

# Contents Indicators

Toggles



AS eries..... M3  
Complement to A Switches

Rockers



GS eries ..... M5  
Complement to G Switches

Pushbuttons



HB Series ..... M6  
Complement to HB Pushbuttons

Illuminated PB



JF Series ..... M8  
Complement to JF Tactiles

Programmable

Keylocks



KB S eries ..... M9  
Complement to KB Pushbuttons

Rotaries



LBS eries ..... M14  
Complement to LB Pushbuttons

Slides

Tactiles



P01 for MLW Series ..... M19  
Complement to MLW Rockers

Tilt



UBS eries ..... M21  
Complement to UB Pushbuttons

Touch



UB2S eries ..... M24  
Complement to UB2 Pushbuttons

Indicators **M**



YB S eries ..... M27  
Complement to YB Pushbuttons

Accessories

Supplement

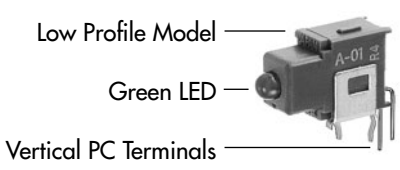
## TYPICAL INDICATOR ORDERING EXAMPLE



Models	
01	Low .079" (2.0mm) Profile
02	High .291" (7.4mm) Profile

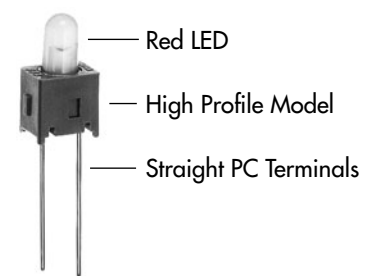
PC Terminals	
For 01 Model	
P	Straight
B	Straight with Bracket
H	Right Angle
V	Vertical
For 02 Model	
P	Straight

LED Colors	
C	Red
E	Yellow
F	Green



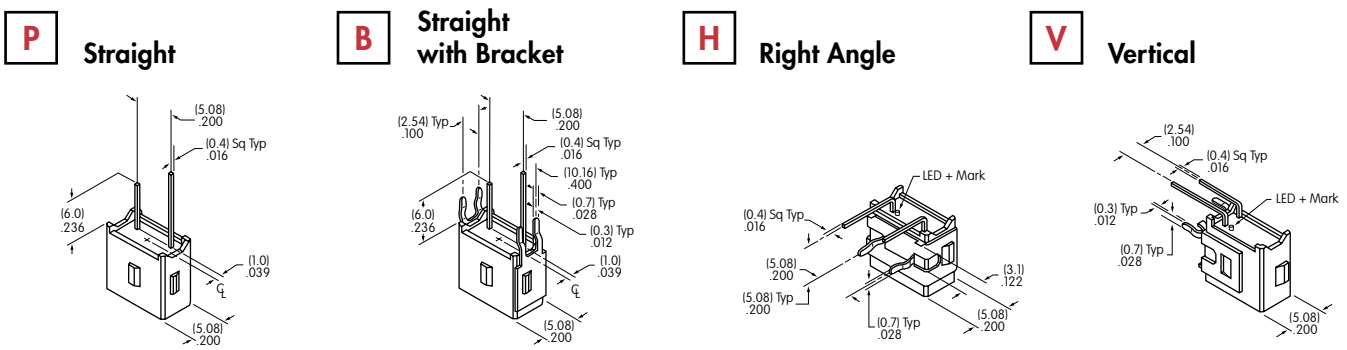
A01VF

### DESCRIPTION FOR TYPICAL ORDERING EXAMPLES



A02PC

## PC TERMINALS



## LED COLORS & SPECIFICATIONS

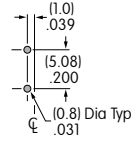
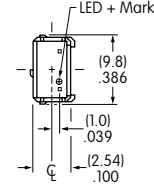
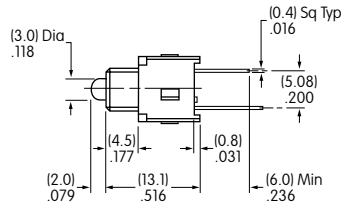
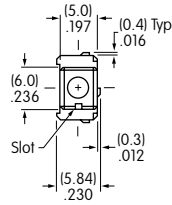
Models	A01 Indicator			A02 Indicator			
	C	E	F	C	E	F	
LED is colored in OFF state	Color	Red	Yellow	Green	Red	Yellow	Green
Forward Peak Current	$I_{FM}$	50mA	50mA	50mA	25mA	30mA	30mA
Typical Forward Current	$I_F$	30mA	30mA	30mA	20mA	20mA	20mA
Forward Voltage	$V_F$	1.7V	2.2V	2.1V	2.1V	2.1V	2.2V
Reverse Peak Voltage	$V_{RM}$	4V	4V	4V	4V	4V	4V
Current Reduction Rate Above 25°C	$\Delta I_F$	0.67mA/°C	0.67mA/°C	0.67mA/°C	0.33mA/°C	0.40mA/°C	0.40mA/°C
Ambient Temperature Range		-30°C ~ +85°C			-30°C ~ +85°C		

Electrical specifications are determined at a basic temperature of 25°C.  
 If the source voltage is greater than the LED's rated voltage, a ballast resistor must be connected in series with the LED.  
 The ballast resistor value can be calculated by using the formula shown in the Supplement section.

Toggles  
 Rockers  
 Pushbuttons  
 Illuminated PB  
 Programmable  
 Keylocks  
 Rotaries  
 Slides  
 Tactiles  
 Tilt  
 Touch  
 Indicators  
 Accessories  
 Supplement

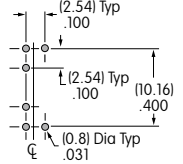
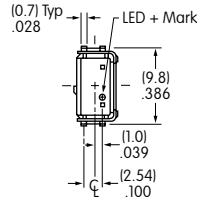
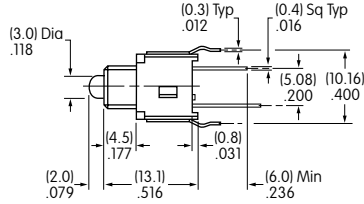
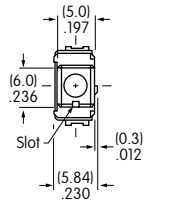
## TYPICAL INDICATOR DIMENSIONS

### Straight PC



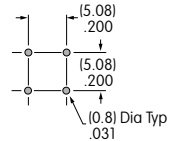
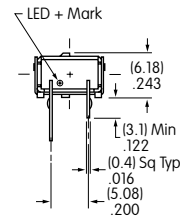
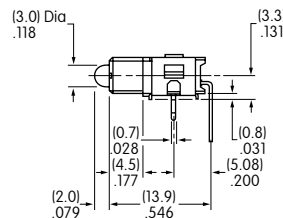
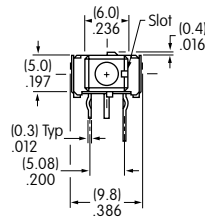
**A01PF**

### Straight PC • Bracket



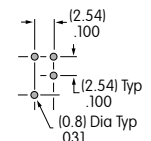
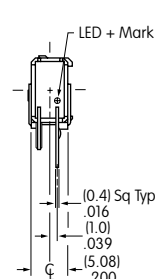
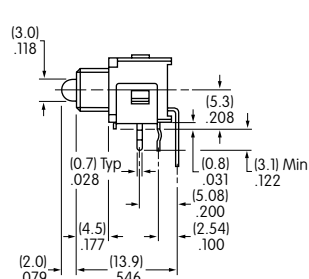
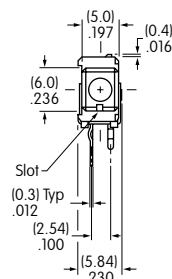
**A01BF**

### Right Angle PC



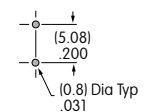
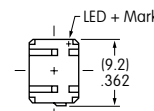
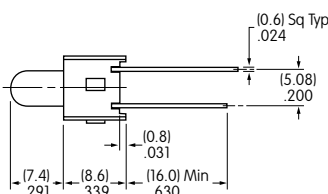
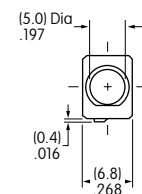
**A01HF**

### Vertical PC



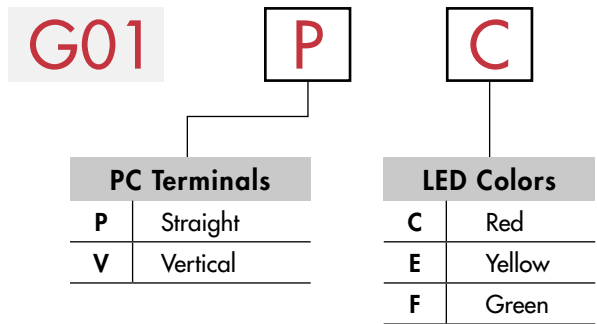
**A01VF**

### Straight PC



**A02PF**

TYPICAL INDICATOR ORDERING EXAMPLE



DESCRIPTION FOR TYPICAL ORDERING EXAMPLE

**G01PC**

Straight PC Terminals



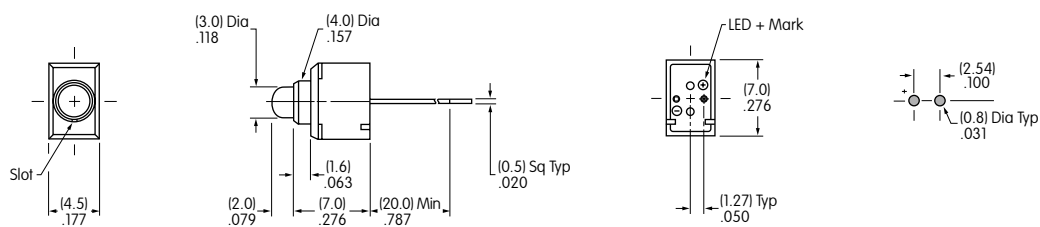
LED COLORS & SPECIFICATIONS

		<b>C</b>	<b>E</b>	<b>F</b>
LED is colored in OFF state	Color	Red	Yellow	Green
Forward Peak Current	$I_{FM}$	30mA	30mA	25mA
Typical Forward Current	$I_F$	20mA	20mA	20mA
Forward Voltage	$V_F$	2.0V	2.1V	2.25V
Reverse Peak Voltage	$V_{RM}$	5V	5V	5V
Current Reduction Rate Above 25°C	$\Delta I_F$	0.40mA/°C	0.40mA/°C	0.33mA/°C
Ambient Temperature Range		-25°C ~ +85°C		

Electrical specifications are determined at a basic temperature of 25°C.

If the source voltage is greater than the LED's rated voltage, a ballast resistor must be connected in series with the LED. That ballast resistor value can be calculated by using the formula shown in the Supplement section.

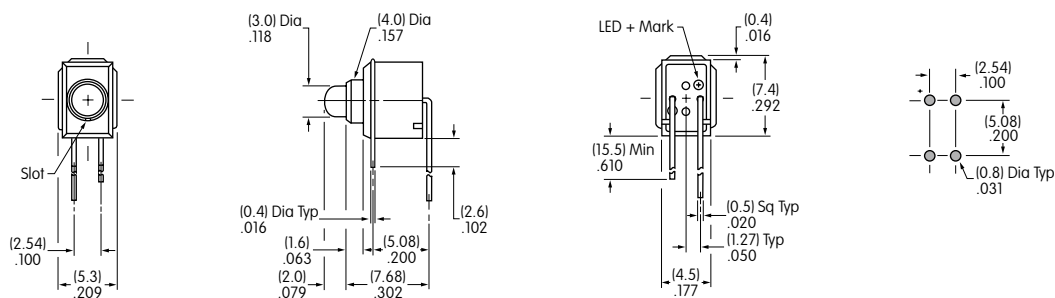
TYPICAL INDICATOR DIMENSIONS



Straight PC



**G01PC**



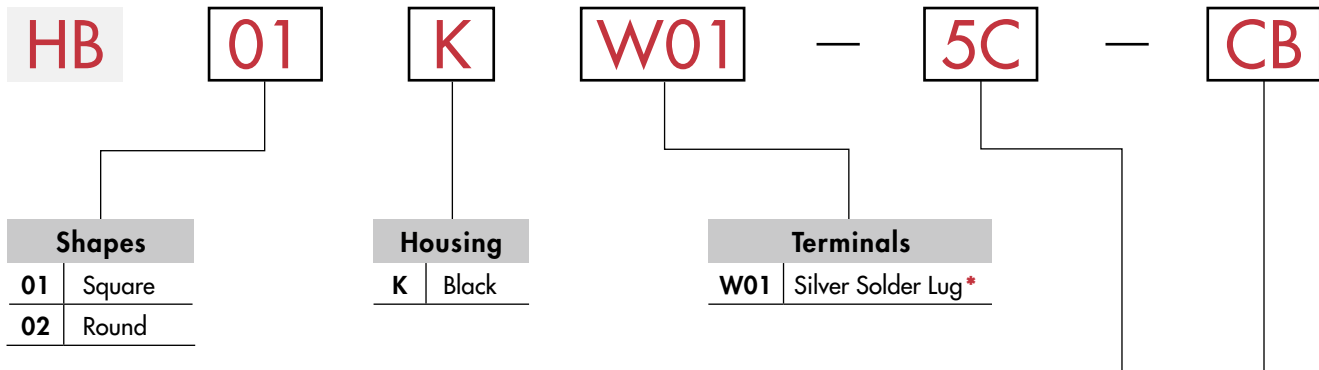
Vertical PC



**G01VC**

These indicators have anode and cathode terminals along with 2 support pins.

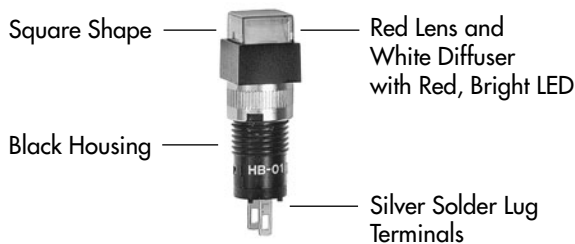
### TYPICAL INDICATOR ORDERING EXAMPLE



\* Wire harness & cable assemblies offered only in Americas

### DESCRIPTION FOR TYPICAL ORDERING EXAMPLE

**HB01KW01-5C-CB**



Bright		LED Cap: Lens/Diffuser Color	
5C	Red	CB	Red/White
5D	Amber	DB	Amber/White
5F	Green	FB	Green/White
		JB	Clear/White
Super Bright		LED Cap: Lens/Diffuser Color	
6B	White	JB	Clear/White
6F	Green		
6G	Blue		

### LED COLORS & SPECIFICATIONS

The electrical specifications shown are determined at a basic temperature of 25°C.  
 LED circuit is isolated and requires external power source. Single element LED is colored 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.

Bright AT633	Super Bright AT624G Blue	Super Bright AT629B White	Super Bright AT630F Green	T-1 Bi-pin	Note for Super Bright:  Color	Bright			Super Bright			Unit
						5C	5D	5F	6B	6F	6G	
						Red	Amber	Green	White	Green	Blue	
	Forward Peak Current	$I_{FM}$				30	30	25	30	30	30	mA
	Typical Forward Current	$I_F$				20	20	20	20	20	20	mA
	Forward Voltage	$V_F$				1.85	2.0	2.2	3.6	3.5	3.6	V
	Reverse Peak Voltage	$V_{RM}$				5	5	5	5	5	5	V
	Current Reduction Rate Above 25°C	$\Delta I_F$				0.40	0.42	0.38	0.50	0.50	0.50	mA/°C
	Ambient Temperature Range					-25° ~ +50°C			-25° ~ +50°C			

Toggles  
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 Pushbuttons  
 Illuminated PB  
 Programmable  
 Keylocks  
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 Tactiles  
 Tilt  
 Touch  
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 Accessories  
 Supplement

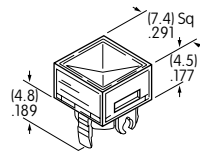
CAP TYPES & COLORS

Colored Cap for Bright LEDs

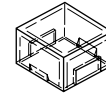
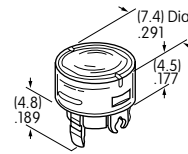
Lens/Diffuser  
Colors Available:

- CB** Red/White
- DB** Amber/White
- FB** Green/White

**AT4168**  
Square



**AT4169**  
Round



Transparent Colored Lens



Translucent White Diffuser



Colored LED AT633

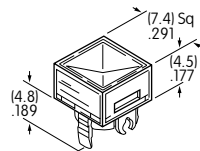
Material: Polycarbonate Finish: Glossy

White Cap for Bright & Super Bright LEDs

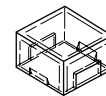
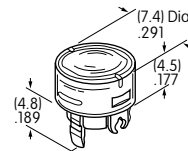
**JB** Clear Lens/  
White Diffuser

Material: Polycarbonate  
Finish: Glossy

**AT4033**  
Square



**AT4034**  
Round



Transparent Clear Lens



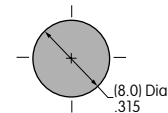
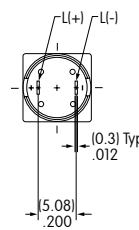
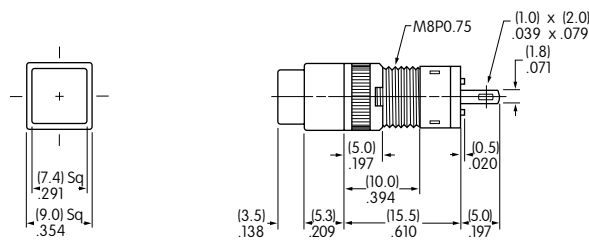
Translucent White Diffuser



Colored LEDs AT624, AT629, AT630, or AT633

TYPICAL INDICATOR DIMENSIONS

Square

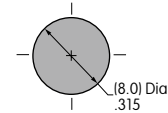
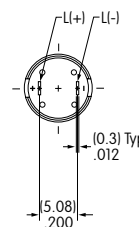
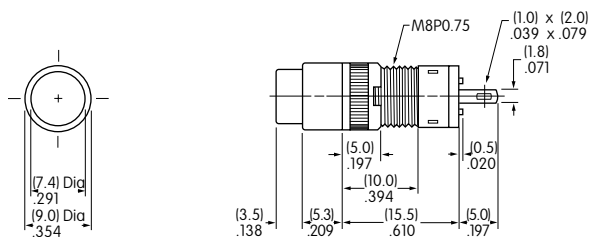


Recommended Panel Thickness: .020" ~ .197" (0.5 ~ 5.0mm)



HB01KW01-5C-CB

Round

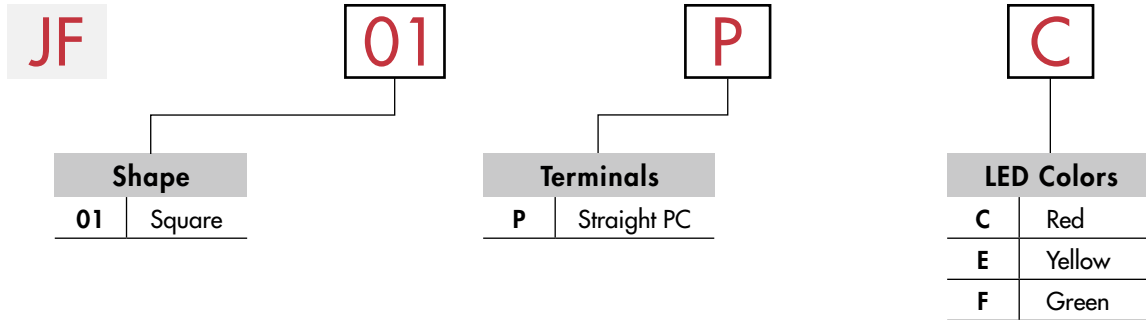


Recommended Panel Thickness: .020" ~ .197" (0.5 ~ 5.0mm)



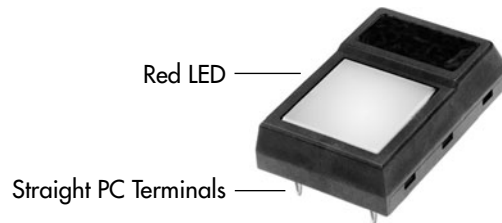
HB02KW01-5C-CB

### TYPICAL INDICATOR ORDERING EXAMPLE



### DESCRIPTION FOR TYPICAL ORDERING EXAMPLE

**JF01PC**



### LED COLORS & SPECIFICATIONS

LED is an integral part of the indicator and not available separately.

LED polarity markings are on the bottom of the indicator.

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 section.

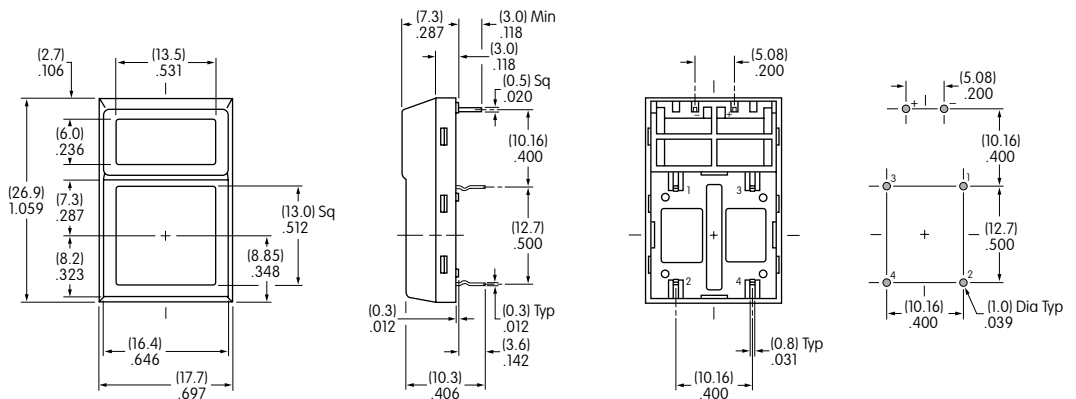
		<b>C</b>	<b>E</b>	<b>F</b>
	Color	Red	Yellow	Green
Forward Peak Current	$I_{FM}$	30mA	30mA	30mA
Typical Forward Current	$I_F$	20mA	20mA	20mA
Forward Voltage	$V_F$	1.77V	2.1V	2.3V
Reverse Peak Voltage	$V_{RM}$	4V	4V	4V
Current Reduction Rate Above 25°C	$\Delta I_F$	0.4mA/°C	0.4mA/°C	0.4mA/°C
Ambient Temperature Range		-25° ~ +70°C		

### TYPICAL INDICATOR DIMENSIONS

#### Square



**JF01PC**



## TYPICAL INDICATOR ORDERING EXAMPLE

**KB**      **02**      **K**      **W01**      —      **12**      —      **FF**

### Shapes

Bushings Mounting	
01	Square
02	Round
03	Rectangular
Snap-in Mounting	
04	Square
05	Round
06	Rectangular

### Housing

K	Black only
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### Terminals

W01	Silver Solder Lug*
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\* Wire harness & cable assemblies offered only in Americas

### Lamps

#### Incandescent Lamp Used with Solid Cap

05	5-volt
12	12-volt

#### Incandescent or Neon Lamp Used with Insert Cap

05	5-volt
12	12-volt
01	110-volt Neon

#### Bright LED Used with Cap for LED

Colors	Resistor	
5C Red	No Code	No Resistor
5D Amber	05	5-volt
	12	12-volt
5F Green	24	24-volt

#### Super Bright LED Used with Cap for LED

6B	White
6F	Green
6G	Blue

### Cap Types & Colors

#### Solid Cap: Lens/Filter Colors

BB	White/White	FB	Green/White
CB	Red/White	FF	Green/Green
CC	Red/Red	GB	Blue/White
EB	Yellow/White	GG	Blue/Blue

#### Insert Cap: Lens/Filter Colors

JB	Clear/White
JC	Clear/Red
JE	Clear/Yellow
*JF	Clear/Green
*JG	Clear/Blue

\* JF & JG not suitable with neon.

#### LED Cap: Lens/Diffuser Colors

AB	Square Spot Illuminated Black Cap/White Window
JB	Clear/White
JC	Clear/Red
JD	Clear/Amber
JF	Clear/Green

#### LED Cap: Lens/Diffuser Colors

JB	Clear/White
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### DESCRIPTION FOR TYPICAL ORDERING EXAMPLE

**KB02KW01-12-FF**



12-volt Incandescent Lamp Solid Cap with Green Lens and Green Filter

Black Housing Round with Bushing Mounting

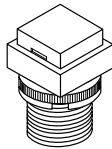
Silver Solder Lug Terminals



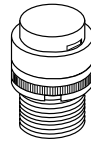
### SHAPES & MOUNTING TYPES

#### Bushing Mounting

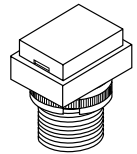
**01** .551" (14mm)  
Square



**02** .551" (14mm)  
Round

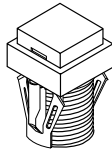


**03** .551" x .728" (14mm x 18.5mm)  
Rectangular

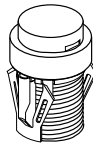


#### Snap-in Mounting

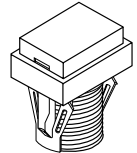
**04** .551" (14mm)  
Square



**05** .551" (14mm)  
Round



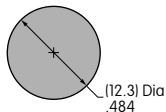
**06** .551" x .728" (14mm x 18.5mm)  
Rectangular



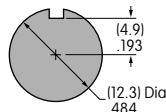
The bezel is an integral part of the indicator body.

#### Bushing Mounting

**Without Keyway**



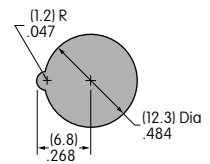
Panel Thickness:  
.020" ~ .315"  
(0.5 ~ 8mm)



**With Keyway**

#### Snap-in Mounting

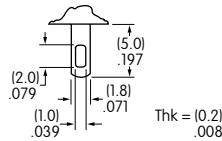
Panel Thickness:  
.039" ~ .138"  
(1.0 ~ 3.5mm)



### TERMINALS

**W01**

Silver Solder Lug



### LAMP COLORS & SPECIFICATIONS

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 ballast resistor calculation and more lamp detail are shown in the Supplement section.

#### Incandescent & Neon Lamps

AT611 Incandescent	AT615 Neon		<b>05</b>	<b>12</b>	<b>01</b>	Recommended Resistors for Neon: 33K ohms for 110V AC; 100K ohms for 220V AC
			Voltage	V	5V AC	
Current	I	115mA	60mA	1.5mA		
Endurance	Hours	7,000 average		10,000		

#### Bright LED without Resistor

AT635	Red	Amber	Green	<b>No Code</b> No Resistor		
				Red	Amber	Green
Color Codes	<b>5C</b>	<b>5D</b>	<b>5F</b>			
Forward Peak Current	$I_{FM}$			30mA	30mA	30mA
Typical Forward Current	$I_F$			20mA	20mA	20mA
Forward Voltage	$V_F$			1.9V	2.0V	2.1V
Reverse Peak Voltage	$V_{RM}$			5V	5V	5V
Current Reduction Rate Above 25°C	$\Delta I_F$			0.42mA/°C	0.29mA/°C	0.42mA/°C
Ambient Temperature Range				-25° ~ +50°C		

**AT635**

LEDs are colored  
in OFF state.




T-1 1/2 Bi-pin

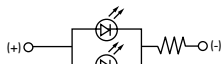
**LAMP COLORS & SPECIFICATIONS**

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 ballast resistor calculation and more lamp detail are shown in the Supplement section.

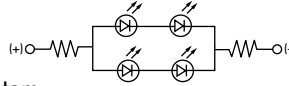
**Bright LED with Resistor**

<b>AT634</b>  LEDs are colored in OFF state.    T-1 1/4 Bi-pin	Color Codes:	Red <b>5C</b>	Amber <b>5D</b>	Green <b>5F</b>	Resistor Codes			
					<b>05</b>	<b>12</b>	<b>24</b>	
	Forward Peak Current				$I_{FM}$	—	—	—
	Typical Forward Current				$I_F$	25mA	20mA	10mA
	Forward Voltage				$V_F$	5V	12V	24V
	Reverse Peak Voltage				$V_{RM}$	4V	8V	16V
	Current Reduction Rate Above 25°C				$\Delta I_F$	—	—	—
Ambient Temperature Range					-25° ~ +50°C			

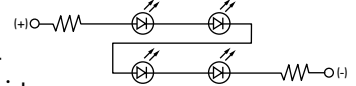
AT634  
5-volt  
2-element  
with 1 Resistor





AT634  
12-volt  
4-element  
with 2 Resistors



AT634  
24-volt  
4-element  
with 2 Resistors



**Super Bright Single Element LED**

<b>AT625G Blue</b>  <b>AT631B White</b>  <b>AT632F Green</b>    T-1 Bi-pin				<b>6B</b>	<b>6F</b>	<b>6G</b>	
	Color			White	Green	Blue	
	Forward Peak Current	$I_{FM}$			30mA	30mA	30mA
	Typical Forward Current	$I_F$			20mA	20mA	20mA
	Forward Voltage	$V_F$			3.6V	3.5V	3.6V
	Reverse Peak Voltage	$V_{RM}$			5V	5V	5V
	Current Reduction Rate Above 25°C	$\Delta I_F$			0.50mA/°C	0.50mA/°C	0.50mA/°C
Ambient Temperature Range				-25° ~ +50°C			

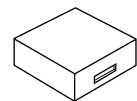
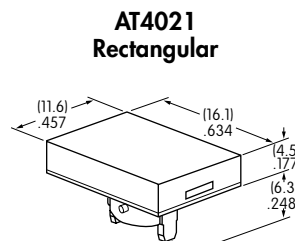
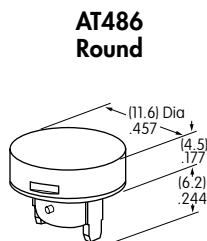
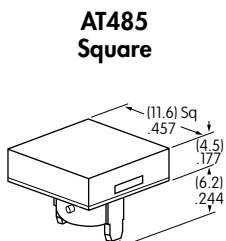
**CAP TYPES & COLOR COMBINATIONS**

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

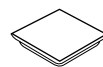
**Solid Cap for Incandescent Lamp**

Lens/Filter Colors Available:

- BB**
- FB**
- CB**
- FF**
- CC**
- GB**
- EB**
- GG**



Translucent Colored Lens



Translucent Colored Filter



Lamp AT611

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

#### Insert Cap for Incandescent or Neon Lamp

Lens/Filter Colors Available:

**JB**

**AT487**  
Square

**AT488**  
Round

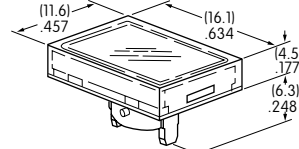
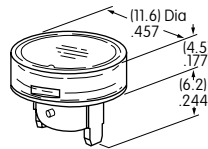
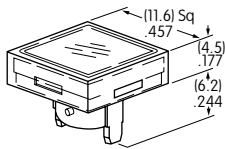
**AT4022**  
Rectangular



Transparent Clear Lens

**JC**

**JE**



Translucent Colored Filter

**JF**

**JG**



JF and JG not suitable with neon lamp.

Material: Polycarbonate Finish: Glossy

Lamp AT611 Lamp AT615

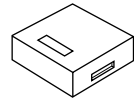
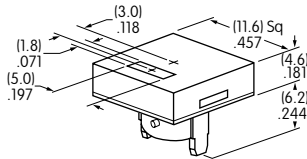
#### Spot Illuminated Cap for Bright LED without Resistor or with Resistor

Cap/Window Colors Available:

**AB**

**Opaque Black Cap with Translucent White Window for Spot Illumination**

**AT4051**  
Square



Bright LED AT635

Bright LED AT634

Material: Polycarbonate Finish: Matte

#### Cap for Bright LED without Resistor or LED with Resistor

Lens/Diffuser Colors Available: (AT4133, 4132, 4134 white diffusers; AT4158, 4160, 4159 colored diffusers)

**JB**

**AT4133**

**AT4132**

**AT4134**



Transparent Clear Lens

Square

Round

Rectangular

**JC**

**AT4158**

**AT4160**

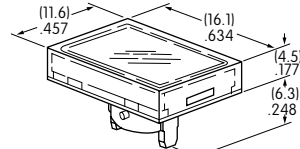
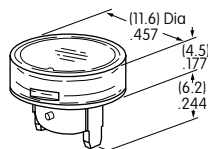
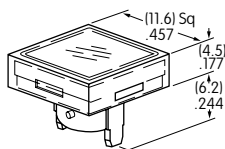
**AT4159**



Translucent Diffuser

**JD**

**JF**



Bright LED AT635

Bright LED AT634

Material: Polycarbonate Finish: Glossy

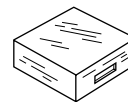
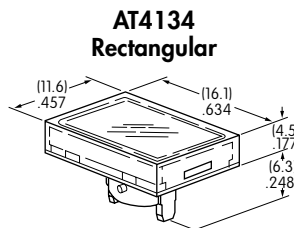
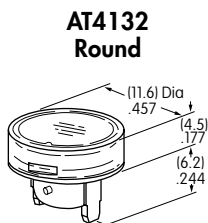
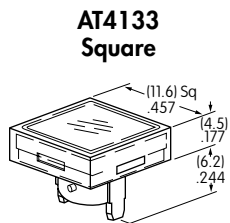
## CAP TYPES & COLOR COMBINATIONS

Cap for Super Bright LED

Lens/Diffuser  
Colors Available:



Clear Lens  
White Diffuser



Translucent Clear Lens



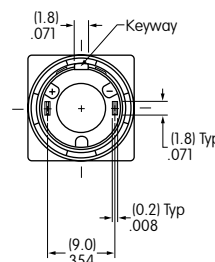
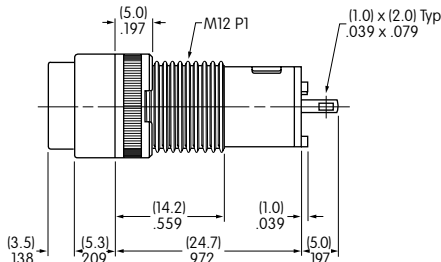
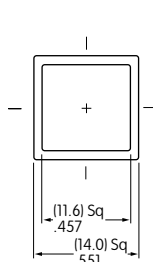
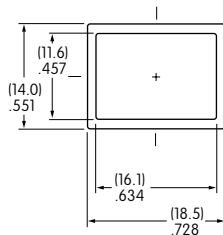
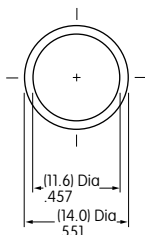
Translucent White Diffuser



Super Bright LEDs  
AT625, AT631, AT632

Material: Polycarbonate Finish: Glossy

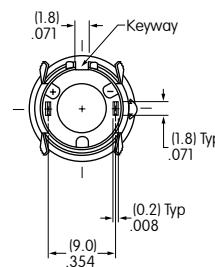
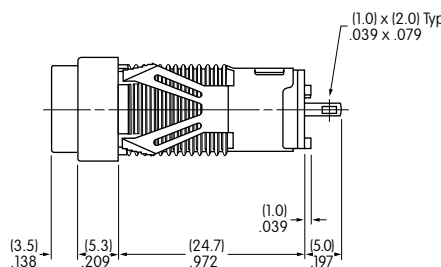
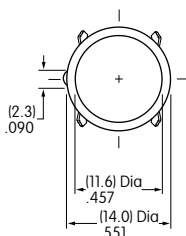
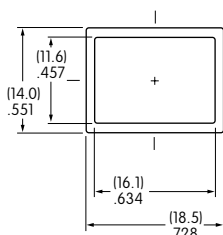
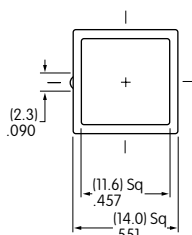
## TYPICAL INDICATOR DIMENSIONS



Bushing Mount



KB01KW01-05-GG



Snap-in Mount



KB05KW01-05-FF

### TYPICAL INDICATOR ORDERING EXAMPLE

**LB 01 G W01 — 5C 12 — JC**

Shapes	
01	Square
02	Round
03	Rectangular

Housing	
K	Black
G	Gray

Terminals	
W01	Silver Solder Lug/ Quick Connect Terminals*

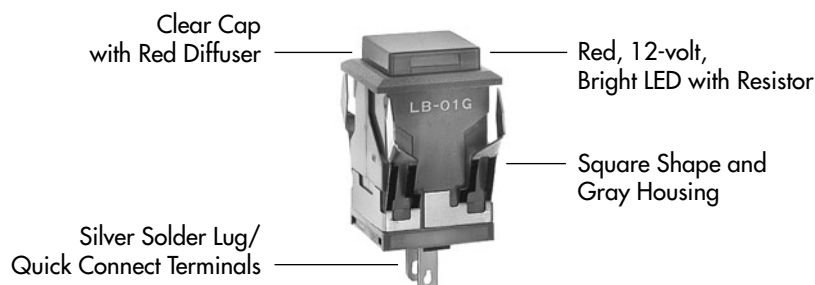
Lamps			
Incandescent Lamp Used with Solid Cap			
05	5-volt		
12	12-volt		
Incandescent or Neon Used with Insert Cap			
01	110-volt Neon		
05	5-volt Incandescent		
12	12-volt Incandescent		
Bright LED Used with LED Cap			
Colors		Resistor	
5C	Red	No Code	No Resistor
5D	Amber	05	5-volt
		12	12-volt
5F	Green	24	24-volt
Super Bright LED Used with LED Cap			
6B	White		
6F	Green		
6G	Blue		

Cap Types & Colors	
Solid Cap: Lens/Filter Colors	
BJ	White/Clear
CJ	Red/Clear
EJ	Yellow/Clear
FJ	Green/Clear
GJ	Blue/Clear
Insert Cap: Lens/Filter Colors	
JB	Clear/White
JC	Clear/Red
JE	Clear/Yellow
*JF	Clear/Green
*JG	Clear/Blue
*JF & JG not suitable with neon.	
LED Cap: Lens/Diffuser Colors	
JB	Clear/White
JC	Clear/Red
JD	Clear/Amber
JF	Clear/Green
LED Cap: Lens/Diffuser Colors	
JB	Clear/White

\* Wire harness & cable assemblies offered only in Americas

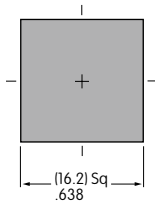
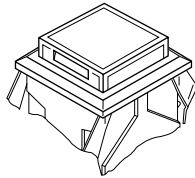
### DESCRIPTION FOR TYPICAL ORDERING EXAMPLE

#### LB01GW01-5C12-JC

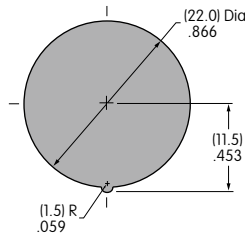
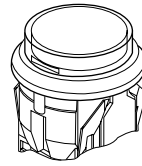


SHAPES & PANEL CUTOUTS

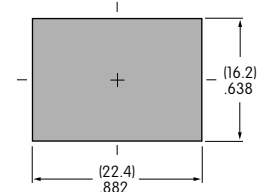
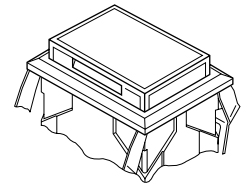
**01** .622" (15.8mm)  
Square



**02** .854" (21.7mm)  
Round



**03** .622" x .866" (15.8mm x 22.0mm)  
Rectangular



Panel Thickness: .039" ~ .157" (1.0 ~ 4.0mm)

HOUSING

Housing Colors Available:



Black

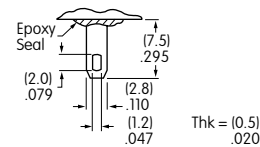


Gray

TERMINALS


**W01**

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




LAMP CODES & SPECIFICATIONS

Incandescent Lamp for Solid Colored and Colored Insert Caps

<b>AT607</b>   T-1 Bi-pin		<b>05</b>	<b>12</b>	
	Voltage	V	5V AC	12V AC
	Current	I	115mA	60mA
	Endurance	Hours	10,000 average	
	Ambient Temp. Range		-25°C ~ +50°C	

Neon Lamp for Colored Insert Cap



<b>AT607N</b>   T-1 Bi-pin		<b>01</b>	
	Voltage	V	110V AC
	Current	I	1.5mA
	Endurance	Hours	10,000 average
	Ambient Temp. Range		-25°C ~ +50°C
	Recommended Resistors: 33K ohms for 110V AC; 100K ohms for 220V AC		

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


### LED COLORS & SPECIFICATIONS

The electrical specifications shown are determined at a basic temperature of 25°C. Polarity marks are on the device.  
 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.  
 Additional lamp detail is shown in the Accessories & Hardware section.

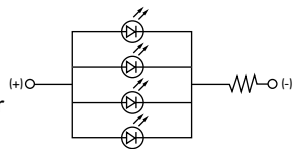
#### Bright LED without Resistor

<b>AT635</b> LEDs are colored in OFF state.   T-1½ Bi-pin	Color Codes	Red <b>5C</b>	Amber <b>5D</b>	Green <b>5F</b>	<b>No Code</b> No Resistor
	Forward Peak Current	$I_{FM}$			30mA
	Typical Forward Current	$I_F$			20mA
	Forward Voltage	$V_F$			1.9V
	Reverse Peak Voltage	$V_{RM}$			5V
	Current Reduction Rate Above 25°C	$\Delta I_F$			0.42mA/°C
	Ambient Temperature Range				-25° ~ +50°C

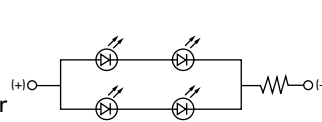
#### Bright LED with Resistor

<b>AT627 with Resistor</b>  T-1 Bi-pin	Color Codes:	Red <b>5C</b>	Amber <b>5D</b>	Green <b>5F</b>	Resistor Codes		
	Forward Peak Current	$I_{FM}$			<b>05</b>	<b>12</b>	<b>24</b>
	Typical 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	$\Delta I_F$			0.50mA/°C		
	Ambient Temperature Range				-25° ~ +50°C		

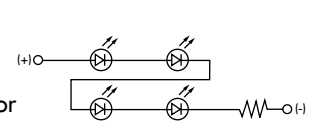
AT627  
5-volt  
4-element  
with Resistor






AT627  
12-volt  
4-element  
with Resistor



AT627  
24-volt  
4-element  
with Resistor



#### Super Bright Single Element LED

<b>AT625G Blue</b> <b>AT631B White</b> <b>AT632F Green</b>   T-1 Bi-pin				<b>6B</b>	<b>6F</b>	<b>6G</b>	
	Color			White	Green	Blue	
	Forward Peak Current	$I_{FM}$			30mA	30mA	30mA
	Typical Forward Current	$I_F$			20mA	20mA	20mA
	Forward Voltage	$V_F$			3.6V	3.5V	3.6V
	Reverse Peak Voltage	$V_{RM}$			5V	5V	5V
	Current Reduction Rate Above 25°C	$\Delta I_F$			0.50mA/°C		
	Ambient Temperature Range				-25° ~ +50°C		

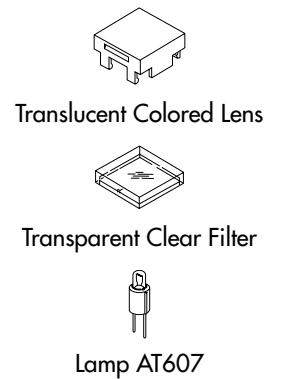
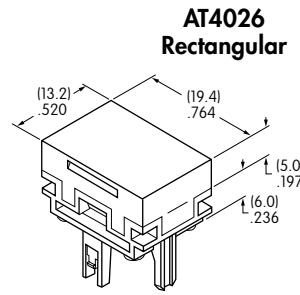
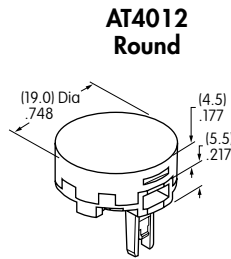
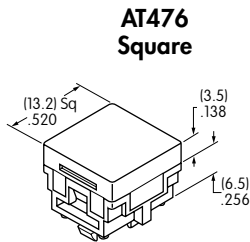
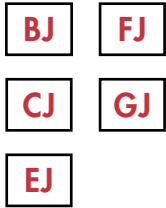
Toggles  
 Rockers  
 Pushbuttons  
 Illuminated PB  
 Programmable  
 Keylocks  
 Rotaries  
 Slides  
 Tactiles  
 Tilt  
 Touch  
 Indicators  
 Accessories  
 Supplement

**CAP TYPES & COLOR COMBINATIONS**

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

**Solid Cap for Incandescent Lamp**

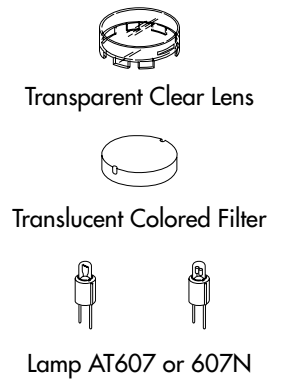
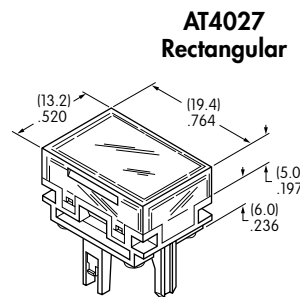
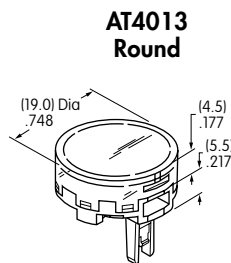
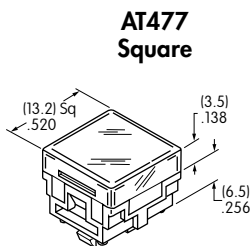
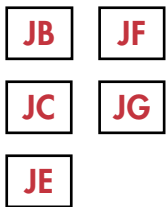
Lens/Filter  
Colors Available:



Material: Polycarbonate Finish: Glossy

**Insert Cap for Incandescent or Neon Lamp**

Lens/Filter  
Colors Available:

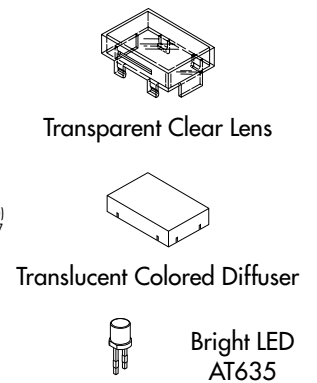
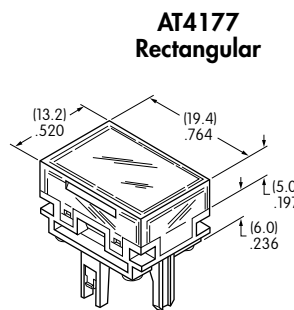
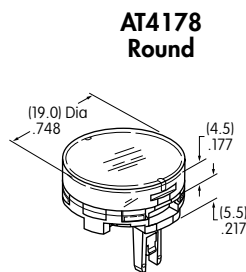
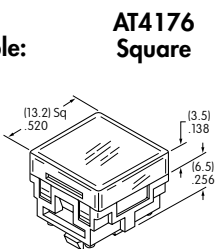


JF and JG not suitable with neon lamp.

Material: Polycarbonate Finish: Glossy

**Cap for Bright LED without Resistor**

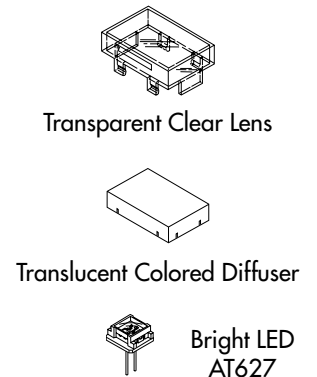
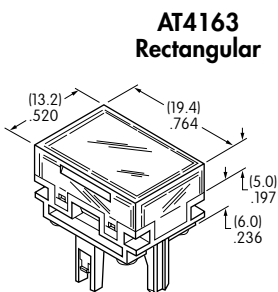
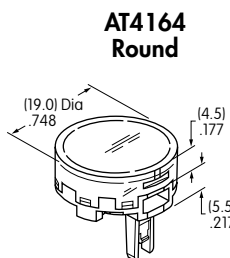
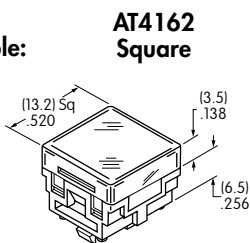
Lens/Diffuser  
Colors Available:



Material: Polycarbonate Finish: Glossy

**Cap for Bright LED with Resistor**

Lens/Diffuser  
Colors Available:



Material: Polycarbonate Finish: Glossy



## CAP TYPES & COLOR COMBINATIONS

### Cap for Super Bright LEDs

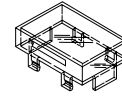


Clear Lens  
White Diffuser

AT4129  
Square

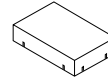
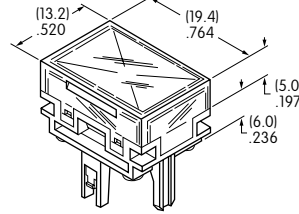
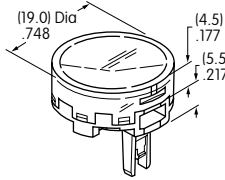
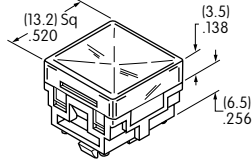
AT4128  
Round

AT4130  
Rectangular



Transparent  
Clear Lens

Material:  
Polycarbonate  
Finish: Glossy



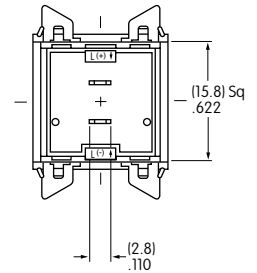
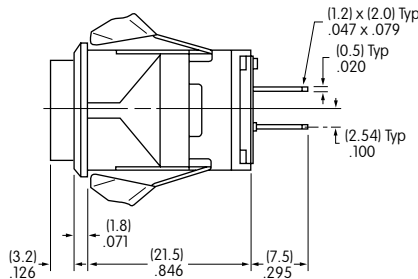
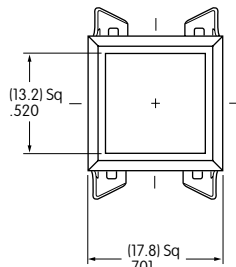
Translucent  
White Diffuser



LEDs AT625  
AT631 AT632

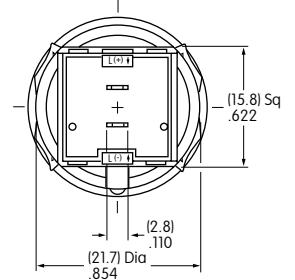
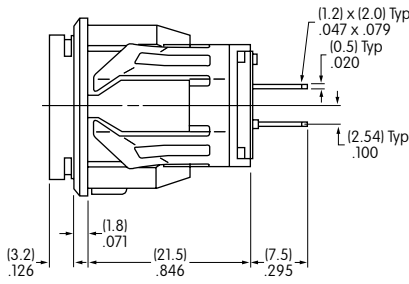
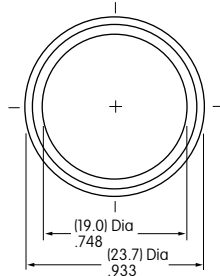
## TYPICAL INDICATOR DIMENSIONS

### Square



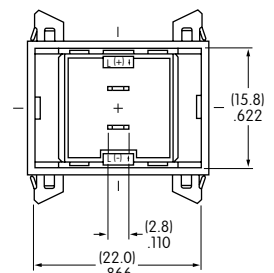
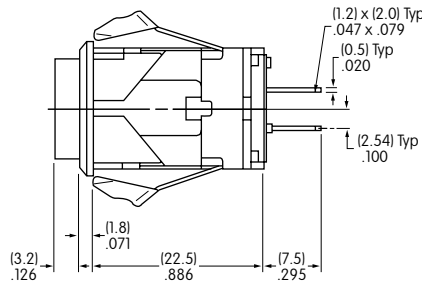
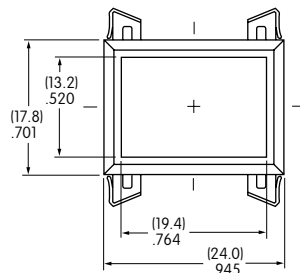
LB01KW01-12-CJ

### Round



LB02KW01-12-CJ

### Rectangular



LB03KW01-12-CJ

## TYPICAL INDICATOR ORDERING EXAMPLE

**P01**

**12**

**C**

**1**

**A**

Lamps	
Incandescent	
<b>06</b>	6-volt
<b>12</b>	12-volt
<b>18</b>	18-volt
<b>24</b>	24-volt
<b>28</b>	28-volt
Neon	
<b>N</b>	110-volt

Cap Colors	
<b>B</b>	White
<b>C</b>	Red
<b>D</b>	Orange
<b>E</b>	Yellow
<b>*F</b>	Green
<b>*G</b>	Blue

\*F & G not suitable with neon.

Bezels	
<b>1</b>	.787" (20.0mm) Wide
<b>2</b>	.937" (23.8mm) Wide

Bezel Colors	
<b>A</b>	Black
<b>B</b>	White
<b>C</b>	Red
<b>D</b>	Orange
<b>E</b>	Yellow
<b>F</b>	Green
<b>G</b>	Blue
<b>H</b>	Gray

### DESCRIPTION FOR TYPICAL ORDERING EXAMPLE

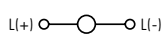


**P01-12-C-1A**



Note: Wire harness & cable assemblies offered only in Americas

## LAMP CODES & SPECIFICATIONS

### Incandescent & Neon Lamps for Solid & Design Caps

AT602 Incandescent	AT602N Neon	$L(+)$  $L(-)$	<b>06</b>	<b>12</b>	<b>18</b>	<b>24</b>	<b>28</b>	<b>N</b>		
			Voltage	6V	12V	18V	24V	28V	110V	
			Current	80mA	50mA	35mA	25mA	22mA	1.5mA	
			MSCP	.159	.215	.398	.215	.247	NA	
			Endurance	Hours					2,000 Average	15,000 Avg.
			Ambient Temperature Range						-10° ~ +50°C	
T-1 1/2 Pilot Slide Base			Recommended Resistor for Neon: 33K ohms for 110V AC & 100K ohms for 220V AC							

Electrical specifications are determined at a basic temperature of 25°C.

For dimension drawings of lamps, see 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 section.

## CAP COLORS

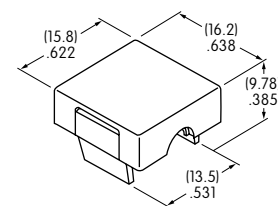
<b>B</b> White	<b>D</b> Orange	<b>F</b> Green
<b>C</b> Red	<b>E</b> Yellow	<b>G</b> Blue

Material: Polycarbonate

Finish: Glossy

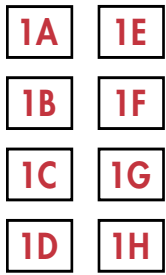
F & G not suitable for neon

**AT429**

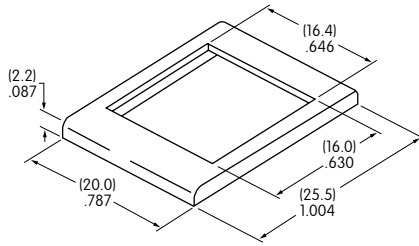


Toggles  
Rockers  
Pushbuttons  
Illuminated PB  
Programmable  
Keylocks  
Rotaries  
Slides  
Tactiles  
Tilt  
Touch  
Accessories  
Supplement

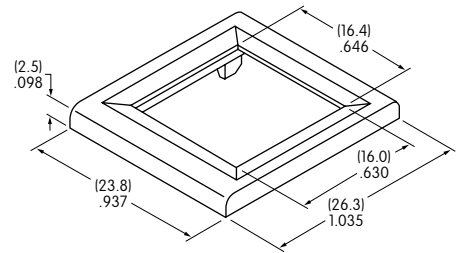
### OPTIONAL BEZELS & COLORS



**AT204**  
**.787" (20.0mm) Wide Bezel**



**AT9201**  
**.937" (23.8mm) Wide Bezel**



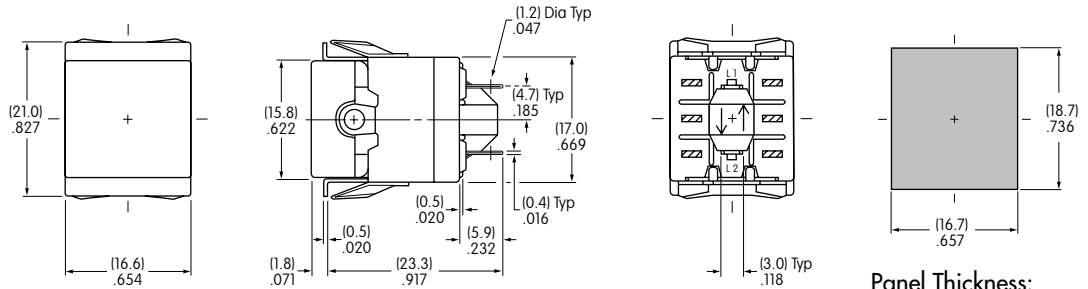
Material: Polycarbonate

Standard Finish: Glossy

**Color Codes:** A Black B White C Red D Orange E Yellow F Green G Blue H Gray

### TYPICAL INDICATOR DIMENSIONS

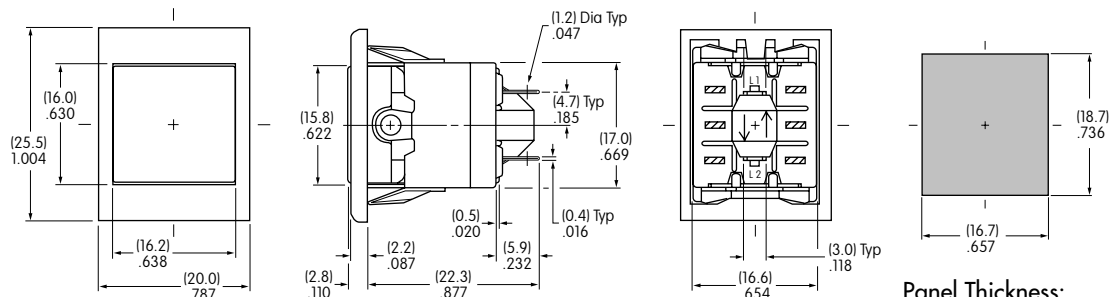
#### Without Bezel



**P01-12-C**

Panel Thickness:  
 .039" ~ .157"  
 (1.0mm ~ 4.0mm)

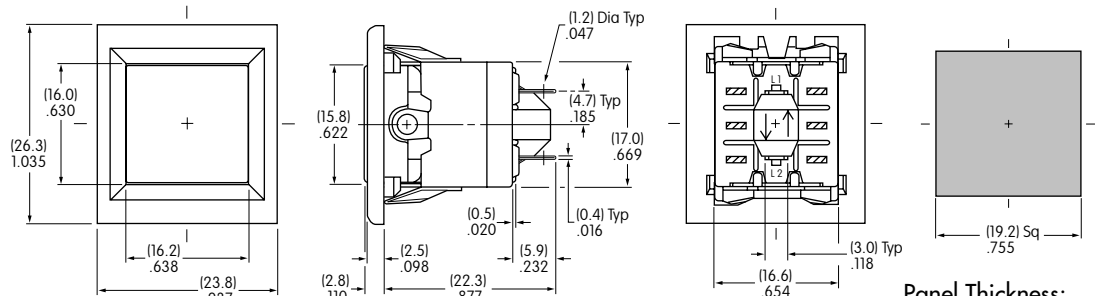
#### With Bezel



**P01-12-C-1A**

Panel Thickness:  
 .039" ~ .157"  
 (1.0mm ~ 4.0mm)

#### With Large Bezel



**P01-12-C-2A**

Panel Thickness:  
 .039" ~ .157"  
 (1.0mm ~ 4.0mm)

Toggles  
Rockers  
Pushbuttons  
Illuminated PB  
Programmable  
Keylocks  
Rotaries  
Slides  
Tactiles  
Tilt  
Touch  
Indicators  
Accessories  
Supplement

## TYPICAL INDICATOR ORDERING EXAMPLE

UB    01    K    W03    5C    —    JC

**Mounting Types**

**PCB Mounting**

01	Square
03	Rectangular
<b>* Snap-in Mounting</b>	
04	Square
06	Rectangular
06B	Rectangular with Side Barriers

\* Standard with Solder Lug terminals

**Housing**

K	Black
---	-------

**Terminals**

W01	Silver Solder Lug* (for Snap-in Mounting)
W03	Silver Straight PC (for PCB Mounting)

**LEDs**

**Bright LED**

5C	Red
5D	Amber
5F	Green

**Super Bright LED**

6B	White
6F	Green
6G	Blue

Available with Square only

**Cap Types & Colors**

**Full Face Illuminated Cap for Bright LED**

Lens/Diffuser Colors

CB	Red/White	FF	Green/Green
CC	Red/Red	*FJ	Green/Clear
*CJ	Red/Clear	JB	Clear/White
DB	Amber/White	JC	Clear/Red
DD	Amber/Amber	JD	Clear/Amber
*DJ	Amber/Clear	JF	Clear/Green
FB	Green/White	*JJ	Clear/Clear

\* Not available with Rectangular cap

**Full Face Illuminated Cap for Super Bright LED**

JB	Clear Lens/White Diffuser
----	---------------------------

For Square only; see cap detail page

**Spot Illuminated Cap for Bright & Super Bright LEDs**

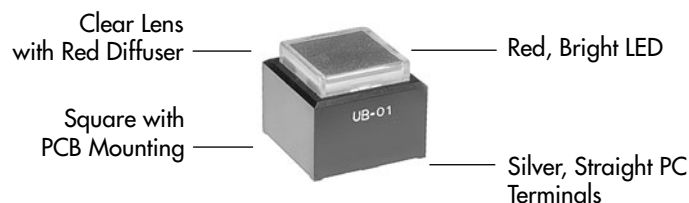
AB	Black with White Window
----	-------------------------

Rectangular available for Bright only

\* Wire harness & cable assemblies offered only in Americas

### DESCRIPTION FOR TYPICAL ORDERING EXAMPLE

UB01KW035C-JC



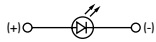
## LED COLORS & SPECIFICATIONS

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 section.

The LED is an integral part of the indicator and not available separately.

	Color	Bright			Super Bright			Unit
		5C	5D	5F	6B	6F	6G	
Forward Peak Current	$I_{FM}$	30	30	25	30	30	30	mA
Typical Forward Current	$I_F$	20	20	20	20	20	20	mA
Forward Voltage	$V_F$	1.85	2.0	2.1	3.2	3.2	3.2	V
Reverse Peak Voltage	$V_{RM}$	5	5	5	5	5	5	V
Current Reduction Rate Above 25°C	$\Delta I_F$	0.40	0.42	0.46	0.40	0.40	0.40	mA/°C
Ambient Temperature Range		-25° ~ +50°C			-25° ~ +50°C			

Note for Super Bright:



## CAP TYPES & COLOR COMBINATIONS

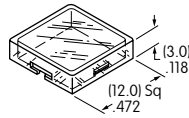
### Full Face Illuminated Cap for Bright LED

Lens/Diffuser

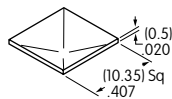
Colors Available for Square Cap:

- CB
- DJ
- JC
- CC
- FB
- JD
- CJ
- FF
- JF
- DB
- FJ
- JJ
- DD
- JB

AT4074  
Lens



AT4075  
Diffuser



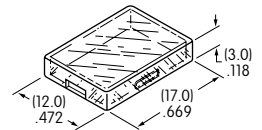
Lens & Diffuser Material: Polycarbonate

Lens/Diffuser

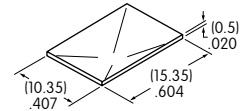
Colors Available for Rectangular Cap:

- CB
- FB
- JD
- CC
- FF
- JF
- DB
- JB
- DD
- JC

AT4117  
Lens



AT4118  
Diffuser



Diffuser Finish: Textured

Lens Finish: Glossy

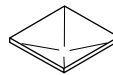
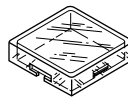
### Full Face Illuminated Cap for Super Bright LED

Lens/Diffuser

Colors Available for Square Cap:

- JB

AT4074 Lens & AT4075 Diffuser  
(Dimensioned above)



Lens & Diffuser Material: Polycarbonate

Lens Finish: Glossy

Rectangular lens & diffuser are not available for combining with super bright LED.

Diffuser Finish: Textured

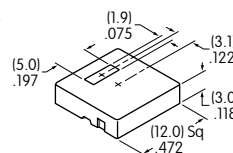
### Spot Illuminated Caps

- AB

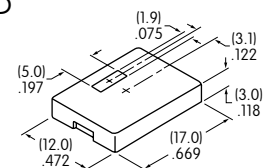
Black Cap with Translucent White Window for LED Display

Material: Polycarbonate  
Finish: Matte

AT4119 Square for Bright and Super Bright LED



AT4120 Rectangular for Bright LED



Color Codes:

A Black

B White

C Red

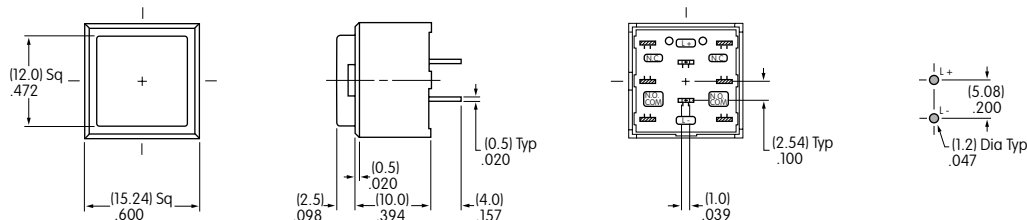
D Amber

F Green

J Clear

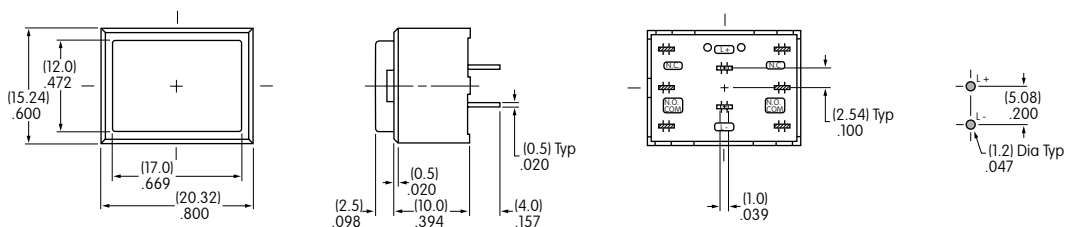
## TYPICAL INDICATOR DIMENSIONS

### Square • PCB Mount



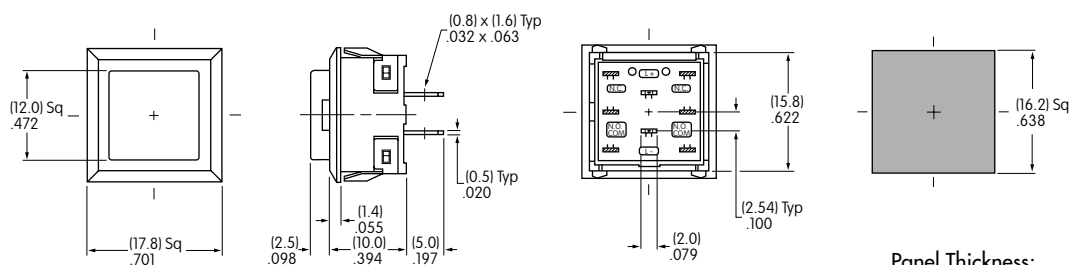
UB01KW035C-JC

### Rectangular • PCB Mount



UB03KW035F-FF

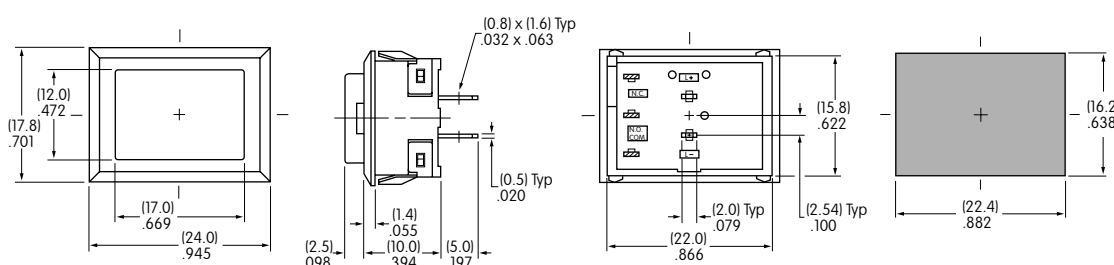
### Square • Snap-in Mount • Built-in Bezel



Panel Thickness:  
1.0 ~ 3.2mm (.039 ~ .126")

UB04KW015C-JC

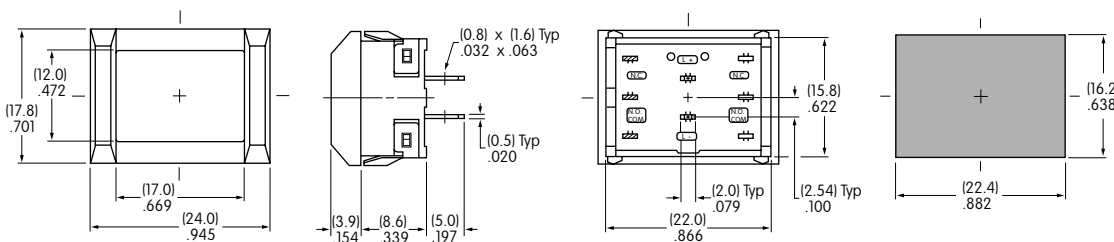
### Rectangular • Snap-in Mount • Built-in Bezel



Panel Thickness:  
1.0 ~ 3.2mm (.039 ~ .126")

UB06KW015D-DD

### Rectangular • Snap-in Mount • Built-in Side Barriers



Panel Thickness:  
1.0 ~ 3.2mm (.039 ~ .126")

UB06BKW015F-FF

### TYPICAL INDICATOR ORDERING EXAMPLE

**UB2 01 K W03 6CF — 4J 01**

#### Mounting Types

PCB Mounting	
01	Square
Snap-in Mounting	
04	Square

#### Housing

K	Black
---	-------

#### Terminals

W03	Silver PC/Turret
-----	------------------

#### LEDs

##### Bright LED

5C	Red
5D	Amber
5F	Green

##### Super Bright LED

6B	White
6F	Green
6G	Blue

##### Super Bright Bicolor LED

6CF	Red/Green
-----	-----------

#### Cap Types & Colors

##### Sculptured Cap Lens/Diffuser Colors

1JB	Clear/White
1JC	Clear/Red
1JD	Clear/Amber
1JF	Clear/Green

##### Beveled Cap & Colors

2B	White
2C	Red
2D	Amber
2F	Green

##### Flat Cap Lens/Diffuser Colors

3JB	Clear/White
3JC	Clear/Red
3JD	Clear/Amber
3JF	Clear/Green

##### Sculptured Cap Lens/Diffuser Color

1JB	Clear/White
-----	-------------

##### Beveled Cap & Color

2B	White
----	-------

##### Flat Cap Lens/Diffuser Color

3JB	Clear/White
-----	-------------

##### Sculptured Cap Lens/Diffuser Color

1JB	Clear/White
-----	-------------

##### Beveled Cap & Color

2B	White
----	-------

##### Flat Cap Lens/Diffuser Color

3JB	Clear/White
-----	-------------

##### Sculptured Cap with Alternating Legend

4J	Clear Lens
----	------------

##### Flat Cap with Alternating Legend

5J	Clear Lens
----	------------

#### Alternating Legends

01	ON/OFF
02	START/STOP
04	OPEN/CLOSE

#### DESCRIPTION FOR TYPICAL ORDERING EXAMPLE

**UB201KW036CF-4J01**

Sculptured Cap with ON-OFF Dual Legend Filter

Red/Green Super Bright Bicolor LED

Square with PCB Mounting



Black Housing

Silver PC/Turret Terminals

Toggle

Rockers

Pushbuttons

Illuminated PB

Programmable

Keylocks

Rotaries

Slides

Tactiles

Tilt

Touch

Indicators

Accessories

Supplement

MOUNTING TYPES, SHAPES, & TERMINALS

PCB Mounting

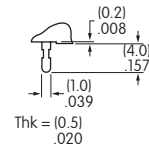
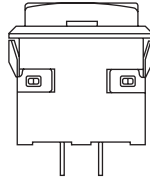
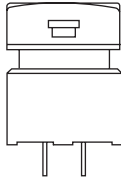
Snap-in Mounting

Terminals

**01** Square

**04** Square with Built-in Bezel


**W03** Silver PC/Turret

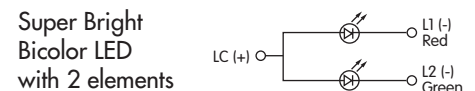


Panel Thickness:  
.039 ~ .126" (1.0 ~ 3.2mm)

LED COLORS & SPECIFICATIONS

The electrical specifications shown are determined at a basic temperature of 25°C. Polarity marks are on the bottom of the device. 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. The LED is an integral part of the indicator and not available separately.

Note for Super Bright:		Bright			Super Bright			Super Bright	Unit
		<b>5C</b>	<b>5D</b>	<b>5F</b>	<b>6B</b>	<b>6F</b>	<b>6G</b>	<b>6CF</b>	
		Red	Amber	Green	White	Green	Blue	Red/Green	
Forward Peak Current	$I_{FM}$	30	30	25	20	30	25	30/25 Amber 25/22	mA
Typical Forward Current	$I_F$	20	20	20	15	20	20	20/20	mA
Forward Voltage	$V_F$	1.85	2.0	2.1	3.3	3.5	3.6	2.1/3.5	V
Reverse Peak Voltage	$V_{RM}$	5	5	5	5	5	5	4/4	V
Current Reduction Rate Above 25°C	$\Delta I_F$	0.40	0.42	0.46	0.25	0.50	0.40	0.40/0.33	mA/°C
Ambient Temperature Range		-25° ~ +50			-20° ~ +50			-25° ~ +50	°C



Amber color can be achieved by lighting red and green simultaneously on the bicolor LED (not suitable for Alternating Legends).

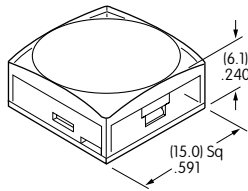


### CAP TYPES & COLOR COMBINATIONS

**1** AT3074  
Sculptured

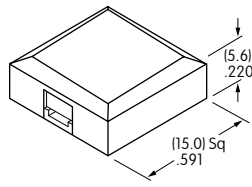
Lens/Diffuser  
Colors  
Available:

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



Material: Polycarbonate  
Finish: Glossy

**2** AT3075  
Beveled

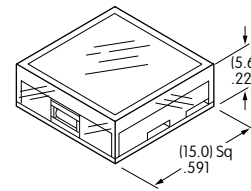


Material: Polycarbonate  
Finish: Glossy

Cap  
Colors  
Available:

- B** White
- C** Red
- D** Amber
- F** Green

**3** AT3076  
Flat



Material: Polycarbonate  
Finish: Glossy

Lens/Diffuser  
Colors  
Available:

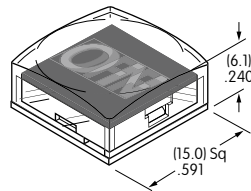
- JB** Clear/White
- JC** Clear/Red
- JD** Clear/Amber
- JF** Clear/Green

### Alternating Legend Caps for Super Bright Bicolor LED

**4J** AT3069J Sculptured Cap  
with Alternating Legend

Clear Lens  
Alternating Legend Filter

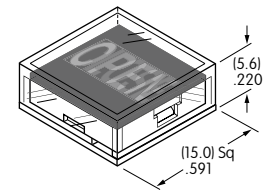
Material: Polycarbonate  
Finish: Glossy



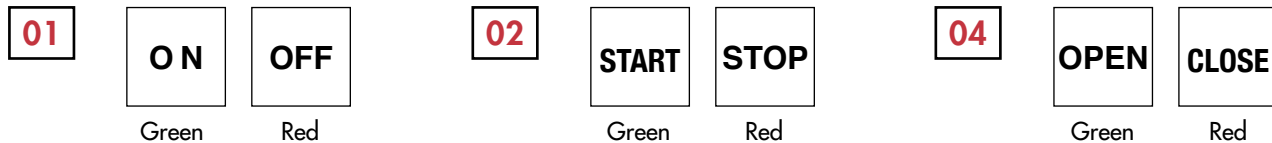
**5J** AT3070J Flat Cap  
with Alternating Legend

Clear Lens  
Alternating Legend Filter

Material: Polycarbonate  
Finish: Glossy



### Standard Alternating Legend Pairs



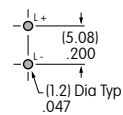
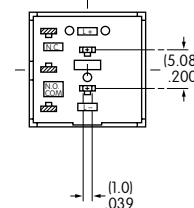
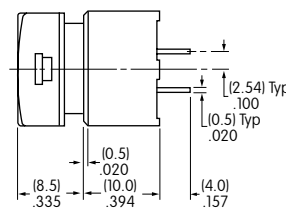
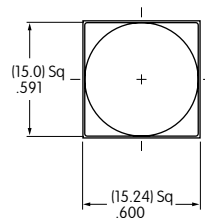
Cap illumination is alternating green/red; legend text is black.  
Contact factory for other Alternating Legends.

Legend illustrations are approximate representations of the actual characters on the filters.

Note: Cap Removal Tool available for PCB Mount. See AT093ABC in Accessories & Hardware section for dimensions and other details.

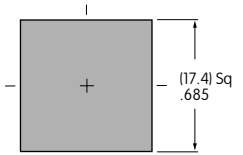
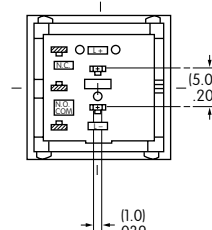
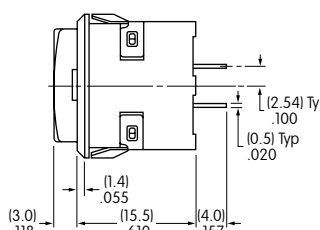
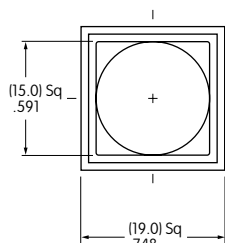
### TYPICAL INDICATOR DIMENSIONS

#### PCB Mount



UB201KW035C-1JC

#### Snap-in Mount



Panel Thickness:  
.039 ~ .126" (1.0 ~ 3.2mm)

Toggles  
Rockers  
Pushbuttons  
Illuminated PB  
Programmable  
Keylocks  
Rotaries  
Slides  
Tactiles  
Tilt  
Touch  
Indicators  
Accessories  
Supplement

## TYPICAL INDICATOR ORDERING EXAMPLE

**YB** **04** **K** **W01** — **12** — **FB**

### Shapes

Bushing Mounting	
01	Square
02	Round
03	Rectangular
Snap-in Mounting	
04	Square
05	Round
06	Rectangular

### Panel Seal

No Code	Without Panel Seal
W	With Panel Seal (Bushing Mount only)

### Housing

K	Black only
---	------------

### Terminals

W01	Silver Solder Lug/.110" (2.8mm) Quick Connect*
-----	---

### Lamps

Incandescent Lamp	
05	5-volt
12	12-volt

### Bright LED

LED Colors	Resistor
5C Red	No Code No Resistor
5D Amber	05 5-volt
	12 12-volt
5F Green	24 24-volt

### Super Bright LED

6B	White
6F	Green
6G	Blue

### Bicolor LED

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

### Cap Types & Colors

Solid Cap: Lens/Insert Colors	
BB	White/White
CB	Red/White
EB	Yellow/White
FB	Green/White
GB	Blue/White

### LED Cap: Lens/Insert Colors

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

### LED Cap: Lens/Insert Colors

JB	Clear/White
----	-------------

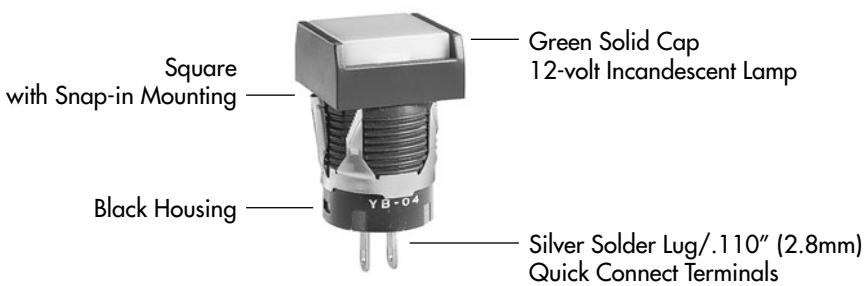
### LED Cap: Lens/Insert Colors

JB	Clear/White
----	-------------

\* Wire harness & cable assemblies offered only in Americas

### DESCRIPTION FOR TYPICAL ORDERING EXAMPLE

**YB04KW01-12-FB**



### SHAPES & MOUNTING TYPES

#### Bushing Mounting

#### Snap-in Mounting

**01** Square

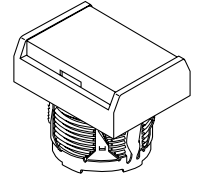
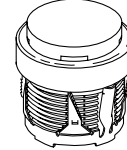
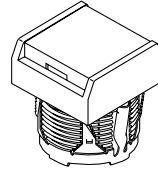
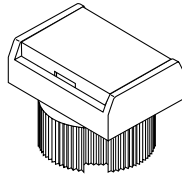
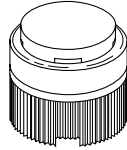
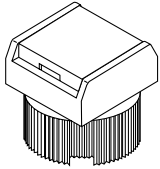
**02** Round

**03** Rectangular

**04** Square

**05** Round

**06** Rectangular



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

### PANEL SEAL

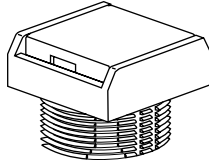
**No Code**

Without Panel Seal

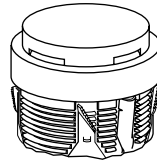
**W**

With Panel Seal

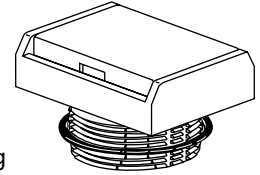
Bushing Mounting



Snap-in Mounting



Bushing Mounting only




Supplied with mounting nut.

Supplied with mounting nut and o-ring AT089.

### INCANDESCENT LAMP & SOLID CAP

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 section.

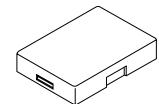
<b>AT611</b>  T-1 Bi-pin		<b>05</b>	<b>12</b>	
	Voltage	V	5V AC	12V AC
	Current	I	115mA	60mA
	MSCP		.150	.150
	Endurance	Hours	7,000 average	
	Ambient Temperature Range		-25°C ~ +50°C	

#### Solid Cap for Incandescent Lamp

Lens/Insert Colors Available:

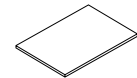
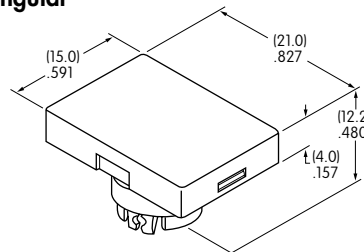
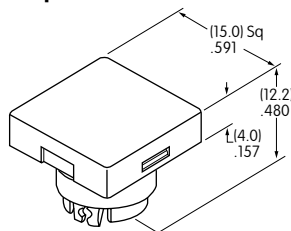
**AT3001**  
Square

**AT3003**  
Rectangular



Translucent Colored Lens

**BB** White/White



Translucent White Insert

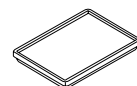
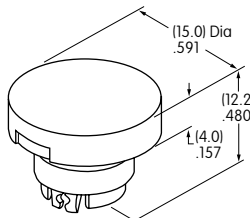
**CB** Red/White

**EB** Yellow/White

**FB** Green/White

**GB** Blue/White

**AT3002**  
Round



Translucent White Seal/Filter

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


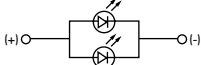


Incandescent Lamp AT611


## BRIGHT LEDS & LED CAPS

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 section.

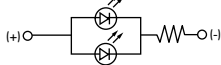
### Electrical Specifications for Bright LED without Resistor

<b>Bright AT628</b>   T-1 Bi-pin	<b>Colors Available:</b> <span style="border: 1px solid black; padding: 2px;">5C</span> Red <span style="border: 1px solid black; padding: 2px;">5D</span> Amber <span style="border: 1px solid black; padding: 2px;">5F</span> Green <span style="border: 1px solid black; padding: 2px;">No Code</span> No Resistor	Unit				
	Forward Peak Current	$I_{FM}$	40	40	40	mA
	Typical Forward Current	$I_F$	26	26	26	mA
	Forward Voltage	$V_F$	1.9	2.0	2.0	V
	Reverse Peak Voltage	$V_{RM}$	4	4	4	V
	Current Reduction Rate Above 25°C	$\Delta I_F$	0.50			mA/°C
	Ambient Temperature Range	-25 ~ +50			°C	

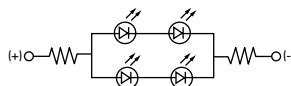
### Electrical Specifications for Bright LED with Resistor

<b>Bright AT634</b>  T-1 1/4 Bi-pin	<b>Colors Available:</b> <span style="border: 1px solid black; padding: 2px;">5C</span> Red <span style="border: 1px solid black; padding: 2px;">5D</span> Amber <span style="border: 1px solid black; padding: 2px;">5F</span> Green <span style="border: 1px solid black; padding: 2px;">05</span> <span style="border: 1px solid black; padding: 2px;">12</span> <span style="border: 1px solid black; padding: 2px;">24</span>	Unit				
	Forward Peak Current	$I_{FM}$	—	—	—	mA
	Typical 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	$\Delta I_F$	—	—	—	mA/°C
	Ambient Temperature Range	-25 ~ +50			°C	

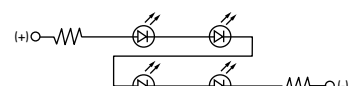
AT634  
5-volt,  
2-element  
with Resistor



AT634  
12-volt,  
4-element  
with Resistor



AT634  
24-volt,  
4-element  
with Resistor

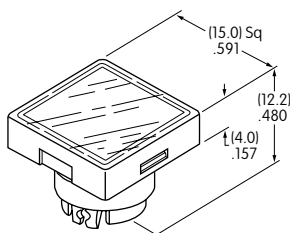


### Cap for Bright LED

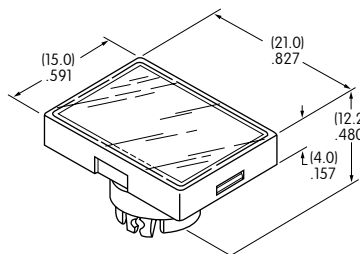
Lens/Insert  
Colors Available:

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

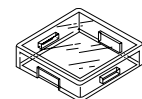
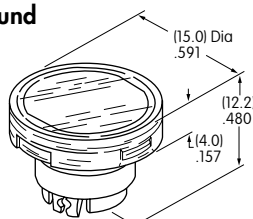
**AT3004**  
Square



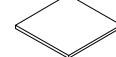
**AT3006**  
Rectangular



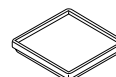
**AT3005**  
Round



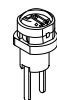
Transparent Clear Lens



Translucent Colored Insert



Translucent White Seal/Diffuser



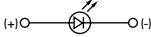





Bright LEDs  
AT628 AT634

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

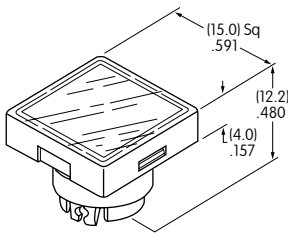
### SUPER BRIGHT LEDS & LED CAPS

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 section.

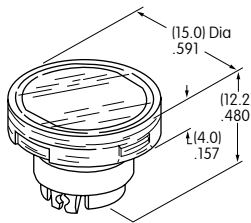
 Super Bright AT625G Blue AT631B White AT632F Green							
	Colors:	White	Green	Blue	Unit		
	Forward Peak Current	$I_{FM}$	30	30	30	mA	
	Typical Forward Current	$I_F$	20	20	20	mA	
	Forward Voltage	$V_F$	3.6	3.5	3.6	V	
	Reverse Peak Voltage	$V_{RM}$	5	5	5	V	
	Current Reduction Rate Above 25°C	$\Delta I_F$	0.50			mA/°C	
T-1 Bi-pin	Ambient Temperature Range	-25 ~ +50			°C		

### Cap for Super Bright LED

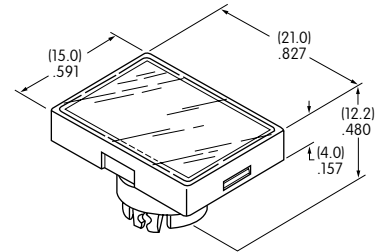
**AT3014  
Square**



**AT3015  
Round**

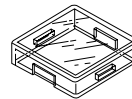


**AT3016  
Rectangular**

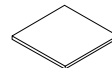


Lens/Insert  
Colors Available:

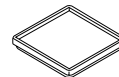
 Clear/White



Transparent Clear Lens



Translucent White Insert



Translucent White Seal/Diffuser





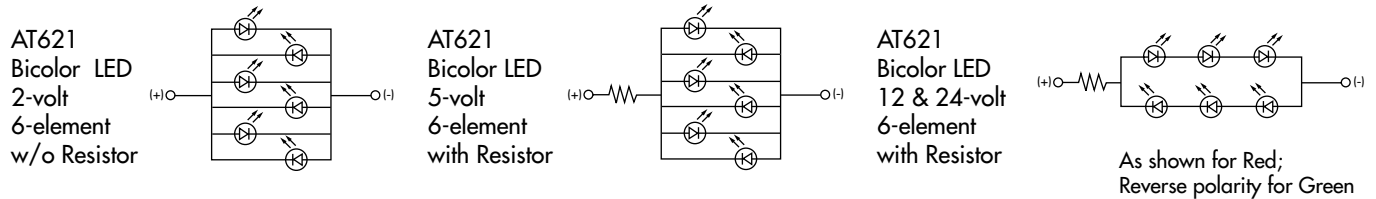
Super Bright LEDs  
AT625 AT631  
AT632

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

BICOLOR LED & LED CAPS

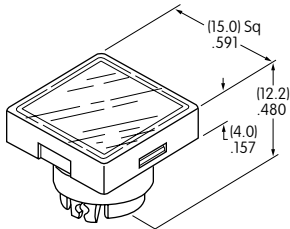
The electrical specifications shown are determined at a basic temperature of 25°C.  
 If the source voltage exceeds the rated voltage, a ballast resistor is required.  
 The resistor value can be calculated by using the formula in the Supplement section.

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

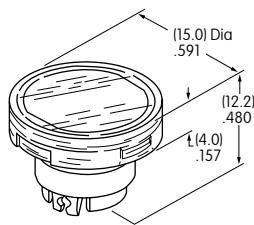


LED Caps

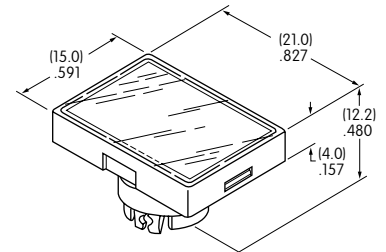
AT3004 Square



AT3005 Round

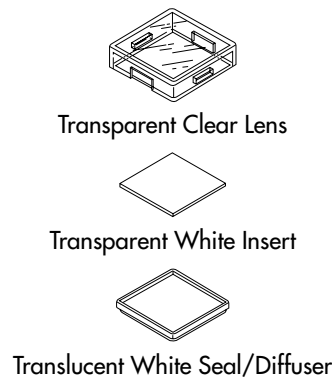


AT3006 Rectangular



Lens/Insert  
 Colors Available:

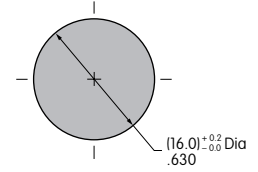
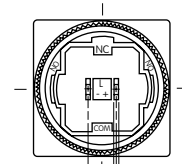
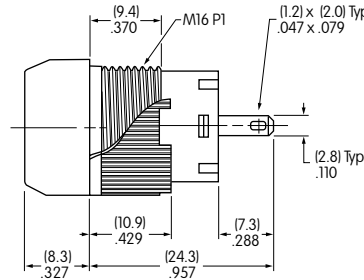
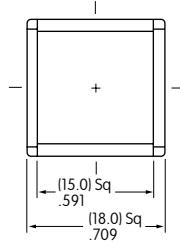
**JB** Clear/White



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

## TYPICAL INDICATOR DIMENSIONS

### Square • Bushing Mounting

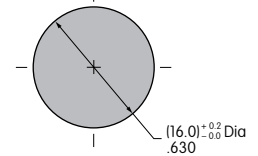
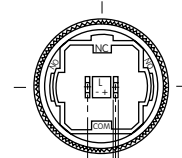
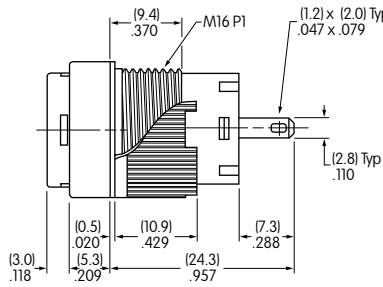
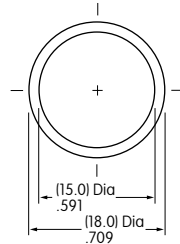


Panel Thickness

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

**YB01KW01-12-CB**

### Round • Panel Seal

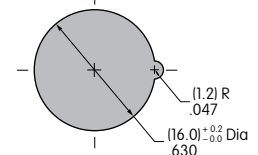
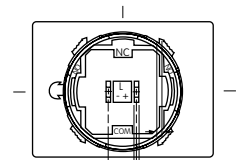
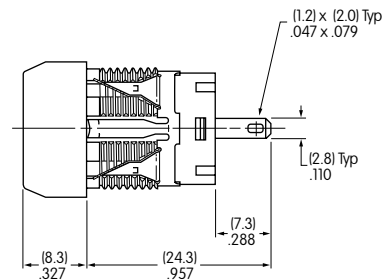
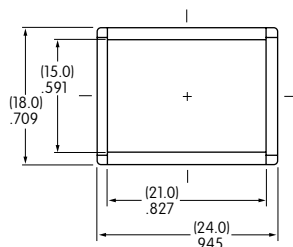


Panel Thickness

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

**YB02WKW01-12-CB**

### Rectangular • Snap-in Mounting



Panel Thickness

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

**YB06KW01-12-CB**