

# Distinctive Characteristics

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

Specifically developed for logic-level applications.

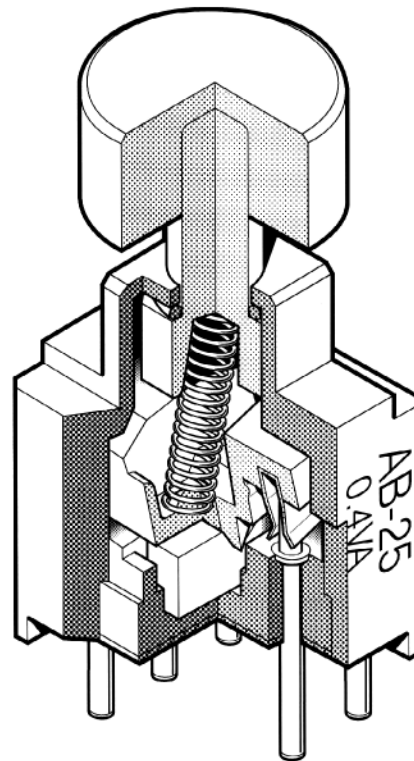
Totally sealed body construction prevents contact contamination and allows time- and money-saving automated soldering and washing.

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 page Z2.)

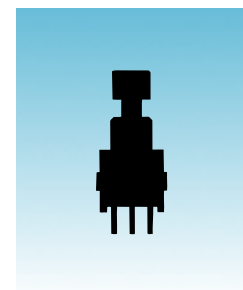
Molded-in, epoxy sealed or ultrasonically welded terminals lock out flux, solvents, and other contaminants.

.100" x .100" terminal spacing conforms to standard PC board grid spacing.

Matching indicators available and shown in the Indicator section.



Actual Size



# General Specifications

## Electrical Capacity (Resistive Load)

**Logic Level:** 0.4VA maximum @ 28V AC/DC maximum  
(Applicable Range 0.1mA ~ 0.1A @ 20mV ~ 28V)  
Note: See Supplement Index (page Z2) to find explanation of operating range.

## 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:** 260 grams  
**Contact Timing:** Nonshorting (break-before-make)  
**Travel:** 0.7mm (.028") pretravel; 0.4mm (.016") overtravel; 1.1mm (.043") total travel

## Materials & Finishes

**Plunger:** Polyacetal  
**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

## Environmental Data

**Operating Temp Range:** -30°C through +85°C (-22°F through +185°F)  
**Humidity:** 90 ~ 95% humidity for 96 hours @ 40°C (104°F)  
**Vibration:** 10 ~ 55Hz with peak-to-peak amplitude of 1.5mm traversing the frequency range & returning in 1 minute; 3 right angled directions for 2 hours  
**Shock:** 50G (490m/s<sup>2</sup>) acceleration (tested in 6 right angled directions, with 5 shocks in each direction)

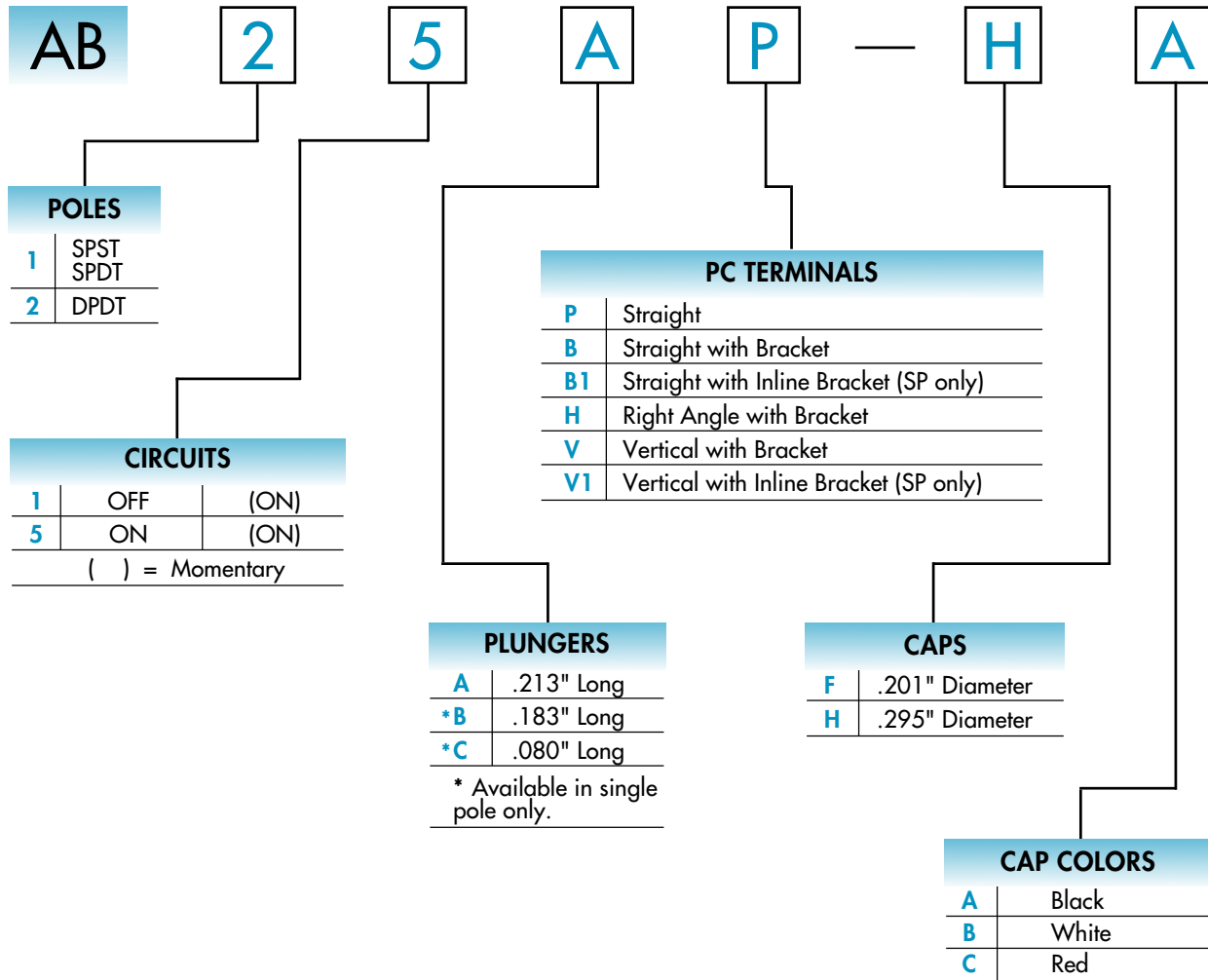
## Installation

**Cap Installation Force:** 49.03N (11.2 lbf) maximum downward force on actuator  
**Soldering Time & Temperature:** 3 seconds @ 350°C or 5 seconds @ 270°C  
**Process Seal:** See Supplement Index (page Z2) for specific processing data.

## Standards & Certifications

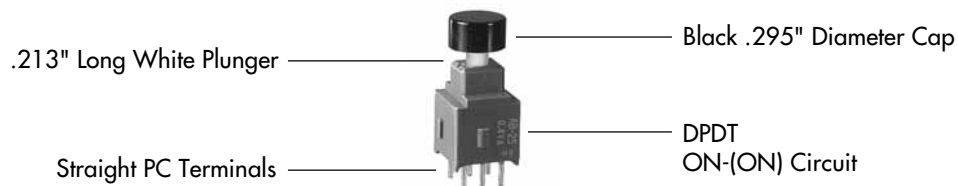
**UL Recognition or CSA Certification:** The AB Series pushbuttons have not been tested for UL recognition or CSA certification. These switches are designed for use in a low-voltage, low-current, logic-level circuit. When used as intended in a logic-level circuit, the results do not produce hazardous energy.

## TYPICAL SWITCH ORDERING EXAMPLE



### DESCRIPTION FOR TYPICAL ORDERING EXAMPLE

#### AB25AP-HA

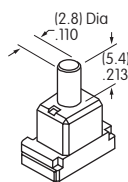


## POLES & CIRCUITS

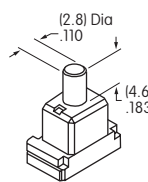
Pole	Model	Plunger Position ( ) = Momentary		Connected Terminals		Throw & Schematics
		Normal	Down	Normal	Down	
SP	<b>AB11</b>	OFF 	(ON) 	OPEN 	3-1 	Note: Terminal numbers are not actually on the switch. SPST 
SP	<b>AB15</b>	ON 	(ON) 	2-3 	2-1 	SPDT 
DP	<b>AB25</b>	ON 	(ON) 	2-3 5-6 	2-1 5-4 	DPDT 

## PLUNGERS

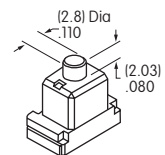
**A** .213" Long



**B** .183" Long (on SP only)



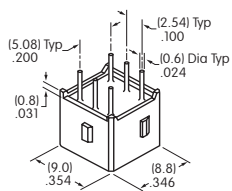
**C** .080" Long (on SP only)



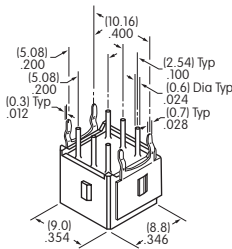
Standard Plunger Color: White Contact factory for red or black options.

## PC TERMINALS

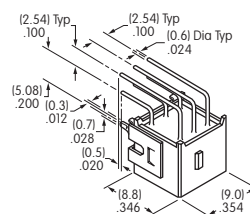
**P** Straight



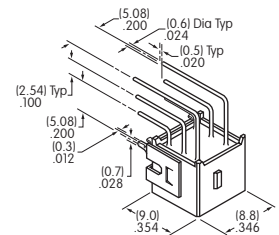
**B** Straight with Bracket



**H** Right Angle with Bracket



**V** Vertical with Bracket



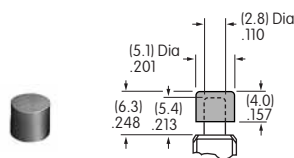
Use of a support bracket or placement of the square bushing in a panel cutout increases PCB mounting stability. B1 & V1 terminal dimensions appear on the pushbutton drawings which follow.

## OPTIONAL SLIP-ON CAPS

**F** AT475  
.201" Diameter Cap

Material: Polyamide

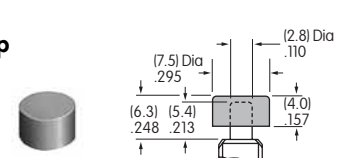
For use with plungers A & B only.



**H** AT496  
.295" Diameter Cap

Material: Polyamide

For use with plungers A & B only.



Colors Available:

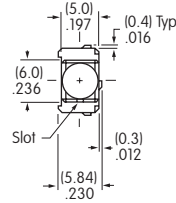
**A** Black

**B** White

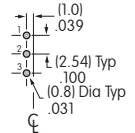
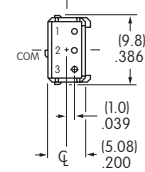
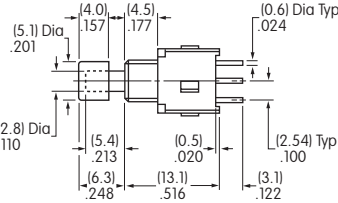
**C** Red

## TYPICAL SWITCH DIMENSIONS

### Straight PC



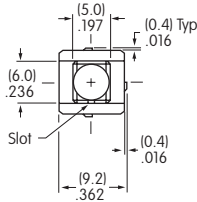
### Single Pole



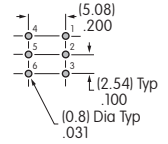
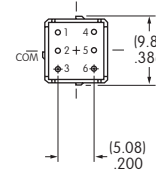
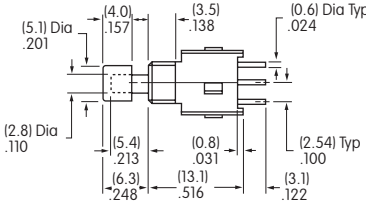
AB15AP-FA

AB11 model does not have terminal 2.

### Straight PC

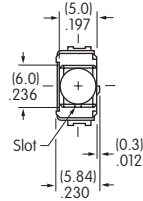


### Double Pole

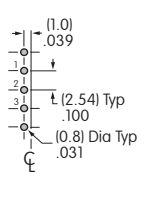
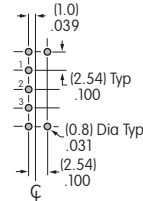
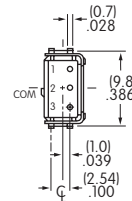
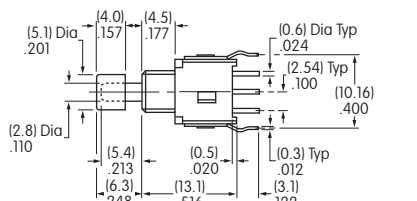


AB25AP-FA

### Straight PC • Bracket



### Single Pole

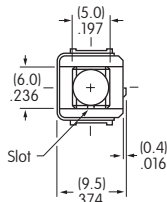


AB15AB-FA

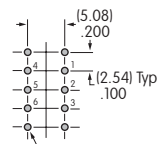
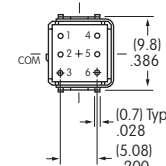
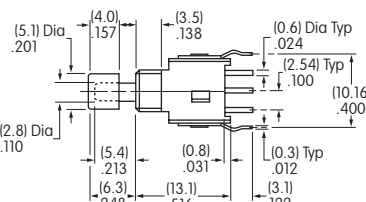
B Terminals

B1 Terminals

### Straight PC • Bracket

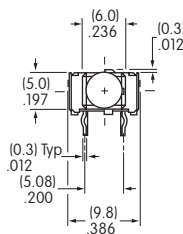


### Double Pole

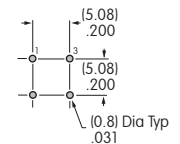
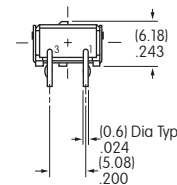
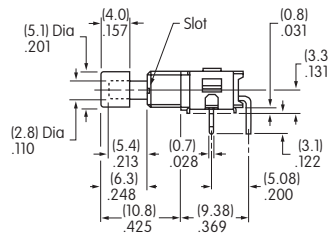


AB25AB-FA

### Right Angle PC



### Single Pole (Single Throw)



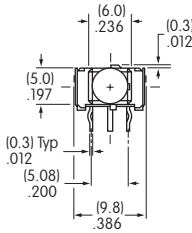
AB11AH-FA

## TYPICAL SWITCH DIMENSIONS

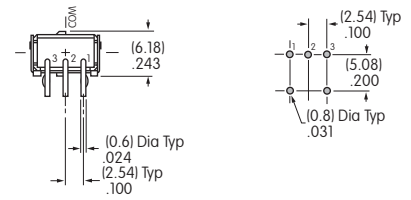
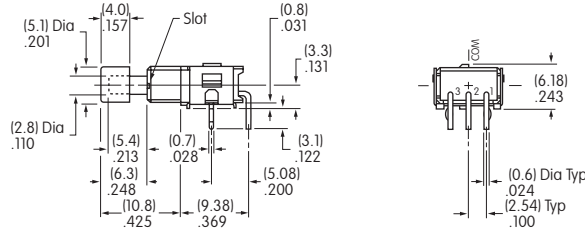
### Right Angle PC



AB15AH-FA



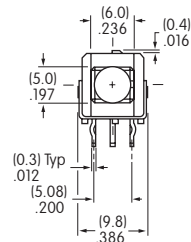
### Single Pole (Double Throw)



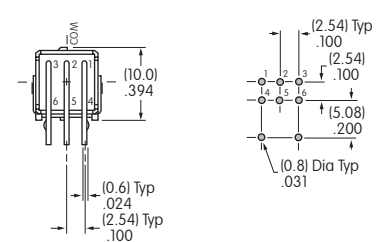
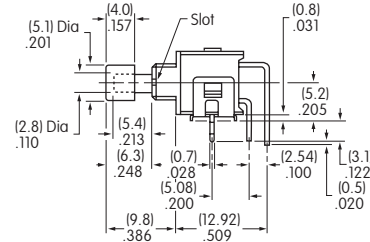
### Right Angle PC



AB25AH-FA



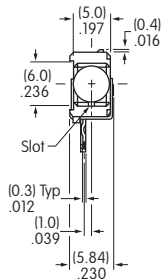
### Double Pole



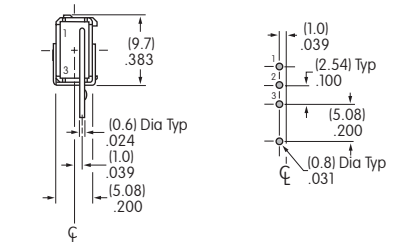
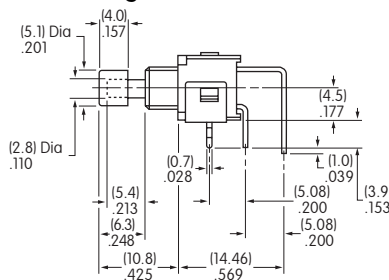
### Vertical PC • Inline Bracket



AB11AV1-FA



### Single Pole

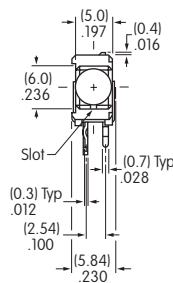


AB11 model does not have terminal 2.

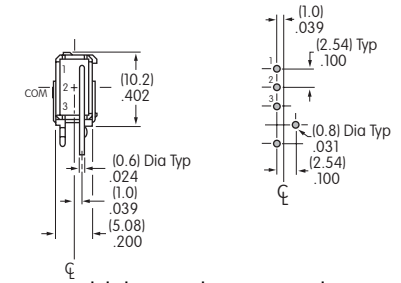
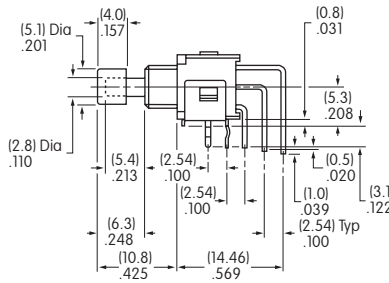
### Vertical PC



AB15AV-FA



### Single Pole

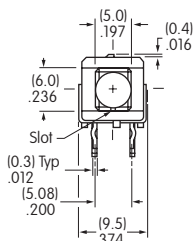


AB11 model does not have terminal 2.

### Vertical PC



AB25AV-FA



### Double Pole

