

## GENERAL SPECIFICATIONS FOR S800s ~ S732

### Electrical Capacity (Resistive & Inductive Load)

**Power Level:** Shown in the following tables

### Other Ratings

<b>Contact Resistance:</b>	10 milliohms maximum
<b>Insulation Resistance:</b>	1,000 megohms minimum @ 500V DC
<b>Dielectric Strength:</b>	2,000V AC minimum for 1 minute minimum for S800s & S800Ds 3,000V AC minimum for 1 minute minimum for S732
<b>Mechanical Life:</b>	50,000 operations minimum
<b>Electrical Life:</b>	10,000 operations minimum for S800Ds 25,000 operations minimum for S800s & S732

### Materials & Finishes

<b>Toggle:</b>	Brass with nickel plating for S732 Brass with chrome plating for S800s & S800Ds
<b>Bushing:</b>	Brass with chrome plating
<b>Case:</b>	Phenolic resin for S732; melamine phenol for S800s
<b>Case Cover:</b>	Steel with chromate plating over zinc plating
<b>Movable Contactor Plate:</b>	Copper with silver plating
<b>Movable &amp; Stationary Contacts:</b>	Silver alloy capped on copper with silver plating
<b>Common Terminals:</b>	Brass
<b>Contact Terminals:</b>	Brass with silver or nickel plating

### Environmental Data

**Operating Temp Range:** -10°C through +70°C (+14°F through +158°F)

### Installation

<b>Mounting Torque:</b>	2.94Nm (26 lb•in) for double nut
<b>Maximum Panel Thickness:</b>	Shown beneath panel cutout in switch dimension drawings

### Standards & Certifications

<b>UL:</b>	<b>File No. E44145 - Recognized only when ordered with marking on switch.</b> Add "/U" or "/CUL" to end of part number to order UL recognized switch. UL or cULus recognition designated beside part numbers on following pages. See Supplement section to find UL or cULus rating details.
<b>CSA:</b>	<b>File No. 023535_0_000 - Certified only when ordered with marking on switch.</b> Add "/C" to end of part number to order CSA certified switch. CSA certification designated beside part numbers on following pages. See Supplement section to find CSA rating details.

A  
Toggles

Rockers

Pushbuttons

Illuminated PB

Programmable

Keylocks

Rotaries

Slides

Tactiles

Tilt




Touch

Indicators

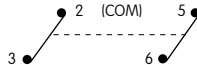
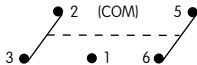
Accessories

Supplement

## DOUBLE POLE WITH SCREW LUG

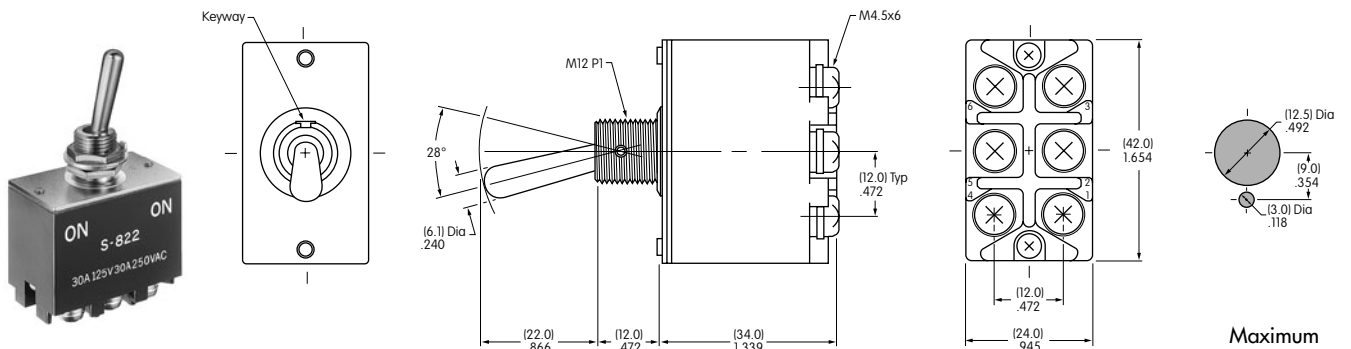
* UL, cULus & CSA recognized only when ordered with marking on switch (see General Specs)				Toggle Position/Connected Terminals				Electrical Capacity						
Model	* Approvals			Pole & Throw	Down 	Center 	Up 	Resistive				Inductive		Motor Load
	UL	cULus	CSA					AC 125V	AC 250V	DC 30V	DC 125V	AC 125V PF 0.6	AC 250V PF 0.6	AC 125V
S821	✓	✓	✓	DPST	ON 2-3 5-6	NONE	OFF —	30A	30A	30A	1A	30A	15A	750W
S822	✓	✓	✓	DPDT	ON 2-3 5-6	NONE	ON 2-1 5-4	30A	30A	30A	1A	30A	15A	—
S823	✓	✓	✓	DPDT	ON 2-3 5-6	OFF	ON 2-1 5-4	30A	30A	30A	1A	30A	15A	—

**Throw & Schematics:**

DPST:  DPDT: 

Note: Terminal numbers are on the switch

**Notes:** Standard Hardware: AT503M Face Hex Nut, AT506M Locking Ring, AT508 Lockwasher, AT527M Backup Hex Nut. See Accessories & Hardware section. Optional Splashproof Boot Assembly: AT401 boot plus hex nut & o-ring. See Accessories & Hardware section.






**S822**

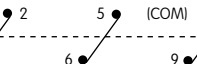
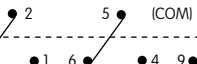
S821 does not have terminals 1 & 4

Maximum Panel Thickness: .177" (4.5mm)

## THREE POLE WITH SCREW LUG

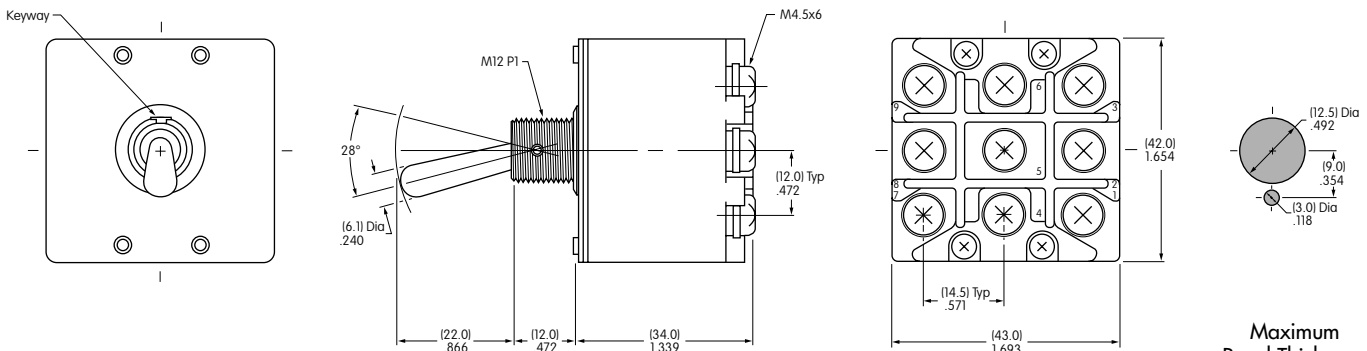
* UL, cULus & CSA recognized only when ordered with marking on switch (see General Specs)				Toggle Position/Connected Terminals				Electrical Capacity					
Model	* Approvals			Pole & Throw	Down 	Center 	Up 	Resistive				Inductive	
	UL	cULus	CSA					AC 125V	AC 250V	DC 30V	DC 125V	AC 125V PF 0.6	AC 250V PF 0.6
S831	✓	✓	✓	3PST	ON 2-3 5-6 8-9	NONE	OFF —	30A	30A	30A	1A	30A	15A
S832	✓	✓	✓	3PDT	ON 2-3 5-6 8-9	NONE	ON 2-1 5-4 8-7	30A	30A	30A	1A	30A	15A
S833	✓	✓	✓	3PDT	ON 2-3 5-6 8-9	OFF	ON 2-1 5-4 8-7	30A	30A	30A	1A	30A	15A

**Throw & Schematics:**

3PST:  3PDT: 

Note: Terminal numbers are on the switch

**Notes:** Standard Hardware: AT503M Face Hex Nut, AT506M Locking Ring, AT508 Lockwasher, AT527M Backup Hex Nut. See Accessories & Hardware section. Optional Splashproof Boot Assembly: AT401 boot plus hex nut & o-ring. See Accessories & Hardware section.



**S833**

S831 does not have terminals 1, 4 & 7

Maximum Panel Thickness: .177" (4.5mm)

## DOUBLE POLE WITH SCREW LUG & FLATTED LEVER

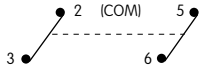
\* UL, cULus & CSA recognized only when ordered with marking on switch (see General Specs)

Model	*Approvals UL cULus CSA	Pole & Throw	Toggle Position/Connected Terminals						Electrical Capacity											
			Down 			Center 		Up 	Resistive				Inductive L/R = 3ms							
			ON	2-3	5-6	NONE	OFF	—	DC 30V	DC 48V	DC 125V	DC 250V	DC 400V	DC 24V	DC 48V	DC 125V	DC 250V			
S821D	✓	✓	✓	DPST	ON	2-3	5-6	NONE	OFF	—	30A	30A	20A	15A	4A (10A)	15A	10A	6A	3A	
S822D	✓	✓	✓	DPDT	ON	2-3	5-6	NONE	ON	2-1	5-4	30A	30A	20A	15A	4A	15A	10A	6A	3A
S823D	✓	✓	✓	DPDT	ON	2-3	5-6	OFF	ON	2-1	5-4	30A	30A	15A	7.5A	—	15A	10A	6A	3A

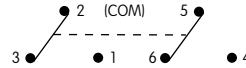
( ) capacity is due to wiring. Refer to instructions below.

Throw & Schematics:

DPST

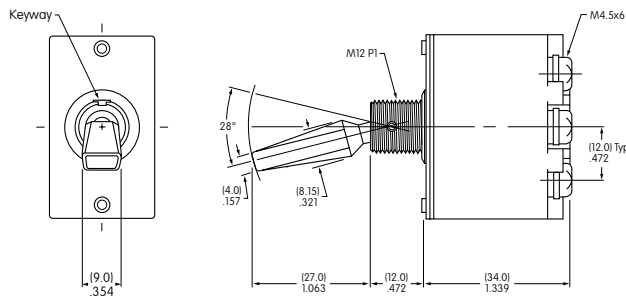


DPDT

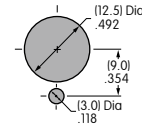
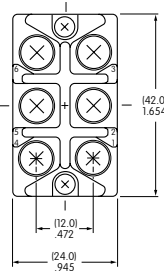


Note: Terminal numbers are on the switch

Notes: Standard Hardware: AT503M Face Hex Nut, AT506M Locking Ring, AT508 Lockwasher, AT527M Backup Hex Nut. See Accessories & Hardware section.



### Double Pole



Maximum Panel Thickness: .177" (4.5mm)



S822D

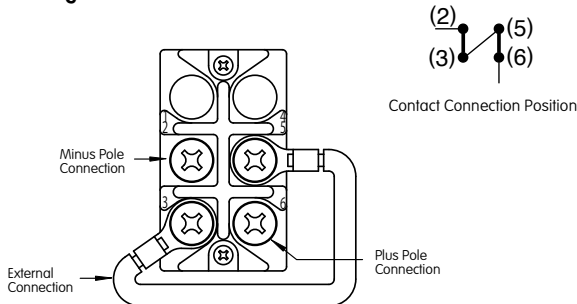
S821D does not have terminals 1 & 4

## 400V DC WIRING INSTRUCTIONS

### 1. DC switch use

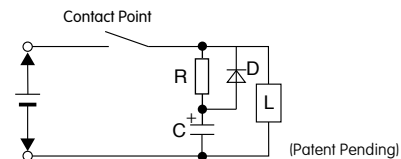
- Middle terminal shall be the minus pole when using DC circuit. Switch case is marked with (+) and (-).
- Do not store near (5cm) highly magnetic items.
- If actuation is interrupted when switching from ON to OFF, arcing may continue and switch could be burned.

### 2. Wiring for DC400V 10A



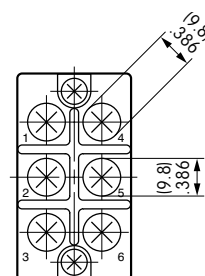
### 3. Inductive load

Inductive loads produce an arc caused by counter-electromotive force when opening the circuit. Recommend inserting spark elimination circuit. Contact factory for details.






### 4. Compressed terminal connection

When connecting screw terminal with compressed terminal, select compressed terminal using drawing below.



## THREE POLE WITH SCREW LUG & FLATTED LEVER

\* UL, cULus & CSA recognized only when ordered with marking on switch (see General Specs)

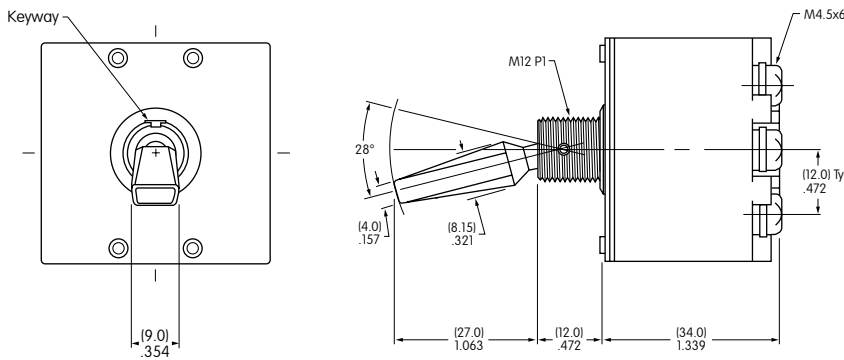
Model	* Approvals			Pole & Throw	Toggle Position/Connected Terminals			Electrical Capacity							
	UL	cULus	CSA		Down	Center	Up	Resistive				Inductive L/R = 3ms			
					Keyway 			DC 30V	DC 48V	DC 125V	DC 250V	DC 24V	DC 48V	DC 125V	DC 250V
S831D	✓	✓	✓	3PST	ON 2-3 5-6 8-9	NONE	OFF —	30A	30A	15A	7.5A	15A	10A	6A	3A
S832D	✓	✓	✓	3PDT	ON 2-3 5-6 8-9	NONE	ON 2-1 5-4 8-7	30A	30A	15A	7.5A	15A	10A	6A	3A
S833D	✓	✓	✓	3PDT	ON 2-3 5-6 8-9	OFF	ON 2-1 5-4 8-7	30A	30A	15A	7.5A	15A	10A	6A	3A

Throw & Schematics:



Note: Terminal numbers are on the switch

Notes: Standard Hardware: AT503M Face Hex Nut, AT506M Locking Ring, AT508 Lockwasher, AT527M Backup Hex Nut. See Accessories & Hardware section.

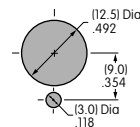


Three Pole

S831D does not have terminals 1, 4 & 7.  
Positive (+) must be connected to end terminals & negative to common terminals






S832D



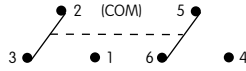
Maximum Panel Thickness: .177" (4.5mm)

## DOUBLE POLE WITH SCREW LUG

Model	Approvals UL SP	Pole & Throw	Toggle Position/Connected Terminals			Electrical Capacity			
			Down 	Center 	Up 	Resistive		Inductive	
			AC 125V	AC 250V	DC 30V	AC 125V PF 0.6			
S732	— —	DPDT	ON 2-3 5-6	NONE	ON 2-1 5-4	50A	30A	50A	25A

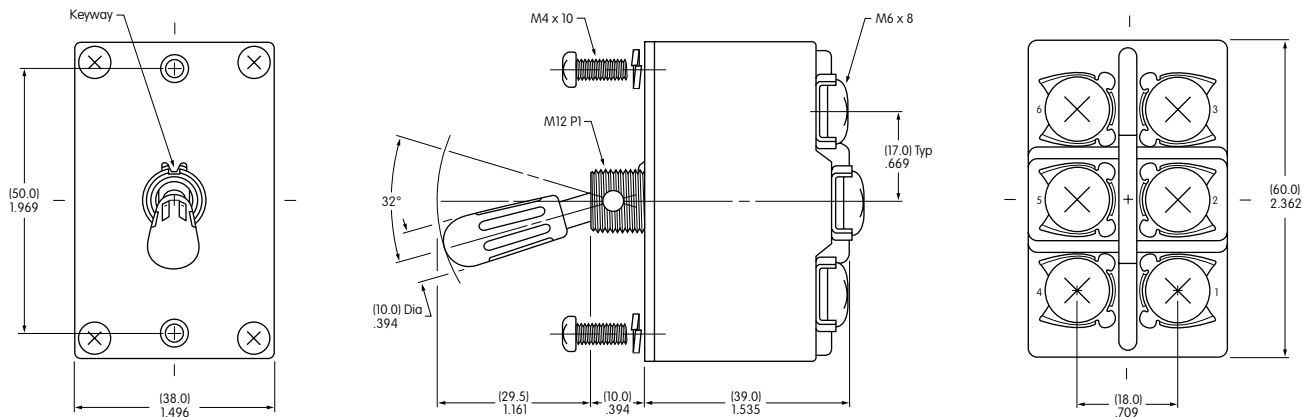
**Throw & Schematics:**

DPDT



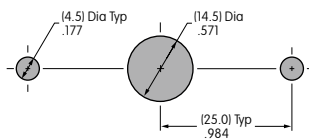
Note: Terminal numbers are on the switch

Notes: Standard Hardware: AT503M Face Hex Nut, AT506M Locking Ring, AT508 Lockwasher, AT527M Backup Hex Nut. See Accessories & Hardware section.



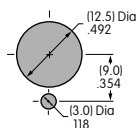
Cap of phenolic resin is black

**Panel Mount with Mounting Screws**

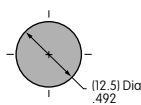


Maximum Panel Thickness: .158" (4.0mm)

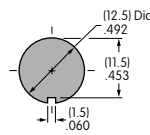
**Panel Mount with Bushing Hardware**



Maximum Panel Thickness: .079" (2.0mm)



Maximum Panel Thickness: .118" (3.0mm)



Maximum Panel Thickness: .118" (3.0mm)



**S732**