Electrical Capacity (Resistive & Inductive Load)

Power Level: Shown in the following table

Other Ratings

10 milliohms maximum **Contact Resistance:**

200 megohms minimum @ 500V DC **Insulation Resistance:** 1,500V AC minimum for 1 minute minimum **Dielectric Strength:**

GENERAL SPECIFICATIONS FOR \$100s

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

Brass with chrome plating Toggle:

Bushing: Brass with chrome or nickel plating

Case: Phenolic resin

Case Cover: Steel with zinc plating **Movable Contactor Plate:** Copper with silver plating

Silver alloy plus copper with silver plating **Movable & Stationary Contacts:**

> Terminals: Copper with silver plating

Environmental Data

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

Installation

2.94Nm (26 lb•in) for double nut **Mounting Torque:**

Manual Soldering: See Profile A in Supplement section. **Soldering Time & Temperature:**

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.

Touch Supplement Accessories Indicators

					DOUBLE	POLE	WIT	H SOLDE	R LUG				
* CSA cert marking o				1	Toggle Positio	on/Connec	ted Tern	ninals		Electrico	ıl Capacity		
	*Арр	rovals			Down	Center		Up		Resistive	·	Inductive	
Model	lR.	(\$P	Pole & Throw	Ke	eyway- ₃	-	•	7	AC 125V	AC 250V	DC 30V	AC 125V PF 0.6	Angle of Throw
\$114		/	DPST	ON	2-1 5-4	NONE	OFF	_	5A	2A	5A	3A	25°
\$116		/	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 & Schemati	cs:	DPST	2	(COM) 5	7	DPDT 1	<u></u>	(COM) 5 •	• 6			nal numbers ar ly on the switc	

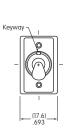
Notes: Standard Hardware: AT504M Knurled Nut, AT508 Lockwasher, AT527M Backup Hex Nut. See Accessories & Hardware section. Optional Splashproof Boot Assemblies (only for bat lever models): AT401 & AT4181 boots plus hex nut and o-ring. See Accessories & Hardware section.

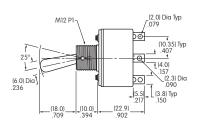
S114 & S116

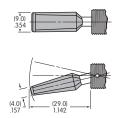
S116R Black Polyamide Paddle

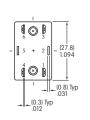


\$116











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 2,000V AC minimum for 1 minute minimum **Dielectric Strength:**

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

Brass with chrome plating Toggle: **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 Silver alloy capped on copper with silver plating **Stationary Contacts:**

> 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

Splashproof & lever lock panel seal models meet IP67 standard Sealing:

Installation

1.47Nm (13 lb•in) for single nut on AW & AL models **Mounting Torque:**

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

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.

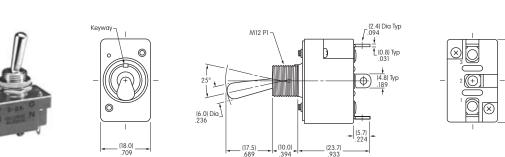
Keylocks | Programmable | Illuminated PB | Pushbuttons

Touch

Supplement Accessories

UL, cULus with mar				hen ordered al Specs)	То	ggle Pos	ition/Connecte	ed Termino	ıls		Electrical	Capacity		
	* #	pprove	ls		Dov	vn	Center	U	р		Resistive		Inductive	
Model	LR.	c FL °us	(1)	Pole & Throw			AC 125V	AC 250V	DC 30V	AC 125V PF 0.6	Angle of Throw			
SIA	/	/	/	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°

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.



Maximum Panel Thickness: .158" (4.0mm)

* UL, cULus & with mark					То	ggle Positio	on/Conne	cted Ter	minals		Electrical	Capacity		
	* A	pprove	ıls		D	own	Center		Up		Resistive		Inductive	α =
Model	<i>LR</i> 。	c 711 °us	(1)	Pole & Throw	Key	way- _\	-	•	—	AC 125V	AC 250V	DC 30V	AC 125V PF 0.6	Angle of Throw
\$21A	_			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 8	-	DPST	1.	3 4	/\	— INTERNAL CONNECTI	on DPI	DT 2 a/	2 (COM)	5 •	١		al numbers o	

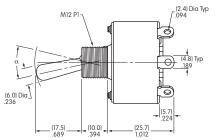
Notes: Standard Hardware: AT504M Knurled Nut, AT508 Lockwasher, AT527M Backup Hex Nut. See Accessories & Hardware section. Optional Splashproof Boot Assemblies: AT401 & AT4181 boots plus hex nut & o-ring. See Accessories & Hardware section.

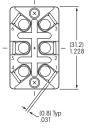


S₆A

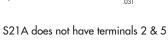
S2A







Maximum Panel Thickness: .158" (4.0mm)



S1A does not have terminal 2

SINGLE POLE WITH QUICK CONNECT

				To	oggle Po	sition/Connected	d Termina	ls		Electrica	l Capacity		
	Appro	ovals		Dov	wn	Center	U	р		Resistive		Inductive	
Model	<i>LR</i> 。	(Pole & Throw	Keywo	197		-		AC 125V	AC 250V	DC 30V	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°

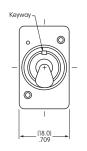
Throw & **Schematics:**

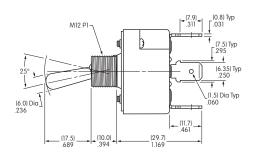


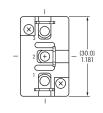
2 (COM)

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.











Maximum Panel Thickness: .158" (4.0mm)

S2F

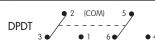
S1F does not have terminal 2

DOUBLE POLE WITH QUICK CONNECT

						_							
				1	Toggle Positio	on/Connec	ted Tern	ninals		Electrica	l Capacity		
	Appr	ovals			Down	Center		Up		Resistive		Inductive	α=
Model	<i>LR</i> 。	48	Pole & Throw	Ke	Keyway¬		•	-	AC 125V	AC 250V	DC 30V	AC 125V PF 0.6	Angle of Throw
\$21F	_		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°

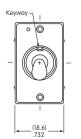
Throw & **Schematics:**

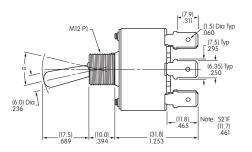


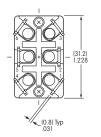


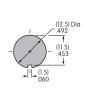
Note: Terminal numbers are actually on the switch

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.











Maximum Panel Thickness: .158" (4.0mm)

S6F



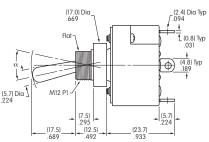
SINGLE POLE SOLDER LUG WITH PANEL SEAL

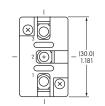
					Toggle Po	sition/Connecte () = Momentar		;	El	ectrical Capac	ity	
	Appr	ovals	- 1 -	Do		Center	U	р		Resistive		α =
Model	<i>LR</i> 。	(IP	Pole & Throw	Keyw	ay ¬				AC 125V	AC 250V	DC 30V	Angle of Throw
\$1AW	_	_	SPST	ON	1-3	NONE	OFF		15A	6A	20A	24°
S2AW	—	_	SPDT	ON	2-3	NONE	ON	2-1	15A	6A	20A	24°
S3AW	—	_	SPDT	ON	2-3	OFF	ON	2-1	15A	6A	20A	28°
\$5AW	—	_	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 Schem		SPS	ST 1.		RNAL NECTION	SPDT	3 • 2 (C)				erminal num	

Notes: Standard Hardware: AT503M Face Hex Nut, AT508 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.











S1AW does not have terminal 2

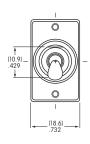
Maximum Panel Thickness: .158" (4.0mm)

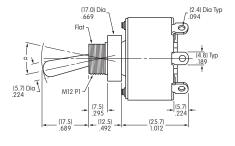
DOUBLE POLE SOLDER LUG WITH PANEL SEAL

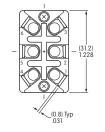
					Toggle Posi	tion/Connect) = Momento		als	Ele	ectrical Capac	city	
	Appr	ovals			Down	Center		Up		Resistive		α =
Model	lR.	(1)	Pole & Throw	Ke	yway ¬		•	-	AC 125V	AC 250V	DC 30V	Angle of Throw
S21AW	_	_	DPST	ON	1-3 4-6	NONE	OFF	_	15A	15A	15A	22°
S6AW			DPDT	ON	2-3 5-6	NONE	ON	2-1 5-4	20A	10A	20A	22°
S7AW	_		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	1 <i>5</i> A	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	_	PST		4.	INTERNAL CONNECTION	DPDT	<i></i>	(COM) 5 •	4		erminal num	

Notes: Standard Hardware: AT503M Face Hex Nut, AT508 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.











S21AW does not have terminals 2 & 5

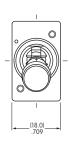


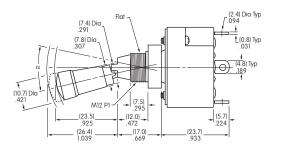


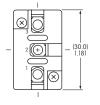
SINGLE POLE SOLDER LUG WITH LOCKING LEVER & PANEL SEAL

				To	oggle Po	sition/Connecte	ed Termina	ıls		Electrica	l Capacity		
	Аррі	ovals		Dov	wn	Center	U	Jp		Resistive		Inductive	α =
Model	lR。	c SU °us	Pole & Throw	Keyw	ау¬	-	-	-	AC 125V	AC 250V	DC 30V	AC 125V PF 0.6	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 8		9	SPST	<u> </u>	INTERN CONN	NAL ECTION	SPDT	3 2 2	2 (COM)			nal numbers ar ly on the switc	

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











Maximum Panel Thickness: 1.58" (4.0mm)

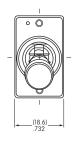
S2AL

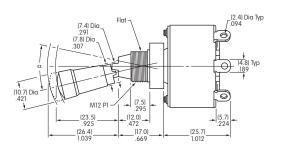
3 TAL does not have lettillia Z	.136 (4.01

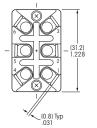
* UL & cUL ordered v (se	with ma		switch	To	oggle Positio	n/Connec	ted Term	inals		Electrica	l Capacity		
	*Арр	rovals			Oown	Center		Up		Resistive		Inductive	α =
Model	lR.	c 741 °us	Pole & Throw	Ke	yway¬		•	-	AC 125V	AC 250V	DC 30V	AC 125V PF 0.6	Angle of Throw
S21AL	_		DPST	ON	1-3 4-6	NONE	OFF	_	15A	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 & Schemat		DPST		4.	INTERNA CONNEC	1L	PDT 3 € ⁄	2 (COM)	5 • 4	1		al numbers are y on the switch	

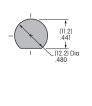
DOUBLE POLE SOLDER LUG WITH LOCKING LEVER & PANEL SEAL

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









Maximum Panel Thickness: .158" (4.0mm)



S6AL



S21AL does not have terminals 2 & 5

GENERAL SPECIFICATIONS FOR \$301 ~ \$339

Electrical Capacity (Resistive & Inductive Load)

Power Level: Shown in the following tables

Other Ratings

10 milliohms maximum **Contact Resistance:**

1,000 megohms minimum @ 500V DC **Insulation Resistance:** 2,000V AC minimum for 1 minute minimum **Dielectric Strength:**

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

PBT for flatted lever; brass with chrome plating for all others Toggle:

Bushing: Brass with chrome plating

Case: Melamine phenol Steel with zinc plating Case Cover: 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 ~ $+70^{\circ}$ C ($+14^{\circ}$ F ~ $+158^{\circ}$ F)

Installation

2.94Nm (26 lb•in) for double nut; 1.47Nm (13 lb•in) for single nut **Mounting Torque:**

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

SPDT

ON

2-3

SINGLE POLE WITH SOLDER LUG **Toggle Position/Connected Terminals** * UL, cULus & CSA recognized only when ordered **Electrical Capacity** with marking on switch (see General Specs) () = Momentary Up Resistive Inductive Down Center * Approvals Pole & AC 250V **AC 125V** Angle DC c**W**°us (1) Throw Model 125V 30V PF 0.6 of Throw **S301 SPST** ON 1-3 NONE OFF 15A 20A 10A 32° 6A **S302** SPDT ON 2-3 NONE ON 2-1 15A 6A 20A 10A 32° **S303 SPDT** ON 2-3 OFF ON 2-1 20A 10A 32° 15A 6A 32° **S305 SPDT** ON 2-3 NONE (ON) 2-1 15A 6A 20A 8A **S308** 2-1 8A 32° **SPDT** (ON) 2-3 OFF (ON) 15A 6A 20A

2 (COM) Note: Terminal numbers are Throw & INTERNAL CONNECTION **SPST** actually on the switch **Schematics: SPDT**

OFF

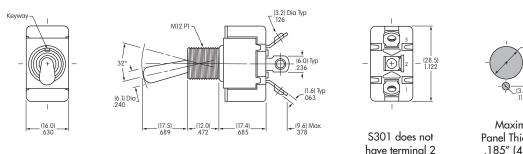
Notes: Standard Hardware: AT503M Face Hex Nut, AT506M Locking Ring, AT508 Lockwasher, AT527M Backup Hex Nut. See Accessories & Hardware section. Optional Splashproof Boot Assemblies: AT401 & AT4181 boots plus hex nut & o-ring. See Accessories & Hardware section.

(ON)

2-1

15A

6A





32°

Maximum Panel Thickness: .185" (4.7mm)

20A

A8

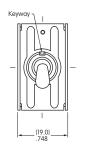
S301

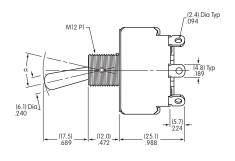
* UL, cULus & with mar					Toggle Posi (tion/Connect) = Moment	ted Terminals ary		Electrico	ıl Capacity		
	* 4	Approva	ls		Down	Center	Up		Resistive		Inductive	α =
Model	LR.	c 910 °us	(SP)	Pole & Throw	Keyway	-	-	AC 125V	AC 250V	DC 30V	AC 125V PF 0.6	Angle of Throw
S331	/	/	/	DPST	ON 1-3 4-6	NONE	OFF —	25A	25A	25A	10A	25°
\$332	/	/	/	DPDT	ON 2-3 5-6	NONE	ON 2-1 5-4	25A	15A	25A	10A	25°
\$333	/	/	/	DPDT	ON 2-3 5-6	OFF	ON 2-1 5-4	25A	15A	25A	10A	30°
\$335	/	/	/	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°

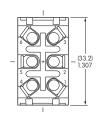
DOUBLE POLE WITH SOLDER LUG

Throw & Schematics:	DPST	1.	3 4	***	INTERNAL CONNECTIO	N DPDT	3	2 (COM) • 1 6 •	• 4	N		al numbers ar y on the switcl	
S339 🗸	· /		DPDT	ON	2-3 5-6	OFF	(ON)	2-1 5-4	1 <i>5</i> A	6A	20A	8A	25

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



S309

Slides

Touch

Supplement | Accessories

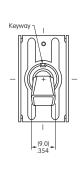
DOUBLE POLE WITH SOLDER LUG & FLATTED LEVER

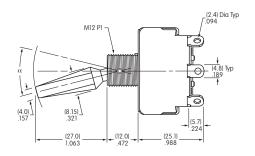
* UL & cU	with ma	gnized on Irking on General Sp	świtch	ordered	ī	oggle Positio	on/Connect = Momente		nals		Electrico	ıl Capacity		
	* 🖊	pprove	ıls			Down	Center		Up		Resistive		Inductive	
Model	lR.	c 910 °us	(SP)	Pole & Throw	Ke	eyway¬	-	-	-	AC 125V	AC 250V	DC 30V	AC 125V PF 0.6	α = Angle of Throw
S331R	/	/	_	DPST	ON	1-3 4-6	NONE	OFF	_	25A	25A	25A	10A	25°
S332R	/	/	_	DPDT	ON	2-3 5-6	NONE	ON	2-1 5-4	25A	15A	25A	10A	25°
S333R	/	/	_	DPDT	ON	2-3 5-6	OFF	ON	2-1 5-4	25A	15A	25A	10A	30°
S338R	/	/		DPDT	(ON)	2-3 5-6	OFF	(ON)	2-1 5-4	15A	6A	20A	8A	25°
S339R	/	/		DPDT	ON	2-3 5-6	OFF	(ON)	2-1 5-4	15A	6A	20A	8A	25°
Throw &		DPST		3 4	• 6	-INTERNAL CONNECTION	DPDT 3	/	(COM) 5 •	• 4	N		al numbers a y on the switc	

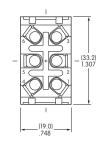
Notes: Standard Hardware: AT504M Knurled Nut, AT508 Lockwasher, AT527M Backup Hex Nut. See Accessories & Hardware section.

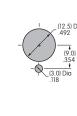


S331R









S331R does not have terminals 2 & 5

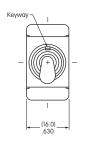
Maximum Panel Thickness: .220" (5.6mm)

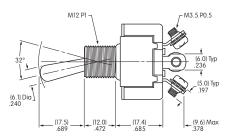
Supplement | Accessories

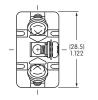
SINGLE POLE WITH SCREW LUG

UL, cULus à with mar				hen ordered al Specs)	log	gle Posit (ion/Connect) = Momento		nals		Electrical	Capacity		
	* A	pprova	ls		Dov	٧n	Center	U	p		Resistive		Inductive	α =
Model	<i>LR</i> 。	c 711 °us	(1)	Pole & Throw	Keywo	шу¬	-			AC 125V	AC 250V	DC 30V	AC 125V PF 0.6	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 & Schemat				1.	INTERN CONNE		SPD1		9 2 (COM) • 1		٨		al numbers ar y 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)

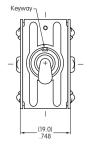
S301T

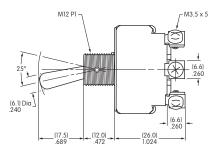
DOUBLE POLE WITH SCREW LUG

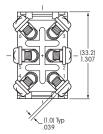
* UL & cULu markii	JL & cULus recognized only when ordered w marking on switch (see General Specs) *Approvals					oggle Positio ()	on/Connect = Momento		inals		Electrica	l Capacity		
	*A	pprove	als		D	own	Center		Up		Resistive		Inductive	α =
Model	lR,	c 91 °us	(P	Pole & Throw	Key	way-\	-	-	-	AC 125V	AC 250V	DC 30V	AC 125V PF 0.6	Angle of Throw
\$331T	/	/		DPST	ON	1-3 4-6	NONE	OFF	_	1 <i>5</i> A	15A	15A	10A	25°
S332T	/	/		DPDT	ON	2-3 5-6	NONE	ON	2-1 5-4	1 <i>5</i> A	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	1 <i>5</i> A	6A	20A	8A	25°
S338T	/	/		DPDT	(ON)	2-3 5-6	OFF	(ON)	2-1 5-4	1 <i>5</i> A	6A	20A	8A	25°
S339T	/	/	_	DPDT	ON	2-3 5-6	OFF	(ON)	2-1 5-4	15A	6A	20A	8A	25°
			•	-	•			•	2 (COM)	5 •	N.		1 1	

Note: Terminal numbers are Throw & actually on the switch **Schematics:**

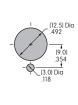
Notes: Standard Hardware: AT503M Face Hex Nut, AT506M Locking Ring, AT508 Lockwasher, AT527M Backup Hex Nut. See Accessories & Hardware section. Optional Splashproof Boot Assemblies: AT401 & AT4181 boots plus hex nut & o-ring. See Accessories & Hardware section.







S331T does not have terminals 2 & 5



Maximum Panel Thickness: .185" (4.7mm)



S331T

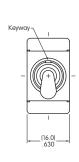


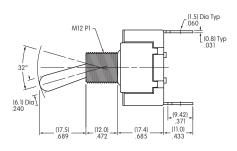
Touch

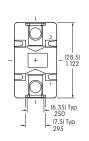
SINGLE POLE WITH QUICK CONNECT * UL, cULus & CSA recognized only when ordered Toggle Position/Connected Terminals **Electrical Capacity** with marking on switch (see General Specs) Resistive Inductive Down Center *Approvals $\alpha =$ Pole & AC 125V AC 250V DC 30V **AC 125V** Angle c**RI**°us Model **Throw** PF 0.6 of Throw S301F **SPST** NONE OFF 15A 6A 20A 10A 32° **SPST** Note: Terminal numbers are Throw & INTERNAL CONNECTION **Schematics:** 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

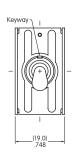
Maximum Panel Thickness: .185" (4.7mm)

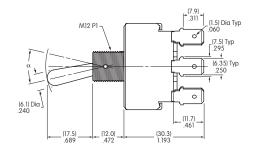
					DOU	JBLE PO	LE WIT	TH QU	JICK CC	ONNEC	T			
* UL & cULus markin		zed only v tch (see G			Te	oggle Positi	on/Connec = Moment		inals		Electrica	l Capacity		
	* A	pprova	ıls		0	Oown	Center		Up		Resistive		Inductive	α=
Model	lR。	c 711° us	(1)	Pole & Throw	Ke	yway- _\	T	•	—	AC 125V	AC 250V	DC 30V	AC 125V PF 0.6	Angle of Throw
S331F	/	/	_	DPST	ON	1-3 4-6	NONE	OFF	_	25A	25A	25A	10A	25°
S332F	/	/	_	DPDT	ON	2-3 5-6	NONE	ON	2-1 5-4	25A	15A	25A	10A	25°
S333F	/	/	_	DPDT	ON	2-3 5-6	OFF	ON	2-1 5-4	25A	15A	25A	10A	30°
S335F	/	/	_	DPDT	ON	2-3 5-6	NONE	(ON)	2-1 5-4	15A	6A	20A	8A	25°
Throw & Schematic		DPST 1	Å	3 4	• 6	-INTERNAL CONNECTION	DPDT	3	2 (COM) 5	• 4	Z		al numbers a y on the swite	

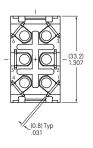
Notes: Standard Hardware: AT503M Face Hex Nut, AT506M Locking Ring, AT508 Lockwasher, AT527M Backup Hex Nut. See Accessories & Hardware section. Optional Splashproof Boot Assemblies: AT401 & AT4181 boots plus hex nut & o-ring. See Accessories & Hardware section.



S332F









S331F does not have terminals 2 & 5





GENERAL SPECIFICATIONS FOR S31 ~ S49

Electrical Capacity (Resistive & Inductive Load)

Power Level: Shown in the following tables

Other Ratings

Contact Resistance: 10 milliohms maximum

Insulation Resistance: 1,000 megohms minimum @ 500V DC **Dielectric Strength:** 2,000V AC minimum for 1 minute minimum

Mechanical Life: 50,000 operations minimum Electrical Life: 25,000 operations minimum **Angle of Throw** (α): Shown on following tables

Materials & Finishes

PBT resin for flatted lever; brass with chrome plating for all others

Brass with chrome plating Bushing:

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

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.



Schematics:

Schematics:

Indicators

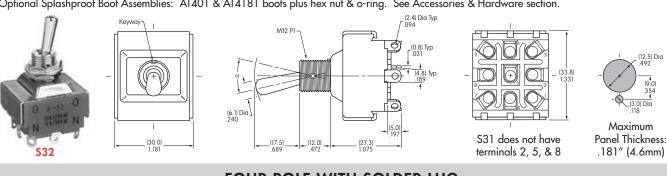
THREE POLE WITH SOLDER LUG UL, cULus & CSA recognized only when ordered with marking on switch (see General Specs) Toggle Position/Connected Terminals **Electrical Capacity**) = Momentary Resistive Inductive *Approvals Down Center Up α = Pole & Angle **AC 125V** c**FL**°us LR. 4 of Throw Model 125V 250V **30V** PF 0.6 **Throw S31** 3PST ON 1-3 4-6 7-9 NONE **OFF** 25A 9A 20A 10A 25° 2-3 5-6 8-9 3PDT ON NONE ON 2-1 5-4 8-7 25A 20A 10A 25° **S32** 9A **S33** 3PDT ON 2-3 5-6 8-9 OFF ON 2-1 5-4 8-7 25A 9A 20A 10A 30° 25° **S35** 3PDT ON 2-3 5-6 8-9 NONE (ON) 2-1 5-4 8-7 15A 20A 8A **S38** 3PDT (ON) 2-3 5-6 8-9 OFF 2-1 5-4 8-7 15A 15A 8A 25° (ON) 6A **S39** 3PDT ON 2-3 5-6 8-9 OFF (ON) 2-1 5-4 8-7 15A 15A A8 25° (COM) Throw & Note: Terminal numbers

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.

•1

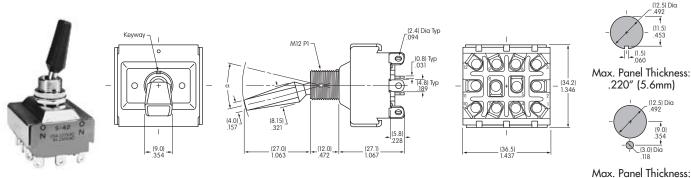
CONNECTION

• 6 7 •



						FC	OUR	P	OLE V	WITH	SOL	DER	R LU	JG						
* UL, cULus & C with marking							To	ogglo		n/Conne = Momer		rmino	als			E	lectric	al Cap	acity	
Model	* A	pprove	ıls				Down	1		Center			Up			R	Resistiv	е	Inductive	α =
Suffix R = Flatted Lever	<i>L</i> R.	c 911 °us	(1)	Pole & Throw		Ke	yway¬			-		•	4			AC 125V	AC 250V	DC 30V	AC 125V PF 0.6	Angle of Throw
\$41/\$41R	/	/	/	4PST	ON	1-3	4-6	7-9	10-12	NONE	OFF				_	25A	9A	20A	10A	25°
S42/S42R	/	/	/	4PDT	ON	2-3	5-6	8-9	11-12	NONE	ON	2-1	5-4	8-7	11-10	25A	9A	20A	10A	25°
S43/S43R	/	/	/	4PDT	ON	2-3	5-6	8-9	11-12	OFF	ON	2-1	5-4	8-7	11-10	25A	9A	20A	10A	30°
S45 -	/	/		4PDT	ON	2-3	5-6	8-9	11-12	NONE	(ON)	2-1	5-4	8-7	11-10	15A	6A	20A	8A	25°
S48/S48R	/	/	_	4PDT	(ON)	2-3	5-6	8-9	11-12	OFF	(ON)	2-1	5-4	8-7	11-10	15A	6A	20A	8A	25°
S49/S49R	/	/		4PDT	ON	2-3	5-6	8-9	11-12	OFF	(ON)	2-1	5-4	8-7	11-10	15A	6A	20A	8A	25°
Throw &	4PST	٨		•		٠		. ^	\IN	TERNAL	4PDT	Ž		5 9	(COM)	7 ⁸	11•	,		ninal nbers are

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.



S42R Bat lever dimensions are same as on S30 models above. S41 and S41R do not have terminals 2, 5, 8, & 11.



on the switch

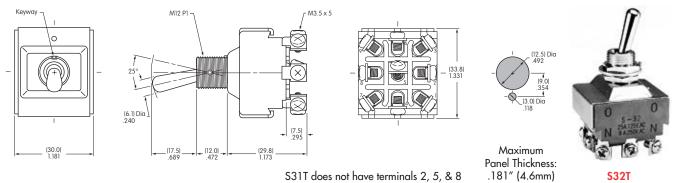
are on the switch

Supplement | Accessories

THREE POLE WITH SCREW LUG

	* A	pprova	ls			Down	Center		Up		F	Resistiv	е	Indu	ctive	
Model	<i>U</i> R.	c 711 °us	(P)	Pole & Throw		Keyway-			\		AC 125V	AC 250V	DC 30V	AC 125V PF 0.6	AC 250V PF 0.6	α = Angle of Thro
S31T	/	/	/	3PST	ON	1-3 4-6 7-9	NONE	OFF		_	25A	9A	20A	10A	5A	25°
S32T	/	/	/	3PDT	ON	2-3 5-6 8-9	NONE	ON	2-1 5-4	8-7	25A	9A	20A	10A	5A	25°
S33T	/	/	/	3PDT	ON	2-3 5-6 8-9	OFF	ON	2-1 5-4	8-7	25A	9A	20A	10A	5A	30°

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.

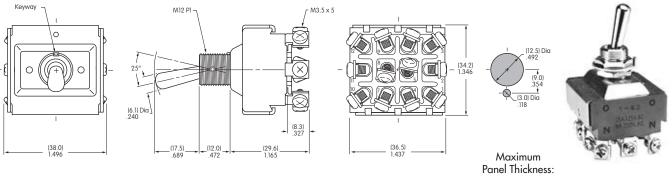


FOUR POLE WITH SCREW LUG

							OOKI	OLL V	V 1 1 1 1		IXL V	• L								
* UL, cULu ordered	l with n		on swi	only when tch (see		To	oggle Posit	on/Conne	ected Te	ermino	als				Elect	rical Co	apacity			
	* A	pprov	als			Dowr	n	Center			Up			R	esistive	•	Indu	ctive	a =	
Model	lR.	c 'RU °us	(1)	Pole & Throw		Keyway		-		•				AC 125V	AC 250V	DC 30V	AC 125V PF 0.6	AC 250V PF 0.6	α = Angle of Throw	
S41T	/	/	/	4PST	ON	1-3 4-6	7-9 10-12	NONE	OFF		_	-		25A	9A	20A	10A	5A	25°	
\$42T	/	/	/	4PDT	ON	2-3 5-6	8-9 11-12	NONE	ON	2-1	5-4 8	3-7 1	11-10	25A	9A	20A	10A	5A	25°	
S43T	/	/	/	4PDT	ON	2-3 5-6	8-9 11-12	OFF	ON	2-1	5-4 8	3-7 1	11-10	25A	9A	20A	10A	5A	30°	

4PST 4PDT Note: Throw & Terminal numbers **Schematics:** 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

.181" (4.6mm)

S42T

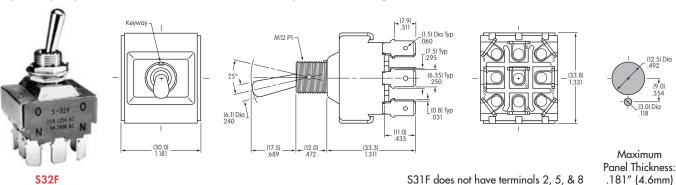


Keylocks | Programmable | Illuminated PB | Pushbuttons

Touch

UL, cULus & with marki					ı	Toggle Position					-0.	Electrica	l Capa	ıcity	
	* 4	Approva	ls			Down	Center		Up			Resistive		Inductive	
Model	<i>U</i> R。	c 91 0°us	(SP	Pole & Throw		Keyway¬	-		7		AC 125V	AC 250V	DC 30V	AC 125V PF 0.6	α = Angle of Throw
\$31F	/	/	/	3PST	ON	1-3 4-6 7-9	NONE	OFF		_	25A	9A	204	10A	25°
S32F	/	/	/	3PDT	ON	2-3 5-6 8-9	NONE	ON	2-1	5-4 8-7	25A	9A	204	10A	25°
S33F	/	/	/	3PDT	ON	2-3 5-6 8-9	OFF	ON	2-1	5-4 8-7	25A	9A	204	10A	30°
Throw & Schematic		3PST	Å	3 4	^ 6	7 • 9 IN	TERNAL DNNECTION	3PE	OT 3 • ∕	² •1 6 6	5 • (CO	M) 8		Note: Termino are on	al numbers the switch

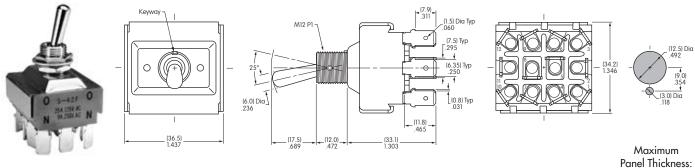
Optional Splashproof Boot Assemblies: AT401 & AT4181 boots plus hex nut & o-ring. See Accessories & Hardware section.



					F	OUR P	OLI	E WIT	TH QU	ICK	CC	1110	NEC	CT					
* UL, cULus & with marki	CSA reco	ognized o vitch (see	nly who	en ordered Il Specs)		1	Toggle	e Positio	n/Conne	cted Te	rmin	als			E	lectrico	ıl Cap	acity	
	* A	pprova	ls			Dow	'n		Center			Up			R	esistiv	9	Inductive	
Model	<i>LR</i> 。	c 711° us	(P)	Pole & Throw		Keyway			-			7			AC 125V	AC 250V	DC 30V	AC 125V PF 0.6	α = Angle of Throw
\$41F	/	/	/	4PST	ON	1-3 4-6	7-9	10-12	NONE	OFF				_	25A	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	25A	9A	20A	10A	25°
\$43F	/	/	/	4PDT	ON	2-3 5-6	8-9	11-12	OFF	ON	2-1	5-4	8-7	11-10	25A	9A	20A	10A	30°



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.



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



S42F

Keylocks Programmable Illuminated PB Pushbuttons

Electrical Capacity (Resistive & Inductive Load)

Power Level: Shown in the following tables

Other Ratings

10 milliohms maximum **Contact Resistance:**

Insulation Resistance: 1,000 megohms minimum @ 500V DC **Dielectric Strength:** 2,000V AC minimum for 1 minute minimum

GENERAL SPECIFICATIONS FOR \$421 ~ \$429

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 Silver alloy capped on copper with silver plating **Stationary Contacts:**

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

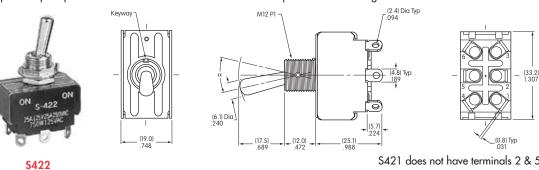
Maximum Panel Thickness: Shown beneath panel cutout in switch dimension drawings Manual Soldering: See Profile A in Supplement section. **Soldering Time & Temperature:**



Supplement | Accessories | Indicators

DOUBLE POLE WITH SOLDER LUG **Toggle Position/Connected Terminals Electrical Capacity** () = Momentary Down Motor **Approvals** Center Resistive Inductive Load Keyway-Pole & PF 0.75 - 0.8 Angle AC AC *LR*。 Model **Throw** of Throw 125V 125V 250V AC 125V AC 250V 750W 24° **S421 DPST** ON 1-3 4-6 NONE OFF 25A 25A 25A 25A 2-1 5-4 750W **S422 DPDT** ON 2-3 5-6 NONE ON 25A 25A 25A 25A 24° DPDT 28° **S423** ON 2-3 5-6 OFF ON 2-1 5-4 25A 25A 25A 25A 750W **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 400W 24° 15A 15A 15A • 2 **DPDT** Note: Terminal numbers Throw & DPST INTERNAL CONNECTION **Schematics:** 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.



S421 does not have terminals 2 & 5

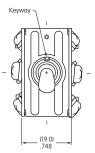
Maximum Panel Thickness: .185" (4.7mm)

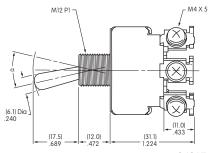
DOUBLE POLE WITH SCREW LUG

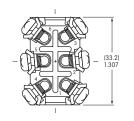
					Toggle Positi	on/Connect) = Moment		nals		Electri	cal Capaci	ty		
	Appr	ovals			own	Center		Up	Resi	stive	Indu	ıctive	Motor Load	α =
	<i>LR</i> 。	®	Pole &	Ke	yway¬			7	AC	AC		75 - 0.8	AC	Angle
Model	ه.	OF.	Throw						125V	250V	AC 125V	AC 250V	125V	of Throw
S421T	_	_	DPST	ON	1-3 4-6	NONE	OFF	_	20A	20A	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 & Schematic				3 4	INTE	RNAL NECTION	DPDT	3 • 1	OM) 5	? • 4	ı		inal numbe	

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.











S421T does not have terminals 2 & 5





GENERAL SPECIFICATIONS FOR S800s ~ S732

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: 2,000 VAC 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.

Keylocks Programmable Illuminated PB Pushbuttons

S822

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

Pole &

Throw

3PST

3PDT

3PDT

ON

ON

ON

(1)

3PST

Model

S831

S832

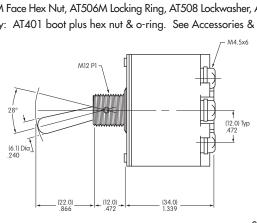
S833

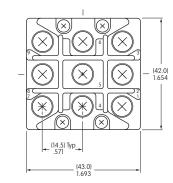
Throw &

Schematics:

Indicators

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-	(1)		
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Maximum Panel Thickness: .177" (4.5mm)

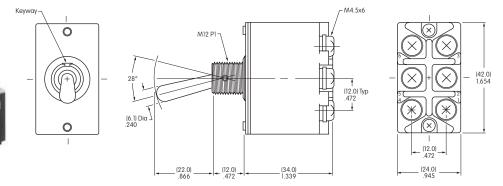
Maximum Panel Thickness:

.177" (4.5mm)

DOUBLE POLE WITH SCREW LUG

						DOOL	ILL I O	LL VV	1111 30	IXT AA	LUU					
	ered wit	SA recogn th markin General S	g on s	nly when witch	To	oggle Positio	n/Connecte	ed Tern	ninals			Electrico	al Capac	ity		
	* 4	Approva	ıls		Pole & Keyway		Center		Up		Resi	stive		Indu	ctive	Motor Load
Model	<i>LR</i> 。	c 911 °us	(IP)	Pole & Throw	K	eyway¬	-	•	-	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	_
5823	/	/	/	DPDT	ON	2-3 5-6	OFF	ON	2-1 5-4	30A	30A	30A	1A	30A	15A	
Throw &						2 (COM) 5	•		DPDT :	2	(COM) • 1 6 •	5 •			Terminal n are on the	

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.



S821 does not have terminals 1 & 4

THREE POLE WITH SCREW LUG												
Toggle Positio	n/Connect	minals	Electrical Capacity									
Down	Center	Up		Resi	stive		Inductive					
Keyway-			7	AC 125V	AC 250V	DC 30V	DC 125V	AC 125V PF 0.6	AC 250V PF 0.6			
2-3 5-6 8-9	NONE	OFF	_	30A	30A	30A	1A	30A	15A			
2-3 5-6 8-9	NONE	ON	2-1 5-4 8-7	30A	30A	30A	1A	30A	15A			
2-3 5-6 8-9	OFF	ON	2-1 5-4 8-7	30A	30A	30A	1A	30A	1 <i>5</i> A			
5 (COM)	8	3PDT	3 • 1 6	5 • (0	COM) • 8	● 7	Note:	Terminal r				

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.



DOUBLE 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							
*Approvals					Down Center		Up			Resistive					Inductive L/R = 3ms				
Model	<i>L</i> R.	c 911 °us	48	Pole & Throw		Keyway-	-		\	•	DC 30V	DC 48V	DC 125V	DC 250V	DC 400V	DC 24V	DC 48V	DC 125V	DC 250V
\$821D	/	/	/	DPST	ON	2-3 5-6	NONE	OFF	_		30A	30A	20A	15A	4A (10A)	1 <i>5</i> A	10A	6A	3A
S822D	/	/	/	DPDT	ON	2-3 5-6	NONE	ON	2-1	5-4	30A	30A	20A	15A	4A	1 <i>5</i> A	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

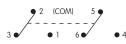
() capacity is due to wiring. Refer to instructions below.

Throw & **Schematics:**



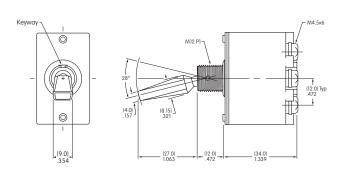




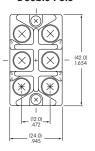


Note: Terminal numbers are on the switch

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



.177" (4.5mm)



S822D

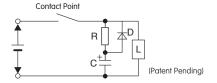
400V DC WIRING INSTRUCTIONS

1. DC Switch Use

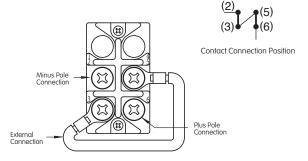
- Middle terminal shall be the minus pole when using DC circuit. Switch case is marked with (+) and (-).
- Do not store near (5cm) highly magnetic items.
- If actuation is interrupted when switching from ON to OFF, arcing may continue and switch could be burned.

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.

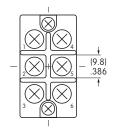


2. Wiring for DC400V 10A



4. Compressed Terminal Connection

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





S832D

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THREE POLE WITH SCREW LUG & FLATTED LEVER * UL, cULus & CSA recognized only when ordered with marking on switch **Electrical Capacity** Toggle Position/Connected Terminals (see General Specs) *Approvals Down Center Up Resistive Inductive L/R = 3msPole & Keyway 🥆 Model c**TU**°us Throw 48V 125V 250V 24V 48V 125V 4 **S831D** 3PST ON 2-3 5-6 8-9 NONE OFF 30A 30A 15A 7.5A 15A 10A

NONE

S833D 3PDT ON 2-3 5-6 8-9 OFF ON 2-1 5-4 8-7 30A 30A 7.5A 15A (COM) (COM) Throw & 3PST 3PDT **Schematics:**

ON 2-3 5-6 8-9

Note: Terminal numbers are on the switch

10A

10A

6A

6A

6A

250V

3A

3A

3A

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

ON 2-1 5-4 8-7

30A

30A

15A

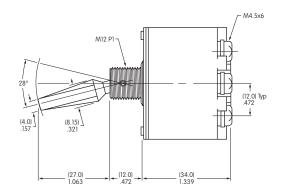
7.5A

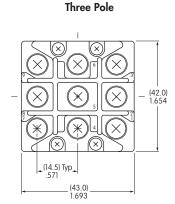
15A

15A

0

3PDT





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





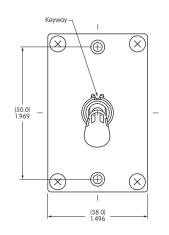


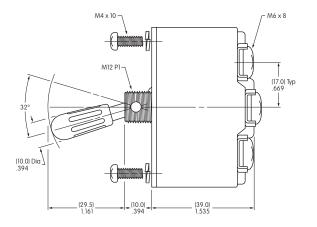
Maximum Panel Thickness: .177" (4.5mm)

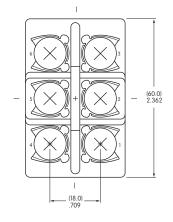


DOUBLE POLE WITH SCREW LUG														
					Toggle Posit	ion/Connecte	ed Termina	lls	Electrical Capacity					
	Approvals			Down		Center	Up			Inductive				
Model	<i>L</i> R。	(P)	Pole & Throw	1	Keyway¬	T	•	-	AC 125V	AC 250V	DC 30V	AC 125V PF 0.6		
\$732	_	_	DPDT	ON	2-3 5-6	NONE	ON	2-1 5-4	50A	30A	50A	25A		
Throw & Schemati	cs:		DPDT	3 (2 (COM) 	5 • 4		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.

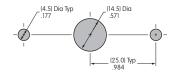






Cap of phenolic resin is black

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