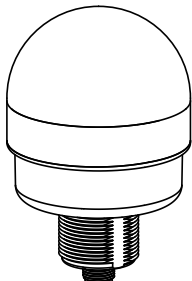


## Datasheet

Compact Sized 3 Color Indicator for I/O Block Applications

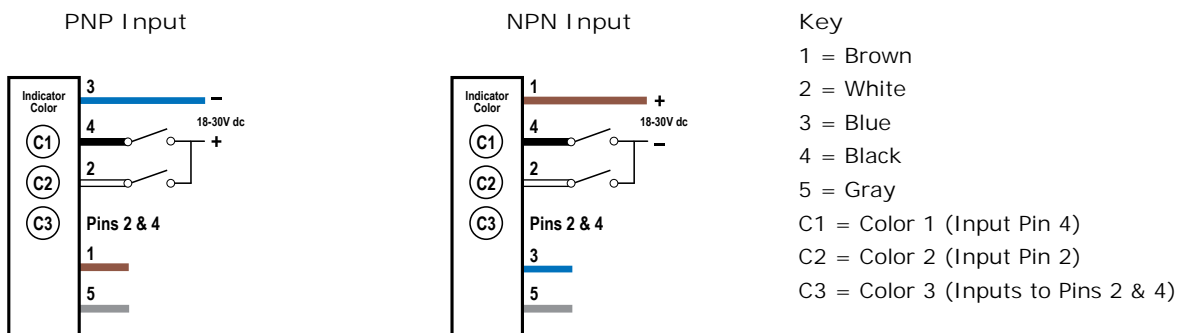


- Bright, uniform indicator light
- Rugged IP67-rated design
- 18 V dc to 30 V dc operation
- Operate up to 3 colors using only 2 inputs
- Up to 10 colors to choose from

## Models

Family	LED Color	Function	Input	Connector
K50L	G R Y	6	P	Q
K50L K50FL	G = Green R = Red Y = Yellow B = Blue W = White T = Turquoise O = Orange V = Violet M = Magenta S = Sky Blue	6 = I/O Block Compatible	P = PNP N = NPN	Blank = 2 m Integral Cable Q = Euro Integral QD QP = 150 mm PVC Euro cable with QD QPMA = 150 mm PUR Euro cable with QD

## Wiring



## Specifications

### Supply Voltage and Current

18 V dc to 30 V dc  
50 mA maximum current at 18 V dc to 30 V dc

### Supply Protection Circuitry

Protected against reverse polarity and transient voltages

### Input Response Time

Indicator On: 250 ms maximum  
Indicator Off: 10 ms maximum

### Connections

Integral 4-pin M12/Euro-style quick disconnect, or 150 mm (6 inch)  
PVC or PUR cable with quick disconnect, or 2 m (6.5 ft) cable,  
depending on model

### Construction

Base and dome: Polycarbonate

### Indicators

3 colors

### Indicator Characteristics

Color	Dominant Wavelength (nm) or Color Temperature (CCT)	Color Coordinates <sup>1</sup>		Lumen Output (Typical at 25 °C)
		X	Y	
Green	528 nm	NA	NA	59
Red	625 nm	NA	NA	17
Yellow	590 nm	NA	NA	56
Blue	470 nm	NA	NA	15
Orange	608 nm	NA	NA	11
White	6000 K	NA	NA	45
Turquoise	NA	0.19	0.37	22
Violet	NA	0.20	0.08	3.5
Magenta	NA	0.35	0.15	4.5
Sky Blue	NA	0.19	0.26	15

### Environmental Rating

QD models meet IP69K, per DIN 40050-9  
Cable models rated IEC IP67



NOTE: Cable models meet IP69K if the cable and cable entrance is protected from high-pressure spray.

### Vibration and Mechanical Shock

All models meet Mil std. 202F requirements. Method 201A (vibration: 10 Hz to 60 Hz max., double amplitude 0.05 inch, maximum acceleration 10F). Also meets IEC 947-5-2 requirements: 30G 11 ms duration, half sine wave.

### Operating Conditions

-40 °C to + 50 °C (-40 °F to +122 °F)

### 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](http://www.bannerengineering.com).

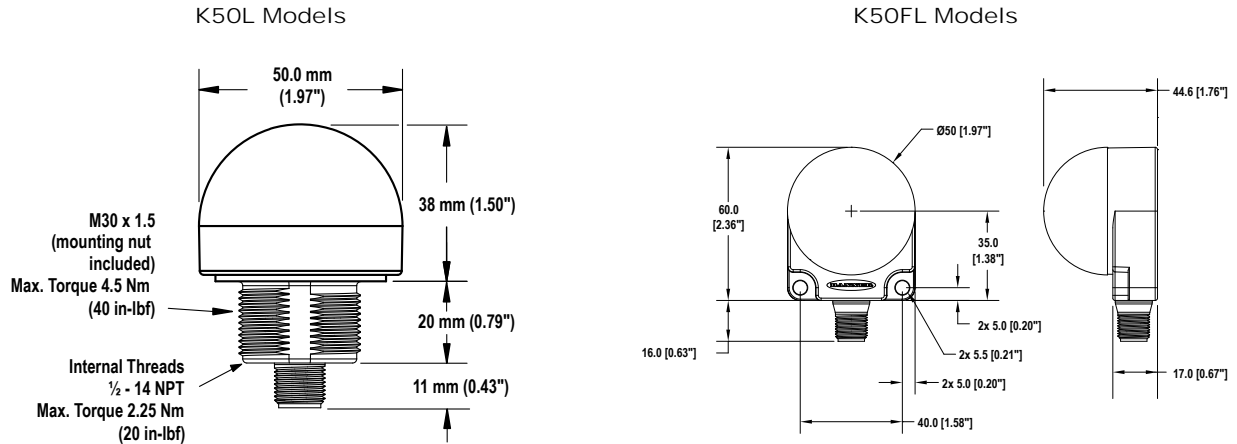
Supply Wiring (AWG)	Required Overcurrent Protection (Amps)
20	5.0
22	3.0
24	2.0
26	1.0
28	0.8
30	0.5

### Certifications



<sup>1</sup> Refer to CIE 1931 chromaticity diagram or color chart, to show equivalent color with indicated color coordinates.

## Dimensions



## Accessories

### Cordsets

4-Pin Threaded M12/Euro-Style Cordsets				
Model	Length	Style	Dimensions	Pinout (Female)
MQDC-406	1.83 m (6 ft)	Straight		
MQDC-415	4.57 m (15 ft)			
MQDC-430	9.14 m (30 ft)			
MQDC-450	15.2 m (50 ft)			
MQDC-406RA	1.83 m (6 ft)	Right-Angle		
MQDC-415RA	4.57 m (15 ft)			
MQDC-430RA	9.14 m (30 ft)			
MQDC-450RA	15.2 m (50 ft)			

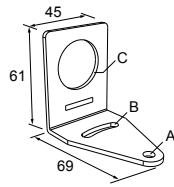
5-Pin Threaded M12/Euro-Style Cordsets—Single Ended				
Model	Length	Style	Dimensions	Pinout (Female)
MQDC1-501.5	0.50 m (1.5 ft)	Straight		
MQDC1-506	1.83 m (6 ft)			
MQDC1-515	4.57 m (15 ft)			
MQDC1-530	9.14 m (30 ft)			

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)			

## Brackets

### SMB30A

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

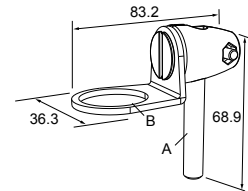


Hole center spacing: A to B=40

Hole size: A=ø 6.3, B= 27.1 x 6.3, C=ø 30.5

### 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

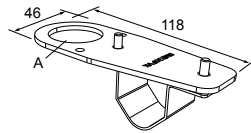


Bolt thread: SMB30FA, A= 3/8 - 16 x 2 in; SMB30FAM10, A= M10 - 1.5 x 50

Hole size: B= ø 30.1

### SMB30FVK

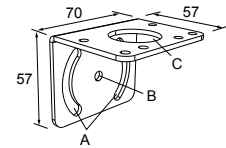
- V-clamp, flat bracket and fasteners for mounting to pipe or extensions
- Clamp accommodates 28 mm dia. tubing or 1 in. square extrusions
- 30 mm hole for mounting sensors



Hole size: A= ø 31

### SMB30MM

- 12-ga. stainless steel bracket with curved mounting slots for versatile orientation
- Clearance for M6 (¼ in) hardware
- Mounting hole for 30 mm sensor

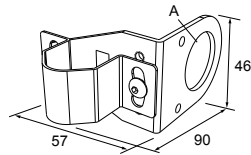


Hole center spacing: A = 51, A to B = 25.4

Hole size: A = 42.6 x 7, B = ø 6.4, C = ø 30.1

### SMB30RAVK

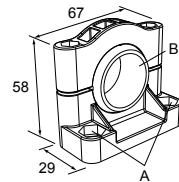
- V-clamp, right-angle bracket and fasteners for mounting sensors to pipe or extrusion
- Clamp accommodates 28 mm dia. tubing or 1 in. square extrusions
- 30 mm hole for mounting sensors



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

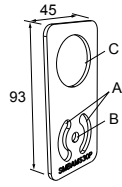


Hole center spacing: A=ø 50.8

Hole size: A=ø 7.0, B=ø 30.0

**SMBAMS30P**

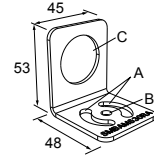
- Flat SMBAMS series bracket
- 30 mm hole for mounting sensors
- Articulation slots for 90° + rotation
- 12-ga. 300 series stainless steel



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

**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

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