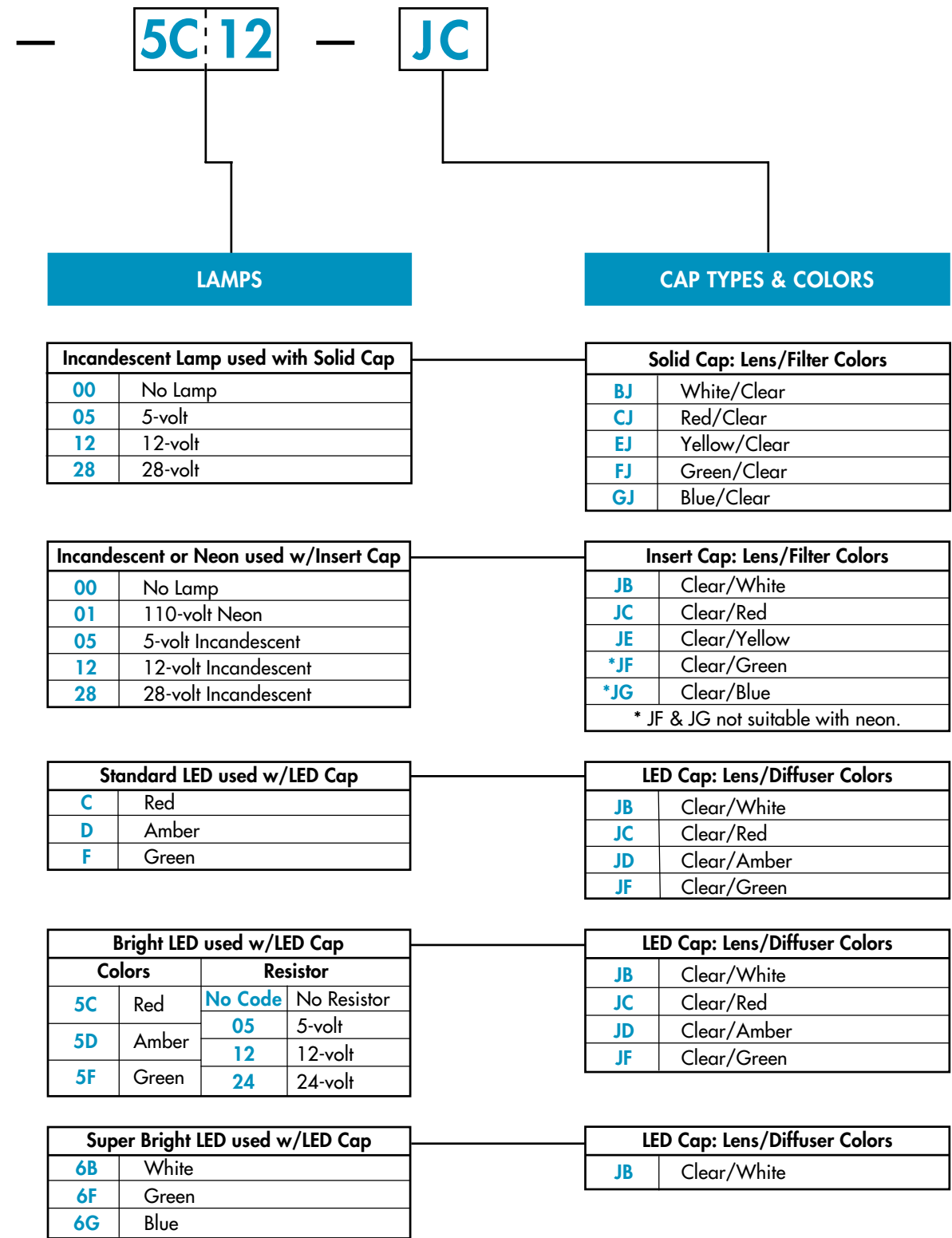
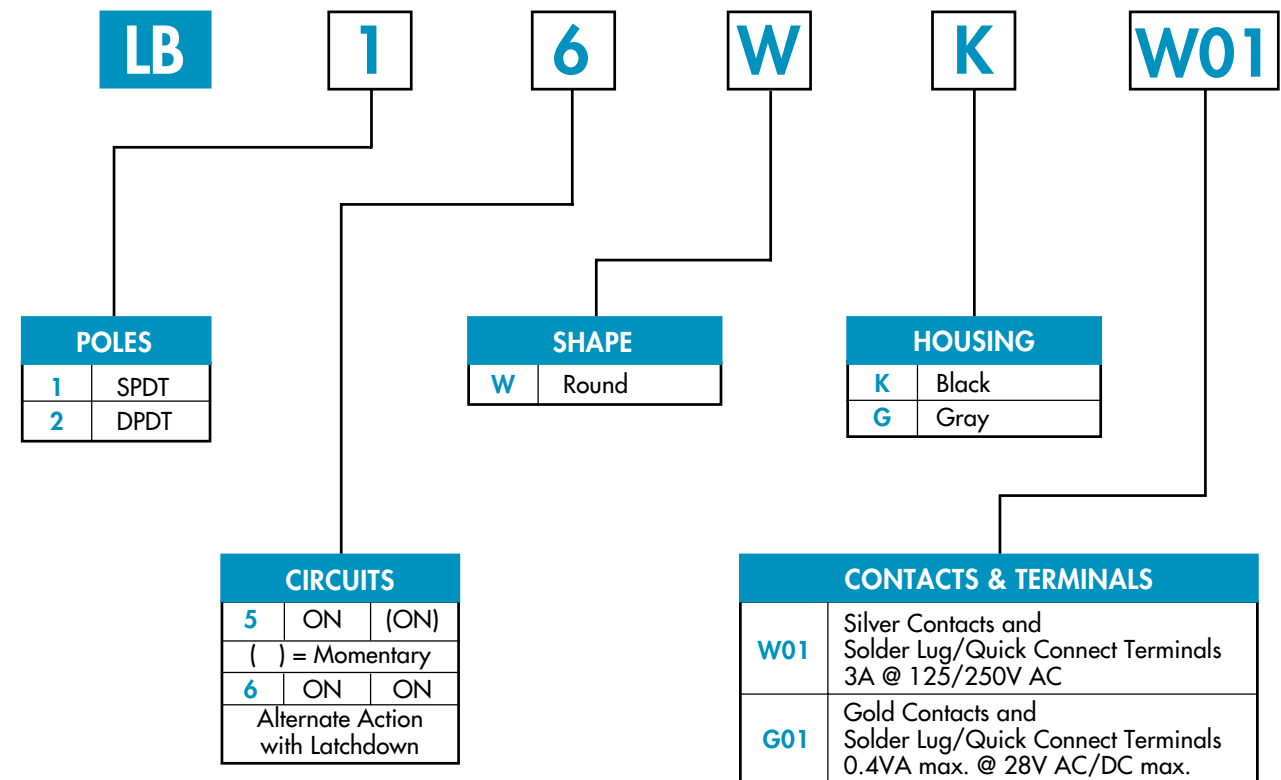
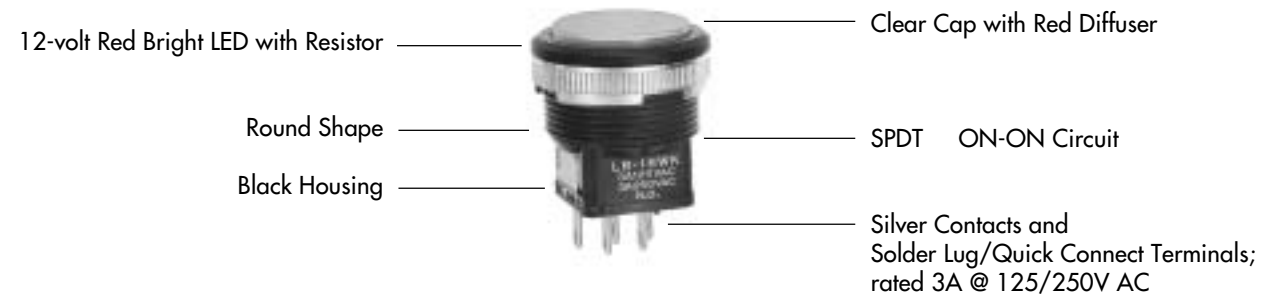



TYPICAL SWITCH ORDERING EXAMPLE



DESCRIPTION FOR TYPICAL ORDERING EXAMPLE

LB16WKW01-5C12-JC



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

GENERAL SPECIFICATIONS

Electrical Capacity (Resistive Load)

Power Level (silver): 3A @ 125V AC or 3A @ 250V AC

Logic Level (gold): 0.4VA maximum @ 28V AC/DC maximum

Note: See Supplement Index (page Z1) 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 circuit

200,000 operations minimum for maintained circuit

Electrical Life: 100,000 operations minimum

Nominal Operating Force: 550 grams

Contact Timing: Nonshorting (break-before-make)

Travel for Momentary Circuit: 1.7mm (.067") pretravel; 1.3mm (.051") overtravel; 3.0mm (.118") total travel

Travel for Maintained Circuit: 1.6mm (.063") pretravel; 0.8mm (.031") overtravel; 2.4mm (.094") total travel

Materials & Finishes

Housing: Fiberglass reinforced polyamide

O-ring: Nitrile butadiene rubber

Inner Seal: Silicone rubber

Movable Contact: Silver alloy or copper with gold plating over nickel plating

Stationary Contacts: Silver alloy or copper with gold plating over nickel plating

Base: Diallyl phthalate

Common Terminals: Phosphor bronze with silver or gold plating

End Terminals: Phosphor bronze with silver or gold plating

Lamp Terminals: Brass with silver 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

Note: When used with a polyvinyl chloride splash cover, the lowest limit is 0°C (32°F)

Humidity: 93% 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: IP 65 of IEC 529 standard (similar to NEMA 4 & 13)

Installation

Cap Installation Force: 0.4 kg (.88 lb) maximum downward force on actuator

Quick Connect Force: 5.4 kg (11.9 lbs) maximum downward force on connector

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 base

UL Recognized: All models recognized at 3A @ 125V or 250V AC or 0.4A @ 28V DC; UL File No. E44145

CSA Certified: All models certified at 3A @ 125V or 250V AC or 0.4VA @ 28V maximum; CSA File Nos. LR23535

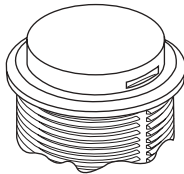
POLES & CIRCUITS

		Plunger Position () = Momentary		Connected Terminals		Throw & Power/Lamp Schematics
Pole	Model	Normal	Down	Normal	Down	
SP	LB15 *LB16	ON ON	(ON) ON	1-3	1-2	SPDT
DP	LB25 *LB26	ON ON	(ON) ON	1-3 4-6	1-2 4-5	DPDT

* When in latched position for the alternate circuit, cap position is 1.0mm (.039") above the built-in bezel.

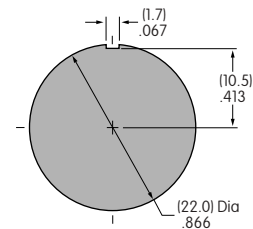
SHAPE

W .866" Diameter Round



Panel Cutout

Recommended Panel Thickness:
1 ~ 4mm (.039" ~ .157")
Recommended Panel Thickness
with Splash Cover:
1 ~ 3.5mm (.039" ~ .138")



HOUSING

Housing Colors Available:

K Black

G Gray

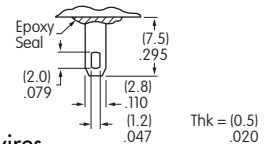
CONTACT MATERIALS, RATINGS, & TERMINALS

W01 Silver Contacts	Power Level 3A @ 125V AC & 250V AC
G01 Gold Contacts	Logic Level 0.4VA max. @ 28V AC/DC max.

See Supplement Index (page Z1) for complete explanation of operating range.

Solder Lug/Quick Connect

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



Optional PCB adaptors AT711 & AT712 available; illustrated in previous snap-in subsection.

INCANDESCENT & NEON LAMP CODES & SPECIFICATIONS

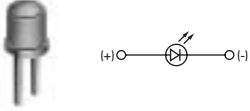
AT607 & AT607N	AT607 Incandescent 5-, 12-, 28-volt; AT607N Neon 110-volt	05	12	28 *	01 **		
 T-1 Bi-pin	Voltage	V	5V AC	12V AC	28V AC	110V AC	* Lamp life is significantly reduced in applications with DC current, high shock, vibration, or continuous illumination. ** Recommended Resistors: 33K ohms for 110V AC; 100K ohms for 220V AC.
	Current	I	115mA	60mA	24mA	1.5mA	
	Endurance	Avg. Hrs.	7,000			10,000	

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

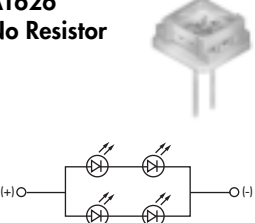
LED CODES & SPECIFICATIONS

Electrical specifications are determined at a basic temperature of 25°C. LED circuit is independent of switch operation. LEDs are colored in OFF state. For dimension drawings of lamps see Accessories & Hardware Index (page Y1).
 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 (page Z1).


Standard Single Element LED

AT614  T-1 1/2 Cylindrical	Colors:	C Red	D Amber	F Green	
	Forward Peak Current	I_{FM}	50mA	50mA	50mA
	Continuous Forward Current	I_F	40mA	40mA	40mA
	Forward Voltage	V_F	1.75V	2.35V	2.35V
	Reverse Peak Voltage	V_{RM}	4V	4V	4V
Current Reduction Rate Above 25°C	ΔI_F	0.67mA/°C			

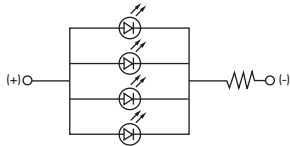
Bright Quad Element LED without Resistor

AT626 No Resistor  T-1 Bi-pin	Color Codes:	Red 5C	Amber 5D	Green 5F	No Code No Resistor	
	Forward Peak Current	I_{FM}	40mA	40mA		40mA
	Continuous Forward Current	I_F	26mA	26mA	26mA	
	Forward Voltage	V_F	3.8V	4.0V	4.4V	
	Reverse Peak Voltage	V_{RM}	8V	8V	8V	
	Current Reduction Rate Above 25°C	ΔI_F	0.50mA/°C			

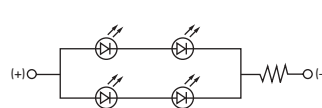
Bright Quad Element LED with Resistor

AT627 with Resistor  T-1 Bi-pin	Color Codes:	Red 5C	Amber 5D	Green 5F	Resistor Codes		
	Forward Peak Current	I_{FM}	—	—	05	12	24
	Continuous Forward Current	I_F	52mA	26mA	13mA		
	Forward Voltage	V_F	5V	12V	24V		
	Reverse Peak Voltage	V_{RM}	4V	8V	16V		
	Current Reduction Rate Above 25°C	ΔI_F	0.50mA/°C				

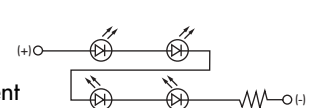
AT627
5 volt,
4-Element
with Resistor




AT627
12 volt,
4-Element
with Resistor



AT627
24 volt,
4-Element
with Resistor



Super Bright Single Element LED

AT625G Blue AT631B White AT632F Green  T-1 Bi-pin	Colors:	6B White	6F Green	6G Blue	
	Forward Peak Current	I_{FM}	30mA	30mA	30mA
	Continuous Forward Current	I_F	20mA	20mA	20mA
	Forward Voltage	V_F	3.6V	3.5V	3.6
	Reverse Peak Voltage	V_{RM}	5V	5V	5V
Current Reduction Rate Above 25°C	ΔI_F	0.50mA/°C			

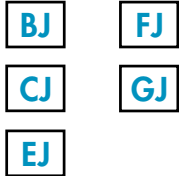
00 **No Lamp** Code 00 indicates that no lamp is used.

CAP TYPES & COLOR COMBINATIONS

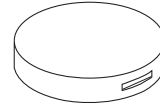
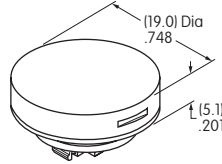
Color Codes: A Black B White C Red D Amber E Yellow F Green G Blue J Clear

Solid Cap for Incandescent Lamp

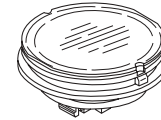
Lens/Filter
Colors Available:



AT4054



Translucent
Colored Lens



Transparent
Clear Filter

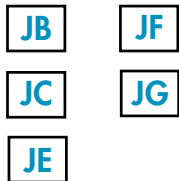


Lamp
AT607

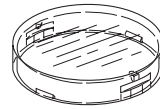
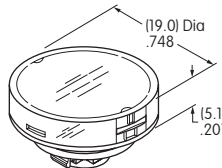
Material: Polycarbonate Finish: Glossy

Insert Cap for Incandescent or Neon Lamp

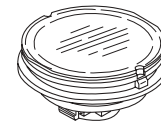
Lens/Filter
Colors Available:



AT4055



Transparent
Clear Lens



Translucent
Colored Filter



Lamp
AT607



Lamp
AT607N

JG & JF not
suitable with neon

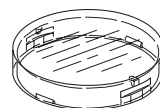
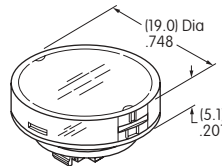
Material: Polycarbonate Finish: Glossy

Cap for Standard LED

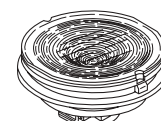
Lens/Diffuser
Colors Available:



AT4056



Transparent
Clear Lens



Translucent
Colored Diffuser



LED
AT614

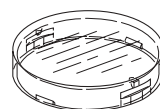
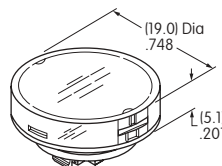
Material: Polycarbonate Finish: Glossy

Cap for Bright LED

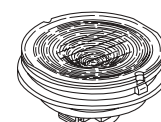
Lens/Diffuser
Colors Available:



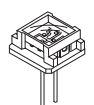
AT4165



Transparent
Clear Lens



Translucent
Colored Diffuser



LEDs
AT626
AT627

Material: Polycarbonate Finish: Glossy

CAP TYPES & COLOR COMBINATIONS

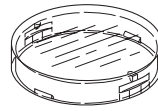
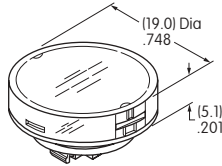
Color Codes: **A** Black **B** White **C** Red **D** Amber **E** Yellow **F** Green **G** Blue **J** Clear

Cap for Super Bright LED

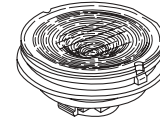
Lens/Diffuser
Colors Available:



AT4131



Transparent
Clear Lens



Translucent
Colored Diffuser

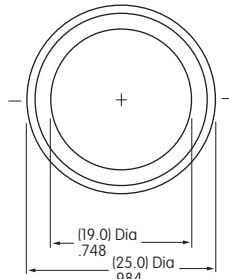


LEDs
AT625
AT631
AT632

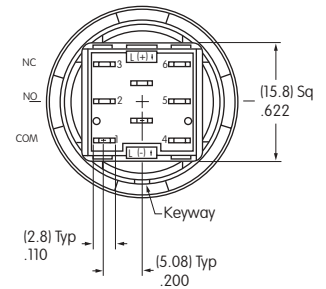
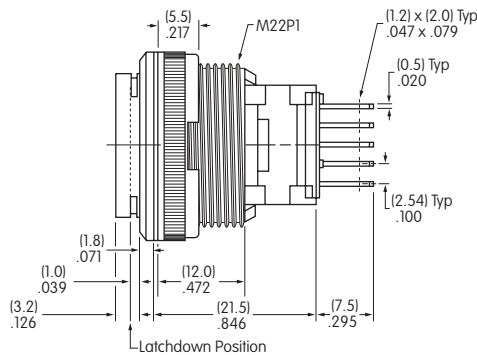
Material: Polycarbonate Finish: Glossy

TYPICAL SWITCH DIMENSIONS

Panel Seal



Single & Double Pole



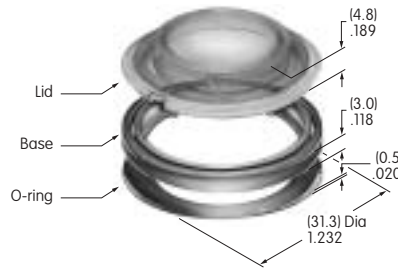
LB25WKW01-12-JC

Terminals 4, 5, & 6 are not on single pole models.

OPTIONAL ACCESSORIES

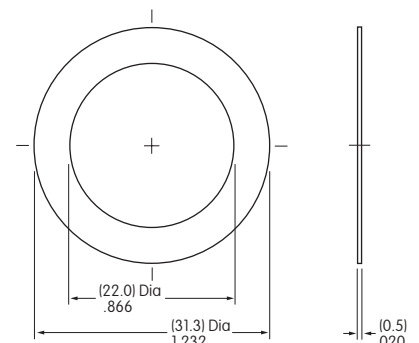
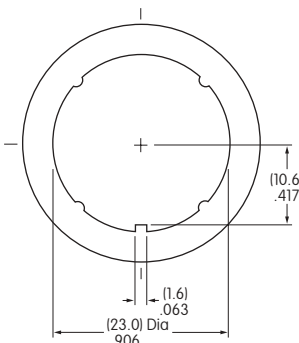
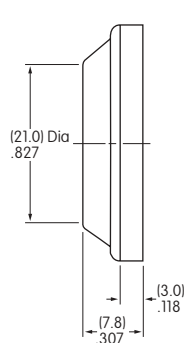
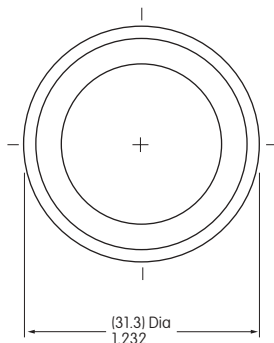
AT9410 Splash Cover for Panel Seal

Materials:
Lid: PVC (loses pliability below 0°C/32°F)
Base: Polyethylene
O-ring: NBR



Recommended Panel Thickness
when using Splash Cover
for panel seal switch:

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

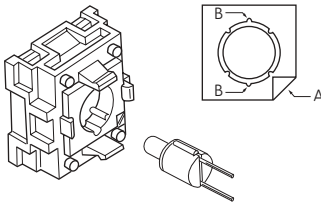


ASSEMBLY INSTRUCTIONS

Lamp Installation & LED Orientation

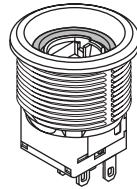
Incandescent & Neon Lamps AT607 & AT607N

Align projections on lamp with grooves (B) in holder when inserting lamp. To correctly join the lamp holder and cap base, match the cut corners (A).



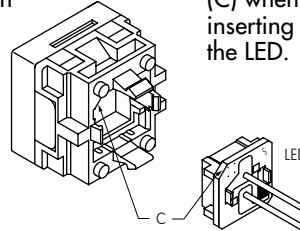
Bright LEDs AT626, AT627 Panel Seal Models

For panel seal models, Bright LED must first be inserted into the lamp socket which is built into the switch. The cap can then be placed on the switch.



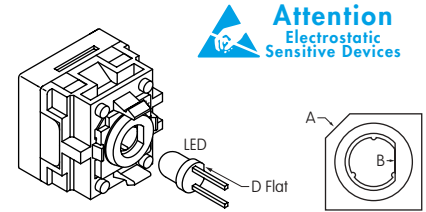
Snap-in Models

For snap-in models, Bright LED must be inserted into the cap first. Align cut corners (C) when inserting the LED.

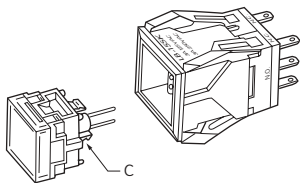
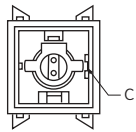


Standard & Super Bright LEDs AT614, AT625, AT631, AT632

Align D-flat on LED with flat (B) in holder when inserting the LED. To correctly join the lamp holder and cap base, match the cut corners (A).



Switch & Cap Assembly

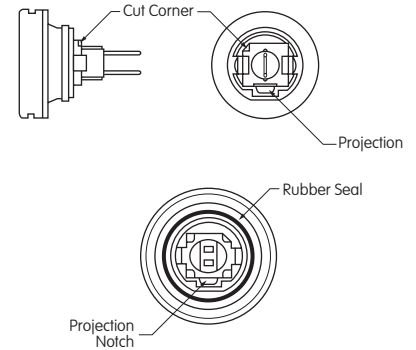
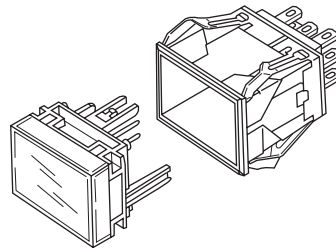
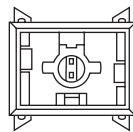
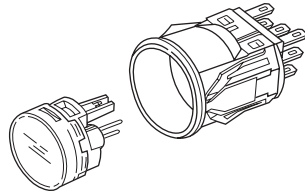
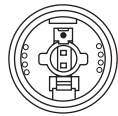


Square

Match projection (C) on cap assembly with groove (C) inside switch. Lamp terminals will then be aligned correctly with lamp socket.

Round & Rectangular

Match clip on cap assembly with receptacle inside switch. Lamp terminals will then be aligned correctly with lamp socket.



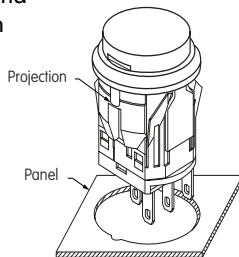
Panel Seal

With Lamps AT607, AT607N, and LEDs AT614, AT625, AT631, AT632: Match projection on cap assembly with notch inside switch. Lamp terminals will then be aligned correctly with lamp socket.

Installation & Maintenance

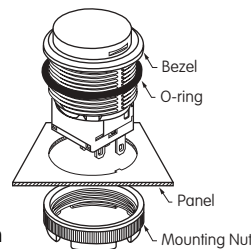
Snap-in Mount

Snap-in clip holds all switches firmly in place. To mount round switch, match the antirotation projection on switch with guide cut in panel. Snap into panel cutout.



Panel Seal Bushing Mount

Insert switch from the front of the panel with the o-ring between the built-in bezel and the panel. Install mounting nut AT074 (supplied with switch) from the rear of the panel. Overtightening mounting nut may damage the switch housing.



Lamp Replacement

Actuator must be in UP position. Pull off cap with cap extractor AT109. Replace lamp and reassemble as shown above.



AT109
Cap Extractor

AT112
Socket Wrench

LEGENDS

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

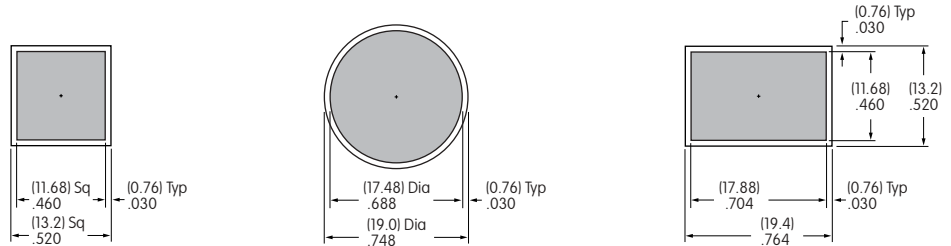
Suggested Printable Area for Lens



Recommended Print Method:

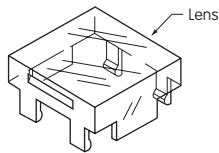
Screen Print or Pad Print

Epoxy based ink is recommended.



Shaded areas are printable areas.

Suggested Printable Area for Film Insert

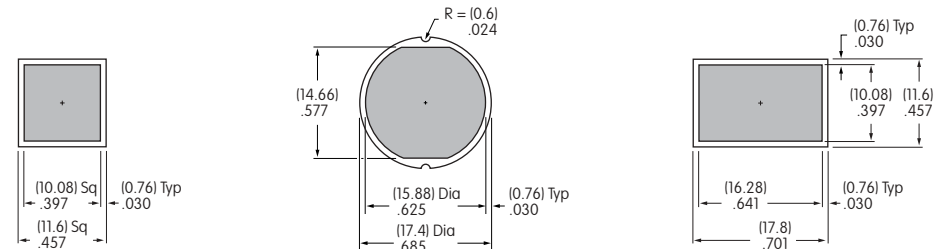
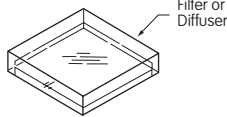


Film Material and Thickness:

Clear Polyester, 4 mil max.

Recommended Print Method:

Screen Print
Epoxy based ink is recommended.

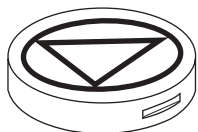


Shaded areas are printable areas.

Additional Methods

Additional methods for legends are engraving the lens and laser printing on film inserts. Maximum depth for engraving is 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 LB 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.