# EZ-LIGHT® K50 Beacon

## Features

Daylight-visible, general-purpose indicators for indoor or outdoor use



- Intense levels of light output for areas with high ambient light - even outdoors
- Viewable around entire perimeter; some models also emit light from top
- 1- or 2-, or 3-color models available
- Rugged, sealed thermoplastic housing rated for IP67 and IP69K per ISO 20653
- Bright, even light
- 12 to 30 V DC or 85 to 130 V AC (75 to 120 V DC) or 100 to 250 V AC (90 to 240 V DC) operation, depending on model
- 12 V DC operation useful for applications on mobile vehicles
- Consult factory for models with strobing capability

**WARNING:**

- **Do not use this device for personnel protection**
- Using this device for personnel protection could result in serious injury or death.
- This device does not include the self-checking redundant circuitry necessary to allow its use in personnel safety applications. A device failure or malfunction can cause either an energized (on) or de-energized (off) output condition.

## Models

| Model | | LED Color(s)[1] | Input | Supply Voltage | Connection |
|---|---|---|---|---|---|
| Perimeter View Only | Perimeter + Top View | | | | |
| K50BLXGXPQ | K50BCLXGXPQ | Green | PNP | 12 V DC to 30 V DC | Integral 4-pin M12 quick-disconnect connector |
| K50BLXRXPQ | K50BCLXRXPQ | Red | | | |
| K50BLXYXPQ | K50BCLXYXPQ | Yellow | | | |
| | K50BCLXBXPQ | Blue | | | |
| | K50BCLXWXPQ | White | | | |
| K50BLGRXPQ | K50BCLGRXPQ | Green / Red | | | |
| K50BLGRYPQ | K50BCLGRYPQ | Green / Red / Yellow | PNP | 12 V DC to 30 V DC | Integral 5-pin M12 quick-disconnect connector[2] |
| | K50BCLGRYNQ | Green / Red / Yellow | NPN | 12 V DC to 30 V DC | |
| | K50BCLGA120Q | Green | AC | 85 V AC to 130 V AC | Integral 3-pin 1/2 in-20UNF quick-disconnect connector |
| | K50BCLYA120Q | Yellow | | | |
| | K50BCLBA120Q | Blue | | | |
| | K50BCLRA230Q | Red | AC | 100 V AC to 250 V AC | |
| | K50BCLBA230Q | Blue | | | |

Integral quick disconnect models are listed. Models with a quick disconnect require a mating cordset.

- To order the 150 mm (6 in) PVC cable model with a M12 quick disconnect, replace the suffix "Q" with "QP" in the model number. For example, K50BLXGXPQP.
- To order the 2 m (6.5 ft) PVC cable model, omit the suffix "Q" in the model number. For example, K50BLXGXP.

The following models are no longer available for order but are still covered by the information in this document.

- K50BLXGXPQP and K50BCLXGXPQP
- K50BLXRXPQP
- K50BLXBXPQ
- K50BLXWXPQ
- K50BLGRYPQP and K50BCLGRYPQP
- K50BLGRYNQ, K50BLGRYNQP, and K50BCLGRYNQP
- K50BLGA120Q
- K50BLRA120Q, K50BLRA120QP, and K50BCLRA120Q (red, AC power)
- K50BLYA120Q (yellow, AC power)
- K50BLBA120Q (blue, AC power)
- K50BLWA120Q and K50BCLWA120Q (white, AC power)
- K50BLGA230, K50BLGA230Q, K50BCLGA230Q (green, AC power)
- K50BLRA230Q (red, AC power)
- K50BLYA230Q and K50BCLYA230Q (yellow, AC power)
- K50BLBA230Q (blue, AC power)

[1] Available colors include: Green (G), Red (R), Yellow (Y), Blue (B) and White (W).
[2] 3-color models use a 4-pin mating cable, see wiring diagram.

Original Instructions
12-Aug-26

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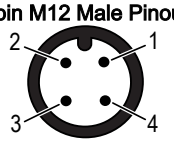
155509
p/n: 155509 Rev. O

ПРОМЭЛЕКТРОНИКА/ sales@prom-elec.com

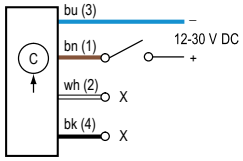
# Wiring Diagrams — DC Models

### 1-Color Models (PNP/NPN Selectable)

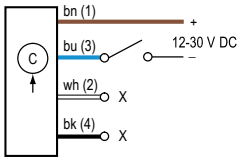
**4-pin M12 Male Pinout**




**PNP**



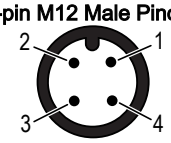

**NPN**



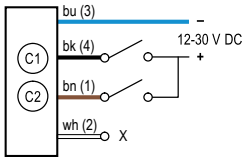

**Key:**
1 = Brown
2 = White
3 = Blue
4 = Black
C1 = Indicator color 1
X = Not used

### 2-Color Models

**4-pin M12 Male Pinout**



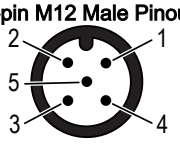

**PNP**



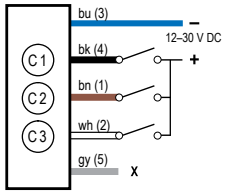

**Key:**
1 = Brown
2 = White
3 = Blue
4 = Black
C1 = Indicator color 1
C2 = Indicator color 2
X = Not used

### 3-Color Models

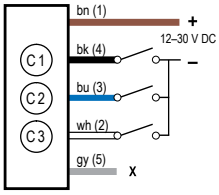
**5-pin M12 Male Pinout**




**PNP**



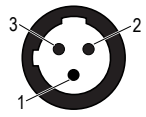

**NPN**



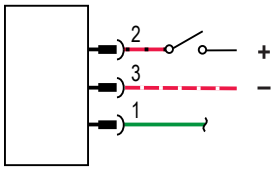

**Key:**
1 = Brown
2 = White
3 = Blue
4 = Black
5 = Gray
C1 = Indicator color 1
C2 = Indicator color 2
C3 = Indicator color 3
X = Not used

# Wiring Diagrams — AC Models

**3-pin 1/2 in-20UNF Male Pinout**

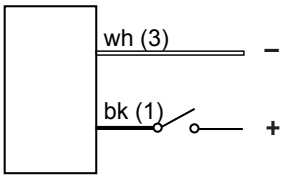



**Quick-Disconnect**




Wiring Key:
1 = Green (not used)
2 = Red/Black
3 = Red/White

**Cabled**




# Specifications

**Supply Voltage and Current (12-30 V DC models)**

**K50BL 1-color models:** 140 mA max. at 12 V DC, 70 mA max. at 30 V DC
**K50BCL 1-color models:** 160 mA max. at 12 V DC, 80 mA max. at 30 V DC
**K50BL 2-color models, per color:** 75 mA max. at 12 V DC, 40 mA max. at 30 V DC
**K50BCL 2-color models, per color:** 95 mA max. at 12 V DC, 40 mA max. at 30 V DC
**K50BL 3-color models, per color:** 85 mA at 12 V DC, 55 mA at 30 V DC
**K50BCL 3-color models, per color:** 110 mA at 12 V DC, 65 mA at 30 V DC

**Supply Voltage and Current (120 V AC models)**

**K50BL models:** 85-130 V AC or 75-120 V DC at 16 mA max. 50/60 Hz
**K50BCL models:** 85-130 V AC or 75-120 V DC at 60 mA max. 50/60 Hz

**Supply Voltage and Current (230 V AC models)**

**K50BL models:** 100 V AC to 250 V AC or 90 V DC to 240 V DC at 20 mA max. 50 Hz to 60 Hz
**K50BCL models:** 100 V AC to 250 V AC or 90 V DC to 240 V DC at 25 mA max. 50 Hz to 60 Hz

**Supply Protection Circuitry**

**12-30 V DC models:** Protected against reverse polarity and transient voltages
**120-230 V AC models:** Protected against transient voltages

**Indicators**

LED colors are independently selected, depending on model
**For 3-color models:** only one color can be on at a time. The higher color number overrides the lower color number.

**Environmental Rating**

Rated IP67 and IP69K per ISO 20653
NEMA/UL Type 4X, 13

**Construction**

Base and covers: polycarbonate

**Connections**

Integral 4-pin or 5-pin M12 male quick-disconnect connectors (DC models), integral 3-pin 1/2 in-20UNF male quick-disconnect connectors (AC models), or 2 m (6.5 ft) integral PVC-jacketed cable, depending on model

**Operating Conditions**

–40 °C to +50 °C (–40 °F to +122 °F)
90% at +50 °C maximum relative humidity (non-condensing)

**Vibration and Mechanical Shock**

All models meet Mil. Std. 202F requirements method 201A (vibration: 10 to 60 Hz max., double amplitude 0.06 in, maximum acceleration 10G). Also meets IEC 947-5-2; 30G 11 ms duration, half sine wave.

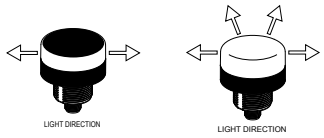
**Indicator Power-up Response Time**

**DC 1, and 2- color models**
ON: 10 ms; OFF: 7 ms
**DC 3-color models**
ON: 250 ms; OFF: 10 ms
**AC models**
ON/OFF: 500 µs


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**Application Note**

Light emits 360° from housing sides in K50BL models and housing sides and tops in K50BCL models.




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

**Certifications**

Banner Engineering BV
Park Lane, Culliganlaan 2F bus 3
1831 Diegem, BELGIUM

## FCC Part 15 Class B for Unintentional Radiators

(Part 15.105(b)) This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

(Part 15.21) Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.

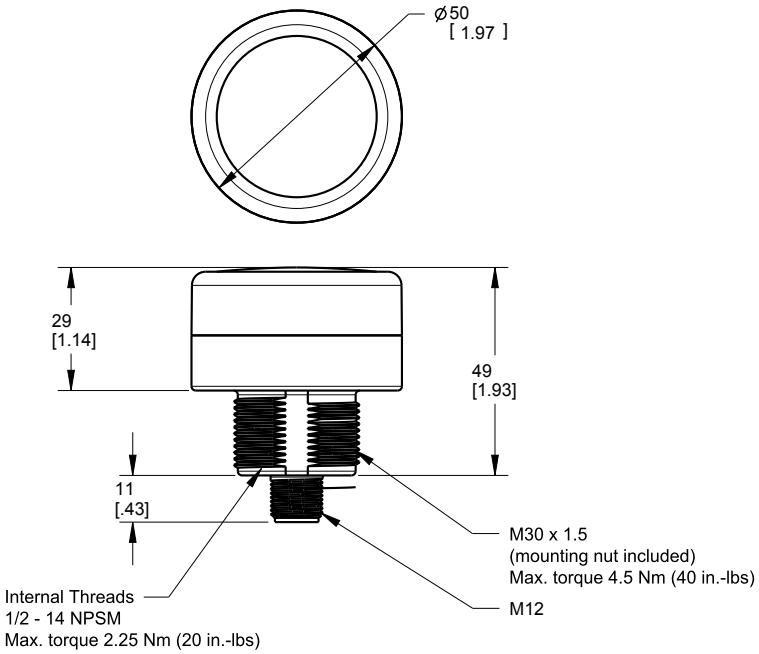
## Industry Canada ICES-003(B)

This device complies with CAN ICES-3 (B)/NMB-3(B). Operation is subject to the following two conditions: 1) This device may not cause harmful interference; and 2) This device must accept any interference received, including interference that may cause undesired operation.

Cet appareil est conforme à la norme NMB-3(B). Le fonctionnement est soumis aux deux conditions suivantes : (1) ce dispositif ne peut pas occasionner d'interférences, et (2) il doit tolérer toute interférence, y compris celles susceptibles de provoquer un fonctionnement non souhaité du dispositif.

## Dimensions

All measurements are listed in millimeters [inches], unless noted otherwise. The measurements provided are subject to change.

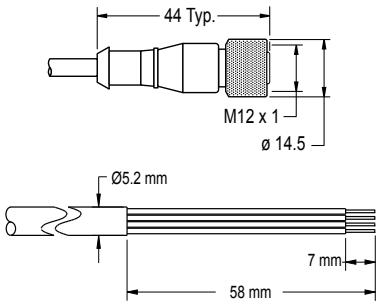
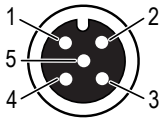


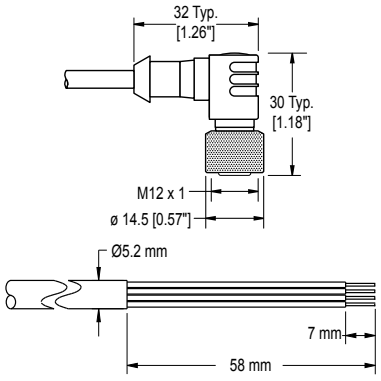
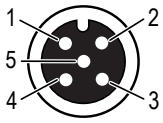


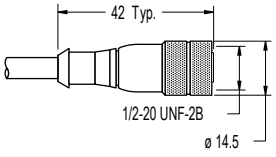
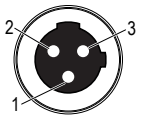
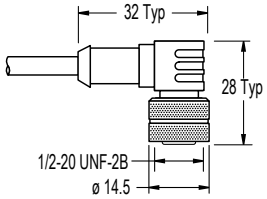
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# Accessories

## Cordsets

| 4-Pin A-Code Single-Ended M12 Female Cordsets (datasheet p/n 235937) | | | | |
|---|---|---|---|---|
| **Model** | **Length** | **Dimensions (mm)** | **Pinout (Female)** | |
| **BC-M12F4-22-1** | 1 m (3.28 ft) |  |  | 1 = Brown<br>2 = White<br>3 = Blue<br>4 = Black<br>5 = Unused<br>c UL us LISTED |
| **BC-M12F4-22-2** | 2 m (6.56 ft) | | | |
| **BC-M12F4-22-5** | 5 m (16.4 ft) | | | |
| **BC-M12F4-22-8** | 8 m (26.25 ft) | | | |
| **BC-M12F4-22-10** | 10 m (30.81 ft) | | | |
| **BC-M12F4-22-15** | 15 m (49.2 ft) | | | |
| **BC-M12F4-22-20** | 20 m (65.61 ft) | | | |
| **BC-M12F4-22-25** | 25 m (82.02 ft) | | | |
| **BC-M12F4-22-30** | 30 m (98.42 ft) | | | |

| 4-Pin A-Code Single-Ended M12 Female Right-Angle Cordsets (datasheet p/n 235937) | | | | |
|---|---|---|---|---|
| **Model** | **Length** | **Dimensions (mm)** | **Pinout (Female)** | |
| **BC-M12F4A-22-1** | 1 m (3.28 ft) |  |  | 1 = Brown<br>2 = White<br>3 = Blue<br>4 = Black<br>5 = Unused<br>c UL us LISTED |
| **BC-M12F4A-22-2** | 2 m (6.56 ft) | | | |
| **BC-M12F4A-22-5** | 5 m (16.4 ft) | | | |
| **BC-M12F4A-22-8** | 8 m (26.25 ft) | | | |
| **BC-M12F4A-22-10** | 10 m (30.81 ft) | | | |
| **BC-M12F4A-22-15** | 15 m (49.2 ft) | | | |

| 3-Pin Single-Ended 1/2-in Dual Key Female Cordsets | | | | |
|---|---|---|---|---|
| **Model** | **Length** | **Style** | **Dimensions** | **Pinout (Female)** |
| **MQDC-306** | 2 m (6.56 ft) | Straight |  |  1 = Green<br>2 = Red/Black<br>3 = Red/White |
| **MQDC-315** | 5 m (16.40 ft) | | | |
| **MQDC-330** | 9 m (29.53 ft) | | | |
| **MQDC-306RA** | 1.83 m (6 ft) | Right-Angle |  | |
| **MQDC-315RA** | 4.57 m (15 ft) | | | |
| **MQDC-330RA** | 9.14 m (30 ft) | | | |

## Mounting Brackets

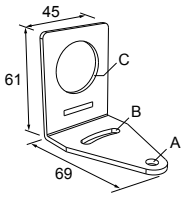
All measurements are listed in millimeters, unless noted otherwise. The measurements provided are subject to change.


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**SMB30A**

- Right-angle bracket with curved slot for versatile orientation
- Clearance for M6 (¼ in) hardware
- Mounting hole for 30 mm sensor
- 12-gauge stainless steel
- CAD Files: DXF, PDF, IGS, STP

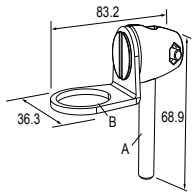
**Hole center spacing:** A to B=40
**Hole size:** A=ø 6.3, B= 27.1 × 6.3, C=ø 30.5




**SMB30FA**

- Swivel bracket with tilt and pan movement for precise adjustment
- Mounting hole for 30 mm sensor
- 12-gauge 304 stainless steel
- Easy sensor mounting to extrude rail T-slot
- Metric- and inch-size bolt available
- CAD Files: DXF, PDF, IGS, STP

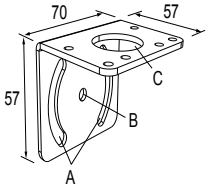
**Bolt thread:** SMB30FA, A=3/8 - 16 × 2 in; SMB30FAL, A=3/8 - 16 × 4 in; SMB30FAM10, A=M10 - 1.5 × 50
**Hole size:** B=ø 30.1




**SMB30MM**

- 12-gauge stainless steel bracket with curved mounting slots for versatile orientation
- Clearance for M6 (¼ in) hardware
- Mounting hole for 30 mm sensor
- CAD Files: DXF, PDF, IGS, STP

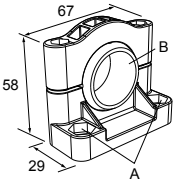
**Hole center spacing:** A=51, A to B=25.4
**Hole size:** A=42.6 × 7, B=ø 6.4, C=ø 30.1




**SMB30SC**

- Swivel bracket with 30 mm mounting hole for sensor
- Black reinforced thermoplastic polyester
- Stainless steel mounting and swivel locking hardware included
- CAD Files: DXF, PDF, IGS, STP

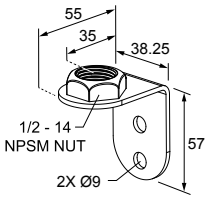
**Hole center spacing:** A=ø 50.8
**Hole size:** A=ø 7.0, B=ø 30.0




**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
- CAD Files: DXF, PDF, IGS, STP

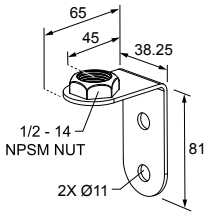
**Hole center spacing:** 20.0



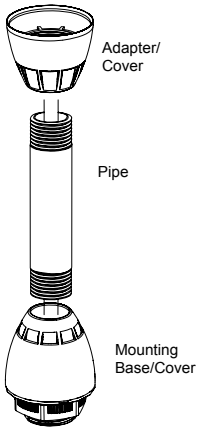

**LMBE12RA45**

- 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
- CAD Files: DXF, PDF, IGS, STP

**Hole center spacing:** 35.0

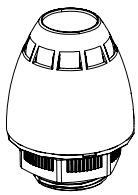



## Elevated Mount System




| Adapter/Cover Model | Description | |
|---|---|---|
| **SA-M30E12** | • Streamlined black acetal stand-off pipe adapter/cover<br>• Adapter from 30 mm light base to ½ in. NPSM/DN15 pipe<br>• Typically used for the TL50 Tower Light and K50 series<br>• Mounting hardware included<br>• CAD files: DXF, PDF, IGS, STP |  |

| Black Anodized Aluminum, ½ in. NPT Pipe Models | Clear Anodized Aluminum, ½ in. NPT Pipe Models | Description |
|---|---|---|
| **SOP-E12-150A**, 150 mm (6 in) long | **SOP-E12-150AC**, 150 mm (6 in) long | • Elevated-use stand-off pipe<br>• Threaded at both ends<br>• Compatible with most industrial environments<br>• CAD Files:<br>◦ **SOP-E12-150A**: DXF, PDF, IGS, STP<br>◦ **SOP-E12-300A**: DXF, PDF, IGS, STP<br>◦ **SOP-E12-600A**: DXF, PDF, IGS, STP<br>◦ **SOP-E12-900A**: DXF, PDF, IGS, STP |
| **SOP-E12-300A**, 300 mm (12 in) long | **SOP-E12-300AC**, 300 mm (12 in) long | |
| **SOP-E12-600A**, 600 mm (24 in) long | - | |
| **SOP-E12-900A**, 900 mm (36 in) long | **SOP-E12-900AC**, 900 mm (36 in) long | |

| Mounting Base Model | Description | |
|---|---|---|
| **SA-E12M30** - Black acetal | • Streamlined black acetal or white UHMW mounting base adapter/cover<br>• Adapter from ½ in. NPSM/DN15 pipe to 30 mm (1-3/16 in) drilled hole<br>• Mounting hardware included<br>• CAD files: DXF, PDF, IGS, STP |  |
| **SA-E12M30C** - White UHMW | | |

**Other Pipes:**


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| 304 Stainless Steel, ½ in. NPT Pipe Models | Description |
|---|---|
| **SOP-E12-150SS**, 150 mm (6 in) long | • Elevated-use stand-off pipe<br>• Threaded at both ends<br>• Compatible with most industrial environments<br>• CAD Files:<br>◦ **SOP-E12-150x**: DXF, PDF, IGS, STP<br>◦ **SOP-E12-300x**: DXF, PDF, IGS, STP<br>◦ **SOP-E12-600x**: DXF, PDF, IGS, STP<br>◦ **SOP-E12-900x**: DXF, PDF, IGS, STP |
| **SOP-E12-300SS**, 300 mm (12 in) long | |
| **SOP-E12-600SS**, 600 mm (24 in) long | |
| **SOP-E12-900SS**, 900 mm (36 in) long | |

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