

Distinctive Characteristics

Full face or spot illumination with incandescent lamps or multi-element LEDs, with or without resistors.

Choice of super bright LEDs in white, green, and blue as well as bright LEDs in red, amber, and green.

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.

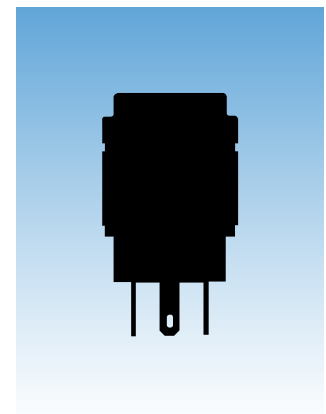
Latchdown for indication of circuit status, plus audible, tactile feedback with smooth, responsive operation.

Nonilluminated models available.

Matching indicators available.



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
Switch Terminals: Phosphor bronze with tin plating
Lamp Terminals: Phosphor bronze with tin plating

Environmental Data

Operating Temp Range: -25°C through +50°C (-13°F through +122°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)
Sealing: IP65 of IEC60529 standard for panel seal models

Installation

Mounting Torque: 0.80Nm (7.08 lb•in) maximum
Soldering Time & Temperature: 4 seconds maximum @ 410°C maximum for manual soldering

Standards & Certifications



Flammability Standards: UL94V-0 housing & base
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.
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.



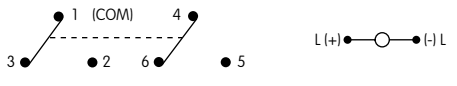
TYPICAL SWITCH ORDERING EXAMPLE



YB15CKW01-6F-JB



POLES & CIRCUITS

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

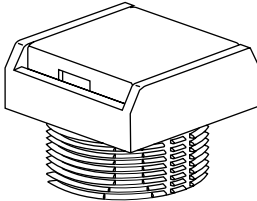
* When in latchdown position for the alternate circuit, cap position is .020" (0.5mm) above the built-in bezel.

PANEL SEAL

No Code

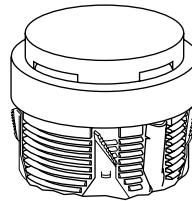
Without Panel Seal

Bushing
Mounting



Supplied with
mounting nut.

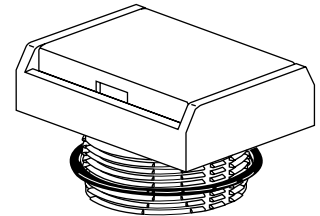
Snap-in
Mounting



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

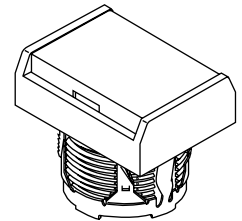
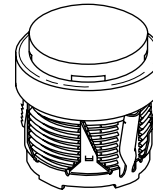
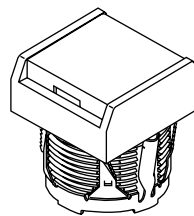
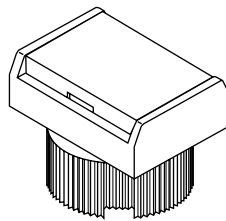
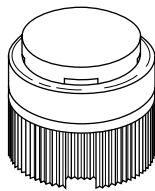
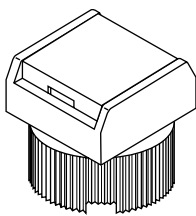
Square

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

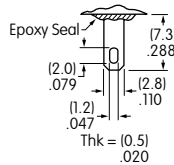
0.4VA max. @ 28V AC/DC max.

Complete explanation of operating range in Supplement section.

TERMINALS

01

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

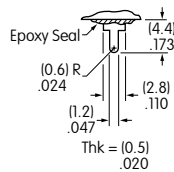


Wiring

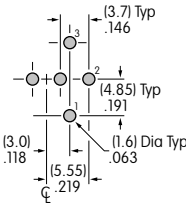
The .047" x .079" (1.2mm x 2mm) oblong hole accommodates one solid 18-gauge wire or two solid or stranded 20-gauge wires.

03

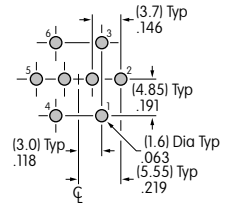
Straight PC



Single Pole



Double Pole



INCANDESCENT LAMP & SOLID CAP

Electrical specifications 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 section.

AT611



T-1 Bi-pin

05

12

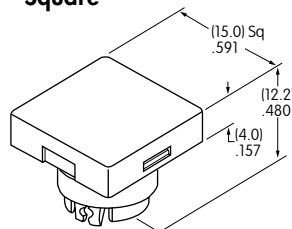
Voltage	V	5V AC	12V AC
Current	I	115mA	60mA
MSCP		.150	.150
Endurance	Hours	7,000 average	
Ambient Temperature Range		-25°C ~ +50°C	

Solid Cap for Incandescent Lamp

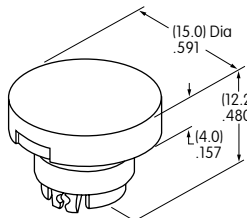
**Lens/Insert
Colors Available:**

- BB** White/White
- CB** Red/White
- EB** Yellow/White
- FB** Green/White
- GB** Blue/White

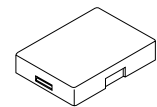
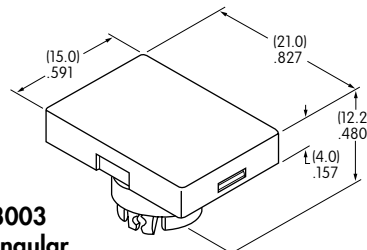
**AT3001
Square**



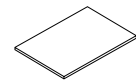
**AT3002
Round**



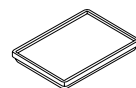
**AT3003
Rectangular**



Translucent Colored Lens



Translucent White Insert



Translucent White Seal/Filter

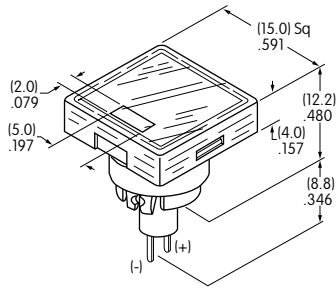


Incandescent Lamp AT611

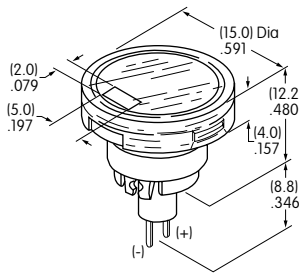
Materials: Polycarbonate (Lens & Insert)
Thermoplastic Elastomer (Seal/Filter)

SPOT ILLUMINATED CAP WITH BUILT-IN LED

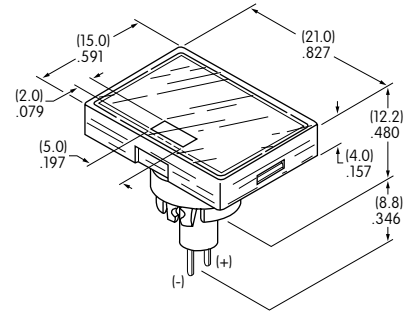
This spot-illuminated cap is factory assembled.



AT3010
Square



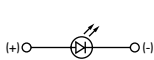
AT3011
Round



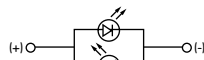
AT3012
Rectangular

Colors Available:					02	05	12	24				
1C	Red	1D	Amber	1F	Green	1CF	Red/Green	w/o Resistor	w/Resistor	w/Resistor	w/Resistor	Unit
Forward Peak Current					I_{FM}	20	15	15	12			mA
Continuous Forward Current					I_F	15	12.5	12.5	10			mA
Forward Voltage					V_F	2.1	5	12	24			V
Reverse Peak Voltage (not applicable to bicolor)					V_{RM}	5	5	5	5			V
Current Reduction Rate Above 25°C					ΔI_F	0.27	----	----	----			mA/°C
Ambient Temperature Range					-25 ~ +50							°C

Without Resistor 2-volt



Single Color

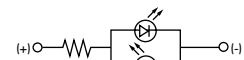


Bicolor

With Resistor 5, 12, 24-volt



Single Color



Bicolor

The electrical specifications shown are determined at a basic temperature of 25°C. LED circuit is isolated and requires external power source. Single color LEDs are colored in OFF state. Bicolor LED is translucent white in OFF state.

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 section.

Lens/Insert

Colors Available:

JA

Clear/Black

JB

Clear/White

JC

Clear/Red

JE

Clear/Yellow

JF

Clear/Green



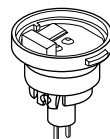
Clear Lens



Colored Insert



Seal



Built-in LED
(integral part
of the cap)

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)

BRIGHT LED & LED CAPS

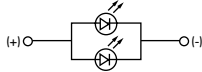
The electrical specifications shown are determined at a basic temperature of 25°C.

LED circuit is isolated and requires external power source.

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 section.

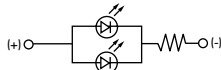
Electrical Specifications for Bright LED without Resistor

Bright AT628   T-1 Bi-pin	Colors Available:	5C Red	5D Amber	5F Green	No Code No Resistor			Unit
	Forward Peak Current	I_{FM}	40	40	40	mA		
	Continuous Forward Current	I_F	26	26	26	mA		
	Forward Voltage	V_F	1.9	2.0	2.2	V		
	Reverse Peak Voltage	V_{RM}	4	4	4	V		
	Current Reduction Rate Above 25°C	ΔI_F	0.50			mA/°C		
	Ambient Temperature Range		-25 ~ +50			°C		

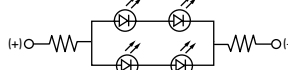
Electrical Specifications for Bright LED with Resistor

Bright AT634  T-1 1/4 Bi-pin	Colors Available:	5C Red	5D Amber	5F Green	05	12	24	Unit
	Forward Peak Current	I_{FM}			—	—	—	mA
	Continuous Forward Current	I_F			25	20	10	mA
	Forward Voltage	V_F			5	12	24	V
	Reverse Peak Voltage	V_{RM}			4	8	16	V
	Current Reduction Rate Above 25°C	ΔI_F			—	—	—	mA/°C
	Ambient Temperature Range				-25 ~ +50			°C

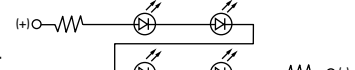
AT634
5-volt,
2-element
with Resistor



AT634
12-volt,
4-element
with Resistor



AT634
24-volt,
4-element
with Resistor

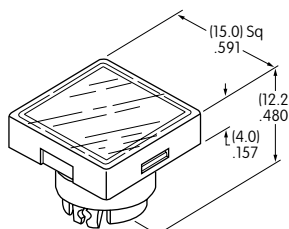


Cap for Bright LED

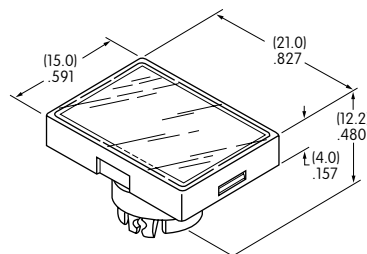
Lens/Insert
Colors Available:

- JB** Clear/White
- JC** Clear/Red
- JD** Clear/Amber
- JF** Clear/Green

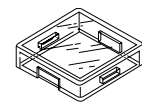
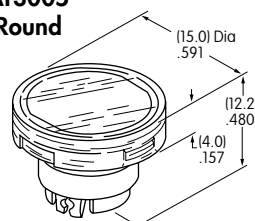
AT3004
Square



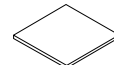
AT3006
Rectangular



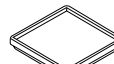
AT3005
Round



Transparent Clear Lens



Translucent Colored Insert



Translucent White Seal/Diffuser



Bright LEDs
AT628 AT634

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