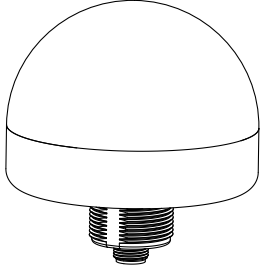


Datasheet

Large one to five color indicator with flashing input control



- Bright, uniform indicator light
- All models have flashing input control
- Models are available with up to five colors in one device
- Rugged IP67-rated design
- 12 to 30 V dc operation

Models

| Model | No. of Colors | Colors | Input | Connection |
|---------|---------------|--------|-------|---------------------------------------|
| K90LGPQ | 1 | Green | PNP | 5-pin M12/Euro-style Quick Disconnect |
| K90LRPQ | | Red | | |
| K90LYPQ | | Yellow | | |
| K90LBPQ | | Blue | | |
| K90LWPQ | | White | | |
| K90LGNQ | | Green | NPN | |
| K90LRNQ | | Red | | |
| K90LYNQ | | Yellow | | |
| K90LBNQ | | Blue | | |
| K90LWNQ | | White | | |

| Model | No. of Colors | Colors | Connection | Input |
|-------------|---------------|---------------------------------|---------------------------------------|-------|
| K90LGRPQ | 2 | Green, Red | 5-pin M12/Euro-style Quick Disconnect | PNP |
| K90LGYRPQ | 3 | Green, Red, Yellow | | |
| K90LBGYRPQ | 4 | Blue, Green, Yellow, Red | 8-pin M12/Euro-style Quick Disconnect | |
| K90LWBGYRPQ | 5 | White, Blue, Green, Yellow, Red | | |
| K90LGRNQ | 2 | Green, Red | 5-pin M12/Euro-style Quick Disconnect | NPN |
| K90LGYRNQ | 3 | Green, Red, Yellow | | |
| K90LBGYRNQ | 4 | Blue, Green, Yellow, Red | 8-pin M12/Euro-style Quick Disconnect | |
| K90LWBGYRNQ | 5 | White, Blue, Green, Yellow, Red | | |

Integral quick disconnect models are listed; a mating cordset is required (see [Accessories](#) on page 4).

- To order the 150 mm (5.9 in) PVC pigtail with quick disconnect models, replace **Q** with **QP** in the model number, for example, K90LGYRQP.
- To order the 2 m (6.5 ft) cable modes, omit the suffix **Q** in the model number, for example, K90LGYR.



Specifications

Supply Voltage and Current

12 to 30 V dc
475 mA maximum at 12 V dc
175 mA maximum at 30 V dc

Supply Protection Circuitry

Protected against reverse polarity and transient voltages

Input Response Time

75 ms maximum

Adjustments

1.6 Hz flash rate via flash input wire

Connections

Integral 5-pin M12/Euro-style quick disconnect; Integral 8-pin M12/Euro-style quick disconnect; 150 mm (6 in) PVC cable with a 5-pin M12/Euro-style quick disconnect; 150 mm (6 in) PVC cable with a 8-pin M12/Euro-style quick disconnect; or 2 m (6.5 ft) unterminated PVC-jacketed cable depending on the model

Construction

Base and dome: Polycarbonate

Environmental Rating

IEC IP67; Enclosure UL Type 4X, 13

Vibration and Mechanical Shock

All models meet MIL-STD-202F, Method 201A (Vibration: 10 Hz to 60 Hz maximum, 0.06 inch (1.52 mm) double amplitude, 10G maximum acceleration) requirements. Also meets IEC 60947-5-2 (Shock: 30G 11 ms duration, half sine wave) requirements.

Operating Conditions

-40 °C to +50 °C (-40 °F to +122 °F)

Certifications



Light Characteristics

| Color | Typical Wavelength or Color Temperature | Typical Intensity |
|--------|---|-------------------|
| Red | 625 nm | 65 lumens |
| Yellow | 590 nm | 35 lumens |
| Green | 525 nm | 150 lumens |
| Blue | 470 nm | 55 lumens |
| White | 6000-7100 K | 200 lumens |

Indicators

1 to 5 colors, depending on the model

Only one color can be on at a time. The higher color number overrides the lower color number.

Required Overcurrent Protection



WARNING: Electrical connections must be made by qualified personnel in accordance with local and national electrical codes and regulations.

Overcurrent protection is required to be provided by end product application per the supplied table.

Overcurrent protection may be provided with external fusing or via Current Limiting, Class 2 Power Supply.

Supply wiring leads < 24 AWG shall not be spliced.

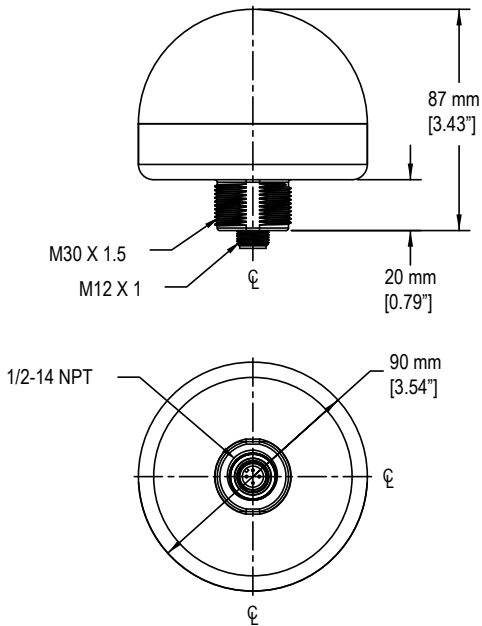
For additional product support, go to www.bannerengineering.com.

| Supply Wiring (AWG) | Required Overcurrent Protection (Amps) |
|---------------------|--|
| 20 | 5.0 |
| 22 | 3.0 |
| 24 | 2.0 |
| 26 | 1.0 |
| 28 | 0.8 |
| 30 | 0.5 |

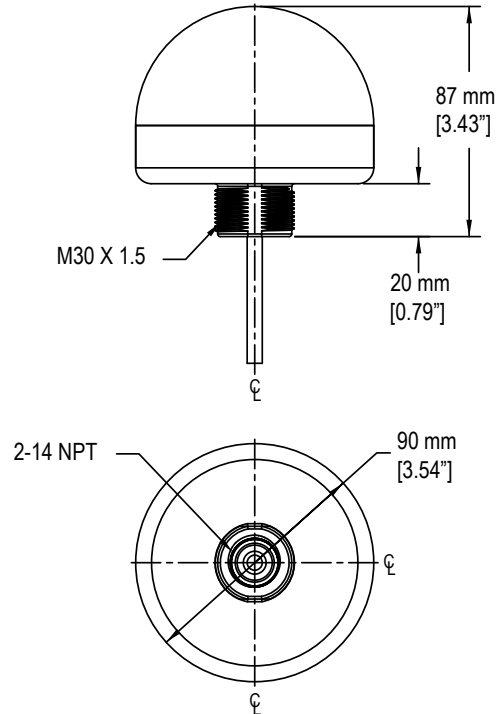
Dimensions

All measurements are listed in millimeters [inches], unless noted otherwise.

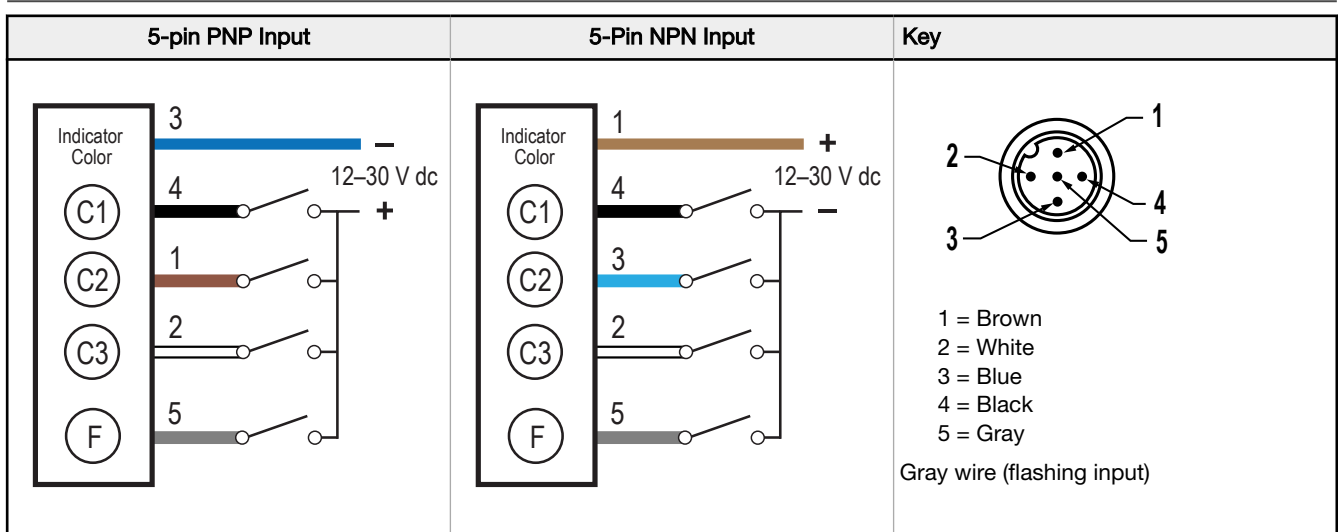
Models with Quick Disconnect

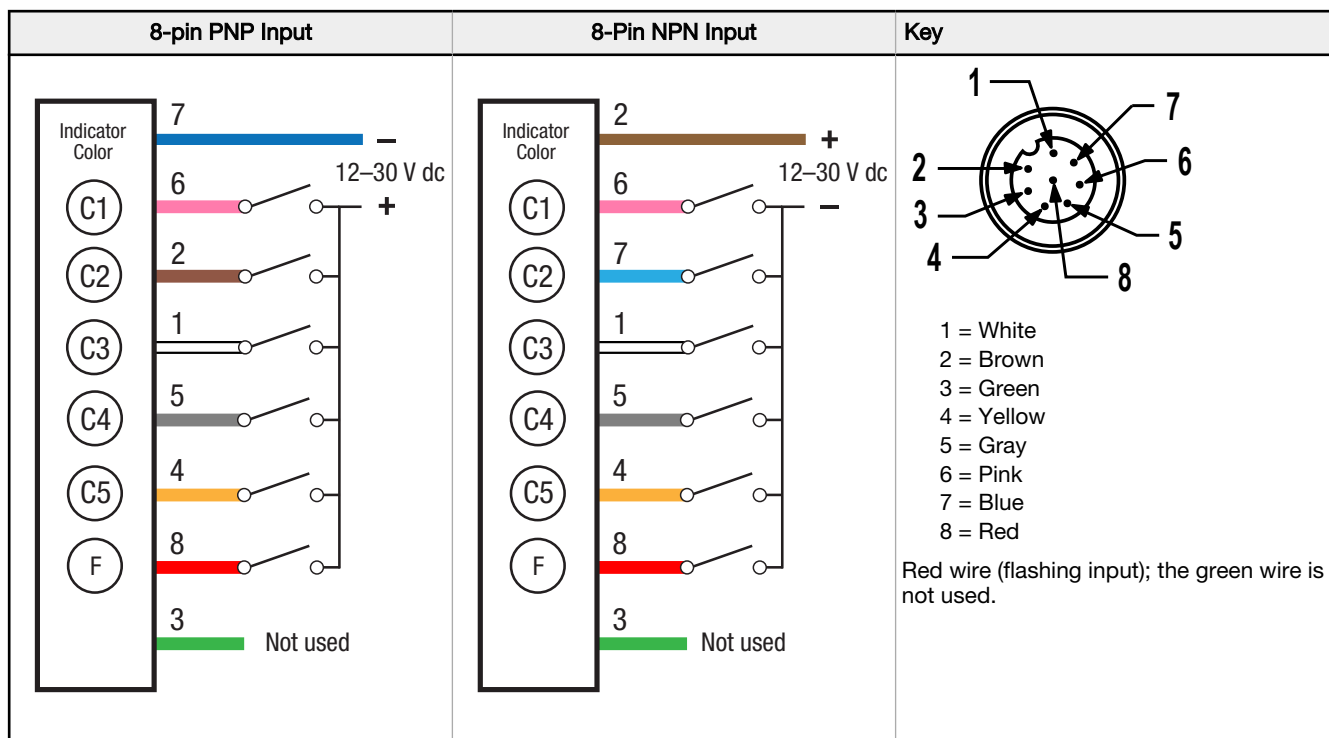


Models with Integral Cable



Wiring

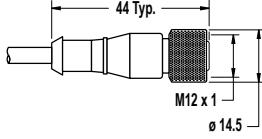
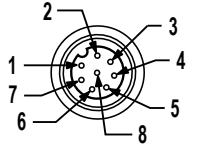
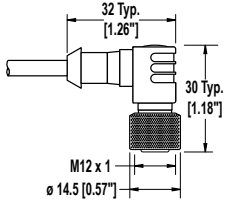







Accessories

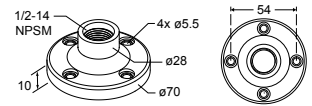
Cordsets

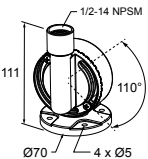
| 5-Pin Threaded M12/Euro-Style Cordsets—Single Ended | | | | |
|---|-----------------|-------------|------------|--|
| Model | Length | Style | Dimensions | Pinout (Female) |
| MQDC1-501.5 | 0.50 m (1.5 ft) | Straight | | <p> 1 = Brown 2 = White 3 = Blue 4 = Black 5 = Gray </p> |
| MQDC1-506 | 1.83 m (6 ft) | | | |
| MQDC1-515 | 4.57 m (15 ft) | | | |
| MQDC1-530 | 9.14 m (30 ft) | Right-Angle | | |
| MQDC1-506RA | 1.83 m (6 ft) | | | |
| MQDC1-515RA | 4.57 m (15 ft) | | | |
| MQDC1-530RA | 9.14 m (30 ft) | | | |

| 8-Pin Threaded M12/Euro-Style Cordsets with Open-Shield | | | | |
|---|----------------|-------------|--|--|
| Model | Length | Style | Dimensions | Pinout (Female) |
| MQDC2S-806 | 1.83 m (6 ft) | Straight |  |  <p>1 = White 2 = Brown 3 = Green 4 = Yellow 5 = Gray 6 = Pink 7 = Blue 8 = Red</p> |
| MQDC2S-815 | 4.57 m (15 ft) | | | |
| MQDC2S-830 | 9.14 m (30 ft) | | | |
| MQDC2S-850 | 15.2 m (50 ft) | | | |
| MQDC2S-806RA | 1.83 m (6 ft) | Right-Angle |  | |
| MQDC2S-815RA | 4.57 m (15 ft) | | | |
| MQDC2S-830RA | 9.14 m (30 ft) | | | |
| MQDC2S-850RA | 15.2 m (50 ft) | | | |



Elevated Mount System

| Model | Features | Components | | | | | | | | | | | | |
|--|--|---|-------------------------|-------------------------------------|------------------------------------|-------------------------------------|--------------------------------------|-------------------------------------|--------------------------------------|--------------------------------------|-------------------------------------|--------------------------------------|---|---|
| SA-M30 - Black Polycarbonate | <ul style="list-style-type: none"> Streamlined black PC or Gray PC thread cover Covers M30 thread on the light base Mounting hardware included |  | | | | | | | | | | | | |
| SA-M30C - Gray Polycarbonate | | | | | | | | | | | | | | |
| <table border="1"> <thead> <tr> <th>Polished 304 Stainless Steel</th> <th>Black Anodized Aluminum</th> <th>Clear Anodized Aluminum</th> </tr> </thead> <tbody> <tr> <td>SOP-E12-150SS 150 mm (6 in) long</td> <td>SOP-E12-150A 150 mm (6 in) long</td> <td>SOP-E12-150AC 150 mm (6 in) long</td> </tr> <tr> <td>SOP-E12-300SS 300 mm (12 in) long</td> <td>SOP-E12-300A 300 mm (12 in) long</td> <td>SOP-E12-300AC 300 mm (12 in) long</td> </tr> <tr> <td>SOP-E12-900SS 900 mm (36 in) long</td> <td>SOP-E12-900A 900 mm (36 in) long</td> <td>SOP-E12-900AC 900 mm (36 in) long</td> </tr> </tbody> </table> | Polished 304 Stainless Steel | Black Anodized Aluminum | Clear Anodized Aluminum | SOP-E12-150SS 150 mm (6 in) long | SOP-E12-150A 150 mm (6 in) long | SOP-E12-150AC 150 mm (6 in) long | SOP-E12-300SS 300 mm (12 in) long | SOP-E12-300A 300 mm (12 in) long | SOP-E12-300AC 300 mm (12 in) long | SOP-E12-900SS 900 mm (36 in) long | SOP-E12-900A 900 mm (36 in) long | SOP-E12-900AC 900 mm (36 in) long | <ul style="list-style-type: none"> Elevated-use stand-off pipe (½ in. NPSM/DN15) Polished 304 stainless steel, black anodized aluminum, or clear anodized aluminum surface ½ in. NPT thread at both ends Compatible with most industrial environments |  |
| Polished 304 Stainless Steel | Black Anodized Aluminum | Clear Anodized Aluminum | | | | | | | | | | | | |
| SOP-E12-150SS 150 mm (6 in) long | SOP-E12-150A 150 mm (6 in) long | SOP-E12-150AC 150 mm (6 in) long | | | | | | | | | | | | |
| SOP-E12-300SS 300 mm (12 in) long | SOP-E12-300A 300 mm (12 in) long | SOP-E12-300AC 300 mm (12 in) long | | | | | | | | | | | | |
| SOP-E12-900SS 900 mm (36 in) long | SOP-E12-900A 900 mm (36 in) long | SOP-E12-900AC 900 mm (36 in) long | | | | | | | | | | | | |
| SA-E12M30 - Black Acetal | <ul style="list-style-type: none"> Streamlined black acetal or white UHMW mounting base adapter/cover Connects between ½ in. NPSM/DN15 pipe and 30 mm (1-3/16 in) drilled hole Mounting hardware included |  | | | | | | | | | | | | |
| SA-E12M30C - White UHMW | | | | | | | | | | | | | | |

| Pipe Mounting Flange | | | |
|----------------------|--|-------------------------------------|---|
| Model | Features | Construction | |
| SA-F12 | <ul style="list-style-type: none"> Elevated-use stand-off pipes (½ in, NPSM/DN15) M5 mounting hardware and nitrile gasket included | Die-cast zinc base with black paint |  |

| Foldable Mounting Brackets | | | |
|----------------------------|---|---------------------|---|
| Model | Features | Construction | |
| SA-FFB12 | <ul style="list-style-type: none"> For use with 1/2 inch stand-off pipes Stainless steel hardware | Black polycarbonate |  |
| SA-FFB12C | | Gray polycarbonate | |

LMB Sealed Right-Angle Bracket

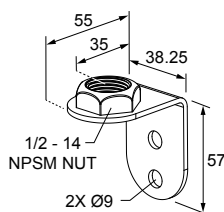
| Model | Description | Construction | |
|-----------|---|---------------------|---|
| LMB30RA | Direct-Mount Models: Bracket kit with base, 30 mm adapter, set screw, fasteners, O-rings, and gaskets. | Black polycarbonate |  |
| LMB30RAC | | Gray polycarbonate | |
| LMBE12RA | Pipe-Mount Models: Bracket kit with base, 1/2-14 pipe adapter, set screw, fasteners, O-rings, and gaskets. For use with stand-off pipe (listed and sold separately). | Black polycarbonate |  |
| LMBE12RAC | | Gray polycarbonate | |

Brackets

LMBE12RA35

- Direct mounting of stand-off pipe, with common bracket type
- Zinc-plated steel
- 1/2-14 NPSM nut
- Mounting distance from the wall to the center of the 1/2-14 NPSM nut is 35 mm

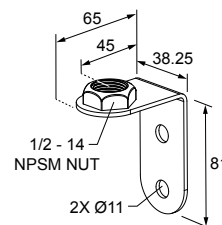
Hole center spacing: 20.0



LMBE12RA45

- Direct mounting of stand-off pipe, with common bracket type
- Zinc-plated steel
- 1/2-14 NPSM nut
- Mounting distance from the wall to the center of the 1/2-14 NPSM nut is 45 mm

Hole center spacing: 35.0



Sun Shield

K90DS

- Use for enhanced visibility in direct sunlight conditions
- Polycarbonate



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