

SPECIFICATIONS

CONTACT RATING: 6A @125 VAC or 28 VDC (Q terminal)
 ELECTRICAL LIFE: 50,000 make-and-break cycles at full load
 CONTACT RESISTANCE: 10 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 -Glass filled nylon 6/6 or nylon 4/6 (UL94V-0)
 ACTUATOR - Copper alloy , chrome plated with internal o-ring standard
 SWITCH SUPPORT - Copper alloy or steel, tin plated
 CONTACT AND TERMINAL- Copper alloy , silver plated
 TERMINAL SEAL: Epoxy

IP67 protection degree

How do you build the switches you need!!

The straight type , please see the (A) ;

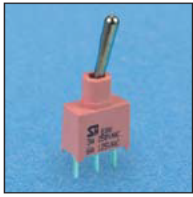
The right angle P.C terminals, please see the (B)

(A) **NE8013** - **S** **E** **C** **Q** - **S20** - **T1** - **2** - **-** **-**

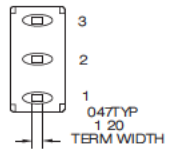
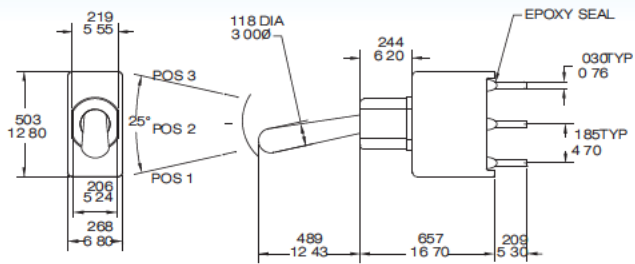
Switch Function		Actuator		Bushing		Contact Material		Actuator Cap		O Ring	
NE8013	SP on none on	S	12.43	N	(std.) non thd. 6.15	Q	silver plated	(none)		(none)	
NE8013A	SP on none (on)	T	7.30	E	thd. 8.89	R	gold plated	T1	10.58 (for actuator S)	E6	for inch thd
NE8014	SP on off on	Esd protection actuator		Termination		G	gold over silver	T2	7.56 (for actuator T)	RoHS code	
NE8014A	SP (on) off (on)	P1	(black) 12.43	B	solder lug	K	tin plated	Cap color		H = RoHS Compliant	
NE8014B	SP on off (on)	P11	(white) 12.43	C	P.C 1.27width	Vertical support Bracket		0	transparent		
NE8011	DP on none on	P19	(silver) 12.43	D	Quick connect	(none)		1	white		
NE8011A	DP on none (on)	P2	(black) 7.30	D1	wire wrap	S20	11.68	2	black		
NE8012	DP on off on	P21	(white) 7.30	D3	wire wrap	S25	16.00	3	red		
NE8012A	DP (on) off (on)	P29	(silver) 7.30			S35	11.68	4	orange		
NE8012B	DP on off (on)					S40	16.00	5	yellow		
3 way position switches						V20	snap in 11.68	6	green		
NE812	DP on on on					V25	snap in 16.00	7	blue		
						V35	snap in 11.68				
						V40	snap in 16.00				

(B) **NE8019L** - **T** **N** **Q** - **T2** - **2** - **-**

Horizon Right Angle	Vertical Right Angle	Switches Function	Actuator		Bushing		Cap color		RoHS code		
NE8019	NE8019L	SP on none on	S	12.43	N	(std) non thd	6.15	0	transparent	H = RoHS Compliant	
NE8019A	NE8019LA	SP on none (on)	T	7.30	Contact Material		Actuator Cap				
NE8020	NE8020L	SP on off on	Esd protection actuator		Q	silver plated	T1		10.58 (actuator S)		
NE8020A	NE8020LA	SP (on) off (on)	P1	(black) 12.43	R	gold plated	T2		7.56 (actuator T)		
NE8020B	NE8020LB	SP on off (on)	P11	(white) 12.43	G	gold over silver					
NE8021	NE8021L	DP on none on	P19	(silver) 12.43	K	tin plated					
NE8021A	NE8021LA	DP on none (on)	P2	(black) 7.30	Actuator Cap						
NE8022	NE8022L	DP on off on	P21	(white) 7.30	(none)						
NE8022A	NE8022LA	DP (on) off (on)	P29	(silver) 7.30	T1	10.58 (actuator S)					
NE8022B	NE8022LB	DP on off (on)			T2	7.56 (actuator T)					
3 way position switches											
NE822	NE822L	DP on on on									

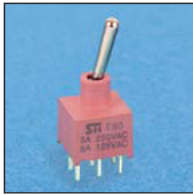


Model No.	Switching position		
NE8013	ON	none	ON
NE8013A	ON	none	(ON)
NE8014	ON	OFF	ON
NE8014A	(ON)	OFF	(ON)
NE8014B	ON	OFF	(ON)
Term. Comm.	2 3	open	2 1

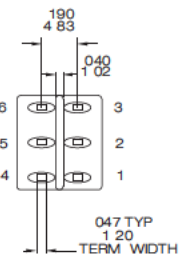
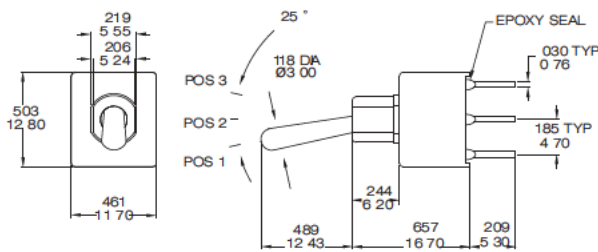


Terminal Nos.
For Reference Only

NE8013 - SNCQ



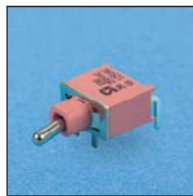
Model No.	Switching position		
NE8011	ON	none	ON
NE8011A	ON	none	(ON)
NE8012	ON	OFF	ON
NE8012A	(ON)	OFF	(ON)
NE8012B	ON	OFF	(ON)
Term. Comm.	2 3, 5 6	open	2 1, 5 4
3 way switches			
NE812	ON	ON	ON
Term. Comm.	2 3, 5 6, 2 3, 5 4	2 1, 5 4	



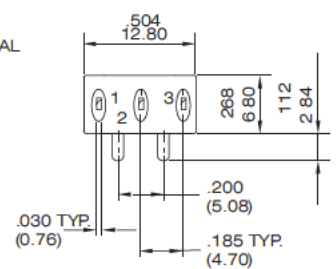
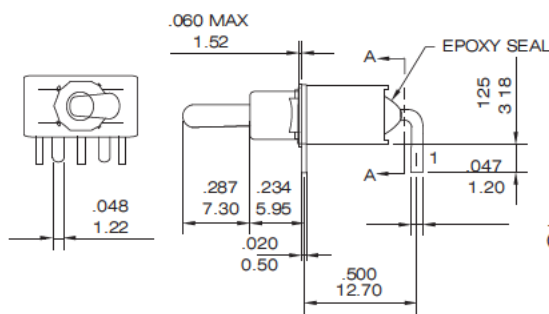
Terminal Nos.
For Reference Only

NE8011 - SNCQ

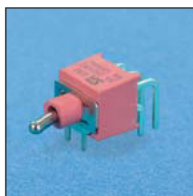
Please see page A08 to know more about NE812 (3-way Switches)



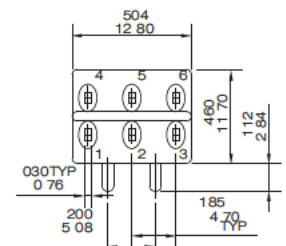
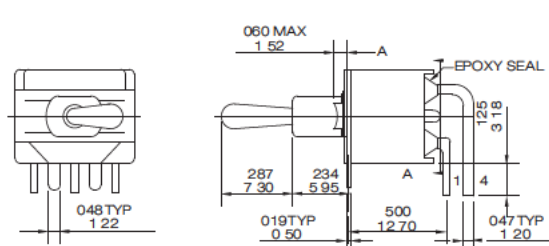
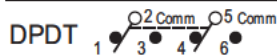
Model No.	Switching position		
NE8019	ON	none	ON
NE8019A	ON	none	(ON)
NE8020	ON	OFF	ON
NE8020A	(ON)	OFF	(ON)
NE8020B	ON	OFF	(ON)
Term. Comm.	2 3	open	2 1



NE8019 - TNQ

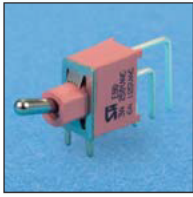


Model No.	Switching position		
NE8021	ON	none	ON
NE8021A	ON	none	(ON)
NE8022	ON	OFF	ON
NE8022A	(ON)	OFF	(ON)
NE8022B	ON	OFF	(ON)
Term. Comm.	2 3, 5 6	open	2 1, 5 4
3 way switches			
NE822	ON	ON	ON
Term. Comm.	2 3, 5 6, 2 3, 5 4	2 1, 5 4	



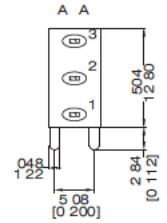
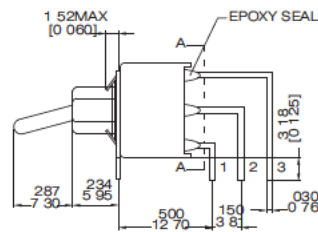
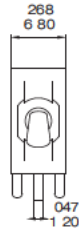
NE8021 - TNQ

Please see page A08 to know more about NE822 (3-way Switches)

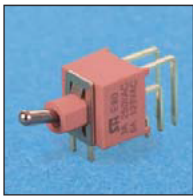


Model No.	Switching position		
NE8019L	ON	none	ON
NE8019LA	ON	none	(ON)
NE8020L	ON	OFF	ON
NE8020LA	(ON)	OFF	(ON)
NE8020LB	ON	OFF	(ON)

Term Comm 2-3 open 2-1
 SPDT

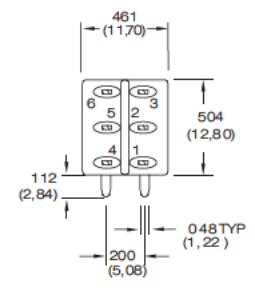
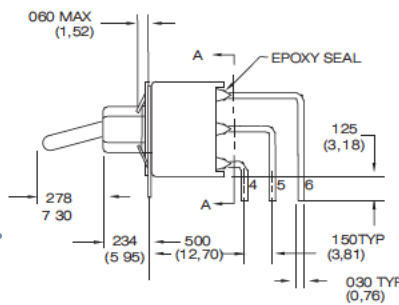
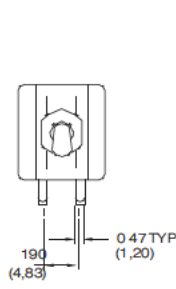


NE8019L - TNQ



Model No.	Switching position		
NE8021L	ON	none	ON
NE8021LA	ON	none	(ON)
NE8022L	ON	OFF	ON
NE8022LA	(ON)	OFF	(ON)
NE8022LB	ON	OFF	(ON)

Term Comm 2-3,5-6 open 2-1,5-4
 3 way switches
 Term Comm 2-3,5-6 2-3,5-4 2-1,5-4
 DPDT

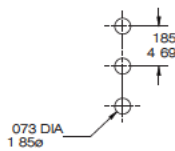


NE8021L - TNQ

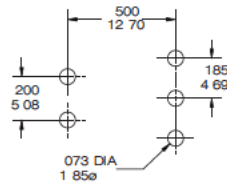
Please see page A08 to know more about NE822L (3-way Switches)

P.C.B MOUNTING DIMENSIONS

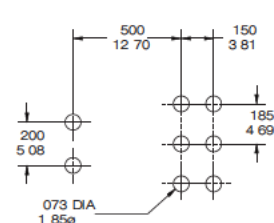
NE8013 NE8014B



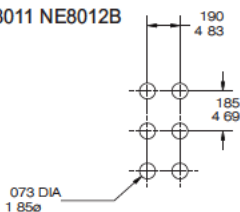
NE8019 NE8020B



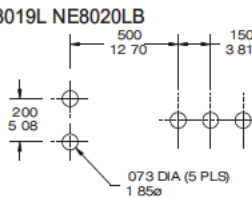
NE8021 NE8022B



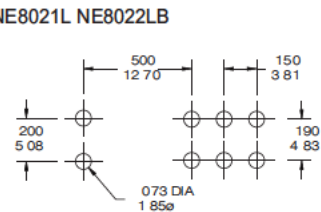
NE8011 NE8012B



NE8019L NE8020LB

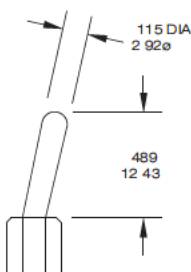


NE8021L NE8022LB

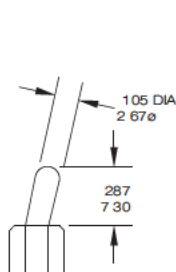


Actuator Option

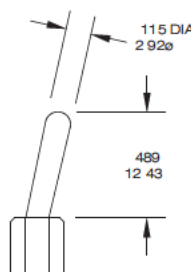
S (STD)



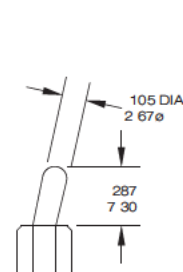
T (STD)



PLASTIC TOGGLE
P1



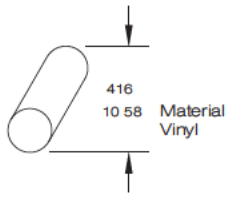
P2



code	description
P1/P2	black(std.)
P11/P21	white
P19/P29	silver

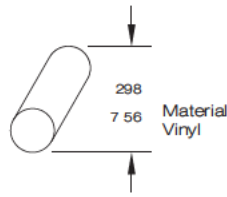
Toggle Cap Option

T1



For actuator "S" only

T2

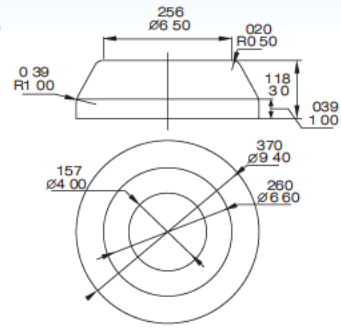


For actuator "T"

code	color
0	transparent
1	white
2	black
3	red
4	orange
5	yellow
6	green
7	blue

O Ring

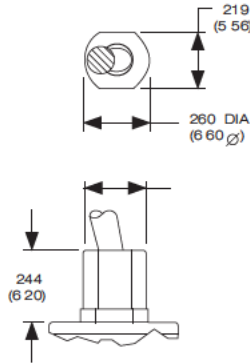
E6



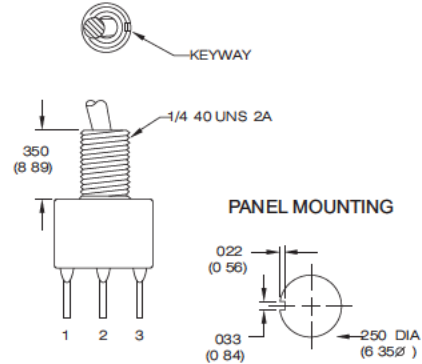
For "E" bushing

Bushing Option

N (std)

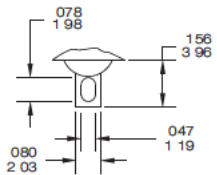


E



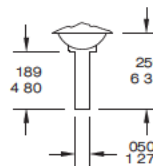
TERMINAL OPTION

B SOLDER LUG



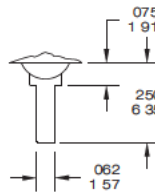
THK 0.76 (.030)

C PRINTED CIRCUIT



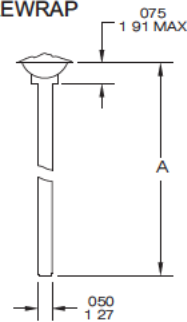
THK 0.76 (.030)

D QUICK CONNECT



THK 0.76 (.030)

WIREWRAP



THK 0.76 (.030)

CODE	"A" dimension
D1	.750 (19.05)
D3	.425 (10.8)

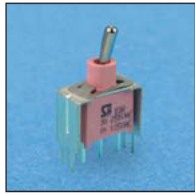
CONTACT MATERIAL OPTIONS

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
K	Gold plated over nickel plated	Tin over nickel plated	0.4VA MAX @ 20 V AC or DC MAX

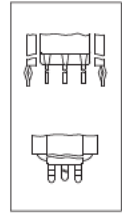
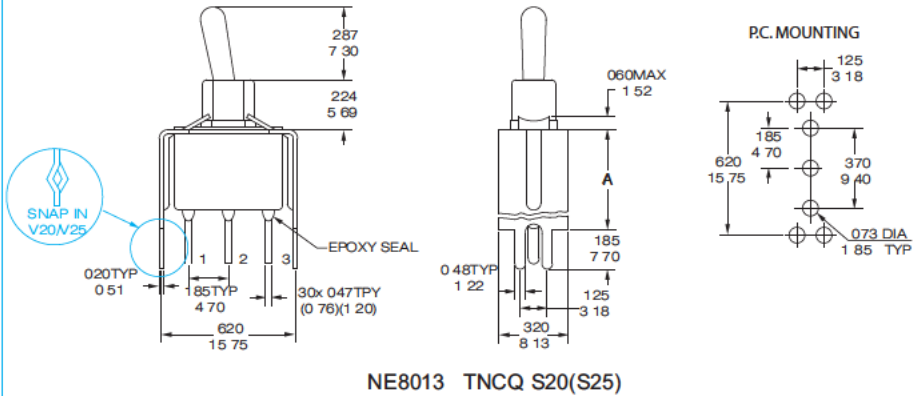
* THE K option is only for some special item. Please inquire first when you need the "K" option

VERTICAL SUPPORT BRACKET OPTION

(only apply the straight type terminal -page A04. Please build the terminal option is "c" code)



S20/ S25 / V20/ V25 (SPDT)

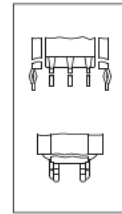
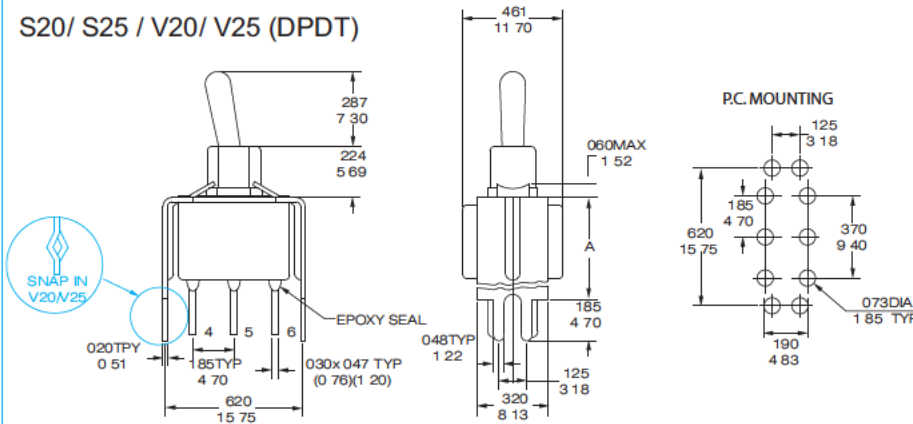


SNAP IN V20/ V25

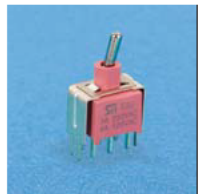
option Code	A dimension
S20/V20	.460 11.68
S25/V25	.630 16.00
V20/V25 : the snap-in type	

NE8013 TNCQ S20(S25)

S20/ S25 / V20/ V25 (DPDT)



SNAP IN V20/ V25



NE8011 TNCQ S20(S25)

TOGGLE

ROCKER

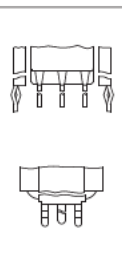
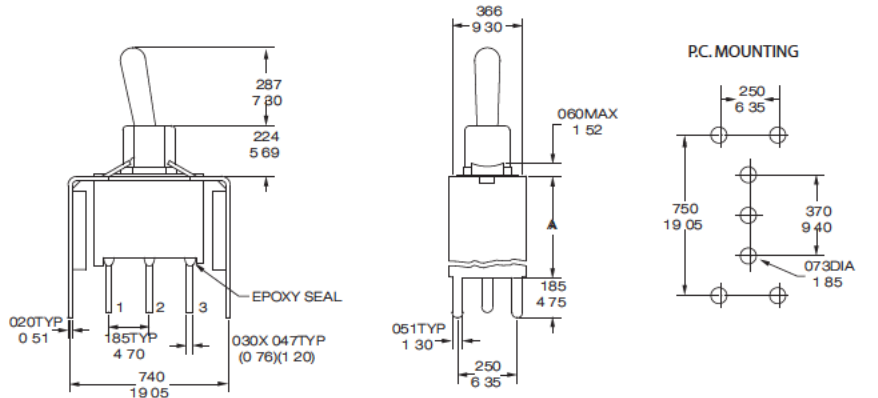
SLIDE

PUSH BUTTON

DIP

TACT

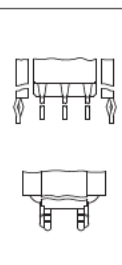
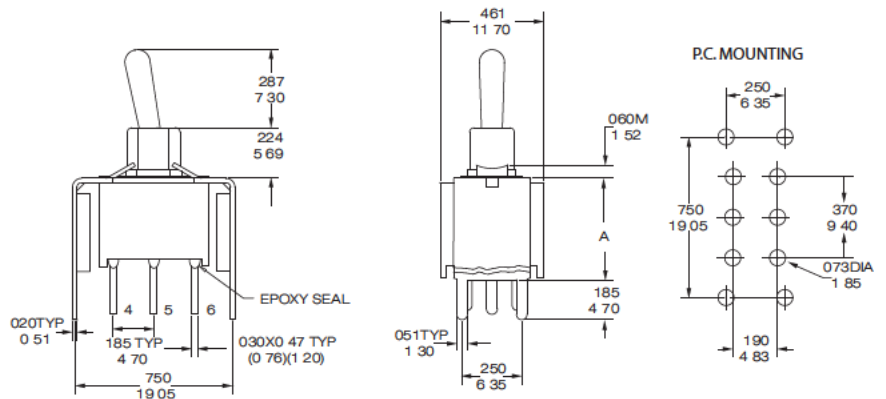
option Code	A dimension
S35/V35	.460 11.68
S40/V40	.630 16.00
V35/V40 : the snap-in type	



SNAP IN V35/ V40

NE8013 TNCQ S35(S40)

option Code	A dimension
S35/V35	.460 11.68
S40/V40	.630 16.00
V35/V40 : the snap-in type	

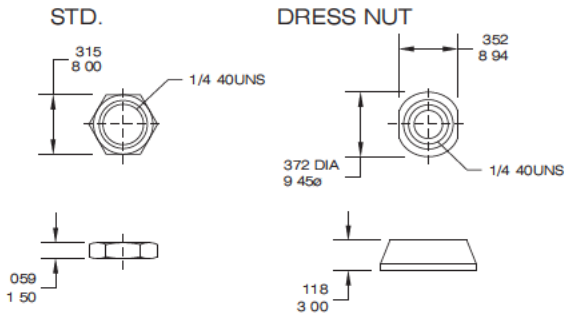


SNAP IN V35/ V40

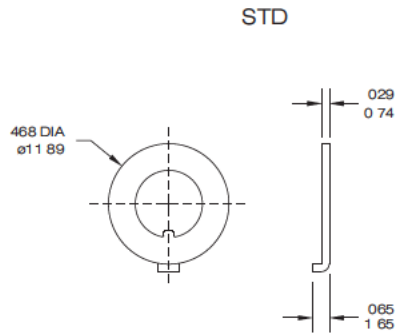
NE8011 TNCQ S35(S40)

The hardware of NE80-T toggle switches (only for E bushing)

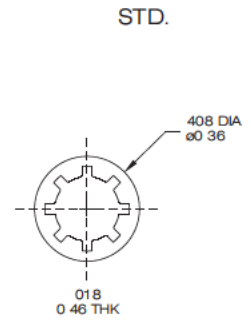
NUT



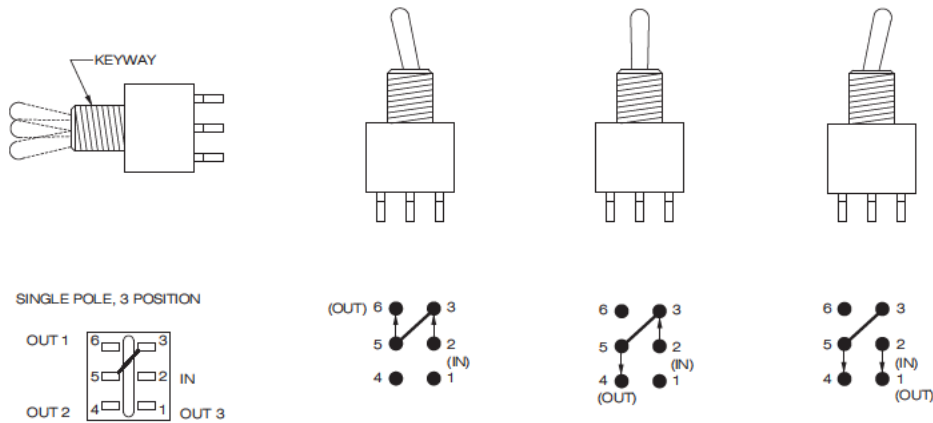
LOCKING RING



LOCK WASHER



The information of 3-way toggle switches



SP3T