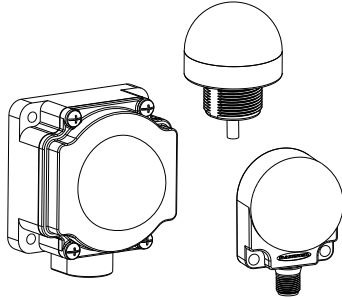


Datasheet

DC-Operated Indicators with 4 Colors and Multiple Flashing Frequencies



- Rugged, cost-effective, and easy-to-install indicators available 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 Vdc to 30 V dc operation



Contact factory for more information.



WARNING: Not To Be Used for Personnel Protection

Never use this device as a sensing device for personnel **protection**. Doing so could lead to serious injury or death. This device does not include the self-checking redundant circuitry necessary to allow its use in personnel safety applications. A sensor failure or malfunction can cause either an energized or de-energized sensor output condition.

Models

Models	Construction	Connection	LED Function ¹	Inputs
K50LGRYB4PQ	50 mm dome/ 30 mm mount polycarbonate	Integral 5-pin M12/ Euro-style male quick disconnect (QD)	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.



Wiring Diagrams

Function	PNP Wiring	NPN Wiring
<p>Wiring Key: 1 = Brown 2 = White 3 = Blue 4 = Black 5 = Gray</p>		
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		

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 IEC 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: IEC IP67 (encapsulated electronics)

Certifications

All models:



K50L models only:



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

Required Overcurrent Protection

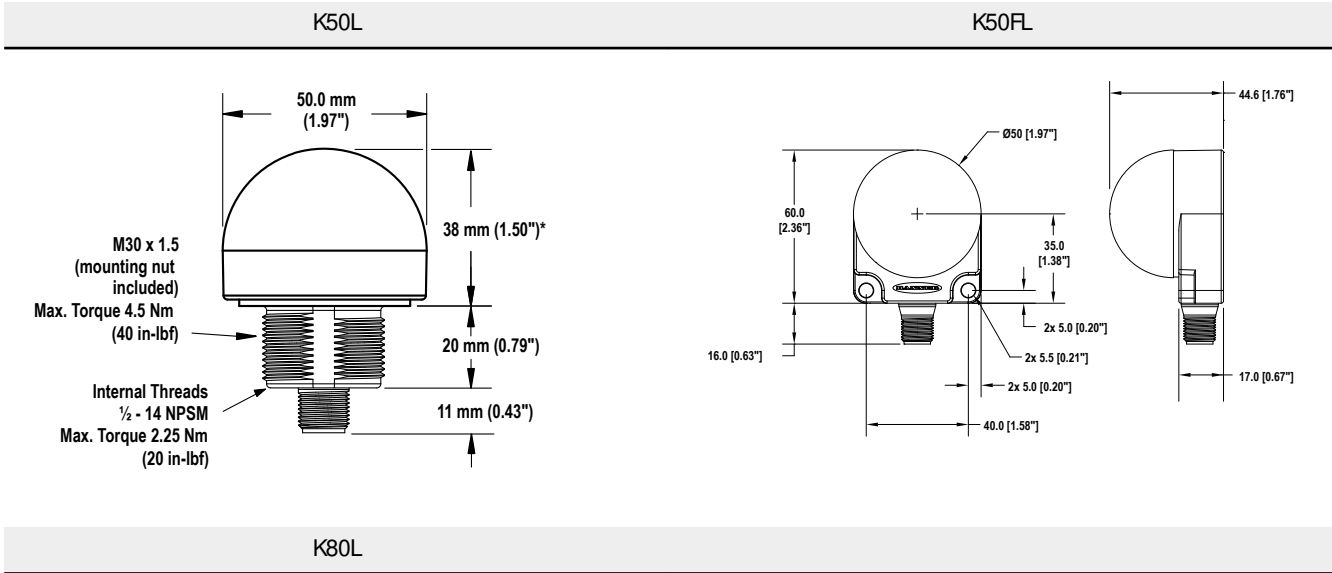


WARNING: Electrical connections must be made by qualified personnel in accordance with local and national electrical codes and regulations.

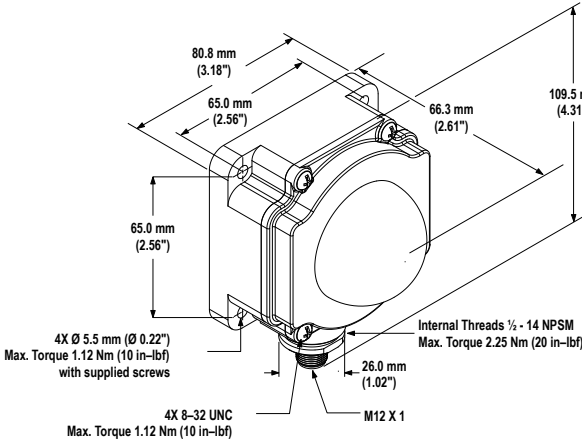
Overcurrent protection is required to be provided by end product application per the supplied table.
Overcurrent protection may be provided with external fusing or via Current Limiting, Class 2 Power Supply.
Supply wiring leads < 24 AWG shall not be spliced.
For additional product support, go to www.bannerengineering.com.

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

Dimensions



K80L



Accessories

5-Pin Euro-Style 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)			

5-Pin Threaded M12/Euro-Style Cordsets—Single Ended				
Model	Length	Style	Dimensions	Pinout (Female)
MQDC1-506RA	1.83 m (6 ft)	Right-Angle		
MQDC1-515RA	4.57 m (15 ft)			
MQDC1-530RA	9.14 m (30 ft)			

Mounting Brackets

All measurements are listed in millimeters, unless noted otherwise.

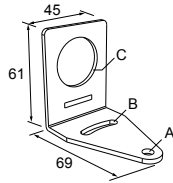
Brackets for the K50L and K50FL Models



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

SMB30A

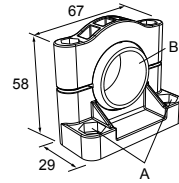
- Right-angle bracket with curved slot for versatile orientation
- Clearance for M6 (1/4 in) hardware
- Mounting hole for 30 mm sensor
- 12-ga. stainless steel



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

SMB30SC

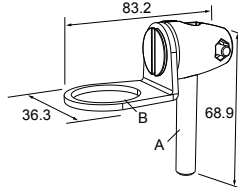
- Swivel bracket with 30 mm mounting hole for sensor
- Black reinforced thermoplastic polyester
- Stainless steel mounting and swivel locking hardware included



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

SMB30FA

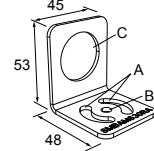
- Swivel bracket with tilt and pan movement for precise adjustment
- Mounting hole for 30 mm sensor
- 12-ga. 304 stainless steel
- Easy sensor mounting to extrude rail T-slot
- Metric and inch size bolt available



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

SMBAMS30RA

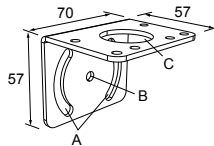
- Right-angle SMBAMS series bracket
- 30 mm hole for mounting sensors
- Articulation slots for 90°+ rotation
- 12-ga. (2.6 mm) cold-rolled steel



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

SMB30MM

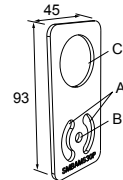
- 12-ga. stainless steel bracket with curved mounting slots for versatile orientation
- Clearance for M6 (1/4 in) hardware
- Mounting hole for 30 mm sensor



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

SMBAMS30P

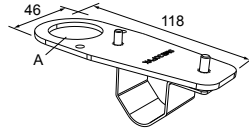
- Flat SMBAMS series bracket
- 30 mm hole for mounting sensors
- Articulation slots for 90°+ rotation
- 12-ga. 300 series stainless steel



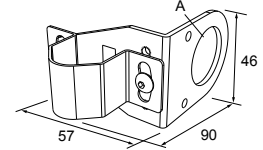
Hole center spacing: A=26.0, A to B=13.0
Hole size: A=26.8 x 7.0, B=ø 6.5, C=ø 31.0

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 = \varnothing 31**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 = \varnothing 30.5**Brackets for the K80L Models****SMBDX80D**

- DIN-mount bracket for K80L models, mounts on 35 mm DIN rail
- Hardware included to mount to K80L housing
- Black reinforced thermoplastic

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