

# General Specifications

## Electrical Capacity (Resistive Load)

**Logic Level:** 0.4VA maximum @ 28V AC/DC maximum  
(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)  
**Travel:** Pretravel .028" (0.7mm); Overtravel .016" (0.4mm); Total Travel .043" (1.1mm)

## 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  
**Terminals:** 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

## PCB Processing

**Soldering:** Wave Soldering Recommended: See Profile A in Supplement section.  
Manual Soldering: See Profile B in Supplement section.  
**Cleaning:** Automated cleaning. See Cleaning specifications in Supplement section.

## Standards & Certifications

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.

# Distinctive Characteristics

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

Specifically developed for logic-level applications.

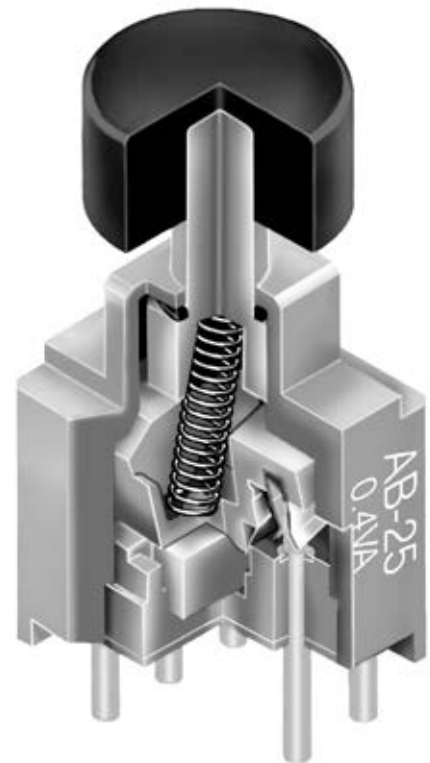
Totally sealed body construction prevents contact contamination and allows time- and money-saving automated soldering and cleaning.

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.)

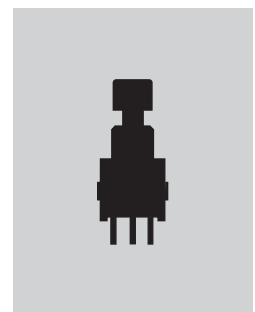
Molded-in, epoxy sealed or ultrasonically welded terminals lock out flux, solvents, and other contaminants.

.100" x .100" (2.54mm x 2.54mm) terminal spacing conforms to standard PC board grid spacing.

Matching indicators available.

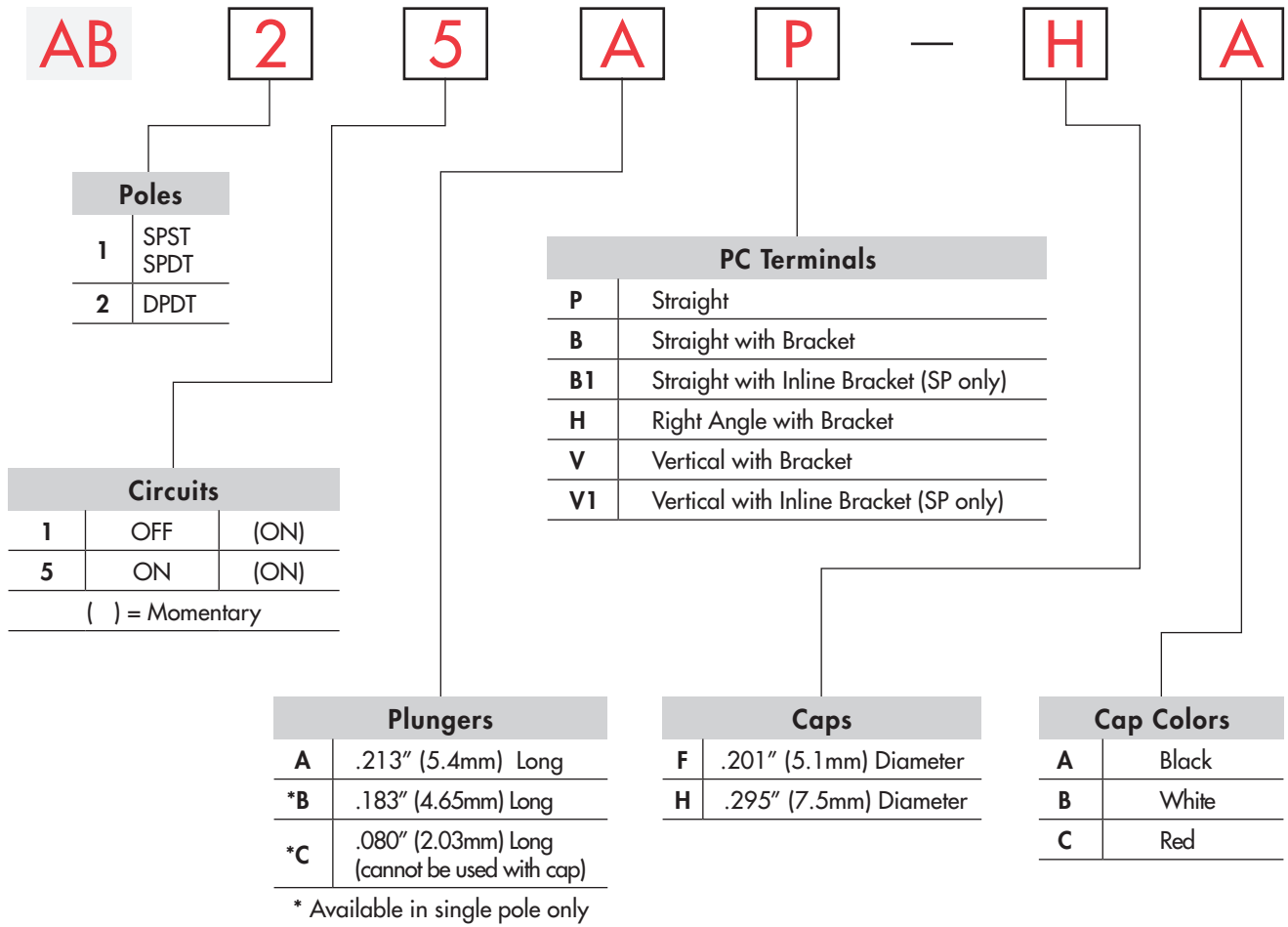


Actual Size



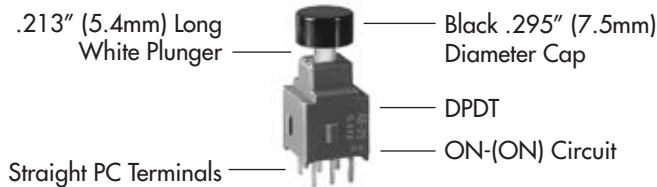
- Supplement
- Accessories
- Indicators
- Touch
- Tilt
- Tactiles
- Slides
- Rotaries
- Keylocks
- Programmable
- Illuminated PB
- Pushbuttons
- Rockers
- Toggles

### TYPICAL SWITCH ORDERING EXAMPLE



### DESCRIPTION FOR TYPICAL ORDERING EXAMPLE

#### AB25AP-HA

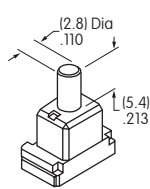


## POLES & CIRCUITS

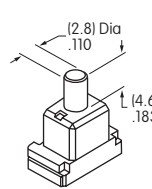
Pole	Model	Plunger Position ( ) = Momentary		Connected Terminals		Throw & Schematics
		Normal	Down	Normal	Down	
						Note: Terminal numbers are not actually on the switch.
SP	AB11	OFF	(ON)	OPEN	3-1	SPST
SP	AB15	ON	(ON)	2-3	2-1	SPDT
DP	AB25	ON	(ON)	2-3 5-6	2-1 5-4	DPDT

## PLUNGERS

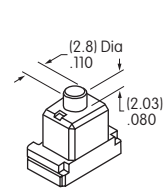
**A** .213" (5.4mm)  
Long



**B** .183" (4.6mm)  
Long  
(on SP only)



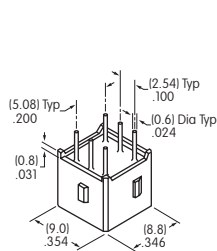
**C** .080" (2.03mm)  
Long  
(on SP only)



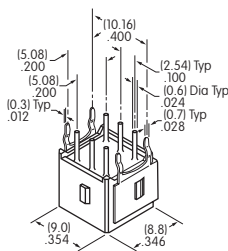
Standard Plunger Color: White      Contact factory for red or black options.

## PC TERMINALS

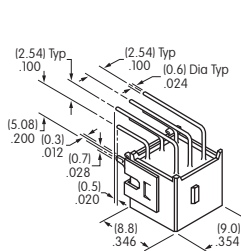
**P** Straight



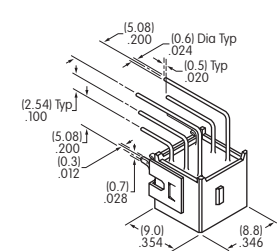
**B** Straight  
with Bracket



**H** Right Angle  
with Bracket



**V** Vertical  
with Bracket

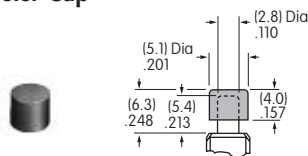


Use of a support bracket is recommended to increase PCB mounting strength and stability.  
B1 & V1 terminal dimensions appear on the pushbutton drawings which follow.

## SLIP-ON CAPS

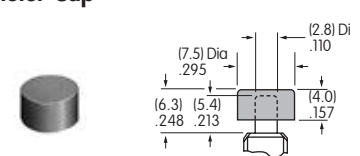
**F** AT475  
.201" (5.1mm) Diameter Cap

Material: Polyamide  
For use with  
plungers A & B only.



**H** AT496  
.295" (7.5mm) Diameter Cap

Material: Polyamide  
For use with  
plungers A & B only.



Colors Available:

**A** Black

**B** White

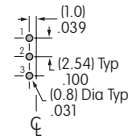
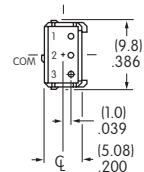
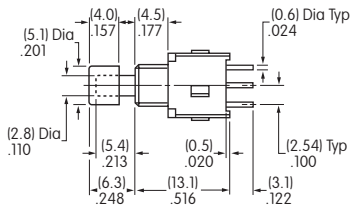
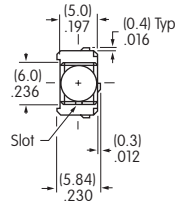
**C** Red

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

## TYPICAL SWITCH DIMENSIONS

### Straight PC

### Single Pole

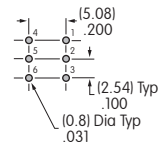
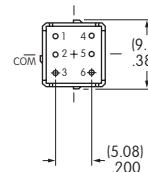
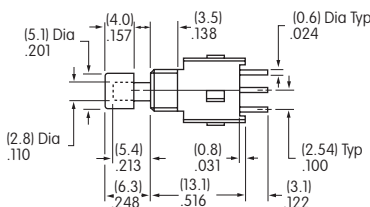
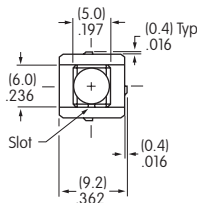


AB15AP-FA

AB11 model does not have terminal 2.

### Straight PC

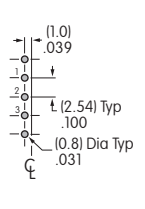
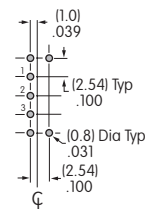
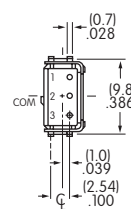
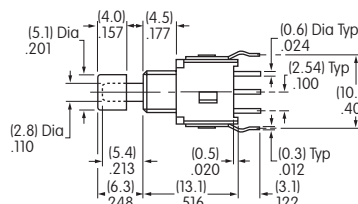
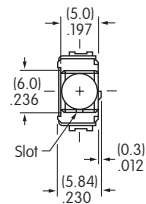
### Double Pole



AB25AP-FA

### Straight PC • Bracket

### Single Pole



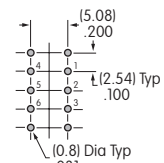
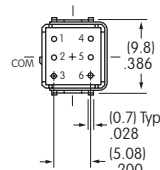
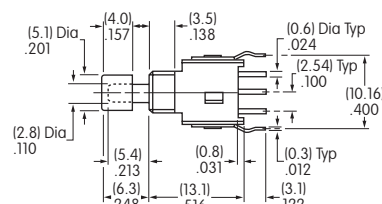
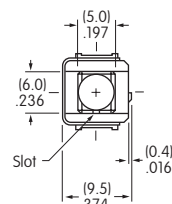
AB15AB-FA

B Terminals

B1 Terminals

### Straight PC • Bracket

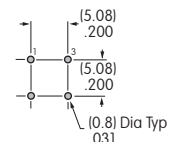
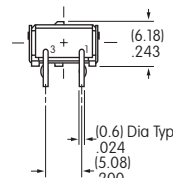
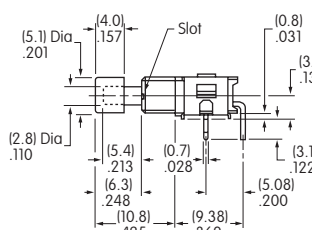
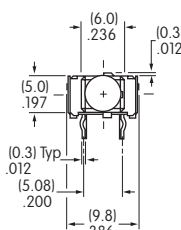
### Double Pole



AB25AB-FA

### Right Angle PC

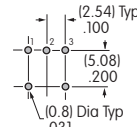
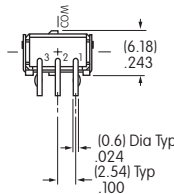
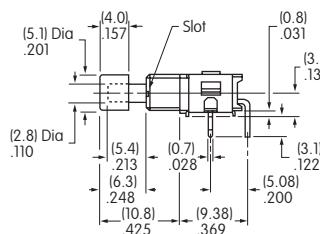
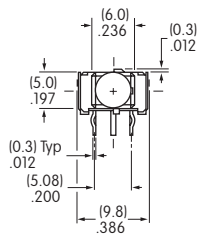
### Single Pole (Single Throw)



AB11AH-FA

## TYPICAL SWITCH DIMENSIONS

### Single Pole (Double Throw)

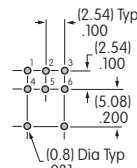
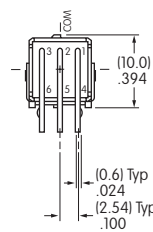
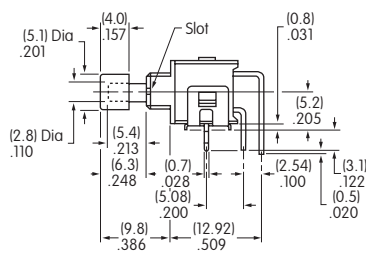
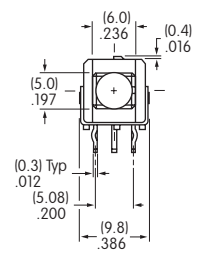


### Right Angle PC



**AB15AH-FA**

### Double Pole



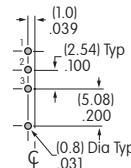
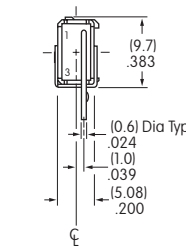
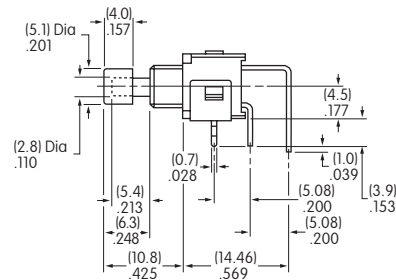
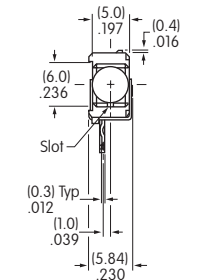
### Right Angle PC



**AB25AH-FA**

### Single Pole

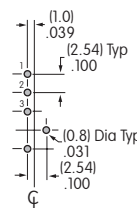
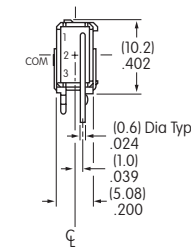
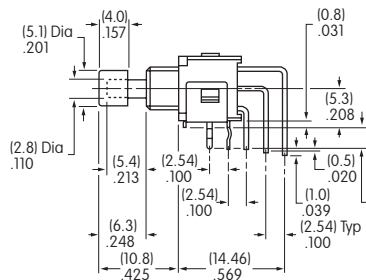
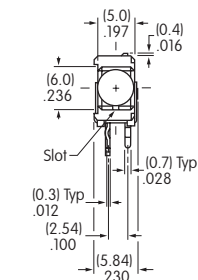
### Vertical PC • Inline Bracket



AB11 model does not have terminal 2. **AB11AV1-FA**

### Single Pole

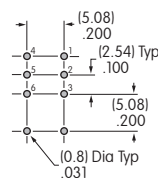
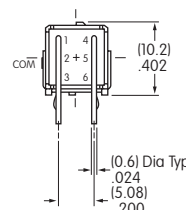
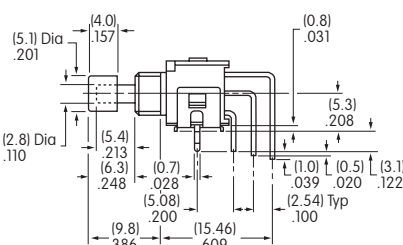
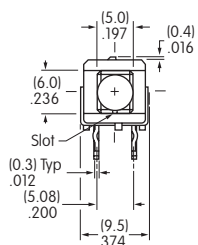
### Vertical PC



AB11 model does not have terminal 2. **AB15AV-FA**

### Double Pole

### Vertical PC



**AB25AV-FA**

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