

Contents for Standard Size Toggles



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5A Power Level
Solder Lug Terminals
Bushing Mount
Double Pole



Medium Capacity Page A103

15~20A Power Level
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Bushing Mount
Single & Double Pole



Medium Capacity Page A108

15~20A Power Level
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Bushing Mount
One through Four Pole



High Capacity Page A119

30~50A Power Level
Screw Lug Terminals
Bushing Mount or Mounting Screws
Double Pole & Three Pole

GENERAL SPECIFICATIONS FOR S100s

Electrical Capacity (Resistive & Inductive Load)

Power Level: Shown in the following table

Other Ratings

- Contact Resistance: 10 milliohms maximum
- Insulation Resistance: 200 megohms minimum @ 500V DC
- Dielectric Strength: 1,500V AC minimum for 1 minute minimum
- Mechanical Life: 30,000 operations minimum
- Electrical Life: 10,000 operations minimum
- Operating Temp Range: -10°C through +70°C (+14°F through +158°F)

Materials & Finishes

- Toggle: Brass with chrome plating
- Bushing: Brass with chrome or nickel plating
- Case: Phenolic resin
- Case Cover: Steel with zinc plating
- Movable Contactor Plate: Copper with silver plating
- Movable & Stationary Contacts: Silver alloy plus copper with silver plating
- Terminals: Copper with silver plating

Environmental Data

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

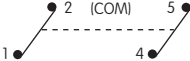
Installation

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

Standards & Certifications

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.
Certified at 5A @ 125V AC & 2A @ 250V AC.

A	Toggles
	Rockers
	Pushbuttons
	Illuminated PB
	Programmable
	Keylocks
	Rotaries
	Slides
	Tactiles
	Tilt
	Touch
	Indicators
	Accessories
	Supplement

DOUBLE POLE WITH SOLDER LUG												
* CSA certified only when ordered with marking on switch (see General Specs)			Toggle Position/Connected Terminals					Electrical Capacity				
Model	* Approvals		Pole & Throw	Down 	Center 	Up 	Resistive			Inductive	Angle of Throw	
							AC 125V	AC 250V	DC 30V	AC 125V PF 0.6		
S114	—	✓	DPST	ON 2-1 5-4	NONE	OFF —	5A	2A	5A	3A	25°	
S116	—	✓	DPDT	ON 2-1 5-4	NONE	ON 2-3 5-6	5A	2A	5A	3A	25°	
S116R	—	—	DPDT	ON 2-1 5-4	NONE	ON 2-3 5-6	5A	2A	5A	3A	25°	
Throw & Schematics:							Note: Terminal numbers are actually on the switch					
DPST 							DPDT 					

Notes: Standard Hardware: AT504M Knurled 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.

S114 & S116

S116R Black Polyamide Paddle

S116

S114 does not have terminals 3 & 6

Maximum Panel Thickness: .158" (4.0mm)

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 & 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: 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

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

Throw & Schematics:

SPST

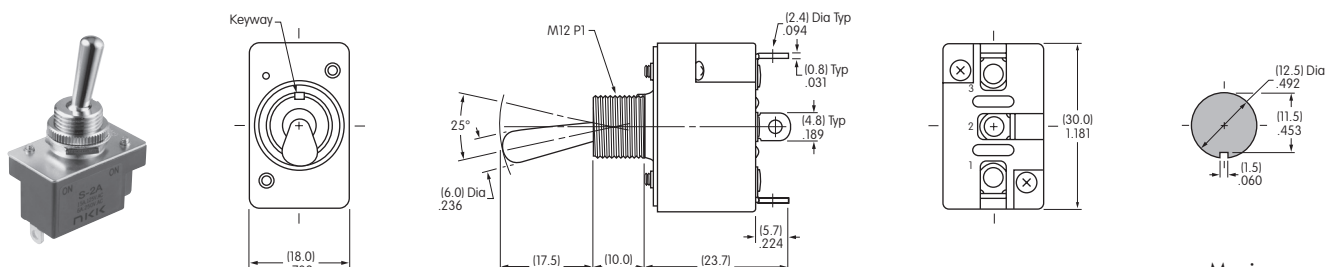


SPDT



Note: Terminal numbers are actually on the switch

Notes: Standard Hardware: AT504M Knurled Nut, 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

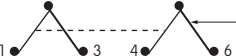
S1A does not have terminal 2

Maximum
Panel Thickness:
.158" (4.0mm)

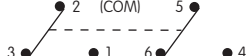
DOUBLE POLE WITH SOLDER LUG

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

INTERNAL CONNECTION

DPDT

Note: Terminal numbers are actually on the switch

Throw & Schematics:

DPST

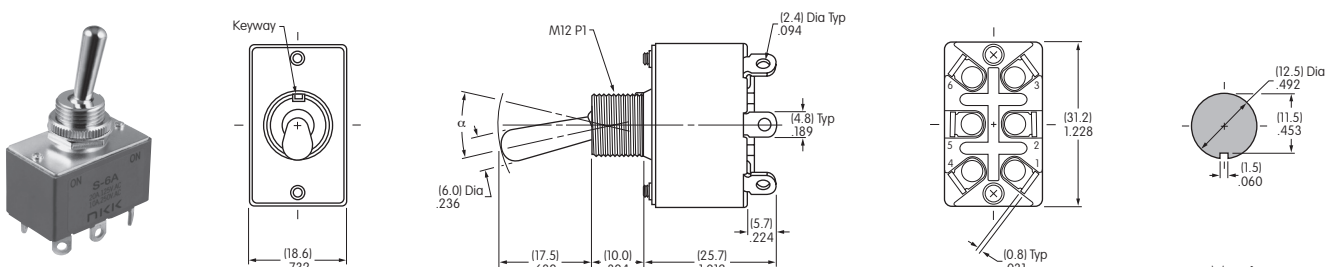


DPDT



Note: Terminal numbers are actually on the switch

Notes: Standard Hardware: AT504M Knurled Nut, 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)

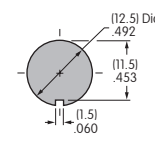
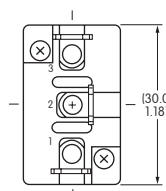
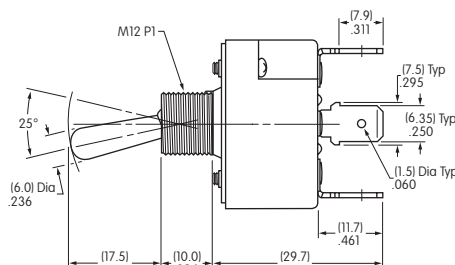
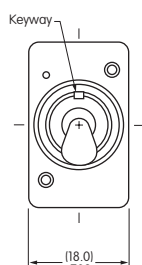
SINGLE POLE WITH QUICK CONNECT

Model	Approvals UL SF	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	
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  INTERNAL CONNECTION SPDT  2 (COM)

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.

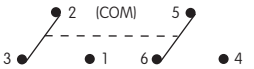


S1F does not have terminal 2
Maximum Panel Thickness: .158" (4.0mm)

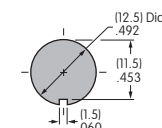
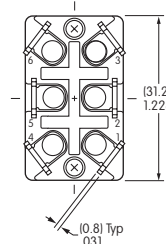
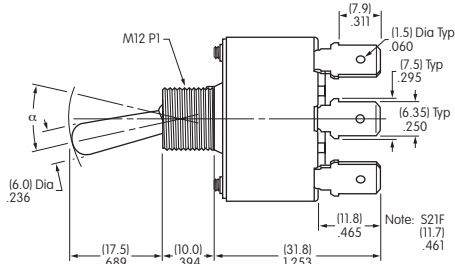
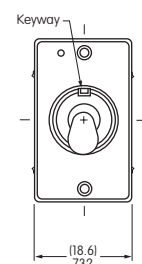
S2F

DOUBLE POLE WITH QUICK CONNECT

Model	Approvals UL SF	Pole & Throw	Toggle Position/Connected Terminals			Electrical Capacity				α = Angle of Throw
			Down 	Center 	Up 	Resistive			Inductive	
						AC 125V	AC 250V	DC 30V	AC 125V PF 0.6	
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  INTERNAL CONNECTION DPDT  2 (COM) 5

Note: Terminal numbers are actually on the switch



S21F does not have terminals 2 & 5

Maximum Panel Thickness: .158" (4.0mm)

S6F

SINGLE POLE SOLDER LUG WITH PANEL SEAL

			Toggle Position/Connected Terminals () = Momentary				Electrical Capacity			α = Angle of Throw
Model	Approvals UL C-UL	Pole & Throw	Down Keyway	Center	Up		Resistive AC 125V	AC 250V	DC 30V	
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  INTERNAL CONNECTION SPDT 				Note: Terminal numbers are actually on the switch			

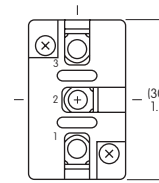
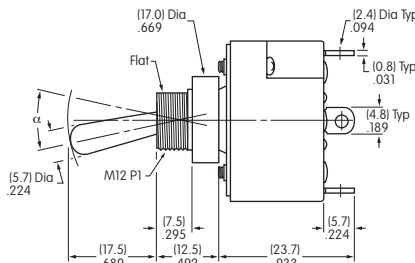
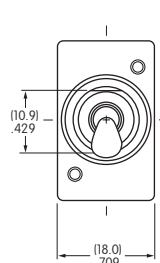
Notes: Standard Hardware: AT503M Face Hex Nut, Lockwasher, AT537 O-ring. See Accessories & Hardware section.

For .250" Quick Connect terminals, add "F" to end of part number. See Quick Connect terminal dimensions on previous page.

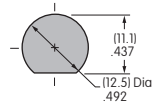
For further information, contact factory.



S2AW

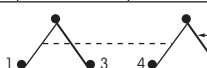
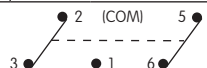


S1AW does not have terminal 2



Maximum Panel Thickness: .158" (4.0mm)

DOUBLE POLE SOLDER LUG WITH PANEL SEAL

			Toggle Position/Connected Terminals () = Momentary				Electrical Capacity			α = Angle of Throw
Model	Approvals UL C-UL	Pole & Throw	Down Keyway	Center	Up		Resistive AC 125V	AC 250V	DC 30V	
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  INTERNAL CONNECTION DPDT 				Note: Terminal numbers are actually on the switch			

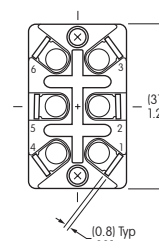
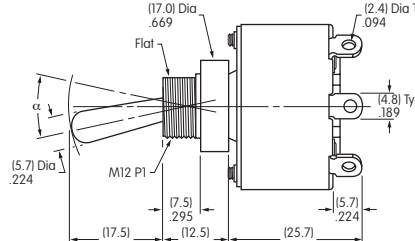
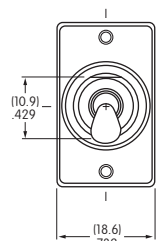
Notes: Standard Hardware: AT503M Face Hex Nut, Lockwasher, AT537 O-ring. See Accessories & Hardware section.

For .250" Quick Connect terminals, add "F" to end of part number. See Quick Connect terminal dimensions on previous page.

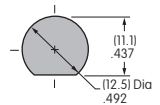
For further information, contact factory.



S6AW



S21AW does not have terminals 2 & 5

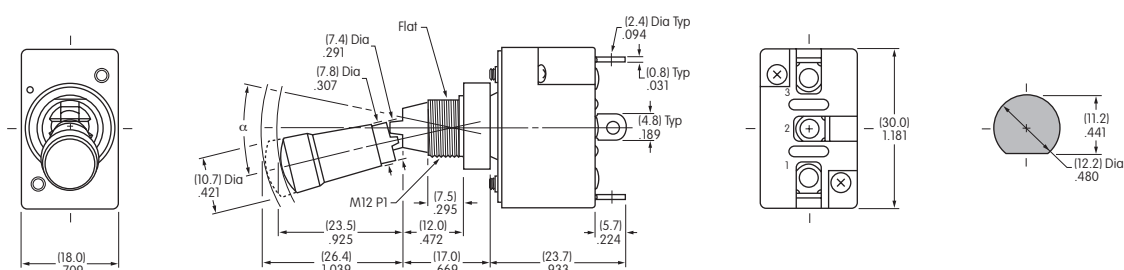


Maximum Panel Thickness: .158" (4.0mm)

SINGLE POLE SOLDER LUG WITH LOCKING LEVER & PANEL SEAL

Model	Approvals  	Pole & Throw	Toggle Position/Connected Terminals			Electrical Capacity				α = Angle of Throw
			Down 	Center 	Up 	Resistive			Inductive	
						AC 125V	AC 250V	DC 30V	AC 125V PF 0.6	
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  INTERNAL CONNECTION SPDT  2 (COM)			Note: Terminal numbers are actually on the switch				

Notes: Standard Hardware: AT503M Face Hex Nut, Lockwasher, AT537 O-ring. See Accessories & Hardware section.



S1AL does not have terminal 2

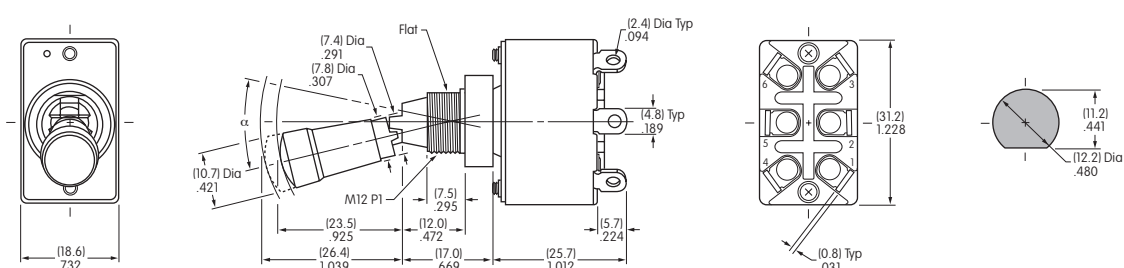
Maximum Panel Thickness: .158" (4.0mm)

S2AL

DOUBLE POLE SOLDER LUG WITH LOCKING LEVER & PANEL SEAL

Model	* Approvals  	Pole & Throw	Toggle Position/Connected Terminals			Electrical Capacity				α = Angle of Throw
			Down 	Center 	Up 	Resistive			Inductive	
						AC 125V	AC 250V	DC 30V	AC 125V PF 0.6	
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  INTERNAL CONNECTION DPDT  2 (COM)			Note: Terminal numbers are actually on the switch				

Notes: Standard Hardware: AT503M Face Hex Nut, AT508 Lockwasher, AT537 O-ring. See Accessories & Hardware section.



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:	15,000 operations minimum for S331F 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: $-10^{\circ}\text{C} \sim +70^{\circ}\text{C}$ ($+14^{\circ}\text{F} \sim +158^{\circ}\text{F}$)

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.
 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

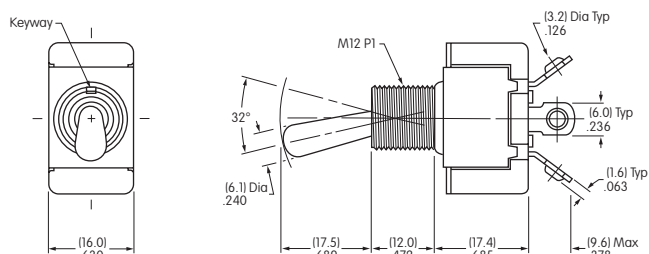
* UL, cULus & CSA recognized only when ordered with marking on switch (see General Specs)				Toggle Position/Connected Terminals () = Momentary				Electrical Capacity				
Model	* Approvals			Pole & Throw	Down Keyway	Center	Up	Resistive			Inductive AC 125V PF 0.6	Angle of Throw
	UL	cULus	CSA					AC 125V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

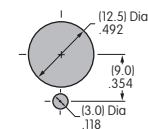


Note: Terminal numbers are actually on the switch

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

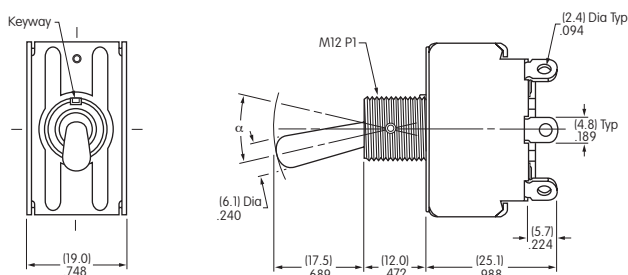
* UL, cULus & CSA recognized only when ordered with marking on switch (see General Specs)				Toggle Position/Connected Terminals () = Momentary				Electrical Capacity				
Model	* Approvals			Pole & Throw	Down Keyway	Center	Up	Resistive			Inductive AC 125V PF 0.6	α = Angle of Throw
	UL	cULus	CSA					AC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

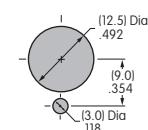


Note: Terminal numbers are actually on the switch

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

Series S

Medium Capacity Standard Size Toggles

Toggles

A

Rockers

Pushbuttons

Illuminated PB

Programmable

Keylocks

Rotaries

Slides

Tactiles

Tilt

Touch

Indicators

Accessories

Supplement

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					Electrical Capacity					
Model	* Approvals			Pole & Throw	Down		Center	Up		Resistive			Inductive	α = Angle of Throw
								AC 125V	AC 250V	DC 30V	AC 125V PF 0.6			
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:										Note: Terminal numbers are actually on the switch				
DPST INTERNAL CONNECTION DPDT														
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						Electrical Capacity					
Model	* Approvals			Pole & Throw	Down		Center		Up		Resistive			Inductive	α = Angle of Throw
								AC 125V	AC 250V	DC 30V	AC 125V PF 0.6				
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:											Note: Terminal numbers are actually on the switch				
 															

Throw & Schematics:

SPST

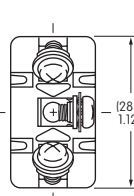
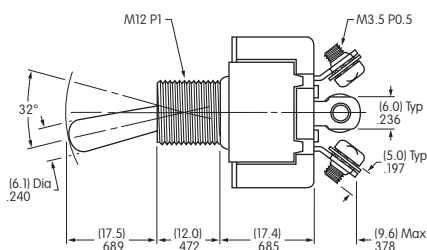
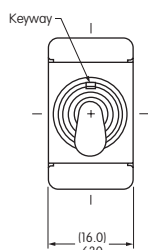


SPDT

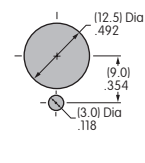


Note: Terminal numbers are actually on the switch

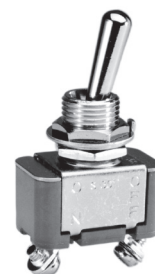
Notes: Standard Hardware: AT503M Face Hex Nut, AT506M Locking Ring, AT508 Lockwasher, AT527M Backup Hex Nut. See Accessories & Hardware section. Optional Splashproof Boot Assemblies: AT401 & AT4181 boots plus hex nut & o-ring. See Accessories & Hardware section.



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					Electrical Capacity				
Model	* Approvals			Pole & Throw	Down 		Center 	Up 		Resistive			Inductive	α = Angle of Throw
								AC 125V	AC 250V	DC 30V	AC 125V PF 0.6			
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  INTERNAL CONNECTION DPDT										Note: Terminal numbers are actually on the switch				

Throw & Schematics:

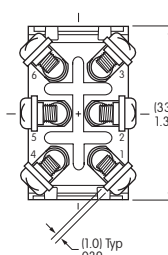
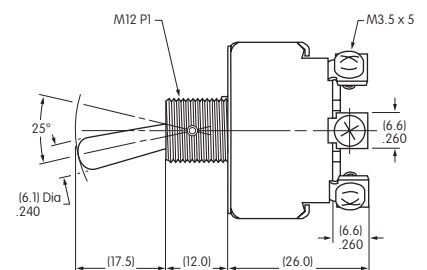
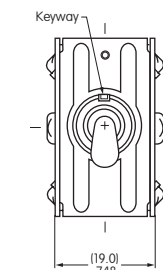
DPST



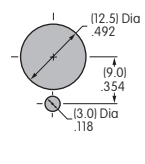
DPDT



Note: Terminal numbers are actually on the switch



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				
Model	* Approvals			Pole & Throw	Down	Center	Up	Resistive			Inductive	α = Angle of Throw
								AC 125V	AC 250V	DC 30V	AC 125V PF 0.6	
S301F	✓	✓	✓	SPST	ON 1-3	NONE	OFF —	15A	6A	20A	10A	32°

Throw & Schematics:

SPST



INTERNAL CONNECTION

Note: Terminal numbers are actually on the switch

Throw & Schematics:

SPST

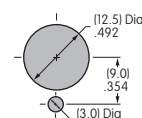
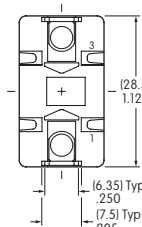
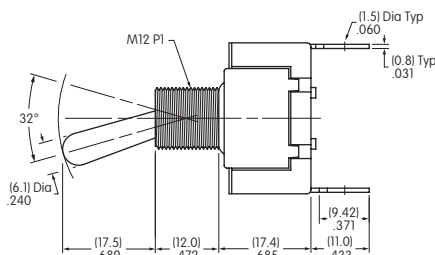
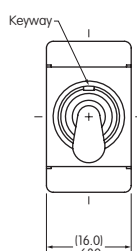


Note: Terminal numbers are actually on the switch

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

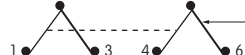


Maximum Panel Thickness:
.185" (4.7mm)

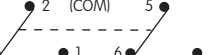
DOUBLE POLE WITH QUICK CONNECT

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

INTERNAL CONNECTION

DPDT

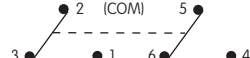
Note: Terminal numbers are actually on the switch

Throw & Schematics:

DPST



DPDT

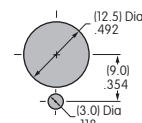
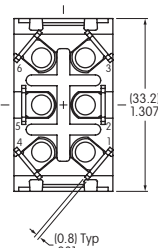
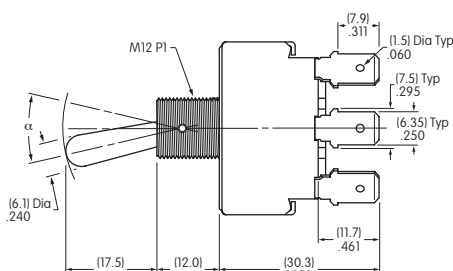
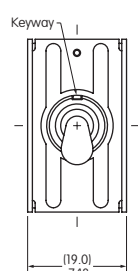


Note: Terminal numbers are actually on the switch

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.



S332F



Maximum Panel Thickness:
.185" (4.7mm)

S331F does not have terminals 2 & 5

GENERAL SPECIFICATIONS FOR S31 ~ S49

A
Toggles

Electrical Capacity (Resistive & Inductive Load)

Power Level: Shown in the following tables

Rockers

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
6,000 operations minimum for Inductive : S31, S32, S33, S41, S42, S43
S31F, S32F, S33F, S41F, S42F, S43F
S41R, S42R, S43R
- Angle of Throw (α): Shown on following tables

Pushbuttons

Illuminated PB

Programmable

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

Keylocks

Rotaries

Environmental Data

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

Slides

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.

Tactiles

Tilt

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.

Touch

Indicators

Accessories

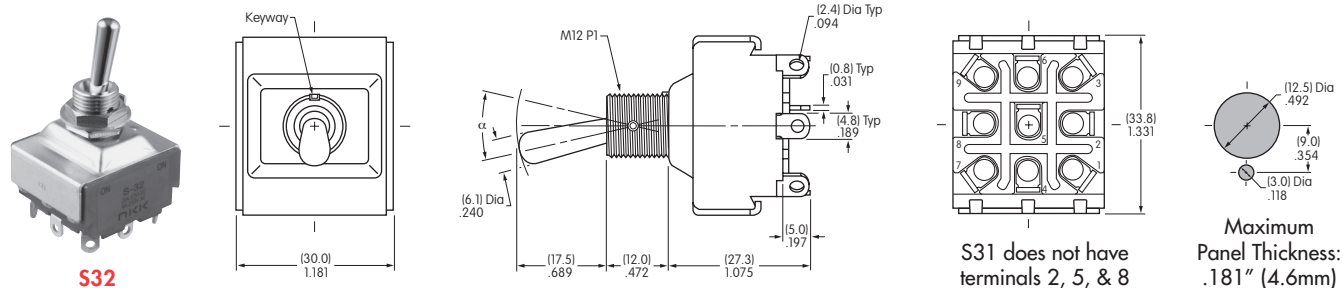
Supplement

THREE POLE WITH SOLDER LUG

* UL, cULus & CSA recognized only when ordered with marking on switch (see General Specs)					Toggle Position/Connected Terminals () = Momentary						Electrical Capacity				
Model	* Approvals			Pole & Throw	Down 		Center 	Up 		Resistive			Inductive	α = Angle of Throw	
								AC 125V	AC 250V	DC 30V	AC 125V PF 0.6				
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: 3PST  INTERNAL CONNECTION 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 Assemblies: AT401 & AT4181 boots plus hex nut & o-ring. See Accessories & Hardware section.

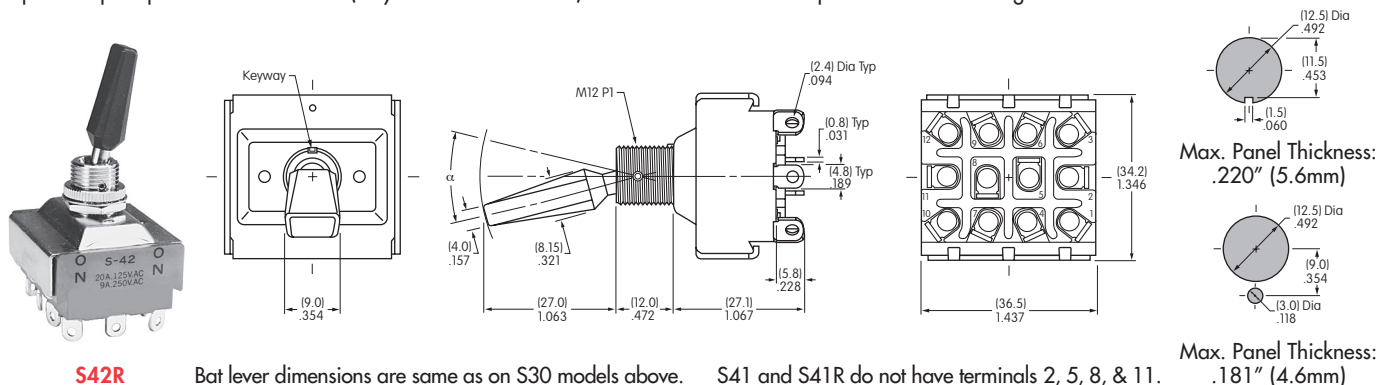


FOUR POLE WITH SOLDER LUG

* UL, cULus & CSA recognized only when ordered with marking on switch (see General Specs)				Toggle Position/Connected Terminals () = Momentary								Electrical Capacity								
Model Suffix R = Flatted Lever	*Approvals			Pole & Throw	Down 				Center 	Up 				Resistive			Inductive	α = Angle of Throw		
												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	—				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: 4PST  INTERNAL CONNECTION 4PDT  Note: Terminal numbers are on the switch

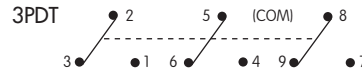
Notes: Standard Hardware for **Bat Lever:** AT503M Face Hex Nut, AT506M Locking Ring, AT508 Lockwasher, AT527M Backup Hex Nut;
for **Flatted Lever (R):** AT504M Knurled Face Nut, AT508 Lockwasher, AT527M Backup Hex Nut. See Accessories & Hardware section.
Optional Splashproof Boot Assemblies (only for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



THREE POLE WITH SCREW LUG

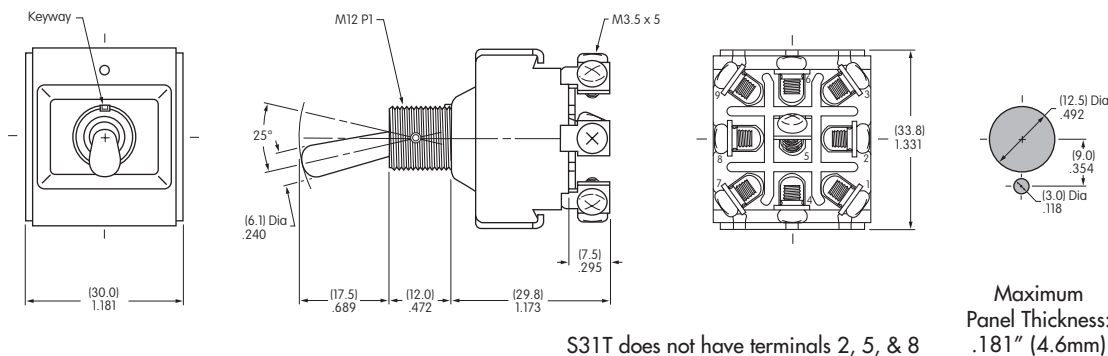
* UL, cULus & CSA recognized only when ordered with marking on switch (see General Specs)				Toggle Position/Connected Terminals						Electrical Capacity					$\alpha =$ Angle of Throw					
Model	* Approvals			Pole & Throw	Down 				Center 	Up 				Resistive			Inductive			
					Keyway 							AC 125V	AC 250V	DC 30V		AC 125V PF 0.6	AC 250V PF 0.6			
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°	
Throw & Schematics: 3PST  INTERNAL CONNECTION 3PDT  (COM) Note: Terminal numbers are on the switch																				

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.



FOUR POLE WITH SCREW LUG

* UL, cULus & CSA recognized only when ordered with marking on switch (see General Specs)				Toggle Position/Connected Terminals						Electrical Capacity											
Model	* Approvals			Pole & Throw	Down 				Center 	Up 				Resistive			Inductive		α = Angle of Throw		
					Keyway 			AC 125V	AC 250V	DC 30V	AC 125V PF 0.6	AC 250V PF 0.6									
								20A	9A	20A	10A	5A									
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°

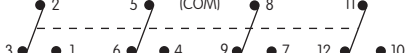
Throw & Schematics:

4PST



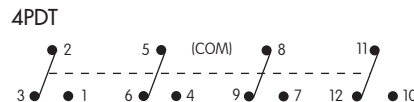
INTERNAL CONNECTION

4PDT



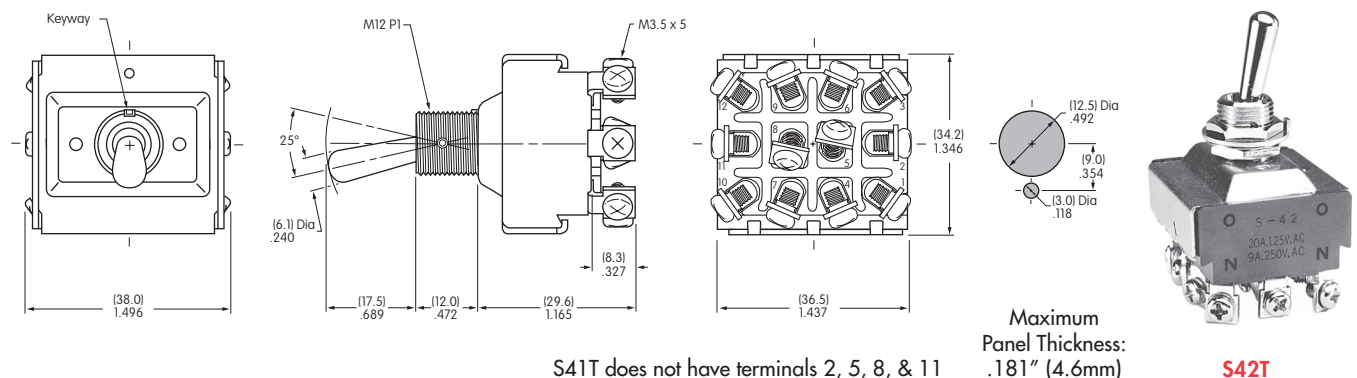
Note:
Terminal numbers are on the switch

Throw & Schematics:



Note: Terminal numbers are on the switch

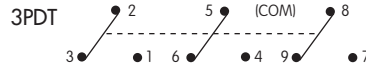
Notes: Standard Hardware: AT503M Face Hex Nut, AT506M Locking Ring, AT508 Lockwasher, AT527M Backup Hex Nut. See Accessories & Hardware section. Optional Splashproof Boot Assemblies: AT401 & AT4181 boots plus hex nut & o-ring. See Accessories & Hardware section.



THREE POLE WITH QUICK CONNECT

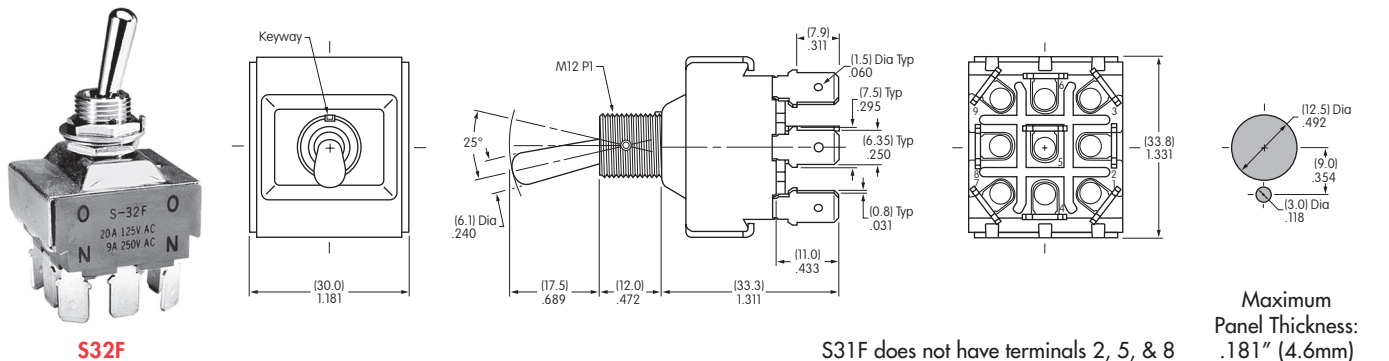
* UL, cULus & CSA recognized only when ordered with marking on switch (see General Specs)				Toggle Position/Connected Terminals					Electrical Capacity						
Model	* Approvals			Pole & Throw	Down	Center	Up			Resistive			Inductive	α = Angle of Throw	
										AC 125V	AC 250V	DC 30V	AC 125V PF 0.6		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



FOUR POLE WITH QUICK CONNECT

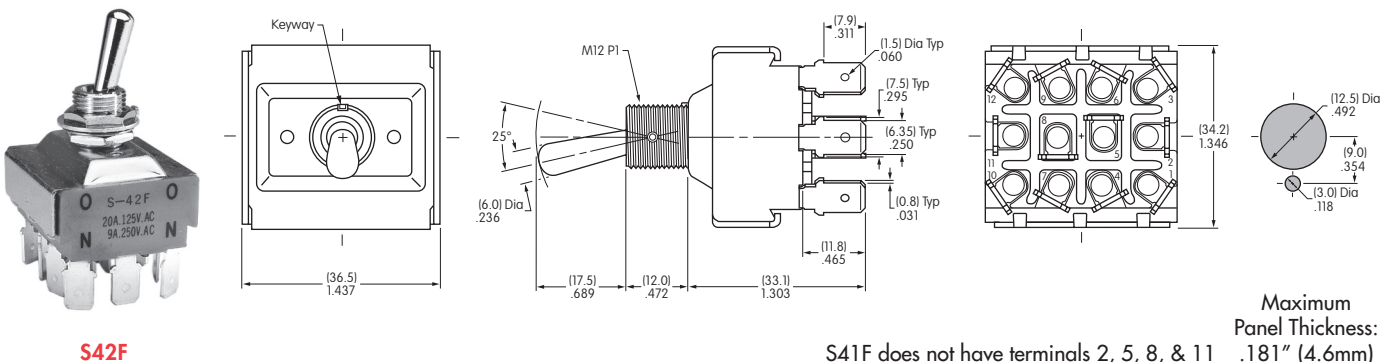
* UL, cULus & CSA recognized only when ordered with marking on switch (see General Specs)				Toggle Position/Connected Terminals						Electrical Capacity										
Model	* Approvals			Pole & Throw	Down 				Center 	Up 				Resistive			Inductive	α = Angle of Throw		
														AC 125V	AC 250V	DC 30V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



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.

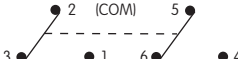
A	Toggles
	Rockers
	Pushbuttons
	Illuminated PB
	Programmable
	Keylocks
	Rotaries
	Slides
	Tactiles
	Tilt
	Touch
	Indicators
	Accessories
	Supplement

DOUBLE POLE WITH SOLDER LUG

			Toggle Position/Connected Terminals () = Momentary					Electrical Capacity						
Model	Approvals		Pole & Throw	Down 		Center 	Up 		Resistive		Inductive		Motor Load	α = Angle of Throw
				Keyway 			AC 125V	AC 250V	PF 0.75 - 0.8		AC 125V			
									AC 125V	AC 250V				
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

Throw & Schematics:

DPST



DPDT

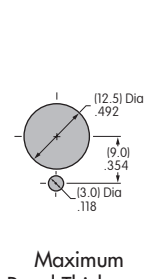
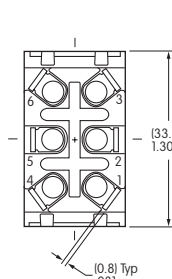
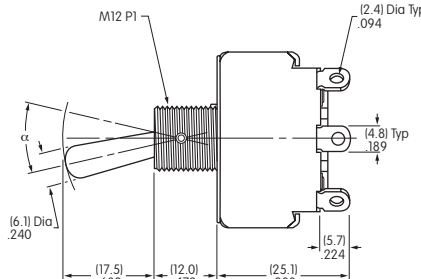
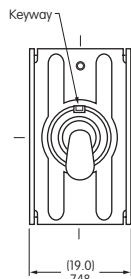


Note: Terminal numbers are on the switch

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



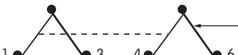
Maximum Panel Thickness:
.185" (4.7mm)

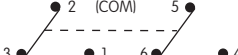
S421 does not have terminals 2 & 5

DOUBLE POLE WITH SCREW LUG

			Toggle Position/Connected Terminals () = Momentary					Electrical Capacity					
Model	Approvals		Pole & Throw	Down 		Center 	Up 	Resistive		Inductive		Motor Load	α = Angle of Throw
				Keyway 			AC 125V	AC 250V	PF 0.75 - 0.8		AC 125V		
									AC 125V	AC 250V			
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

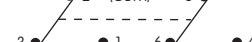
Note: Terminal numbers are on the switch

Throw & Schematics:

DPST



DPDT

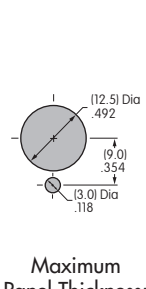
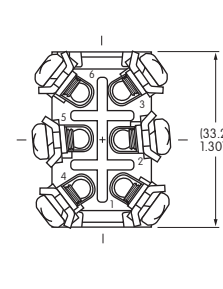
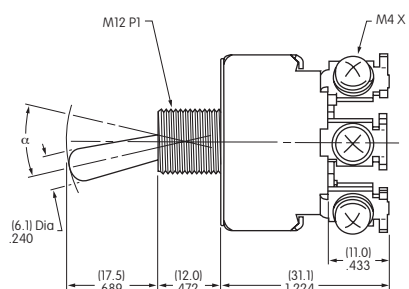
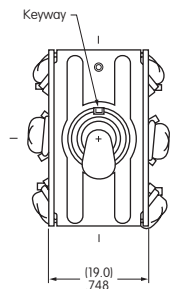


Note: Terminal numbers are on the switch

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



Maximum Panel Thickness:
.185" (4.7mm)

S421T does not have terminals 2 & 5

GENERAL SPECIFICATIONS FOR S800s ~ S732

A	Toggles
	Rockers
	Pushbuttons
	Illuminated PB
	Programmable
	Keylocks
	Rotaries
	Slides
	Tactiles
	Tilt
	Touch
	Indicators
	Accessories
	Supplement

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 for S800s & S800Ds
3,000V AC minimum for 1 minute minimum for S732
- Mechanical Life: 50,000 operations minimum
- Electrical Life: 10,000 operations minimum for S800Ds
25,000 operations minimum for S800s & S732

Materials & Finishes

- Toggle: Brass with nickel plating for S732
Brass with chrome plating for S800s & S800Ds
- Bushing: Brass with chrome plating
- Case: Phenolic resin for S732; melamine phenol for S800s
- 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.

Toggles

Rockers

Pushbuttons

Illuminated PB

Programmable

Keylocks

Rotaries

Slides

Tactiles

Tilt

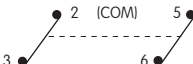
Touch

Indicators

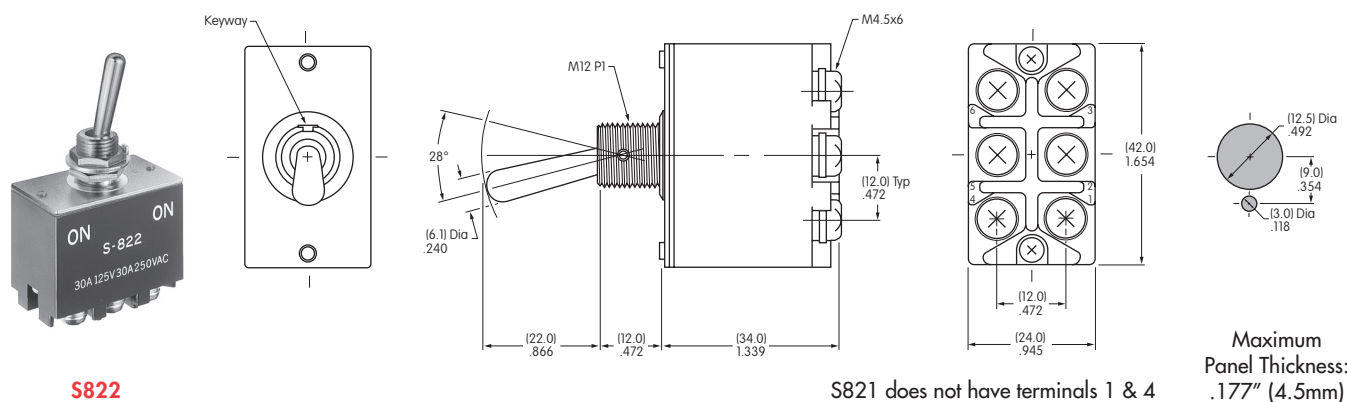
Accessories

Supplement

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						
Model	* Approvals			Pole & Throw	Down	Center	Up	Resistive				Inductive		Motor Load
								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.

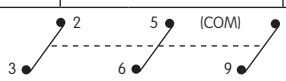
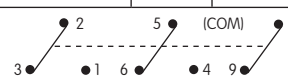


S822

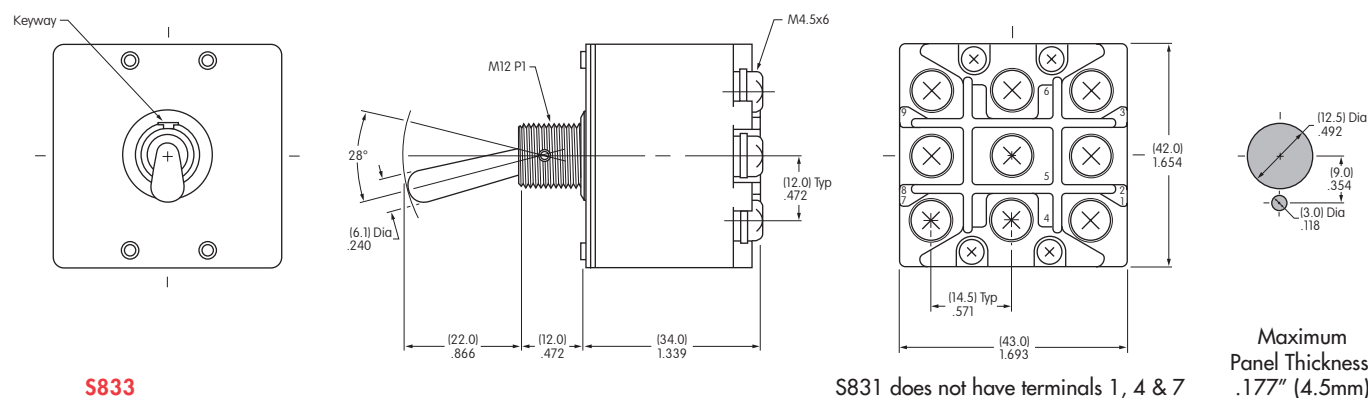
S821 does not have terminals 1 & 4

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					
Model	* Approvals			Pole & Throw	Down 	Center 	Up 	Resistive				Inductive	
	UL	cULus	CSA					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

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

Model	* Approvals			Pole & Throw	Down			Center	Up		Resistive					Inductive L/R = 3ms				
								DC 30V	DC 48V	DC 125V	DC 250V	DC 400V	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

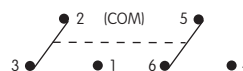
() capacity is due to wiring. Refer to instructions below.

Throw & Schematics:

DPST

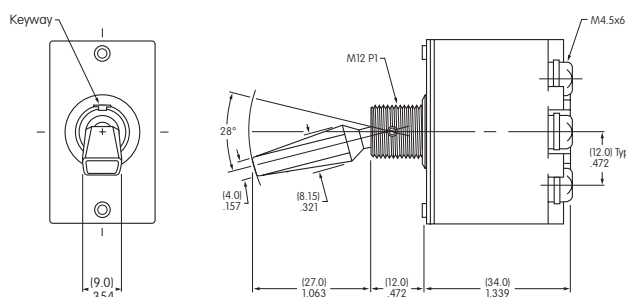


DPDT

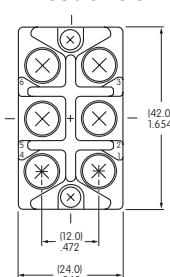


Note: Terminal numbers are on the switch

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)



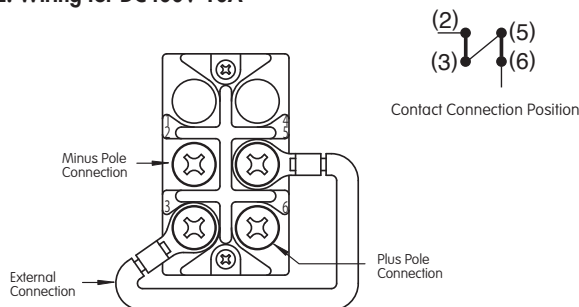
S822D

400V DC WIRING INSTRUCTIONS

1. DC Switch Use

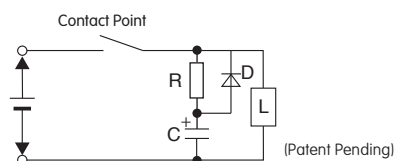
- Middle terminal shall be the minus pole when using DC circuit. Switch case is marked with (+) and (-).
- Do not store near (5cm) highly magnetic items.
- If actuation is interrupted when switching from ON to OFF, arcing may continue and switch could be burned.

2. Wiring for DC400V 10A



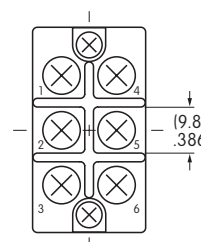
3. Inductive Load

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



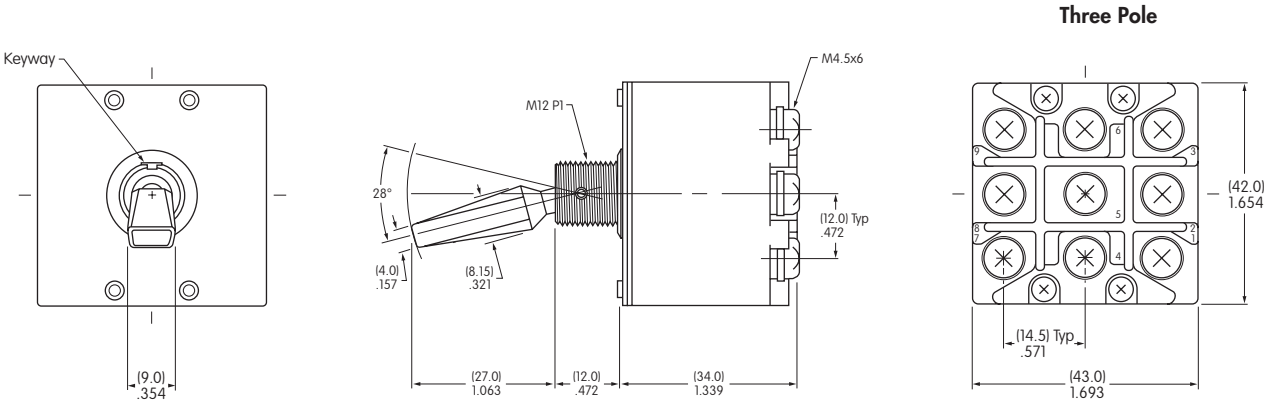
4. Compressed Terminal Connection

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)				Toggle Position/Connected Terminals				Electrical Capacity							
Model	* Approvals			Pole & Throw	Down 	Center 	Up 	Resistive				Inductive L/R = 3ms			
								DC 30V	DC 48V	DC 125V	DC 250V	DC 24V	DC 48V	DC 125V	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:												Note: Terminal numbers are on the switch			
3PST 												3PDT 			

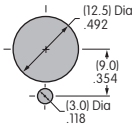
Notes: Standard Hardware: AT503M Face Hex Nut, AT506M Locking Ring, AT508 Lockwasher, AT527M Backup Hex Nut. See Accessories & Hardware section.



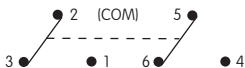
S831D does not have terminals 1, 4 & 7.
Positive (+) must be connected to end terminals
& negative to common terminals.



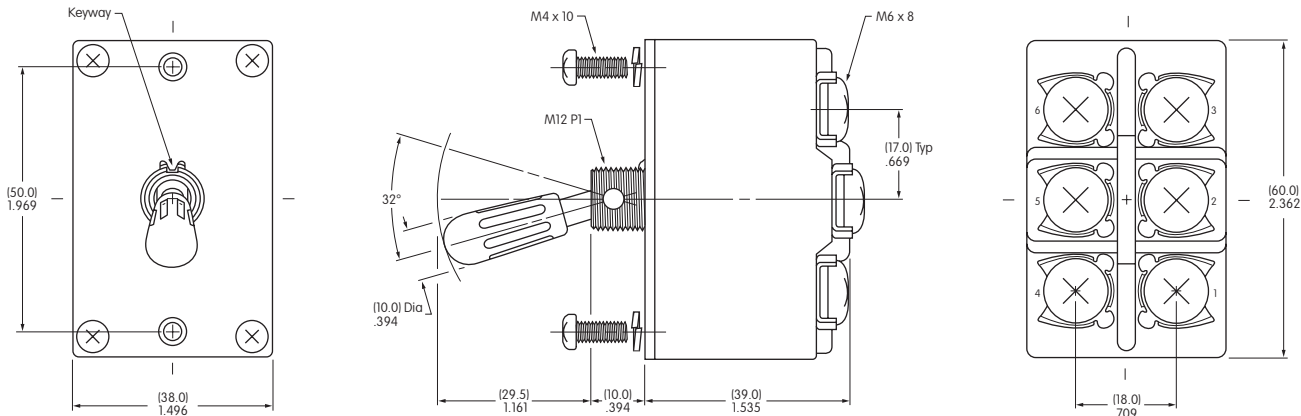
S832D



Maximum
Panel Thickness:
.177" (4.5mm)

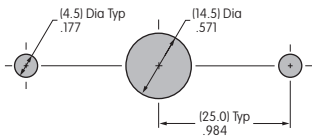
DOUBLE POLE WITH SCREW LUG										
			Toggle Position/Connected Terminals				Electrical Capacity			
Model	Approvals  	Pole & Throw	Down 	Center 	Up 	Resistive			Inductive	
			AC 125V	AC 250V	DC 30V	AC 125V PF 0.6				
S732	— —	DPDT	ON 2-3 5-6	NONE	ON 2-1 5-4	50A	30A	50A	25A	
Throw & Schematics: 					Note: Terminal numbers are on the switch					

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



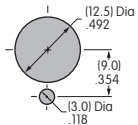
Cap of phenolic resin is black

Panel Mount with Mounting Screws

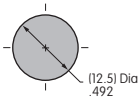


Maximum
Panel Thickness:
.158" (4.0mm)

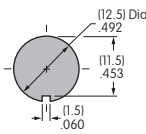
Panel Mount with Bushing Hardware



Maximum
Panel Thickness:
.079" (2.0mm)



Maximum
Panel Thickness:
.118" (3.0mm)



Maximum
Panel Thickness:
.118" (3.0mm)



S732

