

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.

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**).

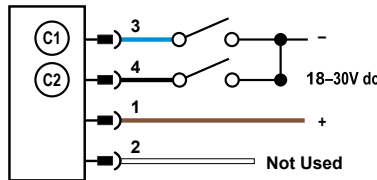
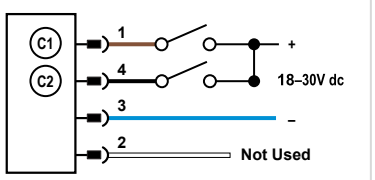
K80L Models: Standard integral 4-pin M12 quick-disconnect connector models are listed. To order the terminal-wired model, omit suffix **Q** (for example, **K80LGYX7P**).

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)
---	--

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:



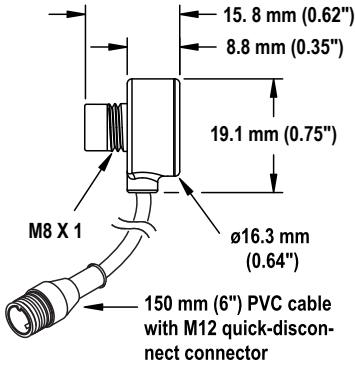
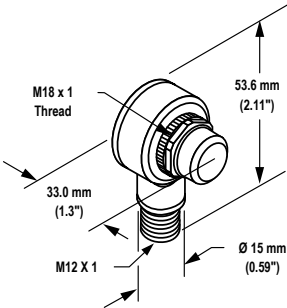
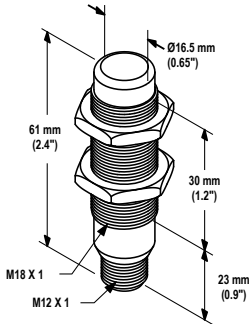
Turck Banner LTD Blenheim House
Blenheim Court
Wickford, Essex SS11 8YT
GREAT BRITAIN

K30L and K50L models only:



Dimensions

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

T8L Models	T18 Models	M18 Models
 15.8 mm (0.62") 8.8 mm (0.35") 19.1 mm (0.75") M8 X 1 ø16.3 mm (0.64") 150 mm (6") PVC cable with M12 quick-disconnect connector	 M18 x 1 Thread 53.6 mm (2.11") 33.0 mm (1.3") M12 X 1 ø 15 mm (0.59")	 ø16.5 mm (0.65") 61 mm (2.4") 30 mm (1.2") 23 mm (0.9") M18 X 1 M12 X 1

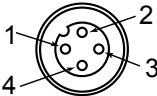
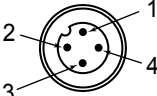
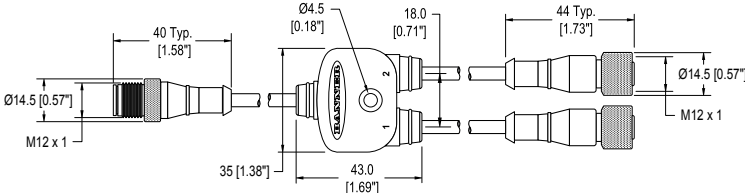
T30 Models	K30L Models	K30 Terminal Models
K50L Models	K50FL Models	K80L Models

Accessories

Cordsets

4-Pin Threaded M12 Cordsets—Single Ended					
Model	Length	Style	Dimensions	Pinout (Female)	
MQDC-406	2 m (6.56 ft)	Straight			
MQDC-415	5 m (16.4 ft)				
MQDC-430	9 m (29.5 ft)				
MQDC-450	15 m (49.2 ft)	Right-Angle			
MQDC-406RA	2 m (6.56 ft)				
MQDC-415RA	5 m (16.4 ft)				
MQDC-430RA	9 m (29.5 ft)				
MQDC-450RA	15 m (49.2 ft)				

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)	Male Right-Angle / Female Straight		
MQDEC-403RS	0.91 m (2.99 ft)			
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)	Male Right-Angle / Female Right-Angle		
MQDEC-403RR	0.9 m (2.9 ft)			
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 
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	Male 
			

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.

Document title: EZ-LIGHT™ 2-Color Indicators for Use with Sensors

Part number: 121900

Revision: L

Original Instructions

© Banner Engineering Corp. All rights reserved.

