EZ-LIGHT™ 2- or 3-Color General-Purpose Indicators

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Datasheet

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 [1]			LED Colors — 2 or 3 Lights, Independently Selected [2]			Construction
	PNP Input	NPN Input	Color 1	Color 2	Color 3	
	T8LGRXPQP	T8LGRXNQP	Green	Red	—	Polycarbonate/ABS alloy housing, thermoplastic diffuser IP67
	T8LGXYPQP	T8LGXYNQP	Green	—	Yellow	
	T8LXRYPQP	T8LXRYNQP	—	Red	Yellow	
	M18GRXPQ	M18GRXNQ	Green	Red	—	Nickel-plated brass housing, thermoplastic diffuser Fully encapsulated IP67
	M18GXYPQ	M18GXYNQ	Green	—	Yellow	
	M18XRYPQ	M18XRYNQ	—	Red	Yellow	
	M18GRYPQ	M18GRYNQ	Green	Red	Yellow	
	K30LGRXPQ	K30LGRXNQ	Green	Red	—	22 mm threaded polycarbonate base, translucent polycarbonate dome Fully encapsulated IP67, IP69K per DIN 40050-9
	K30LGXYPQ	K30LGXYNQ	Green	—	Yellow	
	K30LXRYPQ	K30LXRYNQ	—	Red	Yellow	
	K30LGRYPQ	K30LGRYNQ	Green	Red	Yellow	
	K50LGRXPQ	K50LGRXNQ	Green	Red	—	30 mm polycarbonate base, translucent polycarbonate dome Fully encapsulated IP67, IP69K per DIN 40050-9
	K50LGXYPQ	K50LGXYNQ	Green	—	Yellow	
	K50LXRYPQ	K50LXRYNQ	—	Red	Yellow	
	K50LGRYPQ	K50LGRYNQ	Green	Red	Yellow	
	K50FLGRXPQ	K50FLGRXNQ	Green	Red	—	ABS base, translucent polycarbonate dome Fully encapsulated IP67, IP69K per DIN 40050-9
	K50FLGXYPQ	K50FLGXYNQ	Green	—	Yellow	
	K50FLXRYPQ	K50FLXRYNQ	—	Red	Yellow	
	K50FLGRYPQ	K50FLGRYNQ	Green	Red	Yellow	
	K80LGRXPQ	K80LGRXNQ	Green	Red	—	Polycarbonate base, translucent polycarbonate dome Electronics fully encapsulated IP67
	K80LGXYPQ	K80LGXYNQ	Green	—	Yellow	
	K80LXRYPQ	K80LXRYNQ	—	Red	Yellow	
	K80LGRYPQ	K80LGRYNQ	Green	Red	Yellow	

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[1]
- **T8L Models:** Standard 150 mm (6 in) PVC-jacketed cable with 4-pin M12 quick-disconnect connector models are listed. For integral 4-wire cabled model, omit suffix QP. For example, T8LGRXP.
- **K30L Models:** Standard integral 4-pin M12 quick-disconnect connector models are listed. For 2 m (6.5 ft) integral 4-wire cabled model, omit suffix Q. For example, K30LGRXP. For 150 mm (6 in) PVC-jacketed cable with 4-pin M12 quick-disconnect connector, replace suffix Q with QP. For example, K30LGRXPQP. For terminal model, replace suffix Q with T. For example, K30LGRXPT.
- **K80L Models:** Standard integral 4-pin M12 quick-disconnect connector models are listed. For terminal-wired model, omit suffix Q. For example, K80LGRXP.
- **Other Models:** Standard integral 4-pin M12 quick-disconnect connector models are listed. For 2 m (6.5 ft) integral 4-wire cabled model, omit suffix Q. For example, M18GRXP. For 150 mm (6 in) PVC-jacketed cable with 4-pin M12 quick-disconnect connector, replace suffix Q with QP. For example, M18GRXPQP.
- Models with a quick disconnect require a mating cordset.

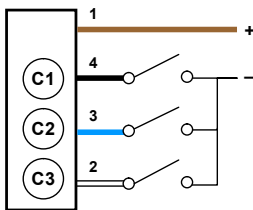[2] Contact Banner Engineering for other colors and color combinations.

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

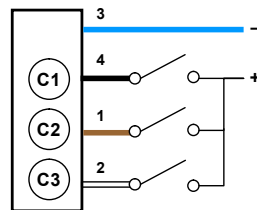| Models [1]			LED Colors — 2 or 3 Lights, Independently Selected [2]			Construction
	PNP Input	NPN Input	Color 1	Color 2	Color 3	
	T18GRXPQ	T18GRXNQ	Green	Red	—	Thermoplastic polyester housing, thermoplastic diffuser Fully encapsulated IP67
	T18GXYPQ	T18GXYNQ	Green	—	Yellow	
	T18XRYPQ	T18XRYNQ	—	Red	Yellow	
	T18GRYPQ	T18GRYNQ	Green	Red	Yellow	
	T30GRXPQ	T30GRXNQ	Green	Red	—	Thermoplastic polyester housing, thermoplastic diffuser Fully encapsulated IP67
	T30GXYPQ	T30GXYNQ	Green	—	Yellow	
	T30XRYPQ	T30XRYNQ	—	Red	Yellow	
	T30GRYPQ [3]	T30GRYNQ	Green	Red	Yellow	
	T30GRBPQ	—	Green	Red	Blue	
	T30GROPQ	—	Green	Red	Orange	
	—	T30RGR5PNQ	Red	Green	Red	
	T30RGXPQ	—	Red	Green	—	

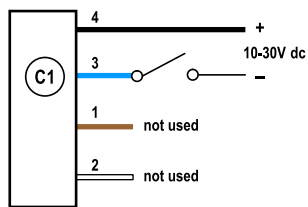## Wiring Diagrams

Multi Color Wiring

NPN

PNP

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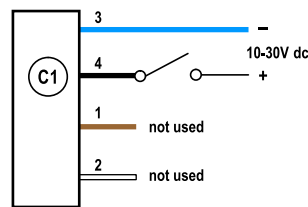4 = Black
5 = Gray

C1 = Color 1
C2 = Color 2
C3 = Color 3

Gray Wire not used in K30 Terminal models

Single Color Wiring

NPN

PNP

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.

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
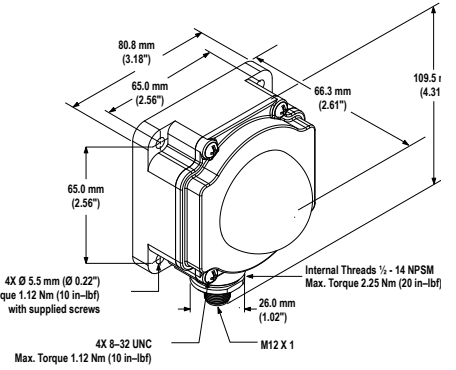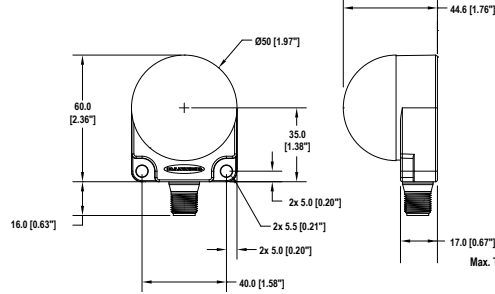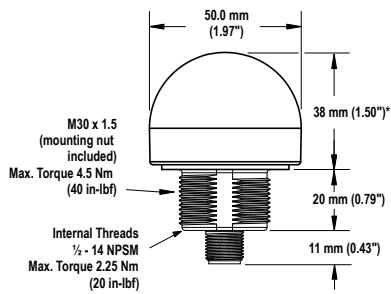
Construction
See Models lists

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[3] Standard integral 4-pin M12 quick-disconnect connector models are listed. To order the 9 m (30 ft) PVC cable model, replace the suffix "Q" with "W/30" in the model number. For example, T30GRYP W/30. To order the 150 mm (6 in) PUR cable model with a M12 quick disconnect, replace the suffix "Q" with "QPMA" in the model number. For example, T30GRYPQPMA.

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.

Operating Conditions

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

Certifications

All models:

C E

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

K50L, K50FL, T18, and T30 models only:

UK CA

Turck Banner LTD Blenheim House, Blenheim Court, Wickford, Essex SS11 8YT, Great Britain

K30L and K50L models only:

c(UL)us LISTED

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 (Amps)
20	5.0
22	3.0
24	2.0
26	1.0
28	0.8
30	0.5

Dimensions

T8L Models	T18 Models	M18 Models

T8L 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

T18 Models
M18 x 1 Thread
53.6 mm (2.11")
33.0 mm (1.3")
M12 X 1
Ø 15 mm (0.59")

M18 Models
Ø16.5 mm (0.65")
61 mm (2.4")
30 mm (1.2")
M18 X 1
M12 X 1
23 mm (0.9")

T30 Models	K30L Models	K30 Terminal Models

T30 Models
Ø 40.0 mm (1.57")
M30 x 1.5 Thread
63.7 mm (2.51")
45.0 mm (1.77")
M12 X 1
Ø 15 mm (0.59")

K30L Models
30.0 mm (1.18")
58.0 mm (2.28")
31.0 mm (1.22")
16.0 mm (0.63")
M22 X 1.5 Max. Torque 2.25 Nm (20 in-lbf)
M12 X 1

K30 Terminal Models
42 [1.65]
52.4 [2.06]
M22 X 1.5 -6g

K50L Models

50.0 mm (1.97")

38 mm (1.50")*

M30 x 1.5 (mounting nut included) Max. Torque 4.5 Nm (40 in-lbf)

20 mm (0.79")

Internal Threads ½ - 14 NPSM Max. Torque 2.25 Nm (20 in-lbf)

11 mm (0.43")

K50FL Models

44.6 [1.76"]

Ø50 [1.97"]

60.0 [2.36"]

35.0 [1.38"]

16.0 [0.63"]

2x 5.0 [0.20"]

2x 5.5 [0.21"]

2x 5.0 [0.20"]

40.0 [1.58"]

17.0 [0.67"]

K80L Models

80.8 mm (3.18")

65.0 mm (2.56")

66.3 mm (2.61")

109.5 mm (4.31")

65.0 mm (2.56")

4X Ø 5.5 mm (Ø 0.22") Max. Torque 1.12 Nm (10 in–lbf) with supplied screws

Internal Threads ½ - 14 NPSM Max. Torque 2.25 Nm (20 in–lbf)

26.0 mm (1.02")

4X 8–32 UNC Max. Torque 1.12 Nm (10 in–lbf)

M12 X 1

Accessories

Cordsets

4-Pin Threaded M12 Cordsets—Single Ended				
Model	**Length**	**Style**	**Dimensions**	**Pinout (Female)**
MQDC-406	2 m (6.56 ft)	Straight	44 Typ. / M12 x 1 / ø 14.5	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	32 Typ. [1.26"] / 30 Typ. [1.18"] / M12 x 1 / ø 14.5 [0.57"]	
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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 K30LGRXPQ   K30LGRYN   K30LGRYP   K30LGRYPQ   K50FLGRXPQ   K50FLGRYP   K50FLGRYPQ   K50LGRXN
K50LGRXP   K50LGRYP   K50LGRYPQ   K80LGRYP   K80LGRYPQ   M18GRYPQ   T8LGRXPQP   T8LGXYPQP
K30LGRXN   K30LGRXNQ   K30LGRXNQP   K30LGRXP   K30LGRXPQP   K30LGRXPT   K30LGRYNQ   K30LGRYNQP
K30LGRYNT   K30LGRYPQP   K30LGRYPT   K30LGXYN   K30LGXYP   K30LGXYPQ   K30LGXYPQP   K30LGXYPT
K30LXRYNQ   K30LXRYP   K30LXRYPQ   K30LXRYPQP   K50FLGRXNQ   K50FLGRXP   K50FLGRXPQP   K50FLGRYN
 K50FLGRYNQ   K50FLGRYNQP   K50FLGRYPQP   K50FLGXYPQ   K50FLXRYNQ   K50FLXRYPQ   K50LGRXNQ
K50LGRXNQP   K50LGRXPQ   K50LGRXPQP   K50LGRYN   K50LGRYNQ   K50LGRYNQP   K50LGRYPQP
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K80LGRXNQ   K80LGRXP   K80LGRXPQ   K80LGRXPQP   K80LGRYN   K80LGRYNQ   K80LGRYNQP   K80LGRYPQP
K80LXRYPQ   M18GRXN   M18GRXNQ   M18GRXP   M18GRXPQ   M18GRXPQP   M18GRYNQ   M18GRYP
M18GRYPQPMA   M18GXYPQ   T8LGRXN   T8LGRXNQP   T8LGRXP   T8LGXYNQP   T8LGXYP   M18XRYPQ