



GENERAL SPECIFICATIONS FOR S800s, S500s, & S732

Electrical Capacity (Resistive & Inductive Load)

Power Level: Shown in the following tables

Other Ratings

Contact Resistance: 10 milliohms maximum
Insulation Resistance: 500 megohms minimum @ 500V DC for S500Ds
1,000 megohms minimum @ 500V DC for S800s, S800Ds, S522, S523, & S732
2,000 megohms minimum @ 500V DC for S532 & S533
Dielectric Strength: 2,000V AC minimum for S800s, S800Ds, S500s, & S500Ds
3,000V AC minimum for S732
Mechanical Life: 50,000 operations minimum
Electrical Life: 10,000 operations minimum for S800Ds & S500Ds
25,000 operations minimum for S800s, S500s, & S732
Angle of Throw (α): Shown in tables on following pages

Materials & Finishes

Toggle: Brass with nickel plating for S522, S523, & S732
Brass with chrome plating for other S500s & S800s
Bushing: Brass with chrome plating
Case: Phenolic resin
Case Cover: Steel with zinc plating or nickel plating for S522 & S523
Movable Contactor Plate: Copper with silver plating
Movable & Stationary Contacts: Silver alloy capped on copper with silver plating
Common Terminals: Brass
Contact Terminals: Brass with silver or nickel plating

Environmental Data

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

Installation

Mounting Torque: 30 kgf/cm (26 lb/in) for double nut; 15 kgf/cm (13 lb/in) for single nut
Maximum Panel Thickness: Shown beneath panel cutout in switch dimension drawings
Soldering Time & Temperature: 3 seconds @ 350°C or 5 seconds @ 270°C

Standards & Certifications

UL Recognized: Designated with UL recognized symbol beside part numbers on following pages
See [Supplement Index](#) to find UL rating details. UL File No. E44145
Add "/U" to end of part number to order UL mark on switch.
CSA Certified: Designated with CSA certified symbol beside part numbers on following pages
See [Supplement Index](#) to find CSA rating details. File No. LR23535
Add "/C" to end of part number to order CSA mark on switch.



Series S

High Capacity Toggle Switches

DOUBLE POLE WITH SCREW LUG

Model	Approvals	Pole & Throw	Toggle Position/Connected Terminals						Electrical Capacity					
			Down Keyway		Center	Up		Resistive			Inductive			
			AC 125V	AC 250V	DC 30V	DC 125V	AC 125V PF 0.6	AC 250V PF 0.6						
S821		DPST	ON	2-3 5-6	NONE	OFF	—	30A	30A	30A	1A	30A	15A	
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	

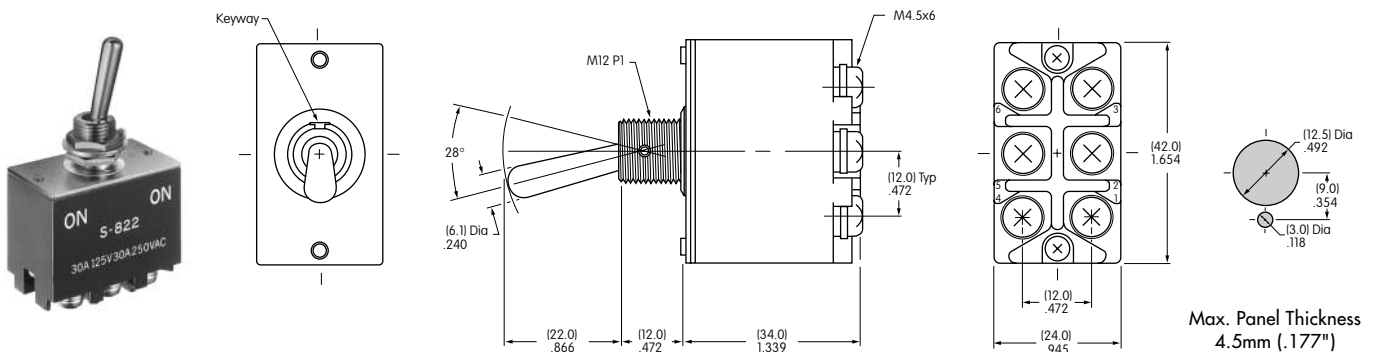
Throw & Schematics:

DPST:

DPDT:

Note: Terminal numbers are on the switch.

• Standard Hardware: AT503 Face Hex Nut, AT506 Locking Ring, AT508 Lockwasher, AT527M Backup Hex Nut.



S822

S821 model does not have terminals 1 & 4.

THREE POLE WITH SCREW LUG

Model	Approvals	Pole & Throw	Toggle Position/Connected Terminals						Electrical Capacity					
			Down Keyway		Center	Up		Resistive			Inductive			
			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	

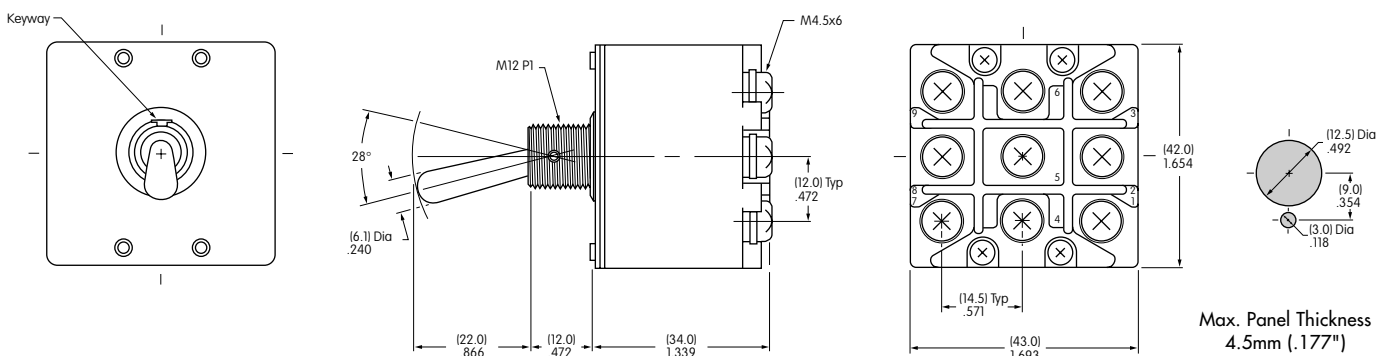
Throw & Schematics:

3PST:

3PDT:

Note: Terminal numbers are on the switch.

• Standard Hardware: AT503 Face Hex Nut, AT506 Locking Ring, AT508 Lockwasher, AT527M Backup Hex Nut.



S833

S831 model does not have terminals 1, 4 & 7.



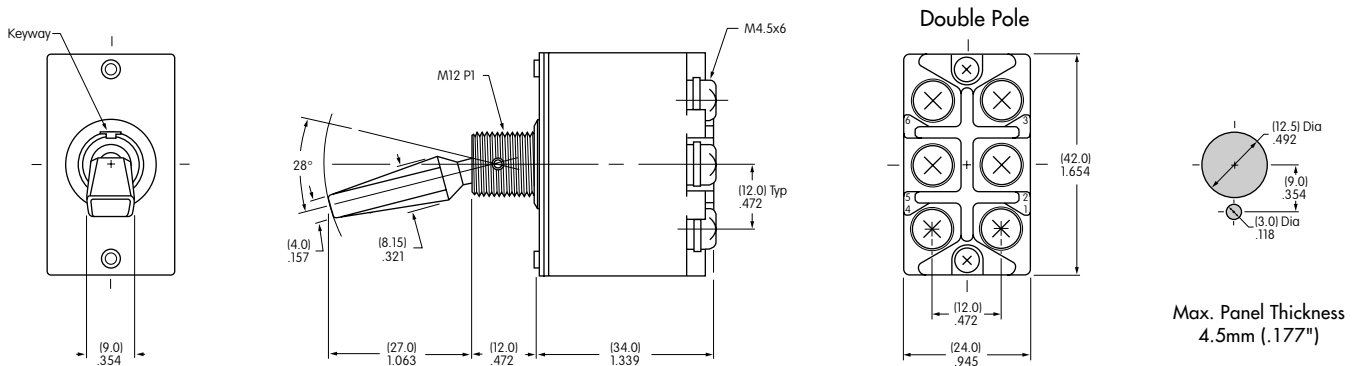
Series S

High Capacity Toggle Switches

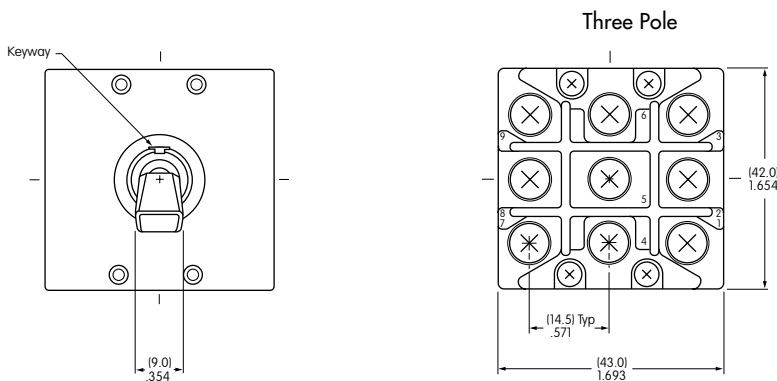
DOUBLE & THREE POLE WITH SCREW LUG & FLATTED LEVER

			Toggle Position/Connected Terminals						Electrical Capacity							
Model	Pole & Throw	Approvals	Down	Center	Up	Resistive				Inductive L/R = 3ms						
			ON 2-3 5-6	NONE	OFF	DC 30V	DC 48V	DC 125V	DC 250V	DC 24V	DC 48V	DC 125V	DC 250V			
S821D	DPST		ON 2-3 5-6	NONE	OFF	30A	30A	15A	7.5A	15A	10A	6A	3A			
S822D	DPDT		ON 2-3 5-6	NONE	ON 2-1 5-4	30A	30A	15A	7.5A	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			
Throw & Schematics			DPST			DPDT			Note: Terminal numbers are on the switch.							
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			3PST			3PDT			Note: Terminal numbers are on the switch.							

• Standard Hardware: AT503 Face Hex Nut, AT506 Locking Ring, AT508 Lockwasher, AT527M Backup Hex Nut.



S821D model does not have terminals 1 & 4.



S831D model does not have terminals 1, 4, & 7.

Positive (+) must be connected to end terminals & negative to common terminals.



S832D



Series S

High Capacity Toggle Switches

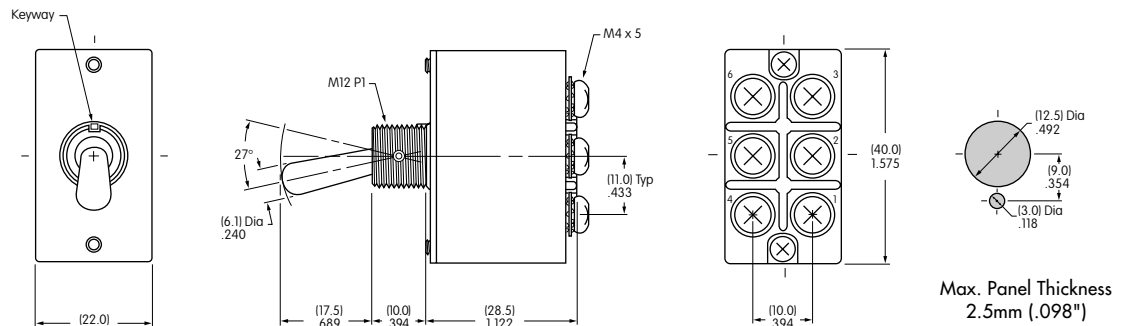
DOUBLE POLE WITH SCREW LUG

Model	Approvals	Pole & Throw	Toggle Position/Connected Terminals			Electrical Capacity				Angle of Throw		
			Down 	Center 	Up 	Resistive			Inductive			
						AC 125V	AC 250V	DC 30V	AC 125V PF 0.6			
S532	—	DPDT	ON	2-3 5-6	NONE	ON	2-1 5-4	30A	15A	30A	15A	27°
S533	—	DPDT	ON	2-3 5-6	OFF	ON	2-1 5-4	30A	15A	30A	15A	27°

Throw & Schematics: DPDT

Note: Terminal numbers are on the switch.

• Standard Mounting Hardware: AT503 Face Hex Nut, AT506 Locking Ring, AT508 Lockwasher, AT527M Backup Hex Nut.



S533

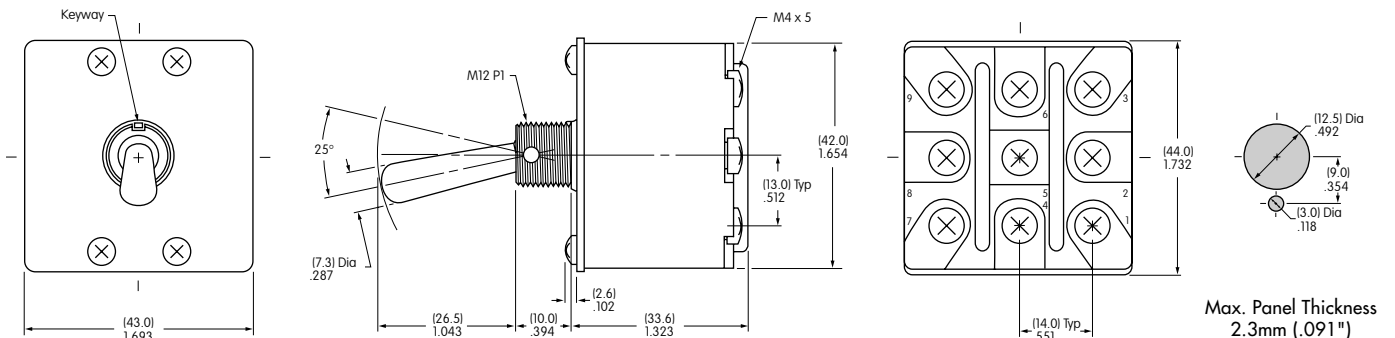
THREE POLE WITH SCREW LUG

Model	Approvals	Pole & Throw	Toggle Position/Connected Terminals			Electrical Capacity				Angle of Throw		
			Down 	Center 	Up 	Resistive			Inductive			
						AC 125V	AC 250V	DC 30V	AC 125V PF 0.6			
S522	—	3PDT	ON	2-3 5-6 8-9	NONE	ON	2-1 5-4 8-7	30A	15A	30A	15A	25°
S523	—	3PDT	ON	2-3 5-6 8-9	OFF	ON	2-1 5-4 8-7	30A	15A	30A	15A	25°

Throw & Schematics: 3PDT

Note: Terminal numbers are on the switch.

• Standard Mounting Hardware: AT503 Face Hex Nut, AT506 Locking Ring, AT508 Lockwasher, AT527M Backup Hex Nut.



S522

Positive (+) must be connected to end terminals & negative to common terminals.

DOUBLE POLE WITH SCREW LUG DC RATED

		Toggle Position/Connected Terminals				Electrical Capacity							
Model	Pole & Throw	Down	Center	Up	Resistive Load								
		Keyway	Keyway	Keyway	AC 24V	AC 48V	AC 125V	AC 250V	DC 24V	DC 48V	DC 125V	DC 250V	
S532D	DPDT	ON 2-3 5-6	NONE	ON 2-1 5-4	30A	30A	30A	15A	30A	30A	15A	7.5A	
S533D	DPDT	ON 2-3 5-6	OFF	ON 2-1 5-4	30A	30A	30A	15A	30A	30A	15A	7.5A	
					Inductive Load								
S532D	DPDT	ON 2-3 5-6	NONE	ON 2-1 5-4	30A	30A	30A	15A	15A	10A	6A	3A	
S533D	DPDT	ON 2-3 5-6	OFF	ON 2-1 5-4	30A	30A	30A	15A	15A	10A	5A	3A	

Throw & Schematic

Note: Terminal numbers are on the switch.

• Standard Hardware: AT503 Face Hex Nut, AT506 Locking Ring, AT508 Lockwasher, AT527M Backup Hex Nut.

S533D

Positive (+) must be connected to end terminals & negative to common terminals.

Max. Panel Thickness 2.5mm (.098")

DOUBLE POLE WITH SCREW LUG

		Toggle Position/Connected Terminals				Electrical Capacity			
Model	Approvals	Pole & Throw	Down	Center	Up	Resistive		Inductive	
			Keyway	Keyway	Keyway	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:

Note: Terminal numbers are on the switch.

• Standard Hardware: AT503 Hex Face Nut, AT506 Locking Ring, AT508 Lockwasher, AT527M Backup Hex Nut.

S732

The cap of phenolic resin is black.

Max. Panel Thickness 4.0mm (.158")