

# Distinctive Characteristics

Combination bezel-barrier is an integral part of the switch and prevents accidental actuation.

Unique thermoplastic elastomer seal inside caps plus rolled sleeve of nitrile butadiene rubber at joining of housing and inner case, all for added protection to interior mechanism.

Dust and oil tight as well as splashproof panel seal models qualify to IP65 of IEC60529 Standards (similar to NEMA 4 and 13). Panel seal models provided with exterior o-ring.

Distinctive design of snap-action contacts for shock resistance, long life, and sensitive actuation.

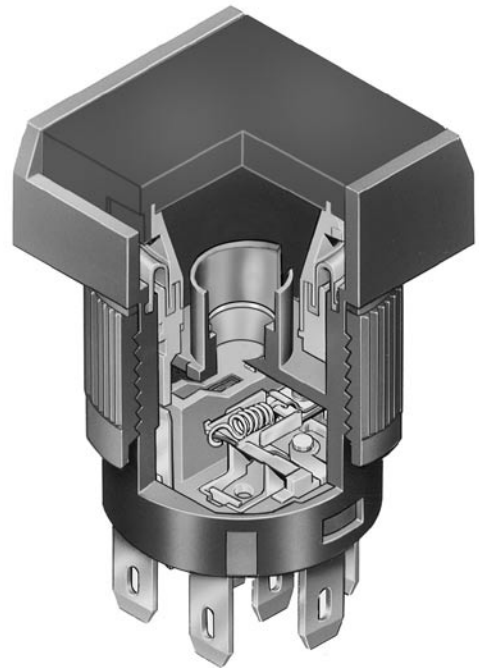
High density design to give behind panel depth of less than one inch.

Terminals are epoxy sealed to lock out flux, dust, solvents, and other contaminants.

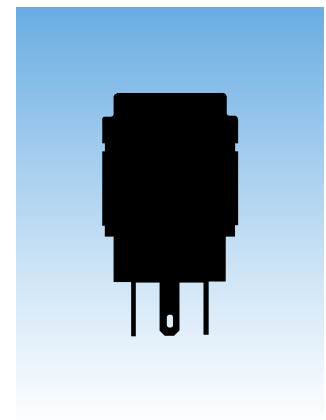
Latchdown for indication of circuit status, plus audible, tactile feedback with smooth, responsive operation.

Illuminated models available and shown in the Illuminated Pushbutton section.

Matching indicators available and shown at the end of Section M.



Actual Size



## General Specifications

### Electrical Capacity (Resistive Load)

**Power Level (silver):** 3A @ 125V AC or 3A @ 250V AC or 3A @ 30V DC  
**Logic Level (gold):** 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 for silver; 100 milliohms maximum for gold  
**Insulation Resistance:** 200 megohms minimum @ 500V DC  
**Dielectric Strength:** 1,000V AC minimum between contacts for 1 minute minimum;  
 1,500V AC minimum between contacts & case for 1 minute minimum  
**Mechanical Life:** 1,000,000 operations minimum for momentary circuit  
 200,000 operations minimum for maintained circuit  
**Electrical Life:** 100,000 operations minimum  
**Nominal Operating Force:** Single pole: 1.47N for nonsealed; 1.67N for sealed  
 Double pole: 2.75N for nonsealed; 2.94N for sealed  
**Contact Timing:** Nonshorting (break-before-make)  
**Travel:** Pretravel .059" (1.5mm); Overtravel .059" (1.5mm); Total Travel .118" (3.0mm)

### Materials & Finishes

**Housing/Bezel:** Glass fiber reinforced polyamide (UL94V-0)  
**Snap-in Frame:** Stainless steel  
**Base:** Diallyl phthalate resin (UL94V-0)  
**Movable Contactor:** Phosphor bronze with silver or gold plating  
**Movable Contacts:** Silver alloy with silver plating or brass with gold plating  
**Stationary Contacts:** Silver alloy or copper with gold plating  
**Terminals:** Phosphor bronze with tin plating

### Environmental Data

**Operating Temp Range:** -25°C through +70°C (-13°F through +158°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)  
**Sealing:** IP65 of IEC60529 standard for panel seal models

### Installation

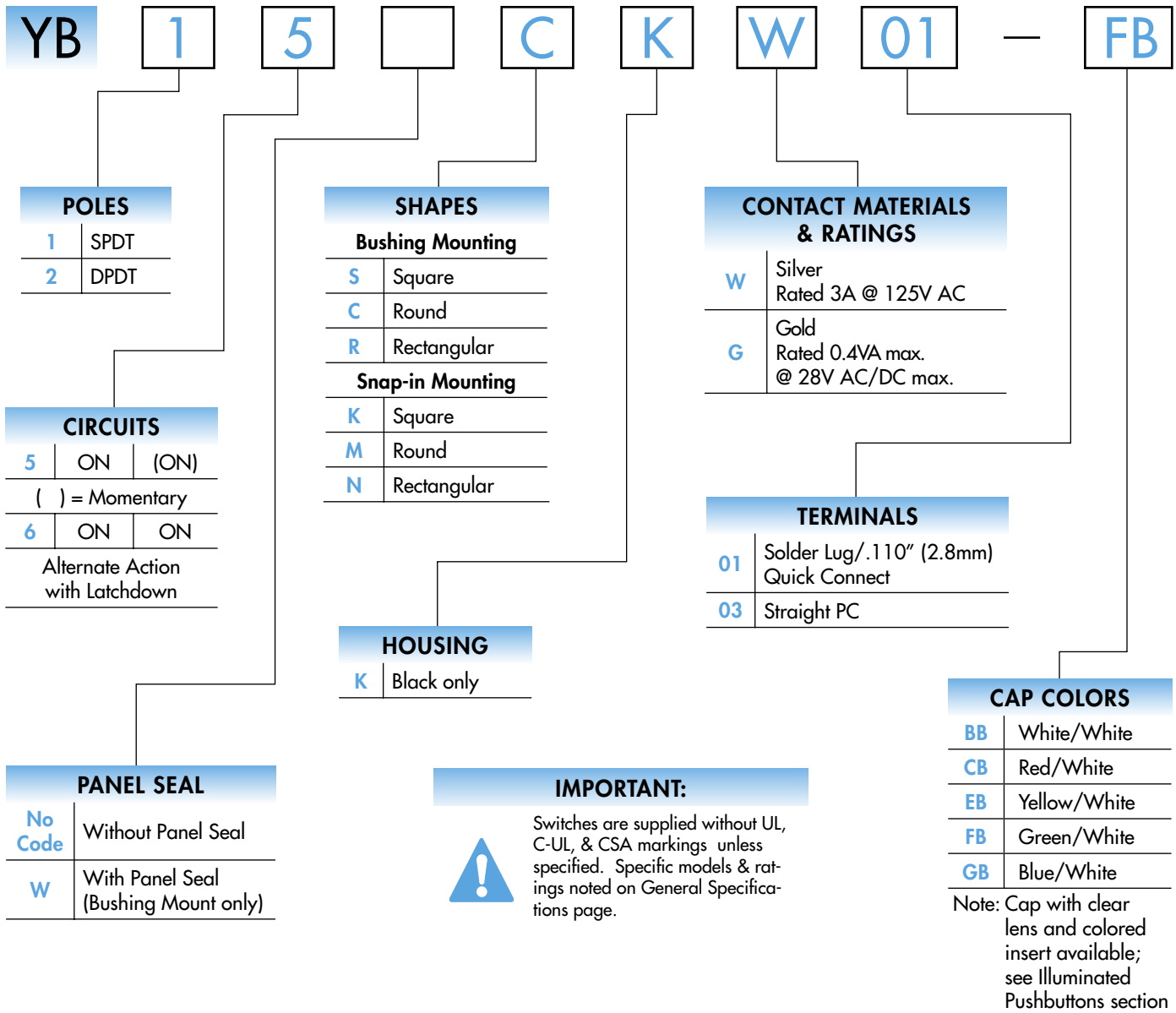
**Mounting Torque:** 0.80Nm (7.08 lb•in) maximum  
**Soldering Time & Temperature:** Manual Soldering: See Profile A in Supplement section.

### Standards & Certifications

**Flammability Standards:** UL94V-0 housing & base  
**UL & C-UL Recognized:** All solder lug models recognized at 3A @ 125/250V AC or 0.4VA @ 28V AC/DC maximum; UL File No. WOYR2.E44145; add "/U" to end of part number to order UL mark on switch; C-UL File No. WOYR8.E44145; add "/C-UL" to end of part number to order C-UL mark on switch.  
**CSA Certified:** All solder lug models certified at 3A @ 125/250V AC or 0.4VA @ 28V AC/DC maximum; CSA File Nos. 023535-0-000; add "/C" to end of part number to order CSA mark on switch.



## TYPICAL SWITCH ORDERING EXAMPLE






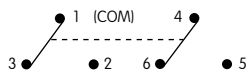


## DESCRIPTION FOR TYPICAL ORDERING EXAMPLE

### YB15CKW01-FB



## POLES & CIRCUITS

Pole	Model	Plunger Position ( ) = Momentary		Connected Terminals		Throw & Schematics
		Normal 	Down 	Normal 	Down 	
SP	YB15 *YB16	ON ON	(ON) ON	1-3	1-2	SPDT 
DP	YB25 *YB26	ON ON	(ON) ON	1-3 4-6	1-2 4-5	DPDT 

Note: Switch is marked with NC, NO, COM, L+, L-.

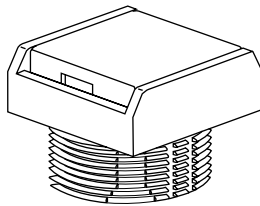
\* When in latchedown position for the alternate circuit, cap position is .020" (0.5mm) above the built-in bezel.

## PANEL SEAL

No Code

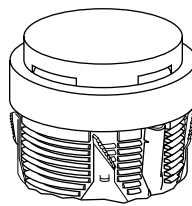
Without Panel Seal

Bushing Mounting



Supplied with mounting nut.

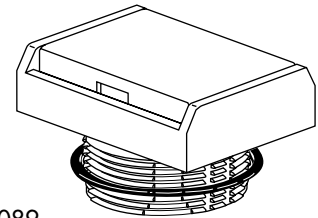
Snap-in Mounting



W

With Panel Seal

Bushing Mounting only



Supplied with mounting nut and o-ring AT089.

## SHAPES & MOUNTING TYPES

Bushing Mounting

Snap-in Mounting

S

Square

C

Round

R

Rectangular

K

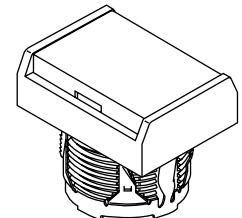
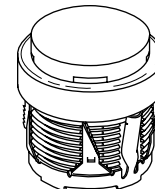
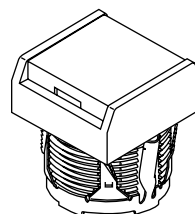
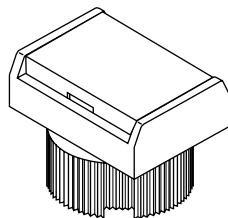
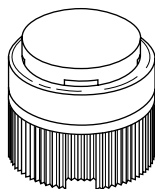
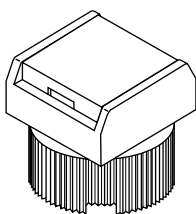
Square

M

Round

N

Rectangular



Bezel-barrier is an integral part of the switch body.

## HOUSING

K

Black

Housing available in black only. The 1-piece body and bezel-barrier have a matte finish.

## CONTACT MATERIALS & RATINGS

W

Silver Contacts

Power Level

3A @ 125/250V AC

G

Gold Contacts

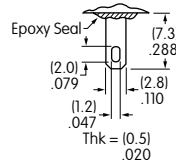
Logic Level

0.4VA max. @ 28V AC/DC max.

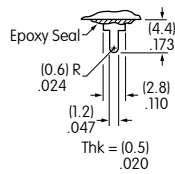
Complete explanation of operating range in Supplement section.

### TERMINALS

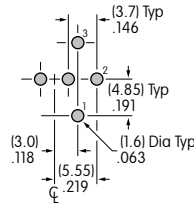
**01** Solder Lug/  
.110" (2.8mm) Quick Connect



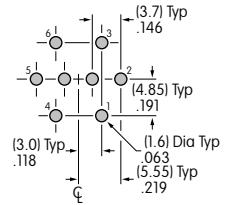
**03** Straight PC



Single Pole



Double Pole



### CAPS & COLORS

Colors Available:

**BB** White/  
White

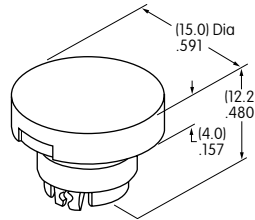
**CB** Red/  
White

**EB** Yellow/  
White

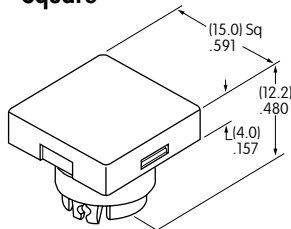
**FB** Green/  
White

**GB** Blue/  
White

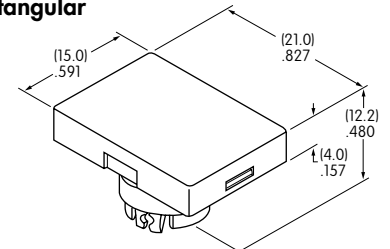
**AT3002**  
Round



**AT3001**  
Square



**AT3003**  
Rectangular



**Materials:**

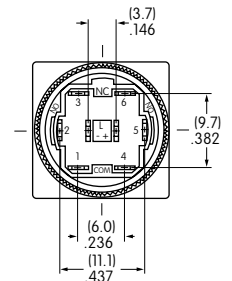
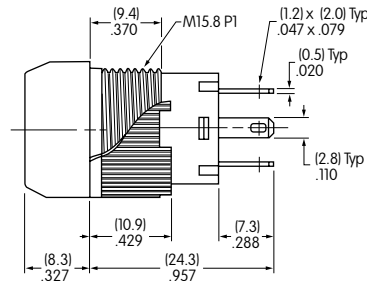
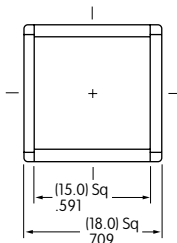
Lens & Insert: Polycarbonate

Seal/Filter: Thermoplastic Elastomer

### TYPICAL SWITCH DIMENSIONS

Square • Bushing Mounting

Single & Double Pole



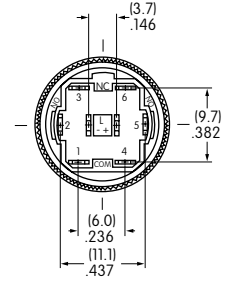
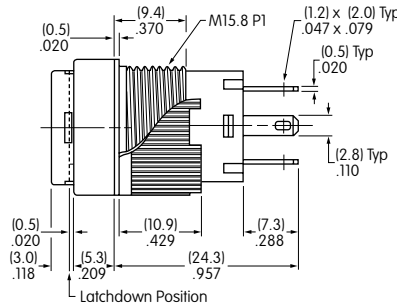
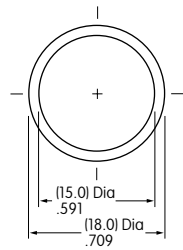
YB15SKW01-CB

Single pole models do not have terminals 4, 5, & 6.

### TYPICAL SWITCH DIMENSIONS

#### Round • Panel Seal

#### Single & Double Pole

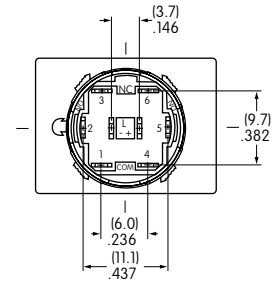
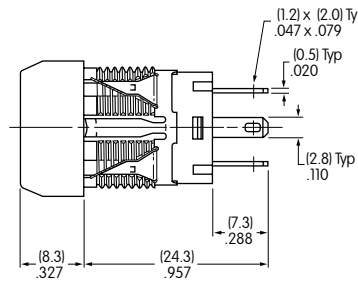
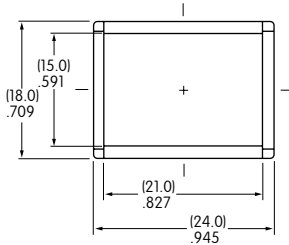


YB25WCKW01-EB

Single pole models do not have terminals 4, 5, & 6.

#### Rectangular • Snap-in Mounting

#### Single & Double Pole



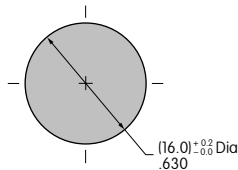
YB15NKW01-CB

Single pole models do not have terminals 4, 5, & 6.

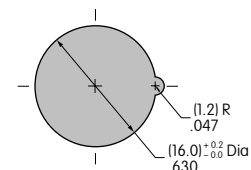
### PANEL THICKNESS & CUTOUTS

#### Bushing & Panel Seal Mount

Panel Thickness  
.020" ~ .197"  
(0.5mm ~ 5.0mm)

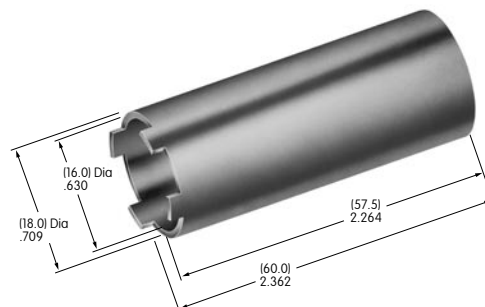


Panel Thickness  
.039" ~ .138"  
(1.0mm ~ 3.5mm)



**AT106**  
Socket Wrench  
for Bushing Mounting

**Material:** Aluminum  
with black alumite finish



Note: Overtightening the mounting nut AT092 may damage the switch housing.

## OPTIONAL ACCESSORIES

Dust Covers and Protective Guards reduce depth of switch behind panel by .047" (1.2mm).

**Panel Thickness Range with Dust Cover or Protective Guards:**

Bushing Mounting  
.020" ~ .150" (0.5mm ~ 3.8mm)

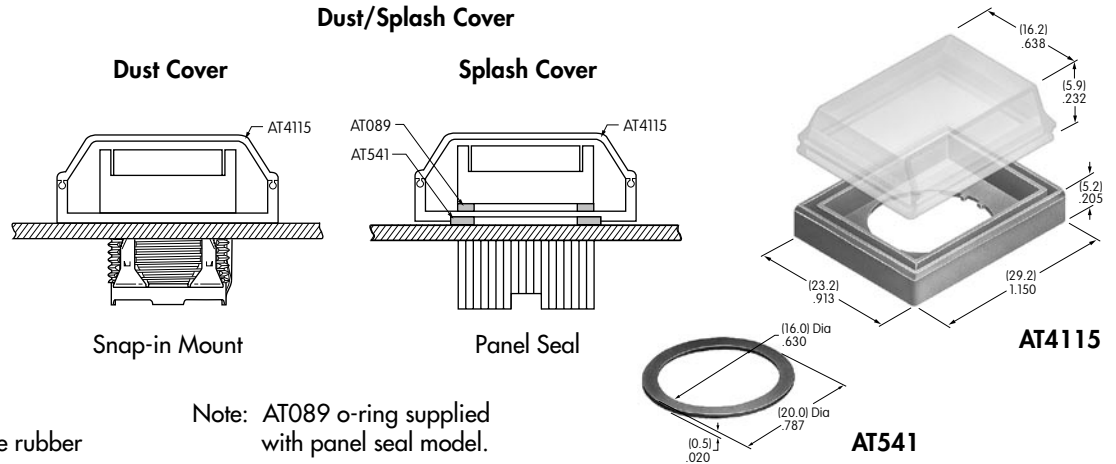
Snap-in Mounting  
.020" ~ .091" (0.5mm ~ 2.3mm)

Panel Seal  
.020" ~ .118" (0.5mm ~ 3.0mm)

**AT4115 Dust Cover for Snap-in or Bushing Mount**

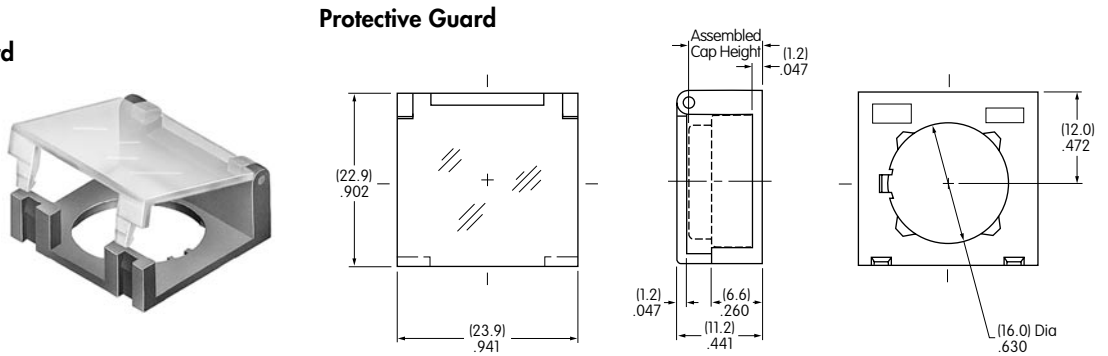
**AT4115 Splash Cover and AT541 O-ring for Bushing Mount**

**Materials:**  
Lid: Polyvinyl Chloride  
Base: Polyamide  
O-ring: Nitrile butadiene rubber

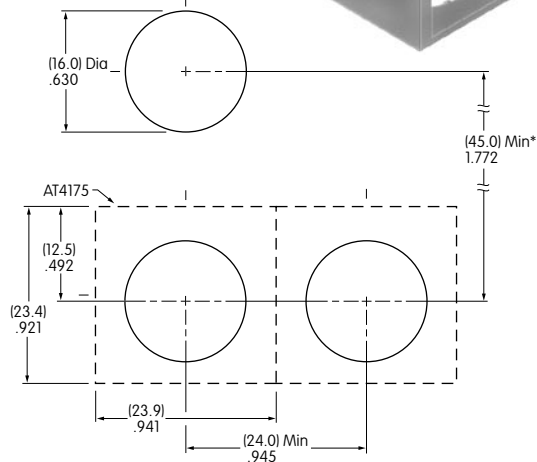


**AT4072 Protective Guard**  
Opens 90°  
Closes manually

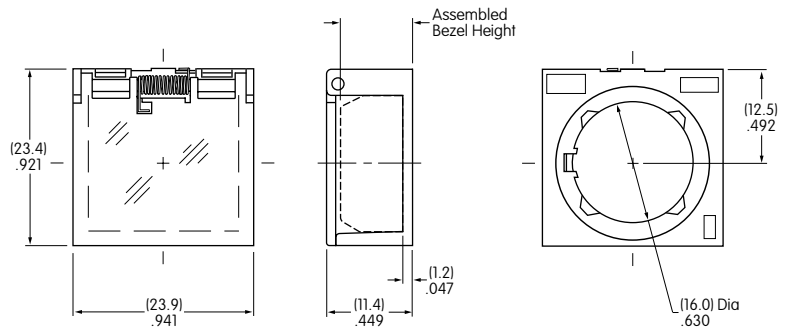
**Materials:**  
Lid: Polycarbonate  
Base: Glass Fiber Reinforced Polycarbonate



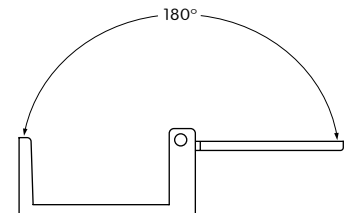
**AT4175 Spring Loaded Protective Guard**  
Opens 180°  
Closes automatically



### Spring Loaded Protective Guard

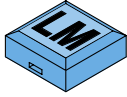


**Materials:**  
Lid: Polycarbonate  
Base: Glass Fiber Reinforced Polyamide  
Coil Spring: Stainless Steel



\* Minimum dimension allows opening of cover to 180°

## LEGENDS



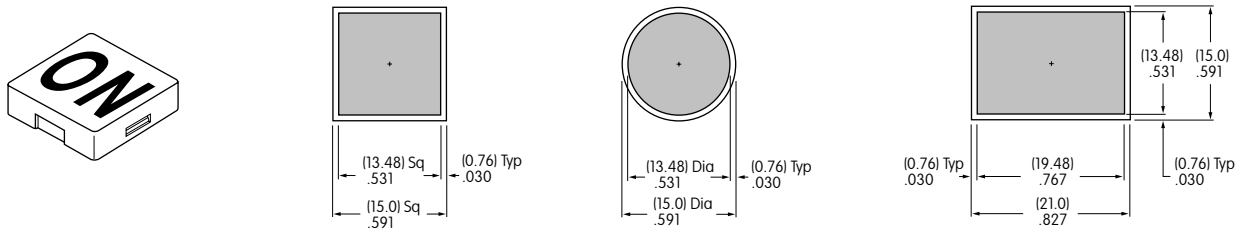
Easily create and submit your own legends using our new on-line Legend Maker.

Visit [www.nkkswitches.com](http://www.nkkswitches.com)

For other legend support options, customers may either contact the factory and request the YB Legend Packet, or utilize the general information and basic specifications presented below.

### Suggested Printable Area for YB Lens

**Recommended Methods:** Laser Etch on clear lens; Screen Print or Pad Print on lens.  
Epoxy based ink is recommended.



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 .012" (0.3 mm) on the cap lens. Enamel paint is recommended to fill the engraved area.