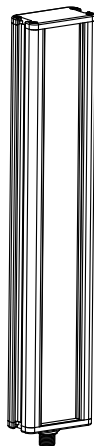


# High-Power Unsealed Linear Backlights



## Datasheet

Lighting for use with Vision Systems



- Four high-intensity, visible wavelengths, plus IR
- The following array lengths are available:
  - 145 mm (5.7 in)
  - 290 mm (11.4 in)
  - 435 mm (17.7 in)
  - 580 mm (22.8 in)
  - 870 mm (34.2 in)
  - 1160 mm (45.6 in)
- High-power, solid-state LED array; continuous or strobed operation is selectable via sensor software (P4 models) or via hookup
- Optically isolated strobe signal
- Selectable Active High or Active Low strobe option
- Maintenance-free, rugged construction
- Built-in constant current regulation
- Very even light pattern
- Can also be used as a highly diffused area light
- Diffused backlight for any Vision System



**Important:** Lea el siguiente instructivo antes de operar el luminario. Por favor descargue desde [www.bannerengineering.com](http://www.bannerengineering.com) toda la documentación técnica de los High-Power Unsealed Linear Backlights, disponibles en múltiples idiomas, para detalles del uso adecuado, aplicaciones, advertencias, y las instrucciones de instalación de estos dispositivos.

## Model Key

Light Source	LED Color	Linear Array	Array Length	Housing	Window Material	Relative Intensity	Intensity Control	Connector
LED	R	LB	145	X	W	6-	X	Q
	R = Red W = White B = Blue G = Green I = IR		145 mm (5.7 in) 290 mm (11.4 in) 435 mm (17.7 in) 580 mm (22.8 in) 870 mm (34.2 in) 1160 mm (45.6 in)	X = IP50	W = White Plastic		X = Not Adjustable	Q = QD

## Wiring

Wire Purpose	Cable Wire Color <sup>1</sup>	Wire Connections	PresencePLUS <sup>®</sup> Pro Controller Terminal Block
Power Wires	Brown (1)	+24 V DC	Pin 01 <sup>2</sup>
	Blue (3)	common	Pin 02
Strobe Polarity Control	Gray (5)	<b>Active Low:</b> open <b>Active High:</b> connect to common (Blue wire)	Pin 02 or open
Strobe Voltage Wires	White (2)	<b>Active Low:</b> 0 V DC = ON      +5 V DC to 24 V DC = OFF <b>Active High:</b> 0 V DC = OFF      +5 V DC to 24 V DC = ON	Pin 04
	Black (4)	Strobe common	Pin 02
<p>Figure 1. Pinouts for Mating Cable</p>			



**Note:** Connection to earth ground recommended.

<sup>1</sup> For Banner-supplied wire.

<sup>2</sup> When connecting the light to a PresencePLUS<sup>®</sup> Pro controller terminal block, the controller supply must be 24 V DC ± 10%.



## Specifications

### Light Source

LED Color	Wavelength	Optional Filter <sup>3</sup>
Infrared	850 nm	FLTI
Red	620 nm to 630 nm	FLR
Blue	465 nm to 485 nm	FLTB
Green	520 nm to 535 nm	FLTG
White	5000 K to 8300 K	FLTB or FLTG

### Supply Voltage and Current

145 mm Models: 24 V DC ± 10% at 500 mA max.  
 290 mm Models: 24 V DC ± 10% at 1 A max.  
 435 mm Models: 24 V DC ± 10% at 1.5 A max.  
 580 mm Models: 24 V DC ± 10% at 2 A max.  
 870 mm Models: 24 V DC ± 10% at 3 A max.  
 1160 mm Models: 24 V DC ± 10% at 4 A max.  
 Strobe Voltage: 5 V DC to 24 V DC  
 Built-in constant current regulator for LEDs  
 Use only with a suitable Class 2 power supply (UL) or SELV power supply (CE)  
 See the electrical characteristics on the product label.

### Connections

Integral 5-pin M12/Euro-style male quick disconnect, accessory cordset required

### Construction

**Housing:** black anodized aluminum

**Window:** acrylic

### Useful Life

When operated within specifications, output will decrease less than 30% after 50,000 hours

### Operating Conditions

**Temperature:** 0 °C to +50 °C (+32 °F to +122 °F)

### Mounting

4 M5 T-nuts included, brackets available

### Environmental Rating

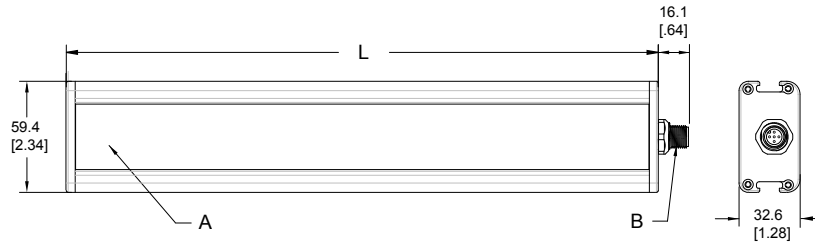
IEC IP50

### Certification



## Dimensions

All measurements are listed in millimeters [inches], unless noted otherwise.



A = Window

B = 5-pin Euro-style male connector

Array Length	Length "L"	Lighted Area "A"
145 mm	171 mm (6.73 in)	161 x 35 mm (6.33 in x 1.38 in)
290 mm	316.5 mm (12.46 in)	307 x 35 mm (12.09 in x 1.38 in)
435 mm	462 mm (18.19 in)	452 x 35 mm (17.80 in x 1.38 in)
580 mm	607.5 mm (23.92 in)	598 x 35 mm (23.54 in x 1.38 in)
870 mm	898.5 mm (35.37 in)	889 x 35 mm (35.00 in x 1.38 in)
1160 mm	1189.5 mm (46.83 in)	1180 x 35 mm (46.46 in x 1.38 in)

## Accessories

### Cordsets

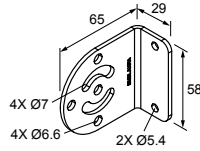
5-Pin Threaded M12/Euro-Style Cordsets—Single Ended				
Model	Length	Style	Dimensions	Pinout (Female)
MQDC20-506	1.83 m (6 ft)	Straight		<p>1 = Brown                      2 = White                      3 = Blue                      4 = Black                      5 = Gray</p>
MQDC20-515	4.57 m (15 ft)			
MQDC20-530	9.14 m (30 ft)			

<sup>3</sup> Recommended Ambient Light filter kit for use with PresencePLUS® Cameras.

## Brackets

### SMBLAXRA

- Right-angle stainless steel bracket
- May be used individually or in combination with **SMBLAXU** to provide swivel adjustment

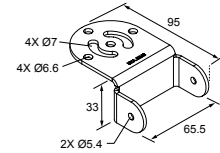


#### Includes:

- 2 Brackets
- 4 M5 screws (socket drive, button head)
- 4 M5 T-nuts

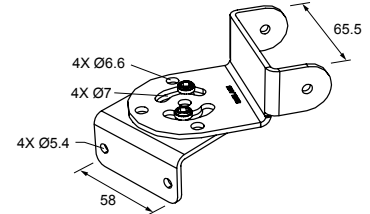
### SMBLAXU

- U-shaped stainless steel bracket
- For use with **SMBLAXRA** to provide swivel adjustment



#### Includes:

- 2 Brackets
- 4 M5 screws (socket-drive, button head)
- 4 M5 T-nuts
- Four each stainless steel ¼-20 screws (socket drive, button head), lock nuts, washers



Combination View

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