PRODUCTS

Series S

Low Capacity Toggles

- Download Specifications
- Configure This Switch!

Medium Capacity Toggles

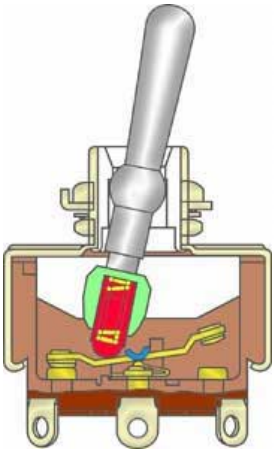
- Download Specifications
- Configure This Switch!

Medium / High Capacity Toggles

- Download Specifications
- Configure This Switch!

High Capacity Toggles

- Download Specifications
- Configure This Switch!



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 S1 ~ S29

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: 30,000 operations minimum for S5AW, S8AW, S9AW, S25AW, S28AW, S29AW
50,000 operations minimum for all other models
Electrical Life: 25,000 operations minimum
Angle of Throw (α): Shown in tables on following pages

Materials & Finishes

Toggle: Brass with chrome plating
Bushing: Brass with chrome plating
Case: Phenolic resin
Case Cover: Steel with 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 tin plating for S1 ~ S9AW;
brass with silver plating for S21 ~ S29AW

Environmental Data

Operating Temp Range: –30°C through +70°C (–22°F through +158°F) for Splashproof models;
–10°C through +70°C (+14°F through +158°F) for all other models
Sealing: Splashproof & lever lock panel seal models meet IP67 standard

Installation

Mounting Torque: 1.47Nm (13 lb•in) for single nut on AW & AL models
2.94Nm (26 lb•in) for double nut on other models
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.

SINGLE POLE WITH SOLDER LUG

Model	Approvals	Pole & Throw	Toggle Position/Connected Terminals: Down	Center	Up	Electrical Capacity: Resistive AC 125V	Resistive AC 250V	Resistive DC 30V	Inductive AC 125V PF 0.6	Angle of Throw
S1A		SPST	ON 1-3	NONE	OFF —	15A	6A	20A	8A	25°
S2A		SPDT	ON 2-3	NONE	ON 2-1	15A	6A	20A	8A	25°
S3A		SPDT	ON 2-3	OFF	ON 2-1	15A	6A	20A	8A	25°

Throw & Schematics:

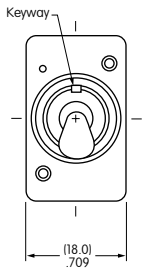
SPST

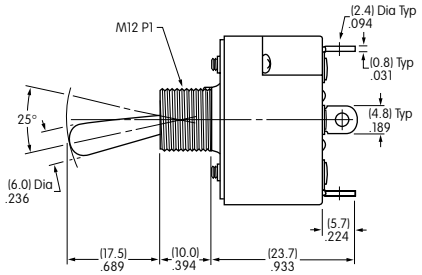
SPDT

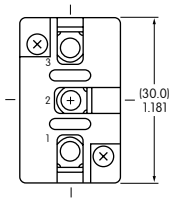
Note: Terminal numbers are actually on the switch

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

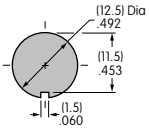
S2A







S1A does not have terminal 2



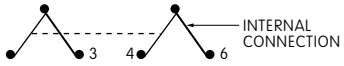
Maximum Panel Thickness: .158" (4.0mm)

DOUBLE POLE WITH SOLDER LUG

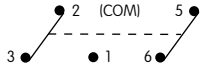
Model	Approvals	Pole & Throw	Toggle Position/Connected Terminals: Down	Center	Up	Electrical Capacity: Resistive AC 125V	Resistive AC 250V	Resistive DC 30V	Inductive AC 125V PF 0.6	α = Angle of Throw
S21A	— —	DPST	ON 1-3 4-6	NONE	OFF —	15A	15A	15A	8A	21°
S6A		DPDT	ON 2-3 5-6	NONE	ON 2-1 5-4	20A	10A	20A	8A	21°
S7A	—	DPDT	ON 2-3 5-6	OFF	ON 2-1 5-4	20A	10A	20A	8A	28°

Throw & Schematics:

DPST



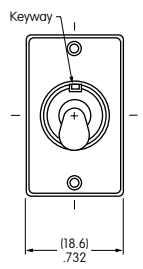
DPDT

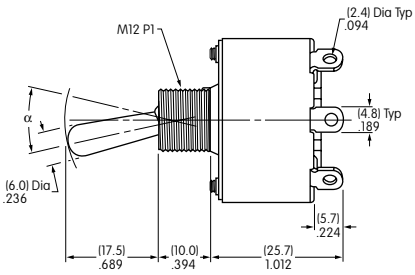


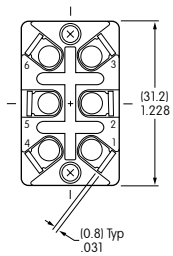
Note: Terminal numbers are actually on the switch

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

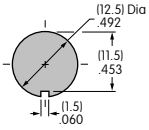
S6A







S21A does not have terminals 2 & 5



Maximum Panel Thickness: .158" (4.0mm)