

SPECIFICATIONS

CONTACT RATING: 3A @120 VAC or 28 VDC (Q Contact)
 ELECTRICAL LIFE:30,000 make-and-break cycles at full load
 CONTACT RESISTANCE: 20 mΩ max. initial @2-4 VDC,100 mA
 INSULATION RESISTANCE: 1,000 MΩ min.
 DIELECTRIC STRENGTH: 1,500 V RMS @ sea level.
 OPERATING TEMPERATURE: -30°C to +85°C

MATERIALS

CASE - diallyl phthalate (DAP)
 TOGGLE HANDLE - Copper alloy , chrome plated
 BUSHING - Copper alloy , nickel plated
 HOUSING - Stainless Steel
 CONTACT AND TERMINAL - Copper alloy , silver plated
 SWITCH SUPPORT - Copper alloy , tin-plated

How do you build the switches you need!!

The TS-4 / TS-5 , please see the (A) ;

The TS-6/TS-7/TS-8/TS-9, please see the (B)

(A) **TS** - **4** - **S** **E** **B** **Q** - **E** - **A5** - **T3** - **2** -

Switch Function		Actuator		Bushing		Termination		Vertical support Bracket		Cap color	
TS-4	SP on-none-on	For Bushing E/E1/F/F1		The 10-48 uns thread		B	solder lug	(none)		1	white
TS-4B	SP on-none-(on)	S	9.40	E	(std.) flat 5.59	C	P.C	A5	Vertical bracket	2	black
TS-4A	SP on-off-on	T	5.33	F	key-way 5.59	D	wire wrap	A5S	Vertical bracket (snap-in)	3	red
TS-4H	SP (on)-off-(on)	U	7.37	Non-thread						4	yellow
TS-4I	SP on-off-(on)	For Bushing G/G1/J/J1		E1	flat 5.59	Contact Material				5	blue
TS-5	DP on-none-on	V	10.41	F1	key-way 5.59	Q	silver plated	Actuator Cap/ Rubber hood Sealing		RoHS code	
TS-5B	DP on-none-(on)	X	5.59	1/4-40 uns thread		R	gold plated	Actuator Cap		H = RoHS Compliant	
TS-5A	DP on-off-(on)	Locking Lever		G	flat 7.87	G	gold over silver	T3	9.40 (for actuator S/V/X)		
TS-5H	DP (on)-off-(on)	LK	Round top	J	key-way 6.60	K	tin plated	Rubber Hood			
TS-5I	DP on-off-(on)	LK1	Flat top	None		Epoxy seal		E1	for bushing G/J		
				The actuator LK/LK1 No requirement to choose the bushing, unless the non-thd LKN / LK1N		(none) none seal		E7	for bushing E/F		
						E epoxy seal					

(B) **TS** - **6** - **T** **E1** **Q** - **E** - **S** - **T3** - **5** -

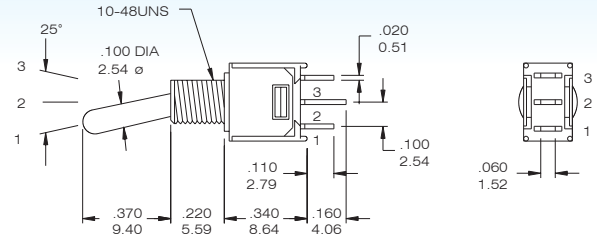
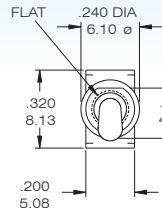
Horizon Right Angle	Vertical Right Angle	Switches Function	Actuator		Bushing		Contact Material		Actuator Cap	
TS-6	TS-8	SP on-none-on	For Bushing E/E1/F/F1		The 10-48 uns thread		Q	silver plated	(none)	
TS-6B	TS-8B	SP on-none-(on)	S	9.40	E	flat 5.59	R	gold plated	T3	9.40 (actuator S/V/X)
TS-6A	TS-8A	SP on-off-on	T	5.33	F	key-way 5.59	G	gold over silver	Cap color	
TS-6H	TS-8H	SP (on)-off-(on)	U	7.37	Non-thread		K	gold / tin	1	white
TS-6I	TS-8I	SP on-off-(on)	For Bushing G/G1/J/J1		E1	(std.) flat 5.59	Epoxy seal		2	black
TS-7	TS-9	DP on-none-on	V	10.41	F1	key-way 5.59	(none)	none seal	3	red
TS-7B	TS-9B	DP on-none-(on)	X	5.59	1/4-40 uns thread		E	epoxy seal	4	yellow
TS-7A	TS-9A	DP on-off-(on)	Bracket type		G	flat 7.87	Bracket type		5	blue
TS-7H	TS-9H	DP (on)-off-(on)	(none)	std. Straight	J	key-way 6.60	S	Snap-in type	RoHS code	
TS-7I	TS-9I	DP on-off-(on)			None				H = RoHS Compliant	
	TS-82	SP on-none-on			G1					
	TS-82B	SP on-none-(on)			J1					
	TS-82A	SP on-off-on			key-way 6.60					
	TS-82H	SP (on)-off-(on)								
	TS-82I	SP on-off-(on)								



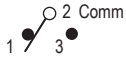
SPDT



Model No.	Switching position		
TS-4	ON	none	ON
TS-4A	ON	OFF	ON
TS-4B	ON	None	(ON)
TS-4H	(ON)	OFF	(ON)
TS-4I	ON	OFF	(ON)
Term. Comm.	2-3	open	2-1



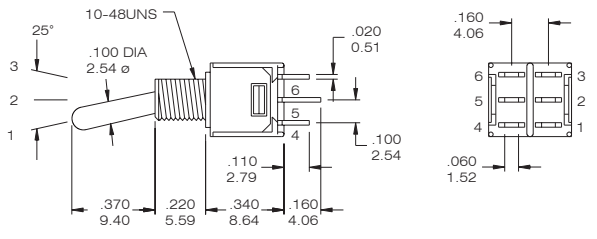
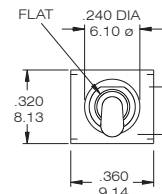
TS-4 - SEBQ



DPDT



Model No.	Switching position		
TS-5	ON	none	ON
TS-5A	ON	OFF	ON
TS-5B	ON	None	(ON)
TS-5H	(ON)	OFF	(ON)
TS-5I	ON	OFF	(ON)
Term. Comm.	2-3,5-6	open	2-1,5-4



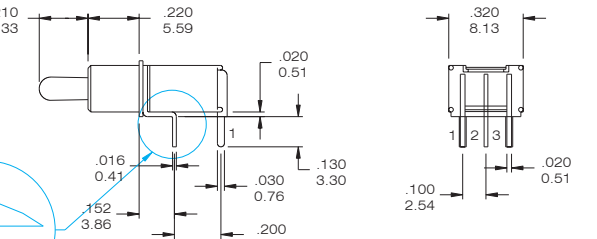
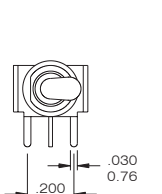
TS-5 - SEBQ



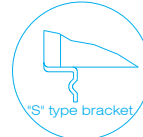
SPDT



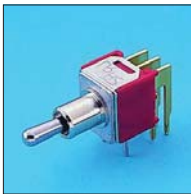
Model No.	Switching position		
TS-6	ON	none	ON
TS-6A	ON	OFF	ON
TS-6B	ON	None	(ON)
TS-6H	(ON)	OFF	(ON)
TS-6I	ON	OFF	(ON)
Term. Comm.	2-3	open	2-1



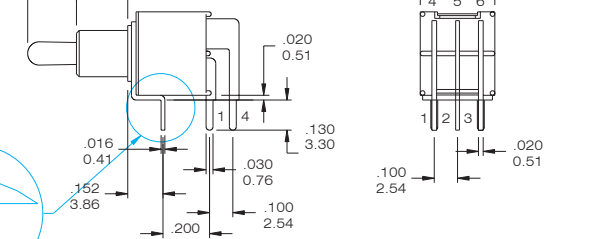
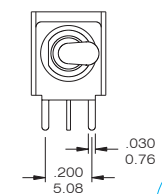
TS-6 - TE1Q / TS-6-TE1Q-S



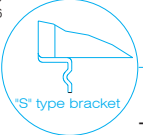
DPDT



Model No.	Switching position		
TS-7	ON	none	ON
TS-7A	ON	OFF	ON
TS-7B	ON	None	(ON)
TS-7H	(ON)	OFF	(ON)
TS-7I	ON	OFF	(ON)
Term. Comm.	2-3,5-6	open	2-1,5-4



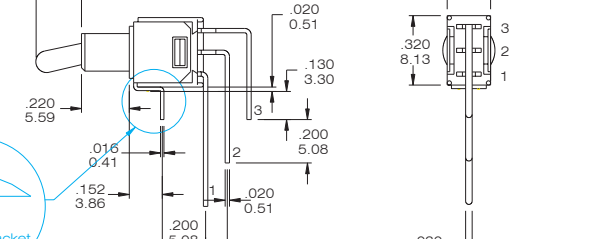
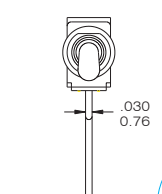
TS-7 - TE1Q / TS-7-TE1Q-S



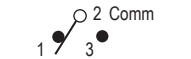
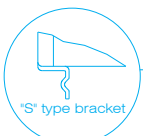
SPDT



Model No.	Switching position		
TS-8	ON	none	ON
TS-8A	ON	OFF	ON
TS-8B	ON	None	(ON)
TS-8H	(ON)	OFF	(ON)
TS-8I	ON	OFF	(ON)
Term. Comm.	2-3	open	2-1



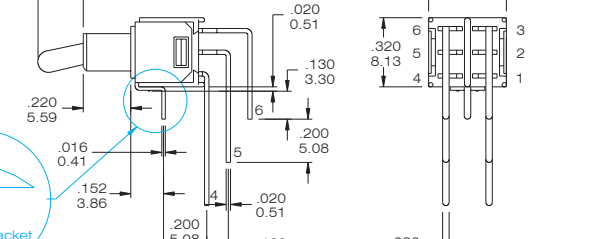
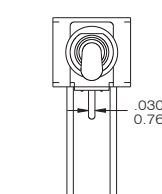
TS-8 - TE1Q / TS-8-TE1Q-S



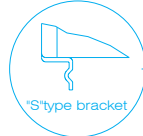
DPDT



Model No.	Switching position		
TS-9	ON	none	ON
TS-9A	ON	OFF	ON
TS-9B	ON	None	(ON)
TS-9H	(ON)	OFF	(ON)
TS-9I	ON	OFF	(ON)
Term. Comm.	2-3,5-6	open	2-1,5-4

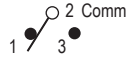
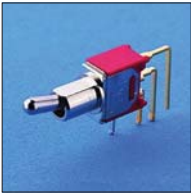


TS-9 - TE1Q / TS-9-TE1Q-S

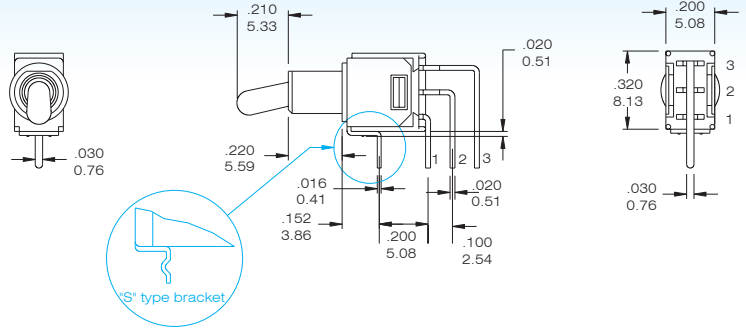




SPDT



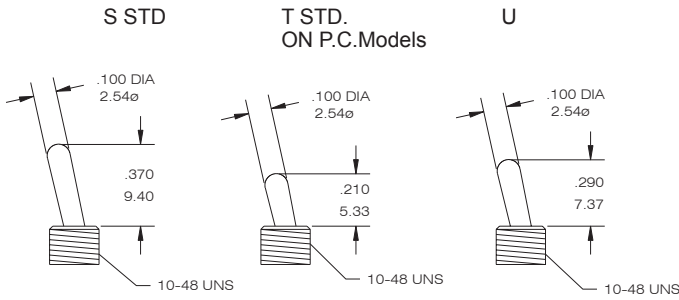
Model No.	Switching position		
TS-82	ON	none	ON
TS-82A	ON	OFF	ON
TS-82B	ON	None	(ON)
TS-82H	(ON)	OFF	(ON)
TS-82I	ON	OFF	(ON)
Term. Comm.	2-3	open	2-1



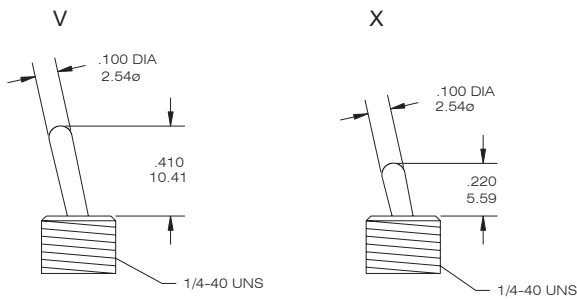
TS-82- TE1Q / TS-82-TE1Q-S

Actuator Option

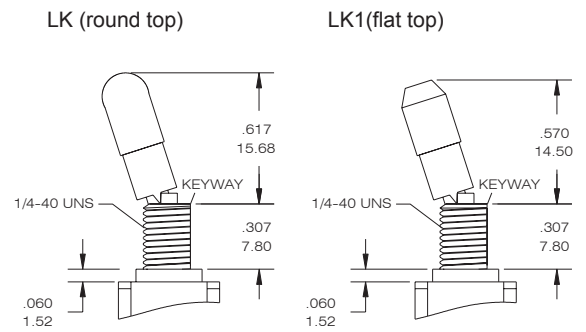
only applied for the bushing (E/E1/F/F1)



only applied for the bushing (G/G1/J/J1)



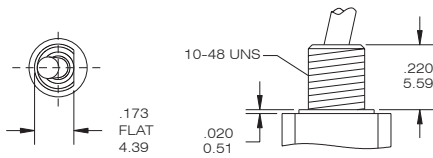
Locking Lever



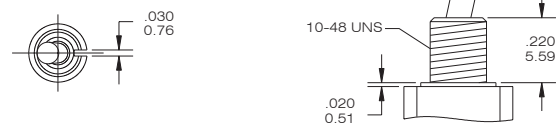
Bushing Option Code not required unless non-thread ordered, choose the bushing code "N" -- LKN / LK1N

Bushing Option

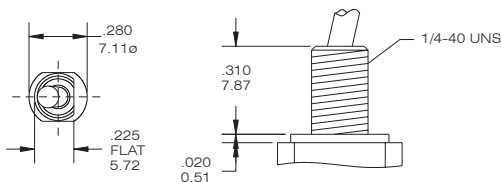
E THD. STD.
E1 NON THD. STD. ON P.C.Model



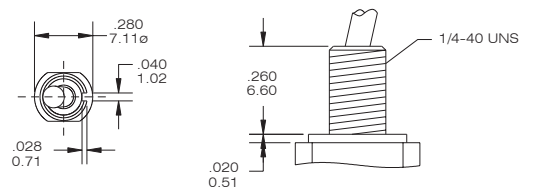
F THD
F1 NON THD



G THD
G1 NON THD



J THD
J1 NON THD





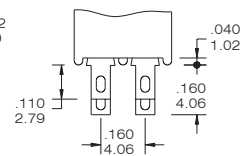
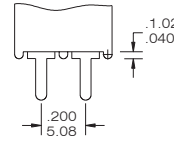
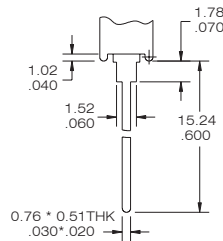
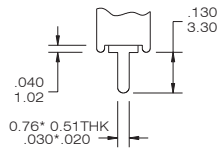
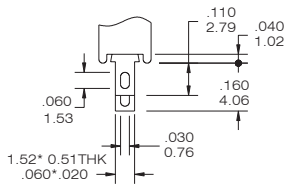
TERMINAL OPTION (ONLY FOR THE TS-4 / TS-5)

B Solder Lug(STD)

C PRINTED CIRCUIT

D Wire Wrap

DPDT



CONTACT MATERIAL OPTIONS

CODE	CONTACT MATERIAL	TERMINAL MATERIAL	RATING
Q	Silver plated	Silver plated	3 A @ 120V AC or 28 V DC; 1.5 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 3 A @ 120V AC or 28 V DC; 1.5 A @ 250 VAC
K	Gold plated over nickel plated	Tin over nickel plated	0.4VA MAX @ 20 V AC or DC MAX

* THE K option is only for some special item. Please inquire first when you need the "K" option

P.C.B MOUNTING DIMENSION

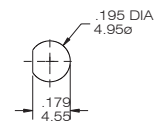
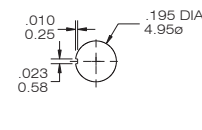
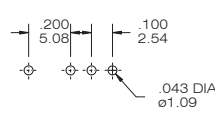
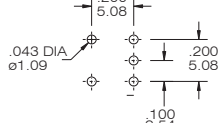
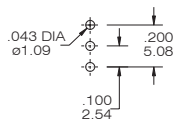
PANEL MOUNTING DIMENSION

TS-4 (PC terminal)

TS-6

TS-8

10-48 BUSHING

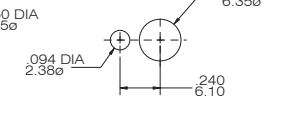
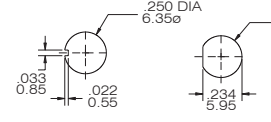
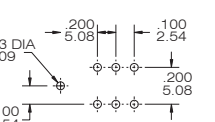
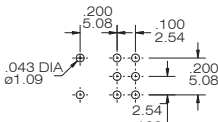
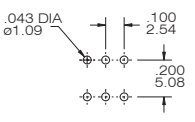


TS-5(PC terminal)

TS-7

TS-9

1/4 IN. BUSHING



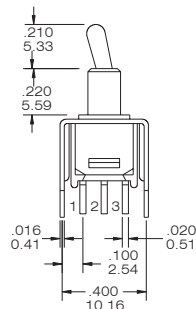
without lock ring

with lock ring

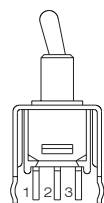
VERTICAL SUPPORT BRACKET OPTION

only for the TS-4/TS-5. If you need the vertical support bracket, please build the terminal option - "C" code

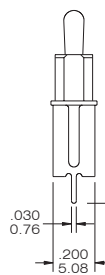
A5/ A5S



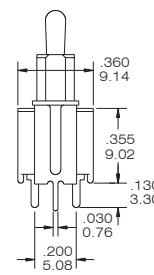
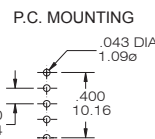
A5 STD.



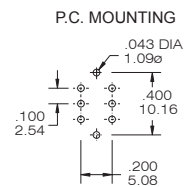
A5S Snap-in



TS-4-TE1CQ-A5



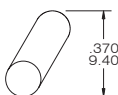
TS-5-TE1CQ-A5



Toggle Cap Option

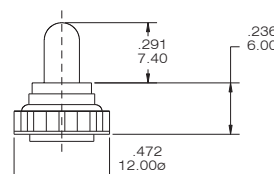
Rubber Hood Sealing

T3 for actuator "S" only

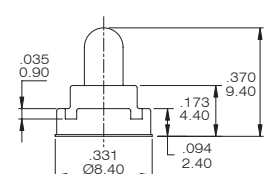


Material Vinyl

code	color	code	color
1	white	4	yellow
2	black	5	blue
3	red		



E1 for bushing G/J (1/4 - 40UNS)



E7 for bushing E/F (10-48UNS special code)