Contents for Standard Size Toggles



Medium Capacity ..... Page A101

15~20A Power Level
Solder Lug, Quick Connect Terminals
Bushing Mount
Single & Double Pole



Medium Capacity ..... Page A106

15~20A Power Level
Solder Lug, Screw Lug, Quick Connect Terminals
Bushing Mount
One through Four Pole



High Capacity ..... Page A117

30A Power Level
Screw Lug Terminals
Bushing Mount or Mounting Screws
Double Pole & Three Pole

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

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 and lever lock panel seal models meet IP67 of IEC 60529 Standards

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: **File No. E44145 - Recognized only when ordered with marking on switch.**
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.

CSA: **File No. 023535_0_000 - Certified only when ordered with marking on switch.**
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.

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°

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

Throw & Schematics:

SPST



SPDT

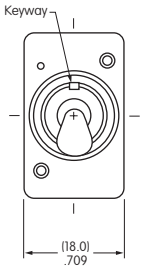


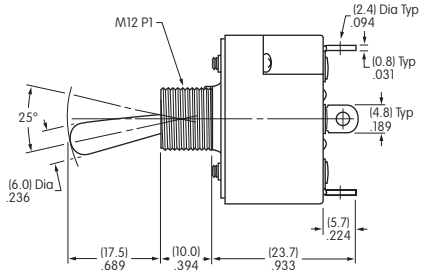
Note: Terminal numbers are actually on the switch

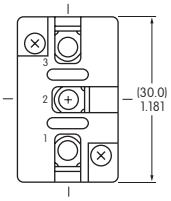
Notes: Standard Hardware: AT504M Knurled Nut, AT508 Lockwasher, AT527M Backup Hex Nut. See Accessories & Hardware section.
Optional Splashproof Boot Assemblies: AT401 & AT4181 boots plus hex nut & o-ring. See Accessories & Hardware section.



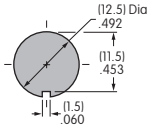
S2A







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°

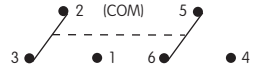
* UL, cULus & CSA recognized only when ordered with marking on switch (see General Specs)

Throw & Schematics:

DPST



DPDT

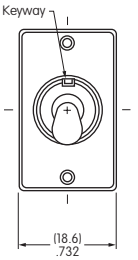


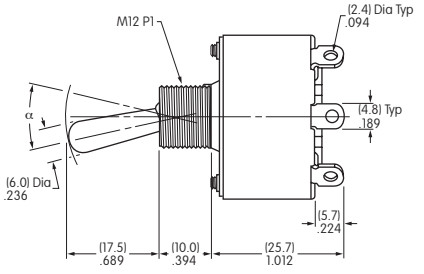
Note: Terminal numbers are actually on the switch

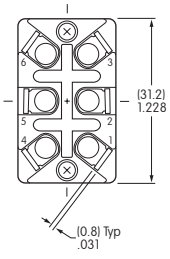
Notes: Standard Hardware: AT504M Knurled Nut, AT508 Lockwasher, AT527M Backup Hex Nut. See Accessories & Hardware section.
Optional Splashproof Boot Assemblies: AT401 & AT4181 boots plus hex nut & o-ring. See Accessories & Hardware section.



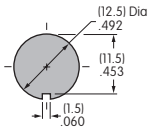
S6A







S21A does not have terminals 2 & 5



Maximum Panel Thickness: .158" (4.0mm)

SINGLE POLE WITH QUICK CONNECT

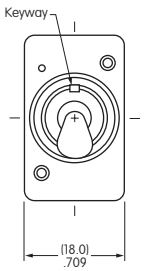
Model	Approvals		Pole & Throw	Toggle Position/Connected Terminals: Down (Keyway)	Center	Up	Electrical Capacity: Resistive AC 125V	Resistive AC 250V	Resistive DC 30V	Inductive AC 125V PF 0.6	Angle of Throw
S1F	—	—	SPST	ON 1-3	NONE	OFF —	15A	6A	20A	8A	25°
S2F	—	—	SPDT	ON 2-3	NONE	ON 2-1	15A	6A	20A	8A	25°
S3F	—	—	SPDT	ON 2-3	OFF	ON 2-1	15A	6A	20A	8A	25°

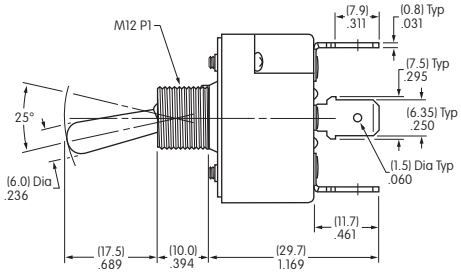
Throw & Schematics: SPST 

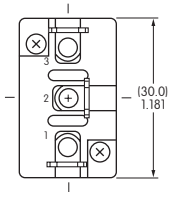
SPDT 

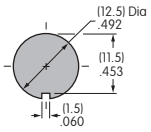
Note: Terminal numbers are actually on the switch

Notes: Standard Hardware: AT504M Knurled Nut, AT508 Lockwasher, AT527M Backup Hex Nut. See Accessories & Hardware section.
Optional Splashproof Boot Assemblies: AT401 & AT4181 boots plus hex nut & o-ring. See Accessories & Hardware section.









S1F does not have terminal 2

Maximum Panel Thickness: .158" (4.0mm)

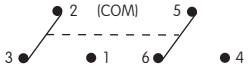


S2F

DOUBLE POLE WITH QUICK CONNECT

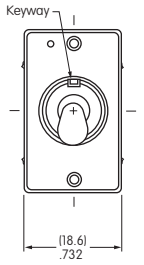
Model	Approvals		Pole & Throw	Toggle Position/Connected Terminals: Down (Keyway)	Center	Up	Electrical Capacity: Resistive AC 125V	Resistive AC 250V	Resistive DC 30V	Inductive AC 125V PF 0.6	α = Angle of Throw
S21F	—	—	DPST	ON 1-3 4-6	NONE	OFF —	15A	15A	15A	8A	21°
S6F	—	—	DPDT	ON 2-3 5-6	NONE	ON 2-1 5-4	20A	10A	20A	8A	21°
S7F	—	—	DPDT	ON 2-3 5-6	OFF	ON 2-1 5-4	20A	10A	20A	8A	28°

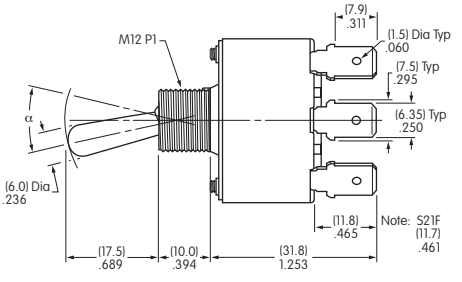
Throw & Schematics: DPST 

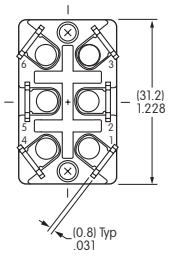
DPDT 

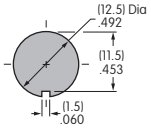
Note: Terminal numbers are actually on the switch

Notes: Standard Hardware: AT504M Knurled Nut, AT508 Lockwasher, AT527M Backup Hex Nut. See Accessories & Hardware section.
Optional Splashproof Boot Assemblies: AT401 & AT4181 boots plus hex nut & o-ring. See Accessories & Hardware section.









S21F does not have terminals 2 & 5

Maximum Panel Thickness: .158" (4.0mm)



S6F

SINGLE POLE SOLDER LUG WITH PANEL SEAL

Model	Approvals	Pole & Throw	Toggle Position/Connected Terminals ( ) = Momentary: Down (Flat)	Center	Up	Electrical Capacity: Resistive AC 125V	AC 250V	DC 30V	α = Angle of Throw
S1AW	— —	SPST	ON 1-3	NONE	OFF —	15A	6A	20A	24°
S2AW	— —	SPDT	ON 2-3	NONE	ON 2-1	15A	6A	20A	24°
S3AW	— —	SPDT	ON 2-3	OFF	ON 2-1	15A	6A	20A	28°
S5AW	— —	SPDT	ON 2-3	NONE	(ON) 2-1	15A	6A	20A	20°
S8AW	— —	SPDT	(ON) 2-3	OFF	(ON) 2-1	15A	6A	20A	24°
S9AW	— —	SPDT	ON 2-3	OFF	(ON) 2-1	15A	6A	20A	24°

Throw & Schematics: SPST 

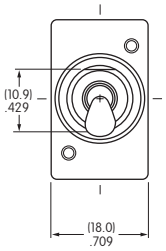
SPDT 

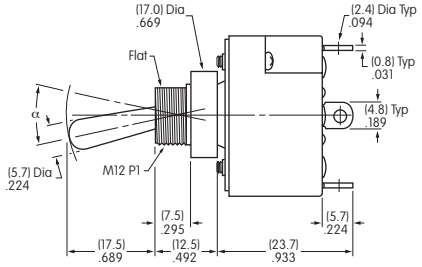
Note: Terminal numbers are actually on the switch

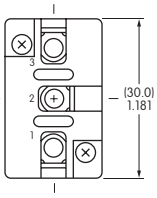
Notes: Standard Hardware: AT503M Face Hex Nut, Lockwasher, AT537 O-ring. See Accessories & Hardware section. For **.250" Quick Connect terminals**, add "F" to end of part number. See **Quick Connect terminal** dimensions on previous page. For further information, contact factory. Panel Seal models meet IP67 of IEC 60529 Standards at front panel (dust tight and water protected from effects of temporary immersion).



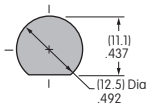
S2AW







S1AW does not have terminal 2

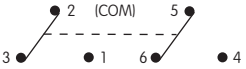


Maximum Panel Thickness: .158" (4.0mm)

DOUBLE POLE SOLDER LUG WITH PANEL SEAL

Model	Approvals	Pole & Throw	Toggle Position/Connected Terminals ( ) = Momentary: Down (Flat)	Center	Up	Electrical Capacity: Resistive AC 125V	AC 250V	DC 30V	α = Angle of Throw
S21AW	— —	DPST	ON 1-3 4-6	NONE	OFF —	15A	15A	15A	22°
S6AW	— —	DPDT	ON 2-3 5-6	NONE	ON 2-1 5-4	20A	10A	20A	22°
S7AW	— —	DPDT	ON 2-3 5-6	OFF	ON 2-1 5-4	20A	10A	20A	28°
S25AW	— —	DPDT	ON 2-3 5-6	NONE	(ON) 2-1 5-4	15A	6A	20A	20°
S28AW	— —	DPDT	(ON) 2-3 5-6	OFF	(ON) 2-1 5-4	15A	6A	20A	22°
S29AW	— —	DPDT	ON 2-3 5-6	OFF	(ON) 2-1 5-4	15A	6A	20A	22°

Throw & Schematics: DPST 

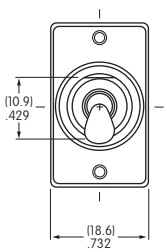
DPDT 

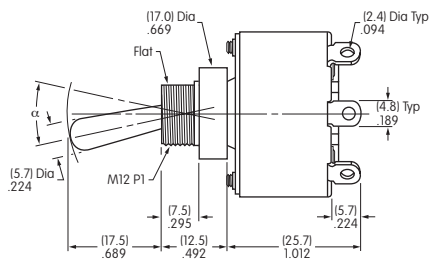
Note: Terminal numbers are actually on the switch

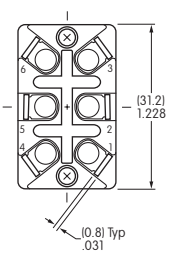
Notes: Standard Hardware: AT503M Face Hex Nut, Lockwasher, AT537 O-ring. See Accessories & Hardware section. For **.250" Quick Connect terminals**, add "F" to end of part number. See **Quick Connect terminal** dimensions on previous page. For further information, contact factory. Panel Seal models meet IP67 of IEC 60529 Standards at front panel (dust tight and water protected from effects of temporary immersion).



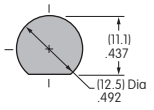
S6AW







S21AW does not have terminals 2 & 5



Maximum Panel Thickness: .158" (4.0mm)

SINGLE POLE SOLDER LUG WITH LOCKING LEVER & PANEL SEAL

Model	Approvals	Pole & Throw	Toggle Position/Connected Terminals: Down (Keyway)	Center	Up	Electrical Capacity: Resistive AC 125V	Resistive AC 250V	Resistive DC 30V	Inductive AC 125V PF 0.6	α = Angle of Throw
S1AL	— —	SPST	ON 1-3	NONE	OFF —	15A	6A	20A	8A	24°
S2AL	— —	SPDT	ON 2-3	NONE	ON 2-1	15A	6A	20A	8A	24°
S3AL	— —	SPDT	ON 2-3	OFF	ON 2-1	15A	6A	20A	8A	28°

Throw & Schematics:

SPST

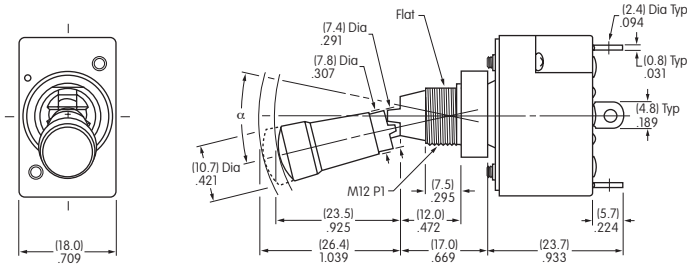


SPDT



Note: Terminal numbers are actually on the switch

Notes: Standard Hardware: AT503M Face Hex Nut, Lockwasher, AT537 O-ring. See Accessories & Hardware section.
Locking Lever & Panel Seal models meet IP67 of IEC 60529 Standards at front panel (dust tight and water protected from effects of temporary immersion).



S1AL does not have terminal 2

Maximum Panel Thickness: .158" (4.0mm)



S2AL

DOUBLE POLE SOLDER LUG WITH LOCKING LEVER & PANEL SEAL

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

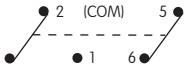
Model	*Approvals	Pole & Throw	Toggle Position/Connected Terminals: Down (Keyway)	Center	Up	Electrical Capacity: Resistive AC 125V	Resistive AC 250V	Resistive DC 30V	Inductive AC 125V PF 0.6	α = Angle of Throw
S21AL	— —	DPST	ON 1-3 4-6	NONE	OFF —	15A	15A	15A	8A	22°
S6AL	✓ ✓	DPDT	ON 2-3 5-6	NONE	ON 2-1 5-4	20A	10A	20A	8A	22°
S7AL	— —	DPDT	ON 2-3 5-6	OFF	ON 2-1 5-4	20A	10A	20A	8A	28°

Throw & Schematics:

DPST

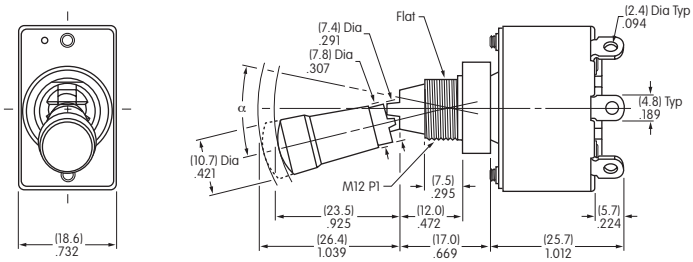


DPDT



Note: Terminal numbers are actually on the switch

Notes: Standard Hardware: AT503M Face Hex Nut, Lockwasher, AT537 O-ring. See Accessories & Hardware section.
Locking Lever & Panel Seal models meet IP67 of IEC 60529 Standards at front panel (dust tight and water protected from effects of temporary immersion).



S21AL does not have terminals 2 & 5

Maximum Panel Thickness: .158" (4.0mm)



S6AL

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 (α): 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 Contactor: Copper with silver plating
Movable & Stationary Contacts: Silver alloy capped on copper with silver plating
Terminals: Brass with tin plating

Environmental Data

Operating Temperature Range: –10°C ~ +70°C (+14°F ~ +158°F)

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: **File No. E44145 - Recognized only when ordered with marking on switch.**
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.
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CSA: **File No. 023535_0_000 - Certified only when ordered with marking on switch.**
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

SINGLE POLE WITH SOLDER LUG

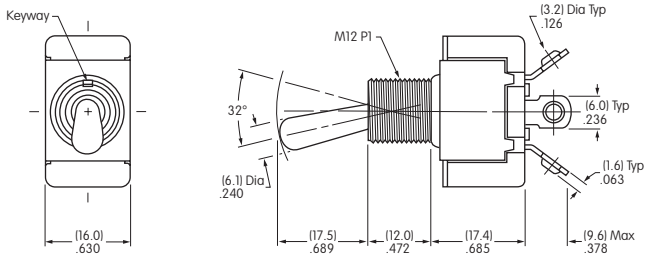
* UL, cULus & CSA recognized only when ordered with marking on switch (see General Specs)

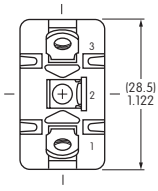
Model	*Approvals	Pole & Throw	Toggle Position/Connected Terminals ( ) = Momentary: Down (Keyway)	Center	Up	Electrical Capacity: Resistive AC 125V	Resistive AC 250V	Resistive DC 30V	Inductive AC 125V PF 0.6	Angle of Throw
S301	✓ ✓ ✓	SPST	ON 1-3	NONE	OFF —	15A	6A	20A	10A	32°
S302	✓ ✓ ✓	SPDT	ON 2-3	NONE	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: SPST 1 — 3, INTERNAL CONNECTION; SPDT 3 — 2 (COM) — 1

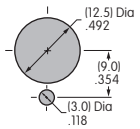
Note: Terminal numbers are actually on the switch

Notes: Standard Hardware: AT503M Face Hex Nut, AT506M Locking Ring, AT508 Lockwasher, AT527M Backup Hex Nut. See Accessories & Hardware section. Optional Splashproof Boot Assemblies: AT401 & AT4181 boots plus hex nut & o-ring. See Accessories & Hardware section.





S301 does not have terminal 2



Maximum Panel Thickness: .185" (4.7mm)



S301

DOUBLE POLE WITH SOLDER LUG

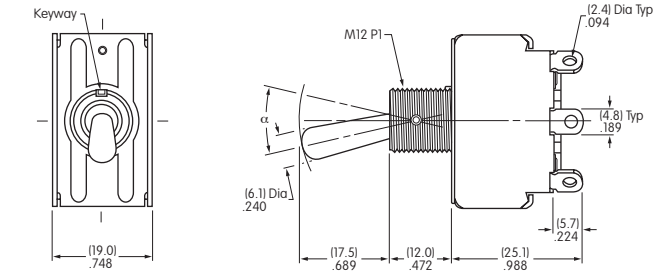
* UL, cULus & CSA recognized only when ordered with marking on switch (see General Specs)

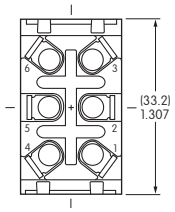
Model	*Approvals	Pole & Throw	Toggle Position/Connected Terminals ( ) = Momentary: Down (Keyway)	Center	Up	Electrical Capacity: Resistive AC 125V	Resistive AC 250V	Resistive DC 30V	Inductive AC 125V PF 0.6	α = Angle of Throw
S331	✓ ✓ ✓	DPST	ON 1-3 4-6	NONE	OFF —	20A	20A	20A	10A	25°
S332	✓ ✓ ✓	DPDT	ON 2-3 5-6	NONE	ON 2-1 5-4	20A	15A	20A	10A	25°
S333	✓ ✓ ✓	DPDT	ON 2-3 5-6	OFF	ON 2-1 5-4	20A	15A	20A	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: DPST 1 — 3, 4 — 6, INTERNAL CONNECTION; DPDT 3 — 2 (COM) — 1, 5 — 6, 4

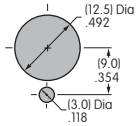
Note: Terminal numbers are actually on the switch

Notes: Standard Hardware: AT503M Face Hex Nut, AT506M Locking Ring, AT508 Lockwasher, AT527M Backup Hex Nut. See Accessories & Hardware section. Optional Splashproof Boot Assemblies: AT401 & AT4181 boots plus hex nut & o-ring. See Accessories & Hardware section.





S331 does not have terminals 2 & 5



Maximum Panel Thickness: .185" (4.7mm)



S331

DOUBLE POLE WITH SOLDER LUG & FLATTED LEVER

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

Toggle Position/Connected Terminals ( ) = Momentary

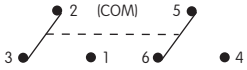
Model	*Approvals	Pole & Throw	Down (Keyway)	Center	Up	Electrical Capacity: Resistive AC 125V	Resistive AC 250V	Resistive DC 30V	Inductive AC 125V PF 0.6	α = Angle of Throw
S331R	✓ ✓ —	DPST	ON 1-3 4-6	NONE	OFF —	20A	20A	20A	10A	25°
S332R	✓ ✓ —	DPDT	ON 2-3 5-6	NONE	ON 2-1 5-4	20A	15A	20A	10A	25°
S333R	✓ ✓ —	DPDT	ON 2-3 5-6	OFF	ON 2-1 5-4	20A	15A	20A	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:

DPST



DPDT

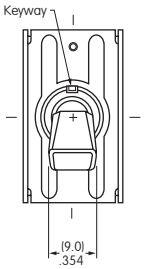


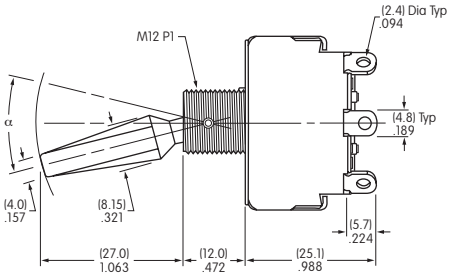
Note: Terminal numbers are actually on the switch

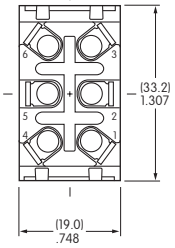
Notes: Standard Hardware: AT504M Knurled Nut, AT508 Lockwasher, AT527M Backup Hex Nut. See Accessories & Hardware section.



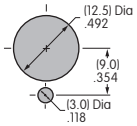
S331R







S331R does not have terminals 2 & 5



Maximum Panel Thickness: .220" (5.6mm)

SINGLE POLE WITH SCREW LUG

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

Toggle Position/Connected Terminals ( ) = Momentary

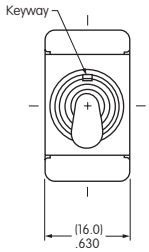
Model	*Approvals	Pole & Throw	Down		Center	Up		Electrical Capacity: Resistive AC 125V	Resistive AC 250V	Resistive DC 30V	Inductive AC 125V PF 0.6	α = Angle of Throw
S301T	✓ ✓ ✓	SPST	ON	1-3	NONE	OFF	—	15A	6A	20A	10A	32°
S302T	✓ ✓ ✓	SPDT	ON	2-3	NONE	ON	2-1	15A	6A	20A	10A	32°
S303T	✓ ✓ ✓	SPDT	ON	2-3	OFF	ON	2-1	15A	6A	20A	10A	32°
S305T	— — ✓	SPDT	ON	2-3	NONE	(ON)	2-1	15A	6A	20A	8A	32°
S308T	— — ✓	SPDT	(ON)	2-3	OFF	(ON)	2-1	15A	6A	20A	8A	32°
S309T	— — ✓	SPDT	ON	2-3	OFF	(ON)	2-1	15A	6A	20A	8A	32°

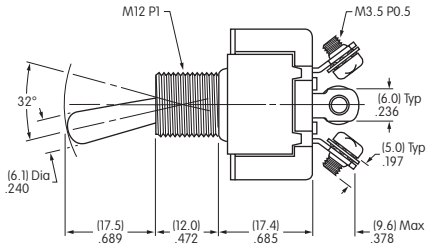
Throw & Schematics: SPST 

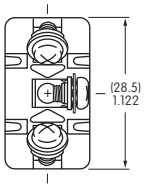
SPDT 

Note: Terminal numbers are actually on the switch

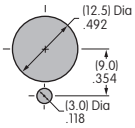
Notes: Standard Hardware: AT503M Face Hex Nut, AT506M Locking Ring, AT508 Lockwasher, AT527M Backup Hex Nut. See Accessories & Hardware section. Optional Splashproof Boot Assemblies: AT401 & AT4181 boots plus hex nut & o-ring. See Accessories & Hardware section.







S301T does not have terminal 2



Maximum Panel Thickness: .185" (4.7mm)



S301T

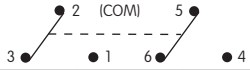
DOUBLE POLE WITH SCREW LUG

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

Toggle Position/Connected Terminals ( ) = Momentary

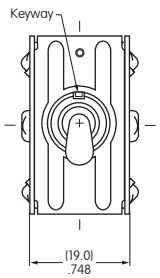
Model	*Approvals	Pole & Throw	Down		Center	Up		Electrical Capacity: Resistive AC 125V	Resistive AC 250V	Resistive DC 30V	Inductive AC 125V PF 0.6	α = Angle of Throw
S331T	✓ ✓ —	DPST	ON	1-3 4-6	NONE	OFF	—	15A	15A	15A	10A	25°
S332T	✓ ✓ —	DPDT	ON	2-3 5-6	NONE	ON	2-1 5-4	15A	15A	15A	10A	25°
S333T	✓ ✓ —	DPDT	ON	2-3 5-6	OFF	ON	2-1 5-4	15A	15A	15A	10A	30°
S335T	✓ ✓ —	DPDT	ON	2-3 5-6	NONE	(ON)	2-1 5-4	15A	6A	20A	8A	25°
S338T	✓ ✓ —	DPDT	(ON)	2-3 5-6	OFF	(ON)	2-1 5-4	15A	6A	20A	8A	25°
S339T	✓ ✓ —	DPDT	ON	2-3 5-6	OFF	(ON)	2-1 5-4	15A	6A	20A	8A	25°

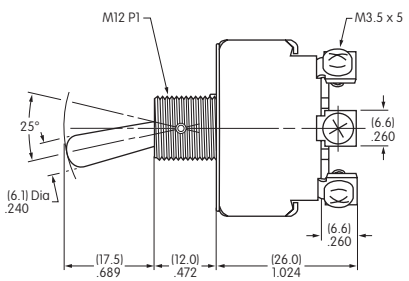
Throw & Schematics: DPST 

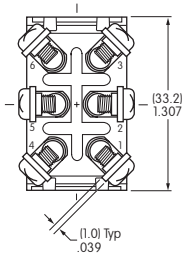
DPDT 

Note: Terminal numbers are actually on the switch

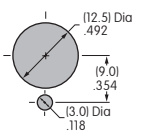
Notes: Standard Hardware: AT503M Face Hex Nut, AT506M Locking Ring, AT508 Lockwasher, AT527M Backup Hex Nut. See Accessories & Hardware section. Optional Splashproof Boot Assemblies: AT401 & AT4181 boots plus hex nut & o-ring. See Accessories & Hardware section.







S331T does not have terminals 2 & 5



Maximum Panel Thickness: .185" (4.7mm)



S331T

SINGLE POLE WITH QUICK CONNECT

* UL, cULus & CSA recognized only when ordered with marking on switch (see General Specs)				Toggle Position/Connected Terminals			Electrical Capacity				
	*Approvals			Down	Center	Up	Resistive			Inductive	α =
Model			Pole & Throw	Keyway			AC 125V	AC 250V	DC 30V	AC 125V PF 0.6	Angle of Throw
S301F	✓	✓	✓	SPST ON 1-3	NONE	OFF —	15A	6A	20A	10A	32°

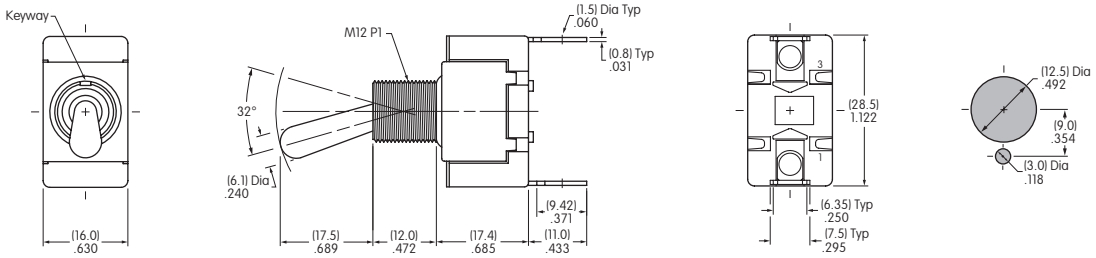
Throw & Schematics: SPST — 1 — 3, INTERNAL CONNECTION

Note: Terminal numbers are actually 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 Assemblies: AT401 & AT4181 boots plus hex nut & o-ring. See Accessories & Hardware section.



S301F



Maximum Panel Thickness: .185" (4.7mm)

DOUBLE POLE WITH QUICK CONNECT

* UL & cULus recognized only when ordered with marking on switch (see General Specs)				Toggle Position/Connected Terminals ( ) = Momentary			Electrical Capacity				
	*Approvals			Down	Center	Up	Resistive			Inductive	α =
Model			Pole & Throw	Keyway			AC 125V	AC 250V	DC 30V	AC 125V PF 0.6	Angle of Throw
S331F	✓	✓	—	DPST ON 1-3 4-6	NONE	OFF —	20A	20A	20A	10A	25°
S332F	✓	✓	—	DPDT ON 2-3 5-6	NONE	ON 2-1 5-4	20A	15A	20A	10A	25°
S333F	✓	✓	—	DPDT ON 2-3 5-6	OFF	ON 2-1 5-4	20A	15A	20A	10A	30°
S335F	—	—	—	DPDT ON 2-3 5-6	NONE	(ON) 2-1 5-4	15A	6A	20A	8A	25°

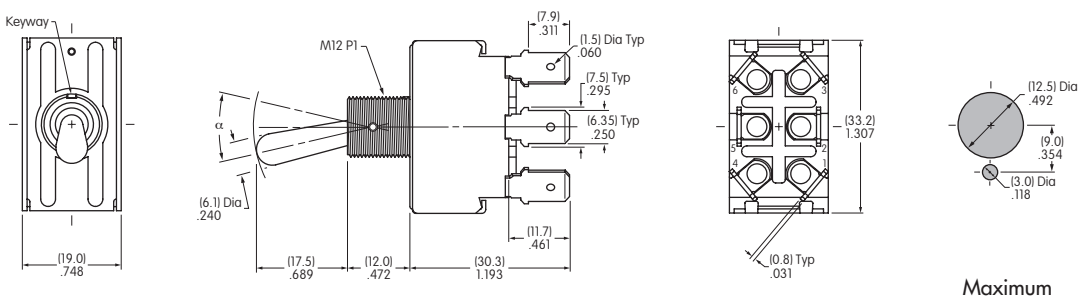
Throw & Schematics: DPST — 1 — 3, 4 — 6, INTERNAL CONNECTION; DPDT — 2 (COM) 5, 3 — 1 — 6 — 4

Note: Terminal numbers are actually 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 Assemblies: AT401 & AT4181 boots plus hex nut & o-ring. See Accessories & Hardware section.



S332F



S331F does not have terminals 2 & 5

Maximum Panel Thickness: .185" (4.7mm)

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 for all models (Resistive Load)
6,000 operations minimum for S31, S32, S33, S31F, S32F, S33F, S31T, S32T, S33T; S41/S41R, S42/S42R, S43/S43R, S41F, S42F, S43F, S41T, S42T, S43T (Inductive Load)
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 tin 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: **File No. E44145 - Recognized only when ordered with marking on switch.**
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.

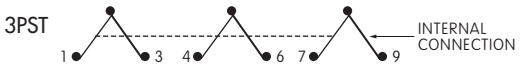
CSA: **File No. 023535_0_000 - Certified only when ordered with marking on switch.**
Add "/C" to end of part number to order CSA certified switch.
CSA certification designated beside part numbers on following pages.
See Supplement section to find CSA rating details.

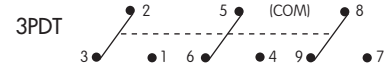
THREE POLE WITH SOLDER LUG

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

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



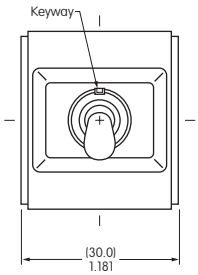


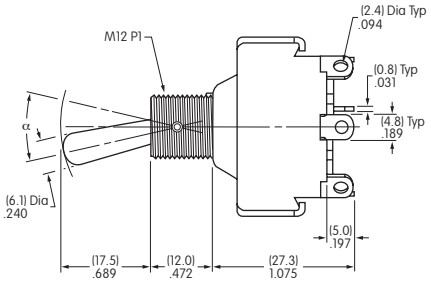
Note: Terminal numbers are on the switch

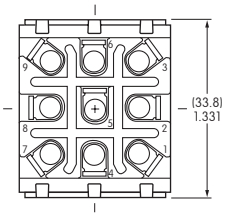
Notes: Standard Hardware: AT503M Face Hex Nut, AT506M Locking Ring, AT508 Lockwasher, AT527M Backup Hex Nut. See Accessories & Hardware section.
Optional Splashproof Boot Assemblies: AT401 & AT4181 boots plus hex nut & o-ring. See Accessories & Hardware section.



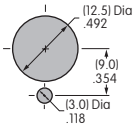
S32







S31 does not have terminals 2, 5, & 8



Maximum Panel Thickness: .181" (4.6mm)

FOUR POLE WITH SOLDER LUG

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

Model Suffix R = Flatted Lever	*Approvals	Pole & Throw	Toggle Position/Connected Terminals ( ) = Momentary: Down (Keyway)	Center	Up	Electrical Capacity: Resistive AC 125V	Resistive AC 250V	Resistive DC 30V	Inductive AC 125V PF 0.6	α = Angle of Throw
S41/S41R	✓ ✓ ✓	4PST	ON 1-3 4-6 7-9 10-12	NONE	OFF —	20A	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	20A	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	20A	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:



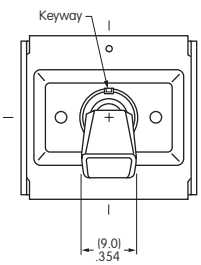


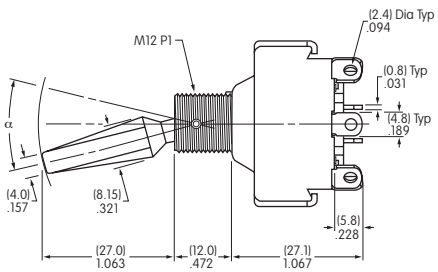
Note: Terminal numbers are on the switch

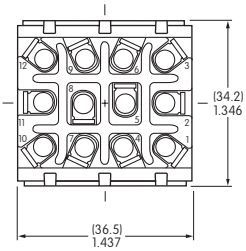
Notes: Standard Hardware for **Bat Lever**: AT503M Face Hex Nut, AT506M Locking Ring, AT508 Lockwasher, AT527M Backup Hex Nut;
for **Flatted Lever** (R): AT504M Knurled Face Nut, AT508 Lockwasher, AT527M Backup Hex Nut. See Accessories & Hardware section.
Optional Splashproof Boot Assemblies (only for bat lever models): AT401 & AT4181 boots plus hex nut and o-ring. See Accessories & Hardware section.

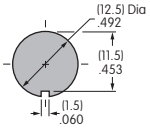


S41R

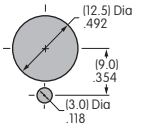








Max. Panel Thickness: .220" (5.6mm)



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

Bat lever dimensions are same as on S30 models above. S41 and S41R do not have terminals 2, 5, 8, & 11.

THREE POLE WITH SCREW 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	Inductive AC 250V PF 0.6	α = Angle of Throw
S31T	✓ ✓ ✓	3PST	ON 1-3 4-6 7-9	NONE	OFF —	20A	9A	20A	10A	5A	25°
S32T	✓ ✓ ✓	3PDT	ON 2-3 5-6 8-9	NONE	ON 2-1 5-4 8-7	20A	9A	20A	10A	5A	25°
S33T	✓ ✓ ✓	3PDT	ON 2-3 5-6 8-9	OFF	ON 2-1 5-4 8-7	20A	9A	20A	10A	5A	30°

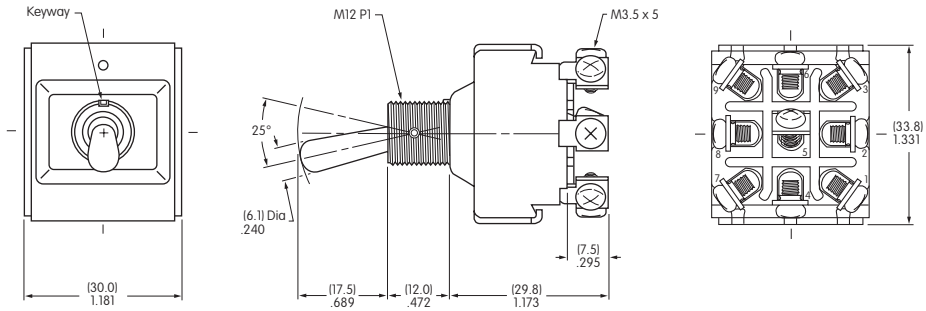
* UL, cULus & CSA recognized only when ordered with marking on switch (see General Specs)

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.
Optional Splashproof Boot Assemblies: AT401 & AT4181 boots plus hex nut & o-ring. See Accessories & Hardware section.



S31T does not have terminals 2, 5, & 8

Maximum Panel Thickness: .181" (4.6mm)



S32T

FOUR POLE WITH SCREW 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	Inductive AC 250V PF 0.6	α = Angle of Throw
S41T	✓ ✓ ✓	4PST	ON 1-3 4-6 7-9 10-12	NONE	OFF —	20A	9A	20A	10A	5A	25°
S42T	✓ ✓ ✓	4PDT	ON 2-3 5-6 8-9 11-12	NONE	ON 2-1 5-4 8-7 11-10	20A	9A	20A	10A	5A	25°
S43T	✓ ✓ ✓	4PDT	ON 2-3 5-6 8-9 11-12	OFF	ON 2-1 5-4 8-7 11-10	20A	9A	20A	10A	5A	30°

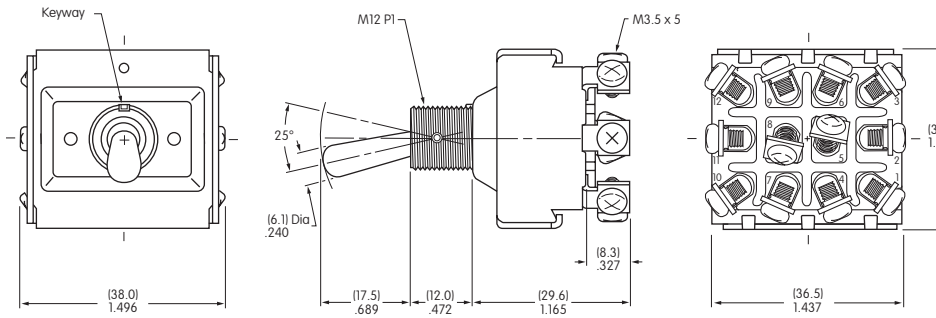
* UL, cULus & CSA recognized only when ordered with marking on switch (see General Specs)

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.
Optional Splashproof Boot Assemblies: AT401 & AT4181 boots plus hex nut & o-ring. See Accessories & Hardware section.



S41T does not have terminals 2, 5, 8, & 11

Maximum Panel Thickness: .181" (4.6mm)



S42T

THREE POLE WITH QUICK CONNECT

* UL, cULus & CSA recognized only when ordered with marking on switch (see General Specs)				Toggle Position/Connected Terminals			Electrical Capacity				
	*Approvals				Down					Resistive			Inductive	
Model			Pole & Throw	Keyway	Center	Up	AC 125V	AC 250V	DC 30V	AC 125V PF 0.6	α = Angle of Throw
S31F	✓	✓	✓	3PST	ON 1-3 4-6 7-9	NONE	OFF —	20A	9A	20A	10A	25°
S32F	✓	✓	✓	3PDT	ON 2-3 5-6 8-9	NONE	ON 2-1 5-4 8-7	20A	9A	20A	10A	25°
S33F	✓	✓	✓	3PDT	ON 2-3 5-6 8-9	OFF	ON 2-1 5-4 8-7	20A	9A	20A	10A	30°

Throw & Schematics:

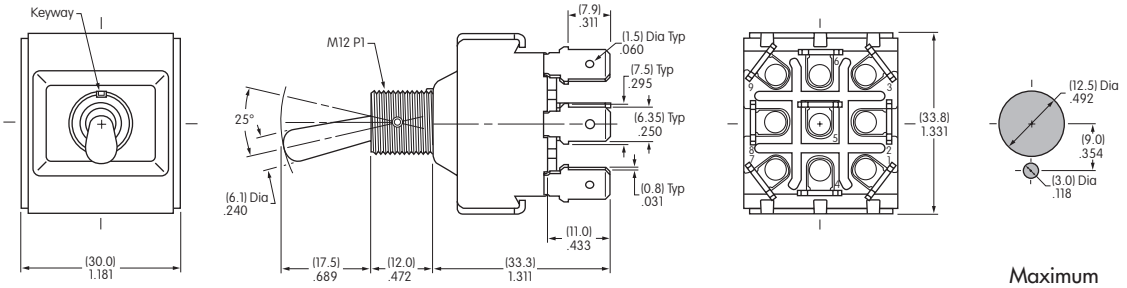


Note: Terminal numbers are on the switch

Notes: Standard Hardware: AT503M Face Hex Nut, AT506M Locking Ring, AT508 Lockwasher, AT527M Backup Hex Nut. See Accessories & Hardware section.
Optional Splashproof Boot Assemblies: AT401 & AT4181 boots plus hex nut & o-ring. See Accessories & Hardware section.



S31F



S31F does not have terminals 2, 5, & 8

Maximum Panel Thickness: .181" (4.6mm)

FOUR POLE WITH QUICK CONNECT

* UL, cULus & CSA recognized only when ordered with marking on switch (see General Specs)				Toggle Position/Connected Terminals			Electrical Capacity				
	*Approvals				Down					Resistive			Inductive	
Model			Pole & Throw	Keyway	Center	Up	AC 125V	AC 250V	DC 30V	AC 125V PF 0.6	α = Angle of Throw
S41F	✓	✓	✓	4PST	ON 1-3 4-6 7-9 10-12	NONE	OFF —	20A	9A	20A	10A	25°
S42F	✓	✓	✓	4PDT	ON 2-3 5-6 8-9 11-12	NONE	ON 2-1 5-4 8-7 11-10	20A	9A	20A	10A	25°
S43F	✓	✓	✓	4PDT	ON 2-3 5-6 8-9 11-12	OFF	ON 2-1 5-4 8-7 11-10	20A	9A	20A	10A	30°

Throw & Schematics:

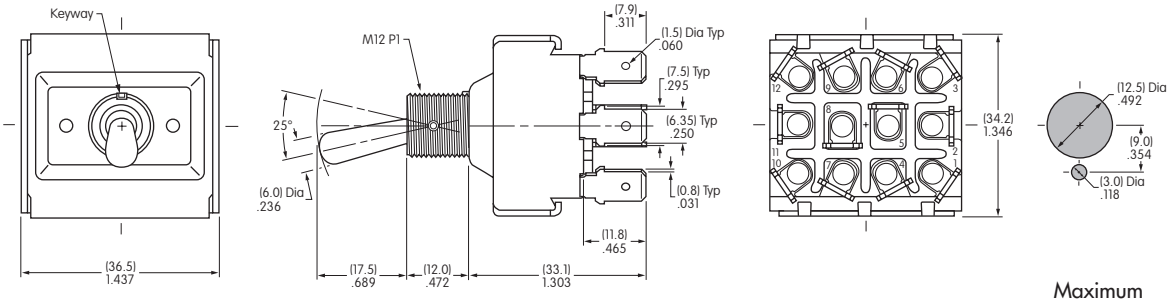


Note: Terminal numbers are on the switch

Notes: Standard Hardware: AT503M Face Hex Nut, AT506M Locking Ring, AT508 Lockwasher, AT527M Backup Hex Nut. See Accessories & Hardware section.
Optional Splashproof Boot Assemblies: AT401 & AT4181 boots plus hex nut & o-ring. See Accessories & Hardware section.



S42F



S41F does not have terminals 2, 5, 8, & 11

Maximum Panel Thickness: .181" (4.6mm)

GENERAL SPECIFICATIONS FOR S421 ~ S429

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: 15,000 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: Melamine phenol
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 tin 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.

DOUBLE POLE WITH SOLDER LUG

Model	Approvals	Pole & Throw	Toggle Position/Connected Terminals ( ) = Momentary: Down (Keyway)	Center	Up	Electrical Capacity: Resistive AC 125V	Resistive AC 250V	Inductive PF 0.75 - 0.8 AC 125V	Inductive PF 0.75 - 0.8 AC 250V	Motor Load AC 125V	α = Angle of Throw
S421	— —	DPST	ON 1-3 4-6	NONE	OFF —	20A	20A	20A	20A	750W	24°
S422	— —	DPDT	ON 2-3 5-6	NONE	ON 2-1 5-4	20A	20A	20A	20A	750W	24°
S423	— —	DPDT	ON 2-3 5-6	OFF	ON 2-1 5-4	20A	20A	20A	20A	750W	28°
S425	— —	DPDT	ON 2-3 5-6	NONE	(ON) 2-1 5-4	15A	15A	15A	15A	400W	24°
S428	— —	DPDT	(ON) 2-3 5-6	OFF	(ON) 2-1 5-4	15A	15A	15A	15A	400W	24°
S429	— —	DPDT	ON 2-3 5-6	OFF	(ON) 2-1 5-4	15A	15A	15A	15A	400W	24°

Throw & Schematics:

DPST



DPDT

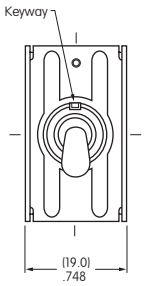


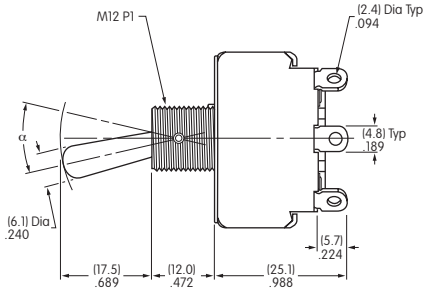
Note: Terminal numbers are on the switch

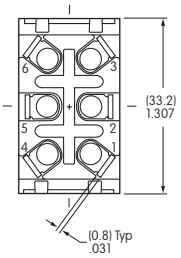
Notes: Standard Hardware: AT503M Face Hex Nut, AT506M Locking Ring, AT508 Lockwasher, AT527M Backup Hex Nut. See Accessories & Hardware section.
Optional Splashproof Boot Assemblies: AT401 & AT4181 boots plus hex nut & o-ring. See Accessories & Hardware section.



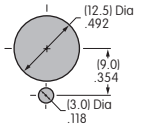
S422







S421 does not have terminals 2 & 5



Maximum Panel Thickness: .185" (4.7mm)

DOUBLE POLE WITH SCREW LUG

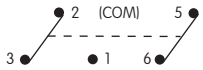
Model	Approvals	Pole & Throw	Toggle Position/Connected Terminals ( ) = Momentary: Down (Keyway)	Center	Up	Electrical Capacity: Resistive AC 125V	Resistive AC 250V	Inductive PF 0.75 - 0.8 AC 125V	Inductive PF 0.75 - 0.8 AC 250V	Motor Load AC 125V	α = Angle of Throw
S421T	— —	DPST	ON 1-3 4-6	NONE	OFF —	20A	20A	20A	20A	750W	24°
S422T	— —	DPDT	ON 2-3 5-6	NONE	ON 2-1 5-4	20A	20A	20A	20A	750W	24°
S423T	— —	DPDT	ON 2-3 5-6	OFF	ON 2-1 5-4	20A	20A	20A	20A	750W	28°
S425T	— —	DPDT	ON 2-3 5-6	NONE	(ON) 2-1 5-4	15A	15A	15A	15A	400W	24°
S428T	— —	DPDT	(ON) 2-3 5-6	OFF	(ON) 2-1 5-4	15A	15A	15A	15A	400W	24°
S429T	— —	DPDT	ON 2-3 5-6	OFF	(ON) 2-1 5-4	15A	15A	15A	15A	400W	24°

Throw & Schematics:

DPST



DPDT

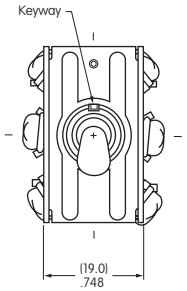


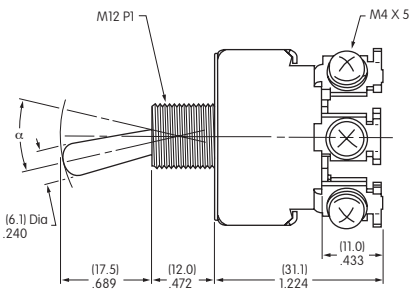
Note: Terminal numbers are on the switch

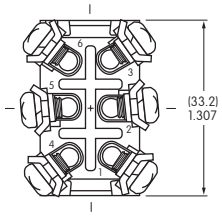
Notes: Standard Hardware: AT503M Face Hex Nut, AT506M Locking Ring, AT508 Lockwasher, AT527M Backup Hex Nut. See Accessories & Hardware section.
Optional Splashproof Boot Assemblies: AT401 & AT4181 boots plus hex nut & o-ring. See Accessories & Hardware section.



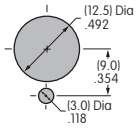
S423T







S421T does not have terminals 2 & 5



Maximum Panel Thickness: .185" (4.7mm)

GENERAL SPECIFICATIONS FOR S800s

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: 10,000 operations minimum for S800Ds
25,000 operations minimum for S800s

Materials & Finishes

Toggle: Brass with chrome plating
Bushing: Brass with chrome plating
Case: Melamine phenol
Case Cover: Steel with chromate plating over zinc plating
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: 2.94Nm (26 lb•in) for double nut
Maximum Panel Thickness: Shown beneath panel cutout in switch dimension drawings

Standards & Certifications

UL: **File No. E44145 - Recognized only when ordered with marking on switch.**
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.

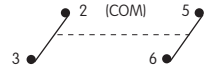
CSA: **File No. 023535_0_000 - Certified only when ordered with marking on switch.**
Add "/C" to end of part number to order CSA certified switch.
CSA certification designated beside part numbers on following pages.
See Supplement section to find CSA rating details.

DOUBLE POLE WITH SCREW LUG

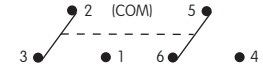
* UL, cULus & CSA recognized only when ordered with marking on switch (see General Specs)				Toggle Position/Connected Terminals			Electrical Capacity						
	*Approvals				Down	Center	Up	Resistive				Inductive		Motor Load
Model				Pole & Throw	Keyway			AC 125V	AC 250V	DC 30V	DC 125V	AC 125V PF 0.6	AC 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

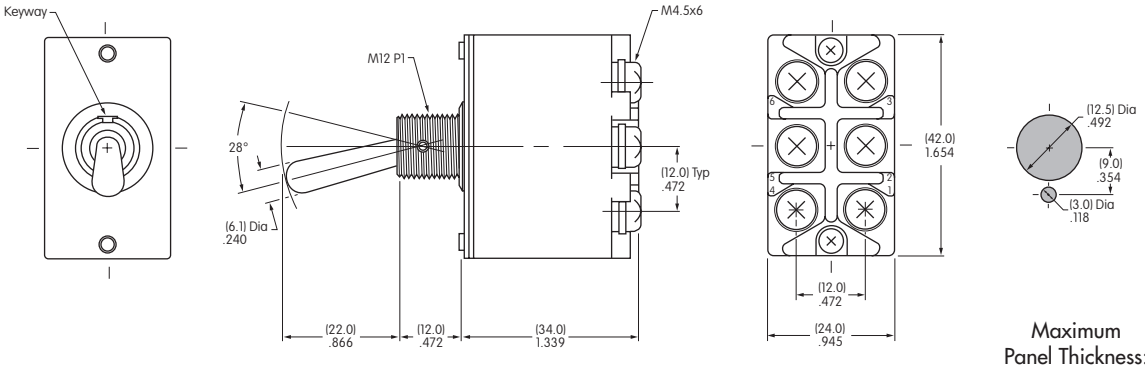


Note: Terminal numbers are on the switch

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

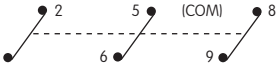
Maximum Panel Thickness: .177" (4.5mm)

THREE POLE WITH SCREW LUG

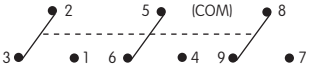
* UL, cULus & CSA recognized only when ordered with marking on switch (see General Specs)				Toggle Position/Connected Terminals			Electrical Capacity					
	*Approvals				Down	Center	Up	Resistive				Inductive	
Model				Pole & Throw	Keyway			AC 125V	AC 250V	DC 30V	DC 125V	AC 125V PF 0.6	AC 250V PF 0.6
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

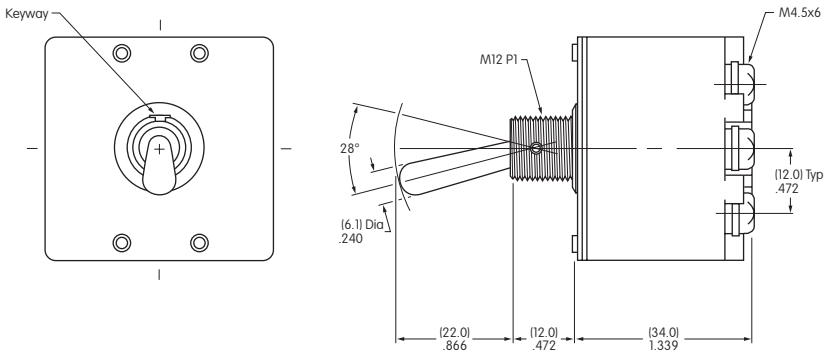


3PDT



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)

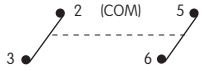
DOUBLE POLE WITH SCREW LUG & FLATTED LEVER

Model	*Approvals	Pole & Throw	Toggle Position/Connected Terminals: Down	Center	Up	Electrical Capacity: Resistive DC 30V	DC 48V	DC 125V	DC 250V	DC 400V	Inductive L/R = 3ms 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

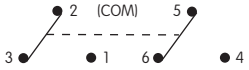
* UL, cULus & CSA recognized only when ordered with marking on switch (see General Specs)

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

Throw & Schematics: DPST

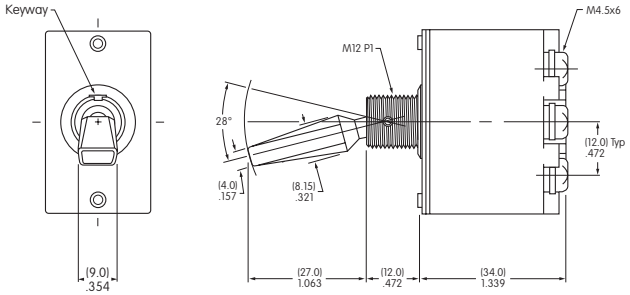


DPDT

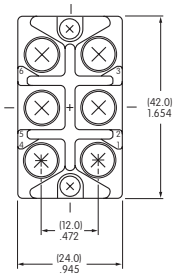


Note: Terminal numbers are on the switch

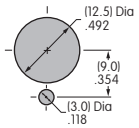
Notes: Standard Hardware: AT503M Face Hex Nut, AT506M Locking Ring, AT508 Lockwasher, AT527M Backup Hex Nut. See Accessories & Hardware section.



Double Pole



S821D does not have terminals 1 & 4



Maximum Panel Thickness: .177" (4.5mm)



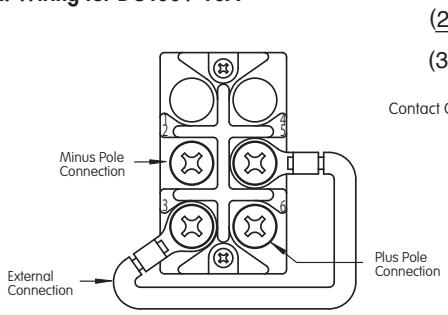
S822D

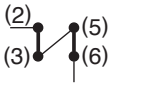
400V DC WIRING INSTRUCTIONS

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

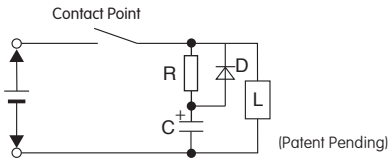




Contact Connection Position

3. Inductive Load

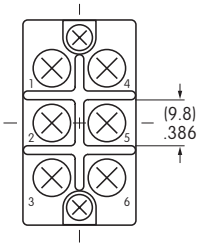
Inductive loads produce an arc caused by counter-electromotive force when opening the circuit. Recommend inserting spark elimination circuit. Contact factory for details.



(Patent Pending)

4. Compressed Terminal Connection

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



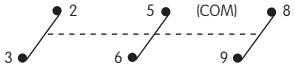
THREE POLE WITH SCREW LUG & FLATTED LEVER

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

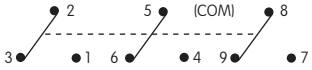
Model	*Approvals	Pole & Throw	Toggle Position/Connected Terminals: Down (Keyway)	Center	Up	Electrical Capacity: Resistive DC 30V	Resistive DC 48V	Resistive DC 125V	Resistive DC 250V	Inductive L/R = 3ms DC 24V	Inductive L/R = 3ms DC 48V	Inductive L/R = 3ms DC 125V	Inductive L/R = 3ms DC 250V
S831D	✓ ✓ ✓	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:

3PST

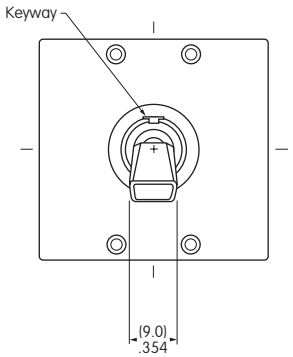


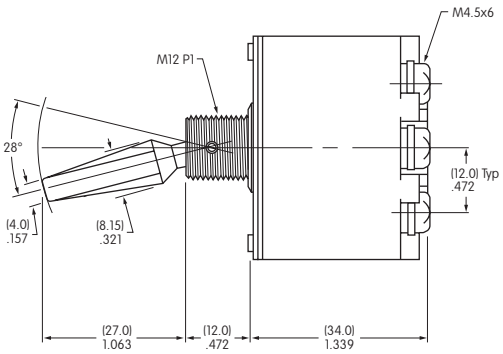
3PDT



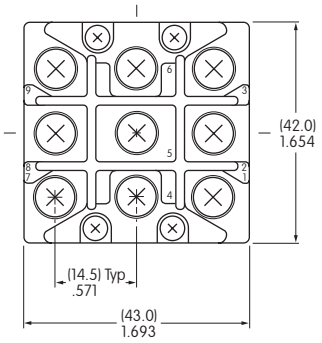
Note: Terminal numbers are on the switch

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





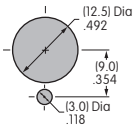
Three Pole



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)