

R19A Series Rocker Switches



R19A-12BBBT R19A-12BBAW R19A-30GWET



R19A-12BBOTP Paddle R19A-001 W/ LED R19A-12BBERL

SPECIFICATION:

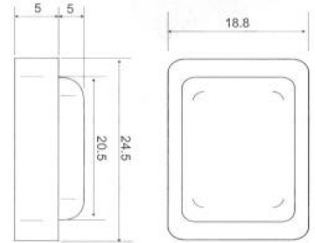
- * Rating : 2A 250V & 6A 250V AC (Standard) , 8A 250V
- * Mechanical Life : 30,000 Cycles (Min)
- * Electrical Life : 10,000 Cycles (Min)
- * Contact Resistance : < 20 mΩ
- * Insulation Resistance : > 1000 MΩ
- * Dielectric Strengths : > 1500 Volts 1 Minute
- * Contacts gap : > 3mm



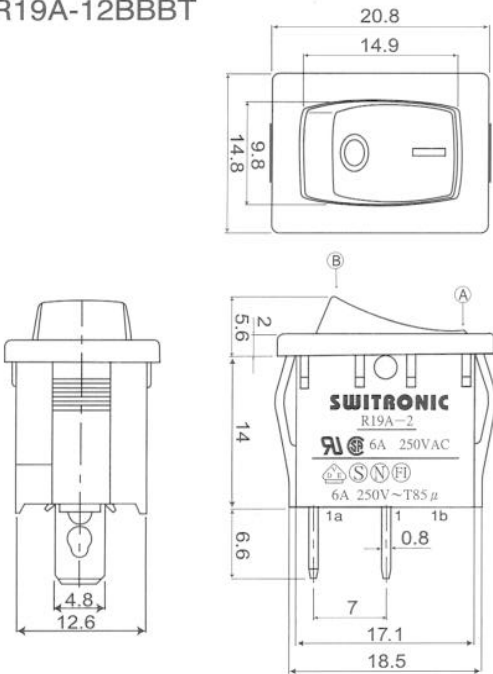
R19 SEAL CAP

MATERIALS:

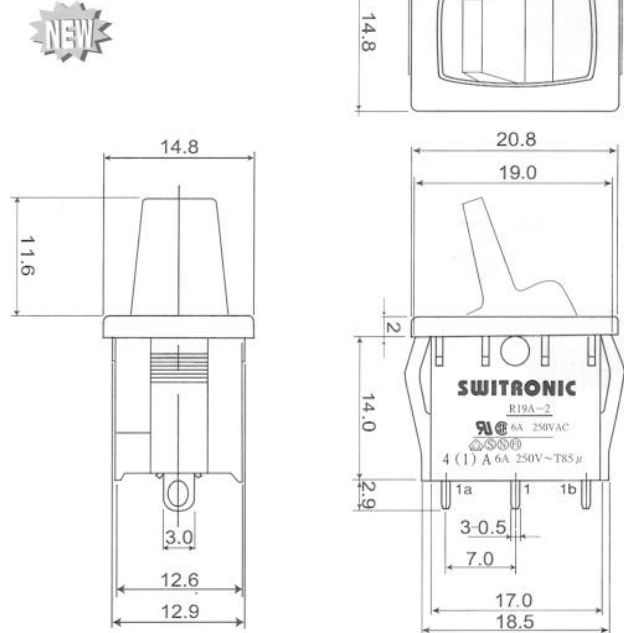
- * Body : Nylon 66
- * Rocker : PC or Nylon.
- * Contact Surface: Alloy Contact Point , Silver Plated
- * Illuminated : LED.
- * Terminal : Brass , Silver Plated.



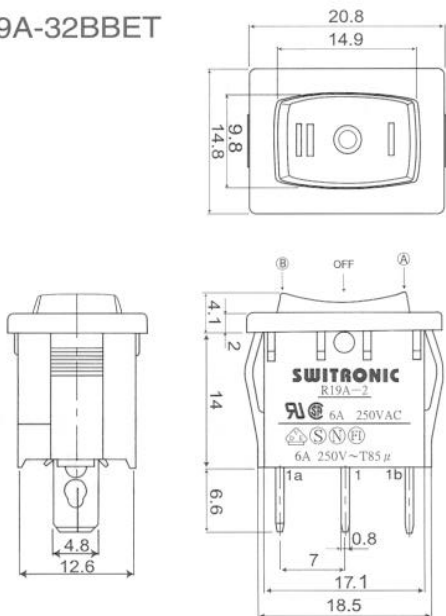
R19A-12BBBT



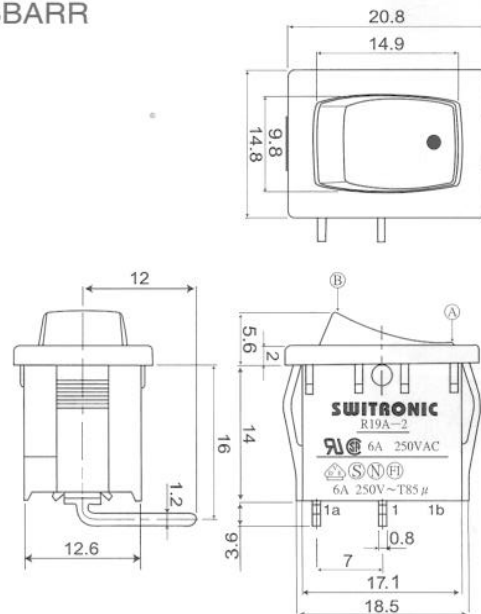
R19A-22BBOSP PADDLE TYPE



R19A-32BBET



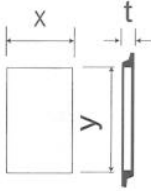
R19A-12BBARR



R19A Series Rocker Switches / LED ILLUMINATED

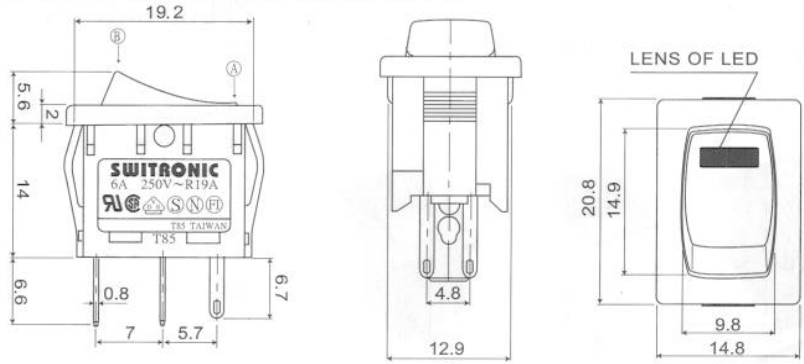


PANEL HOLE DIMENSIONS

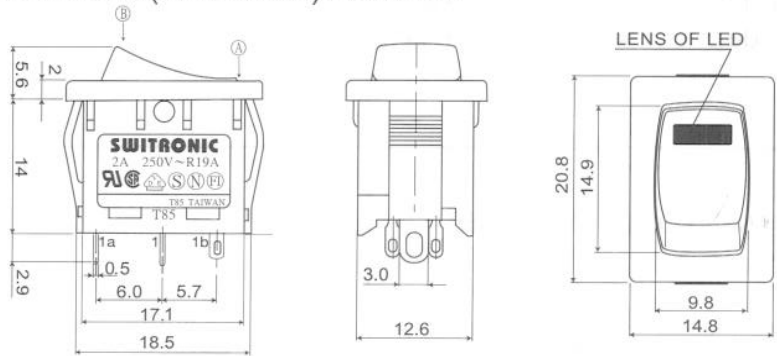
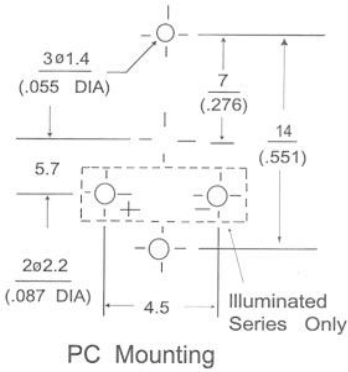


t	X	Y
0.7±1.25	13±0.1	19 +0.2
1.25±2	13±0.1	19.3 +0.2
2÷3	13±0.1	19.6 +0.2

R19A-02IBBOTR(6A250VAC) Red LED



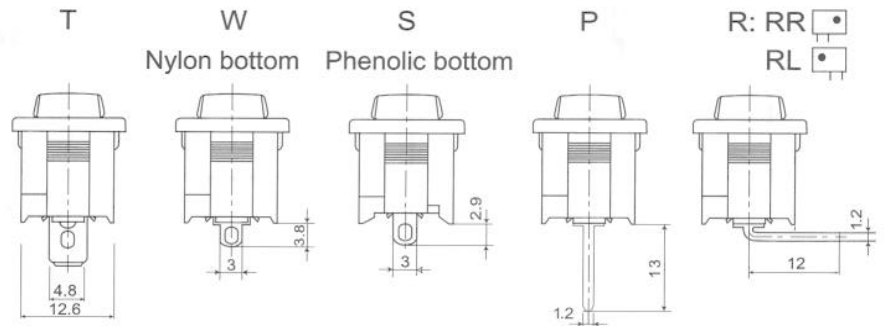
R19A-00IBBOSR(2A250VAC) Red LED



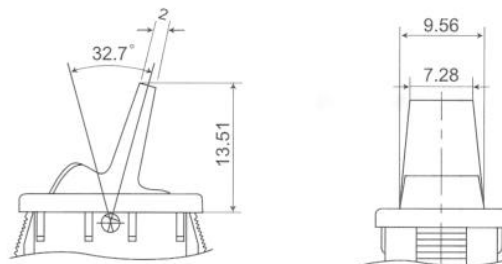
() MOMENTARY

FUNCTION	MODEL NO	TERMINAL TYPE		
		2 A	6 A	8 A
ON OFF LED Illuminated	R19A-0	0I	2I	5I
ON SPST OFF	R19A-1	0	2	5
ON SPDT ON	R19A-2	0	2	5
ON OFF ON SPDT	R19A-3	0	2	5
ON SPDT (ON)	R19A-4	0	2	5
OFF SPDT (ON)	R19A-5	0	2	5
(ON) OFF (ON) SPDT	R19A-6	0	2	5
ON SPDT (OFF)	R19A-7	0	2	5
ON OFF (ON) SPDT	R19A-8	0	2	5

TERMINAL TYPE



PADDLE TYPE



HOW TO ORDER

R19A-0 0I B B O S R

MODEL NO.	RATING	HOUSING COLOR	ROCKER COLOR	MARKING	TERMINAL TYPE	LED COLOR
R19A-0	0 2A	B : BLACK	B : BLACK	○ ○ ○	T	□ : NORMAL
R19A-8	2 6A	W : WHITE	W : WHITE	○ A ○	W	FOR R19A-0 W/LED ONLY
	5 8A	G : GRAY	G : GRAY	○ ○ ○	S	R : RED LED
R19A-8	0I 2A		R : RED	○ ○ ○	P	Y : YELLOW LED
	2I 6A		Y : YELLOW	○ ○ ○		G : GREEN LED
	5I 8A (W/LED)		GN : GREEN	○ ○ ○		P : PADDLE TYPE

R19 Series Rocker Switches / ILLUMINATED



R19 : 6A250VAC

NEW SS21 : 12A250VAC~T85



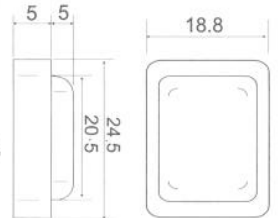
- R19-20RL
- R19-20I
Illuminated
- R19-20
- SS21BBDRL
- SS21BBBT

SPECIFICATION:

- Rating : 6A 250V AC (Standard), 12A 250V AC
- Mechanical Life : 50,000 Cycles (Min)
- Electrical Life : 25,000 Cycles (Min)
- Contact Resistance : < 20 mΩ
- Insulation Resistance : > 1000 MΩ
- Dielectric Strengths : > 1500 Volts 1 Minute
- Contacts gap : > 3mm



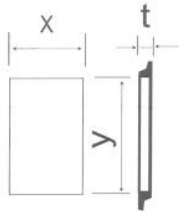
R19 SEAL CAP



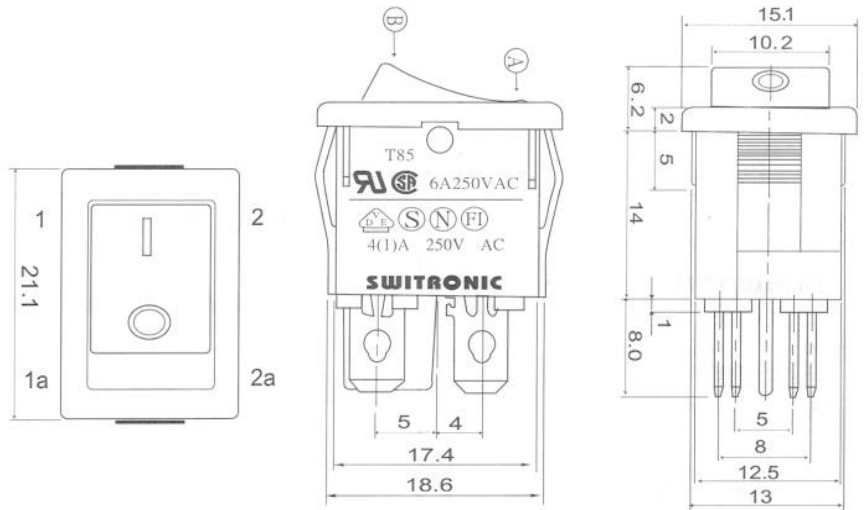
MATERIALS:

- * Body : Nylon 66
- * Rocker : PC or Nylon 66
- * Contact Surface : Alloy Contact Point, Silver Plated
- * Illuminated Rockers : 125V/250V Neon Lamp, 24V 12V 9V 6V Bulb
- * Terminal : Brass, Silver Plated.

PANEL HOLE DIMENSIONS

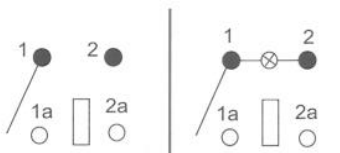


t	X	Y
0.7 ÷ 1.25	13 ± 0.1	19 +0.2
1.25 ÷ 2	13 ± 0.1	19.3 +0.2
2 ÷ 3	13 ± 0.1	19.6 +0.2



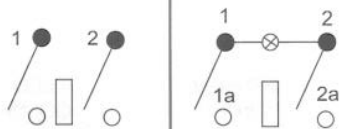
- DPST R19-20BBBT
- DPST R19-20IBRBT2 (W/LAMP, 6A 250V/9A 125V)
- DPST SS21BBBT(12A250VAC)

SCHEMATIC



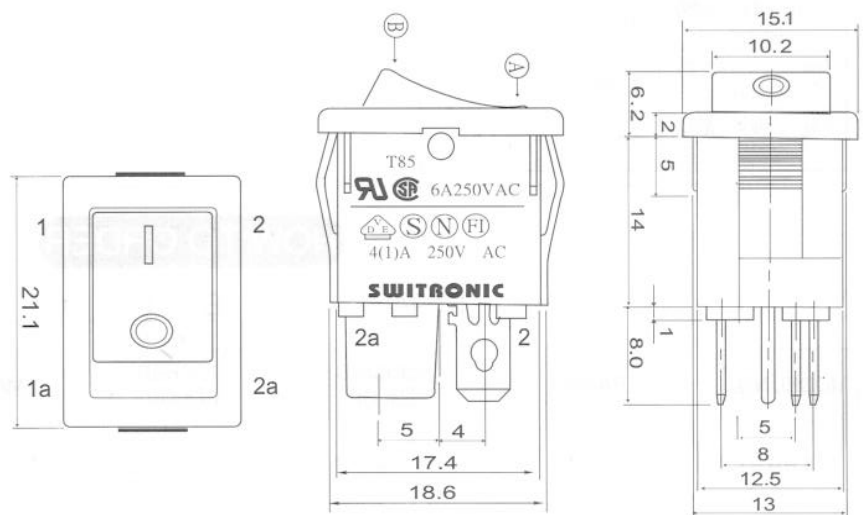
SPST

SPST
W/LAMP



DPST

DPST
W/LAMP

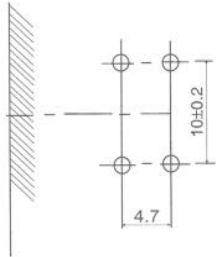


- SPST R19-00IBRBT2 (W/LAMP)
- SPST SS21BBBT(12A250VAC)

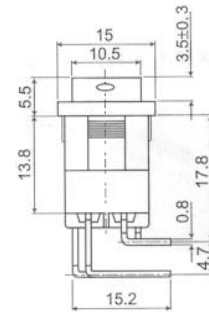
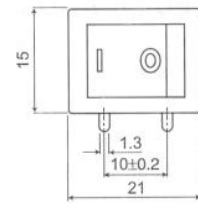
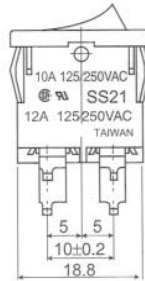
R19 Series Rocker Switches / ILLUMINATED



SPST:R19-00BBDRL
 SS21BBDRLS(12A 250VAC)
 DPST:R19-20BBDRL
 SS21BBDRL(12A250VAC)

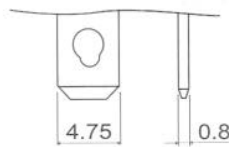


Angle type

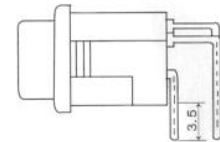


FUNCTION	MODEL NO	OPTION OF TERMINAL			
		S	T	P	R
SPST ON OFF	R 19-00 SS21		✓		✓
SPST W/LAMP	R 19-00 I		✓		✓
DPST ON OFF	R 19-20 SS21		✓		✓
DPST W/LAMP	R 19-20 I		✓		✓

TERMINAL TYPE

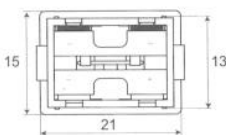
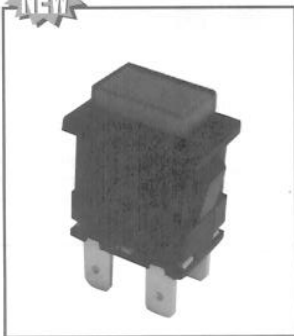


T TYPE



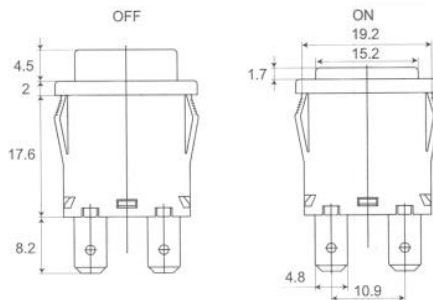
R TYPE : RR (Right angle)
 RL (Left angle)

NEW LC-8301



Electrical rating: 12(2)A 250V AC 15A 250V AC
Mechanical life: Over 30,000 cycles
Electrical life: Over 10,000 cycles
Contact resistance:<20M $\frac{1}{2}$
Insulation resistance:>1000M $\frac{1}{2}$ (500V DC between the open contacts)
High voltage resistance:>1500V AC 1 min.

Flammability: UL94 V-0
Material of housing: PA 66 Max
Material of rocker: PC
Contacts: Silver alloy
Terminal: Copper Silver Plated



MODEL NO.	TYPE	
LC-8301	SPST ON OFF	
LC-8302	SPDT (ON) OFF	
LC-8303	SPDT ON OFF	W/ LAMP
LC-8304	SPDT (ON) OFF	W/ LAMP
LC-8305	DPST ON OFF	
LC-8306	DPST (ON) OFF	
LC-8307	DPST ON OFF	W/ LAMP
LC-8308	DPST (ON) OFF	W/ LAMP

HOW TO ORDER

MODEL NO.	+	HOUSING COLOR	+	ROCKER COLOR	+	MARKING	+	TERMINAL TYPE	+	LAMP VOLTAGE
R19 SS21		B : BLACK W : WHITE G : GRAY		B : BLACK W : WHITE G : GRAY R : RED Y : YELLOW GN : GREEN				T RR RL		<input type="checkbox"/> : NO LAMP 1 : 125V AC 2 : 250V AC 3 : 12V DC 4 : 24V DC

R Series Rocker Switches / ILLUMINATED

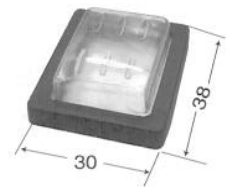


SPECIFICATION:

- * Contact Rating : 10A 250V & 16A 125V AC ,15A 250V AC
- * Mechanical Life : 50,000 Cycles (Min)
- * Electrical Life : 20,000 Cycles (Min)
- * Contact Resistance : 50mΩ
- * Insulation Resistance : DC 500V 100MΩ
- * Dielectric Strengths : AC1500V 1 Min , 3,000V For R5

MATERIALS:

- * Body : Nylon 66
- * Rocker : PC or Nylon.
- * Contact Surface : Alloy Contact Point , Silver Plated
- * Illuminated : Lamp.
- * Terminal : Brass , Silver Plated.



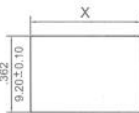
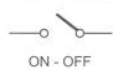
R5, 608 SEAL CAP



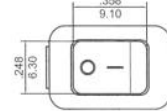
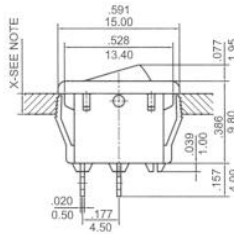
MR5-F5

X	Cutout Dimension	Panel Thickness
A	.535/13.6 ^{+0.00} _{-0.10}	0.75~1.25
B	.539/13.7 ^{+0.00} _{-0.10}	1.25~2.00
C	.543/13.8 ^{+0.00} _{-0.10}	2.00~2.50

SWITCHING CIRCUIT

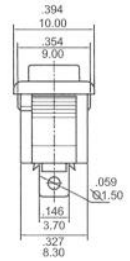


MOUNTING HOLE



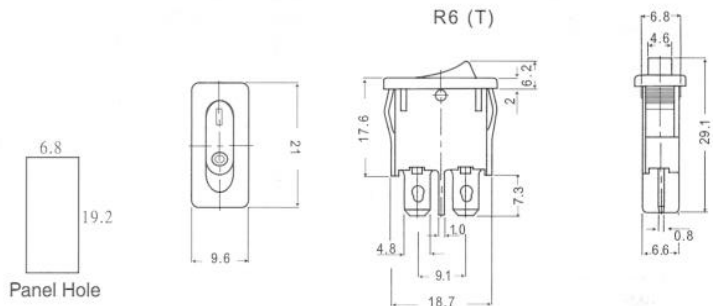
RATING : 3A 125VAC / 250VAC
3A 250VAC ~ /t100

INSULATION RESISTANCE : DC 500V 100MΩ MIN.
CONTACT RESISTANCE : 20mΩ INITIAL MAX.



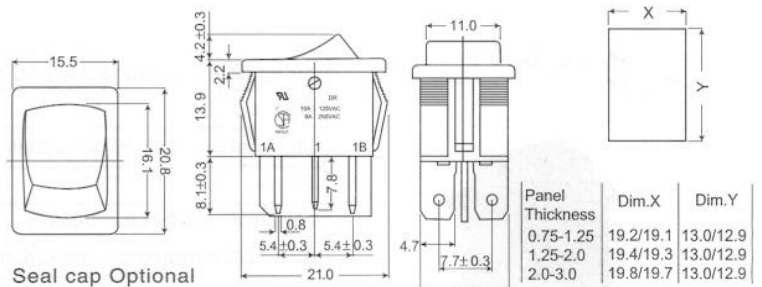
6A 250V AC

MODEL NO.	TYPE
R612	SPST ON OFF
R652	SPST (ON) OFF



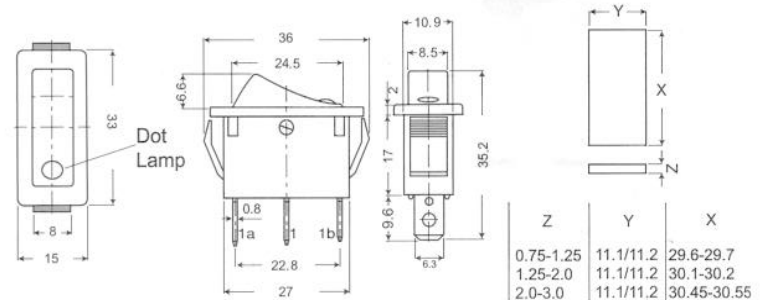
8A 250V AC

MODEL NO.	TYPE
DR-72	DPDT ON ON
DR-32	DPDT ON OFF ON
DR-42	DPDT (ON) OFF ON
DR-62	DPDT (ON) OFF (ON)



R4 series

MODEL NO.	TYPE
R41□	SPST ON OFF
R42□	SPDT ON ON
R43□	SPDT ON OFF ON
R44□	SPDT ON (ON)
R45□	SPST OFF (ON)
R46□	SPDT (ON) OFF (ON)
R47□	SPST ON (OFF)
R48□	SPDT ON OFF (ON)
R49□	SPST Illuminated

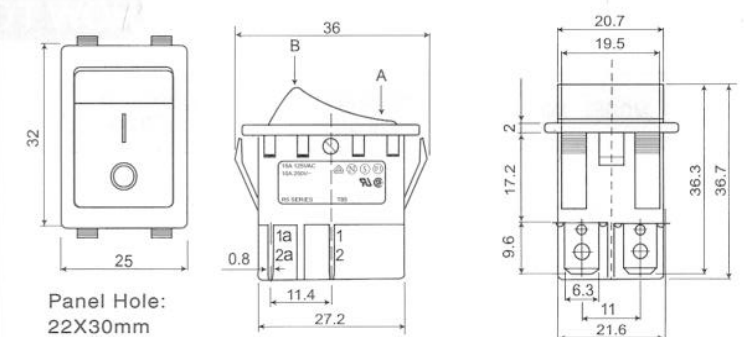


- 2 :10A 250V,15A 125V AC
- 5 :15A 250V, 20A125V AC



R5 series

MODEL NO.	TYPE
R515	DPST ON OFF
R525	DPDT ON ON
R53□	DPDT ON OFF ON
R545	DPDT ON (ON)
R555	DPST OFF (ON)
R56□	DPDT (ON) OFF (ON)
R575	DPDT ON (OFF)
R58□	DPDT ON OFF (ON)
R59	DPST ILLUMINATED



- 2 :10A 250V,15A 125V AC
- 5 :15A 250V, 20A125V AC

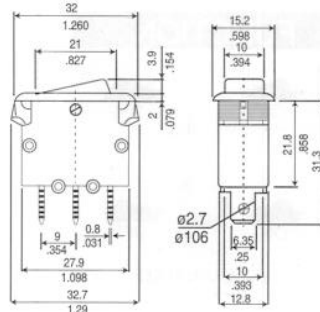
Power Rocker Switches / ILLUMINATED



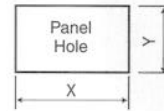
M1 Series W/Circuit Breaker

(Two in One)

Capacity Correction Factors For Ambient Temperature									
Current Rating Amps	Temperature								
	C	K	+50	+68	+77	+86	+104	+122	+140
5 to 15 A			.90	.95	1.00	1.10	1.32	1.61	2.15



Panel Thickness(mm)	Dim.X (mm)	Dim.Y (mm)
0.75-1.25	28.5-28.6	13.5-13.6
1.25-2.0	28.6-28.7	13.5-13.6
2.0-3.0	28.8-28.9	13.5-13.6



81 Series

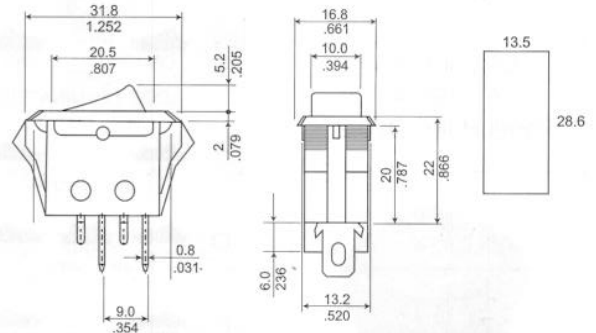


Solid Rocker W/ Two Colors Switch Function :
Optional:

- Gray/Red
- Black/Red
- White/Red

81L:ON-OFF,Illuminated
81I:ON-OFF
816:ON-ON

15A/125VAC
10A/250VAC

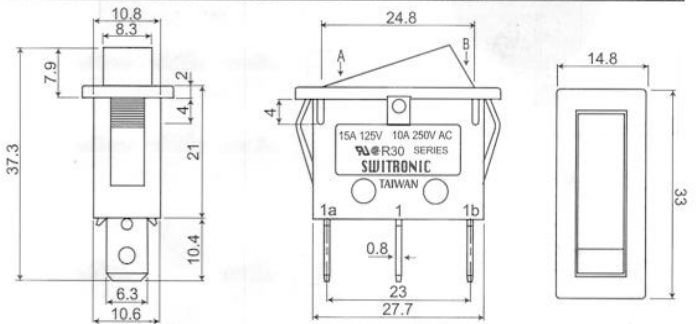


R30 Series



MODEL NO.	TYPE
R30 - 001	SPST ILLUMINATED

PANEL HOLE :30×11 mm

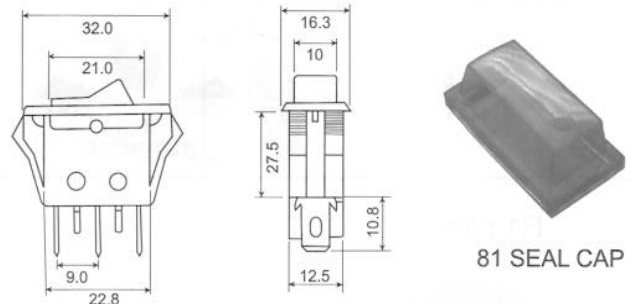


82 Series



MODEL NO.	TYPE
82	SPST ON OFF
82L	SPST ILLUMINATED

10A250V 15A125V AC
PANEL HOLE :13.5x28.6 mm



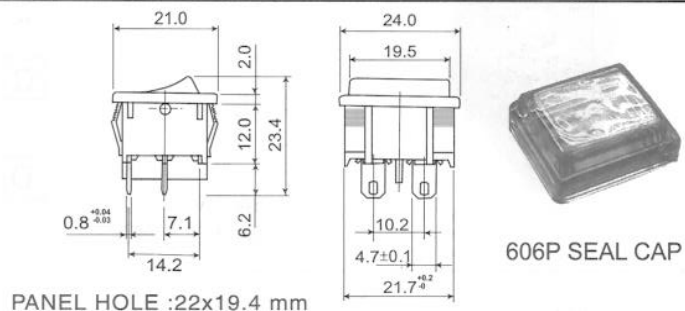
81 SEAL CAP

606P Series



MODEL NO.	TYPE
RS - 606PA	DPST ON OFF
RS - 606PB	DPDT ON ON
RS - 606PC	DPDT ON OFF ON
RS - 606PD	DPST (ON) OFF
RS - 606PE	DPST ON (OFF)
RS - 606PF	DPST ON ON
R13 - 33B	DPST Illuminated
R13 - 33D	DPDT ON OFF ON
R13 - 33H	DPDT ON OFF (ON)
R13 - 33I	DPDT (ON) OFF (ON)

RS-606P:6A250VAC
* SS24:16A250VAC



606P SEAL CAP

HOW TO ORDER

MODEL NO. + HOUSING COLOR + ROCKER COLOR + MARKING + TERMINAL TYPE + LAMP VOLTAGE

B : BLACK
 W : WHITE
 G : GRAY
 R : RED
 Y : YELLOW
 GN : GREEN

T

O
 A
 B
 C
 D
 E
 F
 G
 H

: NO LAMP
 1 : 125V AC
 2 : 250V AC
 3 : 12V DC
 4 : 24V DC

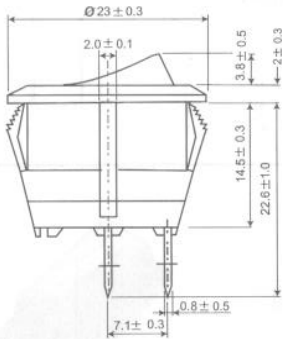
Rocker Switches W/LAMP or LED ILLUMINATED



NEW R13-112



6A 250V AC
10A 125V AC
Panel Hole : Ø20.2



FUNCTION

A ON 2P SPST OFF

B ON SPST OFF (ILLUMINATED)

B2 ON SPST OFF (DOT ILLUMINATED)

C ON 3P SPDT ON

D ON 3P OFF SPDT ON

F (ON) 2P SPST OFF

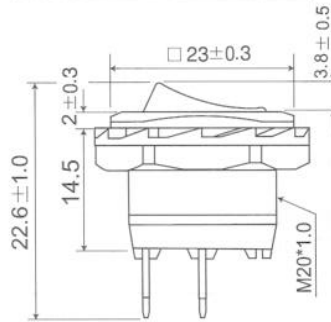
H ON 3P OFF SPDT (ON)

I (ON) 3P OFF SPDT (ON)

L ON SPST (LED) OFF

LP ON SPST (LED ON TOP) OFF

NEW R13-135



6A 250V AC
10A 125V AC

R13-135LP W/LED



FUNCTION

A ON 2P SPST OFF

B ON SPST OFF (ILLUMINATED)

B2 ON SPST OFF (DOT ILLUMINATED)

C ON 3P SPDT ON

D ON 3P OFF SPDT ON

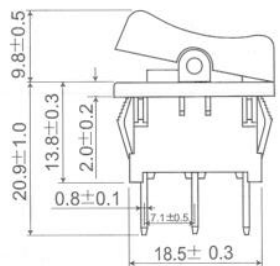
H ON 3P OFF SPDT (ON)

I (ON) 3P OFF SPDT (ON)

L ON SPST (LED) OFF

LP ON SPST (LED ON TOP) OFF

R13-211



6A 250V AC
10A 125V AC

FUNCTION

A ON 2P SPST OFF

C ON 3P SPDT ON

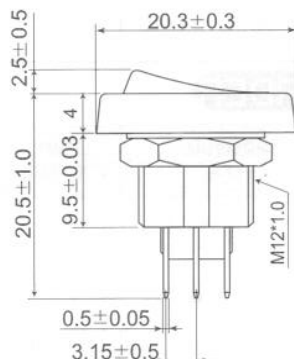
D ON 3P OFF SPDT ON

R14 : NON-UL.CSA

R14A : ON OFF
R14B : ON ON
R14C : ON OFF ON

	X	Y
0.75~1.25	19.2~0.1	13.0+0.1
1.25~2	19.4~0.1	13.0+0.1
2~3	19.8~0.1	13.0+0.1

R13-213



FUNCTION

A ON 2P SPST OFF

B ON 6P DPDT ON

C ON 3P SPDT ON

F ON 4P DPST OFF

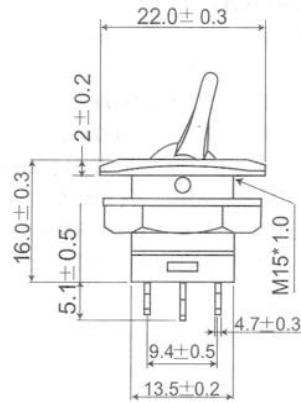
3A 250V AC
6A 125V AC

Ø12
6mm max

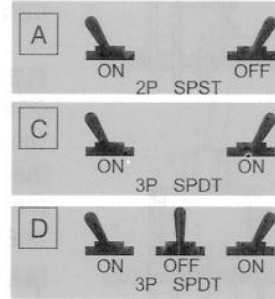
Rocker Paddle/Toggle Switches W/LED ILLUMINATED



R13-402

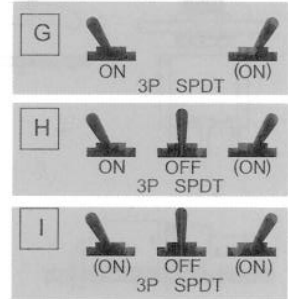


FUNCTION



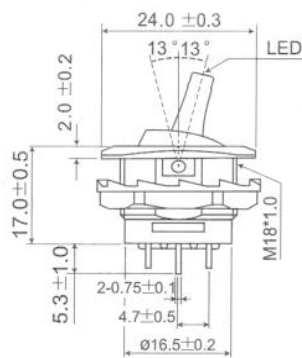
6A 250V AC
16A 125V AC

FUNCTION

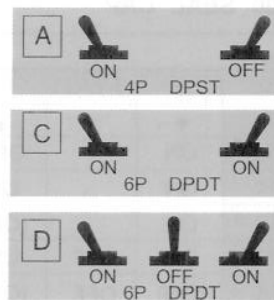


Panel hole
Ø15

NEW R13-405(W/LED)



FUNCTION



6A 250V AC
10A 125V AC

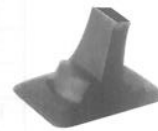
LEVER

W/O LED

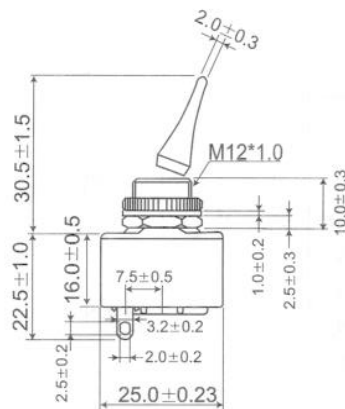
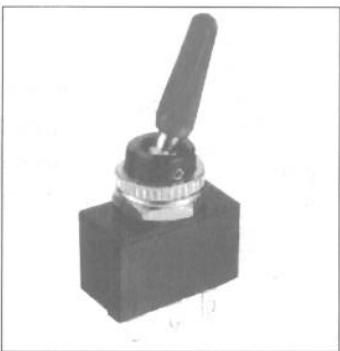


Panel hole
Ø 18
5mm max

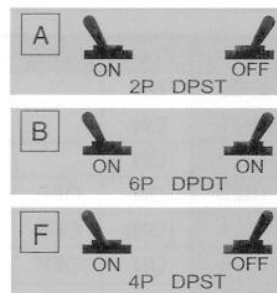
With LED



R13-406



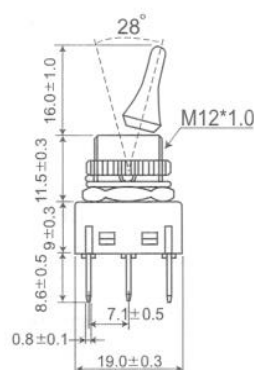
FUNCTION



3A 250V AC
6A 125V AC

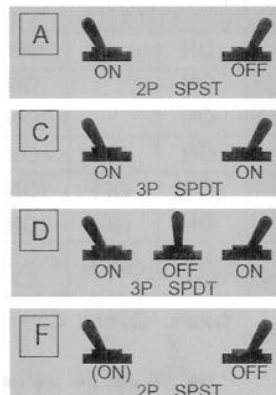
Panel hole
Ø 12
4mm max

R13-412



6A 250V AC
10A 125V AC

FUNCTION



LEVER

Plastic



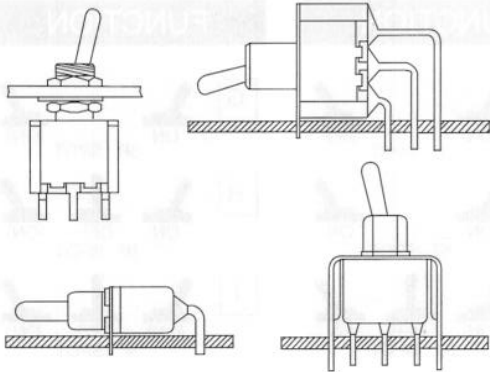
Panel hole
Ø 12

Metal



5mm max

T Series Toggle Switches



SPECIFICATION:

CONTACT RATING : 5A with resistive load @ 120 VAC or 28 VDC
or 0.4VA

ELECTRICAL LIFE : 50,000 Make-and-break cycles at full load

CONTACT RESISTANCE : 10 mΩ max. initial @ 2-4 VDC

100 mA for both coin silver and gold plated contacts.

INSULATION RESISTANCE : 1,000 MΩ min

DIELECTRIC STRENGTH : 1,000V RMS @ sea level.

OPERATING TEMPERATURE : -30°C to +130°C

MATERIALS:

Case-diallyl phthalate (DAP)

TOGGLE HANDLE-Brass, chrome nickel plated

BUSHING-Brass, nickel plated

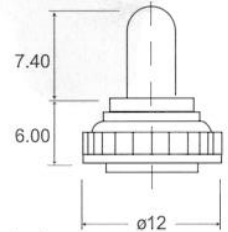
HOUSING-Stainless Steel.

END CONTACT-Coin silver, silver plated, or gold plated.

END TERMINAL-Brass, silver plated, or gold plated.

CENTER CONTACT & TERMINAL-Brass, silver plated, or gold plated.

T1000 SEAL CAP



T1000
COLOR CAP



T1000 SEAL CAP

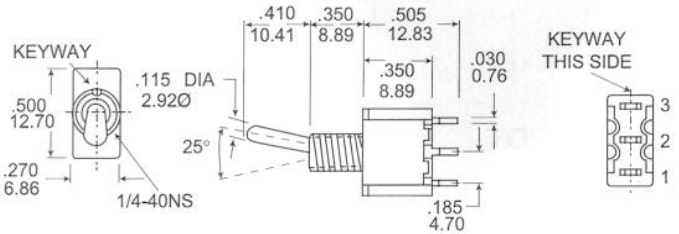
SPDT



T1011BSTQ

Model No.	TYPE		
1010	ON		OFF
1011	ON		ON
1012	ON		(ON)
1013	ON	OFF	ON
1014	(ON)	OFF	(ON)
1015	ON	OFF	(ON)
Term. Comm.	2-3	OPEN	2-1

Schematic Comm.



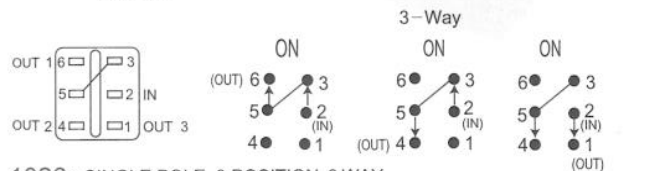
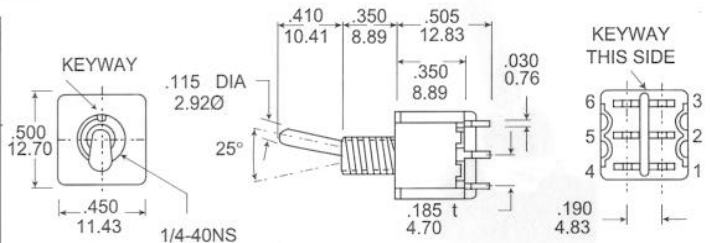
DPDT



T1021BSTQ

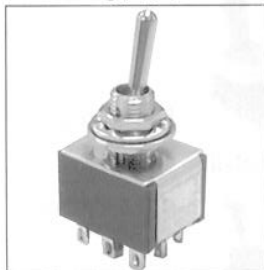
Model No.	TYPE		
1020	ON		OFF
1021	ON		ON
1022	ON		(ON)
1023	ON	OFF	ON
1024	(ON)	OFF	(ON)
1025	ON	OFF	(ON)
1026	ON	ON	ON
Term. Comm.	2-3,5-6	OPEN	2-1,5-4

Schematic Comm. Comm.



1026 : SINGLE POLE, 3 POSITION, 3 WAY

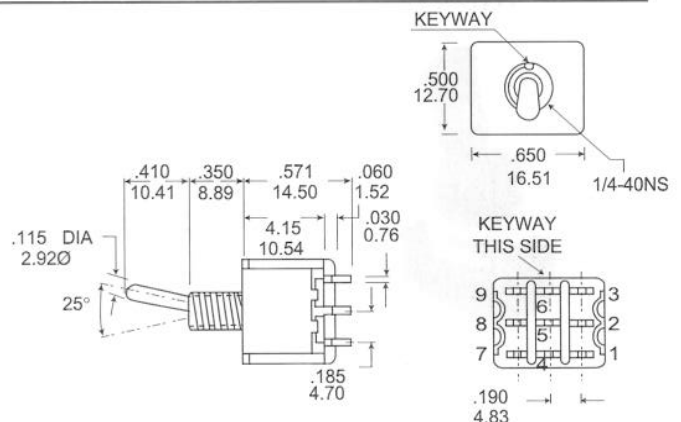
3PDT



T1031BSTQ

Model No.	TYPE		
1030	ON		OFF
1031	ON		ON
1032	ON		(ON)
1033	ON	OFF	ON
1034	(ON)	OFF	(ON)
1035	ON	OFF	(ON)
Term. Comm.	2-3,5-6 8.9	OPEN	2-1,5-4 8.7

Schematic Comm. Comm. Comm.



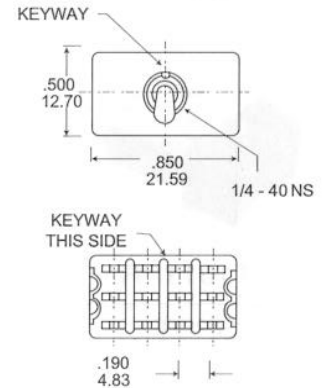
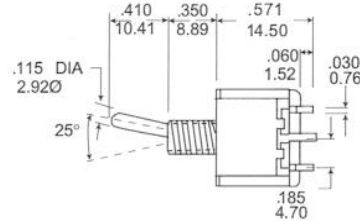
4PDT



T1041BSTQ

Model No.	TYPE		
1041	ON		ON
1042	ON		(ON)
1043	ON	OFF	ON
1044	(ON)	OFF	(ON)
1045	ON	OFF	(ON)
1046	ON	ON	ON
Term. Comm.	2-3 5-6 8-9 11-12	OPEN	2-1 5-4 8-7 11-10

Schematic

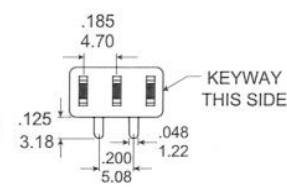
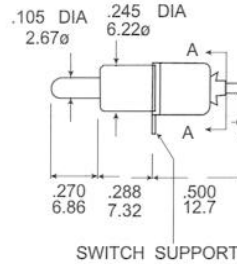
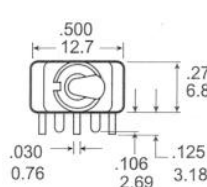


TERMINAL OPTIONS

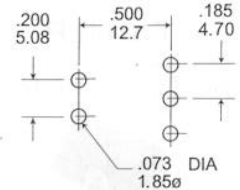
SPDT



T1011PTNQ



P.C. MOUNTING

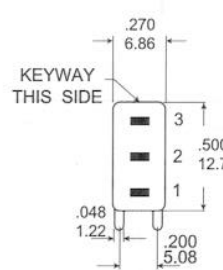
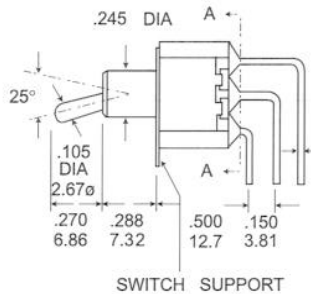
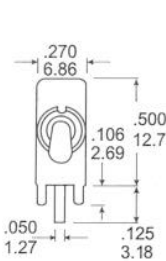


TERM. NOS. FOR REFERENCE ONLY

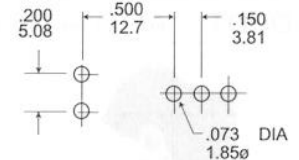
SPDT



T1011LTNQ



P.C. MOUNTING

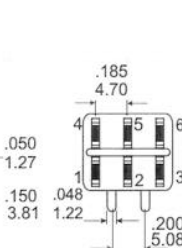
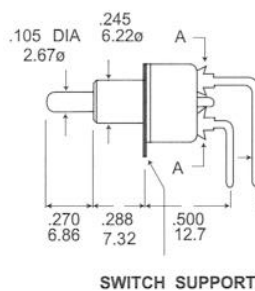
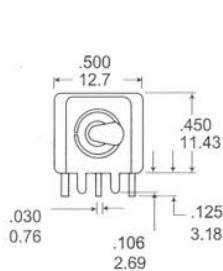


TERM. NOS. FOR REFERENCE ONLY

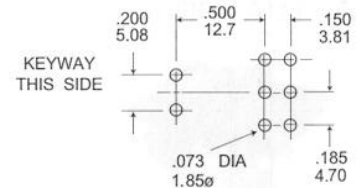
DPDT



T1021PTNQ



P.C. MOUNTING

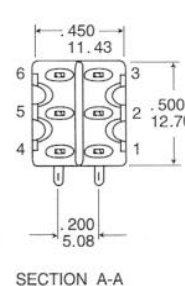
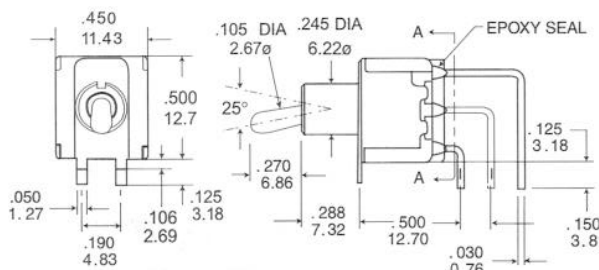


SWITCH SUPPORT

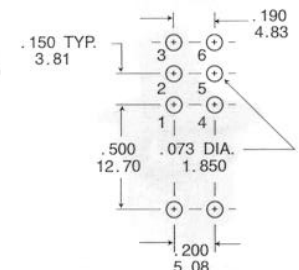
DPDT



T1021LTNQ



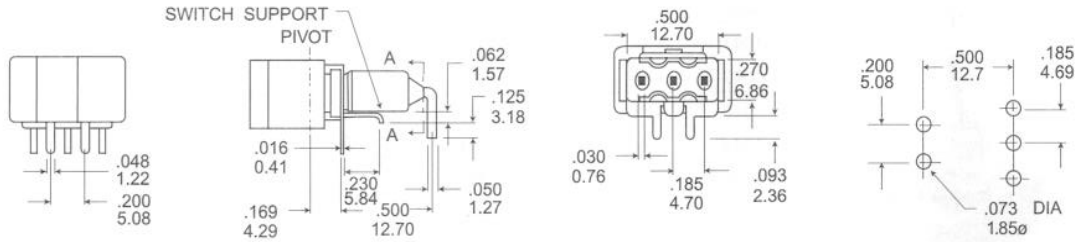
P.C. MOUNTING



T Rocker Paddle Switches

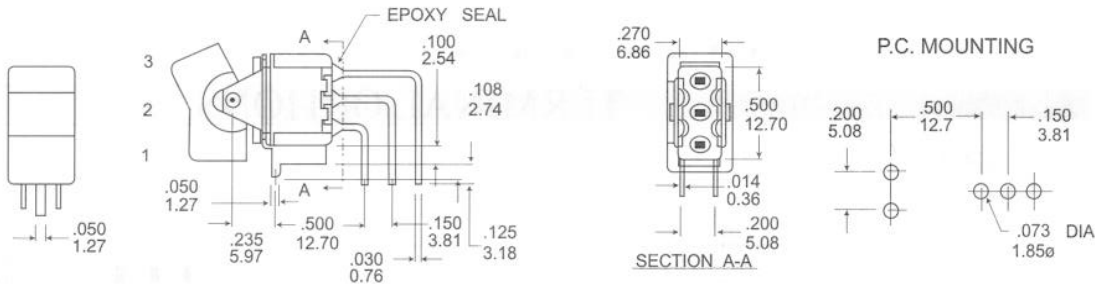


SPDT



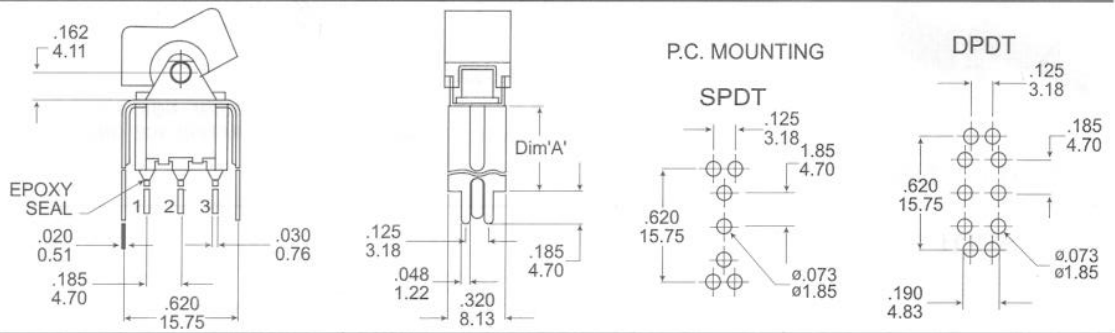
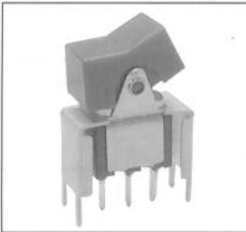
T1011PR

SPDT



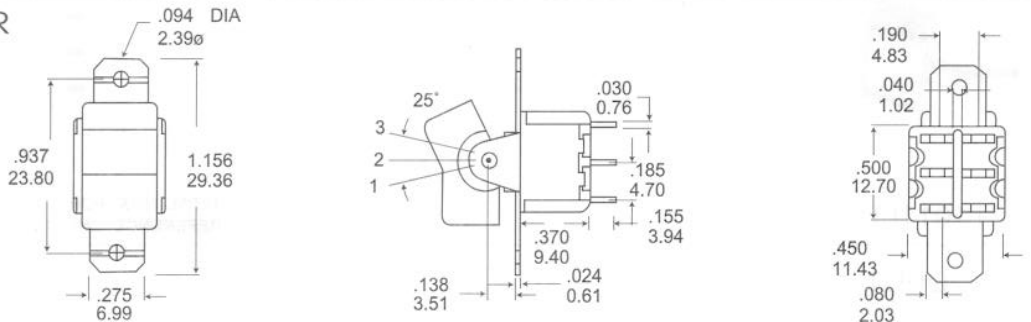
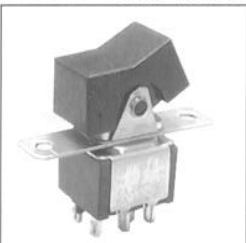
T1011LR

ACTUATOR:R



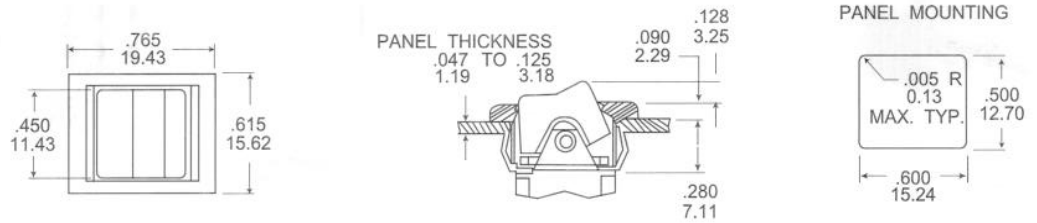
T1011VS2R
W/ PCB SUPPORT

DPDT ACTUATOR:R



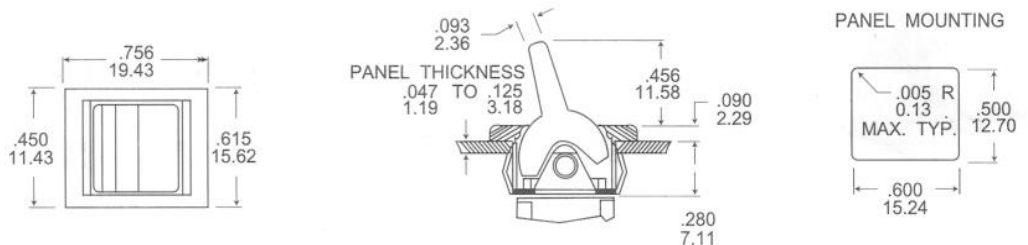
T1021BR
W/ PCB SUPPORT

ACTUATOR:R12



T1011BR12

ACTUATOR:P14

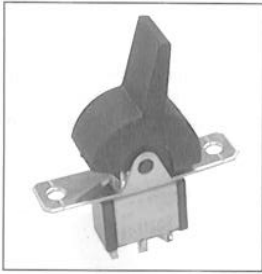


T1021BP14

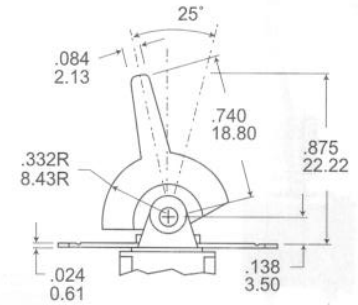
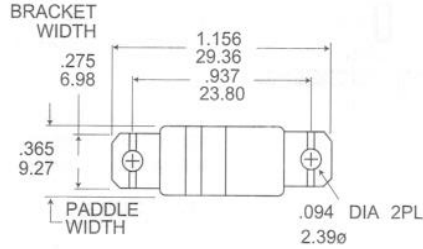
T Toggle, Rocker Paddle Switches



ACTUATOR: P13

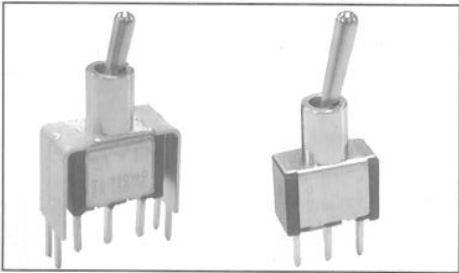


T1011BP13
W/ SCREW BRACKET

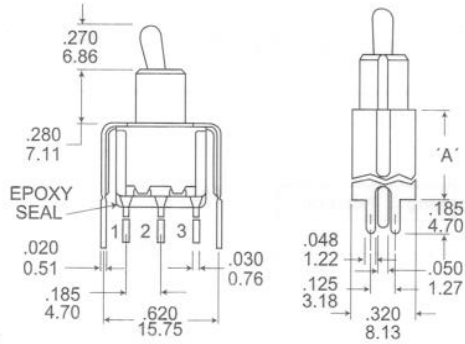


SPDT

SPDT

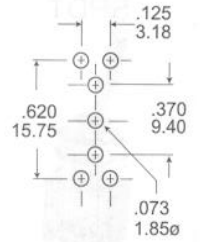


T1011VS2TNQ **T1011CSNQ**
W/O PCB SUPPORT



OPTION CODE	DIM. 'A'
VS2	.460 11.68
VS3	.630 16.00

P.C. MOUNTING

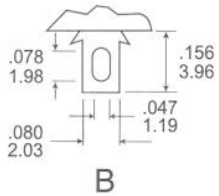


TERMINAL OPTIONS

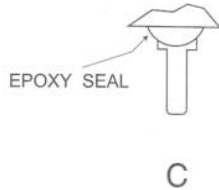
CONTACT AND TERMINAL MATERIALS OPTION:

Q : Silver Plated. (Standard)
R : Gold Plated.

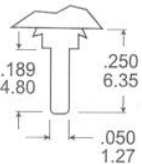
RATING : 0.4VA max. @ 20V DC max.



B

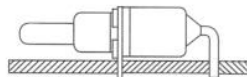


C

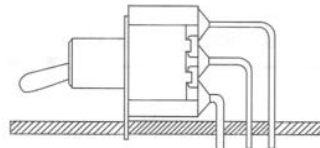


C

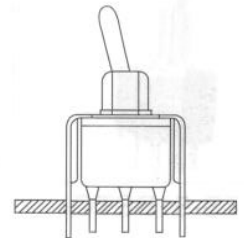
THK .030 (0.76)



P



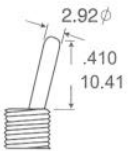
L



VS2

ACTUATOR OPTIONS

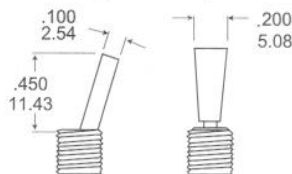
S
(STANDARD)



T



P
(FLATTED)



P

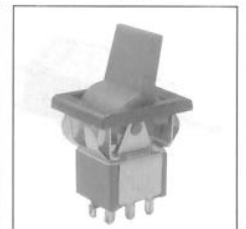


T1021BPTQ

R12



P14



HOW TO ORDER

T +	MODEL NO.	+	TERMINAL TYPE	+	ACTUATOR	+	BUSHING	+	CONTACT & TERMINAL MATERIAL	+	EPOXY SEAL	+	BRACKET	+	ACTUATOR COLOR
			B L C VS2 P		S R12 T P13 P P14 R		T : THREAD N : NON-THREAD		Q : SILVER R : GOLD		Y : YES N : NO		□ : NON-BRACKET K : SCREW BRACKET		B : BLACK R : RED Y : YELLOW BU : BLUE

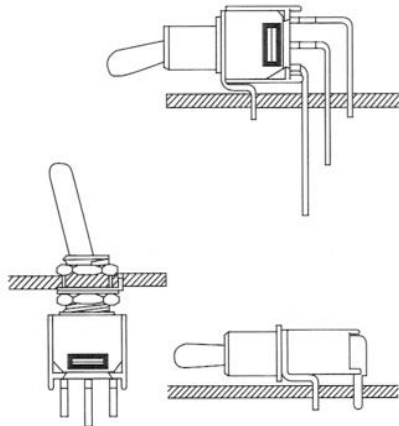
S-100 TS-4 Series Tiny Toggle Switches



NEW



S-100 1,3PIN
6A120V 3A250V



SPECIFICATION:

CONTACT RATING : 3A120VAC , 28VDC or 0.4VA
 S-100 : 6A 120V , 3A 250V
 ELECTRICAL LIFE : 30,000 make-and-break cycles at full load
 CONTACT RESISTANCE : 20 milliohms max. initial @ 2- 4 VDC,
 100 milliamps for both coin silver and gold plated contacts.
 INSULATION RESISTANCE : 1,000 MΩ min.
 DIELECTRIC STRENGTH : 1,000 RMS @ sea level.
 OPERATING TEMPERATURE : -30°C to 130°C

MATERIALS:

Case-diallyl phthalate (DAP)
 TOGGLE HANDLE-Brass, nickel plated
 BUSHING-Brass, nickel plated
 HOUSING-Stainless Steel.
 TERMINAL/SWITCH SUPPORT-Brass electrotin plated
 CONTACTS-Coin silver, silver plated, or gold plated.
 CENTER CONTACT & TERMINALS-Brass, silver plated, or gold plated.



TS-4 COLOR CAP

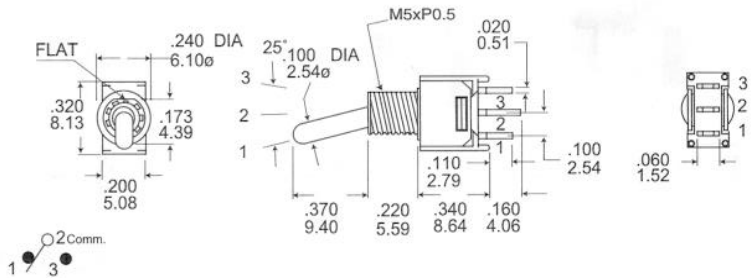
SPDT



TS-41BSTQ,
S-100

Model NO.	Switching	Position
TS - 40	ON	OFF
TS - 41	ON	ON
TS - 42	ON	(ON)
TS - 43	ON	OFF
Term. Comm.	2 - 3	OPEN 2 - 1

Schematic



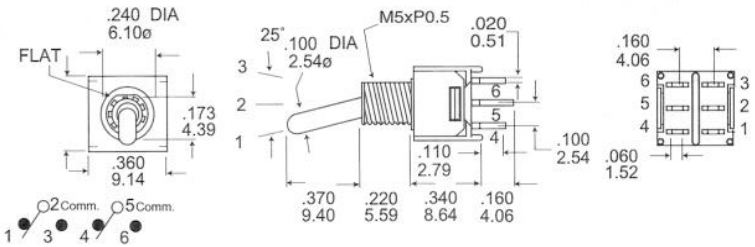
DPDT



TS-51BSTQ

Model NO.	Switching	Position
TS - 50	ON	OFF
TS - 51	ON	ON
TS - 52	ON	(ON)
TS - 53	ON	OFF
Term. Comm.	2-3 , 5-6	OPEN 2-1 , 5-4

Schematic

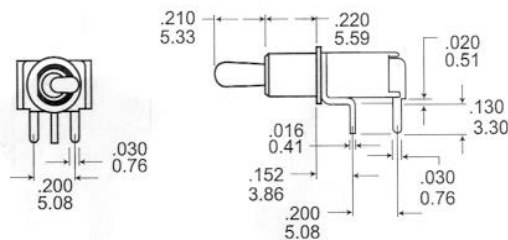


TERMINAL OPTIONS

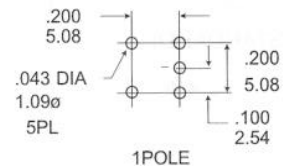
SPDT



TS-41P



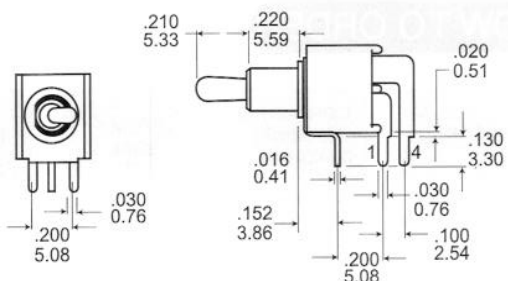
P.C. MOUNTING



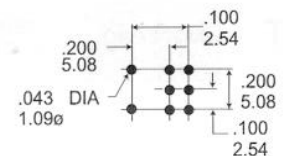
DPDT



TS-51P



P.C. MOUNTING



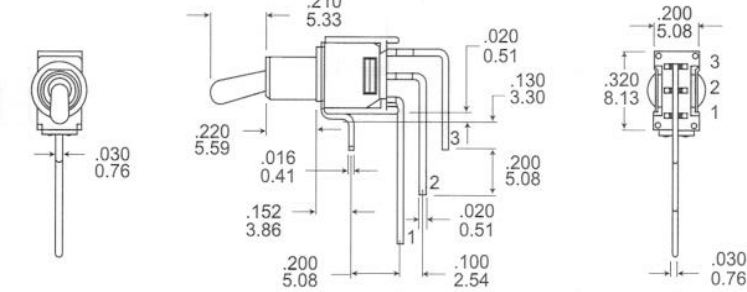
TS-4 Tiny Toggle , Tiny Rocker Switches



SPDT



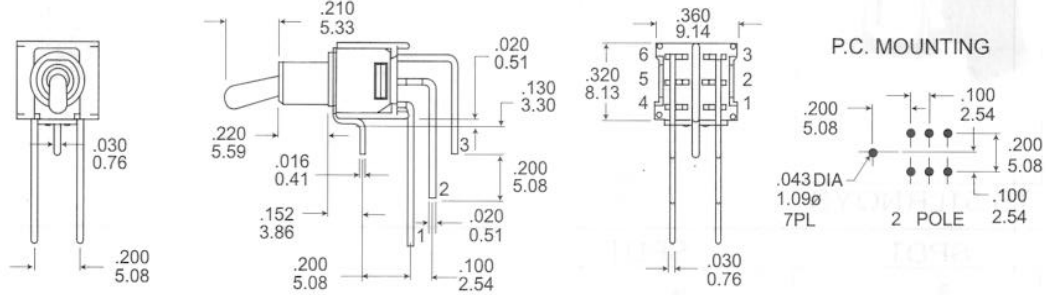
TS-41L



DPDT



TS-51L

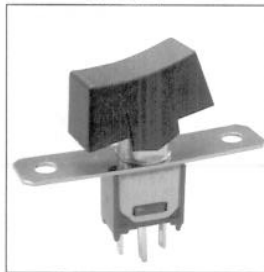


DPDT

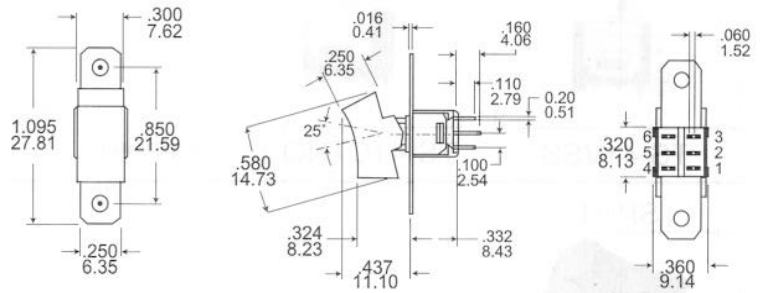


TS-51BRNQNK

SPDT



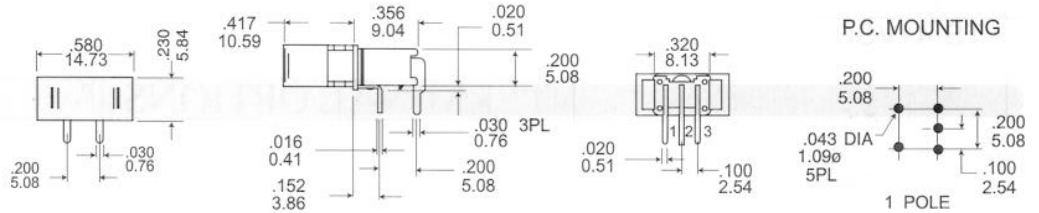
TS-41BRNQNK W/ SCREW BRACKET



SPDT



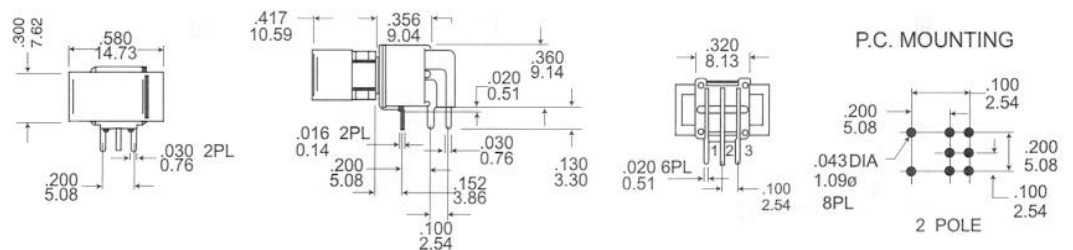
TS-41PR



DPDT



TS-51PR



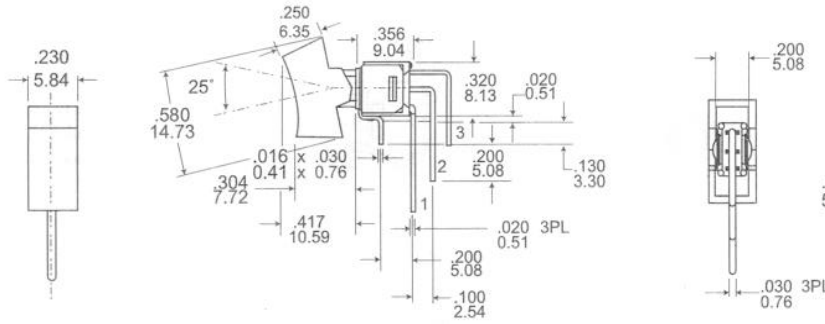
TS-4 Tiny Toggle Rocker Switches



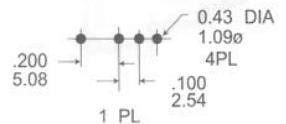
SPDT



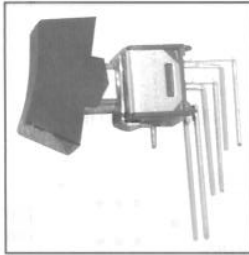
TS-41LRNQYS



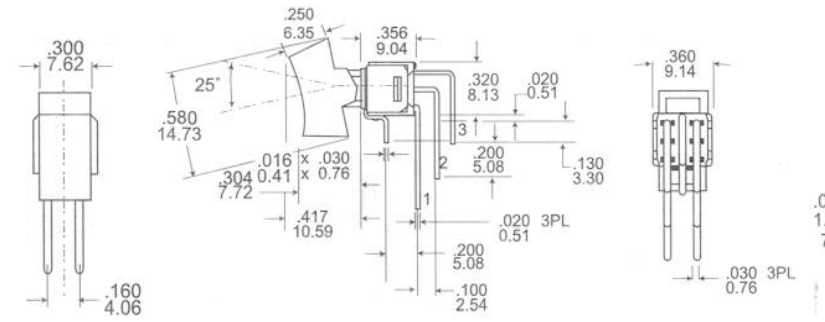
P.C. MOUNTING



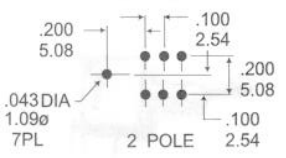
DPDT



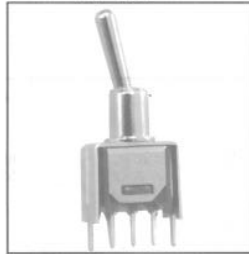
TS-51LRNQYS



P.C. MOUNTING



SPDT

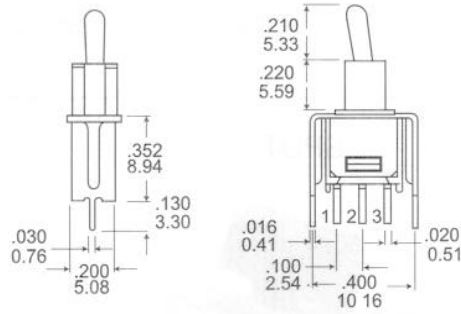


TS-41VSS

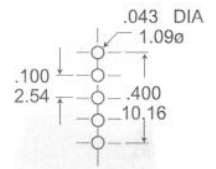
SPDT



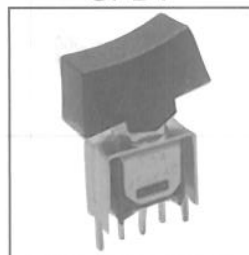
TS-41CTNQ (W/O SUPPORT)



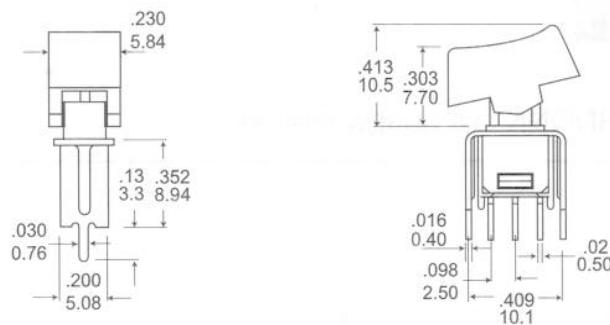
P.C. MOUNTING



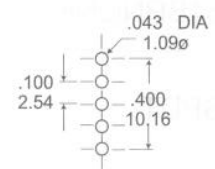
SPDT



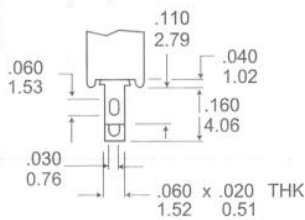
TS-41VSR



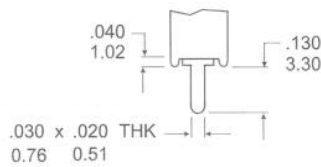
P.C. MOUNTING



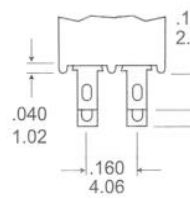
TERMINAL OPTIONS



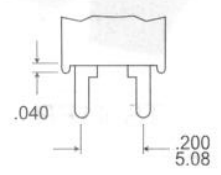
B



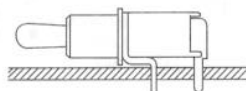
C



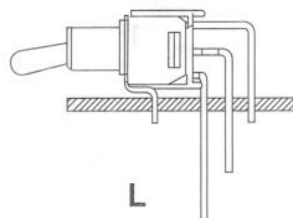
B



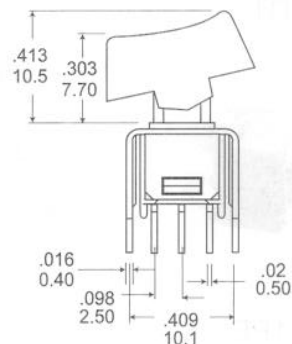
DPDT



P

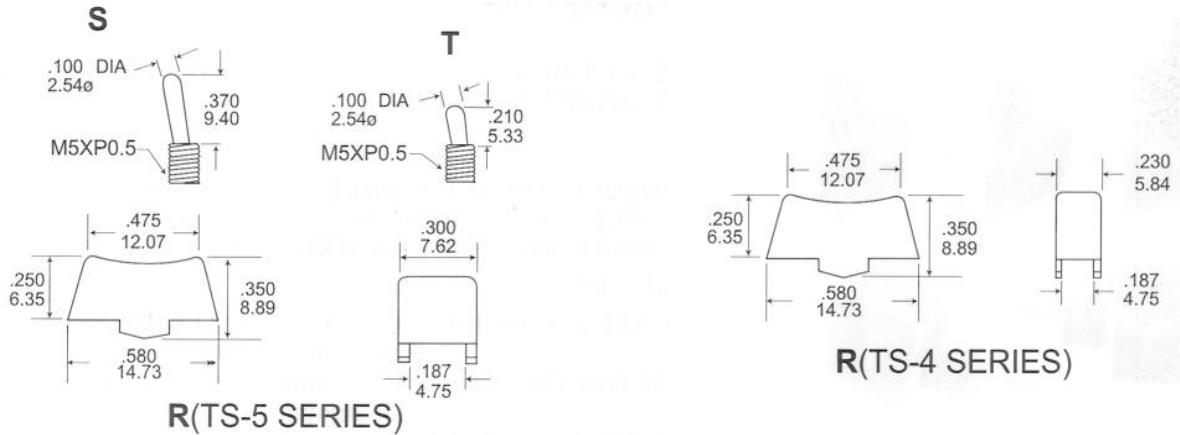


L



VS

ACTUATOR OPTIONS



CONTACT MATERIAL

Q : Silver

END CONTACTS : Coin silver, silver plated.

CENTER CONTACT & ALL TERMINAL : Brass, silver plated.

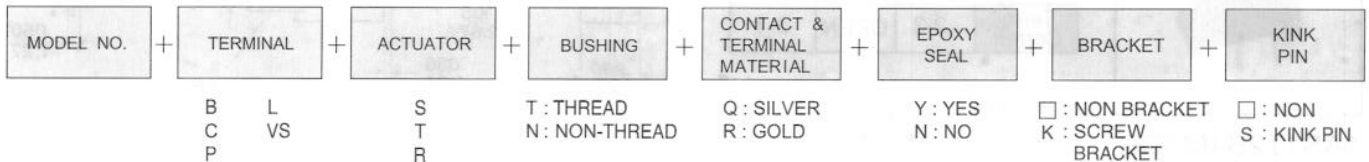
RATING : 3 AMPS @ 120 VAC or 28 VDC; 1.5 AMPS @ 250 VAC.

R : Gold

CONTACTS & TERMINALS : Brass, with gold plate over nickel plate.

RATING : 0.4 VA max. 20 VDC.

HOW TO ORDER



Power Pushbutton Switches

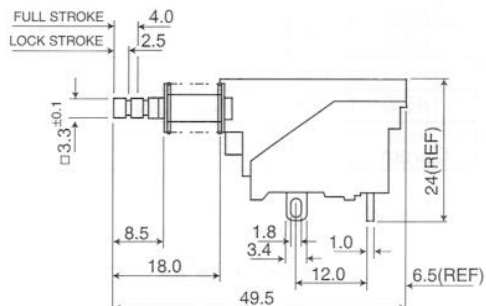
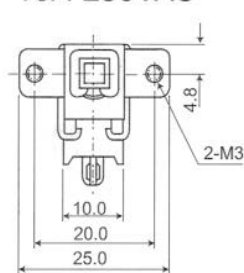
TV-5

SPST

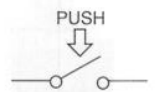


KDC-A04-10S

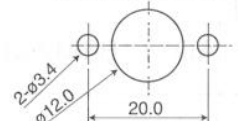
10A 250VAC



SCHEMATIC DIAGRAM



MOUNTING DIAGRAM

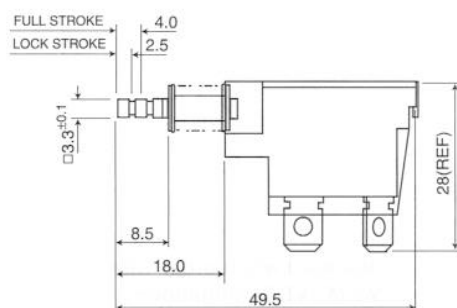
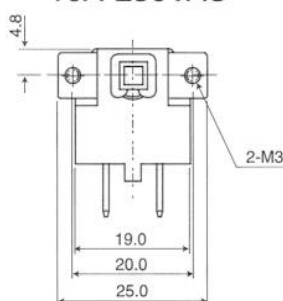


DPST

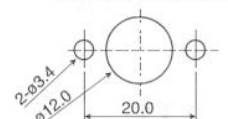


KDC-A04-T

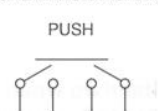
10A 250VAC

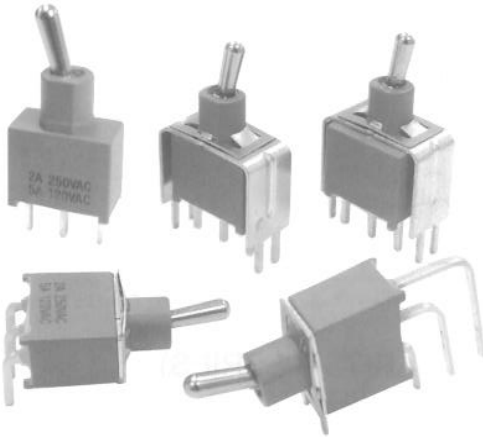


MOUNTING DIAGRAM



SCHEMATIC DIAGRAM





SPECIFICATION:

CONTACT RATING : Silver : 5A 120VAC, 2A 250VAC
Gold : 0.4VA, 20VDC max.

ELECTRICAL LIFE : 30,000 make-and-break cycles at full load.

CONTACT RESISTANCE : 10mΩ max.inital @ 2-4VDC
100mA for both Silver and gold plated contacts.

INSULATION RESISTANCE : 1,000MΩ min.

DIELECTRIC STRENGTH : 1,000 V RMS@sea level.

OPERATING TEMPERATURE : -30°C to +85°C

MATERIALS:

CASE & BUSHING- Glass filled nylon 66, flame retardant, heat stabilized(UL94V-0)

ACTUATOR- Brass, chrome plated, with internal O-ring seal standard.

SWITCH SUPPORT- Brass or steel, tin plated.

SWITCH SUPPORT RETAINER- Stainless steel.

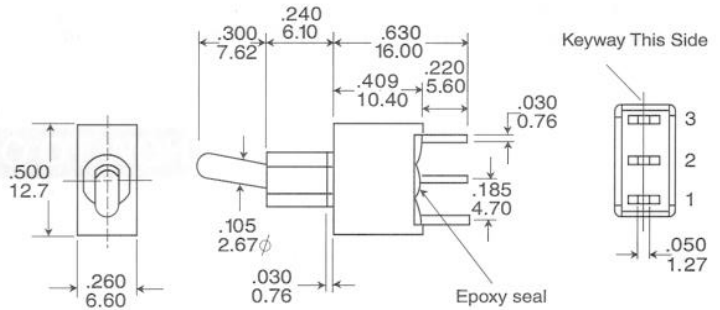
CONTACT/TERMINALS- Copper alloy, with Silver or gold plated.

(ON):MOMENTARY

SPDT



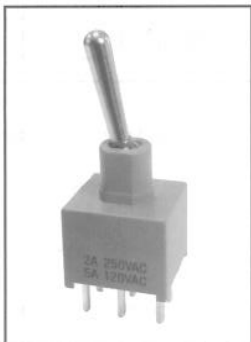
MODEL NO.	TYPE		
1AS1	ON		ON
1AS2	ON		(ON)
1AS3	ON	OFF	ON
1AS4	(ON)	OFF	(ON)
1AS5	ON	OFF	(ON)
Term. Comm.	2-3	OPEN	2-1



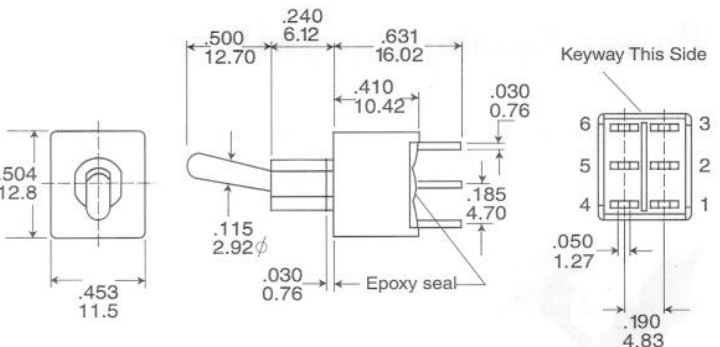
Schematic 2 Comm. 1/3.

1AS1T2B4M2QE

DPDT



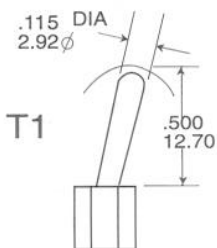
MODEL NO.	TYPE		
1AD1	ON		ON
1AD2	ON		(ON)
1AD3	ON	OFF	ON
1AD4	(ON)	OFF	(ON)
1AD5	ON	OFF	(ON)
1AD6	ON	ON	ON
Term. Comm.	2-3,5-6	OPEN	2-1,5-4



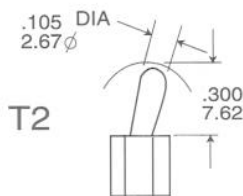
Schematic 2 Comm. 5 Comm. 1/3-4/6.

1AD1T1B4M2QE

ACTUATOR OPTIONS

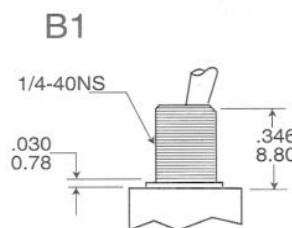


Standard when order with M1,M2 Terminations.

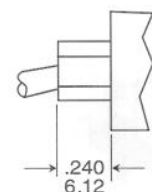


Standard when order with M6,M7,VS Terminations.

BUSHING OPTIONS



Std for M1



Std for M2,M6,M7 VS termination

1A Series Sealed Toggle Switches

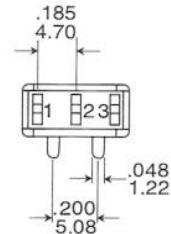
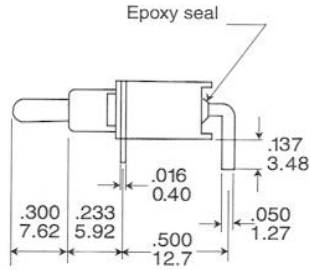
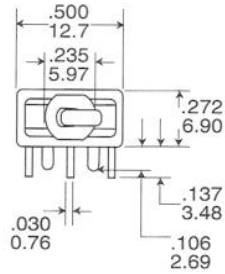
IP67

SPDT

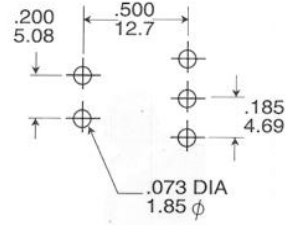


M6

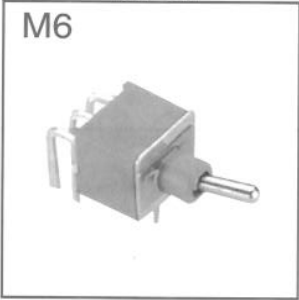
1AS1T2B4M6RE



P.C. MOUNTING

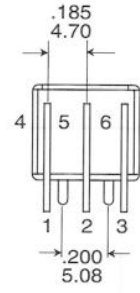
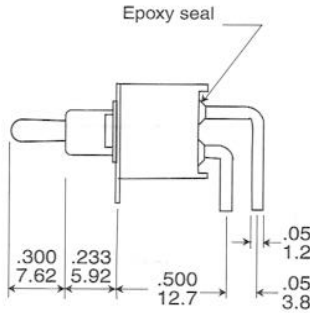
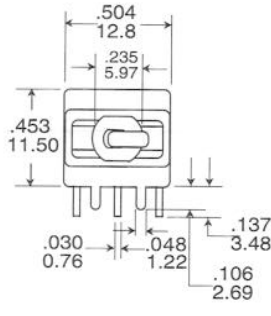


DPDT

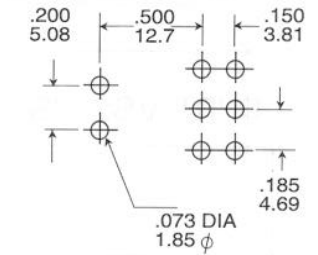


M6

1AD1T2B4M6RE



P.C. MOUNTING

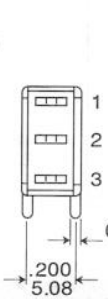
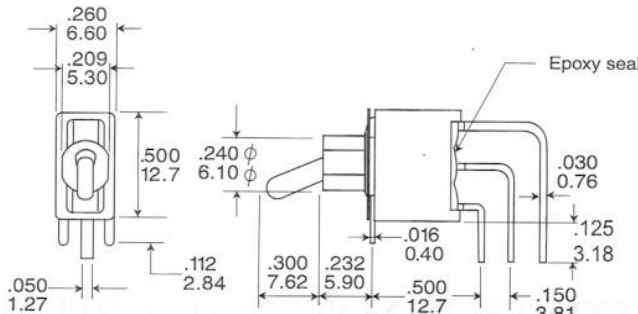


SPDT

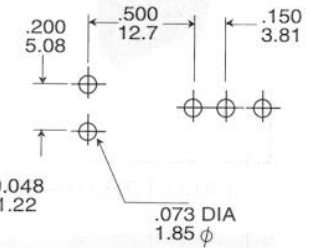


M7

1AS1T2B4M7RE



P.C. MOUNTING

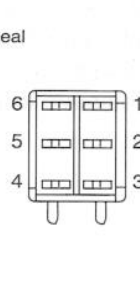
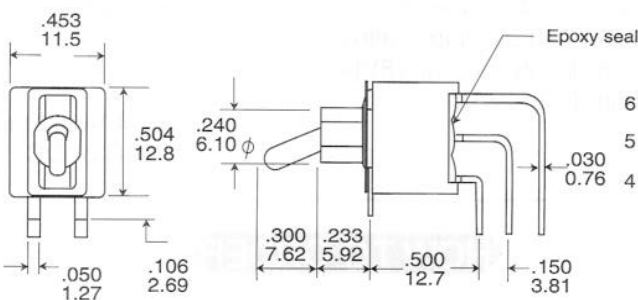


DPDT

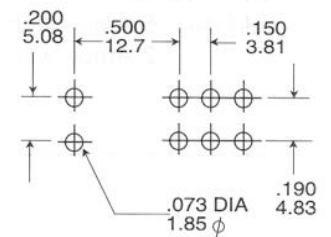


M7

1AD1T2B4M7RE

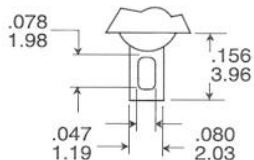


P.C. MOUNTING



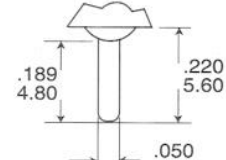
TERMINAL OPTIONS

M1



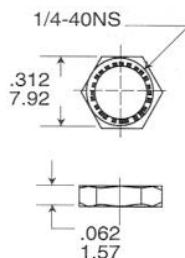
THK .030(0.76)

M2

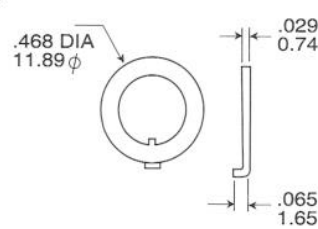


THK .030(0.76)

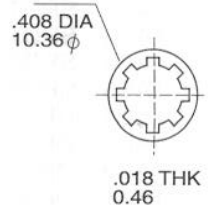
NUT



LOCKING RING

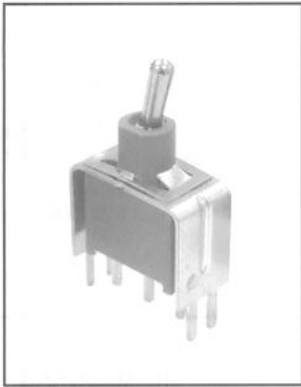


LOCKING WASHER

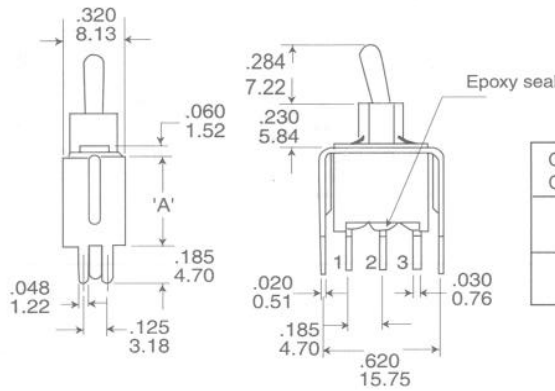


1A Series Sealed Toggle Switches IP67

SPDT VS2-VS3

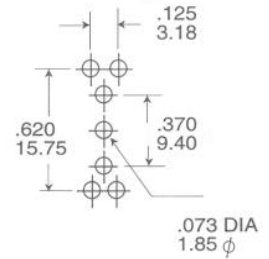


1AS2T2B4VS2RE



OPTION CODE	DIM.'A'
VS2	.460 11.68
VS3	.630 16.00

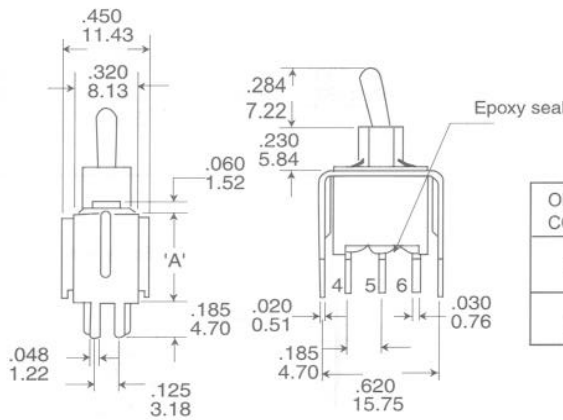
P.C. MOUNTING



DPDT VS2-VS3

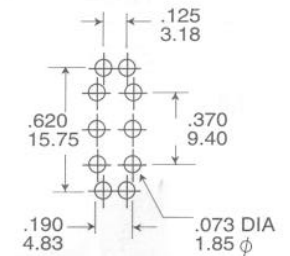


1AD1T2B4VS3RE



OPTION CODE	DIM.'A'
VS2	.460 11.68
VS3	.630 16.00

P.C. MOUNTING



CONTACT MATERIAL OPTIONS

Q:

FIXED TERMINAL: Gold over Silver plated, copper alloy
 MOVING CONTACT: Gold over Silver plated, copper alloy
 RATING: 5 Amps with resistive load @ 120VAC or 28VDC
 2 Amps with resistive load @ 250VAC

R:

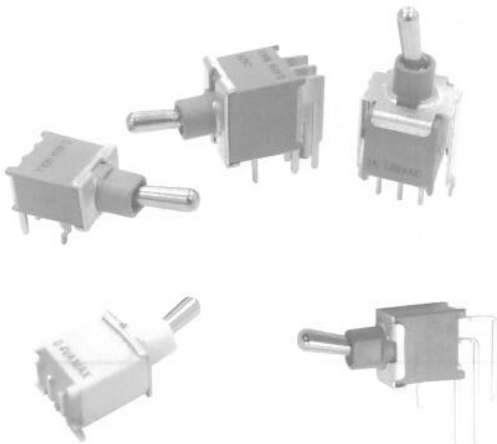
FIXED TERMINAL : Copper alloy with gold plated over nickel plated
 MOVING CONTACT: Copper alloy with gold plated over nickel plated
 RATING: 0.4 Volt-Amps(VA) max. @ 20V max.
 (AC or DC)

HOW TO ORDER

MODEL NO.	ACTUATOR	BUSHING	TERMINAL TYPE	CONTACT & TERMINAL MATERIAL	SEAL
1AS1 SPDT	T1: 12.7mm	B1: Thread	M1	Q: Gold over Silver plated	E: Epoxy
1AS2 SPDT	T2: 7.62mm	1/4-40ns	M2		
1AS3 SPDT		B4: Non-thread	M6		
1AS4 SPDT			M7	R: Gold	
1AS5 SPDT			VS2		
1AD1 DPDT			VS3		
1AD2 DPDT					
1AD3 DPDT					
1AD4 DPDT					
1AD5 DPDT					
1AD6 DPDT					

2A Series Sealed Tiny Toggle Switches

IP67 SMD Type



SPECIFICATION:

CONTACT RATING : Silver : 3A 120VAC /28VDC, 1A 250VAC
 Gold : 0.4VA, 20VDC max.
ELECTRICAL LIFE : 50,000 make-and-break cycles at full load.
CONTACT RESISTANCE : 20mΩ max.initial @ 2-4VDC
 100mA for both Silver and gold plated contact.
INSULATION RESISTANCE : 1,000MΩ min.
DIELECTRIC STRENGTH : 1,000V RMS@sea level.
OPERATING TEMPERATURE : -30°C to +85°C

MATERIALS:

CASE & BUSHING- Glass filled nylon 66, flame retardant, heat stabilized(UL94V-0)
ACTUATOR- Brass, chrome plated, with internal O-ring seal
SWITCH SUPPORT- Brass or steel, tin plated.
CONTACT- Silver or gold plated Copper alloy.

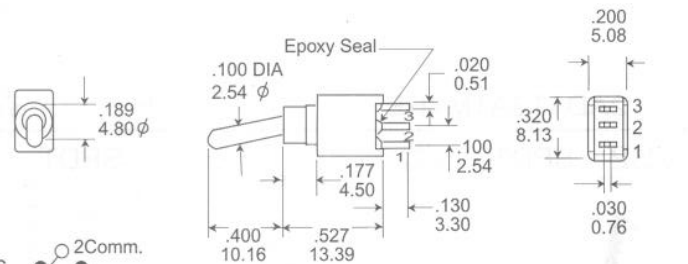
(ON):MOMENTARY



2AS1T1A1M2QE

ModelNO.	TYPE		
2AS1	ON		ON
2AS2	ON		(ON)
2AS3	ON	OFF	ON
2AS4	(ON)	OFF	(ON)
2AS5	ON	OFF	(ON)
Term. Comm.	2-3	OPEN	2-1

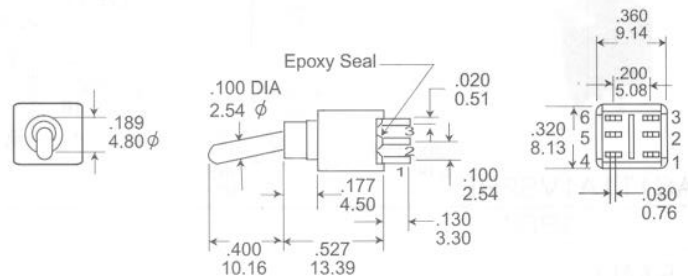
Schematic 2Comm.



2AD1T1A2M2RE

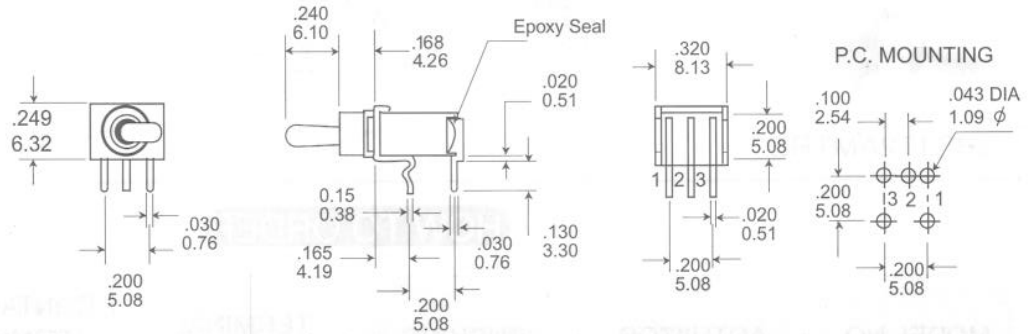
ModelNO.	TYPE		
2AD1	ON		ON
2AD2	ON		(ON)
2AD3	ON	OFF	ON
Term. Comm.	2-3,5-6	OPEN	2-1,5-4

Schematic 2 Comm. 5 Comm.

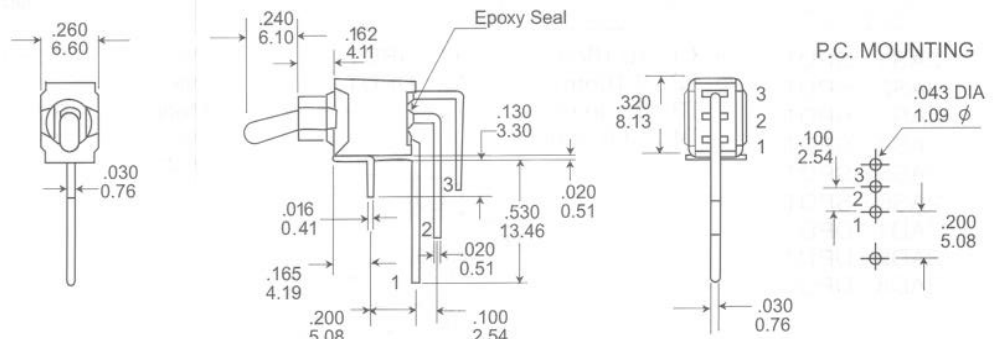


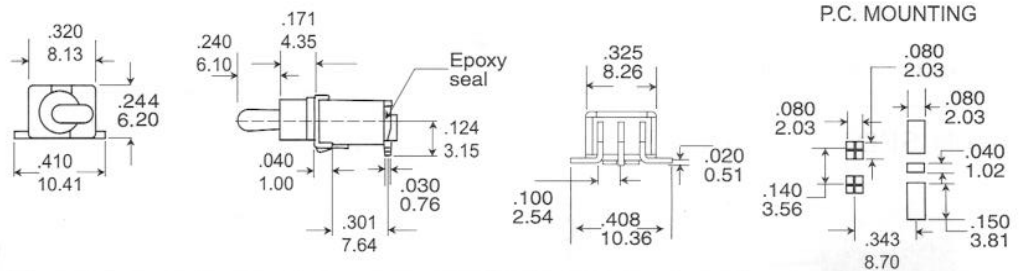
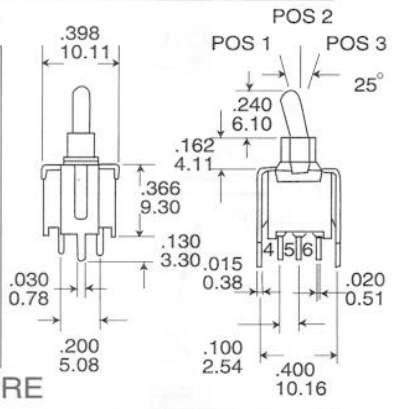
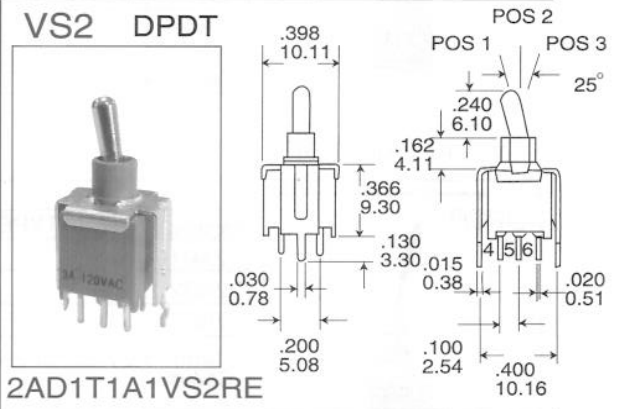
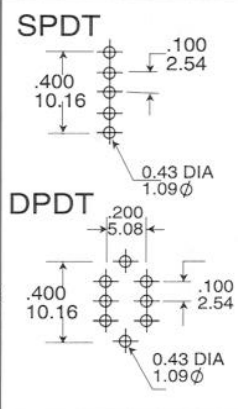
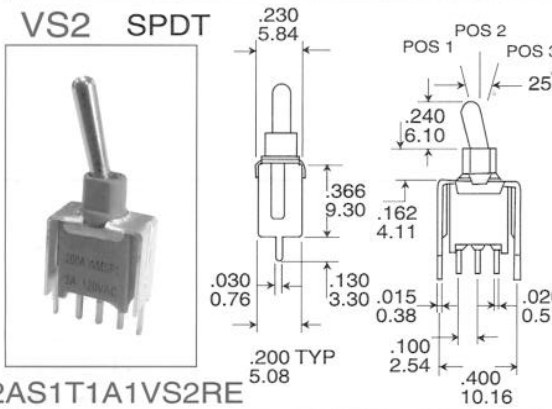
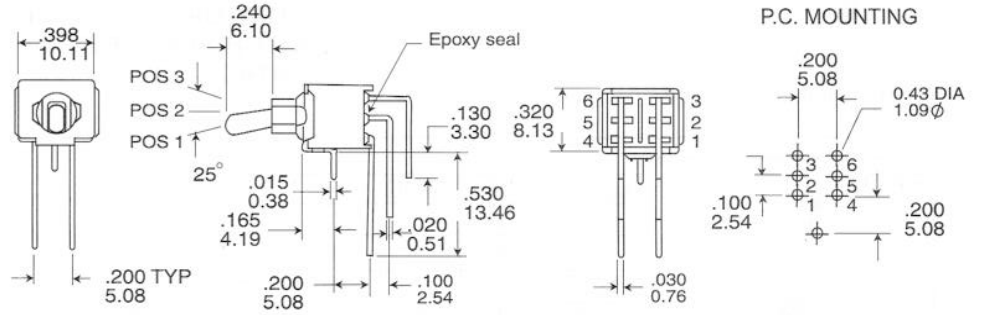
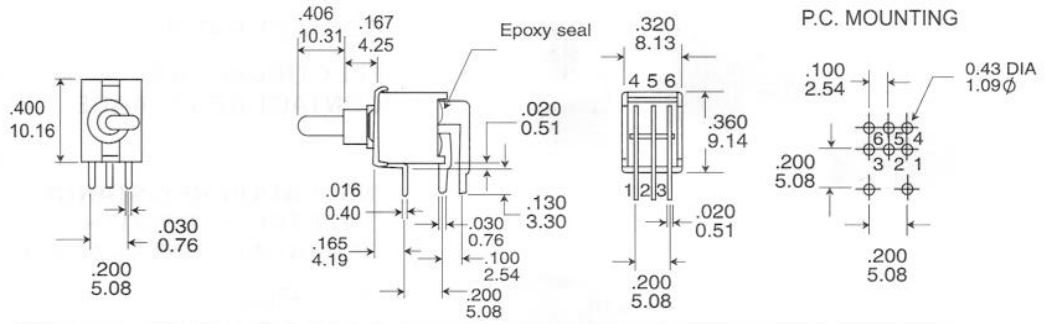
M6N (kink pin)

2AS1T2A1M6RE



2AS3T2A1M7RE





HOW TO ORDER

MODEL NO.	+	ACTUATOR	+	BUSHING	+	TERMINAL TYPE	+	CONTACT & TERMINAL MATERIAL	+	SEAL
-----------	---	----------	---	---------	---	---------------	---	-----------------------------	---	------

- 2AS1 SPDT
- 2AS2 SPDT
- 2AS3 SPDT
- 2AS4 SPDT
- 2AS5 SPDT
- 2AS6 SPDT
- 2AD1 DPDT
- 2AD2 DPDT
- 2AD3 DPDT

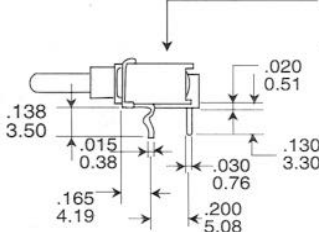
- ※ T1 : 10.16mm
- ※ T2 : 6.10mm
- ※ T3 : 8.13mm
- ※ T4 : 13.97mm

- A1 : SPDT
- A2 : DPDT

- M2
- M6
- M6N
- M7
- VS2

- Q : Silver
- 3A 120V, 1A 250V
- R : Gold
- 0.4 VA 20VDC

- E : Epoxy



Power Toggle Switches

(pending) 

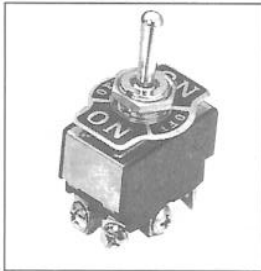
SPECIFICATION:

1. RATING : T509 : 6A 250V, 10A 125VAC
T901, T902 : 10A 250V, 16A 125VAC
15A 250V, 20A 125VAC
2. CONTACT RESISTANCE : 50mΩ max.
3. INSULATION RESISTANCE : DC500V 1000MΩ
4. DIELECTRIC STRENGTH : AC1500V 1 Min.

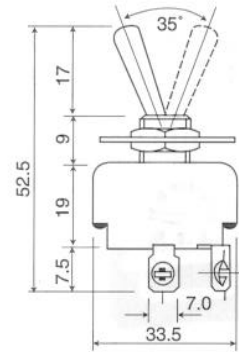
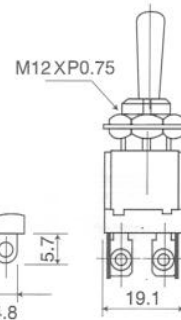
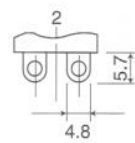
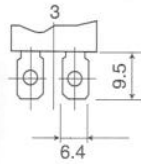
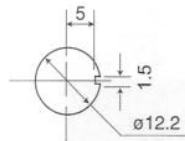
MATERIALS:

1. HOUSING : Phenolic.
2. CONTACT : Silver Alloy Silver Plated
3. TERMINAL : Copper Alloy Tin Plated, or Nickel.
4. HANDLE : Brass Chroms Plated or Nickel.

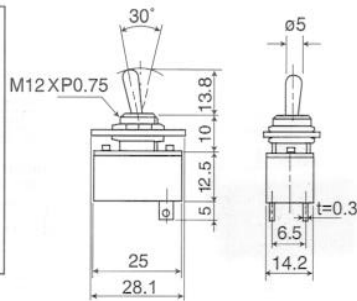
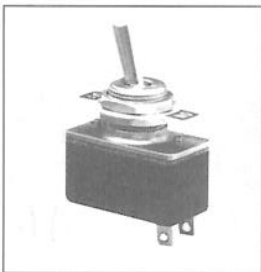
T509



MODEL NO.	TYPE
T509A	DPDT ON OFF
T509B	DPDT ON ON
T509C	DPDT ON OFF ON

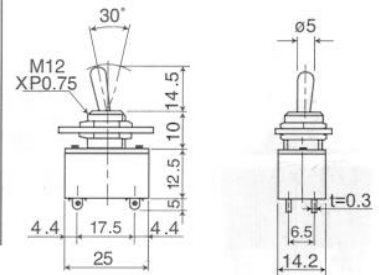


T1219



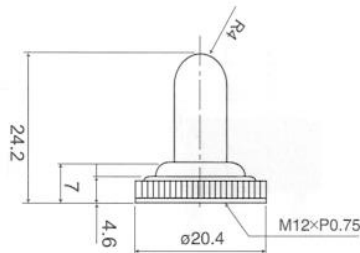
SPST 2P ON OFF
2A 250V, 4A 125V

T1220

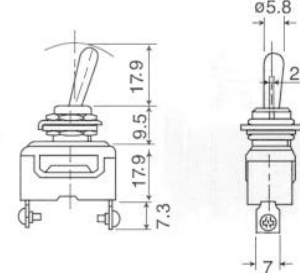


SPST 4P ON OFF
2A 250V, 4A 125V

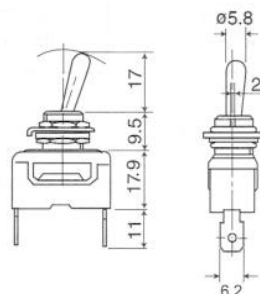
T900
SEAL CAP



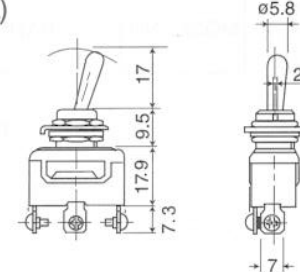
T901AW (UL)



T901AT (UL)



T901BW ON ON (UL)
T901CW ON OFF ON (UL)

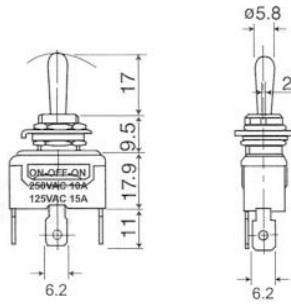
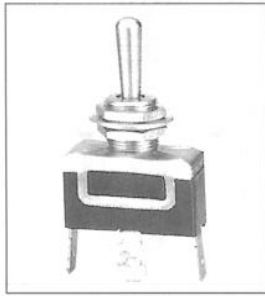


Power Toggle Switches (10A 250VAC, 15A 250VAC)

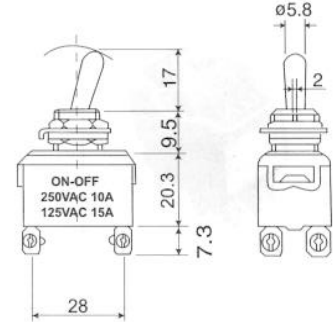


MODEL NO.	TYPE	MODEL NO.	TYPE
T901A UL	SPST ON OFF	T902A UL	DPST ON OFF
T901B UL	SPDT ON ON	T902B UL	DPDT ON ON
T901C UL	SPDT ON OFF ON	T902C UL	DPDT ON OFF ON
T901D	SPDT ON (ON)	T902D	DPDT ON (ON)
T901M	SPDT (ON) OFF (ON)	T902M	DPDT (ON) OFF (ON)
T901R	SPDT ON OFF (ON)	T902R	DPDT ON OFF (ON)

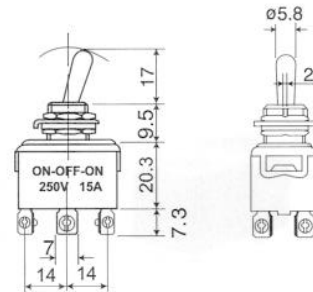
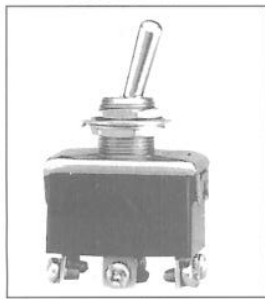
T901BT ON ON (UL)
T901CT ON OFF ON (UL)



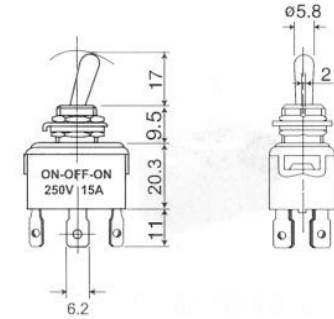
T902AW (UL)



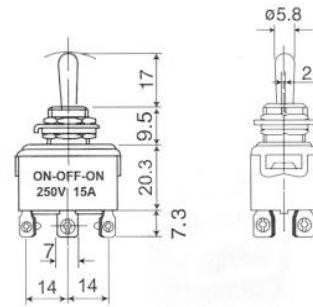
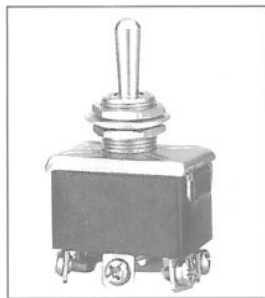
T902BW (UL)
T902DW



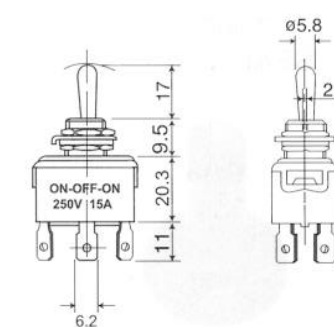
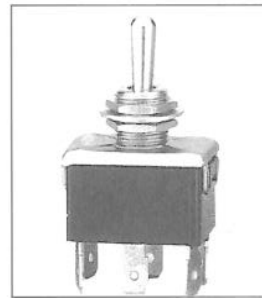
T902BT (UL)
T902DT



T902CW
T902MW

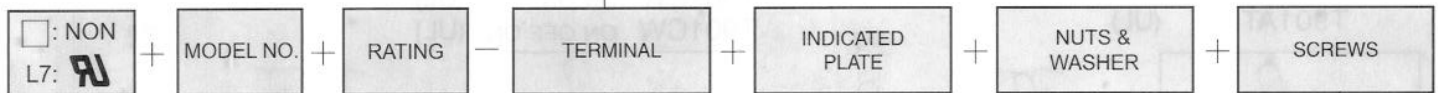


T902CT T902RT
T902MT



HOW TO ORDER

1: 10A 250V
5: 15A 250V
N: NO TERMINAL

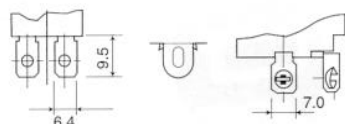
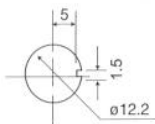


T S W

1: ON OFF

1: FIXED ON S/W

1: FIXED ON S/W



2: ON ON

2: SEPARATE PACKING

2: SEPARATE PACKING

3: ON OFF ON

3: WITHOUT

3: WITHOUT

N: WITHOUT

500A Tiny Power Slide Switches



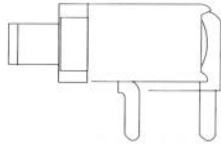
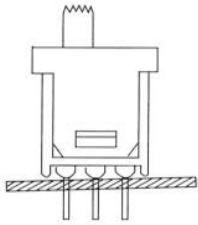
500A Series

SPECIFICATION:

CONTACT RATING : 3A with resistive load @ 120 VAC or 28 VDC.
 1A with resistive load @ 250 VAC or 0.4 VA max.
 CONTACT RESISTANCE : 10m $\frac{1}{2}$ max.initial.
 ELECTRICAL LIFE : 30,000 actuations at full load.
 INSULATION RESISTANCE : 1,000 M $\frac{1}{2}$ min.
 DELECTRIC STRENGTH : 1,000V RMS @ sea level
 OPERATING TEMPERATURE : -30°C to +85°C

MATERIALS:

CASE-diallyl phthalate(DAP)
 HOUSING-Stainless Steel
 SLIDE HANDLE-Nylon
 CONTACTS-Coin silver,silver or gold plated.
 CENTER CONTACT & TERMINALS-Brass,silver or gold plated.

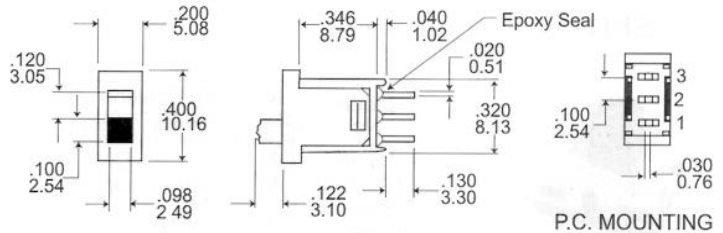


SPDT



500A1M2

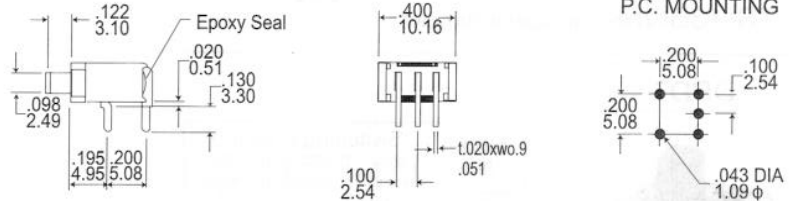
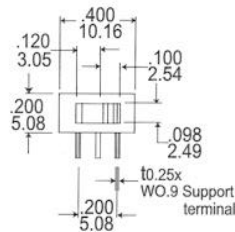
Model No.	Switching Position		
500A1	ON	NONE	ON
500A3	ON	OFF	ON
Term. Comm.	2-1	OPEN	2-3



SPDT



500A1M6

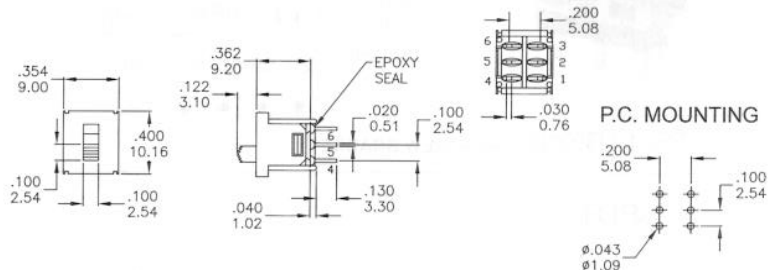


DPDT



500B1M2

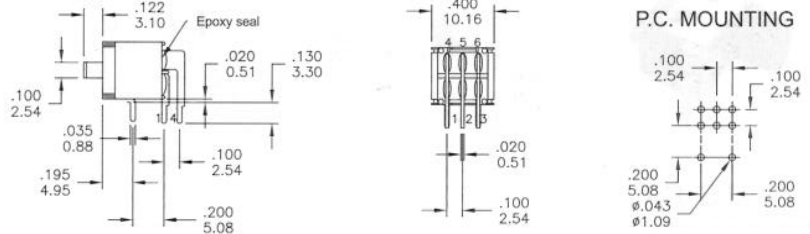
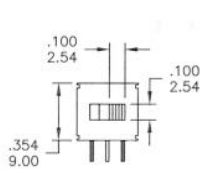
Model No.	Switching Position		
500B1	ON	NONE	ON
500B3	ON	OFF	ON
Term. Comm.	2-1, 5-4	OPEN	2-3, 5-6



DPDT



500B1M6



HOW TO ORDER

MODEL NO.	+	TERMINATION	+	CONTACT & TERMINAL MATERIAL	+	SEAL
500A1 500A3		M2 : Vertical M6 : Right-angle(Horizontal)		Q : Silver(3A120V,1A250VAC) R : Gold(0.4 VA max.)		E : Epoxy

TS-13 Series Slide Switches



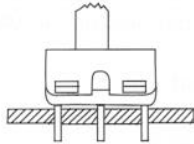
SPECIFICATION:

CONTACT RATING: 6A with resistive load @ 120 VAC or 28 VDC.
3A with resistive load @ 250 VAC or 0.4 VA.

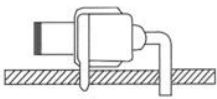
CONTACT RESISTANCE: 10mΩ max. initially.
ELECTRICAL LIFE: 30,000 actuations at full load.
INSULATION REISTANCE: 1,000MΩ min.
DIELETRIC STRENGTH: 1,000V RMS @ sea level.
OPERATING TEMPERATURE: -30°C to +130°C

MATERIALS:

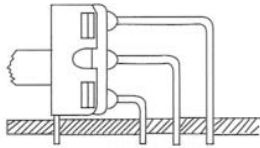
CASE: Diallyl phthalate (DAP)
HOUSING-Stainless Steel
SLIDE HANDLE-Nylon
CONTACTS-Coin silver, silver plated, or gold plated.
CENTER CONTACTS & TERMINALS-Brass, silver plated, or gold plated.



C

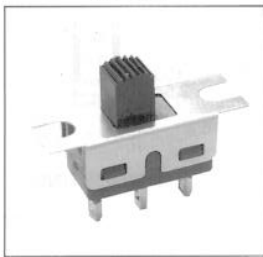


P



L

SPDT



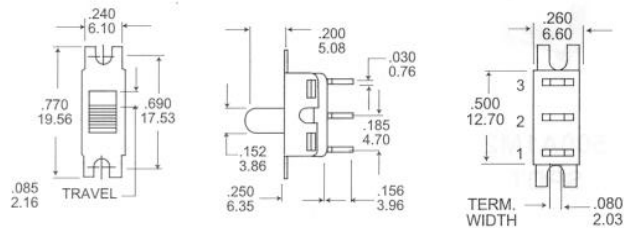
TS-13BQNK W/ SCREW BRACKET

Model No.	Switching Position		
TS-13	ON	OFF	ON
TS-13-3	ON	OFF	ON
Term. Comm.	2-1	OPEN	2-3

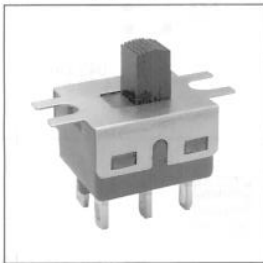
Schematic 2 Comm.



TERM. NOS. FOR REFERENCE ONLY



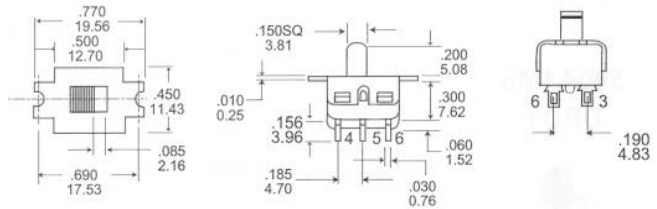
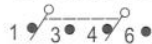
DPDT



TS-11BQNK W/ SCREW BRACKET

Model No.	Switching Position		
TS-11	ON	OFF	ON
TS-11-3	ON	OFF	ON
Term. Comm.	2-1,5-4	OPEN	2-3,5-6

Schematic 2 Comm. 5 Comm.

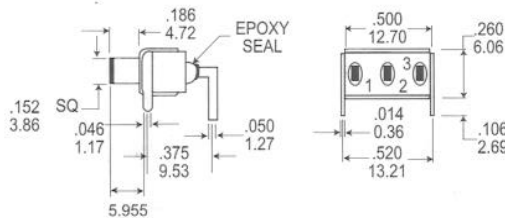
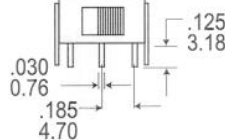


SPDT

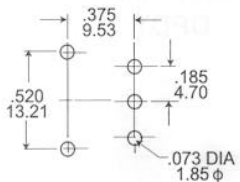


TS-13P

TERM. NOS. FOR REFERENCE ONLY



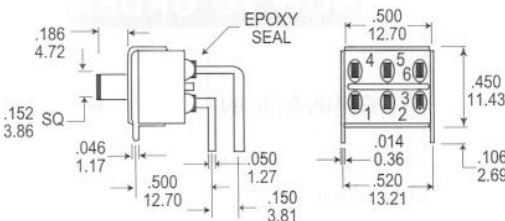
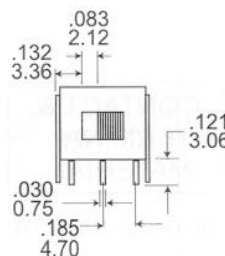
P.C. MOUNTING



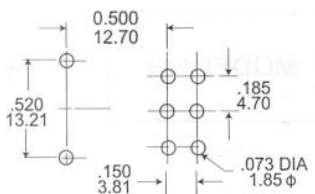
DPDT



TS-11P



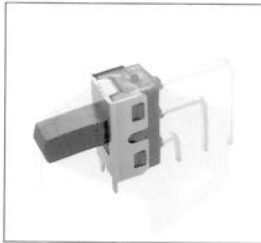
P.C. MOUNTING



TS-13 Slide Switches(W/LED)

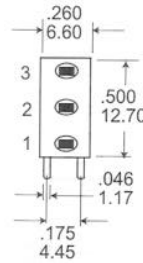
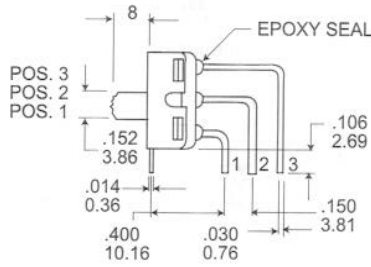
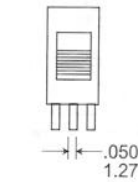


SPDT

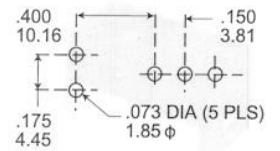


TS-13L

TERM. NOS. FOR REFERENCE ONLY



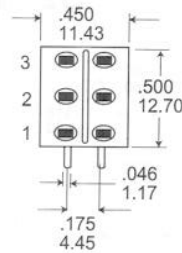
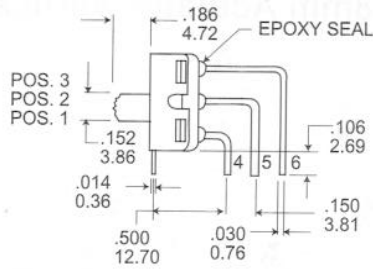
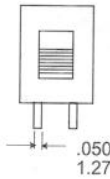
P.C. MOUNTING



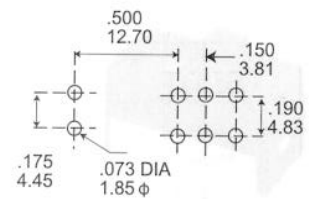
DPDT



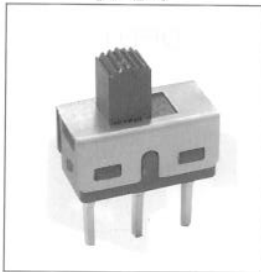
TS-11L



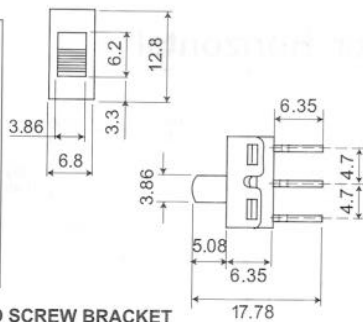
P.C. MOUNTING



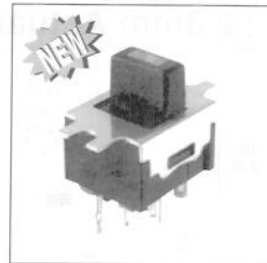
SPDT



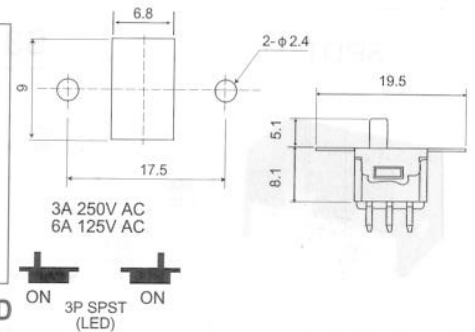
TS-13CQN W/O SCREW BRACKET



SPST

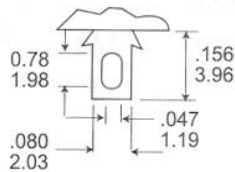


R13-604BQYK W/LED



TERMINAL OPTIONS

STANDARD

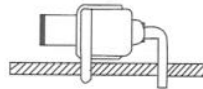


THK .030 (0.76)

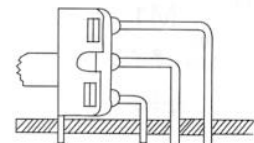
B



C



P



L

HOW TO ORDER



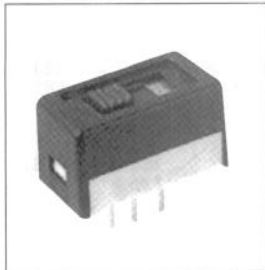
TS-13PRN8

MODEL NO.	+	TERMINAL TYPE	+	CONTACT & TERMINAL MATERIAL	+	EPOXY SEAL	+	ACTUATOR	+	SCREW BRACKET	+	OPERATING FORCE
		B C P L		Q : SILVER PLATED R : GOLD PLATED		Y : YES N : NO		□ : STANDARD 8 : 8mm		□ : NON K : BRACKET		L : 300 ±20G □ : 375 ±20G

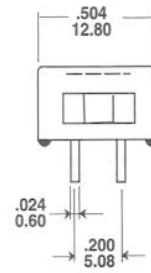
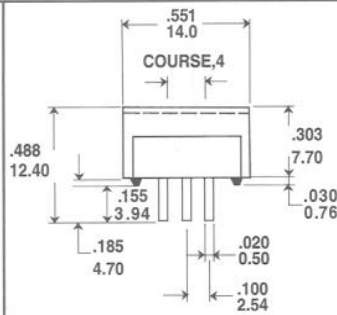
600 Series Miniature Slide Switches for P.C. Board

S1 : Recessed Actuator, Vertical

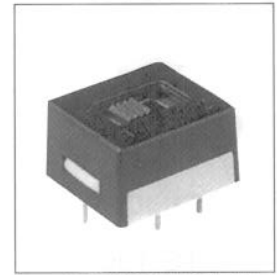
SPDT



6011S1M1 □ E

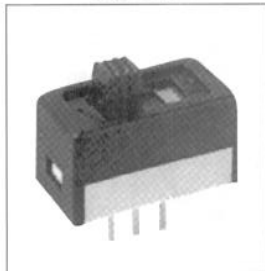


DPDT

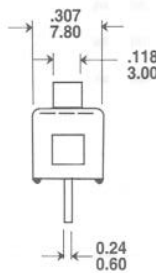


6021S1M2 □ E

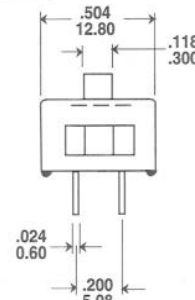
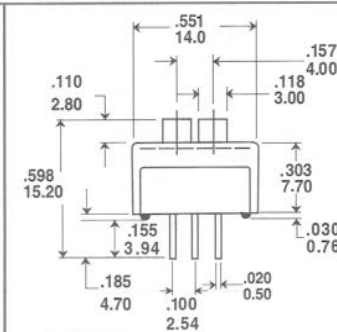
SPDT



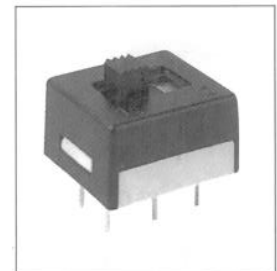
6011S2M1 □ E



S2 : 2.8mm Actuator, Vertical

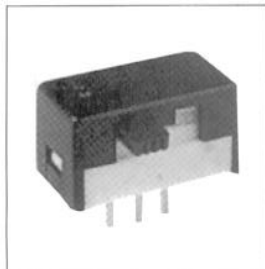


DPDT

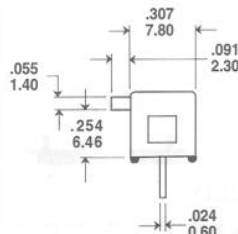


6021S2M2 □ E

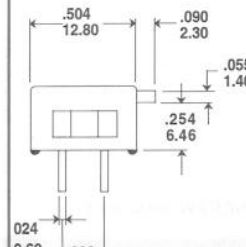
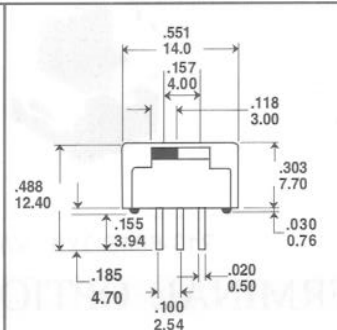
SPDT



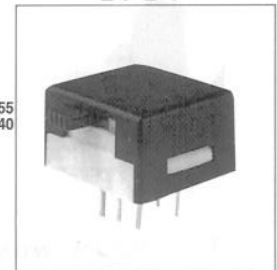
6011S3M1 □ E



S3 : 2.3mm Actuator, Horizontal



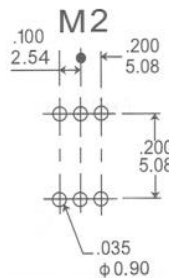
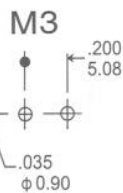
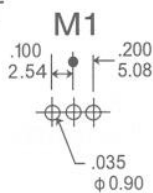
DPDT



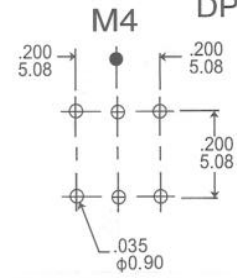
6021S3M2 □ E

TERMINATION OPTIONS (SPACING)

SPDT



DPDT



CONTACT MATERIAL OPTIONS

Q :

FIXED TERMINAL : Silver plated copper alloy
MOVING CONTACT : Silver plated copper alloy
RATING : 5 Amps resistive load @ 120VAC or 28 VDC
 1 Amps with resistive load @ 250VAC
CONTACT RESISTANCE : 20mΩ initial.

R :

FIXED TERMINAL : Copper alloy with gold plate over nickel plate
MOVING CONTACT : Copper alloy with gold plate over nickel plate
RATING : 0.4 Volt-Amps (VA) max. @ 20Vmax.(AC or DC)
CONTACT RESISTANCE : 50mΩ initial.

- **INSULATION RESISTANCE :** 100MΩ under 500V
- **DIELECTRIC STRENGTH :** 1000V RMS @ Seal level between contacts.
2000V RMS between contacts & neutral point.
- **MINIMUM LOAD :** Silver:100mA 10VDC ; Gold:10mA50mVDC

- **OPERATING TEMPERATURE :** -40°C to +80°C
- **MECHANICAL LIFE :** 20,000 Operations