## EZ-LIGHT® QPMA Series

### Datasheet

**DC-Operated LED Indicators with 150mm PUR cable QD**

#### Models

<table>
<thead>
<tr>
<th>Models</th>
<th>Construction</th>
<th>Connector</th>
<th>LED Function</th>
<th>Inputs</th>
</tr>
</thead>
<tbody>
<tr>
<td>M18GXRPQPMA</td>
<td>Nickel-plated brass housing, M18x1 thread; thermoplastic diffuser. Fully encapsulated.</td>
<td>IP67</td>
<td>3-color¹</td>
<td>PNP (Sourcing)</td>
</tr>
<tr>
<td>M18GXRNQPMA</td>
<td></td>
<td></td>
<td>NPN (Sinking)</td>
<td></td>
</tr>
<tr>
<td>M18RGX7QPQPMA</td>
<td></td>
<td></td>
<td>2-color²</td>
<td>PNP (Sourcing)</td>
</tr>
<tr>
<td>T18GXRPQPMA</td>
<td>Thermoplastic polyester housing, thermoplastic diffuser. Fully encapsulated.</td>
<td>IP67</td>
<td>3-color¹</td>
<td>PNP (Sourcing)</td>
</tr>
<tr>
<td>T18GXRNQPMA</td>
<td></td>
<td></td>
<td>NPN (Sinking)</td>
<td></td>
</tr>
<tr>
<td>T18RGX7QPQPMA</td>
<td></td>
<td></td>
<td>2-color²</td>
<td>PNP (Sourcing)</td>
</tr>
<tr>
<td>T30GXRPQPMA</td>
<td>Thermoplastic polyester housing, thermoplastic diffuser. Fully encapsulated.</td>
<td>IP67</td>
<td>3-color¹</td>
<td>PNP (Sourcing)</td>
</tr>
<tr>
<td>T30GXRNQPMA</td>
<td></td>
<td></td>
<td>NPN (Sinking)</td>
<td></td>
</tr>
<tr>
<td>T30RGX7QPQPMA</td>
<td></td>
<td></td>
<td>2-color²</td>
<td>PNP (Sourcing)</td>
</tr>
<tr>
<td>K30LGXRPQPMA</td>
<td>22 mm threaded polycarbonate base, translucent polycarbonate dome. Fully encapsulated.</td>
<td>IP67, IP69K</td>
<td>3-color¹</td>
<td>PNP (Sourcing)</td>
</tr>
<tr>
<td>K30LGXRNQPMA</td>
<td></td>
<td></td>
<td>NPN (Sinking)</td>
<td></td>
</tr>
<tr>
<td>K30LRGX7QPQPMA</td>
<td></td>
<td></td>
<td>2-color²</td>
<td>PNP (Sourcing)</td>
</tr>
<tr>
<td>K50LRGX7QPQPMA</td>
<td>30 mm threaded polycarbonate base, translucent polycarbonate dome. Fully encapsulated.</td>
<td>IP67, IP69K</td>
<td>2-color²</td>
<td>PNP (Sourcing)</td>
</tr>
<tr>
<td>K50FLRGX7QPQPMA</td>
<td>Polycarbonate base, translucent polycarbonate dome. Fully encapsulated.</td>
<td>IP67, IP69K</td>
<td>2-color²</td>
<td>PNP (Sourcing)</td>
</tr>
<tr>
<td>K80LRGX7QPQPMA</td>
<td>ABS and polycarbonate base, translucent polycarbonate dome. Electronics fully encapsulated.</td>
<td>IP67</td>
<td>2-color²</td>
<td>PNP (Sourcing)</td>
</tr>
</tbody>
</table>

¹ Use with PNP or NPN I/O blocks to produce Green, Red, or Yellow indicator functions (see Wiring Diagrams on page 2).
² Use with discrete-output sensors to provide remote indication. Red is ON when the sensor is powered, Green is ON when the output is energized.
³ Mating cable required. For use with mating Euro-style QD cables or with Euro splitter, model CSB-M1240M1240, or equivalent.
⁴ Contact Banner Engineering for other colors and color combinations, including: blue, white, orange.
Wiring Diagrams

PNP (.GXRP..) 3-Color Models

NPN (.GXRN..) 3-Color Models

2-Color (.RGX7P..) Models

NOTE: When "G" is ON, "R" is OFF

Pinout

Key

1 = Brown
2 = White
3 = Blue
4 = Black
X = Banner Sensor
C = Control Box
G = Green
R = Red
Y = Yellow

Specifications

Supply Voltage and Current
K30L, T18, and M18 Models:
- 2-color models: 10 V dc to 30 V dc at 30 mA max.
- 3-color models: 10 V dc to 30 V dc at 25 mA max. per color
T30 models:
- 2-color models: 10 V dc to 30 V dc at 50 mA max.
- 3-color models: 10 V dc to 30 V dc at 40 mA max. per color
K50L, K50FL, and K80L Models:
- 2-color models: 18 V dc to 30 V dc at 50 mA max.

Indicators
Entire translucent diffuser or dome provides indication. See notes 1 and 2 under Models on page 1. For other colors/combinations, contact Banner Engineering for availability.

Construction
See Models on page 1

Connections
150 mm (6 in) PUR cable with 4-pin M12/Euro-style quick disconnect

Environmental Rating
Rated IEC IP67. K80L has encapsulated electronics only; other models fully encapsulated.
Cabled models also meet IP69K if the cable and cable entrance are protected from high-pressure spray.

Operating Conditions
-40 °C to +50 °C (–40 °F to +122 °F)

Dimensions

M18 Models

T18 Models

T30 Models

K30L Models

K50L Models
Accessories

Cordsets

### 4-Pin Threaded M12/Euro-Style Cordsets—Single Ended

<table>
<thead>
<tr>
<th>Model</th>
<th>Length</th>
<th>Style</th>
<th>Dimensions</th>
<th>Pinout (Female)</th>
</tr>
</thead>
<tbody>
<tr>
<td>MQDC-406</td>
<td>1.83 m (6 ft)</td>
<td>Straight</td>
<td></td>
<td></td>
</tr>
<tr>
<td>MQDC-415</td>
<td>4.57 m (15 ft)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MQDC-430</td>
<td>9.14 m (30 ft)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MQDC-450</td>
<td>15.2 m (50 ft)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MQDC-406RA</td>
<td>1.83 m (6 ft)</td>
<td>Right-Angle</td>
<td></td>
<td></td>
</tr>
<tr>
<td>MQDC-415RA</td>
<td>4.57 m (15 ft)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MQDC-430RA</td>
<td>9.14 m (30 ft)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MQDC-450RA</td>
<td>15.2 m (50 ft)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
4-Pin Threaded M12/Euro-Style Cordsets—Double Ended

<table>
<thead>
<tr>
<th>Model</th>
<th>Length</th>
<th>Style</th>
<th>Dimensions</th>
<th>Pinout</th>
</tr>
</thead>
<tbody>
<tr>
<td>MQDEC-401SS</td>
<td>0.31 m (1 ft)</td>
<td>Male Straight/Female Straight</td>
<td>Ø14.5 [0.57&quot;] M12 x 1</td>
<td>1 = Brown, 2 = White, 3 = Blue, 4 = Black</td>
</tr>
<tr>
<td>MQDEC-403SS</td>
<td>0.91 m (3 ft)</td>
<td>Male Right-Angle/Female Straight</td>
<td>Ø14.5 [0.57&quot;] M12 x 1</td>
<td>1 = Brown, 2 = White, 3 = Blue, 4 = Black</td>
</tr>
<tr>
<td>MQDEC-406SS</td>
<td>1.83 m (6 ft)</td>
<td>Male Straight/Female Straight</td>
<td>Ø14.5 [0.57&quot;] M12 x 1</td>
<td>1 = Brown, 2 = White, 3 = Blue, 4 = Black</td>
</tr>
<tr>
<td>MQDEC-412SS</td>
<td>3.66 m (12 ft)</td>
<td>Male Straight/Female Straight</td>
<td>Ø14.5 [0.57&quot;] M12 x 1</td>
<td>1 = Brown, 2 = White, 3 = Blue, 4 = Black</td>
</tr>
<tr>
<td>MQDEC-420SS</td>
<td>6.10 m (20 ft)</td>
<td>Male Straight/Female Straight</td>
<td>Ø14.5 [0.57&quot;] M12 x 1</td>
<td>1 = Brown, 2 = White, 3 = Blue, 4 = Black</td>
</tr>
<tr>
<td>MQDEC-430SS</td>
<td>9.14 m (30 ft)</td>
<td>Male Straight/Female Straight</td>
<td>Ø14.5 [0.57&quot;] M12 x 1</td>
<td>1 = Brown, 2 = White, 3 = Blue, 4 = Black</td>
</tr>
<tr>
<td>MQDEC-450SS</td>
<td>15.2 m (50 ft)</td>
<td>Male Straight/Female Straight</td>
<td>Ø14.5 [0.57&quot;] M12 x 1</td>
<td>1 = Brown, 2 = White, 3 = Blue, 4 = Black</td>
</tr>
</tbody>
</table>

4-Pin Threaded M12/Euro-Style Splitter Cordsets—Flat Junction

<table>
<thead>
<tr>
<th>Model</th>
<th>Branches (Female)</th>
<th>Trunk (Male)</th>
<th>Pinout</th>
</tr>
</thead>
<tbody>
<tr>
<td>CSB-M1240M1240</td>
<td>No branch</td>
<td>No trunk</td>
<td>Female</td>
</tr>
<tr>
<td>CSB-M1240M1241</td>
<td>No trunk</td>
<td>2 x 0.30 m (1 ft)</td>
<td>Male</td>
</tr>
<tr>
<td>CSB-M1241M1241</td>
<td>0.30 m (1 ft)</td>
<td>No trunk</td>
<td>Female</td>
</tr>
<tr>
<td>CSB-M1248M1241</td>
<td>2.50 m (8 ft)</td>
<td>No trunk</td>
<td>Female</td>
</tr>
<tr>
<td>CSB-M12415M1241</td>
<td>4.57 m (15 ft)</td>
<td>No trunk</td>
<td>Female</td>
</tr>
<tr>
<td>CSB-M12425M1241</td>
<td>7.60 m (25 ft)</td>
<td>No trunk</td>
<td>Female</td>
</tr>
<tr>
<td>CSB-UNT425M1241</td>
<td>7.60 m (25 ft) Unterminated</td>
<td>No trunk</td>
<td>Female</td>
</tr>
</tbody>
</table>

Mounting Brackets
For more information about these and other available brackets, visit [www.bannerengineering.com](http://www.bannerengineering.com).

K50FL models include a 48 mm (1.9 in) circular hook-and-loop mounting kit for easy mounting with no additional hardware required.
For use with M18 and T18 models or base-mount T30 models

**SMB18A**
- Right-angle mounting bracket with a curved slot for versatile orientation
- 12-ga. stainless steel
- 18 mm sensor mounting hole
- Clearance for M4 (#8) hardware

Hole center spacing: A to B = 24.2
Hole size: A = ø 4.6, B = 17.0 x 4.6, C = ø 18.5

**SMB312PD**
- Right-angle mounting bracket with a curved slot for versatile orientation
- 12-ga. stainless steel
- 18 mm sensor mounting hole
- Clearance for M4 (#8) hardware

Hole center spacing: A to B = 24.2
Hole size: A = ø 4.6, B = 17 x 4.6, C = ø 18.5

---

**Note:** Not for use with plastic fiber optic sensors

**SMB181SSF**
- Swivel with set screws for mounting sensors by the cable hub
- Black reinforced thermoplastic polyester
- Stainless steel swivel locking hardware and hex wrench included

Hole center spacing: A = 36.0
Hole size: A = ø 5.0, B = ø 15.0

**SMBAMS18RA**
- Right-angle SMBAMS series bracket with 18 mm hole
- Articulation slots for 90+° rotation
- 12-ga. (2.6 mm) cold-rolled steel

Hole center spacing: A = 26.0, A to B = 13.0
Hole size: A = 26.8 x 7.0, B = ø 6.5, C = ø 19.0

**SMB18Q**
- Right-angle flanged bracket
- 18 mm sensor mounting hole
- 12-ga. stainless steel

Hole center spacing: A to B = 24.2
Hole size: A = ø 4.6, B = 17.0 x 4.6, C = ø 19.0

**SMBAMS18P**
- Flat SMBAMS series bracket with 18 mm hole
- Articulation slots for 90+° rotation
- 12-ga. (2.6 mm) cold-rolled steel

Hole center spacing: A = 26.0, A to B = 13.0
Hole size: A = 26.8 x 7.0, B = ø 6.5, C = ø 19.0

**SMB18SF**
- 18 mm swivel bracket with M18 × 1 internal thread
- Black thermoplastic polyester
- Stainless steel swivel locking hardware included

Hole center spacing: A = 36.0
Hole size: A = ø 5.3, B = ø 18.0

---
SMB22A
- Right-angle bracket with curved slot for versatile orientation
- 12-ga. stainless steel
- Mounting hole for 22 mm sensor

Hole center spacing: A to B = 26.0
Hole size: A = ø 4.8, B = 4.8 x 16.9, C = 22.2

SMB30A
- Right-angle bracket with curved slot for versatile orientation
- Clearance for M6 (¼ in) hardware
- Mounting hole for 30 mm sensor
- 12-ga. stainless steel

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

SMBAMS30RA
- Right-angle SMBAMS series bracket
- 30 mm hole for mounting sensors
- Articulation slots for 90°+ rotation
- 12-ga. (2.6 mm) cold-rolled steel

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

SMBAMS30P
- Flat SMBAMS series bracket
- 30 mm hole for mounting sensors
- Articulation slots for 90°+ rotation
- 12-ga. 300 series stainless steel

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

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 = ø 50.8
Hole size: A = ø 7.0, B = ø 30.0

SMBAMS30SC
- 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 = ø 50.8
Hole size: A = ø 7.0, B = ø 30.0

SMB30MM
- 12-ga. stainless steel bracket with curved mounting slots for versatile orientation
- Clearance for M6 (¼ in) hardware
- Mounting hole for 30 mm sensor

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

SMB3018SC
- 18 mm swivel side or barrel-mount bracket
- Black reinforced thermoplastic polyester
- Stainless steel swivel locking hardware included

Hole center spacing: A = 50.8
Hole size: A = ø 7.0, B = ø 18.0
DIN-mount bracket for K80L models

- Black reinforced thermoplastic
- Bracket for mounting on a 35 mm DIN rail

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.