# Features

*DC-Operated Indicators with 4 Colors and Multiple Flashing Frequencies*



- Rugged, cost-effective, and easy-to-install indicators in K50, K50 Flat Pack, or K80 housing style
- Displays 4 colors and multiple flashing frequencies: steady ON, flashing, or alternating
- Illuminated dome provides easy-to-see operator guidance and indication of equipment status
- Compact devices are completely self-contained, no controller needed
- Choose NPN or PNP input, depending on model
- Immune to ambient light, EMI, and RFI interference
- 18 V DC to 30 V DC operation

QPMA

Contact factory for more information.

**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

| Models | Construction | Connection | LED Function [1] | Inputs |
|---|---|---|---|---|
| **K50LGRYB4PQ** | 50 mm dome / 30 mm mount polycarbonate | Integral 5-pin M12 male quick-disconnect connector | **4 Color:** Choose Green, Red, Yellow or Blue ON, flashing or alternative | PNP |
| **K50LGRYB4NQ** | | | | NPN |
| **K50FLGRYB4PQ** | 50 mm polycarbonate dome / polycarbonate base | | | PNP |
| **K50FLGRYB4NQ** | | | | NPN |
| **K80LGRYB4PQ** | 50 mm dome / Flat or DIN-mount polycarbonate | | | PNP |
| **K80LGRYB4NQ** | | | | NPN |

**For the K50L and K50FL Models:**

- To order the 150 mm PVC cable with QD model, replace the **Q** with a **QP** in model number (example, **K50LGRYB4PQP**).
- To order the 2 m (6.5 ft) cable model, omit the suffix **Q** from model number (example, **K50LGRYB4P**).
- Models with a QD require a mating cable.

**For the K80L Models:** To order the terminal-wired model, omit the suffix **Q** from model number (example, **K80LGRYB4P**).

[1] Contact the factory for other colors and color combinations.

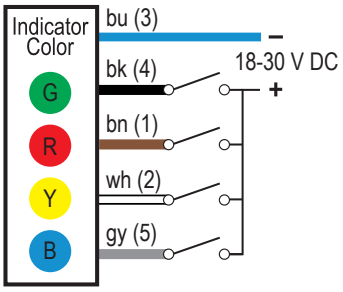
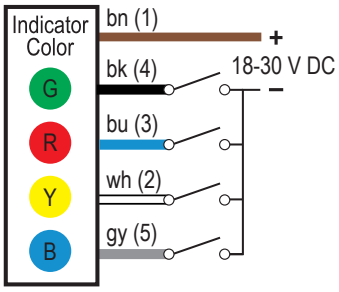
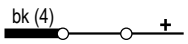
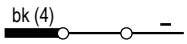
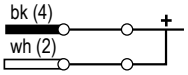
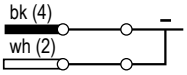
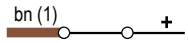
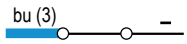
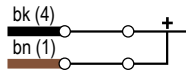
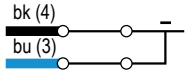
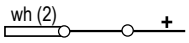
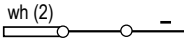
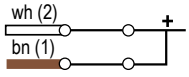
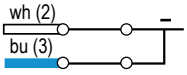
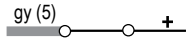
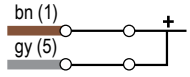
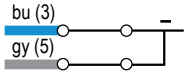
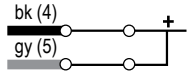
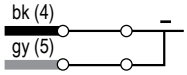
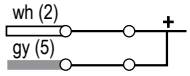
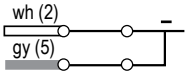
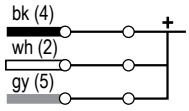
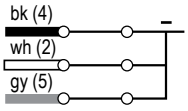
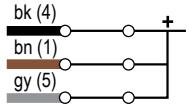
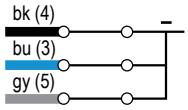
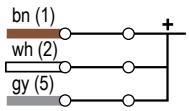
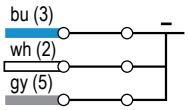
Original Instructions
23-Jun-25

© Banner Engineering Corp. All rights reserved.
www.bannerengineering.com

137329
p/n: 137329 Rev. D

ПРОМЭЛЕКТРОНИКА/ sales@prom-elec.com

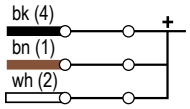
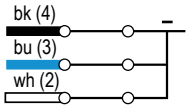
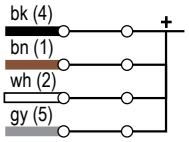
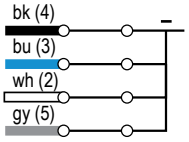
# Wiring Diagrams

| Function | PNP Wiring | NPN Wiring |
|---|---|---|
| Wiring Key:<br>1 = Brown<br>2 = White<br>3 = Blue<br>4 = Black<br>5 = Gray |  |  |
| Green steady |  |  |
| Green flashes |  |  |
| Red steady |  |  |
| Red flashes |  |  |
| Yellow steady |  |  |
| Yellow flashes |  |  |
| Blue steady |  |  |
| Blue flashes |  |  |
| Green, Red flash cycle |  |  |
| Red, Blue flash cycle |  |  |
| Green, Yellow flash cycle |  |  |
| Green, Blue flash cycle |  |  |
| Red, Yellow flash cycle |  |  |

Continued on page 2


© Banner Engineering Corp. All rights reserved.
www.bannerengineering.com

Continued from page 2

| Function | PNP Wiring | NPN Wiring |
|---|---|---|
| Yellow, Blue flash cycle |  |  |
| Green, Red, Yellow, Blue flash cycle |  |  |

# Specifications

### Supply Voltage and Current

18 V DC to 30 V DC at 50 mA maximum

### Indicators

Entire translucent diffuser or dome provides indication. LEDs are independently selected: Green, Red, Yellow, or Blue; ON steady or flashing, alternating or rotating

### Input Response Time

Indicator ON: 250 ms maximum

Indicator OFF: 10 ms maximum

### Operating Conditions

–40 °C to +50 °C (–40 °F to +122 °F)

### Environmental Rating

K50L and K50FL models: fully encapsulated, rated IP67 and IP69K per DIN 40050-9. Cabled models also meet IP69K if the cable and cable entrance are protected from high-pressure spray.

K80L models: IP67 (encapsulated electronics)

### Indicator Flash Rate

1-Color: 1-second flash rate (500 ms ON)

2- and 4-Color Flash: 500 ms per color

### Construction

See Models table

### Connections

Integral 5-pin M12 male quick-disconnect connector; 150 mm (6 in) PVC-jacketed cable with a 5-pin M12 male quick-disconnect connector; or 2 m (6.5 ft) unterminated 5-wire PVC-jacketed cable depending on the model ordered

### 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 | 1.0 | 30 | 0.5 |

### Certifications

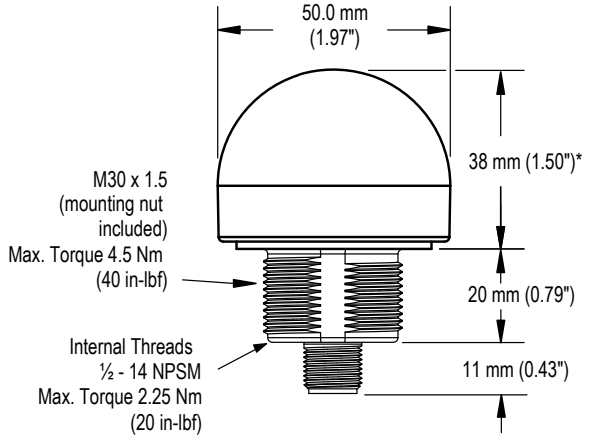
All models: CE Banner Engineering BV, Park Lane, Culliganlaan 2F bus 3, 1831 Diegem, BELGIUM

K50L models only: c UL us LISTED

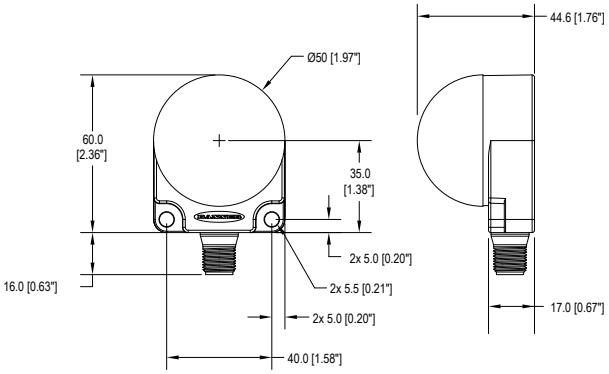

© Banner Engineering Corp. All rights reserved.
www.bannerengineering.com

# Dimensions

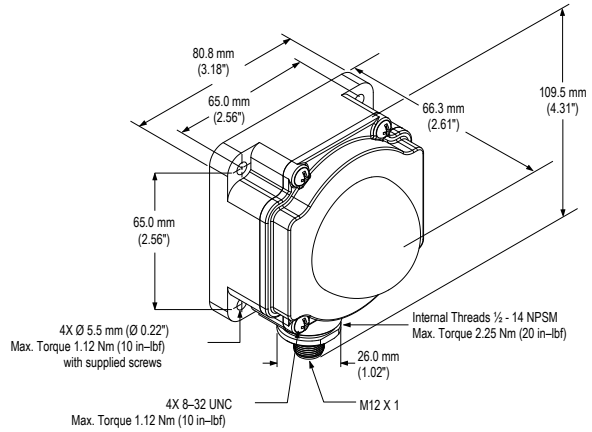
**K50L**




**K50FL**

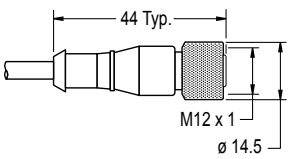
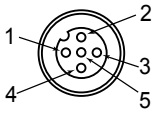



**K80L**




# Accessories

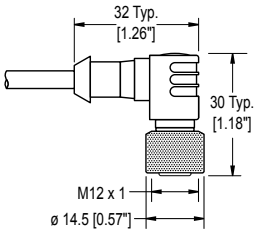
## Cordsets

| 5-Pin Single-Ended M12 Female Cordsets | | | | |
|---|---|---|---|---|
| **Model** | **Length** | **Style** | **Dimensions** | **Pinout (Female)** |
| **MQDC1-501.5** | 0.5 m (1.5 ft) | Straight |   |   1 = Brown 2 = White 3 = Blue 4 = Black 5 = Gray |
| **MQDC1-503** | 0.9 m (2.9 ft) | | | |
| **MQDC1-506** | 2 m (6.5 ft) | | | |
| **MQDC1-515** | 5 m (16.4 ft) | | | |
| **MQDC1-530** | 9 m (29.5 ft) | | | |
| **MQDC1-560** | 18 m (59 ft) | | | |
| **MQDC1-5100** | 31 m (101.7 ft) | | | |

Continued on page 5


© Banner Engineering Corp. All rights reserved.
www.bannerengineering.com

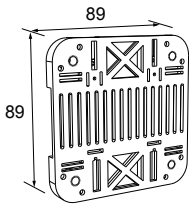
Continued from page 4

| 5-Pin Single-Ended M12 Female Cordsets | | | | |
|---|---|---|---|---|
| **Model** | **Length** | **Style** | **Dimensions** | **Pinout (Female)** |
| **MQDC1-506RA** | 2 m (6.5 ft) | Right-Angle |  | |
| **MQDC1-515RA** | 5 m (16.4 ft) | | | |
| **MQDC1-530RA** | 9 m (29.5 ft) | | | |
| **MQDC1-560RA** | 19 m (62.3 ft) | | | |

# Brackets

### Brackets for K80L models

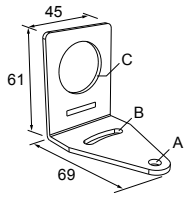
**SMBDX80DIN**
- Black reinforced thermoplastic
- Bracket for mounting on a 35 mm DIN rail




### Brackets for K50L and K50FL models

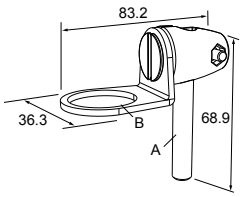
**SMB30A**
- Right-angle bracket with curved slot for versatile orientation
- Clearance for M6 (¼ in) hardware
- Mounting hole for 30 mm sensor
- 12-gauge stainless steel

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



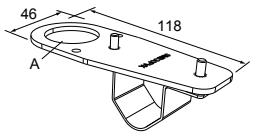

**SMB30FA**
- Swivel bracket with tilt and pan movement for precise adjustment
- Mounting hole for 30 mm sensor
- 12-gauge 304 stainless steel
- Easy sensor mounting to extrude rail T-slot
- Metric- and inch-size bolt available

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




**SMB30FVK**
- V-clamp, flat bracket and fasteners for mounting to pipe or extensions
- Clamp accommodates 28 mm dia. tubing or 1 in. square extrusions
- 30 mm hole for mounting sensors

**Hole size:** A= ø 31



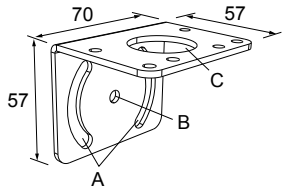


© Banner Engineering Corp. All rights reserved.
www.bannerengineering.com

**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

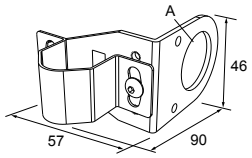
**Hole center spacing:** A = 51, A to B = 25.4
**Hole size:** A = 42.6 × 7, B = ø 6.4, C = ø 30.1




**SMB30RAVK**

- V-clamp, right-angle bracket and fasteners for mounting sensors to pipe or extrusion
- Clamp accommodates 28 mm dia. tubing or 1 in. square extrusions
- 30 mm hole for mounting sensors

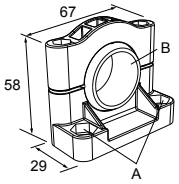
**Hole size:** A = ø 30.5




**SMB30SC**

- Swivel bracket with 30 mm mounting hole for sensor
- Black reinforced thermoplastic polyester
- Stainless steel mounting and swivel locking hardware included

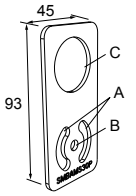
**Hole center spacing:** A=ø 50.8
**Hole size:** A=ø 7.0, B=ø 30.0




**SMBAMS30P**

- Flat SMBAMS series bracket
- 30 mm hole for mounting sensors
- Articulation slots for 90°+ rotation
- 12-gauge 300 series stainless steel

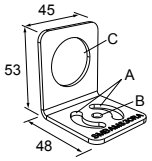
**Hole center spacing:** A=26.0, A to B=13.0
**Hole size:** A=26.8 × 7.0, B=ø 6.5, C=ø 31.0




**SMBAMS30RA**

- Right-angle SMBAMS series bracket
- 30 mm hole for mounting sensors
- Articulation slots for 90°+ rotation
- 12-gauge (2.6 mm) cold-rolled steel

**Hole center spacing:** A=26.0, A to B=13.0
**Hole size:** A=26.8 × 7.0, B=ø 6.5, C=ø 31.0




**NOTE:** K50FL models include a 48 mm (1.9 in) circular velcro mounting kit for easy mounting with no additional hardware.

# Banner Engineering Corp Limited Warranty

Banner Engineering Corp. warrants its products to be free from defects in material and workmanship for one year following the date of shipment. Banner Engineering Corp. will repair or replace, free of charge, any product of its manufacture which, at the time it is returned to the factory, is found to have been defective during the warranty period. This warranty does not cover damage or liability for misuse, abuse, or the improper application or installation of the Banner product.

**THIS LIMITED WARRANTY IS EXCLUSIVE AND IN LIEU OF ALL OTHER WARRANTIES WHETHER EXPRESS OR IMPLIED (INCLUDING, WITHOUT LIMITATION, ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE), AND WHETHER ARISING UNDER COURSE OF PERFORMANCE, COURSE OF DEALING OR TRADE USAGE.**

This Warranty is exclusive and limited to repair or, at the discretion of Banner Engineering Corp., replacement. **IN NO EVENT SHALL BANNER ENGINEERING CORP. BE LIABLE TO BUYER OR ANY OTHER PERSON OR ENTITY FOR ANY EXTRA COSTS, EXPENSES, LOSSES, LOSS OF PROFITS, OR ANY INCIDENTAL, CONSEQUENTIAL OR SPECIAL DAMAGES RESULTING FROM ANY PRODUCT DEFECT OR FROM THE USE OR INABILITY TO USE THE PRODUCT, WHETHER ARISING IN CONTRACT OR WARRANTY, STATUTE, TORT, STRICT LIABILITY, NEGLIGENCE, OR OTHERWISE.**

Banner Engineering Corp. reserves the right to change, modify or improve the design of the product without assuming any obligations or liabilities relating to any product previously manufactured by Banner Engineering Corp. Any misuse, abuse, or improper application or installation of this product or use of the product for personal protection applications when the product is identified as not intended for such purposes will void the product warranty. Any modifications to this product without prior express approval by Banner Engineering Corp will void the product warranties. All specifications published in this document are subject to change; Banner reserves the right to modify product specifications or update documentation at any time. Specifications and product information in English supersede that which is provided in any other language. For the most recent version of any documentation, refer to: www.bannerengineering.com.

For patent information, see www.bannerengineering.com/patents.


© Banner Engineering Corp. All rights reserved.
www.bannerengineering.com