# Features

*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:** Read the following instructions before operating the light. Please download the complete High-Power Unsealed Linear Backlights technical documentation, available in multiple languages, from www.bannerengineering.com for details on the proper use, applications, Warnings, and installation instructions of this device.

**IMPORTANT:** Lea el siguiente instructivo antes de operar el luminario. Por favor descargue desde 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.

**IMPORTANT:** Lisez les instructions suivantes avant d'utiliser le luminaire. Veuillez télécharger la documentation technique complète des High-Power Unsealed Linear Backlights sur notre site www.bannerengineering.com pour les détails sur leur utilisation correcte, les applications, les notes de sécurité et les instructions de montage.

# Models

| 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<br>W = White<br>B = Blue<br>G = Green<br>I = IR | | 145 mm (5.7 in)<br>290 mm (11.4 in)<br>435 mm (17.7 in)<br>580 mm (22.8 in)<br>870 mm (34.2 in)<br>1160 mm (45.6 in) | X = IP50 | W = White Plastic | | X = Not Adjustable | Q = Integral 5-pin M12 male quick-disconnect connector |

Not all models are available. For a list of discontinued models, see Discontinued Models.

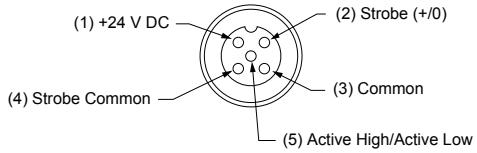
Original Instructions
15-Jun-26

© Banner Engineering Corp. All rights reserved.
www.bannerengineering.com

166314
p/n: 166314 Rev. H

ПРОМЭЛЕКТРОНИКА/ sales@prom-elec.com

# Wiring

| Wire Purpose | Cable Wire Color[1] | Wire Connections | | *Presence*PLUS® Pro Controller Terminal Block |
|---|---|---|---|---|
| Power Wires | Brown (1) | +24 V DC | | Pin 01[2] |
| | Blue (3) | common | | Pin 02 |
| Strobe Polarity Control | Gray (5) | **Active Low:** open | | Pin 02 or open |
| | | **Active High:** connect to common (Blue wire) | | |
| Strobe Voltage Wires | White (2) | **Active Low:** 0 V DC = ON | +5 V DC to 24 V DC = OFF | Pin 04 |
| | | **Active High:** 0 V DC = OFF | +5 V DC to 24 V DC = ON | |
| | Black (4) | Strobe common | | Pin 02 |
| | | *Pinouts for Mating Cable*   | | |

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

# Specifications

### Light Source

| LED Color | Wavelength | Optional Filter[3] |
|---|---|---|
| Infrared | 850 nm | FLTI |
| Red | 620 nm to 630 nm | FTLR |
| 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 male quick-disconnect connector, accessory cordset required

[3] Recommended Ambient Light filter kit for use with *Presence*PLUS® Cameras.

### 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

IP50

### Certification

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

[1] For Banner-supplied wire.
[2] When connecting the light to a *Presence*PLUS® Pro controller terminal block, the controller supply must be 24 V DC ± 10%.


© Banner Engineering Corp. All rights reserved.
www.bannerengineering.com

**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 | 2.0 | 30 | 0.5 |

# Dimensions

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

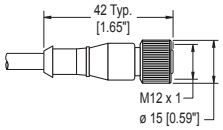
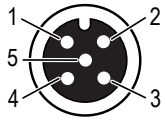



A= Window
B = 5-pin M12 male connector

| 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 Single-Ended M12 Female Cordsets | | | | |
|---|---|---|---|---|
| **Model** | **Length** | **Style** | **Dimensions** | **Pinout (Female)** |
| **MQDC20-506** | 2 m (6.56 ft) | Straight |  |  |
| **MQDC20-515** | 5 m (16.4 ft) | | | |
| **MQDC20-530** | 9 m (29.5 ft) | | | |





1 = Brown
2 = White
3 = Blue
4 = Black
5 = Gray


© Banner Engineering Corp. All rights reserved.
www.bannerengineering.com

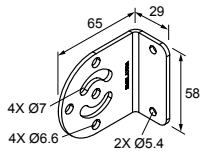
## Brackets

**SMBLAXRA**

- Right-angle stainless steel bracket
- May be used individually or in combination with **SMBLAXU** to provide swivel adjustment
- CAD Files: DXF, PDF, IGS, STP

Includes:

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

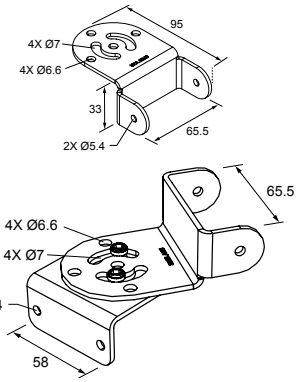



**SMBLAXU**

- U-shaped stainless steel bracket
- For use with **SMBLAXRA** to provide swivel adjustment
- CAD Files: DXF, PDF, IGS, STP

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**

# Product Support and Maintenance

## Discontinued Models

The following models are no longer available for order but are still covered by the information in this document.

- LEDBLB580XW6-XQ
- LEDBLB870XW6-XQ
- LEDGLB145XW6-XQ
- LEDGLB290XW6-XQ
- LEDGLB435XW6-XQ
- LEDGLB580XW6-XQ
- LEDGLB870XW6-XQ
- LEDGLB1160XW6-XQ
- LEDILB435XW6-XQ
- LEDILB870XW6-XQ
- LEDILB580XW6-XQ
- LEDILB1160XW6-XQ

## Banner Engineering Corp Limited Warranty

Banner Engineering Corp. warrants its products to be free from defects in material and workmanship for one year following the date of shipment. Banner Engineering Corp. will repair or replace, free of charge, any product of its manufacture which, at the time it is returned to the factory, is found to have been defective during the warranty period. This warranty does not cover damage or liability for misuse, abuse, or the improper application or installation of the Banner product.

**THIS LIMITED WARRANTY IS EXCLUSIVE AND IN LIEU OF ALL OTHER WARRANTIES WHETHER EXPRESS OR IMPLIED (INCLUDING, WITHOUT LIMITATION, ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE), AND WHETHER ARISING UNDER COURSE OF PERFORMANCE, COURSE OF DEALING OR TRADE USAGE.**

This Warranty is exclusive and limited to repair or, at the discretion of Banner Engineering Corp., replacement. **IN NO EVENT SHALL BANNER ENGINEERING CORP. BE LIABLE TO BUYER OR ANY OTHER PERSON OR ENTITY FOR ANY EXTRA COSTS, EXPENSES, LOSSES, LOSS OF PROFITS, OR ANY INCIDENTAL, CONSEQUENTIAL OR SPECIAL DAMAGES RESULTING FROM ANY PRODUCT DEFECT OR FROM THE USE OR INABILITY TO USE THE PRODUCT, WHETHER ARISING IN CONTRACT OR WARRANTY, STATUTE, TORT, STRICT LIABILITY, NEGLIGENCE, OR OTHERWISE.**

Banner Engineering Corp. reserves the right to change, modify or improve the design of the product without assuming any obligations or liabilities relating to any product previously manufactured by Banner Engineering Corp. Any misuse, abuse, or improper application or installation of this product or use of the product for personal protection applications when the product is identified as not intended for such purposes will void the product warranty. Any modifications to this product without prior express approval by Banner Engineering Corp will void the product warranties. All specifications published in this document are subject to change; Banner reserves the right to modify product specifications or update documentation at any time. Specifications and product information in English supersede that which is provided in any other language. For the most recent version of any documentation, refer to: www.bannerengineering.com.

For patent information, see www.bannerengineering.com/patents.

## Mexican Importer

Banner Engineering de Mèxico, S. de R.L. de C.V. | David Alfaro Siqueiros 103 Piso 2 Valle oriente | San Pedro Garza Garcia Nuevo Leòn, C. P. 66269

81 8363.2714


© Banner Engineering Corp. All rights reserved.
www.bannerengineering.com