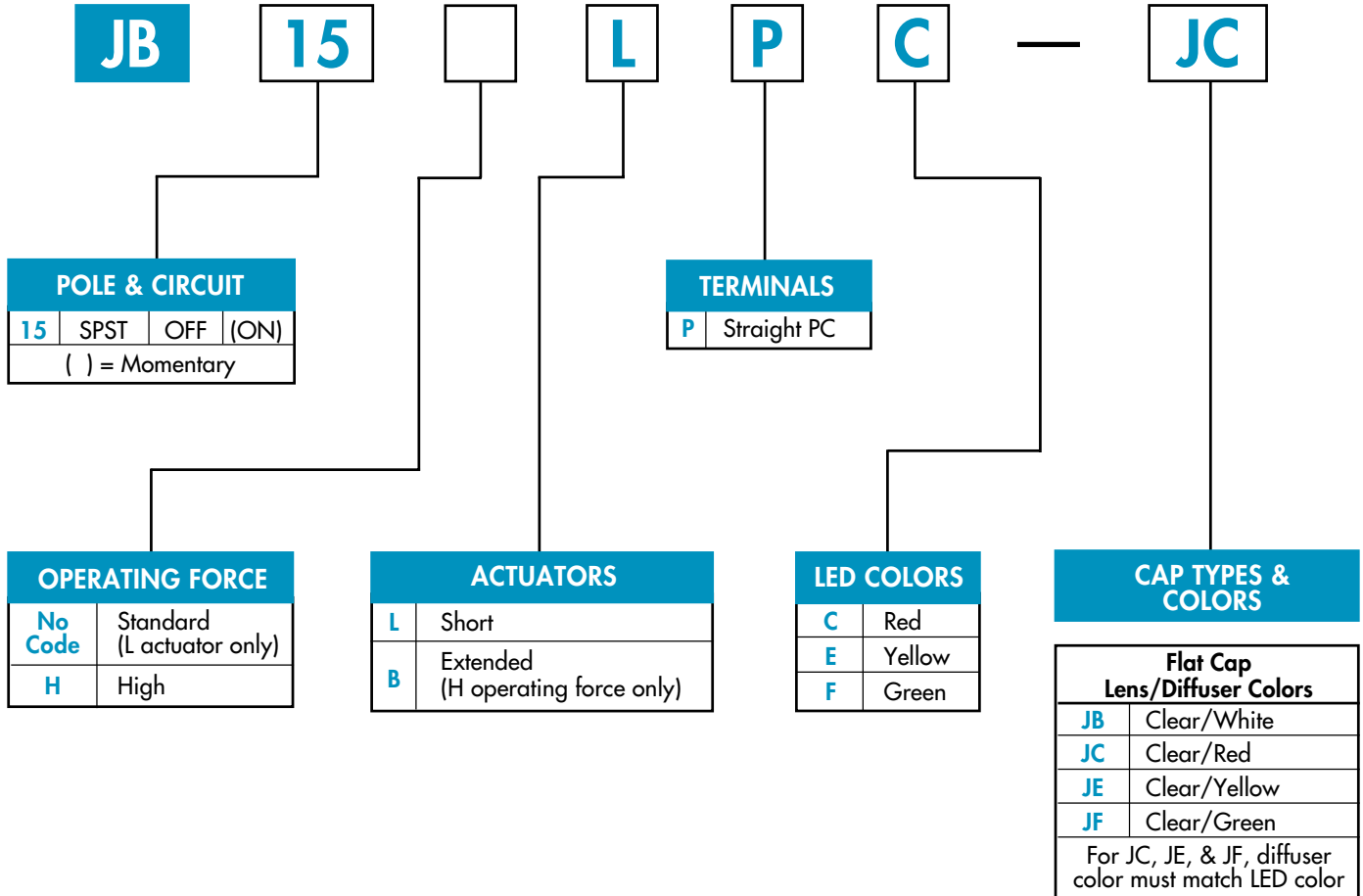


## TYPICAL SWITCH ORDERING EXAMPLE

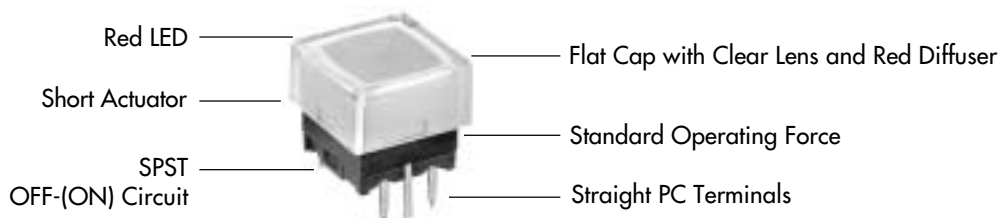


### DESCRIPTION FOR TYPICAL ORDERING EXAMPLE

**JB15LPC-JC**

Flat Cap Lens/Diffuser Colors	
JB	Clear/White
JC	Clear/Red
JE	Clear/Yellow
JF	Clear/Green
For JC, JE, & JF, diffuser color must match LED color	

Framed Cap Button/Frame Colors	
BB	White/White
BC	White/Red
BE	White/Yellow
BF	White/Green
BH	White/Gray



## GENERAL SPECIFICATIONS

### Electrical Capacity (Resistive Load)

**Power Level:** 50mA @ 24V DC maximum for Standard Operating Force models  
125mA @ 24V DC maximum for High Operating Force models

### Other Ratings

	Standard Operating Force	High Operating Force
<b>Contact Resistance:</b>	50 milliohms maximum	50 milliohms maximum
<b>Insulation Resistance:</b>	500 megohms minimum @ 250V DC	500 megohms minimum @ 250V DC
<b>Dielectric Strength:</b>	250V AC minimum	250V AC minimum
<b>Mechanical Life:</b>	5,000,000 operations minimum	1,000,000 operations minimum
<b>Electrical Life:</b>	5,000,000 operations minimum	1,000,000 operations minimum
<b>Nominal Operating Force:</b>	180 grams (JB15L)	270 grams (JB15HL & JB15HB)
<b>Contact Bounce:</b>	0.1 millisecond maximum	0.1 millisecond maximum
<b>Total Travel:</b>	.254mm (.010")	.300mm (.012")

### Materials & Finishes

<b>Actuator:</b>	Polyacetal
<b>Case:</b>	Glass fiber reinforced polyamide
<b>Seal:</b>	Nitrile butadiene rubber
<b>Base:</b>	Glass fiber reinforced polyester
<b>Movable Contacts:</b>	Beryllium copper with silver plating
<b>Stationary Contacts:</b>	Brass with silver plating
<b>Terminals:</b>	Brass with silver plating

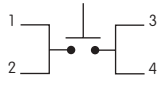

### Environmental Data

<b>Operating Temp Range:</b>	-25°C through +70°C (-13°F through +158°F)
<b>Humidity:</b>	90 ~ 95% humidity for 96 hours @ 40°C (104°F)
<b>Vibration:</b>	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
<b>Shock:</b>	50g acceleration (tested in 6 right angled directions, with 5 shocks in each direction)

### Installation

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

### POLE & CIRCUIT

Pole & Throw	Model	Actuator Position ( ) = Momentary		Switch Throw & Schematic	LED Schematic	Notes: Terminal numbers are shown on switch. LED circuit is isolated & requires external power source.
		Normal	Down			
SPST	JB15	OFF	(ON)	SPST 		

### OPERATING FORCE

**No Code**

**Standard Nominal Operating Force** 180 gf

Available with short actuator only (code L).

**H**

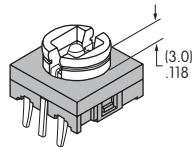
**High Nominal Operating Force** 270 gf

Available with both short and extended actuators.

### ACTUATORS

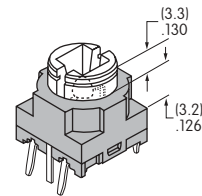
**L**

**Short Actuator**



**B**

**Extended Actuator**



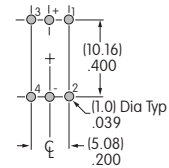
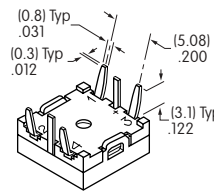
Combines with high operating force only.

### TERMINALS

**P**

**Straight PC Terminals**

Further details in Typical Switch Dimensions.



### LED COLORS & SPECIFICATIONS

LEDs are supplied as an integral part of illuminated devices and are not available separately.

LED polarity markings are on the bottom of the switch.

The electrical specifications shown are determined at a basic temperature of 25°C.

If the source voltage exceeds the rated voltage, a ballast resistor is required.

The resistor value can be calculated by using the formula in the Supplement; see Supplement Index (page Z1).

		<b>C</b>	<b>E</b>	<b>F</b>
	Color	Red	Yellow	Green
Forward Peak Current	$I_{FM}$	30mA	20mA	20mA
Continuous Forward Current	$I_F$	20mA	15mA	15mA
Forward Voltage	$V_F$	2.0V	1.9V	1.95V
Reverse Peak Voltage	$V_{RM}$	5V	5V	5V
Current Reduction Rate Above 25°C	$\Delta I_F$	0.40mA/°C	0.27mA/°C	0.27mA/°C

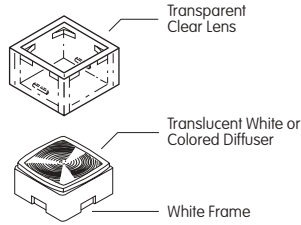
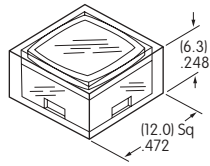
### SNAP-ON CAPS

#### AT4060 Flat

Lens/Diffuser  
Color Codes:

- JB** Clear/Translucent White
- JC** Clear/Red
- JE** Clear/Yellow
- JF** Clear/Green

Material: Polycarbonate  
Lens Finish: Glossy

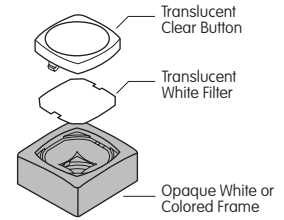
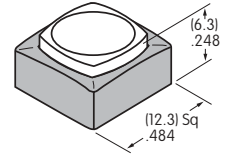


#### Framed: AT4076 Button with Frame

Translucent Button/Frame Color Codes:

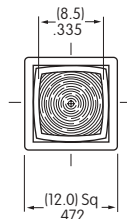
- BB** White/White
- BC** White/Red
- BE** White/Yellow
- BF** White/Green
- BH** White/Gray

Material: Polycarbonate    Button Finish: Frosted

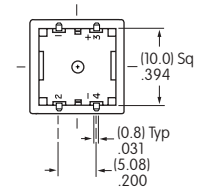
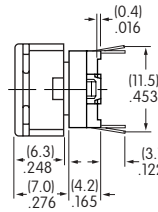


### TYPICAL SWITCH DIMENSIONS

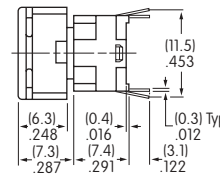
#### Flat Snap-on Cap



#### Short Actuator



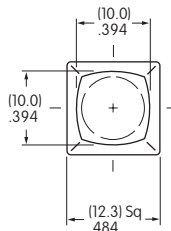
#### Extended Actuator



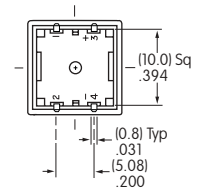
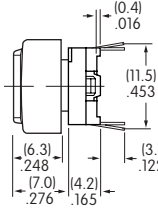
JB15LPC-JC

Spring action terminals conform to .100" PCB spacing.

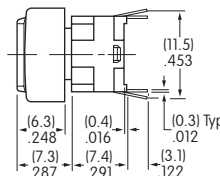
#### Framed Snap-on Cap



#### Short Actuator



#### Extended Actuator



JB15HBPC-BC

Spring action terminals conform to .100" PCB spacing.

### LEGENDS

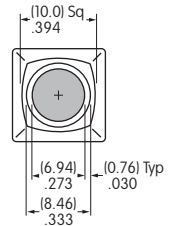
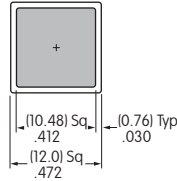
General information and basic specifications are presented here for customers who want to do their own legends.

#### Suggested Printable Area for Lens

**Recommended Print Method:**

Screen Print

Epoxy based ink is recommended.



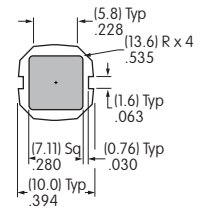
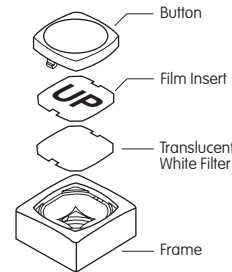
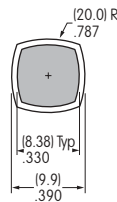
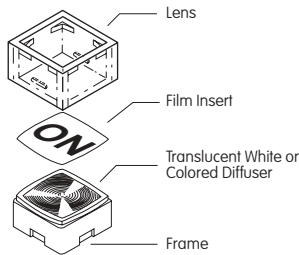
Shaded areas are printable areas.

#### Suggested Printable Area for Film Inserts

**Recommended Print Method:**

Screen Print or Pad Print

Epoxy based ink is recommended.



**Film Material:**

Clear Polyester

Film thickness 7 mil max.

Film thickness 5 mil max.

Shaded areas are printable areas.

#### Additional Methods

Additional methods for legends are engraving the lens and laser printing on film inserts. Maximum depth for engraving is 0.3 mm (.012") on the cap lens. Enamel paint is recommended to fill the engraved area.

### LEGEND PACKET FOR ORDERING CAPS WITH LEGENDS



1. To order caps with legends contact the factory and request the JB Illuminated Legend Packet.
2. Once you determine your desired legend, fill out the ordering work sheet included in the packet.
3. Return the completed work sheet to receive a quotation.