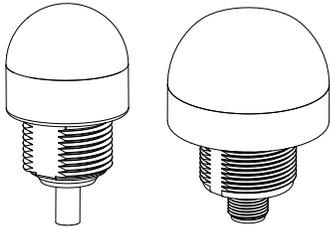


EZ-LIGHT® K30L and K50L Intrinsically Safe Indicators



- For use in hazardous areas with suitable zener barriers or galvanic isolators
- ATEX and IECEx certifications
- Fully sealed and rated to IP67/IP69K
- 1-, 2-, or 3-color models available; 5 available colors

Models

	Family		Color 1	Color 2	Color 3	Input	Connection
Example:	K50L	EI	G	R	Y	P	Q
	K30L K50L	I = EX ia	G = Green R = Red Y = Yellow B = Blue W = White X = No color			P = PNP	Q = 4-pin integral Euro QD ¹ Blank = 2 m PVC integral cable W/XX = XX ft cable QP = 4-pin Euro PVC Pigtail QD

K30L Models

Model	Connection ²	LED Function	Input
K30LIGXXQP	4-pin Euro PVC Pigtail Quick Disconnect	1 Color: Green	PNP
K30LIYXXQP		1 Color: Yellow	
K30LIRXXQP		1 Color: Red	
K30LIBXXQP		1 Color: Blue	
K30LIWXXQP		1 Color: White	
K30LIGRXQP		2 Color: Green, Red	
K30LIGYXPQP		2 Color: Green, Yellow	
K30LIGYXPQP		2 Color: Red, Yellow	
K30LIGRYPQP		3 Color: Green, Red, Yellow	

¹ Only available on K50L models.

² A model with a QD requires a mating cordset (see [Cordsets](#) on page 6).



K50L Models

Model ³	Connection ⁴	LED Function	Input
K50LIGXXPQ	4-pin Euro Quick Disconnect	1 Color: Green	PNP
K50LIYXXPQ		1 Color: Yellow	
K50LIRXXPQ		1 Color: Red	
K50LIBXXPQ		1 Color: Blue	
K50LIWXXPQ		1 Color: White	
K50LIGRXPQ		2 Color: Green, Red	
K50LIGYXPQ		2 Color: Green, Yellow	
K50LIGYXPQ		2 Color: Red, Yellow	
K50LIGRYPQ		3 Color: Green, Red, Yellow	

General Notes

1. The dust rating of enclosures/panels may be invalidated by the installation of the EZ-LIGHT(s). The installation of the EZ-LIGHT(s) in a particular enclosure/panel is subject to the evaluation/acceptance of the applicable approval agency.
2. Installation shall be carried out in accordance with the applicable code of practice by suitable trained personnel.
3. Repair of this equipment shall be carried out in accordance with the applicable code of practice.
4. The X suffix to the certificate number indicates that there is a special condition for safe use, which is that the non-conducting materials of the enclosures may be susceptible to electrostatic charging and precautions must be taken to avoid this.
5. If the equipment is likely to come into contact with aggressive substances⁵, then it is the responsibility of the user to take suitable precautions⁶ that prevent it from being adversely affected, thus ensuring that the type of protection is not compromised.
6. Clean with a damp cloth only.
7. For indicators with multiple colors, only one color is intended to be on at a time.

Specifications

Supply Voltage and Current

See [Configuration](#) on page 4 for safety parameters

Indicators

Entire translucent diffuser or dome provides indication. LEDs are independently selected: Green, Red, or Yellow; 2 or 3 colors, depending on model. For other colors/ combinations, contact Banner Engineering for availability.

Construction

Base: polycarbonate
Translucent dome: polycarbonate

Connections

K30: 2 m (6.5 ft) PVC integral cable, or 150 mm (5.9 in) 4-pin Euro PVC Pigtail QD

K50: 4-pin Euro integral QD, 2 m (6.5 ft) PVC integral cable, or 150 mm (5.9 in) 4-pin Euro PVC Pigtail QD

Environmental Rating

IP67/IP69K

Operating Conditions

-40 °C to +50 °C (-40 °F to +122 °F) or -40 °C to +40 °C (-40 °F to +104 °F), depending on model

Certifications



Approvals

ATEX/IECEx

Gas and Vapors: II 1 G Ex ia IIC T4 Ga (Group IIC Zone 0)

Dust: II 1 D Ex ia IIIC T130°C Da (Group IIIC Zone 20)

Mines: I M1 Ex ia I Ma (Methane)

Sira 13ATEX2058X

IECEx Sir 13.0020X

³ For 4-pin Euro PVC Pigtail QD Models, replace suffix "Q" with "QP" in the model number (K50LIGXXPQP).

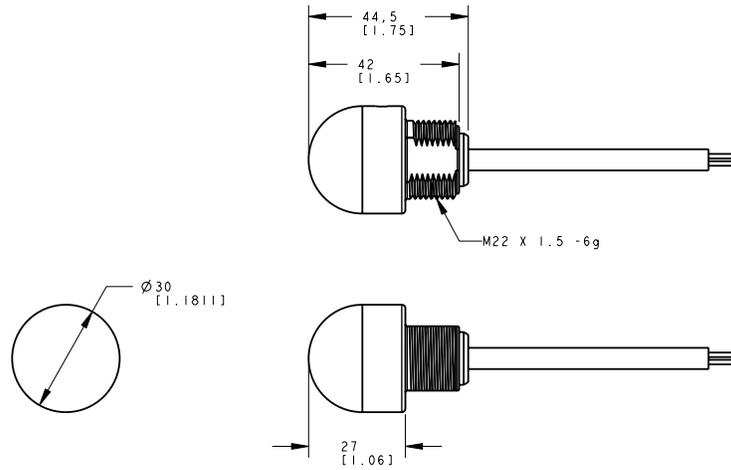
⁴ A model with a QD requires a mating cordset (see [Cordsets](#) on page 6).

⁵ Aggressive substances—for example, acidic liquids or gases that may attack metals, or solvents that may affect polymeric materials.

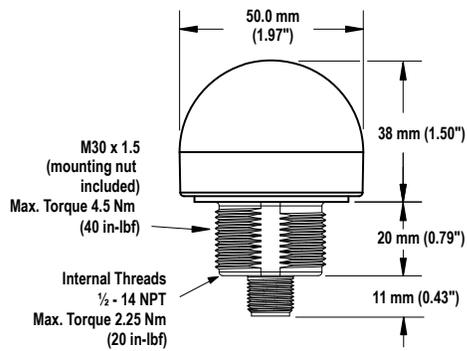
⁶ Suitable precaution—for example, regular checks as part of routine inspections or establishing from the materials data sheet that it is resistant to specific chemicals.

Dimensions

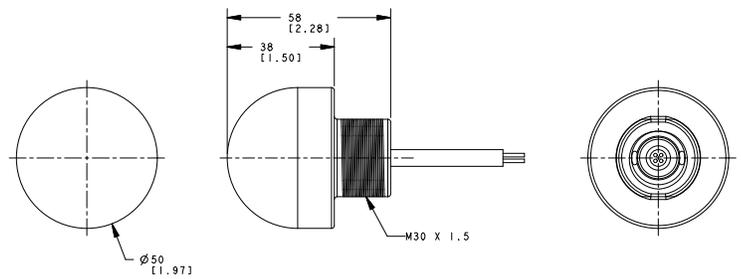
K30L Cabled Models



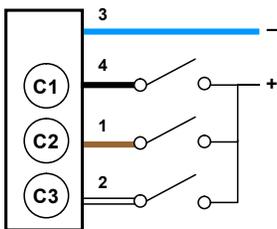
K50L Quick Disconnect Models



K50L Cabled Models



Hookups



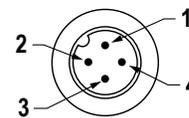
Wiring Key

- 1 = Brown
- 2 = White
- 3 = Blue
- 4 = Black

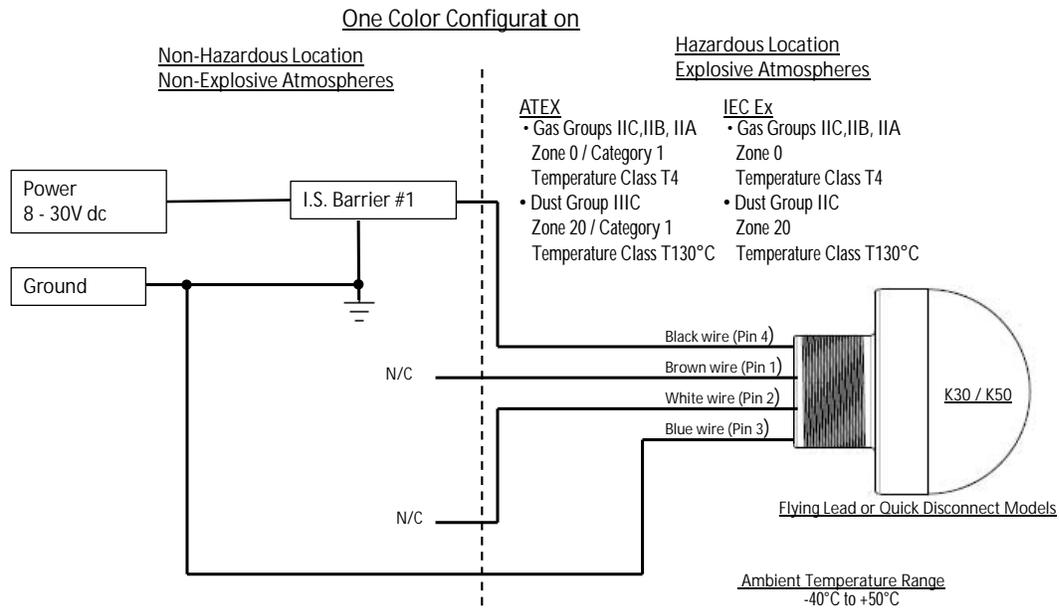
Color Key

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

Pinout



Configuration

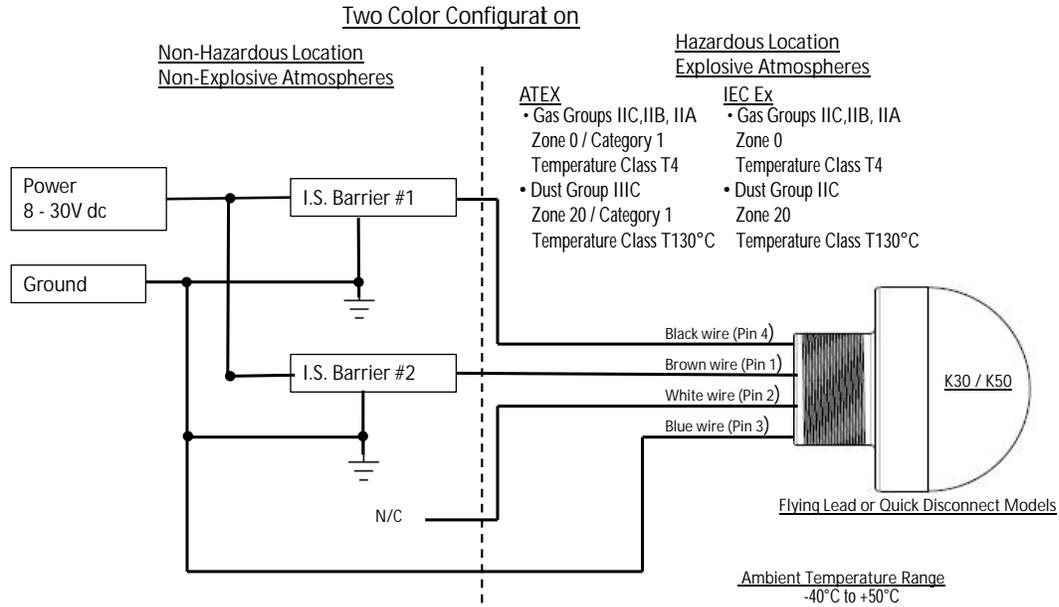


I.S. Barrier Installation Notes:

1. Safety Parameters are as follows:
 $U_i / V_{max} = 30V$
 $I_i / I_{max} = 1A$
 $P_i / P_{max} = 3.4W$
 $C_i = 0$
 $L_i = 0$
2. Choose approved barriers such that the following conditions are met with all barriers combined
 $U_i / V_{max} \geq U_o / V_{oc}$
 $I_i / I_{max} \geq I_o / I_{sc}$
 $P_i / P_{max} \geq P_o$
 $C_o / C_a \geq C_i + C_{cable}$
 $L_o / L_a \geq L_i + L_{cable}$
3. Install I.S. barriers in accordance with manufacturers instructions and local codes
4. Suggested I.S. barriers are as follows
 MTL 7715+ (15V/100Ω)
 MTL 7715P+ (15V/50 Ω)
 Turck MZB15PX (15V/50 Ω)

	II C	II B	II A
C cable	66nF	0.56μF	1.82μF
L cable	35μH	140μH	280μH

Figure 1. Control Drawing 1-Color Configuration



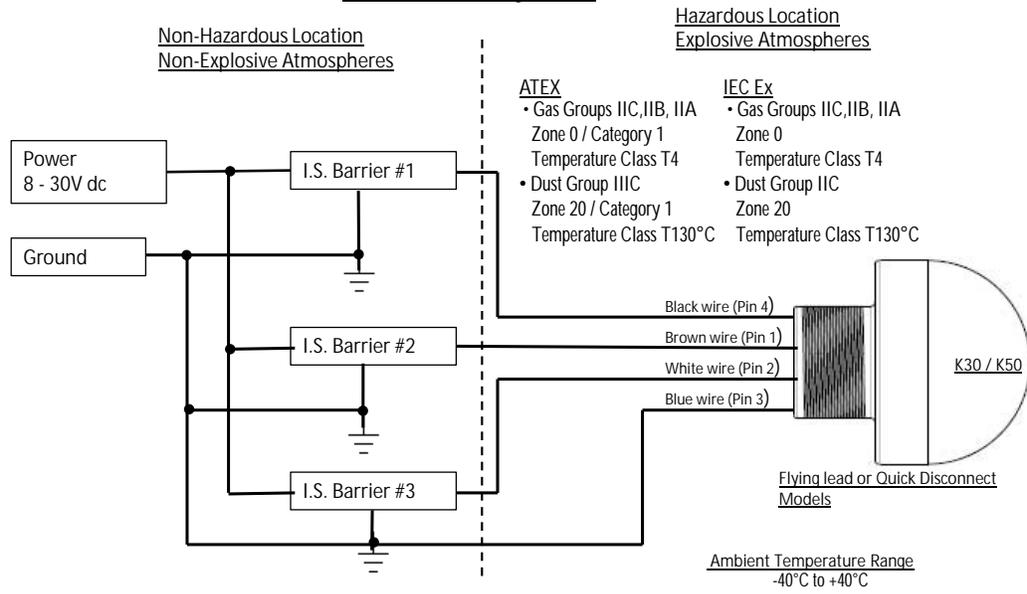
I.S. Barrier Installation Notes:

1. Safety Parameters are as follows:
 $U_i / V_{max} = 30V$
 $I_i / I_{max} = 1A$
 $P_i / P_{max} = 3.4W$
 $C_i = 0$
 $L_i = 0$
2. Choose approved barriers such that the following conditions are met with all barriers combined
 $U_i / V_{max} \geq U_o / V_{oc}$
 $I_i / I_{max} \geq I_o / I_{sc}$
 $P_i / P_{max} \geq P_o$
 $C_o / C_a \geq C_i + C_{cable}$
 $L_o / L_a \geq L_i + L_{cable}$
3. Install I.S. barriers in accordance with manufacturers instructions and local codes
4. Suggested I.S. barriers are as follows
 MTL 7715+ (15V/100Ω)
 MTL 7715P+ (15V/50 Ω)
 Turck MZB15PX (15V/50 Ω)

	IIC	IIB	IIA
C cable	66nF	0.56μF	1.82μF
L cable	35μH	140μH	280μH

Figure 2. Control Drawing 2-Color Configuration

Three Color Configuration



I.S. Barrier Installation Notes:

- Safety Parameters are as follows:
 $U_i / V_{max} = 30V$
 $I_i / I_{max} = 1A$
 $P_i / P_{max} = 2.8W$
 $C_i = 0$
 $L_i = 0$
- Choose approved barriers such that the following conditions are met with all barriers combined
 $U_i / V_{max} \geq U_o / V_{oc}$
 $I_i / I_{max} \geq I_o / I_{sc}$
 $P_i / P_{max} \geq P_o$
 $C_o / C_a \geq C_i + C_{cable}$
 $L_o / L_a \geq L_i + L_{cable}$
- Install I.S. barriers in accordance with manufacturers instructions and local codes
- Suggested I.S. barriers are as follows
 MTL 7715+ (15V/100Ω)
 MTL 7715P+ (15V/50 Ω)
 Turck MZB15PX (15V/50 Ω)

	IIC	IIB	IIA
C cable	66nF	0.56μF	1.82μF
L cable	35μH	140μH	280μH

Figure 3. Control Drawing 3-Color Configuration

Cordsets

4-Pin Threaded M12/Euro-Style Cordsets				
Model	Length	Style	Dimensions	Pinout
MQDC-406	1.83 m (6 ft)	Straight		
MQDC-415	4.57 m (15 ft)			
MQDC-430	9.14 m (30 ft)			
MQDC-450	15.2 m (50 ft)			
MQDC-406RA	1.83 m (6 ft)	Right-Angle		
MQDC-415RA	4.57 m (15 ft)			
MQDC-430RA	9.14 m (30 ft)			
MQDC-450RA	15.2 m (50 ft)			

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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.

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