

## Features

### 50 mm Multicolor LED Indicator



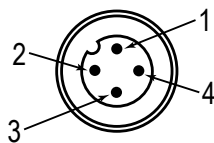
- Bright, uniform indicator light
- Rugged IP66, IP67, IP69K per ISO 20653, and UL Type 4X and UL Type 13 design
- 24 V DC operation
- Operate up to three colors in one device
- PNP models available

## Models

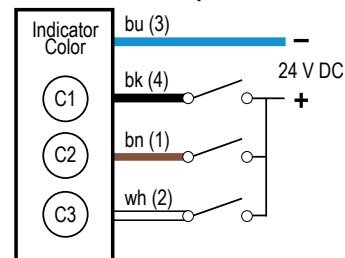
Model Name	LED Color C1	LED Color C2	LED Color C3	Input	Connector <sup>(1)</sup>
K50GRYPQ	Green	Red	Yellow	PNP	Integral 4-pin M12 male quick-disconnect connector
K50BRYPQ	Blue	Red	Yellow		
K50GRBPQ	Green	Red	Blue		

## Wiring

4-pin M12 Male Pinout



PNP Input



Color 3 overrides Colors 1 and 2. Color 2 overrides Color 1.

## Specifications

### Supply Voltage and Current

24 V DC ( $\pm 10\%$ )

55 mA maximum current per color

### Supply Protection Circuitry

Protected against reverse polarity and transient voltages

### Leakage Current Immunity

400  $\mu$ A

### Input Response Time

Indicator On/Off: 1 ms maximum

### Connections

Integral 4-pin M12 male quick-disconnect connector

### Construction

Base and dome: Polycarbonate

### Mounting

M30  $\times$  1.5 threaded base, maximum torque 4.5 N·m (40 in-lbf)

Mounting nut included

### Environmental Rating

IP66, IP67, IP69K per ISO 20653

UL Type 4X and UL Type 13

### Vibration and Mechanical Shock

Meets IEC 60068-2-6 requirements (Vibration: 10 Hz to 55 Hz, 0.5 mm amplitude, 5 minutes sweep, 30 minutes dwell)

Meets IEC 60068-2-27 requirements (Shock: 30G 11 ms duration, half sine wave)

### Operating Conditions

$-40^{\circ}\text{C}$  to  $+50^{\circ}\text{C}$  ( $-40^{\circ}\text{F}$  to  $+122^{\circ}\text{F}$ )

<sup>(1)</sup> Models with a quick-disconnect connector require a mating cordset.

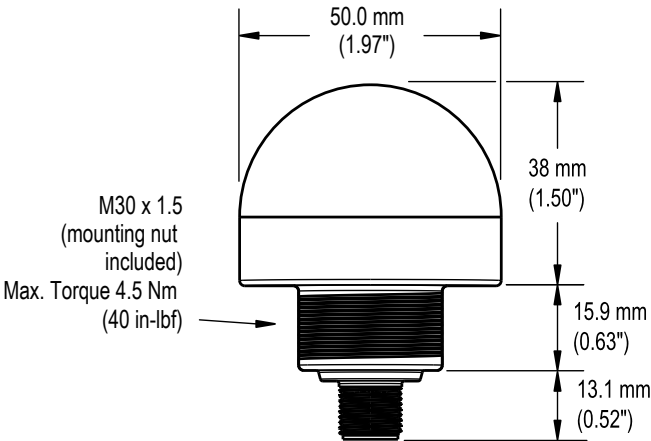
Indicator Characteristics

Color	Dominant Wavelength (nm) or Color Temperature (CCT)	Lumen Output (Typical at 25 °C) <sup>(2)</sup>
Green	522 nm	21
Red	620 nm	11
Yellow	589 nm	26
Blue	466 nm	3.5

<sup>(2)</sup> Values shown at 25 °C - current and lumen values decrease 0.35% per 1 °C from ambient. For example, a unit will have a maximum current of 55 mA at -40 °C and 40 mA at +50 °C.

Dimensions

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



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 (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



# Accessories

## Cordsets

4-pin Single-Ended M12 Female Cordsets				
Model	Length	Dimensions (mm)	Pinout (Female)	
BC-M12F4-22-1	1 m (3.28 ft)			1 = Brown 2 = White 3 = Blue 4 = Black 5 = Unused
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 Single-Ended M12 Female Right-Angle Cordsets				
Model	Length	Dimensions (mm)	Pinout (Female)	
BC-M12F4A-22-1	1 m (3.28 ft)			1 = Brown 2 = White 3 = Blue 4 = Black 5 = Unused
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)			1 = Brown 2 = White 3 = Blue 4 = Black 5 = Unused

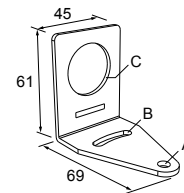
## Brackets

### 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

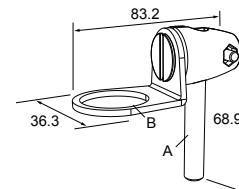


### SMB30FA

- 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

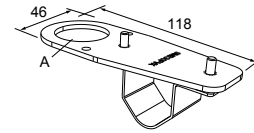
**Hole size:** B= ø 30.1



**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

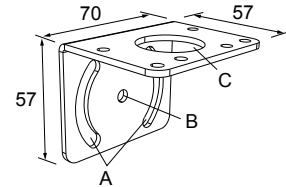
**Hole size:** A =  $\varnothing$  31

**SMB30MM**

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

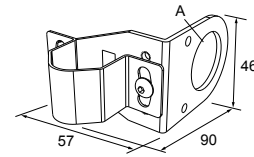
**Hole center spacing:** A = 51, A to B = 25.4

**Hole size:** A =  $42.6 \times 7$ , B =  $\varnothing$  6.4, C =  $\varnothing$  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

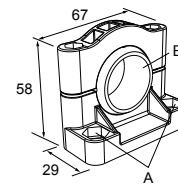
**Hole size:** A =  $\varnothing$  30.5

**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 =  $\varnothing$  50.8

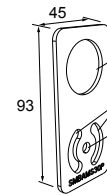
**Hole size:** A =  $\varnothing$  7.0, B =  $\varnothing$  30.0

**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

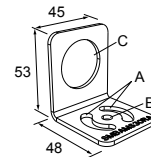
**Hole size:** A =  $26.8 \times 7.0$ , B =  $\varnothing$  6.5, C =  $\varnothing$  31.0

**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

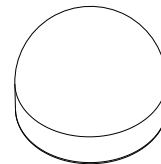
**Hole size:** A =  $26.8 \times 7.0$ , B =  $\varnothing$  6.5, C =  $\varnothing$  31.0





## Wash-Down Cover

**WC-K50 Washdown Cover**

- FDA-grade silicone
- Fits K50 indicators
- IP67 and IP69K rated



## Elevated Mount System

Model		Description	Components
<b>SA-M30E12P</b> - Black Acetal		<ul style="list-style-type: none"> <li>Streamlined black acetal stand-off pipe adapter/cover</li> <li>Connects between 30 mm light base and ½ in. NPSM/DN15 pipe</li> <li>Mounting hardware included</li> </ul>	
<b>Black Anodized Aluminum</b>	<b>Clear Anodized Aluminum</b>	<ul style="list-style-type: none"> <li>Elevated-use stand-off pipe (½ in. NPSM/DN15)</li> <li>Polished 304 stainless steel, black anodized aluminum, or clear anodized aluminum surface</li> <li>½ in. NPT thread at both ends: one end screws into the internal threads of the light's base, and one end screws into the mounting base adapter/cover</li> <li>Compatible with most industrial environments</li> </ul>	
<b>SOP-E12-150A</b>	<b>SOP-E12-150AC</b>		
150 mm (6 in) long	150 mm (6 in) long		
<b>SOP-E12-300A</b>	<b>SOP-E12-300AC</b>		
300 mm (12 in) long	300 mm (12 in) long		
<b>SOP-E12-600A</b>	<b>SOP-E12-600AC</b>		
600 mm (24 in) long	600 mm (24 in) long		
<b>SOP-E12-900A</b>	<b>SOP-E12-900AC</b>		
900 mm (36 in) long	900 mm (36 in) long		

## Product Support and Maintenance

### Clean with Mild Detergent and Warm Water

Wipe down the device with a soft cloth dampened with a mild detergent and warm water solution. Do not use any other chemicals for cleaning.

### Repairs

Contact Banner Engineering for troubleshooting of this device. **Do not attempt any repairs to this Banner device; it contains no field-replaceable parts or components.** If the device, device part, or device component is determined to be defective by a Banner Applications Engineer, they will advise you of Banner's RMA (Return Merchandise Authorization) procedure.

**IMPORTANT:** If instructed to return the device, pack it with care. Damage that occurs in return shipping is not covered by warranty.

### Contact Us

Banner Engineering Corp. headquarters is located at: 9714 Tenth Avenue North | Plymouth, MN 55441, USA | Phone: + 1 888 373 6767

For worldwide locations and local representatives, visit [www.bannerengineering.com](http://www.bannerengineering.com).

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