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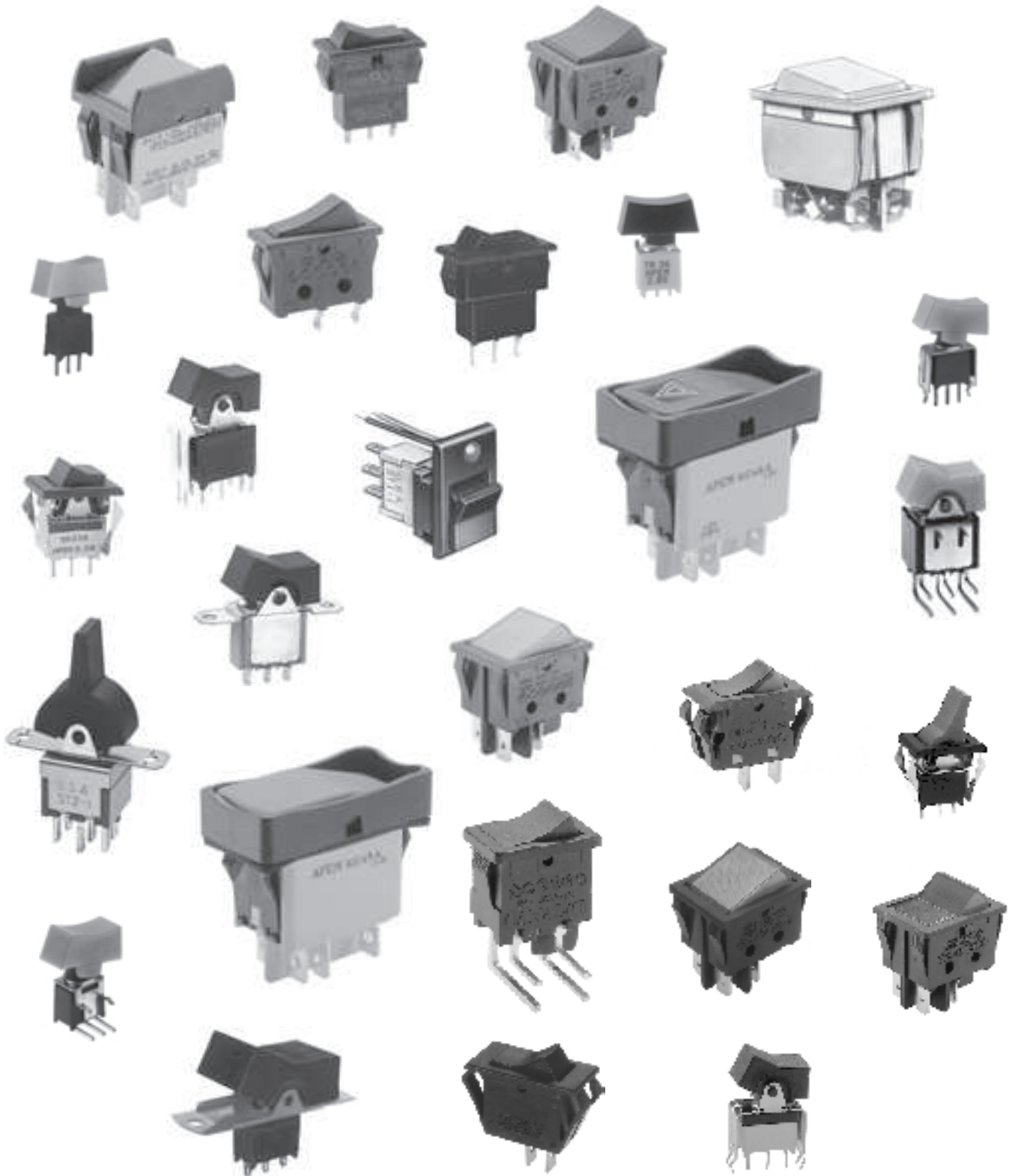
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B

SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE



ROCKER & LEVER SWITCHES

ROCKER & LEVER SWITCH SELECTION GUIDE: This catalog contains an extensive variety of rocker and lever switches with numerous options and accessories. To facilitate easy selection of the desired switch for your application, this guide lists the various Series with some key selection parameters.

B

SERIES	SIZE	RATINGS (Max. in bold)	POLES	ILLUMINATED	SURFACE MOUNT	PANEL MOUNT	P. C. MOUNT	UL	CSA	VDE	WASHABLE	ESD PROTECTION	PAGE(S)
TR <i>New!</i>	TINY	0.4VA 20V	SP		X						X	X	B3-B6
TR	TINY	1/2A 48V 0.4VA 20V	SP,DP				X				X	X	B7-B10
S	MINIATURE	0.4VA 20V 2A 250VAC 5A 125VAC 4A 30VDC	SP,DP				X	X			X	X	B11-B15
7000	MINIATURE	0.4VA 20V 3A 250VAC 6A 125VAC 4A 30VDC	SP,DP			X	X	X	X				B16-B19
ST & UL	MINIATURE	6A 125VAC 3A 250VAC 0.4VA 20V	SP,DP	X		X	X	X	X				B20-B30
2600	STANDARD	16A 125/250VAC 1/3 HP 250VAC PEAK CURRENT 150A 250VAC	SP,DP	X		X		X	X	X			B31-B35
AS	STANDARD	4A 125VAC 2A 250VAC 0.4VA 20V	SP			X		X	X				B36-B37
R <i>New!</i>	STANDARD	16A 125/250VAC 1/4 HP 20A 125VAC	SP,DP	X		X		X	X	X			B38-B39
RH <i>New!</i>	STANDARD	16A 125/250VAC 1/4 HP 20A 125 VAC	SP	X		X		X	X	X			B40-B41
FM <i>New!</i>	STANDARD	10A 125VAC 6A 250 VAC 6A 125/250VAC 1/8 HP	SP,DP	X		X		X	X	X			B42-B43
MR <i>New!</i>	STANDARD	10A 125VAC 8A 250VAC 1/4 HP	DP	X		X		X	X	X			B44-B45
B <i>New!</i>	STANDARD	15A 125VAC 10A 250VAC	SP,DP		X		X		X	X			B46-B47
HB <i>New!</i>	STANDARD	20A 125VAC 16A 250VAC 125/250 VAC 3/4 HP	SP	X		X		X	X	X			B48-B49
KG <i>New!</i>	STANDARD	15A 12VDC/250VAC 10A 24VDC	SP	X		X							B50-B53
H <i>New!</i>	STANDARD	16A 250VAC 4A INDUCTIVE 250 VAC	SP,DP	X		X							B54-B55

SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE

New! TR SERIES - SMT WASHABLE TINY ROCKER SWITCHES

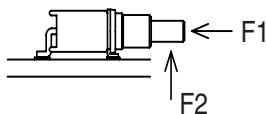
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DESIGNED EXCLUSIVELY FOR SURFACE MOUNTING

SMT TR Series switches incorporate many desirable features that include:

- **Higher protection against p.c. board tear-offs**

The switch operating force is approx. .56 lbs. while forces required to tear switch off p.c. board are approx. 38 lbs. (F1) and 14 lbs. (F2).



- **Tape & reel packaging**

Recommended for:

- economy
- suitability for automated placement
- handling of large quantities of components per packaging unit
- positive component positioning
- protection of terminals against damage during handling
- high static resistance

- **Reflow solderable**

- High temperature plastic materials
- Tin plated grounding brackets
- Tin-lead alloy over nickel terminal plating
- Terminals turned outward to prevent the shadow effect in infrared soldering and to permit visual inspection of the solder joints
- .021" (0.55mm) air gap between p.c. board and switch case
- End stackable pitch .400" (10.16mm)
- Available with positioning pins to assure correct switch orientation during the reflow process and provide additional mechanical integrity

- **Protected against electrostatic discharges (ESD) up to 10 KV.**

- **Washable**

Switches are designed to withstand cleaning processes, including hot water under pressure.

Surface mount devices (SMD) are subject to more stringent constraints of temperature, solderability, sealing and space savings than through-hole components.

To meet these requirements, APEM has designed a family of tiny surface mount switches that include TL Series toggle switches, TP Series pushbutton switches, TR Series rocker switches & TG Series slide switches. See toggle, pushbutton & slide switch sections of catalog for TL, TP & TG Series respectively.



New! TR SERIES - SMT WASHABLE TINY ROCKER SWITCHES

B

ELECTRICAL SPECIFICATIONS

Contact ratings (resistive lds.):	0.4 VA at 20 V max. (AC or DC)
Minimum load:	10 mA at 50 mV or 10 μ A at 5 VD
Initial contact resistance:	20 milliohms maximum
Insulation resistance:	1000 M Ω min. at 500 VDC
Dielectric strength:	1000 V rms between terminals & frame. 500 V rms between terminals
Electrical life (at full load):	2 position switches: 60,000 cycles 3 position switches: 30,000 cycles
Static resistance:	10 KV (Schaffner equipment)

GENERAL SPECIFICATIONS

Operating temperature range:	-40°C to +85°C
Moisture resistance:	21 days per IEC 512-6 test 11c
Vibration resistance:	10-500 Hz/10g per IEC 512-4 test 6d
Shock resistance:	50 g per IEC 512-4 test 6c

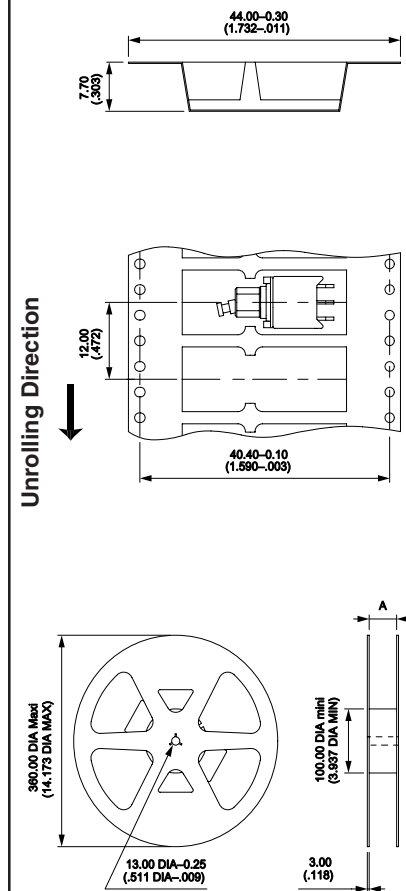
MATERIALS

Case:	High temperature plastic UL94V-0
Actuator:	High temperature plastic UL94V-0
Grounding brackets:	Tin plated steel (includes positioning pins)
Contacts:	Gold plated brass
Terminals:	Brass with tin-lead alloy over nickel plate
Terminal seal:	Epoxy

SOLDERING AND CLEANING

Reflow soldering:	Infrared, vapor phase and infrared convection
Washable:	Per IEA-RS448-2: water and detergent preferred. Solvents.

PACKAGING



Standard packaging unit:

700 pieces
Tape meeting international standard IEC Publication 286-3 (EIA481A)
Start leader: 15.7" (400mm) min.
Dimension 'A': 1.732" (44.00mm)

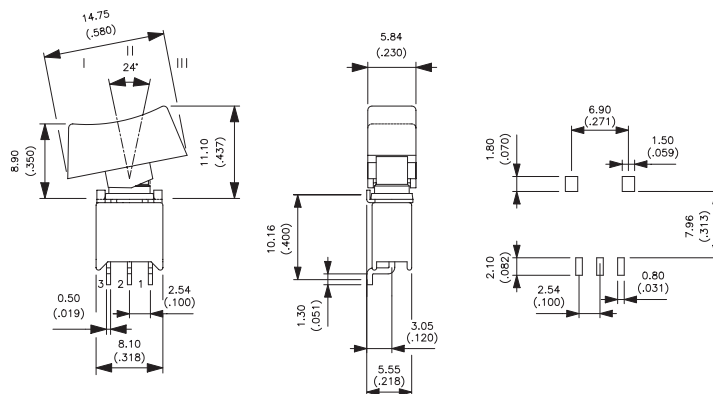
SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE

New! TR SERIES - SMT WASHABLE TINY ROCKER SWITCHES

Single pole rocker switches



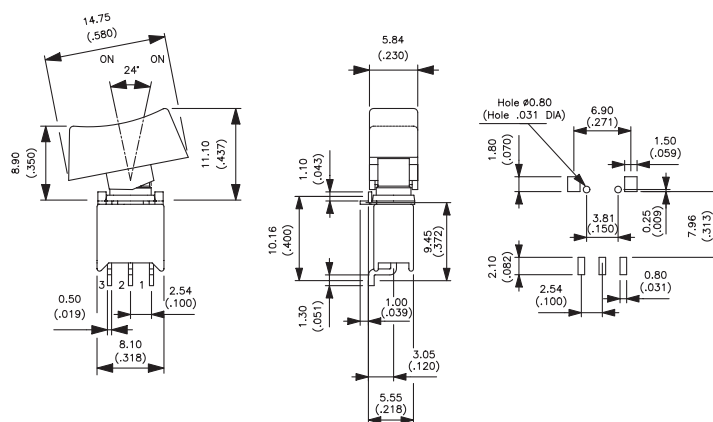
MODEL NO.	CIRCUIT		
TR36WS80000	ON	-	ON
TR39WS80000	ON	OFF	ON
TR37WS80000	MOM	OFF	MOM
TR38WS80000	ON	OFF	MOM
TR32WS80000	ON	-	MOM
Handle position:	III	II	I



Single pole rocker switches with positioning pins

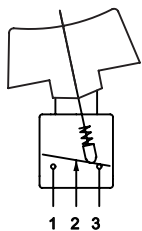


MODEL NO.	CIRCUIT		
TR36WS80065	ON	-	ON
TR39WS80065	ON	OFF	ON
TR37WS80065	MOM	OFF	MOM
TR38WS80065	ON	OFF	MOM
TR32WS80065	ON	-	MOM
Handle position:	III	II	I

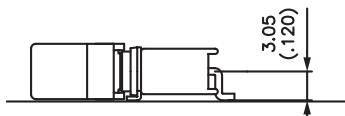


SWITCH ACTION

ON - ON Model shown



P.C. BOARD DIMENSIONS



LED INDICATOR IN TINY ROCKER PACKAGE

ELECTRICAL SPECIFICATIONS

Forward voltage: Red; 3.0 volts at 10 milliamps (2V typical)
Green; 3.0 volts at 20 milliamps (2.2V typical)
Yellow; 3.0 volts at 10 milliamps (2.1V typical)

Reverse voltage: 5.0 volts minimum

Viewing angle (total): 90°

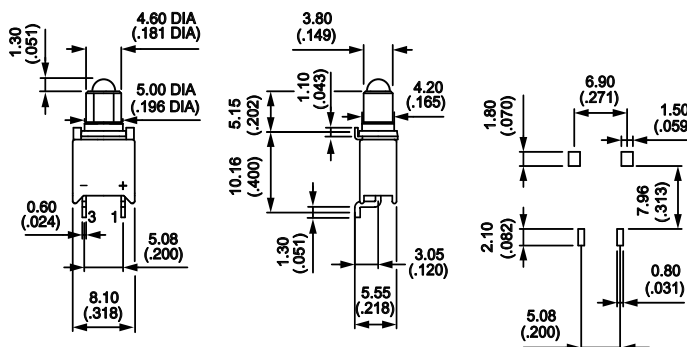
Wavelength: Red; 635 nm
Green; 565 nm
Yellow; 585 nm

PACKAGING

Tape & reel



MODEL NO.	COLOR
TV01WS00100	Red
TV02WS00100	Green
TV03WS00100	Yellow



New! TR SERIES - SMT WASHABLE TINY ROCKER SWITCHES

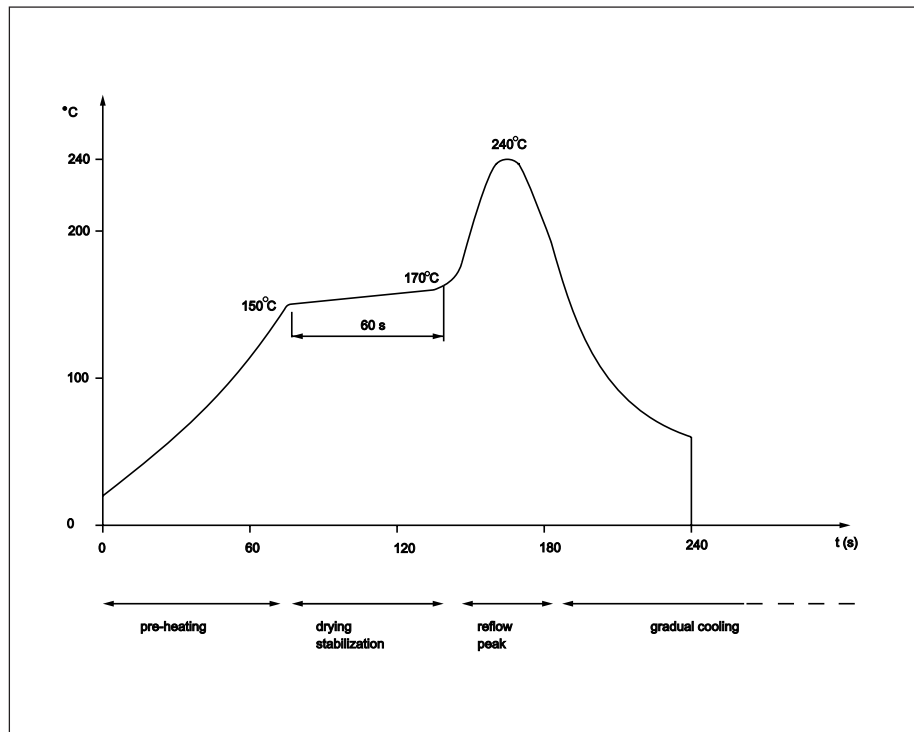
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REFLOW SOLDERING - STANDARD PROFILE

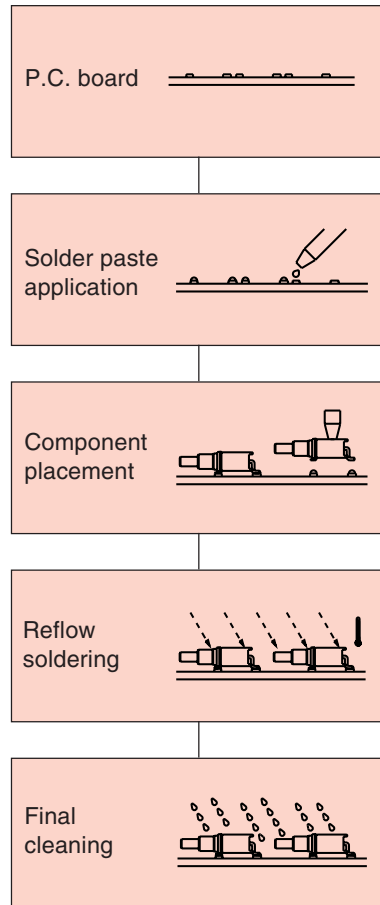
The printed circuit board, carried by a conveyor belt, travels through the reflow soldering oven and experiences the following programmed cycles:

- pre-heat to a maximum of 200°C for 30 seconds
- reflow at a maximum of 245°C for 10 seconds
- final cleaning

TEMPERATURE/TIME PROFILE (typical)

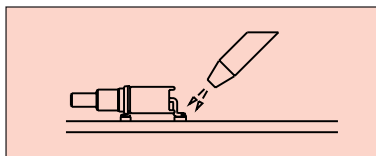


PROCESSING STEPS



P.C. BOARD REWORK RECOMMENDATIONS

Hot air reflow technique is preferred. Avoid the use of a soldering iron.



Caution: Excessive and/or repeated high temperature exposure may affect switch performance & reliability.

SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE

TR SERIES - WASHABLE TINY ROCKER SWITCHES, P.C. MOUNTING



FEATURES

- Wave solderable.
- Fully sealed for process compatibility.
- Ultra-compact case size.
- SPDT & DPDT models.
- Narrow & wide actuators in 9 colors.

SPECIFICATIONS

Contact ratings (resistive loads):	Gold plated brass; 0.4 Volt-Amps max. at 20 V max. Silver plated brass; 0.5 Amps at 48 V max.
Minimum load:	10 mA at 50 mV - 10 μ A at 5 VDC
Initial contact resistance:	20 milliohms maximum
Insulation resistance:	1000 megohms minimum at 500 VDC
Dielectric strength:	1000 V rms minimum between terminals and frame. 500 V rms between terminals..
Electrical life:	2 position switches - 60,000 cycles minimum. 3 position switches - 30,000 cycles minimum.
Operating temperature range:	-30°C to +85°C
Washing:	Permissible with water, detergents and freons.

MATERIALS

Contacts & Terminals:	Gold or silver plated brass
Actuator:	Polyamide
Bracket:	Tin plated steel or stainless steel
Case:	PBT
Terminal seal:	Epoxy

ABOUT THIS SERIES

The material in this series is organized in the following sequence:

- a. Completely specified switch models
- b. 'build your own switch' order format
- c. Option drawings & special options
- d. Miscellaneous

B

Figure 1 shows the dimensions of the APEM component. The dimensions are as follows:

- Front View (Left):**
 - Total height: 1.00 (.039)
 - Base diameter: 5.08 (.200)
 - Top diameter: 9.10 (.368)
 - Top thickness: 0.70 (.027)
- Top View (Center):**
 - Central square side length: 1.475 (.590)
 - Angle: 24°
 - Top thickness: 0.20 (.368)
 - Top diameter: 11.60 (.462)
 - Central hole diameter: 0.50 (.019)
 - Bottom hole diameter: 2.54 (.100)
- Side View (Right):**
 - Total height: 5.84 (.229)
 - Base diameter: 5.00 (.196)
 - Top diameter: 1.10 DIA (.043 DIA)
 - Top thickness: 0.70 (.027)
 - Bottom hole diameter: 2.54 (.100)

DP

SP

Technical drawing of the APEM 1000 series connector showing three views: front, top, and side. Dimensions are in inches and millimeters.

Front View Dimensions:

- Overall Height: 1.00 (25.4)
- Overall Width: 5.08 (128)
- Overall Length: 9.10 (231)
- Feature 1: 1.00 (25.4)
- Feature 2: 5.08 (128)
- Feature 3: 9.10 (231)

Top View Dimensions:

- Overall Width: 14.75 (375)
- Angle: 24°
- Feature 1: 14.75 (375)
- Feature 2: 2.54 (64)
- Feature 3: 11.10 (281)
- Feature 4: 8.90 (226)
- Feature 5: 11.10 (281)
- Feature 6: 8.90 (226)
- Feature 7: 11.10 (281)
- Feature 8: 8.90 (226)
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- Feature 174: 8.90 (226)
- Feature 175: 11.10 (281)
- Feature 176: 8.90 (226)
- Feature 177: 11.10

DP

SP

DP

SP

The technical drawing shows three views of a mechanical component:

- View I (Front View):** Shows a base with a width of 9.10 (.358) and a height of 5.08 (.200). A central feature has a width of 5.08 (.200).
- View II (Top View):** Shows a rectangular base with a width of 9.10 (.358) and a depth of 5.08 (.200). A central feature has a width of 5.08 (.200) and a height of 3.30 (.129). A top flange has a width of 14.75 (.580) and a thickness of 3.50 (.137). A 24° angle is indicated.
- View III (Side View):** Shows a profile with a total height of 5.08 (.200). A central feature has a width of 5.08 (.200) and a height of 3.30 (.129). A top flange has a width of 5.84 (.229) and a height of 1.10 (.437). A bottom flange has a width of 5.08 (.200) and a height of 0.70 (.027).

DP

SP

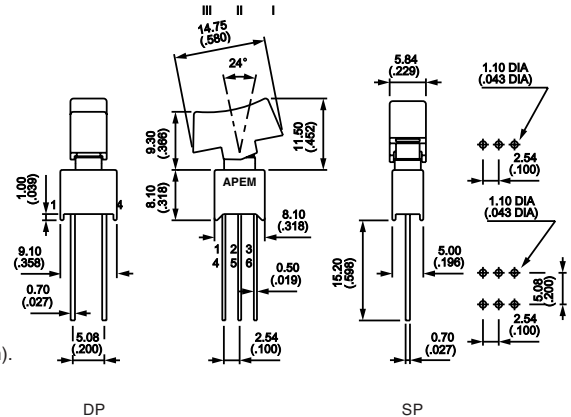
TR SERIES - WASHABLE TINY ROCKER SWITCHES, P.C. MOUNTING

Wire-wrap terminals - gold plated brass contacts



SINGLE POLE MODEL NO.	DOUBLE POLE MODEL NO.	CIRCUIT
TR36MW0000012	TR46MW0000012	ON - ON
TR39MW0000012	TR49MW0000012	ON OFF ON
TR37MW0000012	TR47MW0000012	MOM OFF MOM
TR38MW0000012	TR48MW0000012	ON OFF MOM
TR32MW0000012	TR42MW0000012	ON - MOM
Handle position (see dwg.) :		III II I
Terminals connected: SP & DP		2-3 2-1
DP		5-6 4-5

Above models have black 10 actuator (see color codes at end of section).



Additional ordering information: Commonly ordered models are shown above with complete model numbers and specifications. Below is an order format that enables you to 'build your own switch' and specify the correct switch model number by simply selecting from all available options shown and filling in the boxes.

'BUILD YOUR OWN SWITCH' ORDER FORMAT

Fill in boxes with selections shown for **Model Structure**, then add **Options** selections for complete model number.
(Allowable options for are shown under each respective box).

Model Structure:

Series	Number of poles	Electrical functions	Terminals
T R			
	3 Single pole	6 ON - ON	P 0 Straight p.c.
	4 Double pole	9 ON OFF ON	Y 0 Straight p.c.with bracket
		7 MOM OFF MOM	W 0 Horizontal right angle
		8 ON OFF MOM	W W Vertical right angle
		2 ON - MOM	M W Wire-wrap

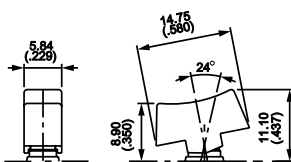
Options:

Contact & terminal mat'ls.	Case color	Special options	Actuators
0 Brass, gold plated	Blue	0 0 No special requirement	1 0 Narrow rocker
1 Brass, silver plated		5 0 Crimped bracket terminals - specify for models with brackets.	2 0 Wide rocker
3 Brass, gold plated - (1.27 microns gold)		See additional listings on following page.	(Note: replace '0' above with color code from table below).
8 Brass, gold plated contacts with tin plated terminals			
9 Contacts brass, gold plated (1.27 microns gold) and tin plated terminals			

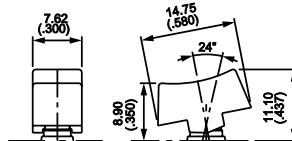
Example of completely specified model number: **TR36Y03005023**

OPTION DRAWINGS

ACTUATORS (replace '0' in part numbers with color code)



10 Narrow



20 Wide

1	blue
2	black
3	green
4	grey
5	yellow
6	red
7/1	white
9	orange

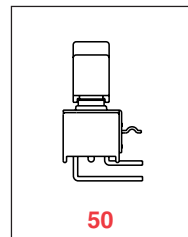
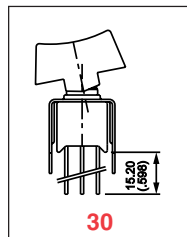
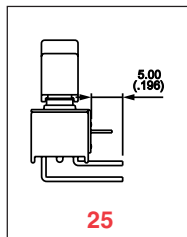
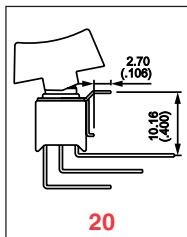
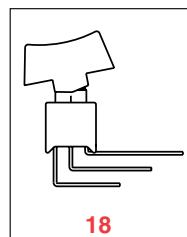
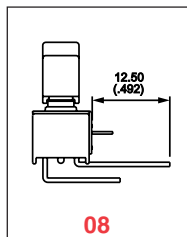
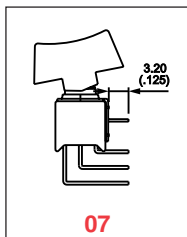
TR SERIES - WASHABLE TINY ROCKER SWITCHES, P.C. MOUNTING

B

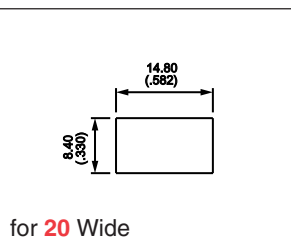
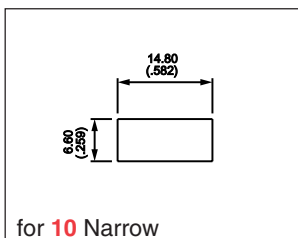
SPECIAL OPTIONS & MISCELLANEOUS

SPECIAL OPTIONS

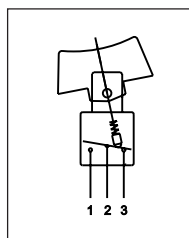
- 00** No special requirement.
- 07** Trimmed terminals for **WW** models only - .125" (3.2mm).
- 08** Extended terminals for **WO** models only.
- 18** **WW** models without mounting bracket.
- 20** **WW** models with Mounting bracket and p.c. board spacer tab.
- 25** Trimmed terminals for all models except **WW** - .196" (5mm).
- 30** Wire-wrap terminals on models with **Y** bracket.
- 50** Crimped bracket terminals (retains switch on p.c. board during assembly and soldering). For models with **WO**, **WW** & **YO** terminals.



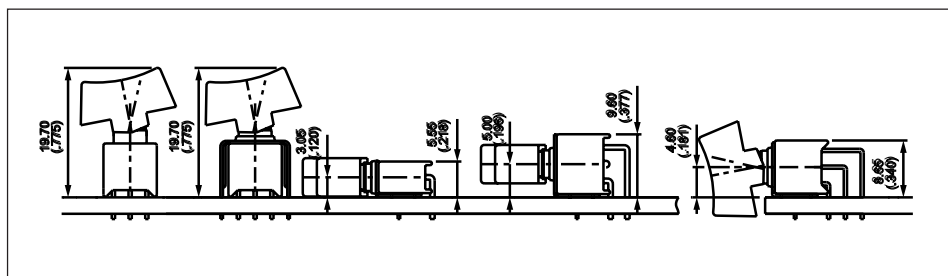
PANEL CUT-OUTS



SWITCH ACTION



PCB MOUNTING



SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE

S SERIES - WASHABLE MINIATURE ROCKER & LEVER SWITCHES, P.C. MOUNTING



FEATURES

- Wave solderable.
- Compact case size & fully sealed for process compatibility.
- SPDT & DPDT models.
- Models available with ESD protection up to 12 KV.
- Agency recognition (see below).

SPECIFICATIONS

Contact ratings (resistive loads):	Gold plated brass; 0.4 Volt-Amps max. at 20 V max. Silver; 2 Amps at 250 VAC, 5 Amps at 125 VAC or 4 Amps at 30 VDC. Gold plated silver; 2 Amps at 250 VAC, 5 Amps at 125 VAC or 4 Amps at 30 VDC (gold plating withstands up to 300 mA at 30 VDC).
Initial contact resistance:	10 milliohms maximum
Insulation resistance:	1000 megohms minimum
Dielectric strength:	1000 V rms minimum
Electrical life:	Gold: 2 positions - 100,000 cycles min. 3 positions - 50,000 cycles min. Silver: 40,000 cycles minimum
Operating temperature range:	-20°C to +85°C
Moisture resistance:	56 days per IEC 68-2-3
Washing:	Permissible with water, detergents and freons

MATERIALS

Contacts & Terminals:	Gold plated brass, silver or gold plated silver
Actuator:	Polyamide
Bracket:	Tin plated steel or stainless steel
Case:	UL94V-0 - Polyamide, glass filled or PES
Terminal seal:	Epoxy

AGENCY RECOGNITION



UL

Availability: consult factory for details of recognized models.

Marking: to order switches with UL mark, complete the appropriate box of the ordering format.

ABOUT THIS SERIES

The material in this series is organized in the following sequence:

- Completely specified switch models
- 'build your own switch' order format
- Option drawings, special options & miscellaneous.

S SERIES - WASHABLE MINIATURE ROCKER & LEVER SWITCHES, P.C. MOUNTING

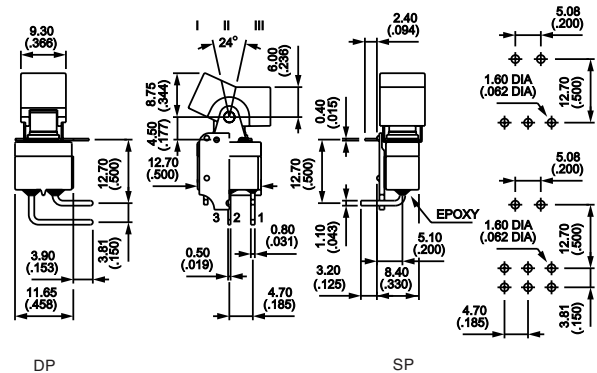
B

Horizontal right angle terminals - .185" spacing - gold plated brass contacts Only single pole has stand-off plate



SINGLE POLE MODEL NO.	DOUBLE POLE MODEL NO.	CIRCUIT		
SW236CD6+U622	SW246CD6+U622	ON	-	ON
SW239CD6+U622	SW249CD6+U622	ON	OFF	ON
SW237CD6+U622	SW247CD6+U622	MOM	OFF	MOM
SW238CD6+U622	SW248CD6+U622	ON	OFF	MOM
SW232CD6+U622	SW242CD6+U622	ON	-	MOM
-	SW244THCD6+U622*	ON	ON	ON
Handle position (see dwg.):		III	II	I
Terminals connected:		SP & DP	2-3	2-1
		DP	5-6	4-5

* Function 4: SP in DP case - see diagram at end of section.
Above models have black U620 actuator.

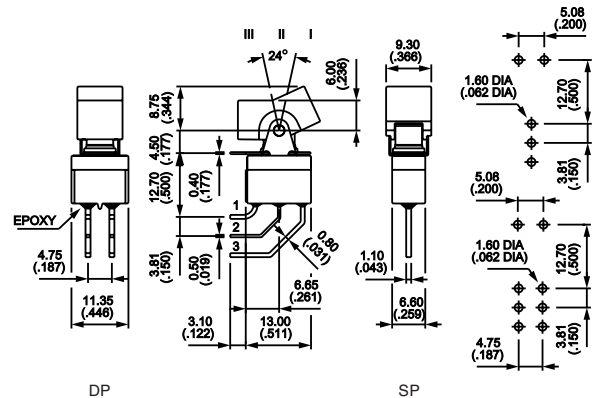


Vertical right angle terminals - gold plated brass contacts



SINGLE POLE MODEL NO.	DOUBLE POLE MODEL NO.	CIRCUIT		
SWW236CD6+U622	SWW246CD6+U622	ON	-	ON
SWW239CD6+U622	SWW249CD6+U622	ON	OFF	ON
SWW237CD6+U622	SWW247CD6+U622	MOM	OFF	MOM
SWW238CD6+U622	SWW248CD6+U622	ON	OFF	MOM
SWW232CD6+U622	SWW242CD6+U622	ON	-	MOM
-	SWW244THCD6+U622*	ON	ON	ON
Handle position (see dwg.):		III	II	I
Terminals connected:		SP & DP	2-3	2-1
		DP	5-6	4-5

* Function 4: SP in DP case - see diagram at end of section.
** reversed connection available - consult factory.
Above models have black U620 actuator.

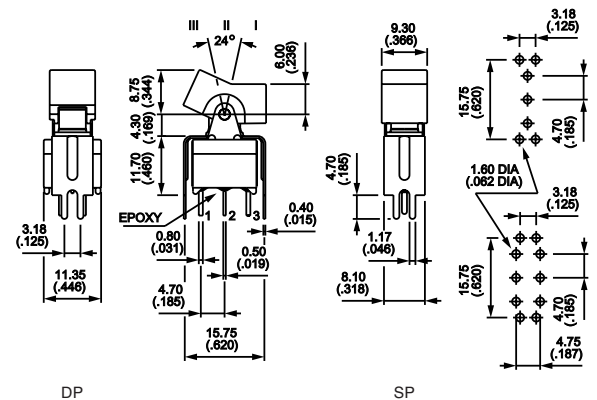


Straight p.c. terminals - mounting bracket - gold plated brass contacts



SINGLE POLE MODEL NO.	DOUBLE POLE MODEL NO.	CIRCUIT		
SY236CD6+U622	SY246CD6+U622	ON	-	ON
SY239CD6+U622	SY249CD6+U622	ON	OFF	ON
SY237CD6+U622	SY247CD6+U622	MOM	OFF	MOM
SY238CD6+U622	SY248CD6+U622	ON	OFF	MOM
SY232CD6+U622	SY242CD6+U622	ON	-	MOM
-	SY244THCD6+U622*	ON	ON	ON
Handle position (see dwg.):		III	II	I
Terminals connected:		SP & DP	2-3	2-1
		DP	5-6	4-5

* Function 4: SP in DP case - see diagram at end of section.
Above models have black U620 actuator.

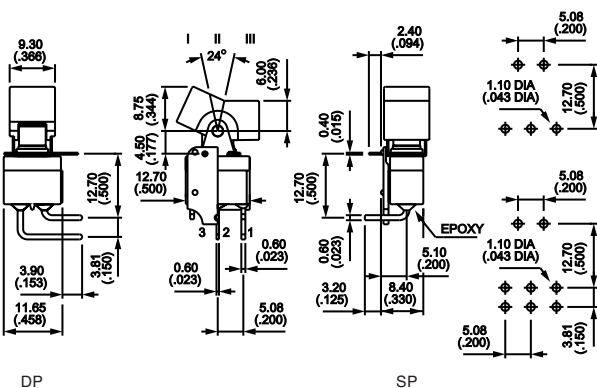


Horizontal right angle terminals - .200" spacing - gold plated brass contacts Only single pole has stand-off plate



SINGLE POLE MODEL NO.	DOUBLE POLE MODEL NO.	CIRCUIT		
SW036CD6+U622	SW046CD6+U622	ON	-	ON
SW039CD6+U622	SW049CD6+U622	ON	OFF	ON
SW037CD6+U622	SW047CD6+U622	MOM	OFF	MOM
SW038CD6+U622	SW048CD6+U622	ON	OFF	MOM
SW032CD6+U622	SW042CD6+U622	ON	-	MOM
-	SW044THCD6+U622*	ON	ON	ON
Handle position (see dwg.):		III	II	I
Terminals connected:		SP & DP	2-3	2-1
		DP	5-6	4-5

* Function 4: SP in DP case - see diagram at end of section.
Above models have black U620 actuator.



SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE

S SERIES - WASHABLE MINIATURE ROCKER & LEVER SWITCHES, P.C. MOUNTING

Vertical right angle terminals with stand-off bracket - gold plated brass contacts



SINGLE POLE MODEL NO.	DOUBLE POLE MODEL NO.	CIRCUIT
SWW236CD6X653+U622	SWW246CD6X653+U622	ON - ON
SWW239CD6X653+U622	SWW249CD6X653+U622	ON OFF ON
SWW237CD6X653+U622	SWW247CD6X653+U622	MOM OFF MOM
SWW238CD6X653+U622	SWW248CD6X653+U622**	ON OFF MOM
SWW232CD6X653+U622	SWW242CD6X653+U622**	ON - MOM
-	SWW244THCD6X653+U622*	ON ON ON

Handle position (see dwg.) :

Terminals connected:

SP & DP

2-3

2-1

DP

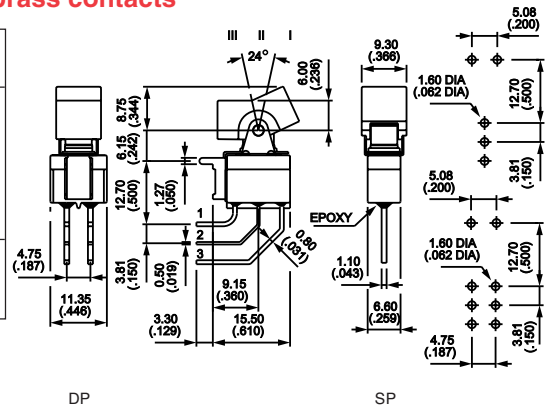
5-6

4-5

* Function 4: SP in DP case - see diagram at end of section.

** reversed connection available - consult factory.

Above models have black U620 actuator.



DP

SP

Straight p.c. terminals - gold plated brass contacts - snap-in mounting



SINGLE POLE MODEL NO.	DOUBLE POLE MODEL NO.	CIRCUIT
SK236CD6+U732+U1202	SK246CD6+U732+U1202	ON - ON
SK239CD6+U732+U1202	SK249CD6+U732+U1202	ON OFF ON
SK237CD6+U732+U1202	SK247CD6+U732+U1202	MOM OFF MOM
SK238CD6+U732+U1202	SK248CD6+U732+U1202	ON OFF MOM
SK232CD6+U732+U1202	SK242CD6+U732+U1202	ON - MOM
-	SK244THCD6+U732+U1202*	ON ON ON

Handle position (see dwg.) :

Terminals connected:

SP & DP

2-3

2-1

DP

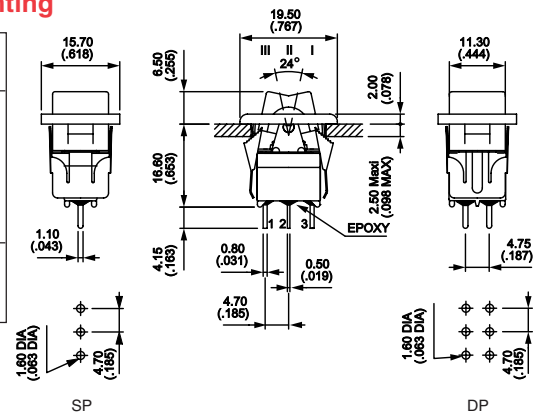
5-6

4-5

* Function 4: SP in DP case - see diagram at end of section.

Above models have black U730 actuator and black U1200 bezel.

See panel cut-out at end of section.



SP

DP

Horizontal right angle models with E.S.D. protection up to 12 KV



SINGLE POLE MODEL NO.	DOUBLE POLE MODEL NO.	CIRCUIT
SW236CD6X1159+U4602	SW246CD6X1159+U4602	ON - ON
SW239CD6X1159+U4602	SW249CD6X1159+U4602	ON OFF ON
SW237CD6X1159+U4602	SW247CD6X1159+U4602	MOM OFF MOM
SW238CD6X1159+U4602	SW248CD6X1159+U4602	ON OFF MOM
SW232CD6X1159+U4602	SW242CD6X1159+U4602	ON - MOM
-	SW244THCD6X1159+U4602*	ON ON ON

Handle position (see dwg.) :

Terminals connected:

SP & DP

2-3

2-1

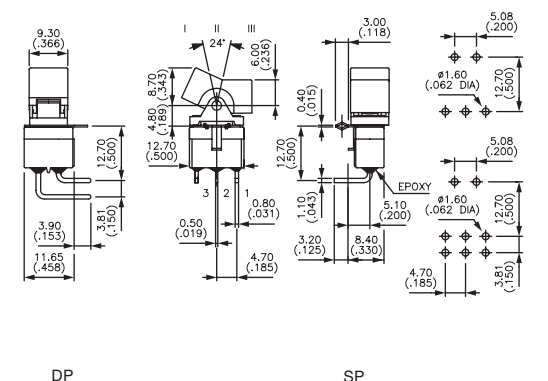
DP

5-6

4-5

* Function 4: SP in DP case - see diagram at end of section.

Above models have black U620 actuator.



DP

SP

Vertical right angle models with E.S.D. protection up to 12 KV



SINGLE POLE MODEL NO.	DOUBLE POLE MODEL NO.	CIRCUIT
SWW236CD6X1159+U4602	SWW246CD6X1159+U4602	ON - ON
SWW239CD6X1159+U4602	SWW249CD6X1159+U4602	ON OFF ON
SWW237CD6X1159+U4602	SWW247CD6X1159+U4602	MOM OFF MOM
SWW238CD6X1159+U4602	SWW248CD6X1159+U4602**	ON OFF MOM
SWW232CD6X1159+U4602	SWW242CD6X1159+U4602**	ON - MOM
-	SWW244THCD6X1159+U4602*	ON ON ON

Handle position (see dwg.) :

Terminals connected:

SP & DP

2-3

2-1

DP

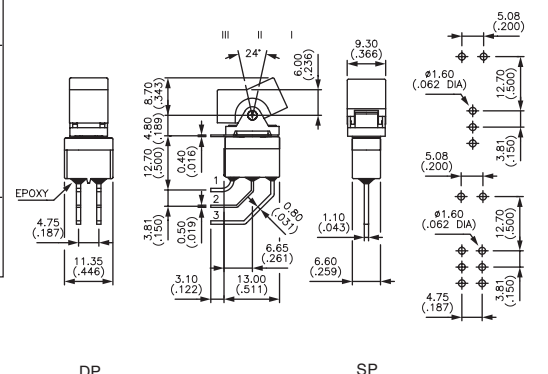
5-6

4-5

* Function 4: SP in DP case - see diagram at end of section.

** reversed connection available - consult factory.

Above models have black U620 actuator.



DP

SP

B



The figure contains three detailed technical drawings of a probe assembly:

- Top View:** Shows the circular footprint of the probe. Key dimensions include a total diameter of 9.30 (.366), a central hole diameter of 3.18 (.125), and a distance between mounting holes of 11.35 (.446). A smaller hole has a diameter of 0.80 (.031).
- Side View:** Illustrates the profile of the probe. It shows a base height of 15.75 (.620) and a probe body length of 8.20 (.322). The probe tip has a radius of 6.00 (.236) and a thickness of 0.40 (.015). An epoxy layer at the base is labeled "EPOXY".
- Cross-Sectional View:** Provides a detailed look at the internal structure. It shows a central bore with a diameter of 1.60 (.062 DIA) and various internal features like grooves and fillets. Mounting holes have diameters of 3.18 (.125) and 4.70 (.185). Spacing between features is 15.75 (.620).

Above models have black **U620** actuator.

DP

SP

'BUILD YOUR OWN SWITCH' ORDER FORMAT

Note: 'NONE' indicates box may be left empty.

Series	Terminals	Bushing & terminals	Number of poles	Electrical functions
S				
W	horizontal rt. angle mtg.	2	Terminal spacing .185" (4,7mm) or .150" (3,81mm)	3 Single pole
W W	vertical rt. angle mtg.			4 Double pole
Y	straight pc, bracket mtg.			6 ON - ON
K	straight pc, snap-in mtg.	0	Terminal spacing .200" (5,08mm) (SW models)	9 ON OFF ON
				7 MOM OFF MOM
				8 ON OFF MOM
				2 ON - MOM
				4 T H ON ON ON

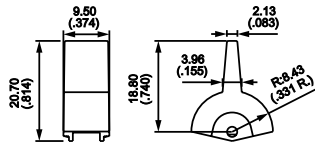
Contact materials		Lever	Special options				Agency recognition		Actuators & bezels									
		6																
A	Silver	For all models	(NONE)				Vertical rt. angle with stand-off brkt. 12 KV E.S.D protected models	(NONE)	Consult factory for availability.	Rockers:	+	U	6	2	0	Large		
A D	Silver, gold plated		X	6	5	3		U L					+	U	7	3	0	Small
C D	Brass, gold plated												+	U	6	1	0	Narrow
												+	U	7	0	0	Wide	
			X	1	1	5	9				Bezels for SK models:							
												+	U	1	2	0	0	
													+	U	1	2	1	0
											Bezels for SW, SWW & SY models:							
												+	U	4	6	0	2	
											(see color selections and codes on next page).							

Example of completely specified model number: **SW236CD6+U616**

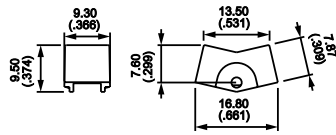
S SERIES - WASHABLE MINIATURE ROCKER & LEVER SWITCHES, P.C. MOUNTING

OPTION DRAWINGS, SPECIAL OPTIONS & MISCELLANEOUS

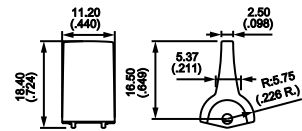
ACTUATORS (replace last '0' in part numbers with color code from table below) Note: U610 & U620 not available on SK models



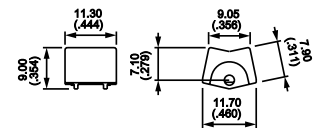
U610 Narrow lever



U620 Large rocker



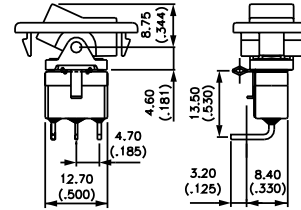
U700 Wide lever



U730 Small rocker

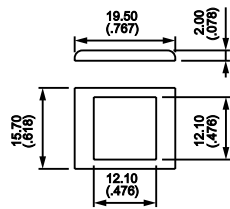
E.S.D. MODELS

Protected against electrostatic discharges (ESD) up to 12 KV.

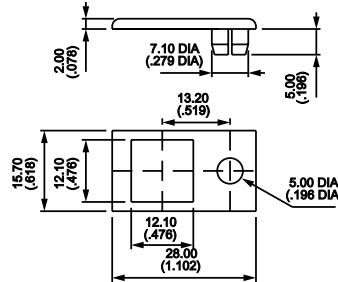


X1159

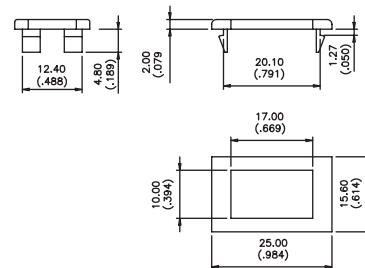
BEZELS (replace last '0' in part numbers with color code from table below)



U1200 for actuators U700 & U730



U1210 for actuators U700 & U730
(.196" (5mm) dia. LED not supplied)



U4602 for SW, SWW & SY models
(Black standard - consult factory for others)

COLOR CODES

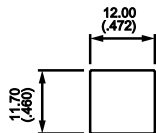
1	blue
2	black
3	green
4	grey
5	yellow
6	red
7/1	white
9	orange

SPECIAL OPTIONS

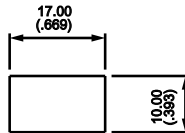
X601 Silver plated brass contacts. 0.4 Amps at 125 VAC, 0.2 Amps at 250 VAC or 0.5 Amps at 30 VDC. Electrical life - 20,000 cycles minimum. Minimum quantity: 5000 pcs.

X653 Vertical right angle with p.c. stand-off bracket.

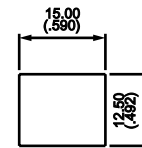
PANEL CUT-OUTS



With rocker **U730** or lever **U700**



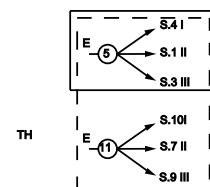
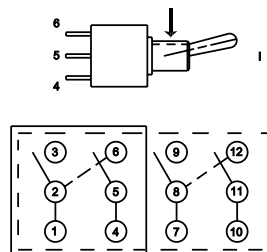
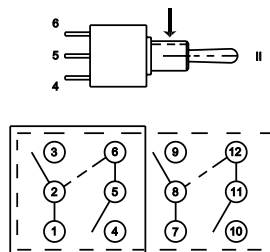
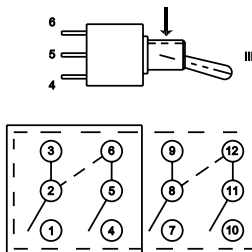
With rocker **U620** or lever **U610**



For **SK** (snap-in mtg.) models only

WIRING for function 4 switch

Below diagrams are viewed from bottom of switch.



Equivalent to single pole 3 throw switch. Dotted lines between terminals 2 & 6 and 8 & 12 indicate jumpers to be added by customer

7000 SERIES - MINIATURE ROCKER & LEVER SWITCHES

B



FEATURES

- Broad selection of models and options.
- SPDT & DPDT models. Consult factory for 3 & 4 pole models.
- Numerous configurations for panel, panel & p.c. and p.c. mounting.
- Extensive agency recognition (see below).
- Optional mounting screws, nuts & spacers for panel mounting models.

SPECIFICATIONS

Contact ratings (resistive loads):	Gold plated brass; 0.4 Volt-Amps max. at 20 V max. Silver; 3 Amps at 250 VAC, 6 Amps at 125 VAC or 4 Amps at 30 VDC Gold plated silver; 3 Amps at 250 VAC, 6 Amps at 125 VAC or 4 Amps at 30 VDC. Gold plating withstands up to 100 mA at 30 VDC.
Initial contact resistance:	10 milliohms maximum
Insulation resistance:	1000 megohms min. at 500 VDC
Dielectric strength:	1000 V rms min. - between terminals 1500 V rms min. - between poles and terminals and frame
Electrical life:	Gold: 100,000 cycles min. Silver (at full load): 50,000 cycles minimum.
Operating temperature range:	-40°C to +85°C

MATERIALS

Contacts & Terminals:	Gold plated brass, silver or gold plated silver
Actuator:	Polyamide
Housing:	Stainless steel or tin plated steel
Case:	Diallyl phthalate (DAP)
Terminal seal:	Epoxy

AGENCY RECOGNITION



UL and CSA



Marking: On request only. Add desired recognition as indicated in the following example:
7636ABULCSA+U732+U1202

ABOUT THIS SERIES

The material in this series is organized in the following sequence:

- Completely specified switch models
- Actuators & bezels
- Panel cut-outs & terminals
- 'Build your own switch' order format

ALSO -

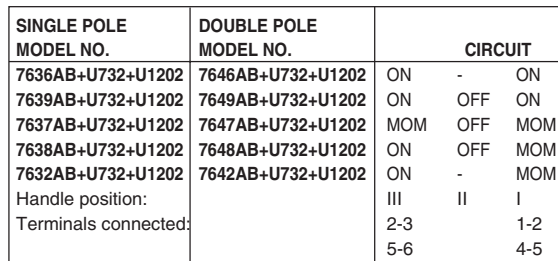
VDE approved 7000 Series models - see 57000 Series following.



SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE

B

SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE

[illegible]

DP

SINGLE POLE MODEL NO.	CIRCUIT		
7936WAB+U622	ON	-	ON
7939WAB+U622	ON	OFF	ON
7937WAB+U622	MOM	OFF	MOM
7938WAB+U622	ON	OFF	MOM
7932WAB+U622	ON	-	MOM
Handle position:	III	II	I
Terminals connected:	2-3		1-2
	5-6		4-5

[illegible]

DOUBLE POLE MODEL NO.	CIRCUIT		
7946WAB+U622	ON	-	ON
7949WAB+U622	ON	OFF	ON
7947WAB+U622	MOM	OFF	MOM
7948WAB+U622	ON	OFF	MOM
7942WAB+U622	ON	-	MOM
Handle position:	III	II	I
Terminals connected:	2-3		1-2
	5-6		4-5

[illegible]

SINGLE POLE			
MODEL NO.	CIRCUIT		
7036WWAB+U832	ON	-	ON
7039WWAB+U832	ON	OFF	ON
7037WWAB+U832	MOM	OFF	MOM
7038WWAB+U832	ON	OFF	MOM
7032WWAB+U832	ON	-	MOM
Handle position:	III	II	I
Terminals connected:	2-3		1-2
	5-6		4-5

7000 SERIES - MINIATURE ROCKER & LEVER SWITCHES

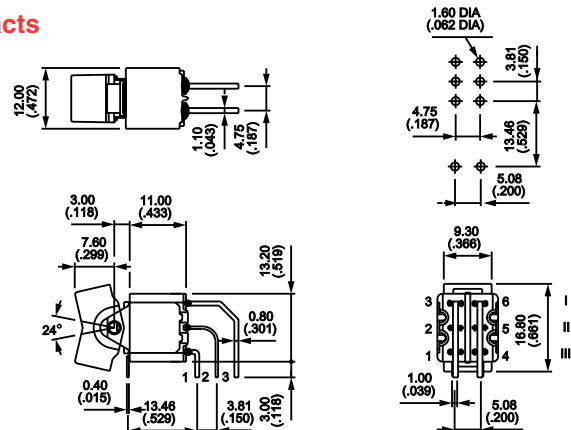
B

Double pole - vertical right angle p.c. terminals - silver contacts



DOUBLE POLE MODEL NO.	CIRCUIT		
7046WWAB+U832	ON	-	ON
7049WWAB+U832	ON	OFF	ON
7047WWAB+U832	MOM	OFF	MOM
7048WWAB+U832	ON	OFF	MOM
7042WWAB+U832	ON	-	MOM
Handle position:	III	II	I
Terminals connected:	2-3	1-2	
	5-6	4-5	

Above models have black actuator.

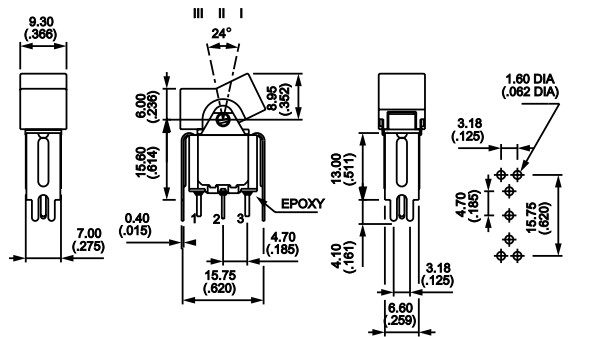


Single pole - straight p.c. terminals - bracket mounting - silver contacts



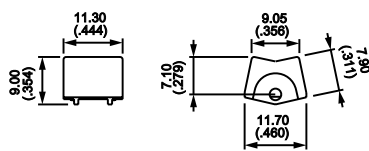
SINGLE POLE MODEL NO.	CIRCUIT		
7036YAB+U622	ON	-	ON
7039YAB+U622	ON	OFF	ON
7037YAB+U622	MOM	OFF	MOM
7038YAB+U622	ON	OFF	MOM
7032YAB+U622	ON	-	MOM
Handle position:	III	II	I
Terminals connected:	2-3	1-2	
	5-6	4-5	

Above models have black actuator.



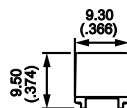
ACTUATORS & BEZELS

COLORS: The above switch model numbers include black rocker U732, U622 or U832 and bezel U1202. For other colors, replace the last digit (2) with one of the following codes: blue 1, green 3, gray 4, yellow 5, red 6, ivory 7, white 7/1 or orange 9.



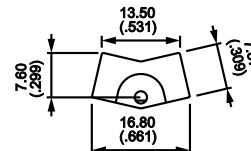
U732

Small black rocker



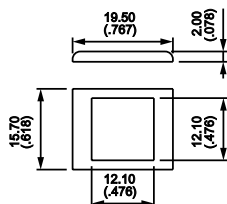
U622

Medium black rocker



U832

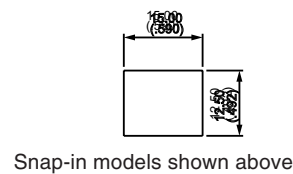
Medium black rocker



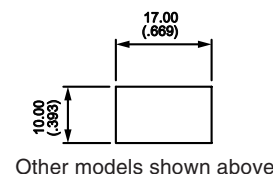
U1202

Black bezel

PANEL CUT-OUTS

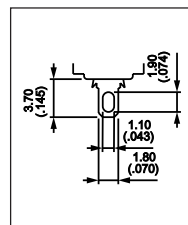


Snap-in models shown above

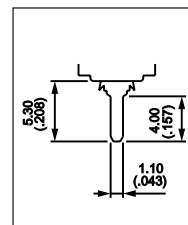


Other models shown above

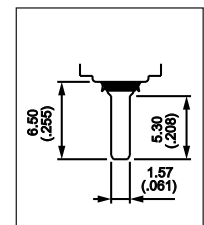
TERMINALS



Solder lug



Straight p.c.



Quick-connect

SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE

7000 SERIES - MINIATURE ROCKER & LEVER SWITCHES

Additional ordering information: Commonly ordered models are shown on prior pages with complete model numbers and specifications. Below is an order format that enables you to 'build your own switch' and specify the correct switch model number by simply selecting from all available options shown and filling in the boxes.

'BUILD YOUR OWN SWITCH' ORDER FORMAT

Fill in boxes with selections shown for **Model Structure**, then add **Options** selections for complete model number.

Allowable options are shown below each respective box.

Note 'NONE' indicates box may be left empty.

Model Structure:

Series	Terminals - mounting	Number of poles	Electrical functions	Terminals/ mounting brkt.	(For function 4 models only) connections /functions	Contact materials
7						
		3 Single pole 4 Double pole Consult factory for 3 & 4 pole models. 0 Right angle terminals or straight p.c. terminals with bracket. 2 Straight p.c. or quick-connect terminals, snap-in mounting. 6 Solder lug terminals, snap-in mounting. 7 Solder lug terminals, panel mounting. 9 Straight p.c. or quick-connect terminals, panel mounting. Also, right angle terminals.	6 ON - ON 9 ON OFF ON 7 MOM OFF MOM 8 ON OFF MOM 2 ON - MOM 4* ON ON ON 4* ON ON MOM 4* MOM ON MOM * specify selection from 'connections/ functions' box also.	(NONE) W Horizontal right angle p.c. W Vertical right angle p.c. Y Straight p.c. w/mounting brkt. Z Quick connect (epoxy terminal seal standard) N Small mounting bracket	(NONE) T H ON ON ON T H 1 R ON ON MOM T H 2 R MOM ON MOM	A Silver A D Silver, gold plated C D Brass, gold plated

Options:

Sealing	Special options	Agency Recognition	Actuators	Bezels & mounting accessories
			+	+
(NONE) Unless standard - (see Terminals above) B Epoxy sealed terminals	(NONE) X 6 5 3 (vertical right angle with stand-off bracket) F tin plated terminals (for p.c. terms. only)	(NONE) U L C S A (consult factory for details of approved models).	Rockers U 5 3 0 Large U 6 2 0 Medium U 7 3 0 Small U 8 3 0 Medium U 1 0 1 0 Large Levers U 4 9 0 Large U 6 1 0 Medium U 7 0 0 Small (see drawings and color codes).	(NONE) Bezels (for U730 or U700) U 1 2 0 0 U 1 2 1 0 (for LED) Accessories for panel mounting models U 5 4 3 Spacers, nuts & screws U 1 0 2 2 Spacers, nuts, screws & washers

Although most combinations of options are available, some may result in incompatibilities. Consult factory if there is any question.

Example of completely specified model number:

7044YTH2RADBUL+U612

ST SERIES - MINIATURE ROCKER & LEVER SWITCHES

B



FEATURES

- Dry circuit through power ratings .
- Ultra-rugged construction SPDT & DPDT models with numerous options.
- Panel, panel & p.c. and p.c. mounting models, lighted and unlighted.

SPECIFICATIONS

Contact ratings (resistive loads):	(Q) power models - coin silver: 6 Amps at 125 VAC, 3 Amps at 250 VAC or 7 Amps at 30 VDC. (B) dry circuit models - gold over nickel over brass: 0.4 VA max. at 20 V max. UL models - coin silver: 6 Amps at 125 VAC or 3 Amps at 250 VAC (75% power factor). UL file no. E66367. CSA models - coin silver: same ratings as UL models. CSA file no. LR54592-1.
Initial contact resistance:	3 milliohms max. at 3 VDC, 0.1 Amp.
Insulation resistance:	Greater than 200,000 megohms between terminals & case ground.
Dielectric strength:	Greater than 2000 VAC for 1 minute between terminals & case ground.
Electrical life (resistive loads):	100,000 cycles min. for ST1-1 & ST2-1. Other models, 40,000 cycles min.
Operating temperature range:	-30°C to +85°C

MATERIALS

Contacts:	Coin silver for power, UL & CSA models. Gold over nickel over brass for dry circuit models.
Actuator:	J1 & J2 - Glass filled polyester. J3 & J4 - Nylon or acetal
Bushing:	Nickel plated brass
Strap:	Stainless steel
Case:	Melamine phenolic, color red
Terminal seal:	Epoxy (optional)
Support bracket:	Brass or steel, tin plated
Spring mounting bracket:	Stainless steel
Bezel:	Nylon. Available in black, red & white. Consult factory for other colors.
Hardware:	See 'Miscellaneous' section.
LED:	Intensity: 2.0 mcd at 10 mA. Forward voltage: 2.0V (3.0V max.). Max. continuous forward current: 15 mA for red, 30 mA for green & 20 mA for yellow. Red is standard. Yellow & green are optional. Specifications are subject to change without notice - consult factory.

AGENCY RECOGNITION



UL, & CSA. Marking: Switches ordered by UL model number are supplied with recognition marking. Switches ordered by UL model no. and with '/CSA' added at end of model no. are supplied with both recognized marks.

ABOUT THIS SERIES

The material in this series is organized in the following sequence:

- Completely specified switch models
- Miscellaneous
- 'build your own switch' order format
- Option drawings & information
- Mounting information and panel cut-outs

SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE

ST SERIES - MINIATURE ROCKER & LEVER SWITCHES

Solder lug terminals - panel mounting

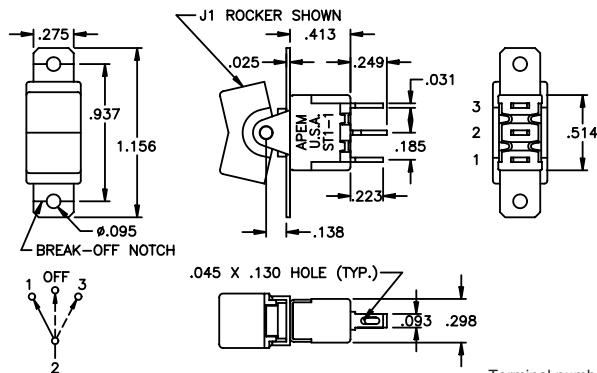
SINGLE POLE WITH J1 ROCKER



DOUBLE POLE WITH J2 LEVER

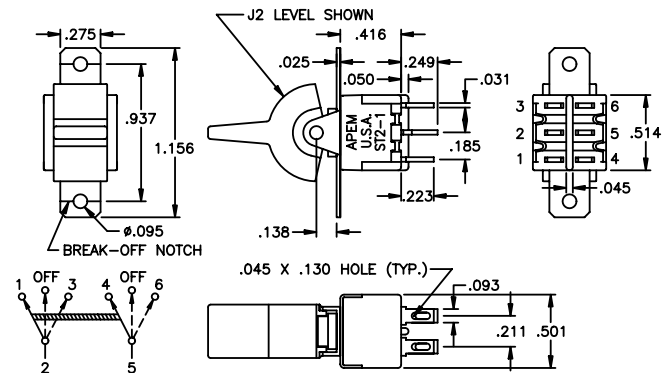
	POWER CKT. MODEL NO.	UL MODEL NO.	USA marking on other side		
Single pole	ST1-1L4S4ZQJ12	UL11L4S4ZQJ12	ON	NONE	ON
	ST1-2L4S4ZQJ12	UL12L4S4ZQJ12	ON	OFF	ON
	ST1-3L4S4ZQJ12	UL13L4S4ZQJ12	MOM	OFF	MOM
	ST1-4L4S4ZQJ12	UL14L4S4ZQJ12	ON	OFF	MOM
	ST1-5L4S4ZQJ12	UL15L4S4ZQJ12	ON	NONE	MOM
Double pole	ST2-1L4S4ZQJ12	UL21L4S4ZQJ12	ON	NONE	ON
	ST2-2L4S4ZQJ12	UL22L4S4ZQJ12	ON	OFF	ON
	ST2-3L4S4ZQJ12	UL23L4S4ZQJ12	MOM	OFF	MOM
	ST2-4L4S4ZQJ12	UL24L4S4ZQJ12	ON	OFF	MOM
	ST2-5L4S4ZQJ12	UL25L4S4ZQJ12	ON	NONE	MOM
	ST2-6L4S4ZQJ12	UL26L4S4ZQJ12	ON	ON	ON
	ST2-7L4S4ZQJ12	UL27L4S4ZQJ12	ON	ON	MOM
	ST2-8L4S4ZQJ12	UL28L4S4ZQJ12	MOM	ON	MOM
Terminals connected (-6, -7 & -8)			1-2, 4-5	1-2, 5-6	2-3, 5-6

Above models have black actuator.



SINGLE POLE

Terminal numbers for reference only



DOUBLE POLE

Straight p.c. terminals with bracket - p.c. mounting

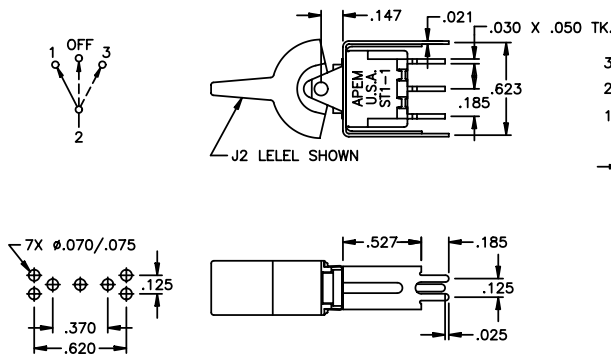
SINGLE POLE WITH J1 ROCKER



DOUBLE POLE WITH J2 LEVER

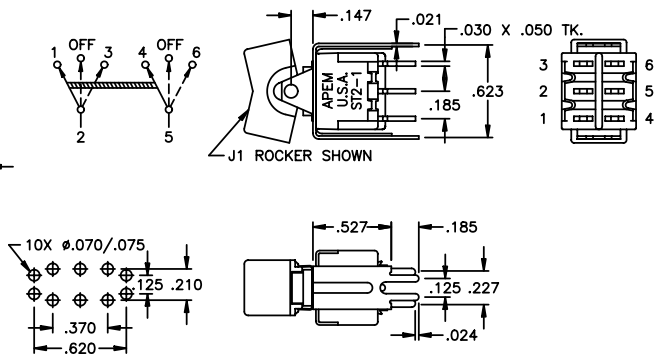
	DRY CKT. MODEL NO.	UL MODEL NO.	USA marking on other side		
Single pole	ST1-1L4S4V30BJ12	UL11L4S4V30QJ12	ON	NONE	ON
	ST1-2L4S4V30BJ12	UL12L4S4V30QJ12	ON	OFF	ON
	ST1-3L4S4V30BJ12	UL13L4S4V30QJ12	MOM	OFF	MOM
	ST1-4L4S4V30BJ12	UL14L4S4V30QJ12	ON	OFF	MOM
	ST1-5L4S4V30BJ12	UL15L4S4V30QJ12	ON	NONE	MOM
Double pole	ST2-1L4S4V30BJ12	UL21L4S4V30QJ12	ON	NONE	ON
	ST2-2L4S4V30BJ12	UL22L4S4V30QJ12	ON	OFF	ON
	ST2-3L4S4V30BJ12	UL23L4S4V30QJ12	MOM	OFF	MOM
	ST2-4L4S4V30BJ12	UL24L4S4V30QJ12	ON	OFF	MOM
	ST2-5L4S4V30BJ12	UL25L4S4V30QJ12	ON	NONE	MOM
	ST2-6L4S4V30BJ12	UL26L4S4V30QJ12	ON	ON	ON
	ST2-7L4S4V30BJ12	UL27L4S4V30QJ12	ON	ON	MOM
	ST2-8L4S4V30BJ12	UL28L4S4V30QJ12	MOM	ON	MOM
Terminals connected (-6, -7 & -8)			1-2, 4-5	1-2, 5-6	2-3, 5-6

Above models have black actuator.



SINGLE POLE

Terminal numbers for reference only



DOUBLE POLE

ST SERIES - MINIATURE ROCKER & LEVER SWITCHES

B

Horizontal right angle p.c. terminals - p.c. mounting

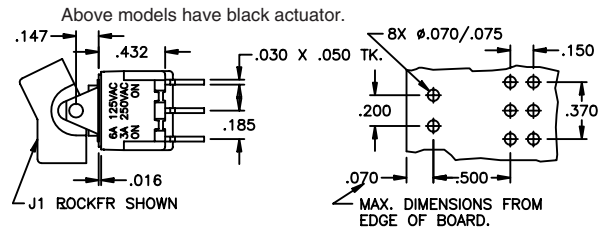
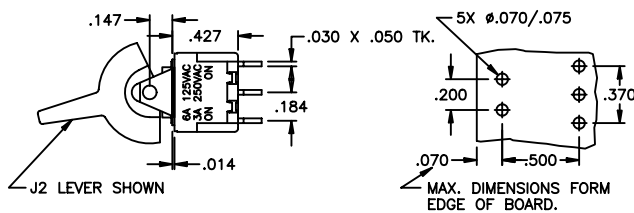


**SINGLE
POLE
WITH J1
ROCKER**



**DOUBLE
POLE
WITH J2
LEVER**

	DRY CKT. MODEL NO.	UL MODEL NO.	USA marking on other side		
Single pole	ST1-1L4S4A-1BJ12	UL11L4S4A-1QJ12	ON	NONE	ON
	ST1-2L4S4A-1BJ12	UL12L4S4A-1QJ12	ON	OFF	ON
	ST1-3L4S4A-1BJ12	UL13L4S4A-1QJ12	MOM	OFF	MOM
	ST1-4L4S4A-1BJ12	UL14L4S4A-1QJ12	ON	OFF	MOM
	ST1-5L4S4A-1BJ12	UL15L4S4A-1QJ12	ON	NONE	MOM
Double pole	ST2-1L4S4A-1BJ12	UL21L4S4A-1QJ12	ON	NONE	ON
	ST2-2L4S4A-1BJ12	UL22L4S4A-1QJ12	ON	OFF	ON
	ST2-3L4S4A-1BJ12	UL23L4S4A-1QJ12	MOM	OFF	MOM
	ST2-4L4S4A-1BJ12	UL24L4S4A-1QJ12	ON	OFF	MOM
	ST2-5L4S4A-1BJ12	UL25L4S4A-1QJ12	ON	NONE	MOM
	ST2-6L4S4A-1BJ12	UL26L4S4A-1QJ12	ON	ON	ON
	ST2-7L4S4A-1BJ12	UL27L4S4A-1QJ12	ON	ON	MOM
	ST2-8L4S4A-1BJ12	UL28L4S4A-1QJ12	MOM	ON	MOM
Terminals connected (-6, -7 & -8)			1-2, 4-5	1-2, 5-6	2-3, 5-6



SINGLE POLE

DOUBLE POLE

Vertical right angle p.c. terminals - p.c. mounting

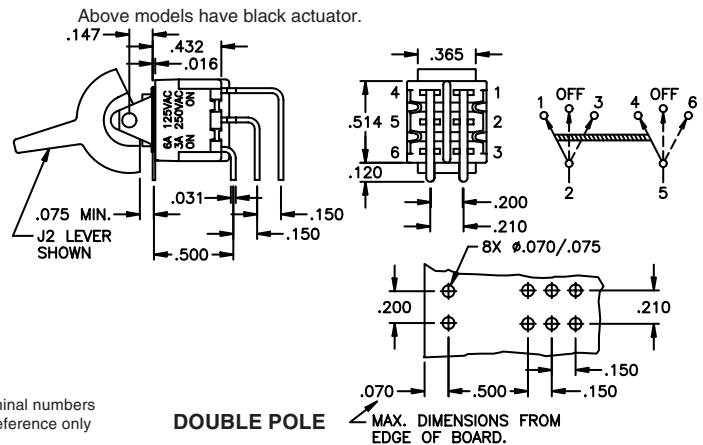
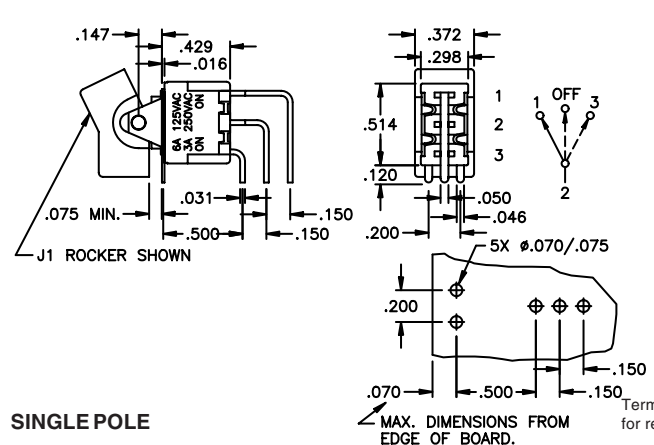


**SINGLE
POLE
WITH J1
ROCKER**



**DOUBLE
POLE
WITH J2
LEVER**

	DRY CKT. MODEL NO.	UL MODEL NO.	USA marking on other side		
Single pole	ST1-1L4S4V-1BJ12	UL11L4S4V-1QJ12	ON	NONE	ON
	ST1-2L4S4V-1BJ12	UL12L4S4V-1QJ12	ON	OFF	ON
	ST1-3L4S4V-1BJ12	UL13L4S4V-1QJ12	MOM	OFF	MOM
	ST1-4L4S4V-1BJ12	UL14L4S4V-1QJ12	ON	OFF	MOM
	ST1-5L4S4V-1BJ12	UL15L4S4V-1QJ12	ON	NONE	MOM
Double pole	ST2-1L4S4V-1BJ12	UL21L4S4V-1QJ12	ON	NONE	ON
	ST2-2L4S4V-1BJ12	UL22L4S4V-1QJ12	ON	OFF	ON
	ST2-3L4S4V-1BJ12	UL23L4S4V-1QJ12	MOM	OFF	MOM
	ST2-4L4S4V-1BJ12	UL24L4S4V-1QJ12	ON	OFF	MOM
	ST2-5L4S4V-1BJ12	UL25L4S4V-1QJ12	ON	NONE	MOM
	ST2-6L4S4V-1BJ12	UL26L4S4V-1QJ12	ON	ON	ON
	ST2-7L4S4V-1BJ12	UL27L4S4V-1QJ12	ON	ON	MOM
	ST2-8L4S4V-1BJ12	UL28L4S4V-1QJ12	MOM	ON	MOM
Terminals connected (-6, -7 & -8)			1-2, 4-5	1-2, 5-6	2-3, 5-6



SINGLE POLE

DOUBLE POLE

SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE

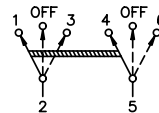
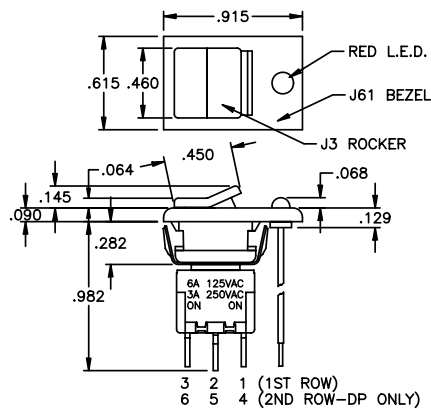
ST SERIES - MINIATURE ROCKER & LEVER SWITCHES

Solder lug terminals - snap-in bezel with outboard LED

**SINGLE
POLE
WITH J3
ROCKER**



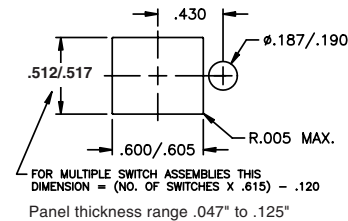
**DOUBLE
POLE
WITH J4
LEVER**



Terminal numbers
for reference only

	POWER CKT. MODEL NO.	UL MODEL NO.	USA marking on other side		
Single pole	ST1-1L5S5ZQJ3J6122	UL11L5S5ZQJ3J6122	ON	NONE	ON
	ST1-2L5S5ZQJ3J6122	UL12L5S5ZQJ3J6122	ON	OFF	ON
	ST1-3L5S5ZQJ3J6122	UL13L5S5ZQJ3J6122	MOM	OFF	MOM
	ST1-4L5S5ZQJ3J6122	UL14L5S5ZQJ3J6122	ON	OFF	MOM
	ST1-5L5S5ZQJ3J6122	UL15L5S5ZQJ3J6122	ON	NONE	MOM
Double pole	ST2-1L5S5ZQJ3J6122	UL21L5S5ZQJ3J6122	ON	NONE	ON
	ST2-2L5S5ZQJ3J6122	UL22L5S5ZQJ3J6122	ON	OFF	ON
	ST2-3L5S5ZQJ3J6122	UL23L5S5ZQJ3J6122	MOM	OFF	MOM
	ST2-4L5S5ZQJ3J6122	UL24L5S5ZQJ3J6122	ON	OFF	MOM
	ST2-5L5S5ZQJ3J6122	UL25L5S5ZQJ3J6122	ON	NONE	MOM
	ST2-6L5S5ZQJ3J6122	UL26L5S5ZQJ3J6122	ON	ON	ON
	ST2-7L5S5ZQJ3J6122	UL27L5S5ZQJ3J6122	ON	ON	MOM
	ST2-8L5S5ZQJ3J6122	UL28L5S5ZQJ3J6122	MOM	ON	MOM
Terminals connected (-6, -7 & -8)			1-2, 4-5	1-2, 5-6	2-3, 5-6

Above models have black bezel & actuator.

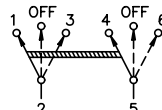
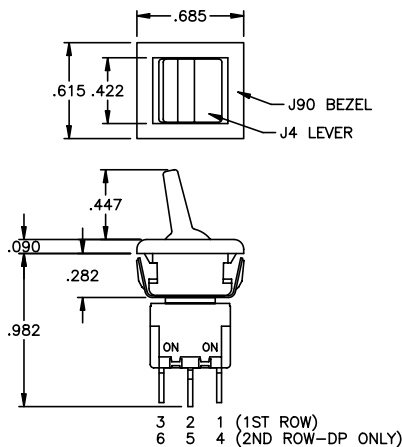


Solder lug terminals - snap-in bezel

**SINGLE
POLE
WITH J3
ROCKER**



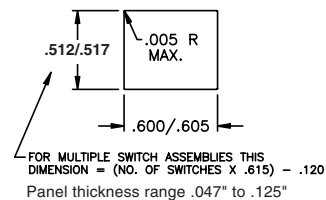
**DOUBLE
POLE
WITH J4
LEVER**



Terminal numbers
for reference only

	POWER CKT. MODEL NO.	UL MODEL NO.	USA marking on other side		
Single pole	ST1-1L5S5ZQJ4J9022	UL11L5S5ZQJ4J9022	ON	NONE	ON
	ST1-2L5S5ZQJ4J9022	UL12L5S5ZQJ4J9022	ON	OFF	ON
	ST1-3L5S5ZQJ4J9022	UL13L5S5ZQJ4J9022	MOM	OFF	MOM
	ST1-4L5S5ZQJ4J9022	UL14L5S5ZQJ4J9022	ON	OFF	MOM
	ST1-5L5S5ZQJ4J9022	UL15L5S5ZQJ4J9022	ON	NONE	MOM
Double pole	ST2-1L5S5ZQJ4J9022	UL21L5S5ZQJ4J9022	ON	NONE	ON
	ST2-2L5S5ZQJ4J9022	UL22L5S5ZQJ4J9022	ON	OFF	ON
	ST2-3L5S5ZQJ4J9022	UL23L5S5ZQJ4J9022	MOM	OFF	MOM
	ST2-4L5S5ZQJ4J9022	UL24L5S5ZQJ4J9022	ON	OFF	MOM
	ST2-5L5S5ZQJ4J9022	UL25L5S5ZQJ4J9022	ON	NONE	MOM
	ST2-6L5S5ZQJ4J9022	UL26L5S5ZQJ4J9022	ON	ON	ON
	ST2-7L5S5ZQJ4J9022	UL27L5S5ZQJ4J9022	ON	ON	MOM
	ST2-8L5S5ZQJ4J9022	UL28L5S5ZQJ4J9022	MOM	ON	MOM
Terminals connected (-6, -7 & -8)			1-2, 4-5	1-2, 5-6	2-3, 5-6

Above models have black bezel & actuator.



ST SERIES - MINIATURE ROCKER & LEVER SWITCHES

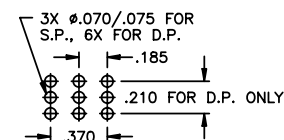
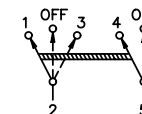
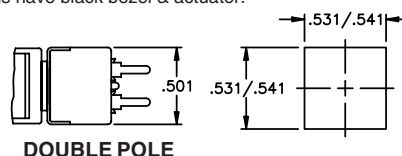
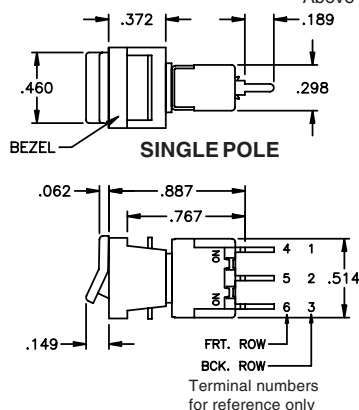
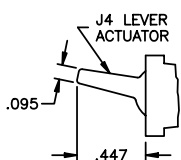
Straight p.c. terminals - p.c. mounting bezel

**SINGLE
POLE
WITH J3
ROCKER**



	DRY CKT. MODEL NO.	UL MODEL NO.	USA marking on other side		
Single pole	ST1-1L5S5CBJ3J9322	UL11L5S5CQJ3J9322	ON	NONE	ON
	ST1-2L5S5CBJ3J9322	UL12L5S5CQJ3J9322	ON	OFF	ON
	ST1-3L5S5CBJ3J9322	UL13L5S5CQJ3J9322	MOM	OFF	MOM
	ST1-4L5S5CBJ3J9322	UL14L5S5CQJ3J9322	ON	OFF	MOM
	ST1-5L5S5CBJ3J9322	UL15L5S5CQJ3J9322	ON	NONE	MOM
Double pole	ST2-1L5S5CBJ3J9322	UL21L5S5CQJ3J9322	ON	NONE	ON
	ST2-2L5S5CBJ3J9322	UL22L5S5CQJ3J9322	ON	OFF	ON
	ST2-3L5S5CBJ3J9322	UL23L5S5CQJ3J9322	MOM	OFF	MOM
	ST2-4L5S5CBJ3J9322	UL24L5S5CQJ3J9322	ON	OFF	MOM
	ST2-5L5S5CBJ3J9322	UL25L5S5CQJ3J9322	ON	NONE	MOM
	ST2-6L5S5CBJ3J9322	UL26L5S5CQJ3J9322	ON	ON	ON
	ST2-7L5S5CBJ3J9322	UL27L5S5CQJ3J9322	ON	ON	MOM
	ST2-8L5S5CBJ3J9322	UL28L5S5CQJ3J9322	MOM	ON	MOM
Terminals connected (-6, -7 & -8)			1-2, 4-5	1-2, 5-6	2-3, 5-6

Above models have black bezel & actuator.



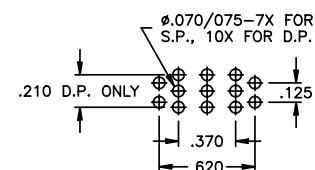
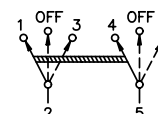
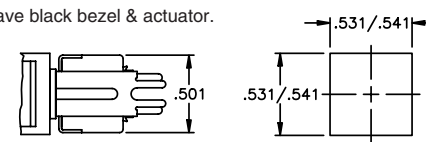
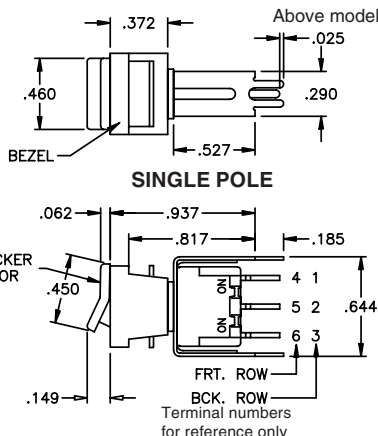
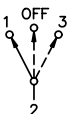
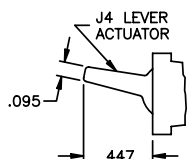
Straight p.c. terminals w/bracket - p.c. mounting bezel

**SINGLE
POLE
WITH J4
LEVER**



	DRY CKT. MODEL NO.	UL MODEL NO.	USA marking on other side		
Single pole	ST1-1L5S5V30BJ3J9322	UL11L5S5V30QJ3J9322	ON	NONE	ON
	ST1-2L5S5V30BJ3J9322	UL12L5S5V30QJ3J9322	ON	OFF	ON
	ST1-3L5S5V30BJ3J9322	UL13L5S5V30QJ3J9322	MOM	OFF	MOM
	ST1-4L5S5V30BJ3J9322	UL14L5S5V30QJ3J9322	ON	OFF	MOM
	ST1-5L5S5V30BJ3J9322	UL15L5S5V30QJ3J9322	ON	NONE	MOM
Double pole	ST2-1L5S5V30BJ3J9322	UL21L5S5V30QJ3J9322	ON	NONE	ON
	ST2-2L5S5V30BJ3J9322	UL22L5S5V30QJ3J9322	ON	OFF	ON
	ST2-3L5S5V30BJ3J9322	UL23L5S5V30QJ3J9322	MOM	OFF	MOM
	ST2-4L5S5V30BJ3J9322	UL24L5S5V30QJ3J9322	ON	OFF	MOM
	ST2-5L5S5V30BJ3J9322	UL25L5S5V30QJ3J9322	ON	NONE	MOM
	ST2-6L5S5V30BJ3J9322	UL26L5S5V30QJ3J9322	ON	ON	ON
	ST2-7L5S5V30BJ3J9322	UL27L5S5V30QJ3J9322	ON	ON	MOM
	ST2-8L5S5V30BJ3J9322	UL28L5S5V30QJ3J9322	MOM	ON	MOM
Terminals connected (-6, -7 & -8)			1-2, 4-5	1-2, 5-6	2-3, 5-6

Above models have black bezel & actuator.



SINGLE POLE

DOUBLE POLE

ST SERIES - MINIATURE ROCKER & LEVER SWITCHES

Horizontal right angle p.c. terminals - p.c. mtg. bezel

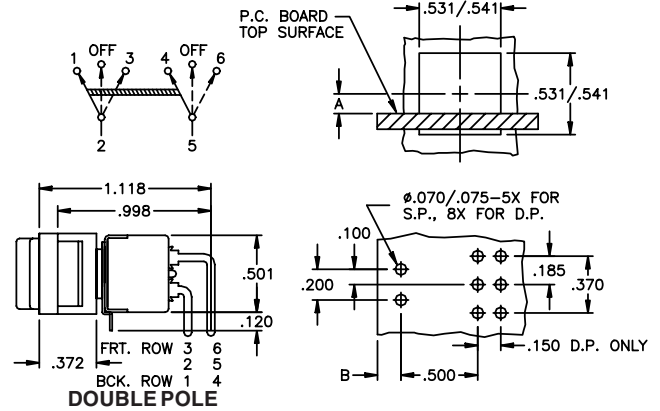
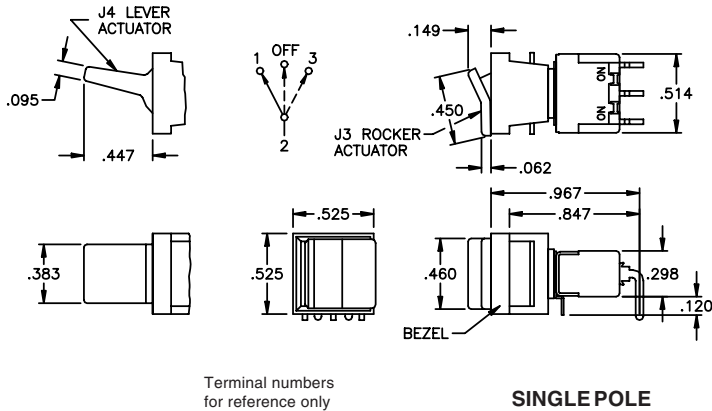
SINGLE POLE WITH J3 ROCKER



Poles	Option	Dim. A	Dim. B
SP	A	.148	.045 max.
SP	A-1	.164	.095 max.
DP	A	.250	.300 max.
DP	A-1	.266	.350 max.

	DRY CKT. MODEL NO.	UL MODEL NO.	USA marking on other side		
Single pole	ST1-1L5S5A-1BJ3J9322	UL11L5S5A-1QJ3J9322	ON	NONE	ON
	ST1-2L5S5A-1BJ3J9322	UL12L5S5A-1QJ3J9322	ON	OFF	ON
	ST1-3L5S5A-1BJ3J9322	UL13L5S5A-1QJ3J9322	MOM	OFF	MOM
	ST1-4L5S5A-1BJ3J9322	UL14L5S5A-1QJ3J9322	ON	OFF	MOM
	ST1-5L5S5A-1BJ3J9322	UL15L5S5A-1QJ3J9322	ON	NONE	MOM
Double pole	ST2-1L5S5A-1BJ3J9322	UL21L5S5A-1QJ3J9322	ON	NONE	ON
	ST2-2L5S5A-1BJ3J9322	UL22L5S5A-1QJ3J9322	ON	OFF	ON
	ST2-3L5S5A-1BJ3J9322	UL23L5S5A-1QJ3J9322	MOM	OFF	MOM
	ST2-4L5S5A-1BJ3J9322	UL24L5S5A-1QJ3J9322	ON	OFF	MOM
	ST2-5L5S5A-1BJ3J9322	UL25L5S5A-1QJ3J9322	ON	NONE	MOM
	ST2-6L5S5A-1BJ3J9322	UL26L5S5A-1QJ3J9322	ON	ON	ON
	ST2-7L5S5A-1BJ3J9322	UL27L5S5A-1QJ3J9322	ON	ON	MOM
	ST2-8L5S5A-1BJ3J9322	UL28L5S5A-1QJ3J9322	MOM	ON	MOM
Terminals connected (-6, -7 & -8)			1-2, 4-5	1-2, 5-6	2-3, 5-6

Above models have black bezel & actuator.



Vertical right angle p.c. terminals - p.c. mtg. bezel

SINGLE POLE WITH J4 LEVER



	DRY CKT. MODEL NO.	UL MODEL NO.	USA marking on other side		
Single pole	ST1-1L5S5V-1BJ3J9322	UL11L5S5V-1QJ3J9322	ON	NONE	ON
	ST1-2L5S5V-1BJ3J9322	UL12L5S5V-1QJ3J9322	ON	OFF	ON
	ST1-3L5S5V-1BJ3J9322	UL13L5S5V-1QJ3J9322	MOM	OFF	MOM
	ST1-4L5S5V-1BJ3J9322	UL14L5S5V-1QJ3J9322	ON	OFF	MOM
	ST1-5L5S5V-1BJ3J9322	UL15L5S5V-1QJ3J9322	ON	NONE	MOM
Double pole	ST2-1L5S5V-1BJ3J9322	UL21L5S5V-1QJ3J9322	ON	NONE	ON
	ST2-2L5S5V-1BJ3J9322	UL22L5S5V-1QJ3J9322	ON	OFF	ON
	ST2-3L5S5V-1BJ3J9322	UL23L5S5V-1QJ3J9322	MOM	OFF	MOM
	ST2-4L5S5V-1BJ3J9322	UL24L5S5V-1QJ3J9322	ON	OFF	MOM
	ST2-5L5S5V-1BJ3J9322	UL25L5S5V-1QJ3J9322	ON	NONE	MOM
	ST2-6L5S5V-1BJ3J9322	UL26L5S5V-1QJ3J9322	ON	ON	ON
	ST2-7L5S5V-1BJ3J9322	UL27L5S5V-1QJ3J9322	ON	ON	MOM
	ST2-8L5S5V-1BJ3J9322	UL28L5S5V-1QJ3J9322	MOM	ON	MOM
Terminals connected (-6, -7 & -8)			1-2, 4-5	1-2, 5-6	2-3, 5-6

Above models have black bezel & actuator.

