# Features

*General-purpose LED Work Lighting*

To view or download the latest technical information about this product, including specifications, dimensions, accessories, and wiring, go to www.bannerengineering.com.



- Three lens options, depending on model, to vary spot size
- Illuminates a large area with an even pattern of light and no shadows
- 12 V DC to 30 V DC operation
- Cabled and quick-disconnect connector models available
- 50 mm diameter with flat profile and 30 mm mounting base
- Rugged sealed housing rated to IP67

**WARNING:**

- **Do not use this device for personnel protection**
- Using this device for personnel protection could result in serious injury or death.
- This device does not include the self-checking redundant circuitry necessary to allow its use in personnel safety applications. A device failure or malfunction can cause either an energized (on) or de-energized (off) output condition.

# Models

| Model | LED Color | Lumens | Lux | | Lens Angle | Connection[1] |
|---|---|---|---|---|---|---|
| | | | 0.5 m | 1 m | | |
| **WL50SWL5Q** | White, 5000-8300 K | 295 | 13780 | 3445 | ±5° (smaller, more focused spot; see graph) | Integral 5-pin M12 male quick-disconnect connector (use with a 4-wire mating cordset; only 2 wires used for connection) |
| **WL50SRL5Q** | Red, 620 nm to 630 nm | 110 | 8000 | 2000 | | |
| **WL50SGL5Q** | Green, 520 nm to 535 nm | 210 | 13000 | 3250 | | |
| **WL50SWL11Q** | White, 5000-8300 K | 285 | 5460 | 1365 | ±11° (larger spot; see graph) | |
| **WL50SRL11Q** | Red, 620 nm to 630 nm | 105 | 2500 | 625 | | |
| **WL50SGL11Q** | Green, 520 nm to 535 nm | 200 | 3900 | 975 | | |
| **WL50SWL20Q** | White, 5000K to 8300 K | 270 | 2000 | 500 | ±20° (largest spot; see graph) | |
| **WL50SRL20Q** | Red, 620 nm to 630 nm | 100 | 1040 | 260 | | |
| **WL50SGL20Q** | Green, 520 nm to 535 nm | 190 | 1700 | 425 | | |

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

- WL50SRL5
- WL50SGL5
- WL50SRL11
- WL50SGL11

[1] Integral quick-disconnect connector models are listed. For the integral 2 m (6.5 ft) PVC cable, omit suffix **Q** from model number (example, **WL50SWL5**). A model with a quick-disconnect connector requires a mating cordset (see "Accessories" on page 4).

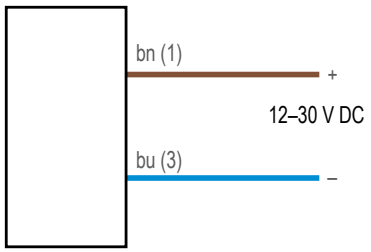
Original Instructions
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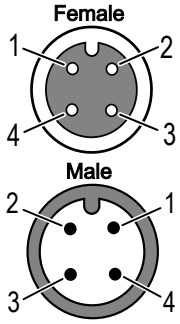
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158250
p/n: 158250 Rev. F

ПРОМЭЛЕКТРОНИКА/ sales@prom-elec.com

# Wiring




**Pinout Key:**

1 = Brown
2 = Not used
3 = Blue
4 = Not used

# Specifications

**Supply Voltage and Current**

Operating voltage: 12 V DC to 30 V DC

Current draw: 400 mA maximum

**Supply Protection Circuitry**

Protected against reverse polarity and transient voltages

**Light Source**

Three high-intensity LEDs; see models table for color temperature or wave lengths

**Useful Life**

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

**Construction**

Black anodized aluminum housing; polycarbonate window; nickel-plated quick-disconnect connector or PVC-jacketed cable; black zinc-plated steel mounting nut

**Mounting:**

30 × 1.5 mm thread base mount

**Connections**

Integral 5-pin M12 male quick-disconnect connector or2 m (6.5 ft) integral PVC-jacketed cable, depending on the model; 4-pin connecting cordset required for quick-disconnect connector models, only 2 wires are used

**Environmental Rating**

IP67, IP69K per ISO 20653

**NOTE:** Do not spray the cable with a high-pressure sprayer or cable damage will result.

**Operating Conditions**

–20 °C to +50 °C (–4 °F to +122 °F)

95% maximum relative humidity (non-condensing)

**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.

**Storage Temperature**

–40 °C to +70 °C (–40 °F to +158 °F)

**Certifications**

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

**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.

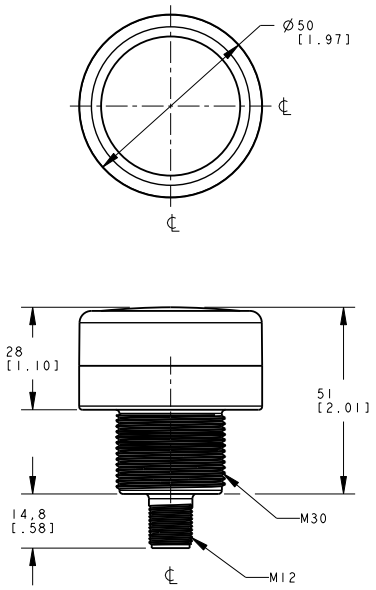
For additional product support, go to www.bannerengineering.com.

| 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 |


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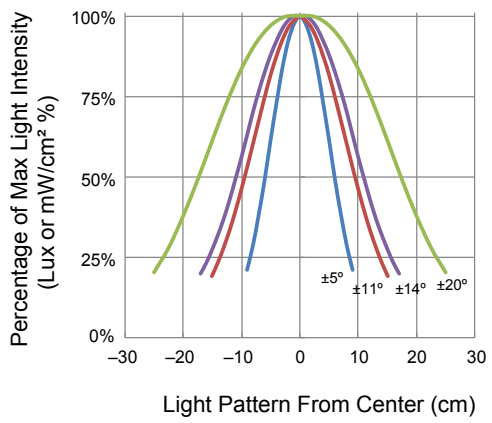
## Dimensions

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

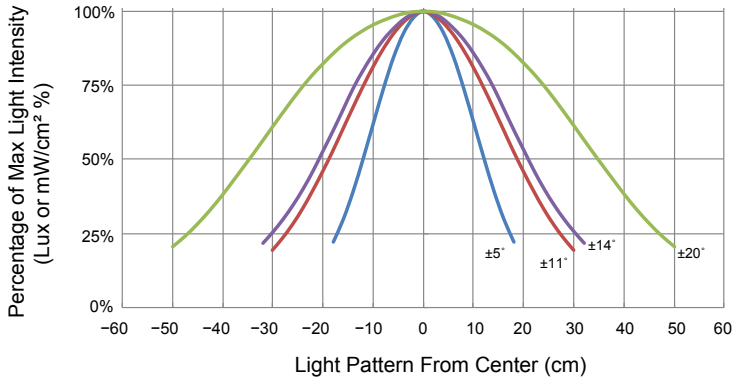



## Beam Patterns

**Percentage of Maximum Light Intensity Per Lens Type at 0.5 Meter (Typical)**




**Percentage of Maximum Light Intensity Per Lens Type at 1 Meter (Typical)**

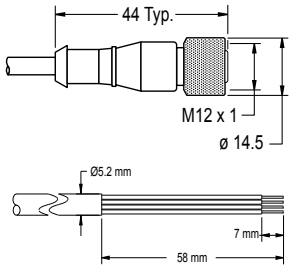
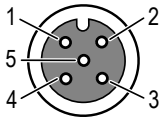
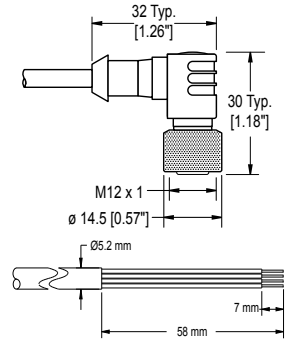
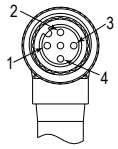




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# Accessories

## Cordsets

| 4-Pin Single-Ended M12 Female Cordsets | | | | | |
|---|---|---|---|---|---|
| **Model** | **Length** | **Style** | **Dimensions** | **Pinout (Female)** | |
| **MQDC-406** | 2 m (6.56 ft) | Straight |  |  | 1 = Brown<br>2 = White<br>3 = Blue<br>4 = Black<br>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) | | | | |

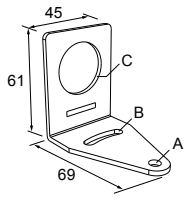
## Mounting Brackets

All measurements are in mm.

**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
- CAD Files: DXF, PDF, IGS, STP

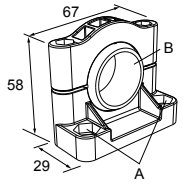
**Hole center spacing:** A to B=40
**Hole size:** A=ø 6.3, B= 27.1 × 6.3, C=ø 30.5




**SMB30SC**

- Swivel bracket with 30 mm mounting hole for sensor
- Black reinforced thermoplastic polyester
- Stainless steel mounting and swivel locking hardware included
- CAD Files: DXF, PDF, IGS, STP

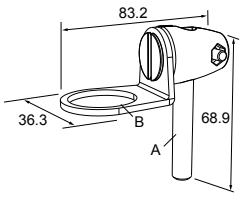
**Hole center spacing:** A=ø 50.8
**Hole size:** A=ø 7.0, B=ø 30.0




**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
- CAD Files: DXF, PDF, IGS, STP

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



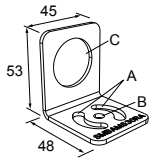


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**SMBAMS30RA**

- Right-angle SMBAMS series bracket
- 30 mm hole for mounting sensors
- Articulation slots for 90°+ rotation
- 12-gauge (2.6 mm) cold-rolled steel
- CAD Files: DXF, PDF, IGS, STP

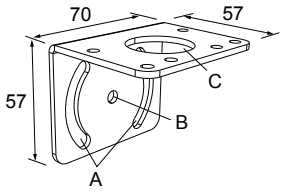
**Hole center spacing:** A=26.0, A to B=13.0
**Hole size:** A=26.8 × 7.0, B=ø 6.5, C=ø 31.0




**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
- CAD Files: DXF, PDF, IGS, STP

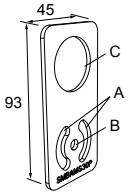
**Hole center spacing:** A=51, A to B=25.4
**Hole size:** A=42.6 × 7, B=ø 6.4, C=ø 30.1




**SMBAMS30P**

- Flat SMBAMS series bracket
- 30 mm hole for mounting sensors
- Articulation slots for 90°+ rotation
- 12-gauge 300 series stainless steel
- CAD Files: DXF, PDF, IGS, STP

**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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