EZ-LIGHT® 2-Color Indicators for Use with Sensors Datasheet

Technical Information

DC-operated LED indicators

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

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

Models		Inputs
	**M18GYX7PQ**	PNP
	M18GYX7NQ	NPN
	• Nickel-plated brass housing, thermoplastic diffuser • Fully encapsulated IP67	
	**K30LGYX7PQ**	PNP
	K30LGYX7NQ	NPN
	• 22 mm threaded polycarbonate base, translucent polycarbonate dome • Fully encapsulated IP67, IP69K per DIN 40050-9	
	**K50LGYX7PQ**	PNP
	K50LGYX7NQ	NPN
	• 30 mm threaded polycarbonate base, translucent polycarbonate dome • Fully encapsulated IP67, IP69K per DIN 40050-9	
	**K50FLGYX7PQ**	PNP
	K50FLGYX7NQ	NPN
	• Polycarbonate base, translucent polycarbonate dome • Fully encapsulated IP67, IP69K per DIN 40050-9	
	**K80LGYX7PQ**	PNP
	K80LGYX7NQ	NPN
	• ABS and polycarbonate base, translucent polycarbonate dome • Electronics fully encapsulated IP67	

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

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ПРОМЭЛЕКТРОНИКА/ sales@prom-elec.com

Models		Inputs
	**T18GYX7PQ**	PNP
	T18GYX7NQ	NPN
	• Thermoplastic polyester housing, thermoplastic diffuser • Fully encapsulated IP67	
	**T30GYX7PQ**	PNP
	T30GYX7NQ	NPN
	• Thermoplastic polyester housing, thermoplastic diffuser • Fully encapsulated IP67	
	**T8LGYX7PQP**	PNP
	T8LGYX7NQP	NPN
	• Polycarbonate/ABS alloy housing, thermoplastic diffuser • IP67	

Models with a quick disconnect require a mating cordset.See "Cordsets" on page 4.

T8L Models: Standard 150 mm (6 in) PVC-jacketed 4-pin M12 quick-disconnect connector models are listed. To order the integral 4-wire cabled model, omit suffix **QP** (for example, **T8LGYX7P**).

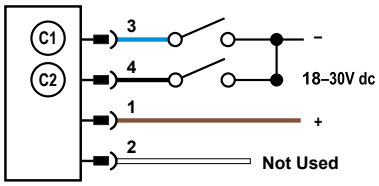
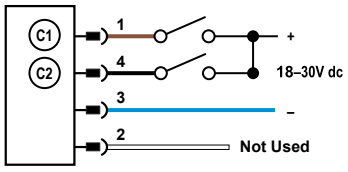
K80L Models: Standard integral 4-pin M12 quick-disconnect connector models are listed. To order the terminal-wired model, omit suffix **Q** (for example, **K80LGYX7P**).

T30 Models: Standard integral 4-pin M12 quick-disconnect connector models are listed. To order the 150 mm (6 in) PUR-jacketed cable model with 4-pin M12 quick-disconnect connector, replace the suffix **Q** with **QPMA** (for example, **T30GYX7PQPMA**).

Other Models: Standard integral 4-pin M12 quick-disconnect connector models are listed. To order the 2 m (6.5 ft) integral 4-wire cabled model, omit suffix **Q** (example, **M18GYX7P**). To order the 150 mm (6 in) PVC-jacketed cable with 4-pin M12 quick-disconnect connector, replace suffix **Q** with **QP** (for example, **M18GYX7PQP**).

Contact the factory for other colors/color combinations, including: blue, white, and orange.

Wiring

NPN	PNP	Key	Legend
 Color 2 overrides Color 1	 Color 2 overrides Color 1	1 = Brown 2 = White 3 = Blue 4 = Black	C1 = Color 1 (Green) C2 = Color 2 (Yellow)

Specifications

Supply Voltage and Current

T8L models: 10 V DC to 30 V DC at 20 mA maximum

T18, M18, and K30L models: 10 V DC to 30 V DC at 25 mA maximum per LED color

T30 models: 10 V DC to 30 V DC at 40 mA maximum per LED color

K50L, K50FL, and K80L models: 18 V DC to 30 V DC at 40 mA maximum per LED color

Indicators

Entire translucent diffuser or dome provides indication. Green and yellow, when connected to discrete output of 3-wire or 4-wire sensors. For other colors, contact factory for availability.

Input Response Time

Indicator ON/OFF: 1 ms max.

Operating Conditions

Temperature: –40 °C to +50 °C (–40 °F to +122 °F)

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Environmental Rating

Rated IP67. T8L not encapsulated; K80L has encapsulated electronics only; other models fully encapsulated.

K30L, K50L, and K50FL QD models meet IP69K per DIN 40050-9.

Cabled models also meet IP69K if the cable and cable entrance are protected from high-pressure spray.

Connections

T8L models: 150 mm (6 in) PVC-jacketed cable with a 4-pin M12 male quick-disconnect connector (QP) or 2 m (6.5 ft) unterminated 4-wire integral cable, depending on model

K30L models: Integral 4-pin M12 male quick-disconnect connector (Q), 150 mm (6 in) PVC-jacketed cable with a 4-pin M12 male quick-disconnect connector (QP), 2 m (6.5 ft) unterminated 4-wire integral cable, or 5 color-coded screw terminal for up to 16 AWG wire, depending on model. Screw terminal max torque: 0.11 N·m (1.0 lbf·in).

K80L models: Integral 4-pin M12 male quick-disconnect connector (Q) standard; terminal-wired models available for use with bulk cable; compression fitting optional. Contact Factory for cable information.

Other models: Integral 4-pin M12 male quick-disconnect connector (Q), 150 mm (6 in) PVC-jacketed cable with a 4-pin M12 male quick-disconnect connector (QP), or 2 m (6.5 ft) unterminated 4-wire integral cable, depending on model

Construction

See Models lists

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	1.0	30	0.5

Certifications

All models:

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

K50L, K50FL, T18, and T30 models only:

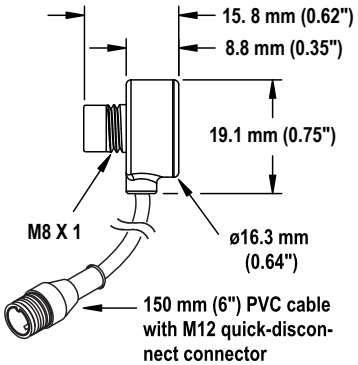
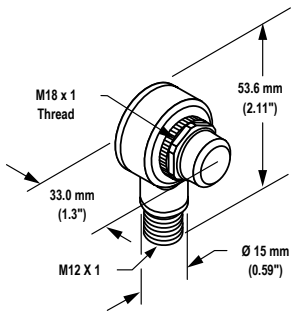
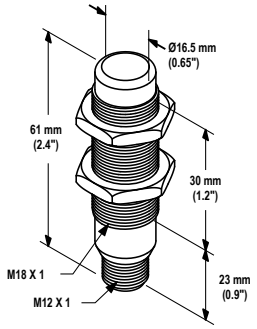
Turck Banner LTD Blenheim House
Blenheim Court
Wickford, Essex SS11 8YT
GREAT BRITAIN

K30L and K50L models only:

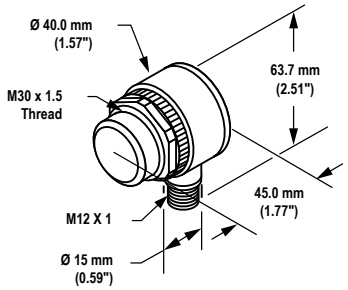
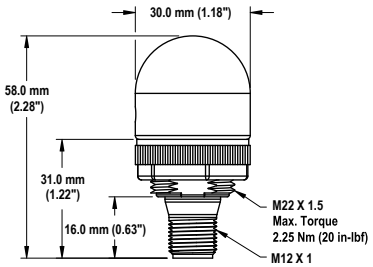
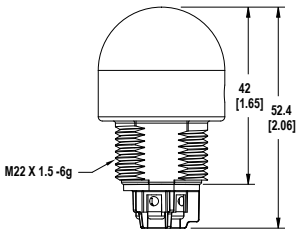
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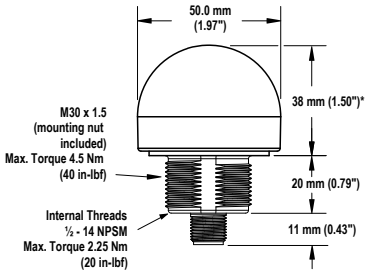
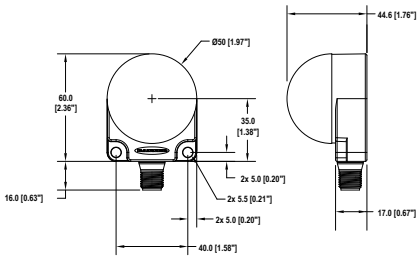
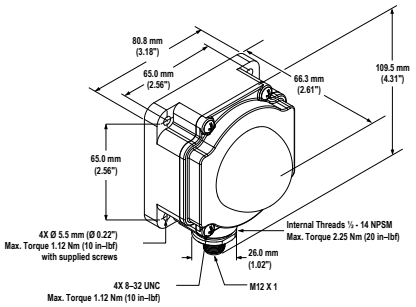
Dimensions

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

T8L Models	T18 Models	M18 Models
		

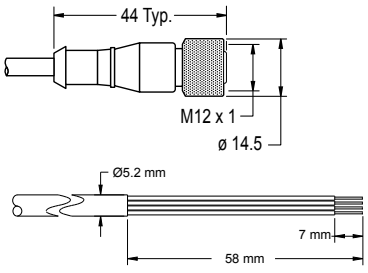
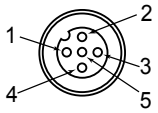
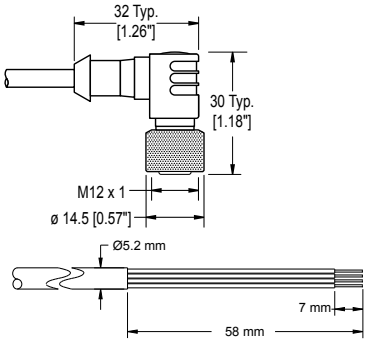
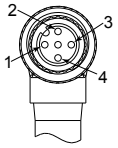
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T30 Models	K30L Models	K30 Terminal Models
		

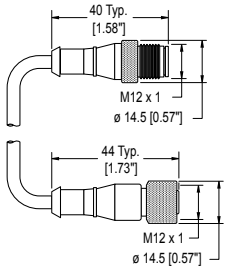
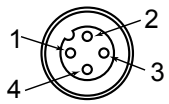
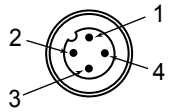
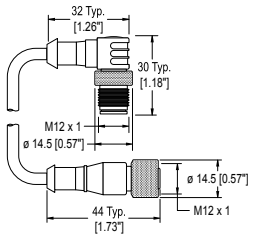
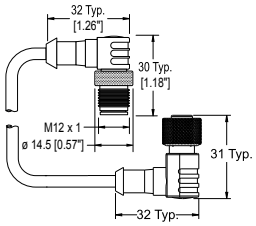
K50L Models	K50FL Models	K80L Models
		

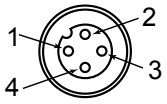
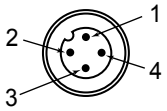
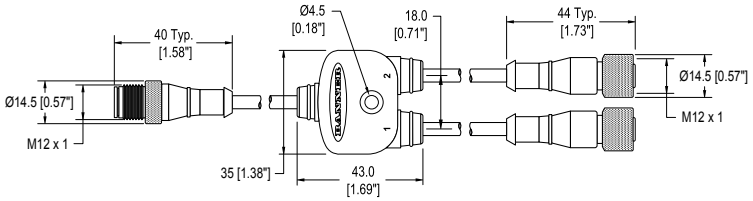
Accessories

Cordsets

4-Pin Threaded M12 Cordsets—Single Ended					
Model	**Length**	**Style**	**Dimensions**	**Pinout (Female)**	
MQDC-406	2 m (6.56 ft)	Straight			1 = Brown 2 = White 3 = Blue 4 = Black 5 = Unused
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)				

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4-Pin Threaded M12 Cordsets—Double Ended				
Model	**Length**	**Style**	**Dimensions**	**Pinout**
MQDEC-401SS	0.31 m (1 ft)	Male Straight / Female Straight		Female  Male  1 = Brown 2 = White 3 = Blue 4 = Black
MQDEC-403SS	0.91 m (2.99 ft)			
MQDEC-406SS	1.83 m (6 ft)			
MQDEC-412SS	3.66 m (12 ft)			
MQDEC-415SS	4.58 m (15 ft)			
MQDEC-420SS	6.10 m (20 ft)			
MQDEC-430SS	9.14 m (30.2 ft)			
MQDEC-450SS	15.2 m (49.9 ft)			
MQDEC-403RS	0.91 m (2.99 ft)	Male Right-Angle / Female Straight		
MQDEC-406RS	1.83 m (6 ft)			
MQDEC-412RS	3.66 m (12 ft)			
MQDEC-420RS	6.10 m (20 ft)			
MQDEC-430RS	9.14 m (30.2 ft)			
MQDEC-450RS	15.2 m (49.9 ft)			
MQDEC-403RR	0.9 m (2.9 ft)	Male Right-Angle / Female Right-Angle		
MQDEC-406RR	1.8 m (5.9 ft)			
MQDEC-412RR	3.6 m (11.8 ft)			
MQDEC-420RR	6.1 m (20 ft)			

4-Pin Threaded M12 Splitter Cordsets—Flat Junction			
Model	**Branches (Female)**	**Trunk (Male)**	**Pinout**
CSB-M1240M1240	No branch	No trunk	Female  Male  1 = Brown 2 = White 3 = Blue 4 = Black
CSB-M1240M1241	2 × 0.3 m (1 ft)	No trunk	
CSB-M1241M1241		0.30 m (1 ft)	
CSB-M1248M1241		2.44 m (8 ft)	
CSB-M12415M1241		4.57 m (15 ft)	
CSB-M12425M1241		7.60 m (25 ft)	
CSB-UNT425M1241		7.60 m (25.0 ft) Unterminated	
			

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

Document title: EZ-LIGHT™ 2-Color Indicators for Use with Sensors
Part number: 121900
Revision: L
Original Instructions
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121900

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