

- 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 seven functions available
- Anti-rotation feature on flat toggles .
- High torgue bushing prevents separation from frame during installation
- Wide variety of terminal options



- E222871

# **SPECIFICATIONS**

Electrical Ratings	5A @ 120VAC, 28VDC; 2A @ 250VAC
	See Contact Options
Electrical Life	50,000 cycles typical
Contact Resistance	< 20 m $\Omega$ 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	Brass, Chrome Plated
Housing	DAP – Diallyl Phthalate
Cover	Stainless Steel
Bushing	Brass, Nickel Plated
Bracket	Brass, Tin Plated
Contacts	Phosphor Bronze, Silver Plated
Terminals	Brass, Silver Plated





### **TOGGLE SWITCH ORDERING INFORMATION**

TUGGLE 3W			ING INFORM						
Series:	ANT	2	3	Т	E	В	Q	E	
ANT		_	-						
Number of Poles:									
1 = SPDT									
2 = DPDT					-				
3 = 3PDT					X III				
4 = 4PDT									
Switch Function:									
1 = ON-NONE-ON									
2 = ON-NONE-(ON)									
3 = ON-OFF-ON									
4 = (ON) - OFF - (ON)									
5 = ON-OFF-(ON)									
6 = ON-ON-ON ** Se	e Three V	Nav Wiring S	Section for Details						
Actuator:	100	,							
T = 5.08mm, Std									
S = 10.41mm, Std									
X = 13.97mm, Std									
V = 16.26mm, Std									
W = 21.34mm, Std									
Y = 6.35mm, Flat To	paale **on	lv available v	with AR1/AR2/AN1/A	AN2 bushings					
F = 12.30mm, Flat T									
G = 21.00mm, Flat T									
K = 13.50mm, Flat T									
Z = 12.37mm, Large									
Z1 = 17.45mm, Large									
LK = 14.73mm, Lock									
LK1 = 14.73mm, Loc									
P(color) = 21.34mm,									
PX = 26.30mm, Plas	tic Flat To	agle **only	available with BZ/B	ZR bushings					
Bushing:	tio, i lat i v			Litbuoningo					
E / E1 = 8.89mm, <sup>1</sup> / <sub>4</sub> -	40NS / N	on-Threader	Keyway						
F / F1 = 7.10mm, <sup>1</sup> / <sub>4</sub> -									
J = 8.89mm, <sup>1</sup> / <sub>4</sub> -40NS			, iteyway						
W = 8.89mm, M6P-0		ic) Keyway							
H = 8.00mm, High Te			av						
G = 7.52mm, High T			uy						
AR1 / AR2 = 7.55mn	n Anti-Ro	tation 1/4-40	NS / Non-Threaded	Keyway					
AN1 / AN2 = 7.55mn									
BZ = 11.38mm, 15/3				1 Idi					
BZR = 11.38mm, 15/			ith support insert						
$L = 7.55 \text{mm}, \frac{1}{4} - 40 \text{NS}$									
$K/K1 = 8.00$ mm, $\frac{1}{4}$			Keyway						
**See Actuator Option				is actuators					
Terminals:		or odorning d							
B = Solder Lug, C =	PC Pin	**W	ire wrap terminals av	vailable in various le	enaths, cor	tact factory			
D = Quick Connect									
H = Horizontal Moun	t. Right Ai	nale PC Pin:	HS = Snap-in						
V = Vertical Mount,						<		°C	
S20 or S25 = PC Pin				-in Support Bracket	۰				
S35 or S40 = PC Pin									
Contacts:									
Q = Silver Plated									
R = Gold Plated									
G = Gold over Silver	Plated								
Epoxy Seal: E = Epo									
Actuator Cover:	,	-7	Actuator Cov	er Colors:					
Blank = No Cover			1 = White						
S = for $S, T, X, V, & Y$	W actuato	rs	2 = Black						
F = for F F I & G b	ushings		3 = Bea						
E = for E, F, J, & G b Z = for BZ & BZR bu			3 = Red ** Color choic	es only available w	ith S togale	cover			





# **SWITCH FUNCTION**

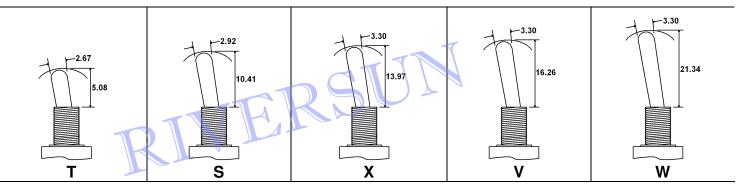
50010111					
		Тос	gle Posi	tion	
1	Function				
	1	ON	NONE	ON	
	2	ON	NONE	(ON)	
	3	ON	OFF	ON	
SPDT	4	(ON)	OFF	(ON) -	
20	5	ON	OFF	(ON)	
10 30	Terminals	2-3	لر ک	2-1	
		<b>—</b>		<b>4</b> 1 a sa	
			gle Posi		
S.	Function				
	1	ON	NONE	ON	
	2	ON	NONE	(ON)	
	3	ON	OFF	ON	
	4	(ON)	OFF	(ON)	
	5	ON	OFF	(ON)	
DPDT	Terminals	2-3 5-6		2-1 5-4	
20 50	6	ON	ON	ON	
<sup>2</sup> 10 <sup>3</sup> 30 <sup>4</sup> 0 <sup>6</sup>	Terminals	2-3 5-6	2-3 5-4	2-1 5-4	
		Too	gle Posi	tion	
	Function				
	Function				
	- 1	ON	NONE	ON	
	1 2	ON	NONE	(ON)	
and the second s	3	ON	OFF	ON	
3PDT	4	(ON)	OFF	(ON)	
2 5	5	ON	OFF	(ON)	
10 30 40 60		2-3		2-1	
80	Terminals	5-6		5-4	
70/ 90		8-9		8-7	
		Too	gle Posi	tion	
9	Function				
	T unction				
	1	ON	NONE	ON	$\sim (1550)^{-1}$
	2	ON	NONE		1 - C(1)
man and a start of the start of	3	ON	OFF	ON	8.89 3.94
	4	(ON)	OFF	(ON)	
	5	ON	OFF	(ON)	
		2-3 5-6		2-1 5-4	
4PDT	Terminals	8-9		8-7	
		11-12	0	11-10	
20 50 	6	ON 2-3	ON 2-3	ON 2-1	
10 30 <sup>1</sup> 40 60 80 110	Termin	5-6	2-3 5-4	5-4	
70 90100 120	Terminals	8-9	8-9	8-7	
10, 90100, 120		11-12	11-10	11-10	



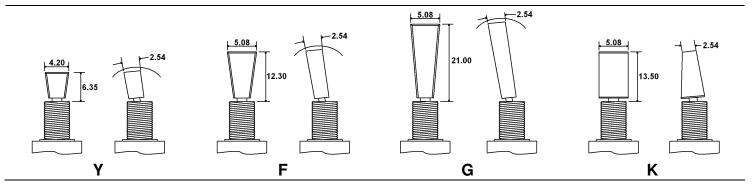


# **ACTUATOR OPTIONS**

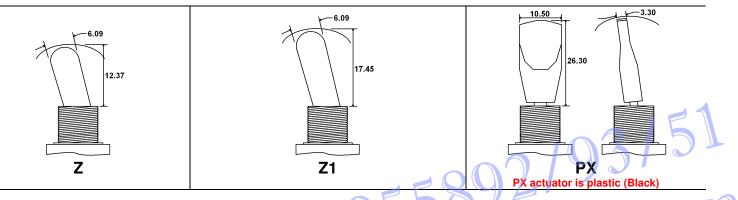
\*\* Actuator lengths shown with E bushing, subtract 1.78mm for F/F1 bushing, subtract 0.51mm for M bushing



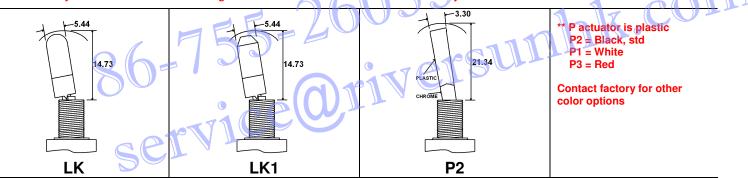
#### \*\* Only available with AR1/AR2 & AN1/AN2 bushings.



\*\* Only available with BZ & BZR bushings.

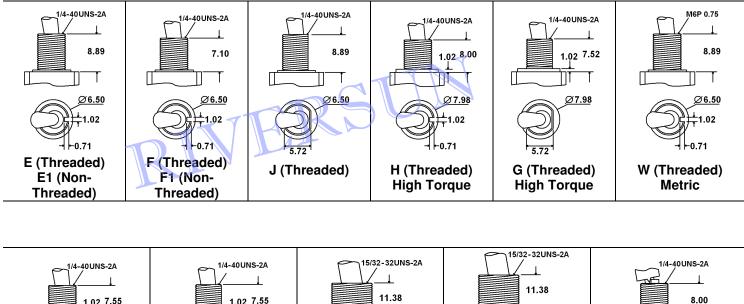


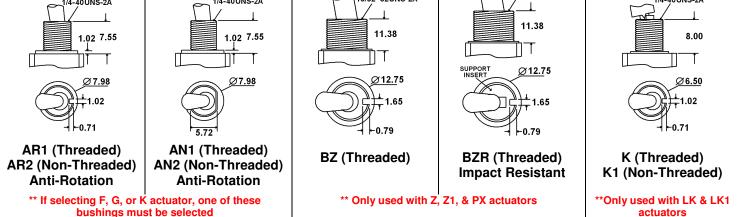
\*\* LK & LK1 only available with K & K1 bushings. LK & LK1 are not available with momentary functions



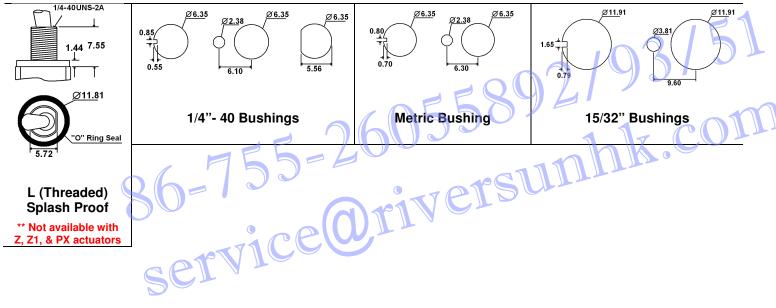


# **BUSHING OPTIONS**



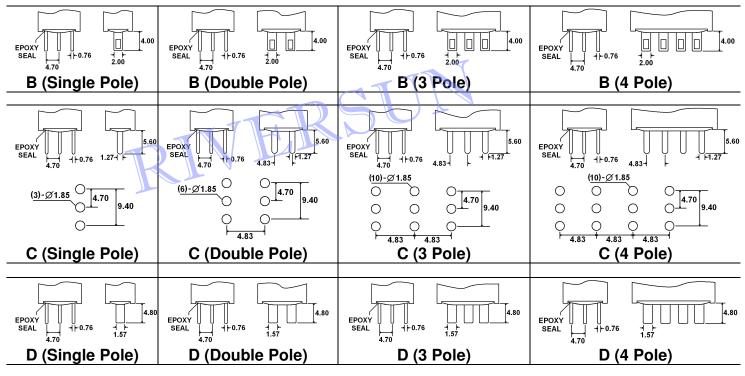


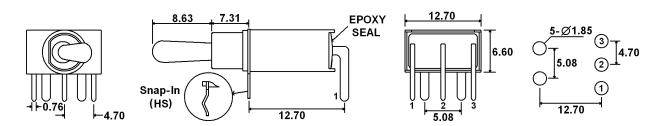
# PANEL MOUNTING



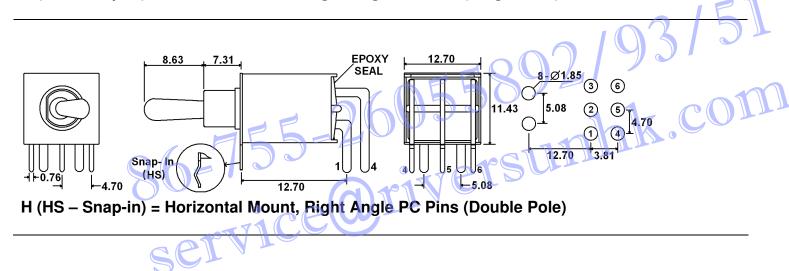




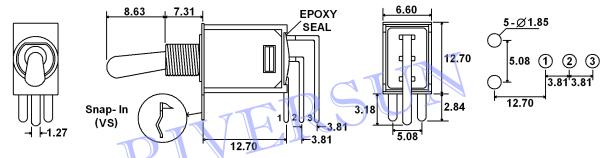




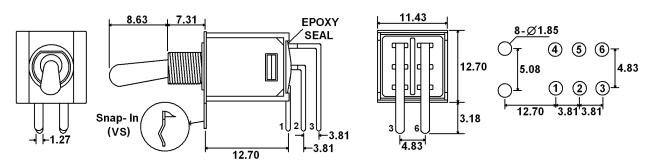
H (HS – Snap-in) = Horizontal Mount, Right Angle PC Pins (Single Pole)



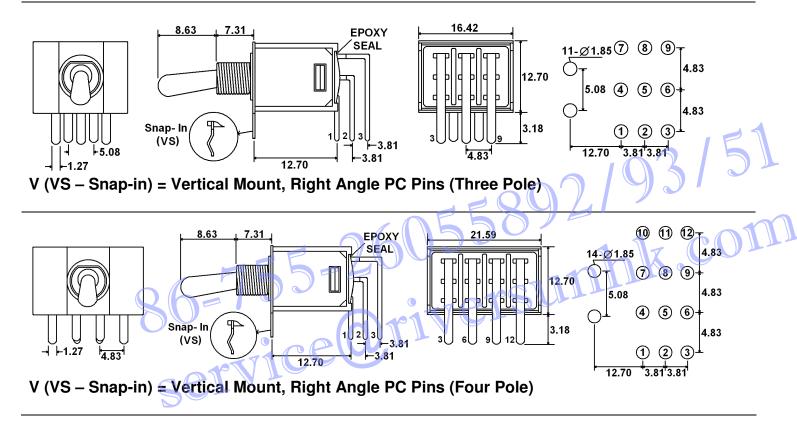




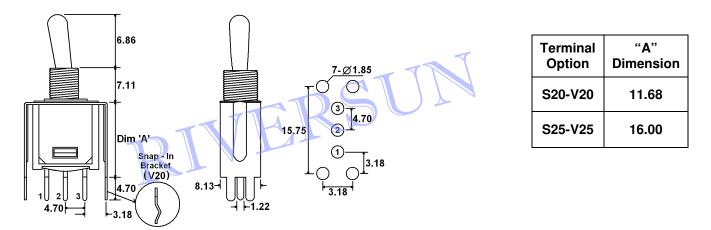
V (VS – Snap-in) = Vertical Mount, Right Angle PC Pins (Single Pole)



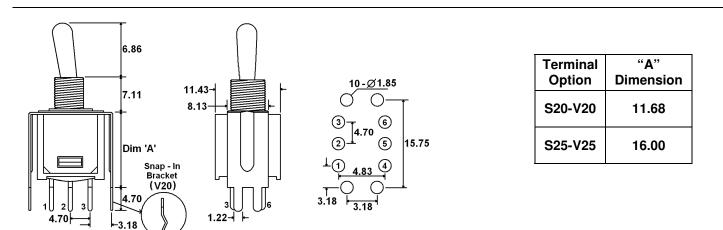
V (VS – Snap-in) = Vertical Mount, Right Angle PC Pins (Double Pole)



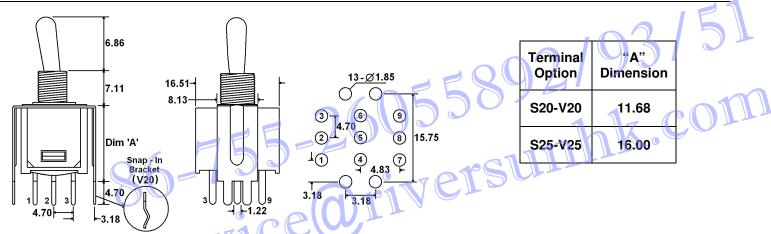




S20/S25 (V20/V25 – Snap-in Bracket) = PC Pins with Support Bracket (Single Pole)



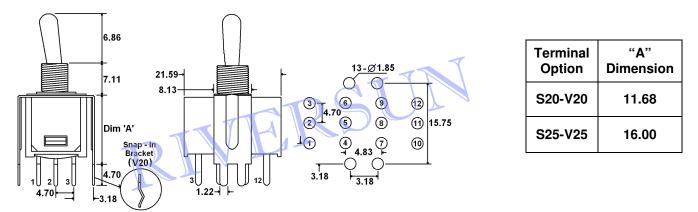
S20/S25 (V20/V25 – Snap-in Bracket) = PC Pins with Support Bracket (Double Pole)



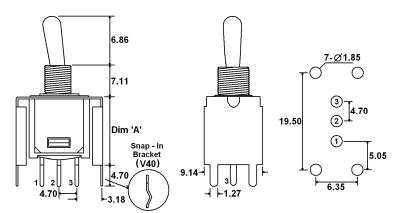
S20/S25 (V20/V25 – Snap-in Bracket) = PC Pins with Support Bracket (Three Pole)





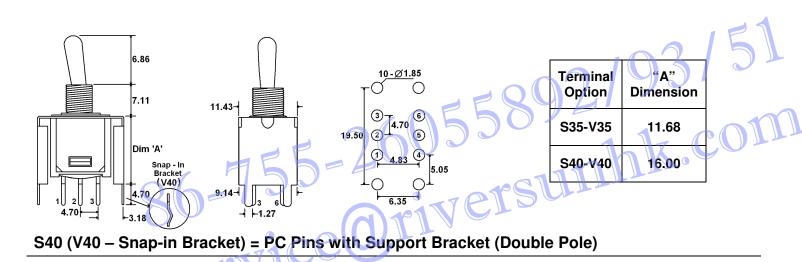


S20/S25 (V20/V25 – Snap-in Bracket) = PC Pins with Support Bracket (Four Pole)



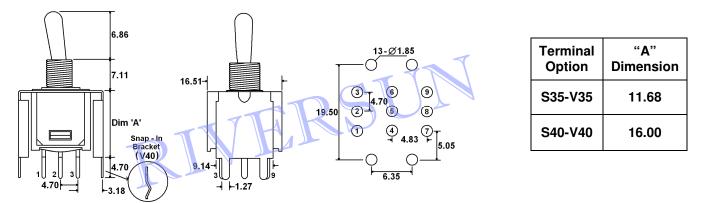
Terminal Option	"A" Dimension
S35-V35	11.68
S40-V40	16.00

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

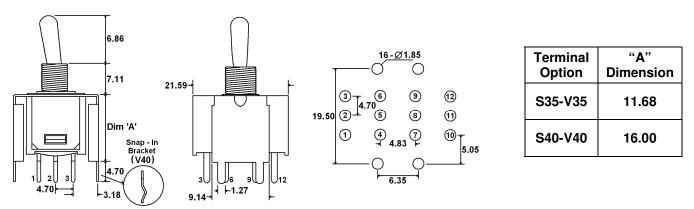








#### S40 (V40 – Snap-in Bracket) = PC Pins with Support Bracket (Three Pole)



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

#### **CONTACT OPTIONS**

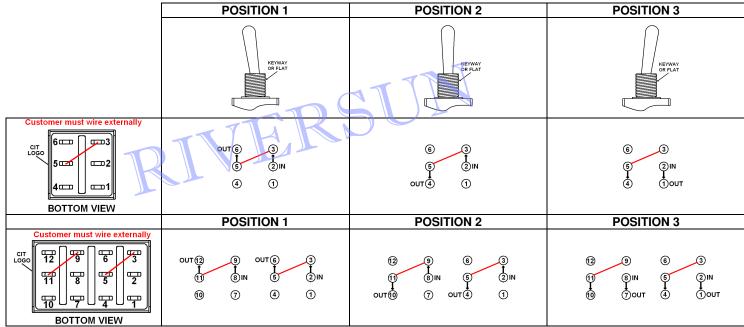
Designator	Contact Material	Terminal Material	Electrical Ratings
Q	Silver Plating	Silver Plating	5A @ 120VAC, 28VDC; 2A @ 250VAC 🚬 🗾
R	Gold over Nickel Plating	Gold over Nickel Plating	.4 VA max @ 20VAC or VDC max
G	Gold over Silver Plating	Gold over Silver Plating	.4 VA max @ 20VAC or VDC max or
		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

#### **CAP OPTIONS** 15/32-32 UNS 10 UN 10.00 24.00 10.00 Ø<u>3.60</u> **1**3.50 \_\_\_\_\_\_**3.50** 20.20 12.00 **RUBBER TOGGLE COVER** SEALED BOOT SEALED BOOT S\_ Е Ζ \*\* For use with E, F, J, & G bushings only. For use with S, T, X, V, & W actuators \*\* For use with BZ & BZR bushings only. Black 1 = White, 2 = Black, 3 = Red Black color standard. color standard.





#### THREE WAY WIRING DIAGRAM



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

