



PRODUCTS

Series S

Low Capacity Toggles



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Medium Capacity Toggles



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Medium/High Capacity Toggles

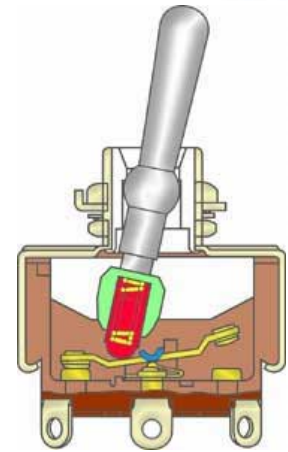


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High Capacity Toggles



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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 S31 ~ S49

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: 25,000 operations minimum
Angle of Throw (α): Shown on following tables

Materials & Finishes

Toggle: PBT resin for flatted lever; brass with chrome plating for all others
Bushing: Brass with chrome plating
Case: Phenolic resin
Case Cover: Steel with chromate plating over zinc plating
Movable Contactor: Copper with silver plating
Movable Contacts: Silver alloy capped on copper with silver plating
Stationary Contacts: Silver alloy capped on copper with silver plating
Terminals: Brass with silver plating

Environmental Data

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

Installation

Mounting Torque: 2.94Nm (26 lb•in) for double nut
Maximum Panel Thickness: Shown beneath panel cutout in switch dimension drawings
Soldering Time & Temperature: Manual Soldering: See Profile A in Supplement section.






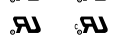

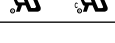
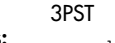
Standards & Certifications

UL Recognized: Designated with UL recognized symbol beside part numbers on following pages. See Supplement section to find UL rating details. 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. See Supplement section to find C-UL rating details. 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. See Supplement section to find CSA rating details. File No. 023535-0-000
 Add "/C" to end of part number to order CSA mark on switch.

THREE POLE WITH SOLDER LUG

*See Supplement section for UL detail			Toggle Position/Connected Terminals () = Momentary						Electrical Capacity				α = Angle of Throw
Model	Approvals	Pole & Throw	Down 	Center 	Up 	Resistive			Inductive				
						AC 125V	AC 250V	DC 30V	AC 125V PF 0.6				
S31		3PST	ON 1-3 4-6 7-9	NONE	OFF —	25A	9A	20A	10A	25°			
S32		3PDT	ON 2-3 5-6 8-9	NONE	ON 2-1 5-4 8-7	25A	9A	20A	10A	25°			
S33		3PDT	ON 2-3 5-6 8-9	OFF	ON 2-1 5-4 8-7	25A	9A	20A	10A	30°			
S35		3PDT	ON 2-3 5-6 8-9	NONE	(ON) 2-1 5-4 8-7	15A	6A	20A	8A	25°			
S38		3PDT	(ON) 2-3 5-6 8-9	OFF	(ON) 2-1 5-4 8-7	15A	6A	15A	8A	25°			
S39		3PDT	ON 2-3 5-6 8-9	OFF	(ON) 2-1 5-4 8-7	15A	6A	15A	8A	25°			

Throw & Schematics:

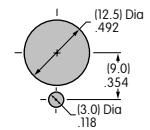
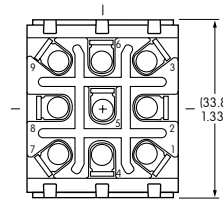
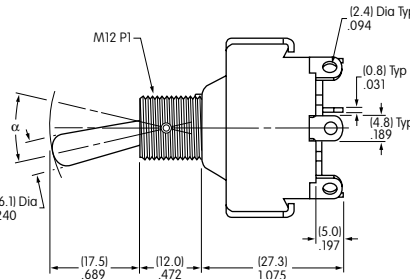
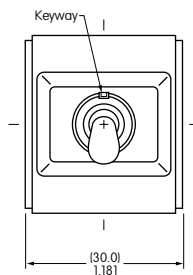


Note: Terminal numbers are on the switch

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






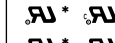


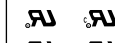
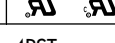
S32



Maximum Panel Thickness: .181" (4.6mm)

S31 does not have terminals 2, 5, & 8

FOUR POLE WITH SOLDER LUG

*See Supplement section for UL detail			Toggle Position/Connected Terminals () = Momentary						Electrical Capacity				α = Angle of Throw
Model Suffix R = Flatted Lever	Approvals	Pole & Throw	Down 	Center 	Up 	Resistive			Inductive				
						AC 125V	AC 250V	DC 30V	AC 125V PF 0.6				
S41/S41R		4PST	ON 1-3 4-6 7-9 10-12	NONE	OFF —	25A	9A	20A	10A	25°			
S42/S42R		4PDT	ON 2-3 5-6 8-9 11-12	NONE	ON 2-1 5-4 8-7 11-10	25A	9A	20A	10A	25°			
S43/S43R		4PDT	ON 2-3 5-6 8-9 11-12	OFF	ON 2-1 5-4 8-7 11-10	25A	9A	20A	10A	30°			
S45	—	4PDT	ON 2-3 5-6 8-9 11-12	NONE	(ON) 2-1 5-4 8-7 11-10	15A	6A	20A	8A	25°			
S48/S48R		4PDT	(ON) 2-3 5-6 8-9 11-12	OFF	(ON) 2-1 5-4 8-7 11-10	15A	6A	20A	8A	25°			
S49/S49R		4PDT	ON 2-3 5-6 8-9 11-12	OFF	(ON) 2-1 5-4 8-7 11-10	15A	6A	20A	8A	25°			

Throw & Schematics:

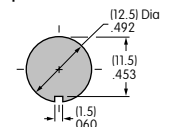
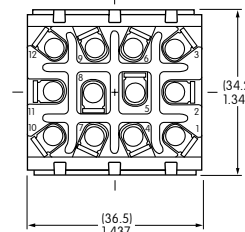
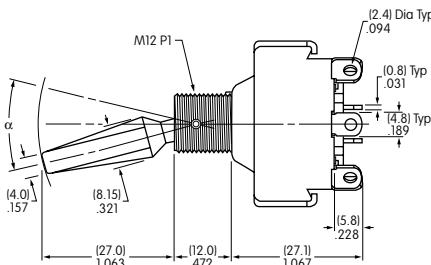
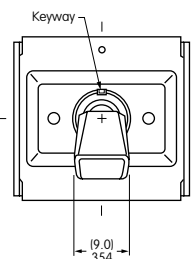


Note: Terminal numbers are on the switch

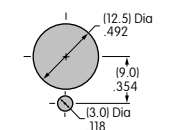
• Standard Hardware: AT504M Knurled Face Nut, AT506 Locking Ring (not supplied with "R" models), AT508 Lockwasher, AT527M Backup Hex Nut. See Accessories & Hardware section.



S42R



Max. Panel Thickness: .220" (5.6mm)



Max. Panel Thickness: .181" (4.6mm)

S41 and S41R do not have terminals 2, 5, 8, & 11