K50 Series I/O Block Compatible

Features

50mm Multicolor LED Indicator



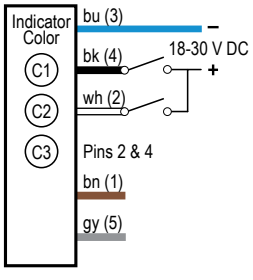
- Bright, uniform indicator light
- Rugged IP69K per ISO 20653 and IP67-rated design
- 18 V DC to 30 V DC operation
- Operate up to three colors using only 2 inputs
- Up to six colors to choose from
- PNP or NPN models available
- Variety of connector options

Models

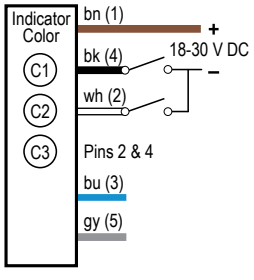
Family	LED Color			Function	Input	Connector
K50L	G	R	Y	6	P	Q
K50L K50FL	G = Green R = Red Y = Yellow B = Blue W = White O = Orange			6 = I/O Block Compatible	P = PNP N = NPN	Blank = 2 m (6.5 ft) integral PVC-jacketed cable Q = Integral 5-pin M12 male quick-disconnect connector QP = 150 mm (6 in) PVC-jacketed cable with a 5-pin M12 male quick-disconnect connector QPMA = 150 mm (6 in) PUR-jacketed cable with a 5-pin M12 male quick-disconnect connector

Wiring

PNP Input



NPN Input



Key

1 = Brown
2 = White
3 = Blue
4 = Black
5 = Gray
C1 = Color 1 (Input Pin 4)
C2 = Color 2 (Input Pin 2)
C3 = Color 3 (Inputs to Pins 2 & 4)

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

Leakage Current Immunity

400 µA

Input Response Time

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

Connections

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

Construction

Base and dome: Polycarbonate

Mounting

M30 × 1.5 threaded base, maximum torque 4.5 N·m (40 in-lbf)
Mounting nut included

Indicator Characteristics

Color	Dominant Wavelength (nm) or Color Temperature (CCT)	Lumen Output (Typical at 25 °C)
Green	528 nm	20
Red	625 nm	6
Yellow	590 nm	20
Blue	470 nm	5
Orange	608 nm	11
White	6000 K	16

Certifications

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

Environmental Rating

QD models meet IP69K per ISO 20653
Cable models rated IP67

NOTE: Cable models meet IP69K per ISO 20653 if the cable and cable entrance is protected from high-pressure spray.

Original Instructions
10-Jun-25

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196759
p/n: 196759 Rev. C

ПРОМЭЛЕКТРОНИКА/ sales@prom-elec.com

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)

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.

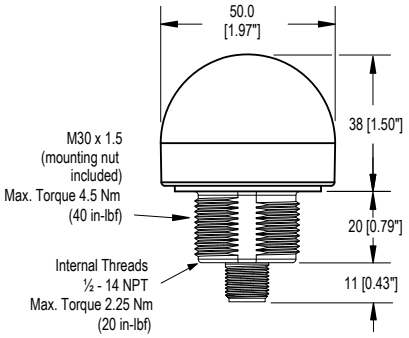
For additional product support, go to www.bannerengineering.com.

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

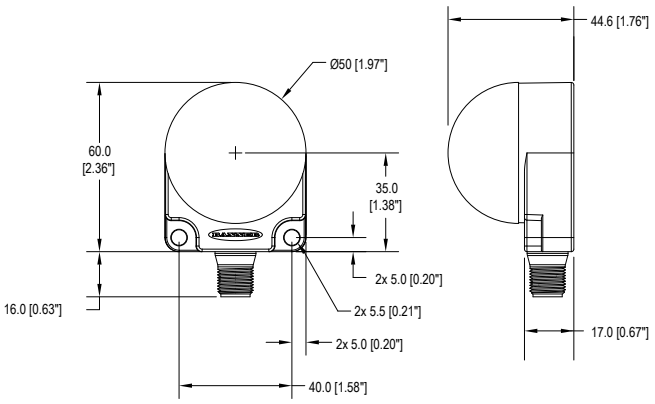
Dimensions

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

K50L Models

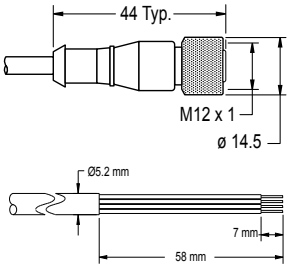
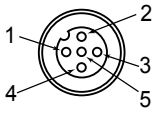
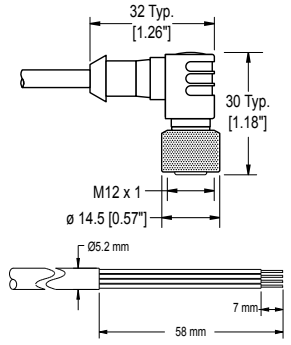
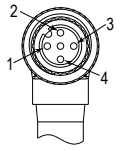


K50FL Models

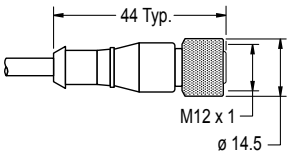
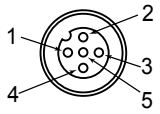
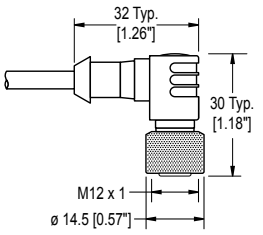


Accessories

Cordsets

4-Pin Single-Ended M12 Female Cordsets					
Model	**Length**	**Style**	**Dimensions**	**Pinout (Female)**	
MQDC-406	2 m (6.56 ft)	Straight			1 = Brown 2 = White 3 = Blue 4 = Black 5 = Not used
MQDC-415	5 m (16.4 ft)				
MQDC-430	9 m (29.5 ft)				
MQDC-450	15 m (49.2 ft)				
MQDC-406RA	2 m (6.56 ft)	Right-Angle			
MQDC-415RA	5 m (16.4 ft)				
MQDC-430RA	9 m (29.5 ft)				
MQDC-450RA	15 m (49.2 ft)				

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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)			
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)			

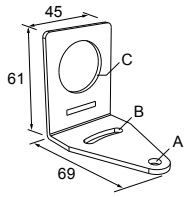
Brackets

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 (¼ in) hardware
- Mounting hole for 30 mm sensor
- 12-gauge stainless steel

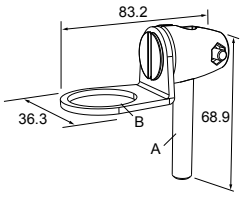
Hole center spacing: A to B=40
Hole size: A=ø 6.3, B= 27.1 × 6.3, C=ø 30.5



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

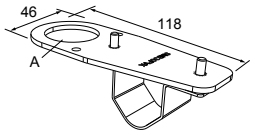
Bolt thread: SMB30FA, A= 3/8 - 16 × 2 in; SMB30FAM10, A= M10 - 1.5 × 50
Hole size: B= ø 30.1



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

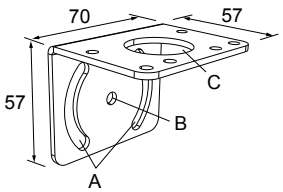
Hole size: A= ø 31



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

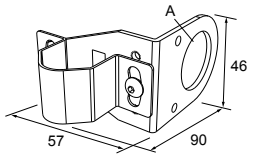


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SMB30RAVK

- 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

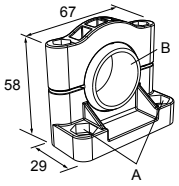
Hole size: A = ø 30.5



SMB30SC

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

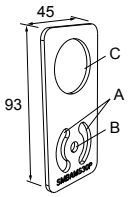
Hole center spacing: A=ø 50.8
Hole size: A=ø 7.0, B=ø 30.0



SMBAMS30P

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

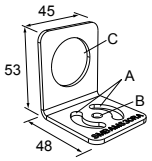
Hole center spacing: A=26.0, A to B=13.0
Hole size: A=26.8 × 7.0, B=ø 6.5, C=ø 31.0



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



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