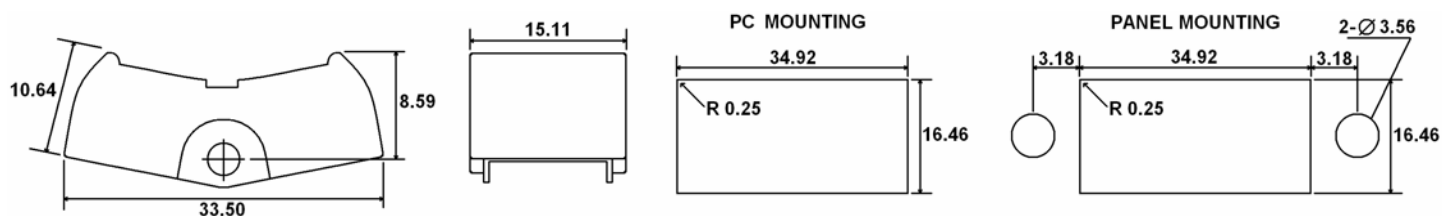
### R11P / R11



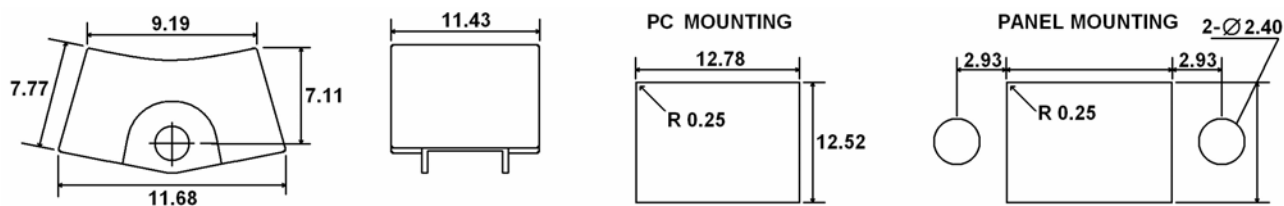
### R15P / R15



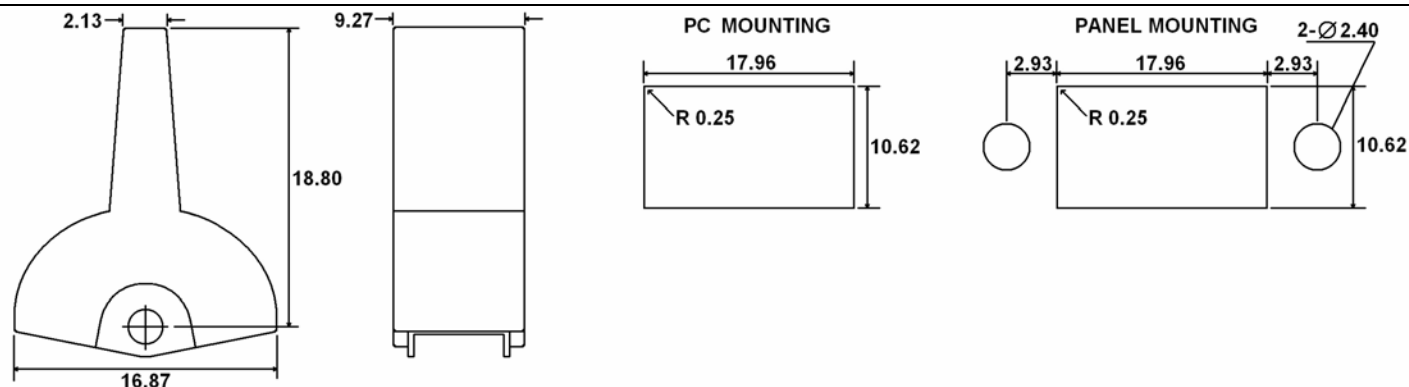
### R19P / R19



### R21P / R21

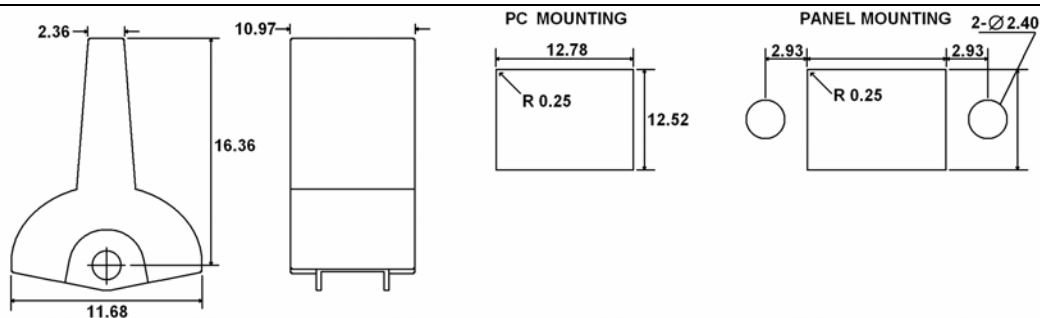


### P13P / P13

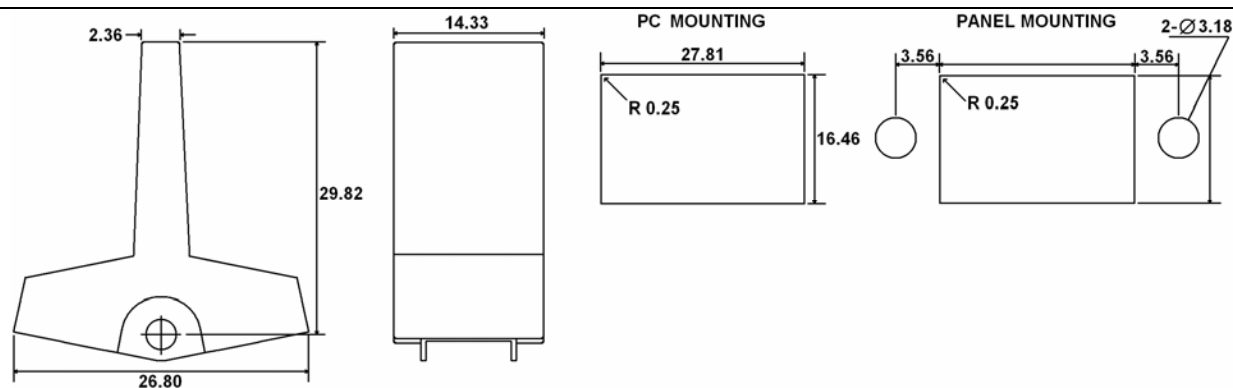


## ACTUATOR OPTIONS (PC MOUNT / PANEL MOUNT)

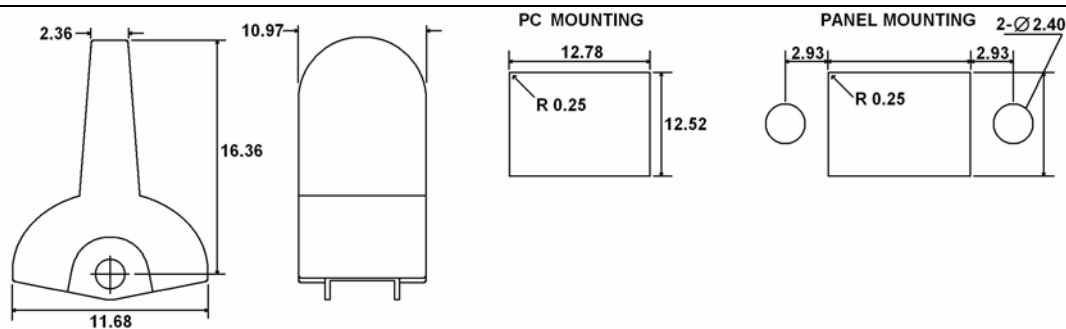
### P23P / P23



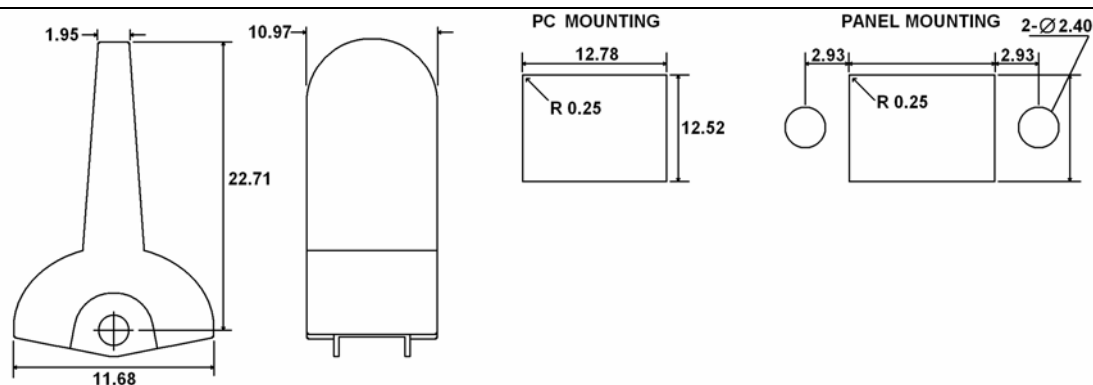
### P43P / P43



### P47P / P47



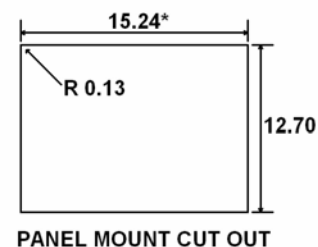
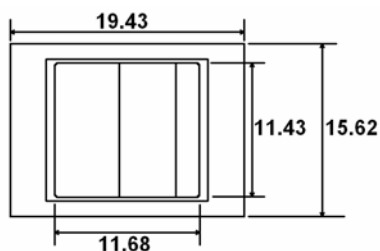
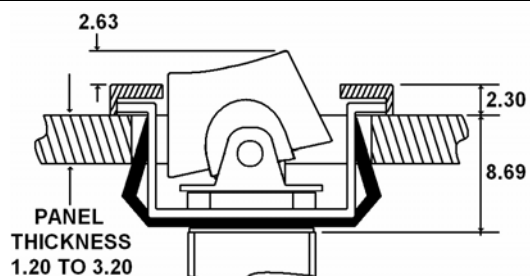
### P48P / P48



## ACTUATOR OPTIONS (SNAP-IN PANEL MOUNT)

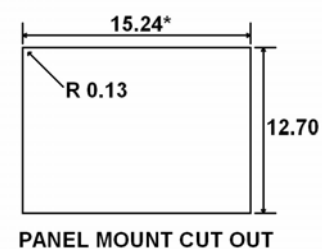
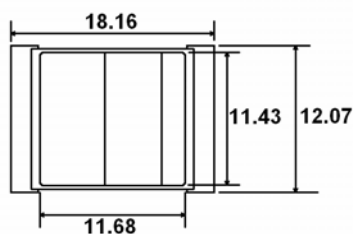
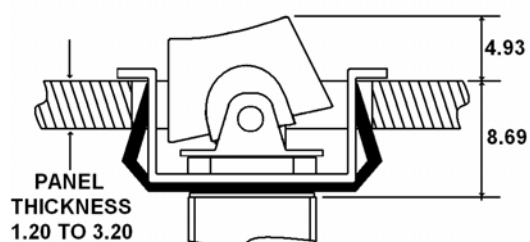
### R12

**\*\* Increase the length dimension to 15.75/15.88 for 1.50/3.20 thick panels**



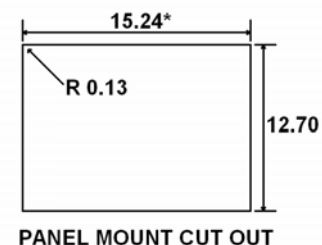
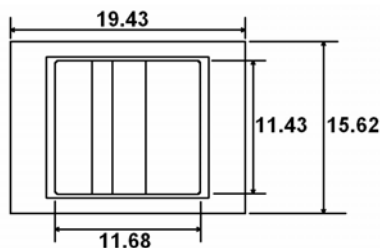
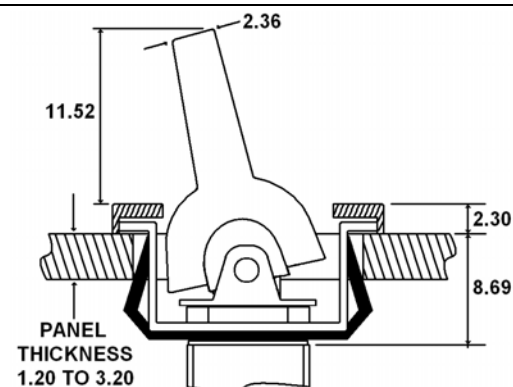
### R22

**\*\* Increase the length dimension to 15.75/15.88 for 1.50/3.20 thick panels**



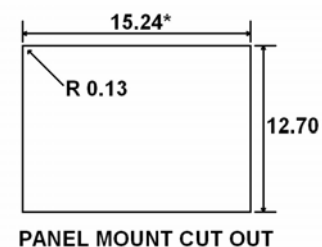
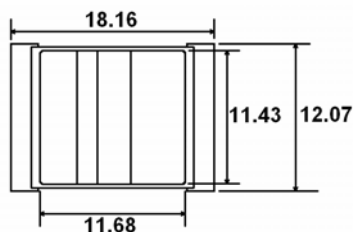
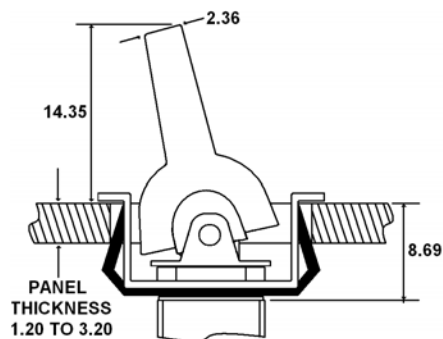
### P14

**\*\* Increase the length dimension to 15.75/15.88 for 1.50/3.20 thick panels**



### P24

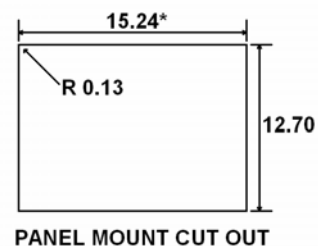
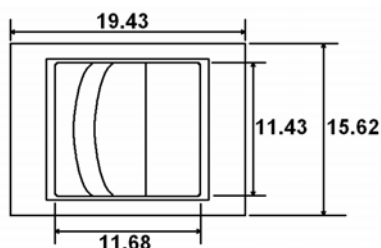
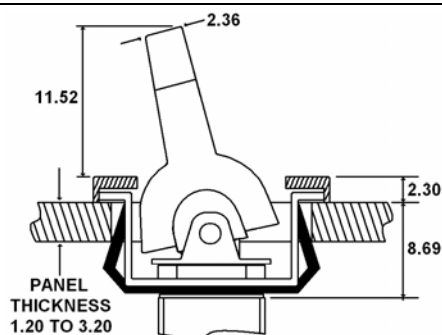
**\*\* Increase the length dimension to 15.75/15.88 for 1.50/3.20 thick panels**



## ACTUATOR OPTIONS (SNAP-IN PANEL MOUNT)

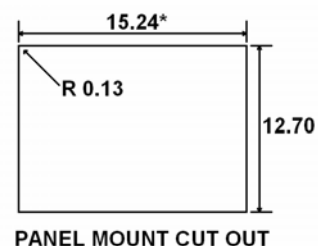
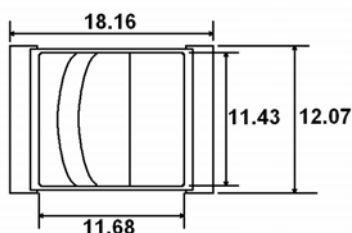
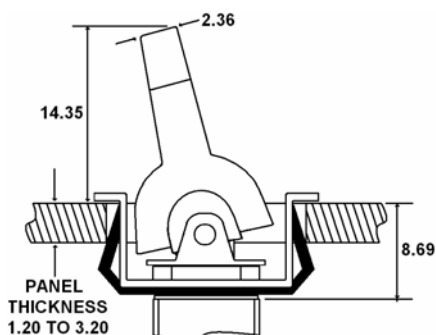
### P17

**\*\* Increase the length dimension to 15.75/15.88 for 1.50/3.20 thick panels**



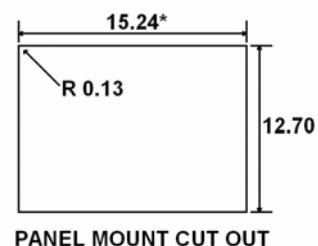
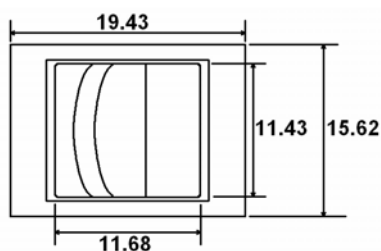
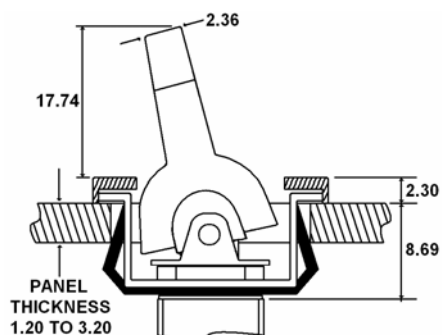
### P27

**\*\* Increase the length dimension to 15.75/15.88 for 1.50/3.20 thick panels**



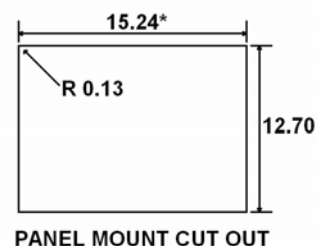
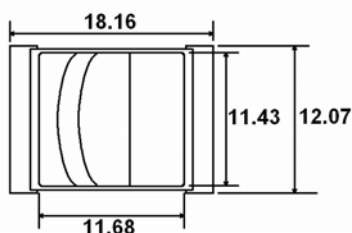
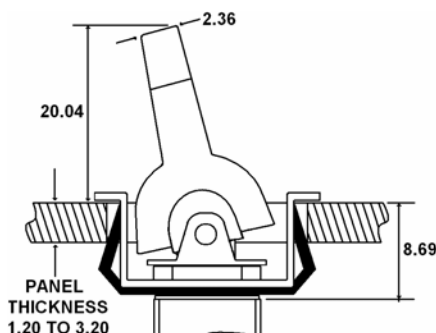
### P18

**\*\* Increase the length dimension to 15.75/15.88 for 1.50/3.20 thick panels**



### P28

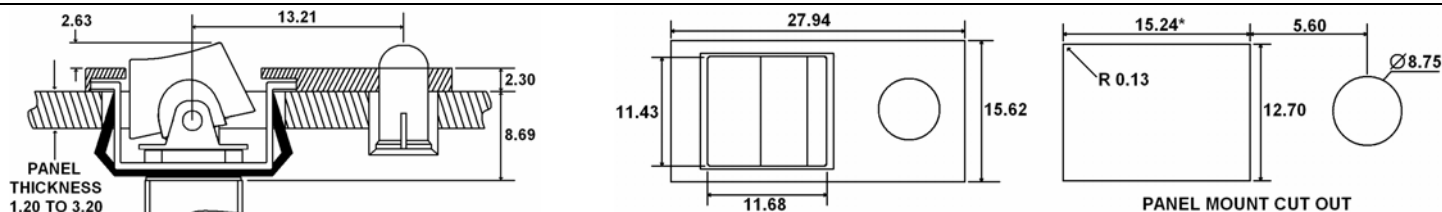
**\*\* Increase the length dimension to 15.75/15.88 for 1.50/3.20 thick panels**



## ACTUATOR OPTIONS (SNAP-IN PANEL MOUNT)

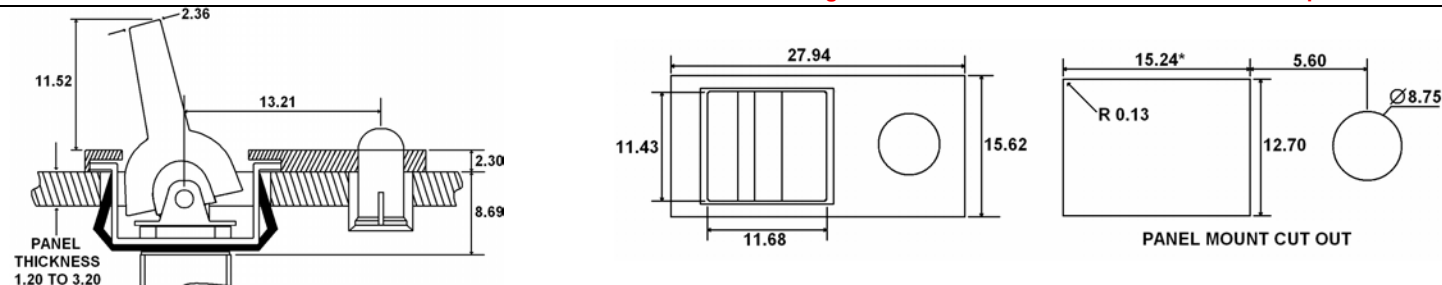
### R51R

**\*\* Increase the length dimension to 15.75/15.88 for 1.50/3.20 thick panels**

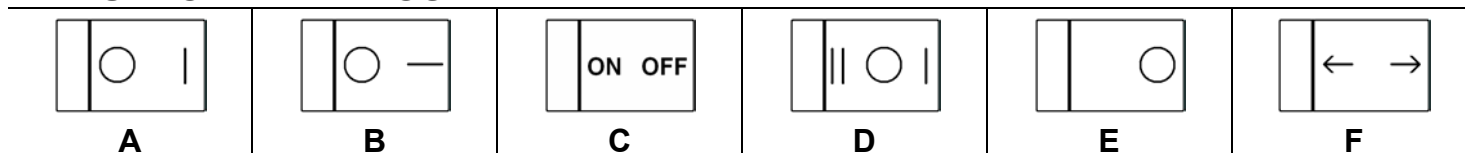


### P53R

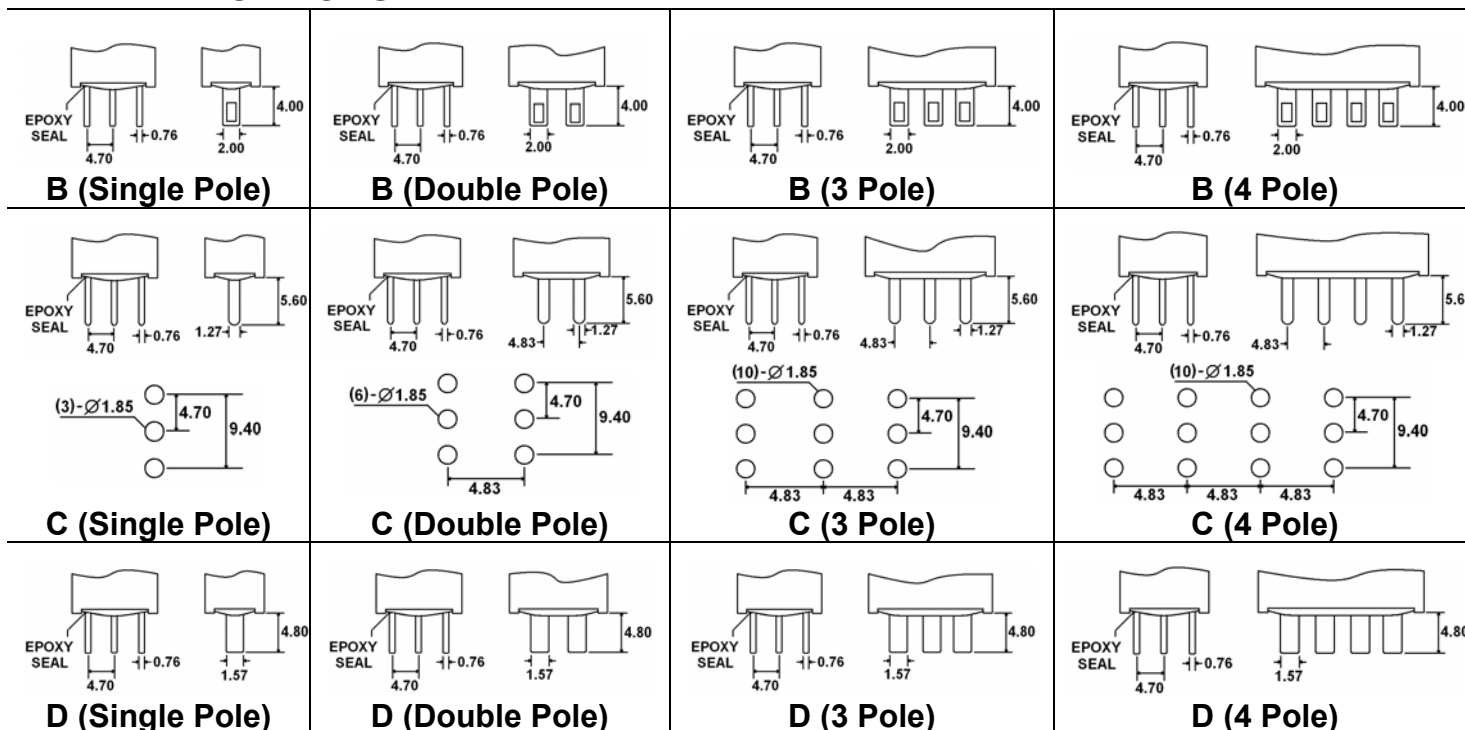
**\*\* Increase the length dimension to 15.75/15.88 for 1.50/3.20 thick panels**



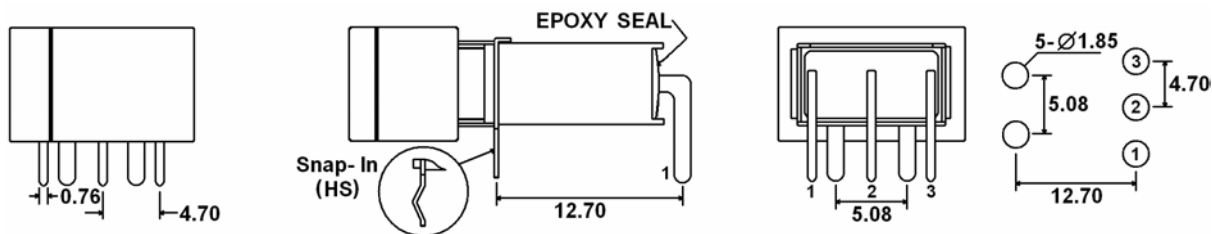
## ACTUATOR MARKINGS



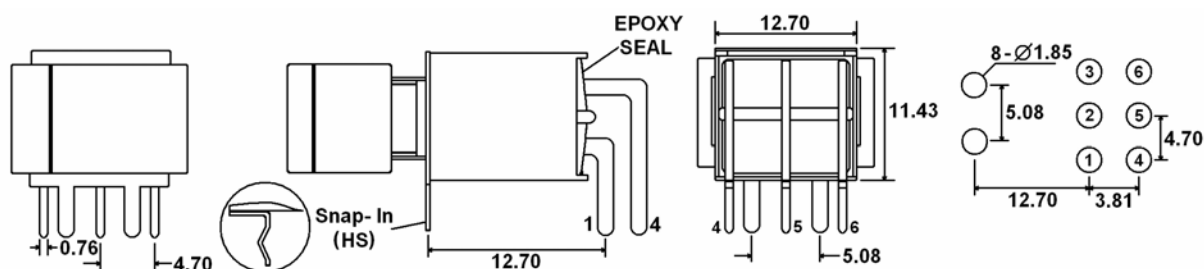
## TERMINAL OPTIONS



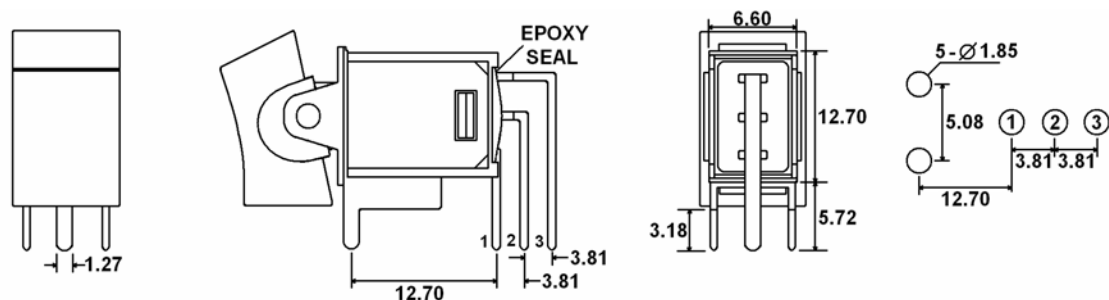
## TERMINAL OPTIONS



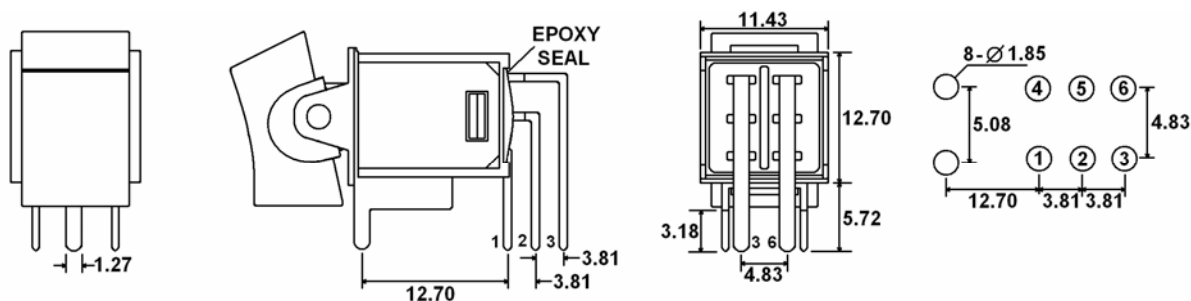
**H (HS – Snap-in) = Horizontal Mount, Right Angle PC Pins (Single Pole)**



**H (HS – Snap-in) = Horizontal Mount, Right Angle PC Pins (Double Pole)**

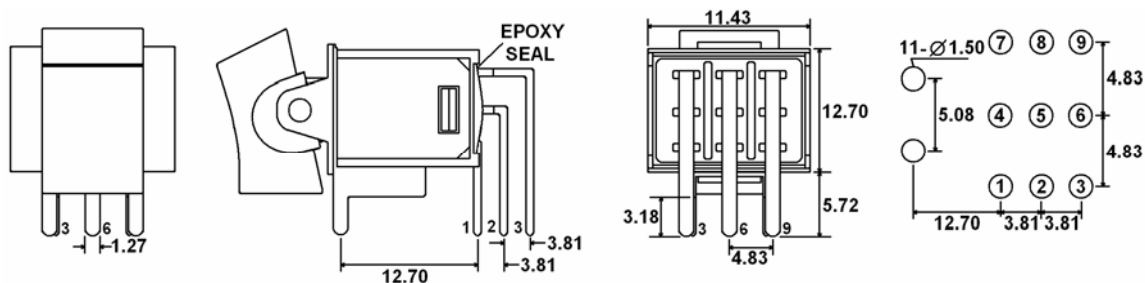


**V = Vertical Mount, Right Angle PC Pins (Single Pole)**

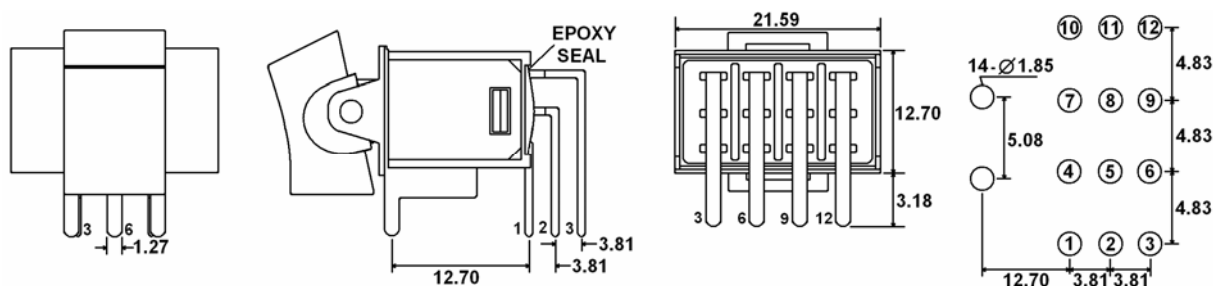


**V = Vertical Mount, Right Angle PC Pins (Double Pole)**

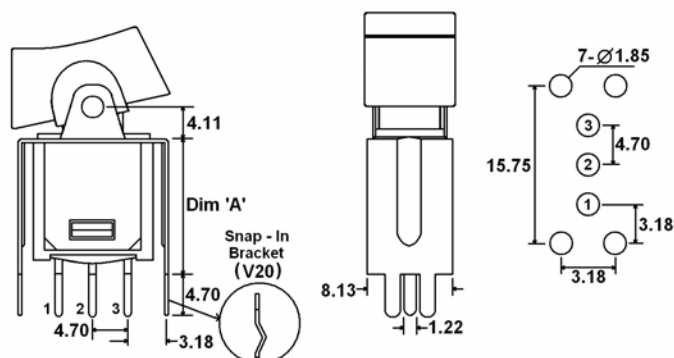
## TERMINAL OPTIONS



**V = Vertical Mount, Right Angle PC Pins (Three Pole)**

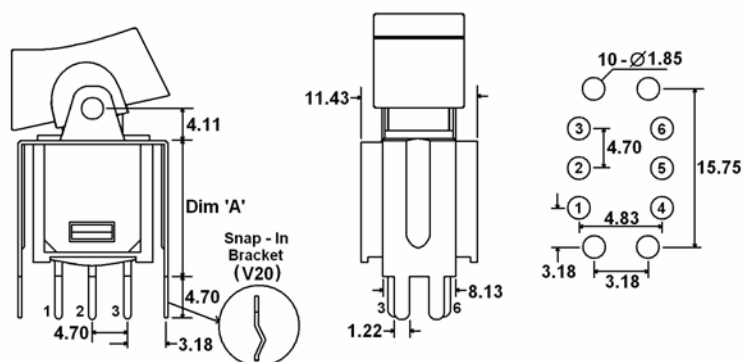


**V = Vertical Mount, Right Angle PC Pins (Four Pole)**



Terminal Option	"A" Dimension
S20-V20	11.68
S25-V25	16.00

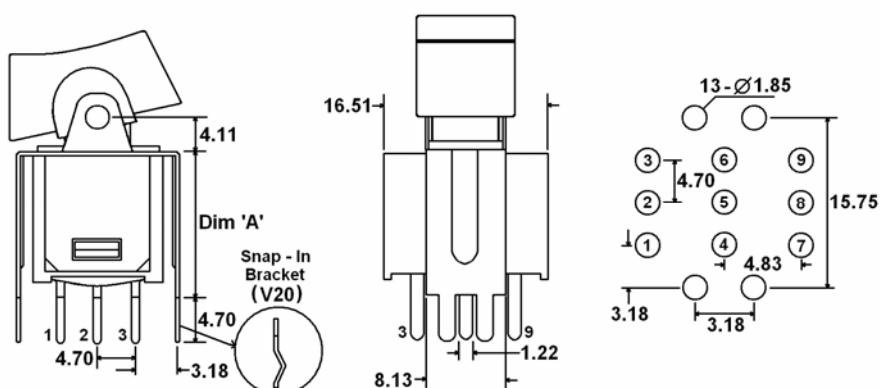
**S20/S25 (V20/V25 – Snap-in Bracket) = PC Pins with Support Bracket (Single Pole)**



Terminal Option	"A" Dimension
S20-V20	11.68
S25-V25	16.00

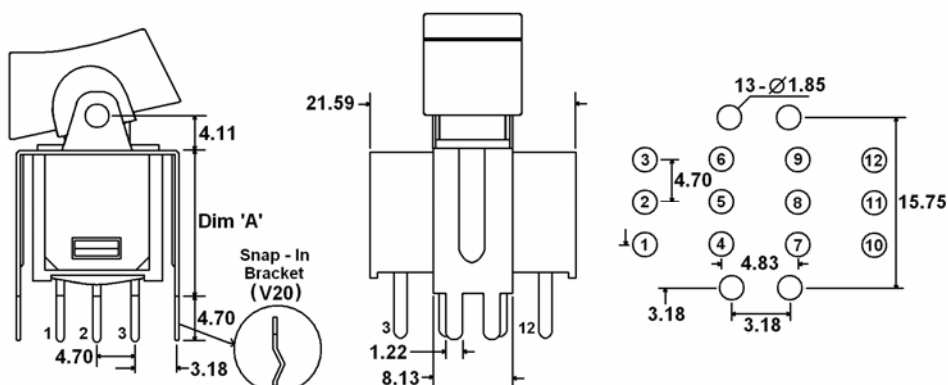
**S20/S25 (V20/V25 – Snap-in Bracket) = PC Pins with Support Bracket (Double Pole)**

## TERMINAL OPTIONS



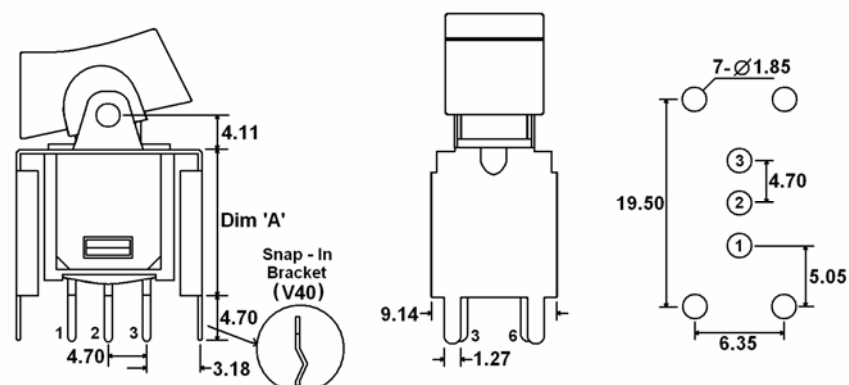
Terminal Option	"A" Dimension
S20-V20	11.68
S25-V25	16.00

**S20/S25 (V20/V25 – Snap-in Bracket) = PC Pins with Support Bracket (Three Pole)**



Terminal Option	"A" Dimension
S20-V20	11.68
S25-V25	16.00

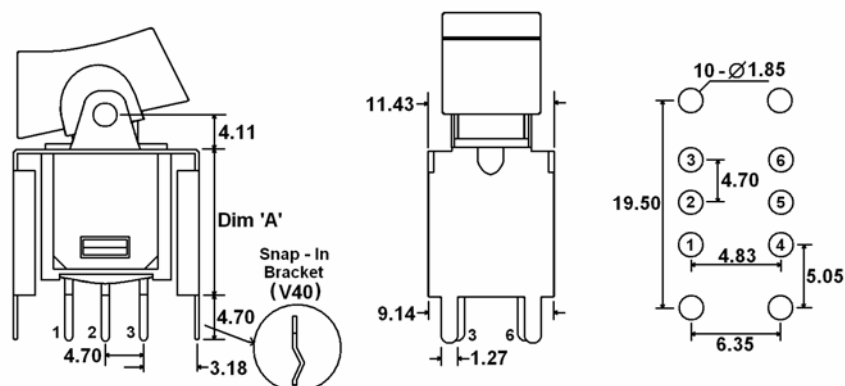
**S20/S25 (V20/V25 – Snap-in Bracket) = PC Pins with Support Bracket (Four Pole)**



Terminal Option	"A" Dimension
S35-V35	11.68
S40-V40	16.00

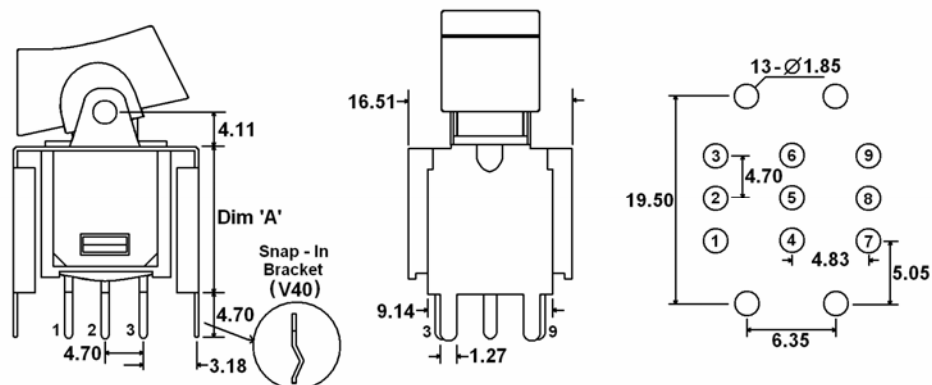
**S40 (V40 – Snap-in Bracket) = PC Pins with Support Bracket (Single Pole)**

## TERMINAL OPTIONS



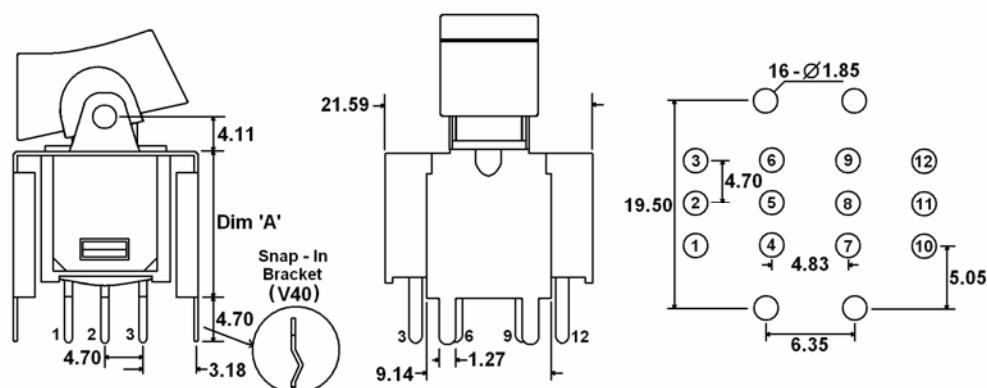
Terminal Option	"A" Dimension
S35-V35	11.68
S40-V40	16.00

**S40 (V40 – Snap-in Bracket) = PC Pins with Support Bracket (Double Pole)**



Terminal Option	"A" Dimension
S35-V35	11.68
S40-V40	16.00

**S40 (V40 – Snap-in Bracket) = PC Pins with Support Bracket (Three Pole)**



Terminal Option	"A" Dimension
S35-V35	11.68
S40-V40	16.00

**S40 (V40 – Snap-in Bracket) = PC Pins with Support Bracket (Four Pole)**

## CONTACT OPTIONS

Designator	Contact Material	Terminal Material	Electrical Ratings
Q	Silver Plating	Silver Plating	5A @ 120VAC, 28VDC; 2A @ 250VAC
R	Gold over Nickel Plating	Gold over Nickel Plating	.4 VA max @ 20VAC or VDC max
G	Gold over Silver Plating	Gold over Silver Plating	.4 VA max @ 20VAC or VDC max or 5A @ 120VAC, 28VDC; 2A @ 250VAC

## THREE WAY WIRING DIAGRAM

	POSITION 1	POSITION 2	POSITION 3
Customer must wire externally  BOTTOM VIEW			
	POSITION 1	POSITION 2	POSITION 3
Customer must wire externally  BOTTOM VIEW			