# General Specifications

#### **Electrical Capacity (Resistive Load)**

0.4VA maximum @ 28V AC/DC maximum Logic Level:

(Applicable Range 0.1mA ~ 0.1A @ 20mV ~ 28V)

Note: Find additional explanation of operating range in Supplement section.

#### Other Ratings

**Contact Resistance:** 50 milliohms maximum

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

Mechanical Life: 50,000 operations minimum **Electrical Life:** 50,000 operations minimum

**Nominal Operating Force:** 2.55N

> **Contact Timing:** Nonshorting (break-before-make)

> > Pretravel: .082" (2.1mm); Overtravel: .016" (0.4mm); Total Travel: .098" (2.5mm)

#### **Materials & Finishes**

Glass fiber reinforced polyamide Actuator: **Upper Case Housing:** Carbon blended polyacetal (antistatic) **Lower Case Housing:** Glass fiber reinforced polyamide **Support Bracket:** Tin plated phosphor bronze **Movable Contact:** Phosphor bronze with gold plating

**Stationary Contacts:** Brass with gold plating Terminals: Brass with gold plating

#### **Environmental Data**

-30°C through +85°C (-22°F through +185°F) **Operating Temperature Range:** 

**Humidity:** 90 ~ 95% humidity for 192 hours @ 40°C (104°F)

10 ~ 60Hz with peak-to-peak amplitude of 1.5mm traversing the frequency range Vibration:

& returning in 5 minutes; 3 right angled directions for 30 minutes

Shock: 50G (490m/s²) acceleration (tested in 6 right angled directions, with 5 shocks in each direction)

#### **PCB Processing**

Soldering: Wave Soldering Recommended. See Profile A in Supplement section.

Manual Soldering: for single pole see Profile B in Supplement section; for double pole see Profile A.

Cleaning: These devices are not process sealed. Hand clean locally using alcohol based solution.

#### **Standards & Certifications**

The A Series slides have not been tested for UL recognition or CSA certification. These switches are designed for use in a low-voltage, low-current, logic-level circuit.

When used as intended in a logic-level circuit, the results do not produce hazardous energy.



## Distinctive Characteristics

Subminiature size (1/3 size of Series M switches) saves space on PC boards.

Specifically developed for logic-level applications.

Award-winning STC contact mechanism with benefits unavailable in conventional mechanisms: smoother, positive detent actuation, increased contact stability and unparalleled logic-level reliability. (Additional STC details in Terms & Acronyms; see Supplement section.)

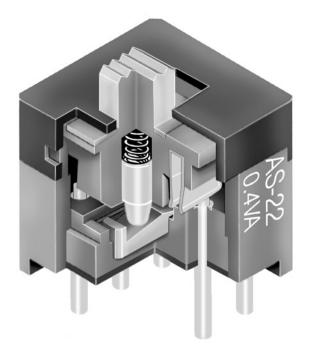
Available in various actuator lengths.

Antistatic superstructure of carbon blended polyacetal prevents static discharge to the contacts.

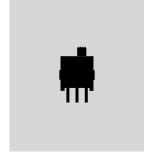
Molded-in, epoxy sealed or ultrasonically welded terminals lock out flux, solvents, and other contaminants.

 $.100'' \times .100''$  (2.54mm  $\times$  2.54mm) terminal spacing conforms to standard PC board grid spacing.

Matching indicators available.



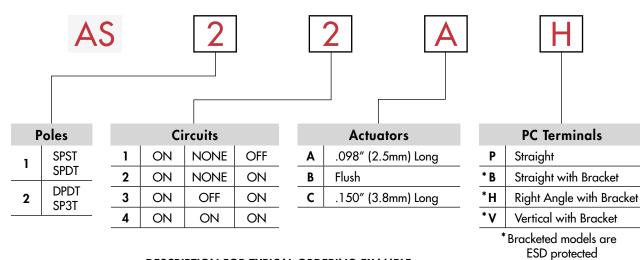






Touch

### TYPICAL SWITCH ORDERING EXAMPLE



#### **DESCRIPTION FOR TYPICAL ORDERING EXAMPLE**

#### AS22AH

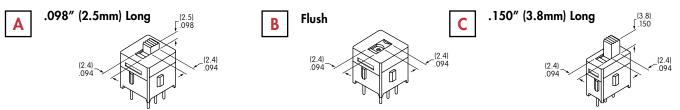


POLES & CIRCUITS										
		Slide Position			Connected Terminals			Throw & Schematics		
		Left	Center	Right	Left	Center	Right	Note: Terminal numbers are not actually on the switch.		
Pole	Model	<b>_</b>		4	<b>_</b>					
SP	AS11	ON	NONE	OFF	3-1	OPEN	OPEN	SPST	INTERNAL CONNECTION	
SP	AS12 AS13	ON ON	NONE OFF	ON ON	2-1 2-1	OPEN OPEN	2-3 2-3	SPDT	2 (COM) • 3	
DP	AS22 AS23	ON ON	NONE OFF	ON ON	2-1 5-4 2-1 5-4	OPEN OPEN	2-3 5-6 2-3 5-6	DPDT	9 2 (COM) 5 9 1 • 3 4 • 6	

#### For 3 Throw (3-On)

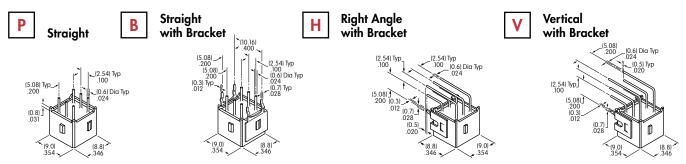
		Connected Ter	External Connection			
Pole	Model	Left	Center	Right	The SP3T model utilizes a double pole base.  External connections must be made during field	
SP		ON	ON	ON		
	AS24	External Connection 7 2 (in) 5 1 (out) 3 4 (out) 6 (out)	External Connection 7 2 (in) 5 5 1 (out) 3 4 (out) 6 (out)	External Connection 5 5 1 (out) 3 4 (out) 6 (out)		
		2-1 5-4	2-3 5-4	2-3 5-6	installation.	

#### **ACTUATORS**



Actuator Color: Gray standard; contact factory for other colors.

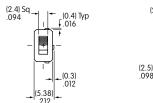
#### **PC TERMINALS**

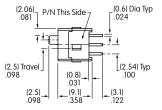


Use of a support bracket is recommended to increase PCB mounting strength and stability.

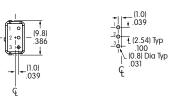
#### TYPICAL SWITCH DIMENSIONS







Actuator shown in LEFT position

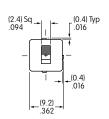


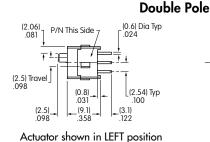


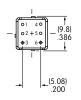


Single throw models do not have terminal 2. AS12AP

## Straight PC







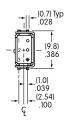


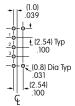


AS22AP

#### Single Pole

(0.3) Typ .012 (0.6) Dia Typ [.024 (2.06) P/N This Side (10.16) (2.5) Travel .098 (0.8) .031 \_(9.1) .358 (2.54) Typ .100 (3.1)

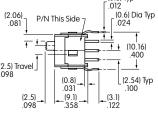






Straight PC • Bracket

(2.4) Sq .094







Actuator shown in LEFT position

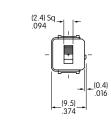
Rotaries

#### TYPICAL SWITCH DIMENSIONS

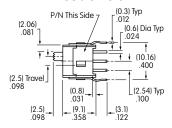
#### Straight PC • Bracket

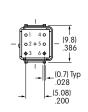
**Series AS** 

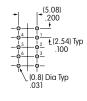




#### **Double Pole**



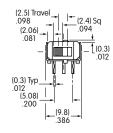




AS22AB

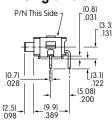
Right Angle PC

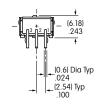




Single Pole

Actuator shown in LEFT position



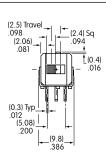




AS12AH

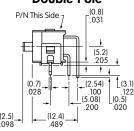
Right Angle PC

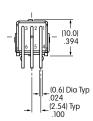


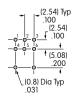


**Double Pole** 

Actuator shown in LEFT position



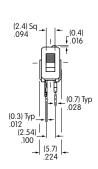




AS22AH

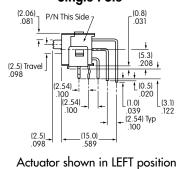
**Vertical PC** 

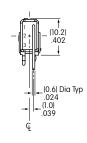


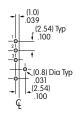


Single Pole

Actuator shown in LEFT position



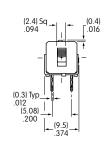




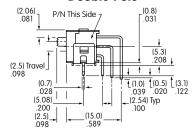
AS12AV

**Vertical PC** 

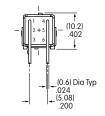


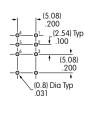


**Double Pole** 



Actuator shown in LEFT position





AS22AV

