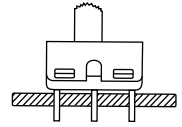
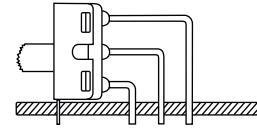


Specifications

Contact rating	6 A @ 125 VAC or 28 VDC, 3 A @ 250 VAC
Durability	30000 cycles at full load
Contact resistance	10 mΩ max. initial @ 3 VDC, 100 mA
Insulator resistance	1000 MΩ min.
Dielectrical withstanding	1500 VAC
Operation temperature	-30 °C to +85 °C

Materials

Case	Diallyl phthalate (DAP)
Slide handle	Nylon
Housing	Stainless steel
Contact and terminal	Copper alloy, plating: see order code and table (page 3)
Terminal seal	Epoxy



Straight type - part numbering guide

S W - T S - 1 3 - A 1 - 2 - C Q - E - S 2 0 - H

Switches Function		
TS-13	SPDT	on-none-on
TS-13A	SPDT	on-none-mom
TS-14	SPDT	on-off-on
TS-11	DPDT	on-none-on
TS-12	DPDT	on-off-on

Actuator	
A1	5.08
A2	7.35
A3	9.40
A4	3.60
A5	5.08
A6	12.32
A7	4.20
Wide Actuator	
S1	5.08

Actuator Color	
1	white
2	black (std.)
9	gray

Termination	
B	solder lug
C	printed circuit
D	quick connect
D1	wire wrap 19.05
D3	wire wrap 10.8

Contact Plating	
Q	silver
R	gold
G	gold over silver
Epoxy Seal	
(none)	none seal
E	epoxy seal

Vertical Support Bracket	
(none)	
S20	8.89 (SPDT)
S20	10.16 (DPDT)
S25	18.36 (SPDT)
RoHS Code	
H = RoHS Compliant	

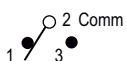
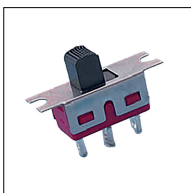
Right angle type - part numbering guide

S W - T S - 1 3 P - A 1 - 2 - Q - E - H

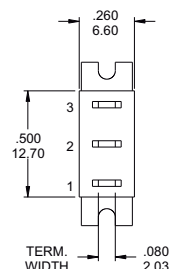
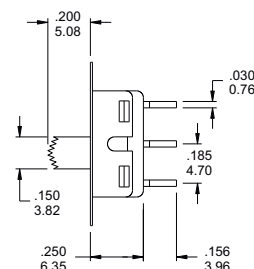
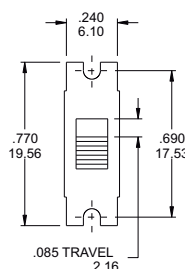
Right Angle Horizontal	Right Angle Vertical	Switches Function	Actuator		Actuator Color		Contact Plating		RoHS Code	
TS-13P	TS-13L	SPDT on-none-on	A1	4.72	1	white	Q	silver plated	H = RoHS Compliant	
TS-13PA	TS-13LA	SPDT on-none-mom	A2	6.96	2	black	R	gold plated		
TS-14P	TS-14L	SPDT on-off-on	A3	8.96	9	gray	G	gold over silver		
TS-11P	TS-11L	DPDT on-none-on	A4	3.10						
TS-12P	TS-12L	DPDT on-off-on	A5	4.72						
			A6	11.92						
			Wide Actuator							
			S1	4.72						
							Epoxy Seal			
							(none)	none seal		
							E	epoxy seal		

Straight type

SPDT



Model No.	Switching position		
			
TS-13	ON	NONE	ON
TS-13A	(ON)	NONE	ON
TS-14	ON	OFF	ON
Term. Comm.	2-3	open	2-1

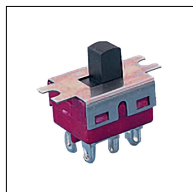


SW-TS-13-A1-2-BQ

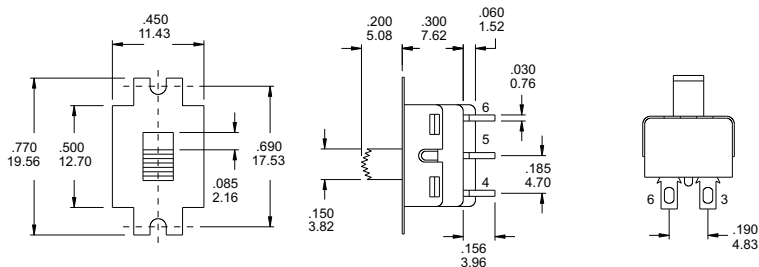


Straight type

DPDT



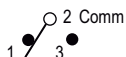
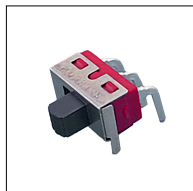
Model No.	Switching position		
TS-11	ON	NONE	ON
TS-12	ON	OFF	ON
Term. Comm.	2-3	open	2-1
	5-6		5-4



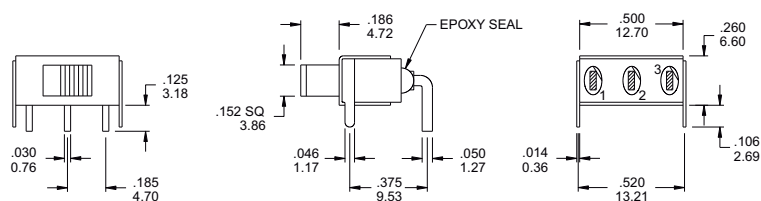
SW-TS-11-A1-2-BQ

Right angle horizontal type

SPDT

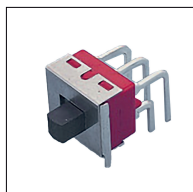


Model No.	Switching position		
TS-13P	ON	NONE	ON
TS-13PA	(ON)	NONE	ON
TS-14P	ON	OFF	ON
Term. Comm.	2-3	open	2-1

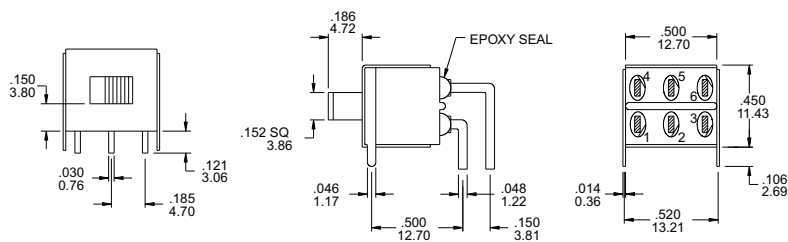


SW-TS-13P-A1-2-Q(-E)

DPDT



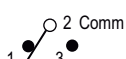
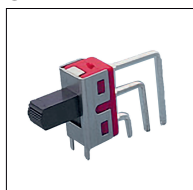
Model No.	Switching position		
TS-11P	ON	NONE	ON
TS-12P	ON	OFF	ON
Term. Comm.	2-3	open	2-1
	5-6		5-4



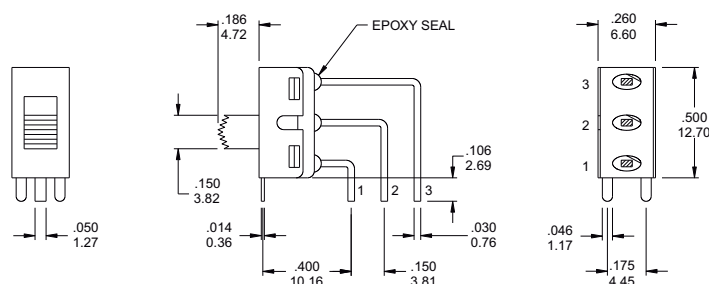
SW-TS-11P-A1-2-Q(-E)

Right angle vertical type

SPDT

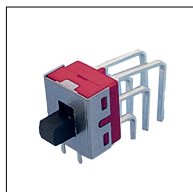


Model No.	Switching position		
TS-13L	ON	NONE	ON
TS-13LA	(ON)	NONE	ON
TS-14L	ON	OFF	ON
Term. Comm.	2-3	open	2-1

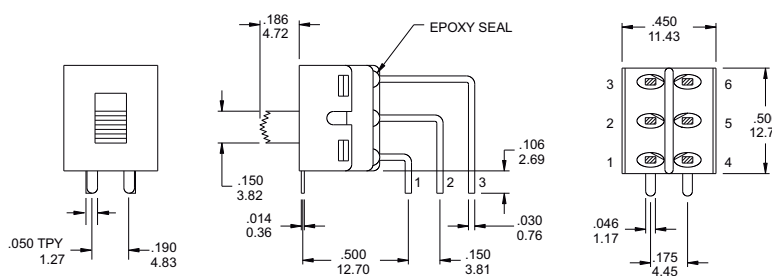


SW-TS-13L-A1-2-Q(-E)

DPDT



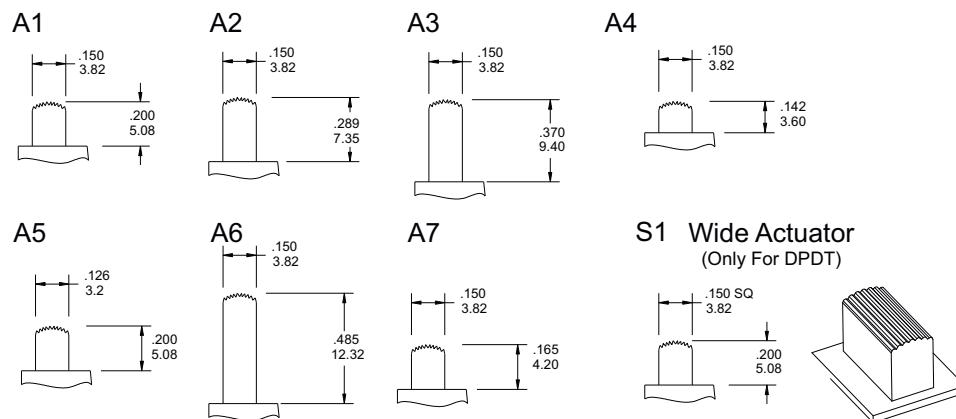
Model No.	Switching position		
TS-11L	ON	NONE	ON
TS-12L	ON	OFF	ON
Term. Comm.	2-3	open	2-1
	5-6		5-4



SW-TS-11L-A1-2-Q(-E)



Actuator option



• the height of actuator is for the straight type. It will be shorter while applying in Right Angle type

Actuator color

Code	Color
1	white
2	black
9	gray

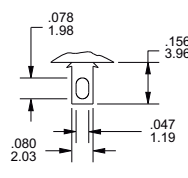
Terminal option (for straight type only)

B SOLDER LUG

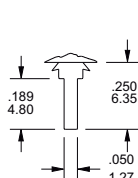
C PRINTED CIRCUIT

D QUICK CONNECT

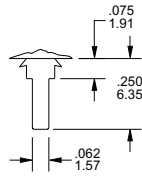
WIREWRAP



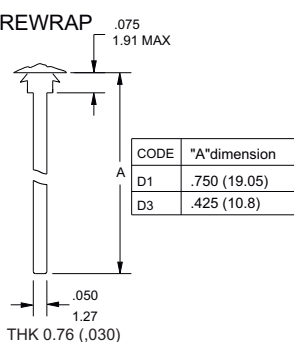
THK 0.76 (.030)



THK 0.76 (.030)



THK 0.76 (.030)



THK 0.76 (.030)

Terminal seal option

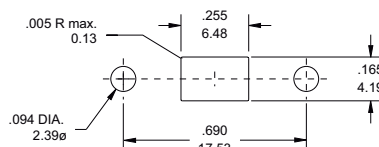
E TERMINAL SEAL



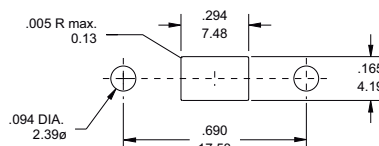
EPOXY SEAL

Panel mounting dimension

SW-TS-11/TS-13

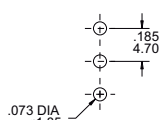


SW-TS-12 / TS-14

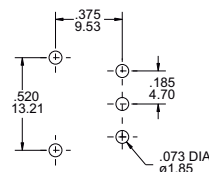


Recommended P.C.B. layout

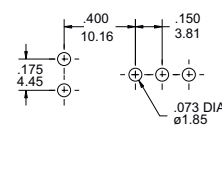
SW-TS-13/TS-14



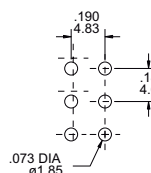
SW-TS-13P/TS-14P



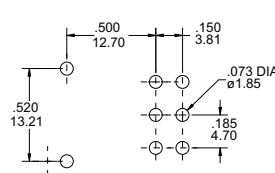
SW-TS-13L/TS-14L



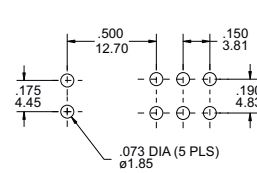
SW-TS-11/TS-12



SW-TS-11P/TS-12P



SW-TS-11L/TS-12L



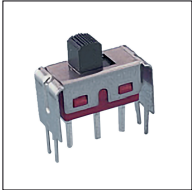
Contact material option

Code	Contact material	Terminal material	Rating
Q	Silver plated	Silver plated	6 A @ 125V AC or 28 V DC; 3 A @ 250 VAC
R	Gold plated over nickel plated	Gold plated over nickel plated	0.4VA MAX @ 20 V AC or DC MAX
G	Gold plated over silver plated	Gold plated over silver plated	0.4 VA MAX @ 20 V AC or DC MAX or 6 A @ 125V AC or 28 V DC; 3 A @ 250 VAC

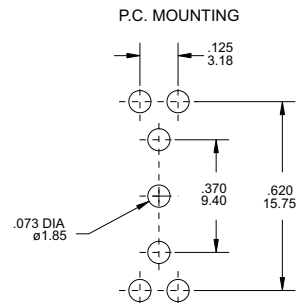
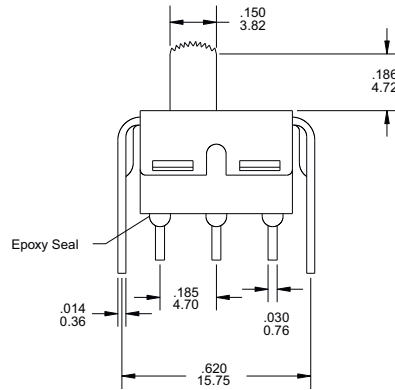
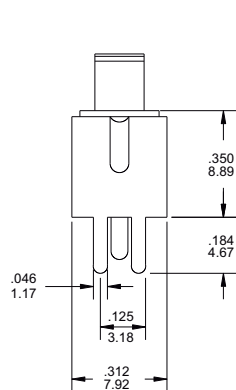


Vertical support bracket option (apply only on straight type, use terminal option code „C“)

S20

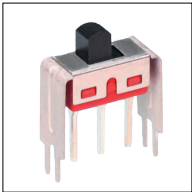


SPDT

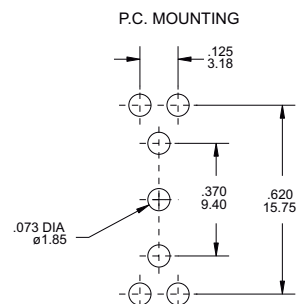
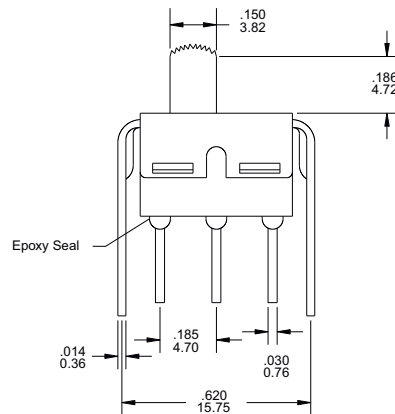
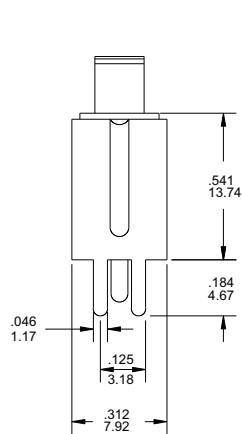


SW-TS-13-A1-2-CQ-S20

S25

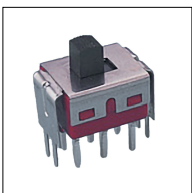


SPDT

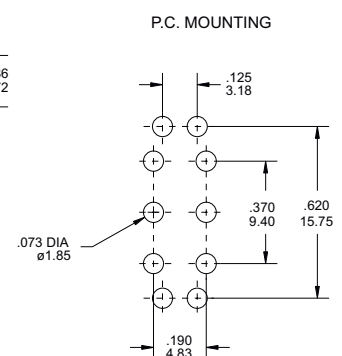
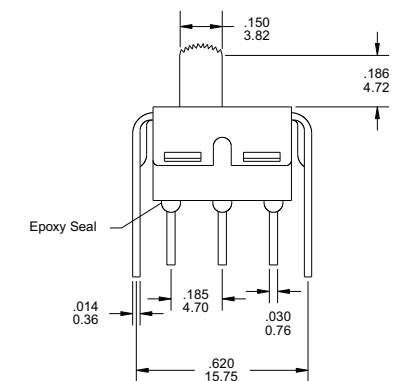
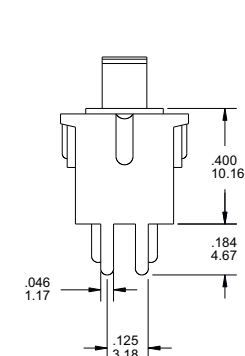


SW-TS-13-A1-2-CQ-S25

S20



DPDT



SW-TS-11-A1-2-CQ-S20

