

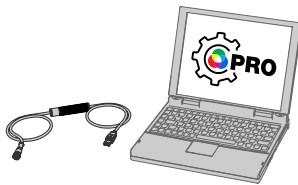
## Features

Daylight-Visible, Programmable Multicolor RGB Indicator for Indoor or Outdoor Use



- Bright even light
- Seven default colors in one device (Green, Red, Yellow, Blue, White, Cyan, Magenta)
- Programmable using Banner's Pro Editor software and Pro Converter Cable
- 30 mm threaded polycarbonate base
- Rugged IP67, IP69K per ISO 20653 and UL Type 4X and UL Type 13 design
- Bimodal inputs (PNP/NPN), depending on source wiring
- Variety of connector options
- Intense levels of light output for areas with high ambient light including outdoors

## Pro Editor

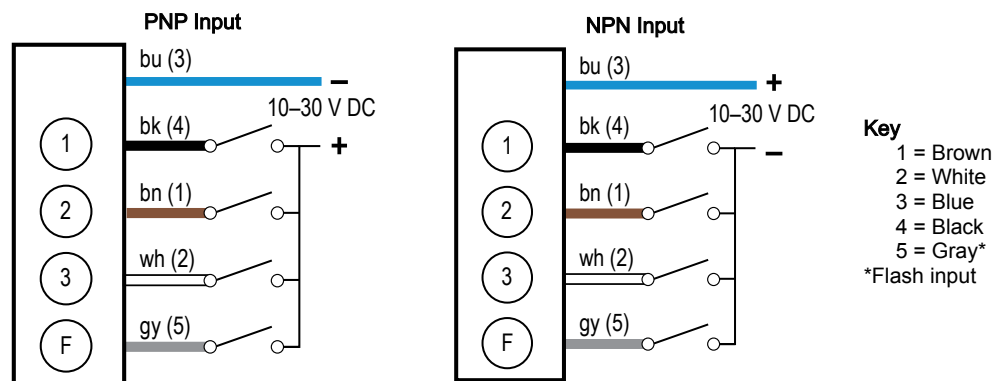


Use Banner's Pro Editor software and Pro Converter Cable to create custom configurations by selecting different colors, flash patterns, and animations.  
For more information visit [www.bannerengineering.com/proeditor](http://www.bannerengineering.com/proeditor).

## Models

Family	Color and Input	Connector <sup>(1)</sup>
K50PBL	RGB7	
K50PBL	RGB7 = RGB Multicolor (7 colors)	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

## Wiring



Default Color Definition

	Red	Yellow	Green	Cyan	Blue	Magenta	White
Input 1	X	X				X	X
Input 2		X	X	X			X
Input 3				X	X	X	X

An "X" denotes an active input, for example when Input 1 and Input 3 are active, the indicator will show Magenta.

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



# Specifications

## Supply Voltage and Current

10 V DC to 30 V DC

- 220 mA at 10 V DC
- 190 mA at 12 V DC
- 115 mA at 24 V DC
- 100 mA at 30 V DC

## Supply Protection Circuitry

Protected against reverse polarity and transient voltages

## Leakage Current Immunity

400  $\mu$ A

## Input Response Time

250 milliseconds maximum

## Flash

Default 1.5 Hz flash rate using flash input wire

## Connections

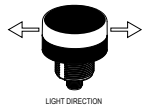
Integral 5-pin M12 male quick-disconnect connector, 150 mm (6 in) PVC-jacketed cable with an M12 quick disconnect, or 2 m (6.5 ft) integral PVC-jacketed cable, depending on model  
Models with a quick disconnect require a mating cordset

## Mounting

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

## Application Note

Light emits 360° from housing sides in K50PBL models



## Construction

Base, Dome, and Nut: Polycarbonate

## Vibration and Mechanical Shock

Meets IEC 60068-2-6 requirements (Vibration: 10 Hz to 55 Hz, 1.0 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 °C to +50 °C (–40 °F to +122 °F)

90% at +50 °C maximum relative humidity (non-condensing)

Storage Temperature: –40 °C to +70 °C (–40 °F to +158 °F)

## Environmental Rating

IP67, IP69K per ISO 20653

All Cabled Models also meet IP69K per ISO 20653 if the cable and cable entrance are protected from high-pressure spray

Meets UL Type 4X and UL Type 13 when mounted in a UL Type 4X or Type 13 enclosure

## Pro Editor Configuration

Connection to Pro Editor software enables control of:

- Animation: On, Flash, Two Color Flash, 50/50, 50/50 Rotate, Chase, Intensity Sweep, Demo
- Color: Green, Red, Yellow, Blue, White, Cyan, Magenta, Amber, Rose, Lime Green, Orange, Sky Blue, Violet, Spring Green
- Intensity: Low, Medium, High
- Speed: Slow, Standard, Fast

Pro Converter Cable required to interface between PC and indicator, see accessories

## Default Indicator Characteristics

Color	Dominant Wavelength (nm) or Color Temperature (CCT)	Color Coordinates <sup>(2)</sup>		Lumen Output (Typical at 25 °C)
		x	y	
Green	530 nm	0.153	0.697	15.3
Red	625 nm	0.691	0.307	6.8
Yellow	–	0.469	0.466	17.2
Blue	470 nm	0.14	0.05	3.3
White	5950 K	0.338	0.336	20.9
Cyan	–	0.159	0.337	17
Magenta	–	0.399	0.189	8.6

<sup>(2)</sup> Refer to CIE 1931 chromaticity diagram or color chart, to show equivalent color with indicated color coordinates.

## Required Overcurrent Protection



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

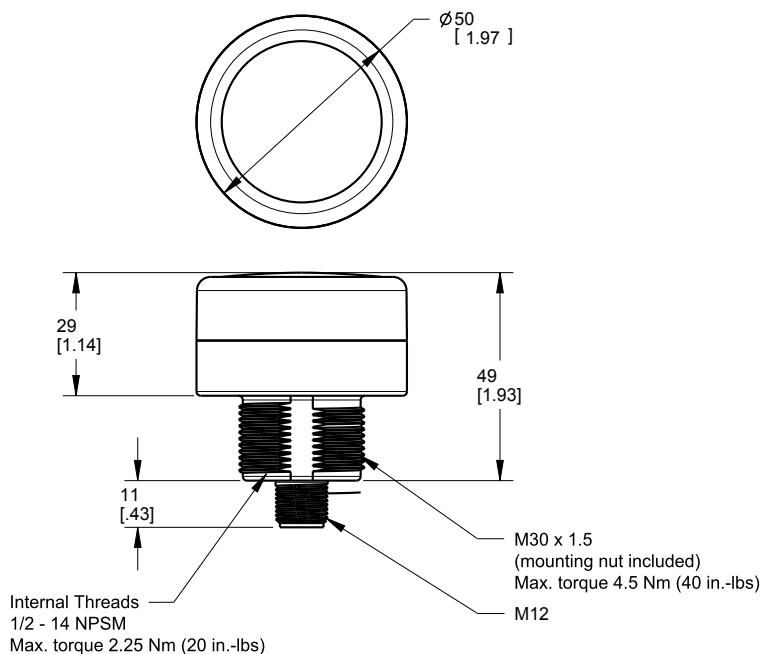
Overcurrent protection is required to be provided by end product application per the supplied table. Overcurrent protection may be provided with external fusing or via Current Limiting, Class 2 Power Supply.

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	1.0	30	0.5

## Dimensions

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

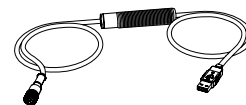


## Accessories

### Pro Editor Hardware

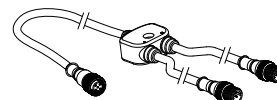
#### MQDC-506-USB

- Pro Converter Cable
- 1.83 m (6 ft) length 5-pin M12 quick disconnect to Device and USB to PC
- Required for connection to the configuration software



#### CSB-M1251FM1251M

- 5-pin parallel Y splitter (Male-Male-Female)
- For full Pro Editor preview capability
- Requires external power supply, sold separately



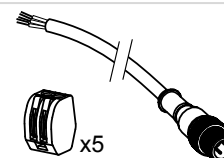
#### PSW-24-1

- 24 V DC, 1 A power supply
- 2 m (6.5 ft) PVC cable with M12 quick disconnect
- Provides external power with splitter cable, sold separately

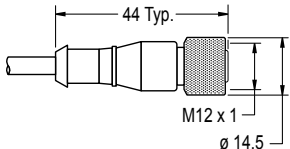
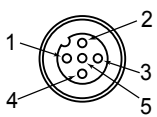

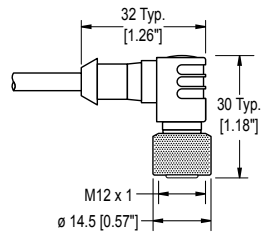


#### ACC-PRO-CABLE5

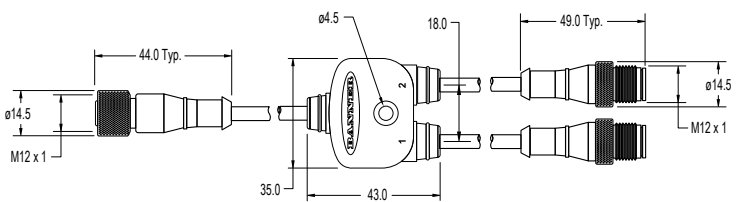
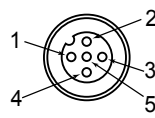
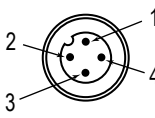
- Mating accessory for cabled and terminal models
- 150 mm (6 inch) PVC cable with M12 quick disconnect
- Lever wire nuts included (qty 5)
- Required to connect cabled models and screw terminal models to Pro Converter Cable, sold separately



## Cordsets

5-Pin Single-Ended M12 Female Cordsets				
Model	Length	Style	Dimensions	Pinout (Female)
MQDC1-501.5	0.5 m (1.5 ft)	Straight		 <p>1 = Brown 2 = White 3 = Blue 4 = Black 5 = Gray</p> 
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)			

## Splitter Cables for Use with IO-Blocks

5-Pin M12 to 4-Pin M12 Combiner Cordset with Flat Junction			
Model	Branches (Male)	Trunk (Female)	Pinout
CSF-M12F51M12M41	4-pin Quick Disconnect, 2 × 0.31 m (1.02 ft)	5-pin Quick Disconnect, 0.31 m (1.02 ft)	Female
			Male
			  <p>1 = brown (trunk); no connection (branches 1 and 2)  2 = white (trunk); brown (branch 1); gray (branch 2)  3 = blue (trunk; branches 1 and 2)  4 = black (trunk); black (branch 1); white (branch 2)  5 = gray (trunk only)</p>

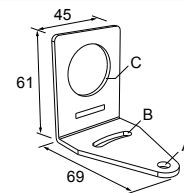
## Brackets

### 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

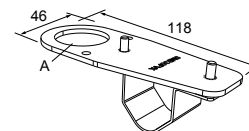
**Hole size:** A=ø 6.3, B= 27.1 × 6.3, C=ø 30.5



**SMB30FVK**

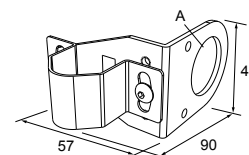
- V-clamp, flat bracket and fasteners for mounting to pipe or extensions
- Clamp accommodates 28 mm dia. tubing or 1 in. square extrusions
- 30 mm hole for mounting sensors

**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

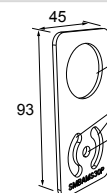
**Hole size:** A =  $\varnothing$  30.5

**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

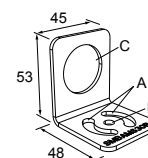
**Hole size:** A=26.8 × 7.0, B= $\varnothing$  6.5, C= $\varnothing$  31.0

**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

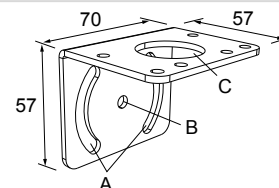
**Hole size:** A=26.8 × 7.0, B= $\varnothing$  6.5, C= $\varnothing$  31.0

**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

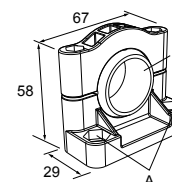
**Hole size:** A = 42.6 × 7, B =  $\varnothing$  6.4, C =  $\varnothing$  30.1

**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

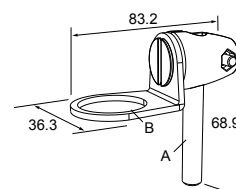
**Hole size:** A= $\varnothing$  7.0, B= $\varnothing$  30.0

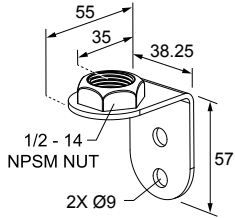
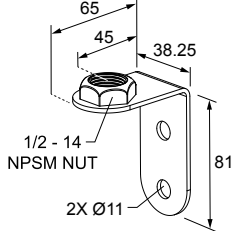
**SMB30FA**

- 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=  $\varnothing$  30.1



<p><b>LMBE12RA35</b></p> <ul style="list-style-type: none"> <li>• Direct mounting of stand-off pipe, with common bracket type</li> <li>• Zinc-plated steel</li> <li>• 1/2-14 NPSM nut</li> <li>• Mounting distance from the wall to the center of the 1/2-14 NPSM nut is 35 mm</li> </ul> <p><b>Hole center spacing: 20.0</b></p>	
<p><b>LMBE12RA45</b></p> <ul style="list-style-type: none"> <li>• Direct mounting of stand-off pipe, with common bracket type</li> <li>• Zinc-plated steel</li> <li>• 1/2-14 NPSM nut</li> <li>• Mounting distance from the wall to the center of the 1/2-14 NPSM nut is 45 mm</li> </ul> <p><b>Hole center spacing: 35.0</b></p>	

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

## Elevated Mount System

Model			Description	Components
SA-M30TE12 - Black Acetal			<ul style="list-style-type: none"><li>Streamlined black acetal or white UHMW 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>	
SA-M30TE12C - White UHMW				
Polished 304 Stainless Steel	Black Anodized Aluminum	Clear Anodized Aluminum	<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>	
SOP-E12-150SS 150 mm (6 in) long	SOP-E12-150A 150 mm (6 in) long	SOP-E12-150AC 150 mm (6 in) long		
SOP-E12-300SS 300 mm (12 in) long	SOP-E12-300A 300 mm (12 in) long	SOP-E12-300AC 300 mm (12 in) long		
SOP-E12-900SS 900 mm (36 in) long	SOP-E12-900A 900 mm (36 in) long	SOP-E12-900AC 900 mm (36 in) long		
SA-E12M30 - Black Acetal			<ul style="list-style-type: none"><li>Streamlined black acetal or white UHMW mounting base adapter/cover</li><li>Connects between ½ in. NPSM/DN15 pipe and 30 mm (1-3/16 in) drilled hole</li><li>Mounting hardware included</li></ul>	
SA-E12M30C - White UHMW				

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