

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/s²) 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.

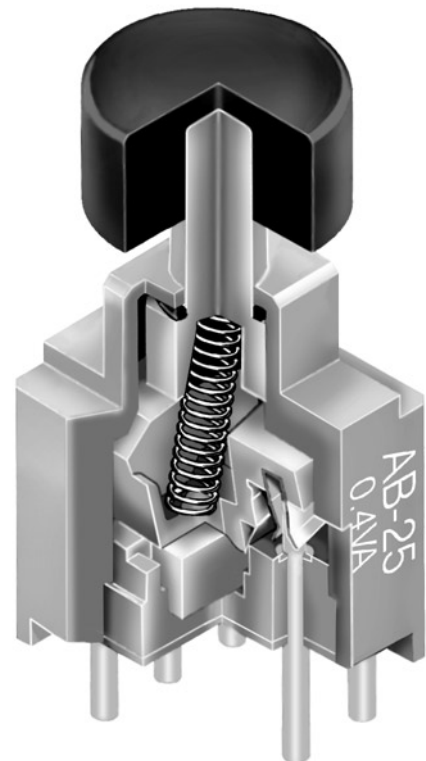
Totally sealed body construction prevents contact contamination and allows time- and money-saving automated soldering and cleaning.

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.)

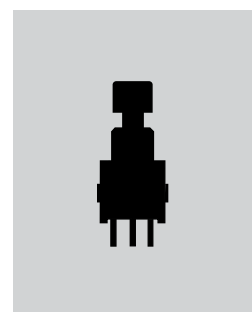
Molded-in, epoxy sealed or ultrasonically welded terminals lock out flux, solvents, and other contaminants.

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

Matching indicators available.



Actual Size



TYPICAL SWITCH ORDERING EXAMPLE

AB 2 5 A P — H A

Poles		
1	SPST	SPDT
2	DPDT	

Circuits		
1	OFF	(ON)
5	ON	(ON)
() = Momentary		

PC Terminals	
P	Straight
B	Straight with Bracket
B1	Straight with Inline Bracket (SP only)
H	Right Angle with Bracket
V	Vertical with Bracket
V1	Vertical with Inline Bracket (SP only)

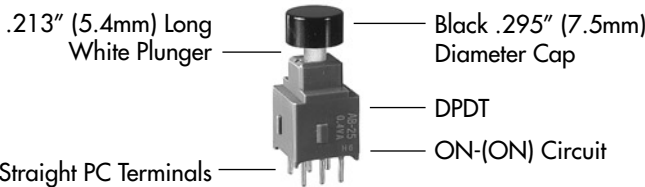
Plungers	
A	.213" (5.4mm) Long
*B	.183" (4.65mm) Long
*C	.080" (2.03mm) Long (cannot be used with cap)
* Available in single pole only	

Caps	
F	.201" (5.1mm) Diameter
H	.295" (7.5mm) Diameter

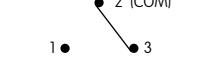
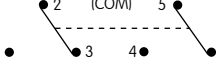
Cap Colors	
A	Black
B	White
C	Red

DESCRIPTION FOR TYPICAL ORDERING EXAMPLE

AB25AP-HA



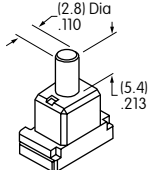
POLES & CIRCUITS

Pole	Model	Plunger Position () = Momentary		Connected Terminals		Throw & Schematics
		Normal 	Down 	Normal 	Down 	
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 

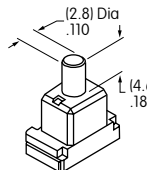
Note: Terminal numbers are not actually on the switch.

PLUNGERS

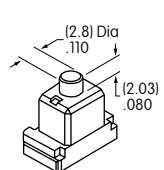
A .213" (5.4mm)
Long



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



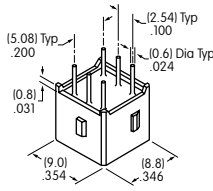
C .080" (2.03mm)
Long
(on SP only)



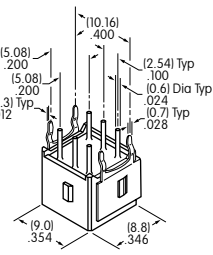
Standard Plunger Color: White Contact factory for red or black options.

PC TERMINALS

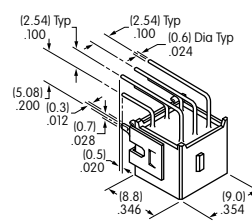
P Straight



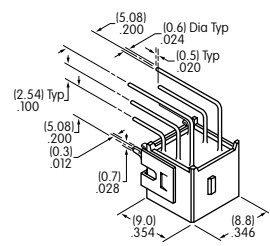
B Straight
with Bracket



H Right Angle
with Bracket



V Vertical
with Bracket

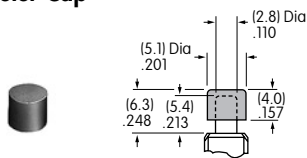


Use of a support bracket is recommended to increase PCB mounting strength and stability.
B1 & V1 terminal dimensions appear on the pushbutton drawings which follow.

SLIP-ON CAPS

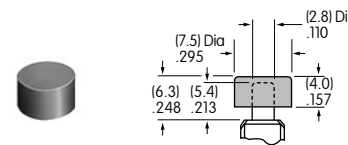
F AT475
.201" (5.1mm) Diameter Cap

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

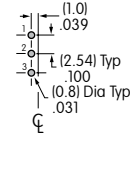
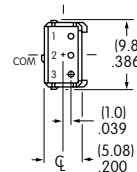
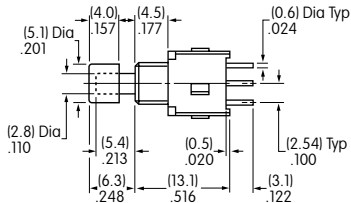
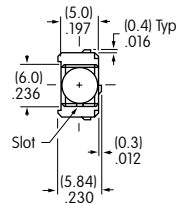
B White

C Red

TYPICAL SWITCH DIMENSIONS

Straight PC

Single Pole

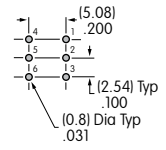
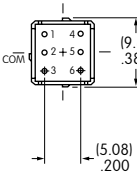
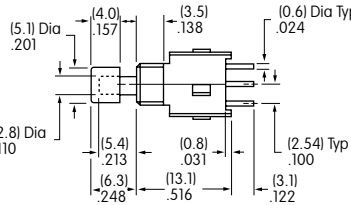
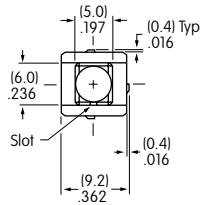


AB15AP-FA

AB11 model does not have terminal 2.

Straight PC

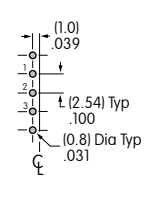
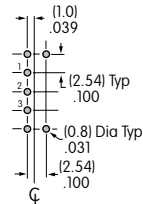
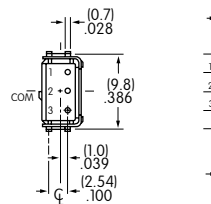
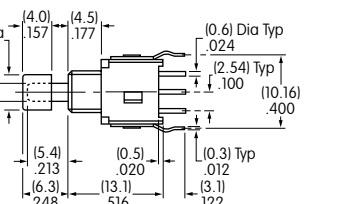
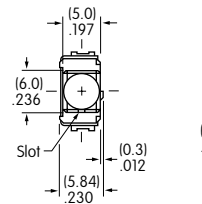
Double Pole



AB25AP-FA

Straight PC • Bracket

Single Pole



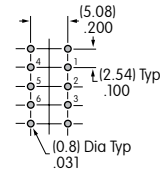
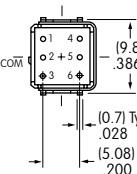
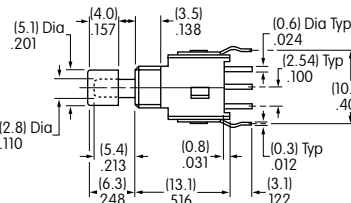
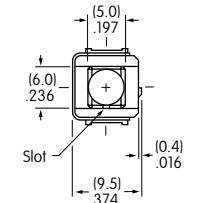
AB15AB-FA

B Terminals

B1 Terminals

Straight PC • Bracket

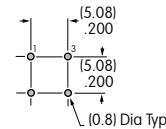
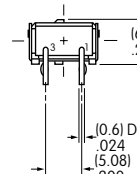
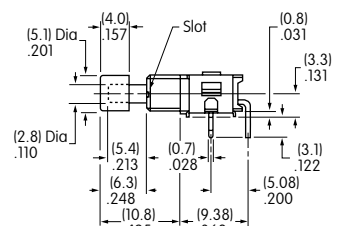
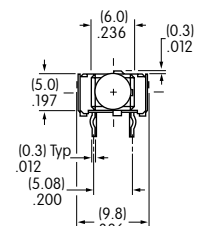
Double Pole



AB25AB-FA

Right Angle PC

Single Pole (Single Throw)

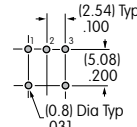
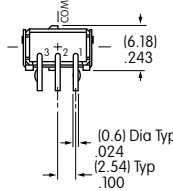
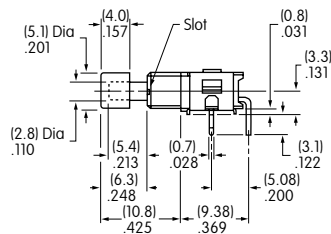
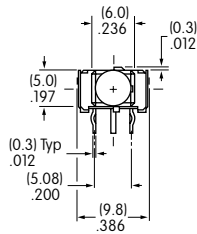


AB11AH-FA

TYPICAL SWITCH DIMENSIONS

Single Pole (Double Throw)

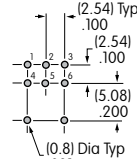
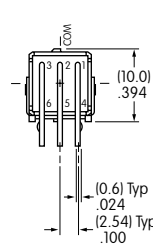
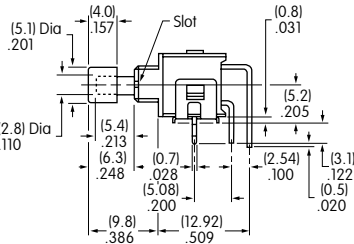
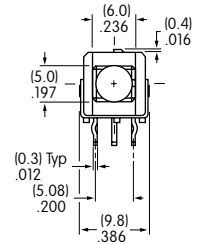
Right Angle PC



AB15AH-FA

Double Pole

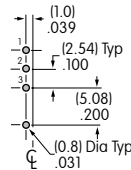
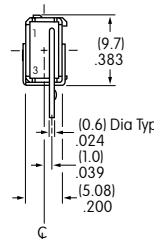
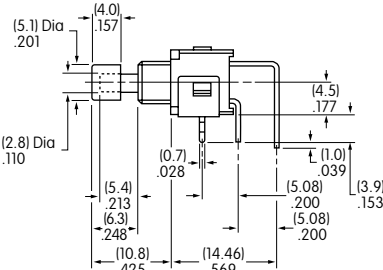
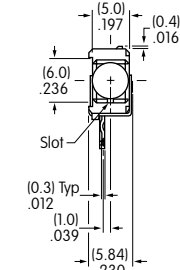
Right Angle PC



AB25AH-FA

Single Pole

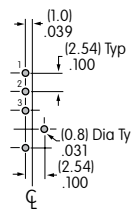
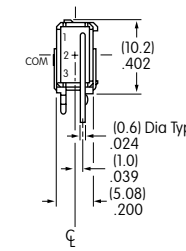
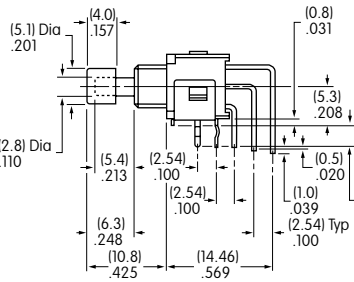
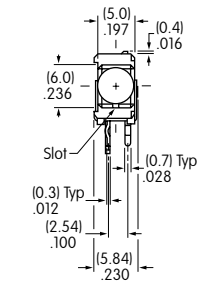
Vertical PC • Inline Bracket



AB11 model does not have terminal 2. AB11AV1-FA

Single Pole

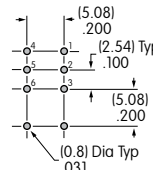
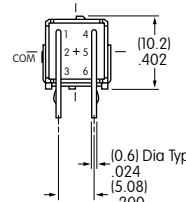
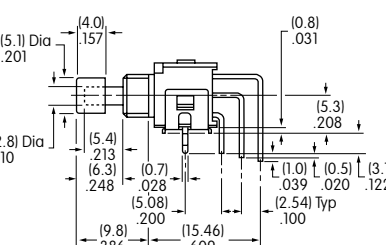
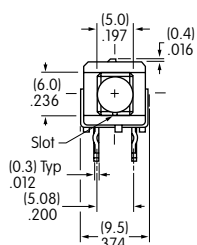
Vertical PC



AB11 model does not have terminal 2. AB15AV-FA

Double Pole

Vertical PC



AB25AV-FA