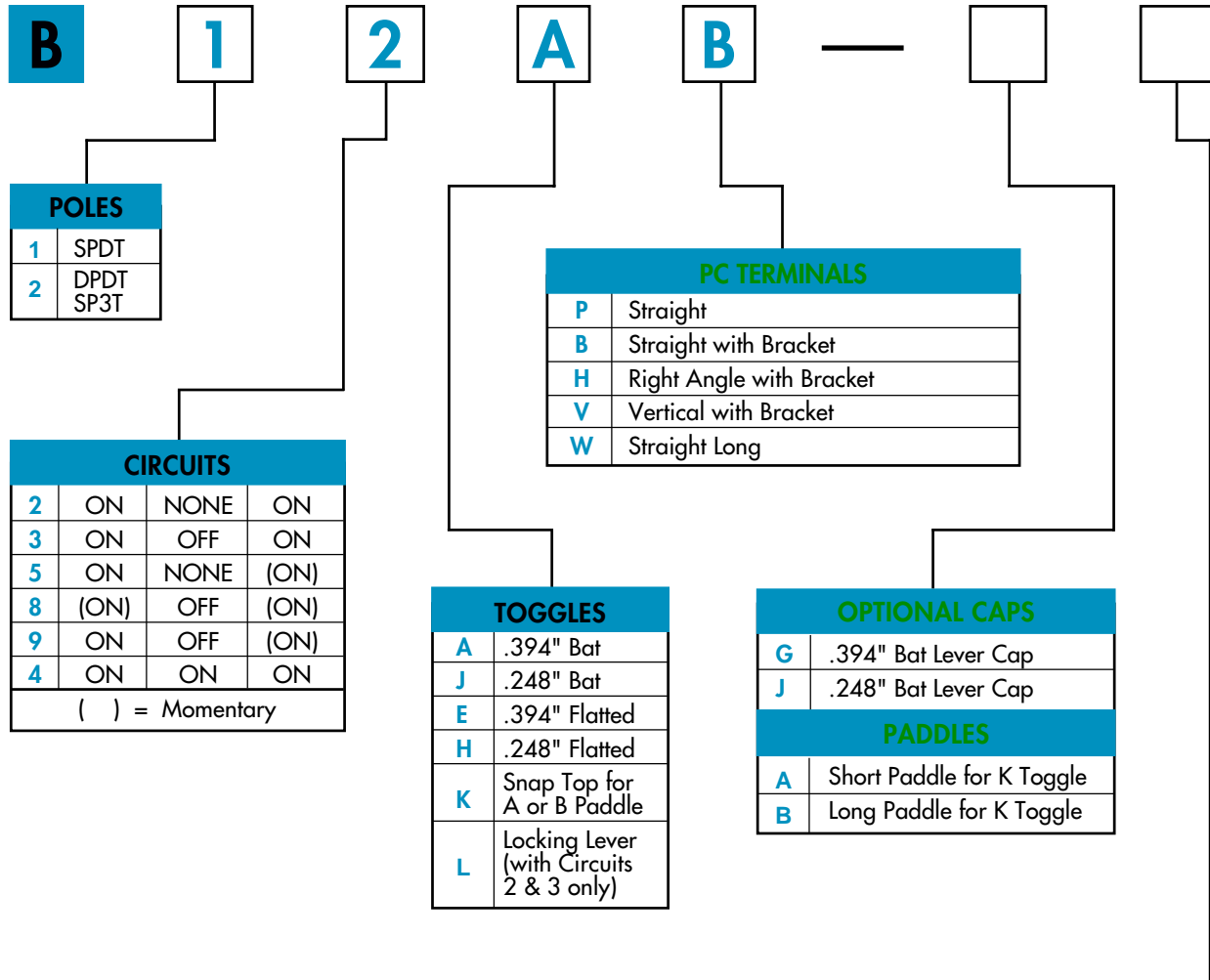


## TYPICAL SWITCH ORDERING EXAMPLE



POLES	
1	SPDT
2	DPDT SP3T

CIRCUITS			
2	ON	NONE	ON
3	ON	OFF	ON
5	ON	NONE	(ON)
8	(ON)	OFF	(ON)
9	ON	OFF	(ON)
4	ON	ON	ON
( ) = Momentary			

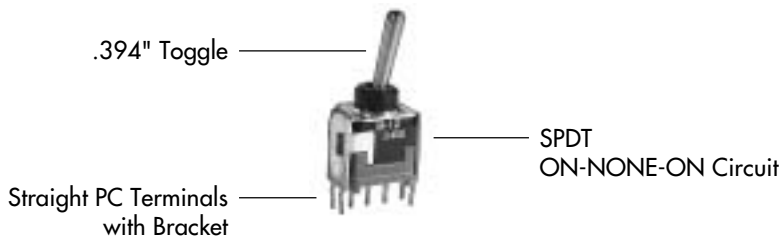
PC TERMINALS	
P	Straight
B	Straight with Bracket
H	Right Angle with Bracket
V	Vertical with Bracket
W	Straight Long

TOGGLES	
A	.394" Bat
J	.248" Bat
E	.394" Flatted
H	.248" Flatted
K	Snap Top for A or B Paddle
L	Locking Lever (with Circuits 2 & 3 only)

OPTIONAL CAPS	
G	.394" Bat Lever Cap
J	.248" Bat Lever Cap
PADDLES	
A	Short Paddle for K Toggle
B	Long Paddle for K Toggle

### DESCRIPTION FOR TYPICAL ORDERING EXAMPLE

**B12AB**



CAP COLORS		PADDLE COLORS	
A	Black	A	
B	White	B	
C	Red	C	
---	Yellow	E	
---	Green	F	
---	Blue	G	
---	Gray	H	

### 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 Z1) 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  
**Mechanical Life:** 100,000 operations minimum for On-None-On & On-Off-On  
 50,000 operations minimum for other circuits  
 50,000 operations minimum for locking lever models  
**Electrical Life:** 50,000 operations minimum  
**Static Capability:** Withstands 3 kilovolts ESD  
**Nominal Operating Force:** Toggles A & E & K w/Long Paddle: 150 grams (momentary); 120 grams (maintained)  
 Toggles J & H & K w/Short Paddle: 278 grams (momentary); 188 grams (maintained)  
 Toggle L: 60 grams  
**Contact Timing:** Nonshorting  
**Angle of Throw:** 26°

#### Materials & Finishes

**Toggle:** Nickel plated brass  
**Bushing:** Carbon blended polyamide; nickel plated zinc alloy for locking levers  
**Case Housing:** Glass fiber reinforced polyamide  
**Support Bracket:** Tin plated phosphor bronze  
**Movable Contact:** Phosphor bronze with gold plating over silver plating  
**Stationary Contacts:** Brass with gold plating over nickel undercoating  
**Terminals:** Brass with gold plating over nickel undercoating

#### 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 acceleration (tested in 6 right angled directions, with 5 shocks in each direction)









#### Installation

**Soldering Time & Temperature:** 3 seconds @ 350°C or 5 seconds @ 270°C  
**Process Seal:** See Supplement Index (page Z1) for specific processing data.

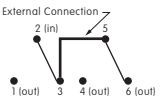
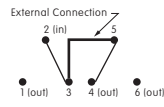
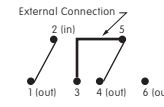
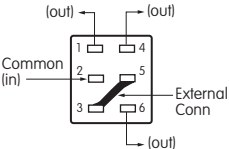
#### Standards & Certifications

**Flammability Standards:** UL94V-0 available  
**IECQ Approved:** All toggle models recognized at 0.4VA maximum @ 28V AC/DC maximum  
 Qualification Approval Number: JP792-4A

### POLES & CIRCUITS

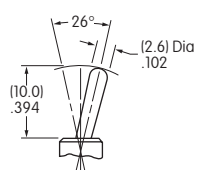
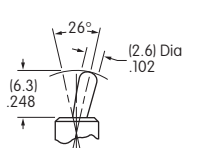
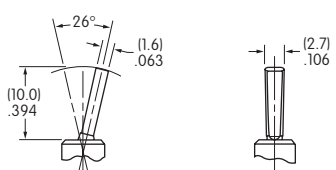
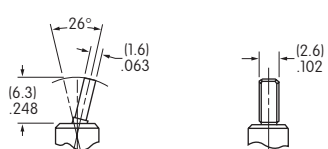

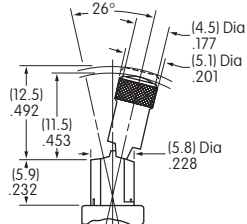
		Toggle Position ( ) = Momentary			Connected Terminals			Throw & Schematics
Pole	Model	Up 	Center 	Down 	Up 	Center 	Down 	Note: Terminal numbers are not actually on the switch.
SP	<b>B12</b> <b>B13</b> <b>B15</b> <b>B18</b> <b>B19</b>	ON	NONE	ON	2-3	OPEN	2-1	SPDT 
DP	<b>B22</b> <b>B23</b> <b>B25</b> <b>B28</b> <b>B29</b>	ON	NONE	ON	2-3 5-6	OPEN	2-1 5-4	DPDT 

### For 3 Throw (3-On)

		Connected Terminals			External Connection
Pole	Model	Down	Center	Up	
SP	<b>B24</b>	ON 	ON 	ON 	The SP3T model utilizes a double pole base.  External connections must be made during field installation. 

### TOGGLES

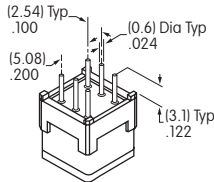
Standard Material & Finish: Brass with Bright Nickel

<p><b>A</b> .394" Bat</p> 	<p><b>J</b> .248" Bat</p> 	<p><b>E</b> .394" Flatted</p> 
<p><b>H</b> .248" Flatted</p> 	<p><b>K</b> Snap Top for Paddles</p> 	<p><b>L</b> Locking Lever</p> 

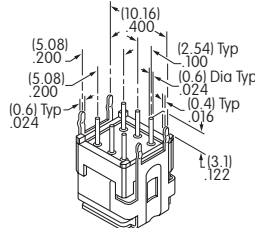
### PC TERMINALS

Use of a support bracket or placement of the round bushing in a panel cutout is recommended to increase PCB mounting stability.

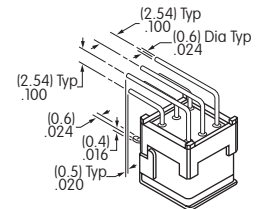
#### P Straight



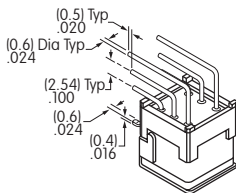
#### B Straight with Bracket



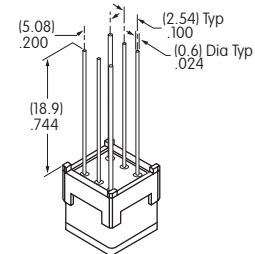
#### H Right Angle with Bracket



#### V Vertical with Bracket



#### W Straight Long

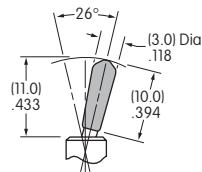


### OPTIONAL CAPS

#### G AT4003 .394" Bat Lever Cap

Material: PVC

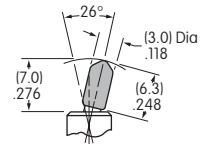
Colors Available:  
A, B, C



#### J AT4064 .248" Bat Lever Cap

Material: PVC

Colors Available:  
A, B, C

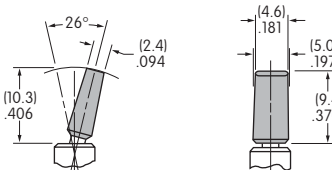


### PADDLES

#### A AT467 Short Paddle

Material: PBT

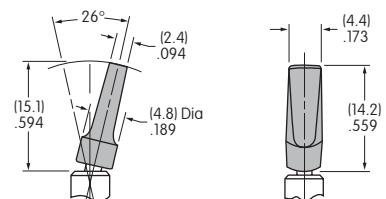
Colors Available:  
A, B, C, E, F, G, H



#### B AT468 Long Paddle

Material: PBT

Colors Available:  
A, B, C, E, F, G, H



Color Codes:



Black



White



Red



Yellow



Green



Blue



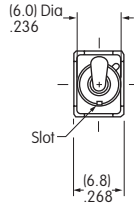
Gray

### TYPICAL SWITCH DIMENSIONS

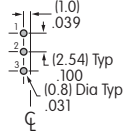
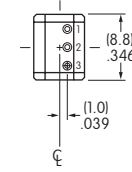
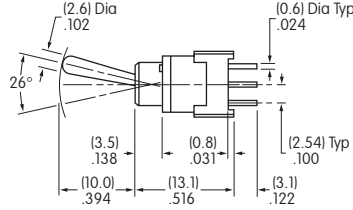
#### Straight PC



B12AP



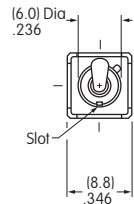
#### Single Pole



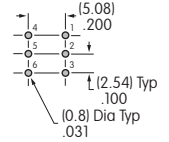
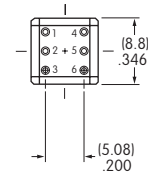
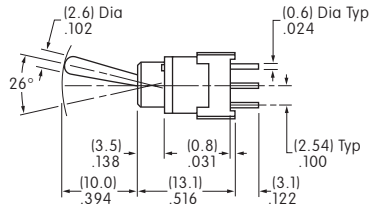
#### Straight PC



B22AP



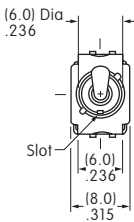
#### Double Pole



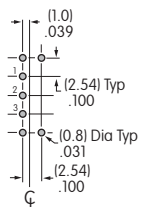
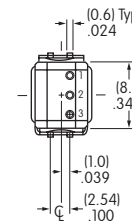
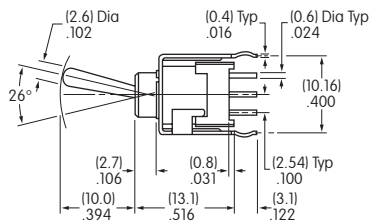
#### Straight PC • Bracket



B12AB



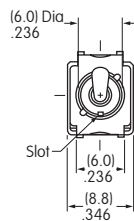
#### Single Pole



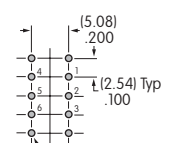
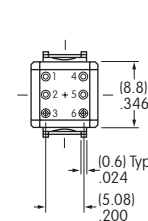
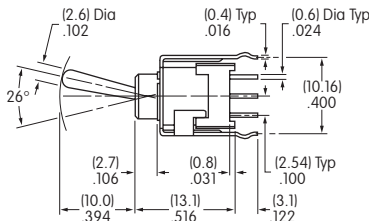
#### Straight PC • Bracket



B22AB



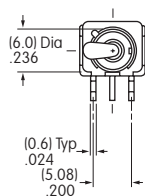
#### Double Pole



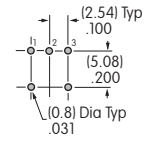
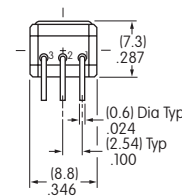
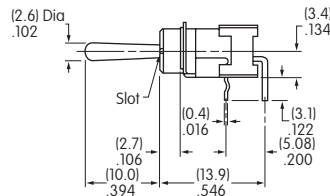
#### Right Angle PC



B12AH



#### Single Pole

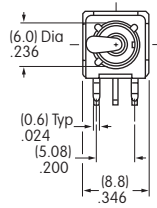


### TYPICAL SWITCH DIMENSIONS

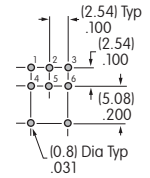
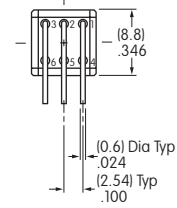
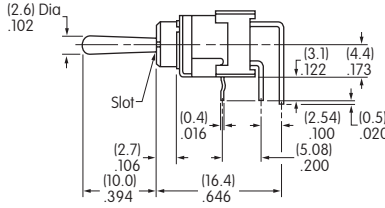
#### Right Angle PC



**B22AH**



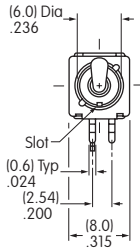
#### Double Pole



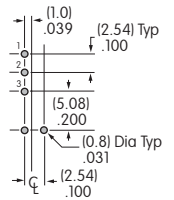
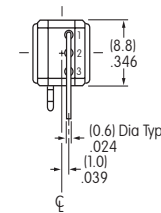
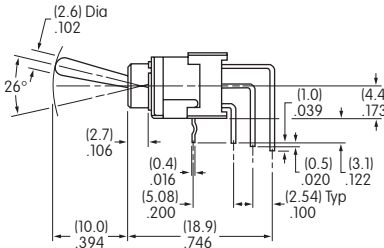
#### Vertical PC



**B12AV**



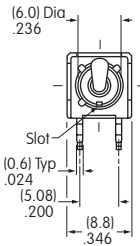
#### Single Pole



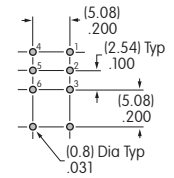
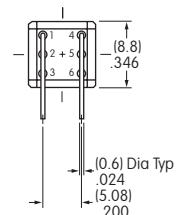
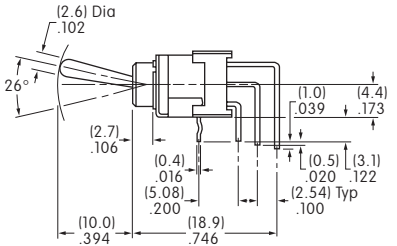
#### Vertical PC



**B22AV**



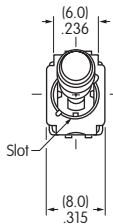
#### Double Pole



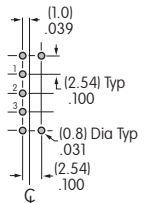
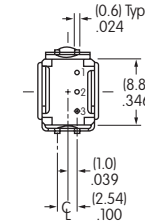
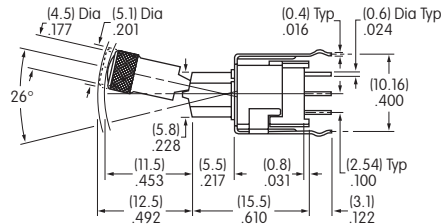
#### Locking Lever • Straight PC • Bracket



**B12LB**



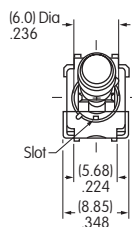
#### Single Pole



#### Locking Lever • Straight PC • Bracket



**B22LB**



#### Double Pole

