

## PRODUCTS

### Series S

#### Low Capacity Toggles



- [Download Specifications](#)
- [Configure This Switch!](#)

#### Medium Capacity Toggles



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- [Configure This Switch!](#)

#### Medium/High Capacity Toggles

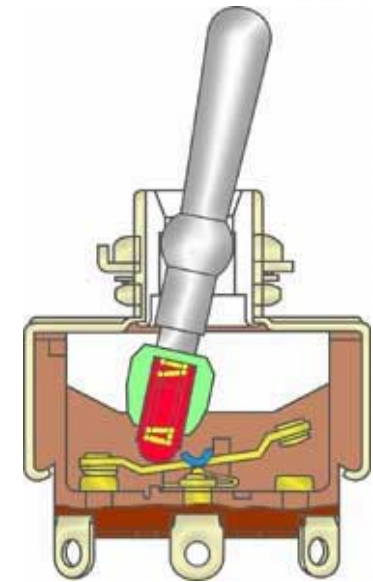


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#### High Capacity Toggles



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#### Standard Size Toggle Switches

These standard size toggles come in low, medium, and high capacity models with ratings ranging from 5A to 30A @ 125V AC. Sturdy construction with high torque bushings and zinc plated steel covers. The 12mm bushing is designed for panel mount applications; mounting hardware is included with each switch. 1 through 4 poles with 6 circuits available. Case of heat resistant resin meets UL 94V-0 flammability standard and provides high arc and insulation resistance. Varied design of contact mechanisms in these models assures long life. Solder lug, screw lug, and quick connect terminals are available.

## GENERAL SPECIFICATIONS FOR S301 ~ S339

### Electrical Capacity (Resistive & Inductive Load)

Power Level: Shown in the following tables

### Other Ratings

- Contact Resistance:** 10 milliohms maximum
- Insulation Resistance:** 1,000 megohms minimum @ 500V DC
- Dielectric Strength:** 2,000V AC minimum for 1 minute minimum
- Mechanical Life:** 50,000 operations minimum
- Electrical Life:** 6,000 operations minimum for S331F; 15,000 operations minimum for all other S331s; 25,000 operations minimum for all others
- Angle of Throw ( $\alpha$ ):** Shown on following tables

### Materials & Finishes

- Toggle:** PBT for flatted lever; brass with chrome plating for all others
- Bushing:** Brass with chrome plating
- Case:** Melamine phenol
- Case Cover:** Steel with zinc plating
- Movable Contact:** Copper with silver plating
- Movable & Stationary Contacts:** Silver alloy capped on copper with silver plating
- Terminals:** Brass with silver plating
















### Installation

- Mounting Torque:** 2.94Nm (26 lb•in) for double nut; 1.47Nm (13 lb•in) for single nut
- Soldering Time & Temperature:** Manual Soldering: See Profile A in Supplement section.

### Standards & Certifications

- UL Recognized:** Designated with UL recognized symbol beside part numbers on following pages  
UL File No. WOYR2.E44145. Add "/U" to end of part number to order UL mark on switch.
- C-UL Recognized:** Designated with C-UL recognized symbol beside part numbers on following pages  
C-UL File No. WOYR8.E44145. Add "/C-UL" to end of part number to order C-UL mark on switch.
- CSA Certified:** Designated with CSA certified symbol beside part numbers on following pages  
File No. 023535-0-000. Add "/C" to end of part number to order CSA mark on switch.

## SINGLE POLE WITH SOLDER LUG

Model	Approvals	Pole & Throw	Toggle Position/Connected Terminals ( ) = Momentary						Electrical Capacity				Angle of Throw
			Down 	Center 	Up 	Resistive			Inductive				
						AC 125V	AC 250V	DC 30V	AC 125V PF 0.6				
S301	  	SPST	ON 1-3	NONE	OFF —	15A	6A	20A	10A	32°			
S302	  	SPDT	ON 2-3	NONE	ON 2-1	15A	6A	20A	10A	32°			
S303	  	SPDT	ON 2-3	OFF	ON 2-1	15A	6A	20A	10A	32°			
S305	— — 	SPDT	ON 2-3	NONE	(ON) 2-1	15A	6A	20A	8A	32°			
S308	— — 	SPDT	(ON) 2-3	OFF	(ON) 2-1	15A	6A	20A	8A	32°			
S309	— — 	SPDT	ON 2-3	OFF	(ON) 2-1	15A	6A	20A	8A	32°			

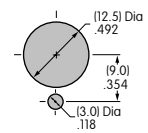
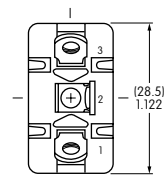
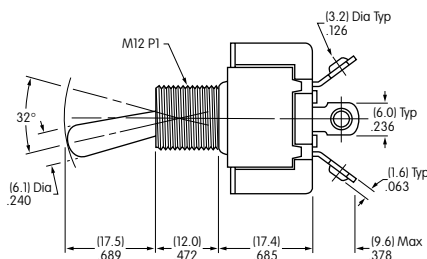
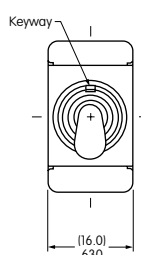
**Throw & Schematics:**

Note: Terminal numbers are actually on the switch

- Standard Hardware: AT503M Face Hex Nut, AT506 Locking Ring, AT508 Lockwasher, AT527M Backup Hex Nut. See Accessories & Hardware section.






















S301



Maximum Panel Thickness: .185" (4.7mm)

S301 does not have terminal 2

### DOUBLE POLE WITH SOLDER LUG

Model	Approvals	Pole & Throw	Toggle Position/Connected Terminals ( ) = Momentary			Electrical Capacity				$\alpha$ = Angle of Throw
			Down 	Center 	Up 	Resistive			Inductive	
						AC 125V	AC 250V	DC 30V	AC 125V PF 0.6	
S331	  	DPST	ON 1-3 4-6	NONE	OFF —	25A	25A	25A	10A	25°
S332	  	DPDT	ON 2-3 5-6	NONE	ON 2-1 5-4	25A	15A	25A	10A	25°
S333	  	DPDT	ON 2-3 5-6	OFF	ON 2-1 5-4	25A	15A	25A	10A	30°
S335	  	DPDT	ON 2-3 5-6	NONE	(ON) 2-1 5-4	15A	6A	20A	8A	25°
S338	  —	DPDT	(ON) 2-3 5-6	OFF	(ON) 2-1 5-4	15A	6A	20A	8A	25°
S339	  —	DPDT	ON 2-3 5-6	OFF	(ON) 2-1 5-4	15A	6A	20A	8A	25°

Throw & Schematics:

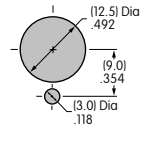
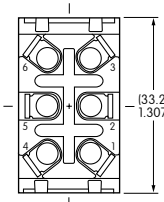
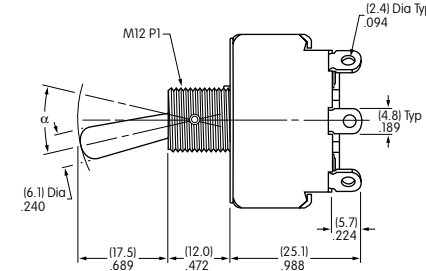
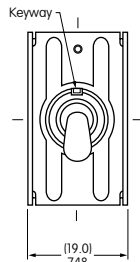


Note: Terminal numbers are actually on the switch

- Standard Hardware: AT503M Face Hex Nut, AT506 Locking Ring, AT508 Lockwasher, AT527M Backup Hex Nut. See Accessories & Hardware section.
















S331



Maximum Panel Thickness: .185" (4.7mm)

S331 does not have terminals 2 & 5

### DOUBLE POLE WITH SOLDER LUG & FLATTED LEVER

Model	Approvals	Pole & Throw	Toggle Position/Connected Terminals ( ) = Momentary			Electrical Capacity				$\alpha$ = Angle of Throw
			Down 	Center 	Up 	Resistive			Inductive	
						AC 125V	AC 250V	DC 30V	AC 125V PF 0.6	
S331R	  —	DPST	ON 1-3 4-6	NONE	OFF —	25A	25A	25A	10A	25°
S332R	  —	DPDT	ON 2-3 5-6	NONE	ON 2-1 5-4	25A	15A	25A	10A	25°
S333R	  —	DPDT	ON 2-3 5-6	OFF	ON 2-1 5-4	25A	15A	25A	10A	30°
S338R	  —	DPDT	(ON) 2-3 5-6	OFF	(ON) 2-1 5-4	15A	6A	20A	8A	25°
S339R	  —	DPDT	ON 2-3 5-6	OFF	(ON) 2-1 5-4	15A	6A	20A	8A	25°

Throw & Schematics:

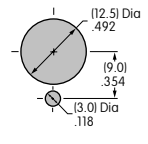
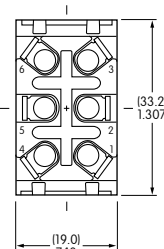
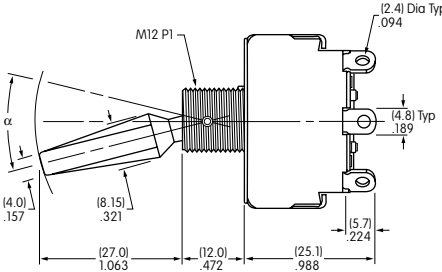
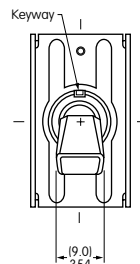


Note: Terminal numbers are actually on the switch

- Standard Hardware: AT504M Knurled Nut, AT508 Lockwasher, AT527M Backup Hex Nut. See Accessories & Hardware section.



S331R



Maximum Panel Thickness: .220" (5.6mm)

S331R does not have terminals 2 & 5