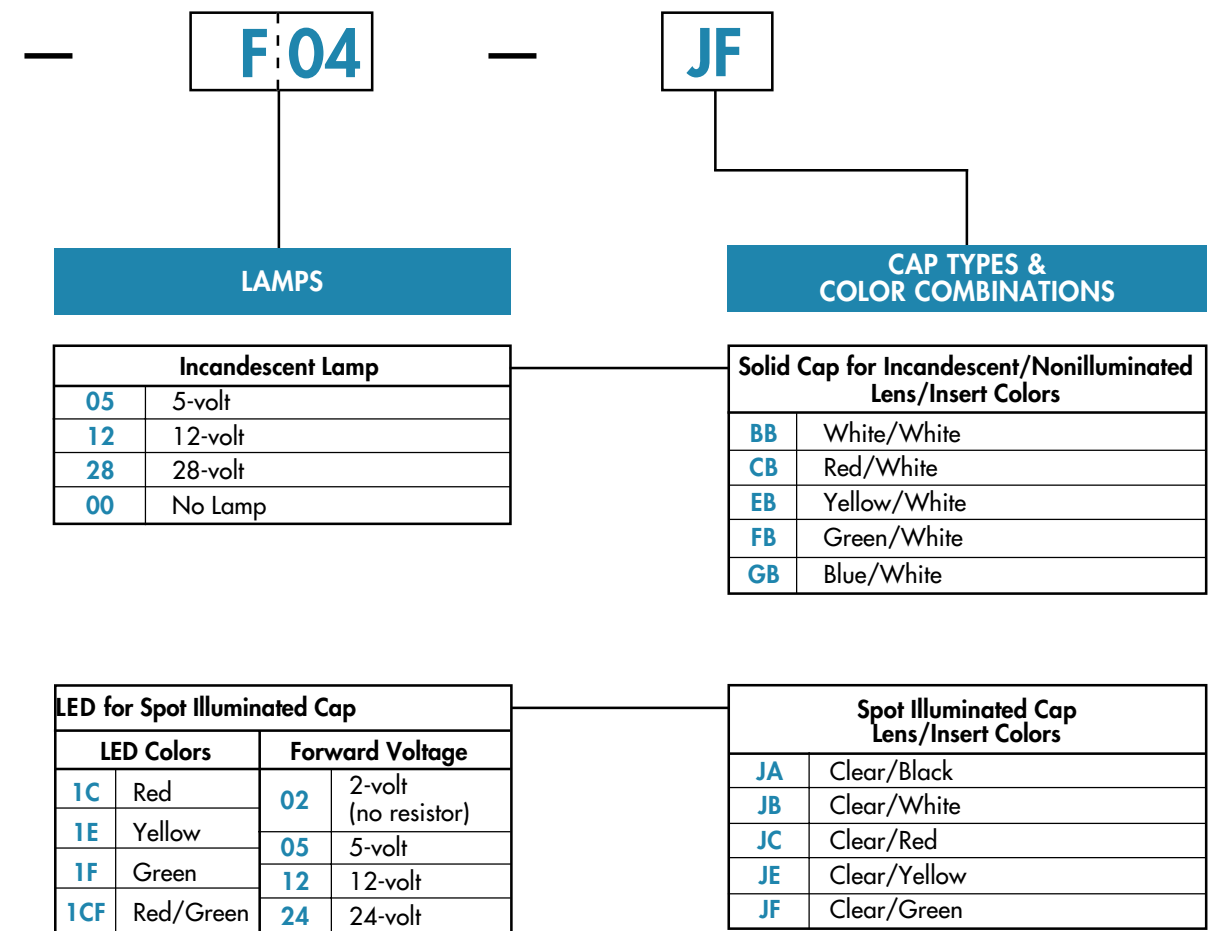
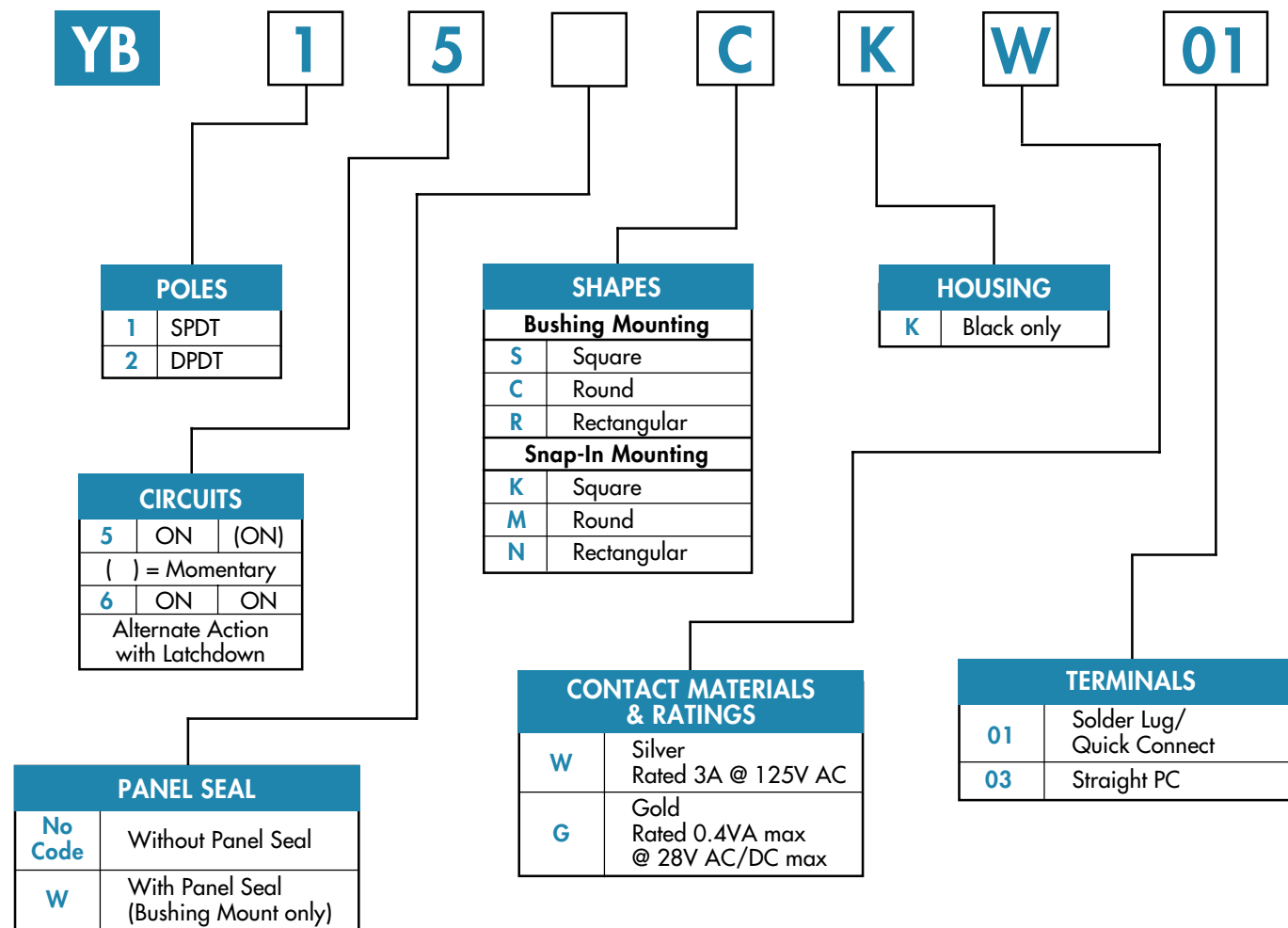


TYPICAL SWITCH ORDERING EXAMPLE



LED for Spot Illuminated Cap			
LED Colors		Forward Voltage	
1C	Red	02	2-volt (no resistor)
1E	Yellow	05	5-volt
1F	Green	12	12-volt
1CF	Red/Green	24	24-volt

Spot Illuminated Cap Lens/Insert Colors	
JA	Clear/Black
JB	Clear/White
JC	Clear/Red
JE	Clear/Yellow
JF	Clear/Green

Single Color LED for Full Face Illumination			
LED Colors		Forward Voltage	
C	Red	04	4-volt
E	Yellow		
F	Green		
G	Blue (JB cap only)		

LED Cap for Single Color LED Lens/Insert Colors	
JB	Clear/White
JC	Clear/Red
JE	Clear/Yellow
JF	Clear/Green

Bicolor LED for Full Face Illumination			
LED Colors		Forward Voltage	
2CF	Red/Green	02	2-volt (no resistor)
		05	5-volt
		12	12-volt
		24	24-volt

LED Cap for Bicolor LED Lens/Insert Colors	
JB	Clear/White

IMPORTANT:
 Switches are supplied without UL & CSA marking unless specified. Specific models & ratings noted on General Specifications page.

DESCRIPTION FOR TYPICAL ORDERING EXAMPLE

YB15CKW01-F04-JF





GENERAL SPECIFICATIONS

Electrical Capacity (Resistive Load)

Power Level: 3A @ 125V AC or 3A @ 250V AC or 3 A @ 30V DC
Logic Level: 0.4VA maximum @ 28V AC/DC maximum
Note: See [Supplement Index](#) to find explanation of operating range.

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; 1,500V AC minimum between contacts & case
Mechanical Life: 1,000,000 operations minimum for momentary action
200,000 operations minimum for alternate action
Electrical Life: 100,000 operations minimum
Nominal Operating Force: Single pole: 150 grams for nonsealed; 170 grams for sealed
Double pole: 280 grams for nonsealed; 300 grams for sealed
Contact Timing: Nonshorting (break-before-make)
Travel: 1.5mm (.059") pretravel; 1.5mm (.059") overtravel; 3.0mm (.118") total travel

Materials & Finishes

Housing/Bezel: Glass fiber reinforced polyamide
Snap-in Frame: Stainless steel
Base: Diallyl phthalate resin
Movable Contactor: Phosphor bronze with silver plating or gold plating over nickel
Movable Contacts: Silver alloy with silver plating or brass with gold plating over nickel
Stationary Contacts: Silver alloy or copper with gold plating over nickel
Power Terminals: Phosphor bronze with tin-lead plating
Lamp Terminals: Phosphor bronze with tin-lead plating

Environmental Data

Operating Temp Range: -25°C through +50°C (-13°F through +122°F) for Illuminated
-25°C through +70°C (-13°F through +158°F) for Nonilluminated
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)
Sealing: IP65 of IEC529 standard for panel seal models

Installation

Mounting Torque: 8.16 kg/cm (7.08 lb/in) downward force on actuator
Soldering Time & Temperature: 3 seconds @ 350°C
Process Seal: Not available

Standards & Certifications

Flammability Standards: UL94V-0 housing & base
UL Recognized: All solder lug models recognized at 3A @ 125/250V AC or 0.4VA maximum @ 28V AC/DC maximum; UL File No. E44145
CSA Certified: All solder lug models recognized at 3A @ 125/250V AC or 0.4VA maximum @ 28V AC/DC maximum; CSA File No. LR23535



Series YB

Short Body Pushbutton Switches

POLES & CIRCUITS

		Plunger Position () = Momentary		Connected Terminals		Throw & Power/Lamp Schematics
Pole	Model	Normal	Down	Normal	Down	
SP	YB15 YB16*	ON ON	(ON) ON	1-3	1-2	Notes: Switch is marked with NO, NC, COM, L+, and L-. Lamp circuit is isolated and requires external power source. SPDT
DP	YB25 YB26*	ON ON	(ON) ON	1-3 4-6	1-2 4-5	DPDT

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

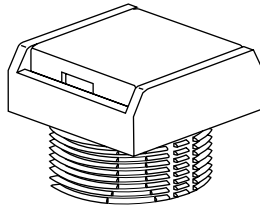
PANEL SEAL

No Code

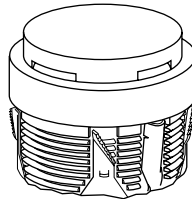
Without Panel Seal

Bushing Mounting

Supplied with mounting nut.



Snap-in Mounting

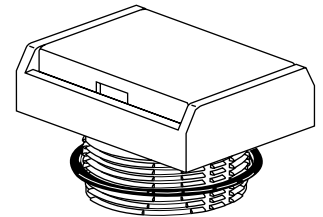


W

With Panel Seal

Bushing Mounting only

Supplied with mounting nut and o-ring.



SHAPES & MOUNTING TYPES

Bushing Mounting

Snap-In Mounting

S Square

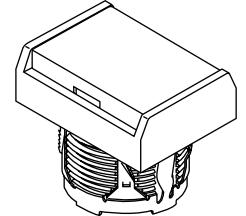
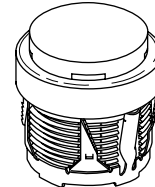
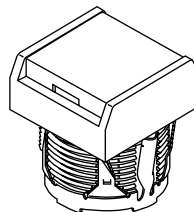
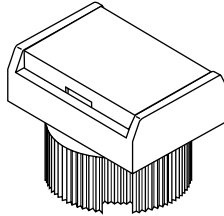
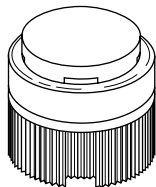
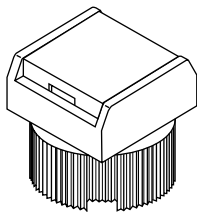
C Round

R Rectangular

K Square

M Round

N Rectangular



Bezel-barrier is an integral part of the switch.

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 @ 28V AC/DC

See [Supplement Index](#) for complete explanation of operating range.

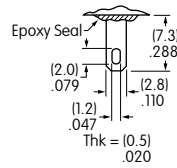


Series YB

Short Body Pushbutton Switches

TERMINALS

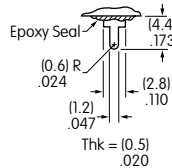
01 Solder Lug/
2.8mm Quick Connect



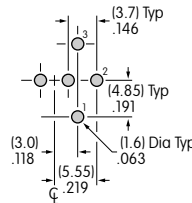
Wiring

The 1.2mm x 2mm oblong hole accommodates one solid 18-gauge wire or two solid or stranded 20-gauge wires.

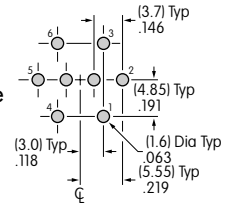
03 Straight PC



Single Pole



Double Pole



INCANDESCENT LAMP & SOLID CAP

Electrical Specifications

Electrical specifications are determined at a basic temperature of 25°C. Lamp circuit is independent of switch operation.

For dimension drawing of lamp see the [Accessories & Hardware Index](#).

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

The ballast resistor calculation and more lamp detail are shown in the Supplement; see [Supplement Index](#).

AT611			05	12	28 *	* Lamp life is significantly reduced in applications with DC current, high shock, vibration, flashing, or continuous illumination.
			Voltage	V	5V AC	
Current	I	115mA	60mA	22mA		
MSCP		.150	.150	.150		
Endurance	Hours	7,000 average				
Ambient Temp Range		-25°C ~ +50°C				

T-1 Standard Bi-pin

00 No Lamp Code 00 indicates that no lamp is used with the solid cap.

Solid Cap for Incandescent Lamp/Nonilluminated

Lens/Insert
Colors Available:

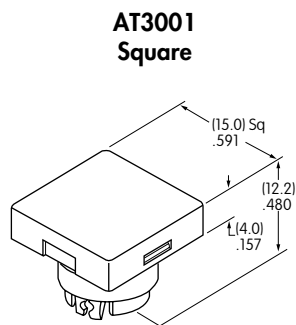
BB White/
White

CB Red/
White

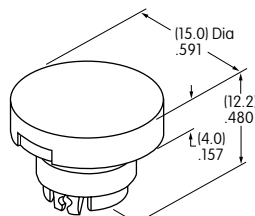
EB Yellow/
White

FB Green/
White

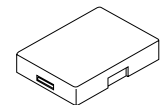
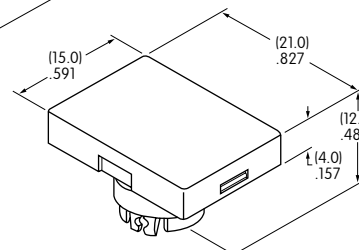
GB Blue/
White



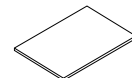
AT3002
Round



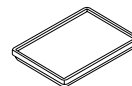
AT3003
Rectangular



Translucent Colored Lens



Translucent White Insert



Translucent White Seal/Filter



Incandescent Lamp AT611

Material: Polycarbonate (Lens & Insert)
Thermoplastic Elastomer (Seal/Filter)

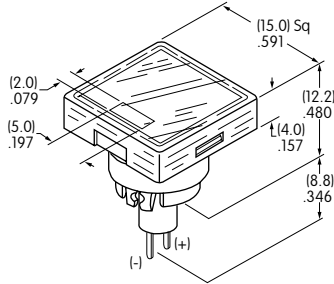


Series YB

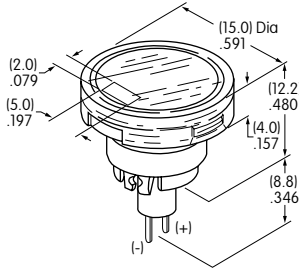
Short Body Pushbutton Switches

SPOT ILLUMINATED CAP WITH BUILT-IN LED

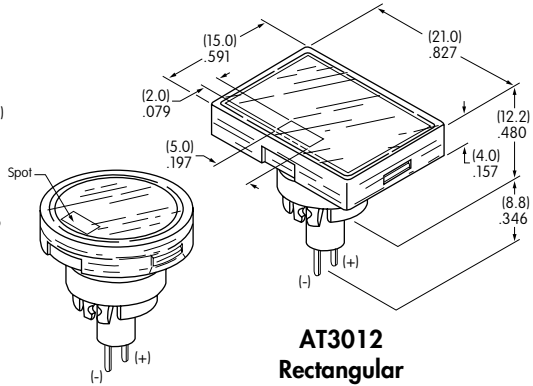
This spot-illuminated cap is factory assembled.



AT3010
Square



AT3011
Round



AT3012
Rectangular

Colors Available:	02	05	12	24
1C Red 1E Yellow 1F Green 1CF Red/Green	w/o Resistor	w/Resistor	w/Resistor	w/Resistor
Forward Peak Current	I_{FM} 20mA	15mA	15mA	12mA
Continuous Forward Current	I_F 15mA	12.5mA	12.5mA	10mA
Forward Voltage	V_F 2.1V	5V	12V	24V
Reverse Peak Voltage (not applicable to bicolor)	V_{RM} 5V	5V	5V	5V
Current Reduction Rate Above 25°C	ΔI_F 0.27mA/°C	-----	-----	-----
Ambient Temperature Range	-25°C ~ +50°C			
Without Resistor 2-volt		With Resistor 5, 12, 24-volt		
Single Color	Bicolor	Single Color	Bicolor	
Electrical specifications are determined at a basic temperature of 25°C. Lamp circuit is independent of switch operation. Single color LEDs are colored in OFF state. Bicolor LED is translucent white in OFF state. If the source voltage is greater than rated voltage, a ballast resistor is required. The ballast resistor calculation and more lamp detail are shown in the Supplement; see Supplement Index .				

Lens/Insert
Color Codes:

JA Clear/Black



Clear Lens

JB Clear/White



Colored Insert

JC Clear/Red



Seal

JE Clear/Yellow



Built-in LED
(integral part
of the cap)

JF Clear/Green

Example part number
when cap is ordered separate from switch:
AT30101F02JA
for a
Square Spot Illuminated Cap
with Green 2-volt LED without resistor
Clear Lens and Black Insert

Materials: Polycarbonate (Lens & Insert) and Thermoplastic Elastomer (Seal)




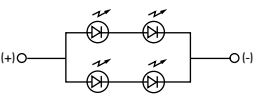


Series YB

Short Body Pushbutton Switches


SINGLE COLOR & BICOLOR LEDS & LED CAP

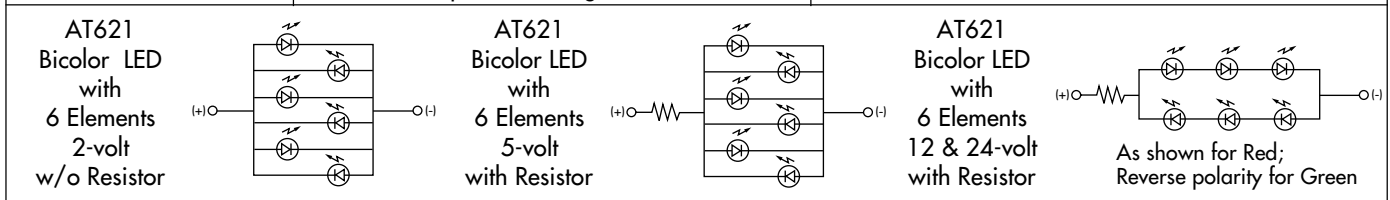
Electrical specifications are determined at a basic temperature of 25°C. Lamp circuit is independent of switch operation. If the source voltage is greater than rated voltage, a ballast resistor is required. The ballast resistor calculation is shown in the [Supplement](#) & lamp drawings are in [Accessories & Hardware](#).

Electrical Specifications for Single Color LED

AT620 Red, Yellow, Green  T-1 1/2 Standard Bi-pin	Single color LEDs are colored in OFF state.	C	E	F	G	04 4-volt without Resistor  AT620 Single Color LED w/4 Elements for Red, Yellow, Green
	Forward Peak Current I_{FM}	40mA	40mA	40mA	30mA	
AT625 Blue  T-1 Standard Bi-pin	Continuous Forward Current I_F	30mA	30mA	30mA	20mA	 AT625 Single Color LED with 1 Element for Blue
	Forward Voltage V_F	3.9V	3.9V	4.2V	3.6V	
	Reverse Peak Voltage V_{RM}	8V	8V	8V	5V	
	Current Reduction Rate Above 25°C ΔI_F	0.50mA/°C				
Ambient Temperature Range		-25°C ~ +50°C				

Electrical Specifications for Bicolor LED

AT621 2CF Red/Green  T-1 1/2 Standard Bi-pin	Bicolor LED is translucent white in OFF state.	02	05	12	24
	Forward Peak Current I_{FM}	60mA	60mA	20mA	12mA
	Continuous Forward Current I_F	45mA	45mA	15mA	10mA
	Forward Voltage V_F	2.1V	5V	12V	24V
	Current Reduction Rate Above 25°C ΔI_F	0.80mA/°C	-----	-----	-----
	Ambient Temperature Range		-25°C ~ +50°C		



LED Cap for Single or Bicolor Full Face Illumination

Lens/Filter
Color Codes:

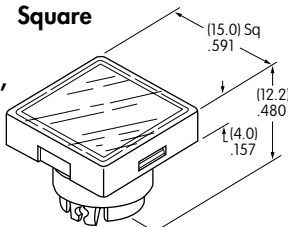
JB Clear/White for AT620, AT621, or AT625

JC Clear/Red for AT620

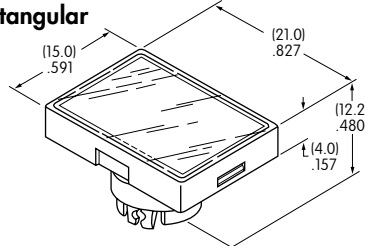
JE Clear/Yellow for AT620

JF Clear/Green for AT620

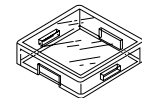
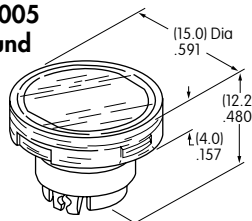
AT3004
Square



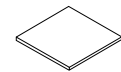
AT3006
Rectangular



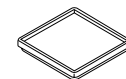
AT3005
Round



Transparent Clear Lens



Transparent Colored Insert



Translucent White Seal/Diffuser



Single Color LEDs
AT620 & AT625

Bicolor LED
AT621

Material: Polycarbonate (Lens & Insert)
Thermoplastic Elastomer (Seal/Diffuser)



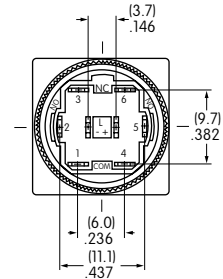
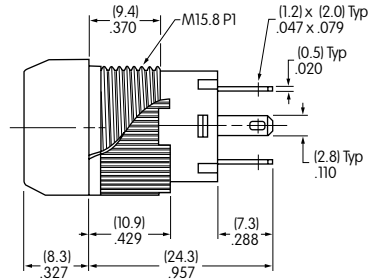
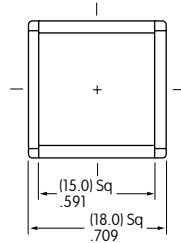
Series YB

Short Body Pushbutton Switches

TYPICAL SWITCH DIMENSIONS

Square • Bushing Mounting

Single & Double Pole

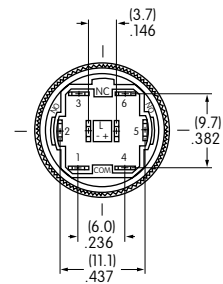
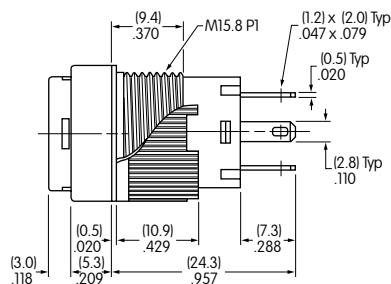
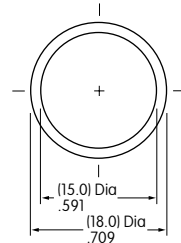


YB15SKW01-12-CB

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

Round • Panel Seal

Single & Double Pole

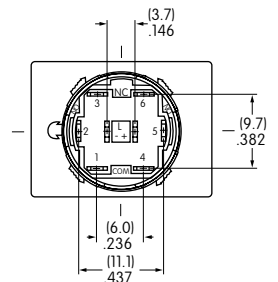
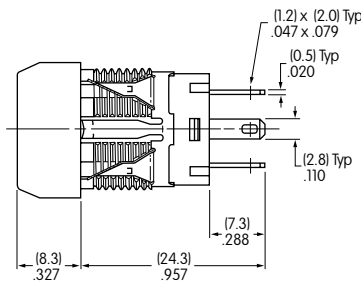
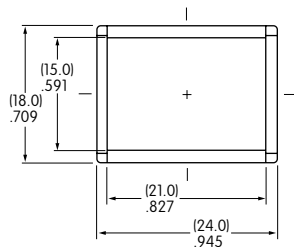


YB25WCKW01-12-EB

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

Rectangular • Snap-in Mounting

Single & Double Pole



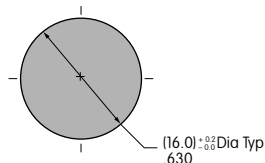
YB15NKW01-C04-JC

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

PANEL THICKNESS & CUTOUTS

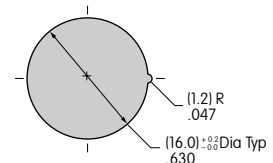
Bushing & Panel Seal Mount

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



Snap-in Mount

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





Series YB

Short Body Pushbutton Switches

OPTIONAL ACCESSORIES

Panel thickness range with **Splash Cover or Protective Guard**: 0.5 ~ 3.8mm (.020 ~ .150") for Bushing Mounting
0.5 ~ 2.3mm (.020 ~ .091") for Snap-in Mounting

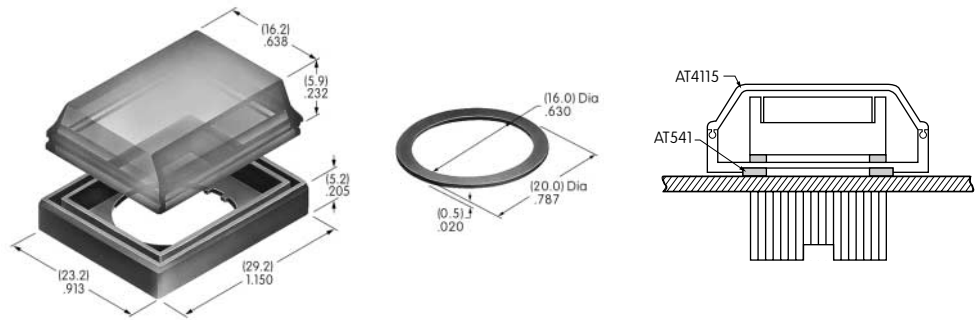
Splash Covers and Protective Guards reduce the depth of switch behind panel by .047".

Dust/Splash Cover

AT4115
Dust Cover
for Snap-in or Bushing Mount

AT4115 with AT541 O-ring
Splash Cover
for Bushing Mount

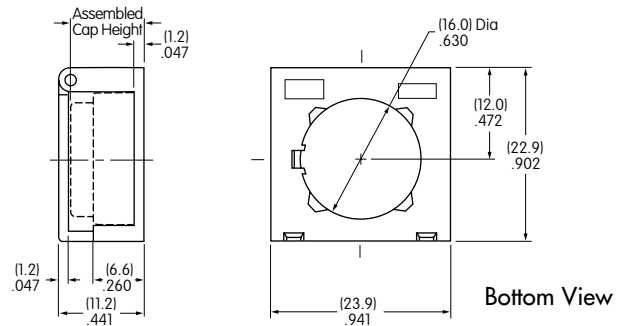
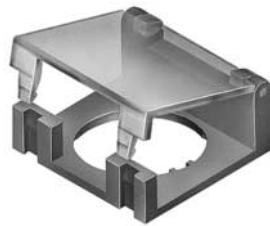
Materials:
Lid: Polyvinyl Chloride
Base: Polyamide
O-ring: Nitrile butadiene rubber



Protective Guard

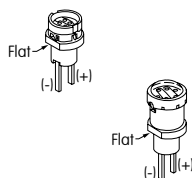
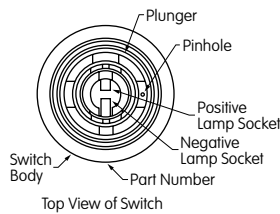
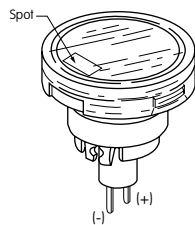
AT4072
Protective Guard

Materials:
Lid: Polycarbonate
Base: Glass Fiber Reinforced Polycarbonate

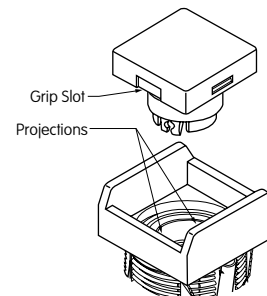


ASSEMBLY INSTRUCTIONS

LED Polarity



Cap Assembly



AT106 Socket Wrench



AT109 Cap Extractor



AT111 Lamping Tool

