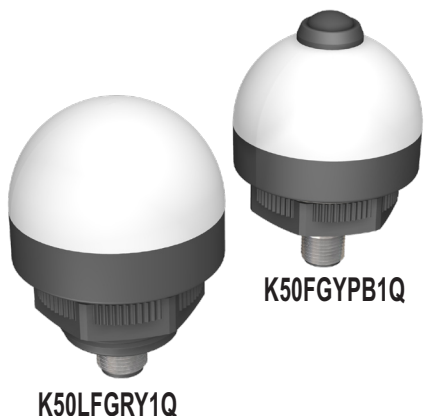




# SureCross™ EZ-LIGHT™ FlexPower™ Family

The K50 EZ-LIGHT™ FlexPower™ Family



## Features

The K50 EZ-LIGHT™ Pick-to-Light sensors are self-contained indicators lights typically used for job notification or bin-picking operations.

- 3.6 to 5.0V dc low power option that works with the wireless DX80N9X1\*1K3 Node
- K50LFGRY1Q indicates status with a large translucent dome containing three colored lights
- K50FGYPB1Q indicates status with two colored lights; pick can be verified with the push button
- Devices require no controller to operate; completely self-contained
- Flashing green, amber, and red lights indicate job status
- Configurable flash rate and light intensity
- Ideal for use in abusive environments, featuring rugged, fully encapsulated IP67 construction
- Eight-pin Euro quick disconnect fitting integrated into device




For additional information and a complete list of accessories for the SureCross devices, please refer to Banner Engineering's website, [www.bannerengineering.com/surecross](http://www.bannerengineering.com/surecross).

## Models

For EZ-LIGHT models with a push button, the host system activates the green flashing light. A user pushes the button when the job is completed, changing the flashing light from green to yellow. The K50 output activates and the host system turns off the light.

For EZ-LIGHT models without a push button, the EZ-LIGHT acts as a three color light.

Models	Interaction/Sensing	Connection	Output Type	Job Light
K50FGYPB1Q		8-pin Euro QD	NPN (Sinking)	Green, Yellow (Flashing)
K50LFGRY1Q	None	8-pin Euro QD	Not applicable	Green, Yellow, Red (Flashing)

### WARNING . . . Not To Be Used for Personnel Protection

Never use these products as sensing devices for personnel protection. Doing so could lead to serious injury or death.

These devices do NOT include the self-checking redundant circuitry necessary to allow their use in personnel safety applications. A device failure or malfunction can cause either an energized or de-energized output condition. Consult your current Banner Safety Products catalog for safety products that meet OSHA, ANSI, and IEC standards for personnel protection.



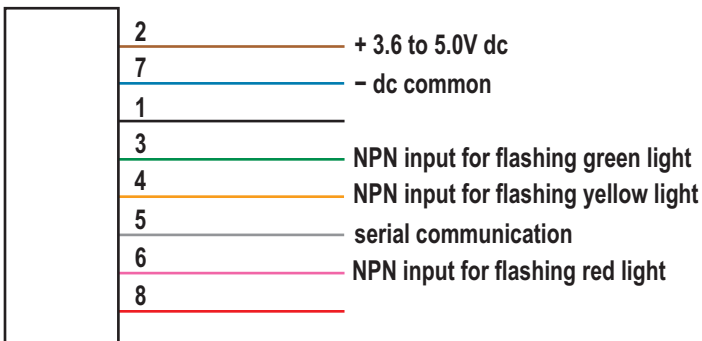
# SureCross™ EZ-LIGHT™ FlexPower™ Family

## Hookup Diagrams

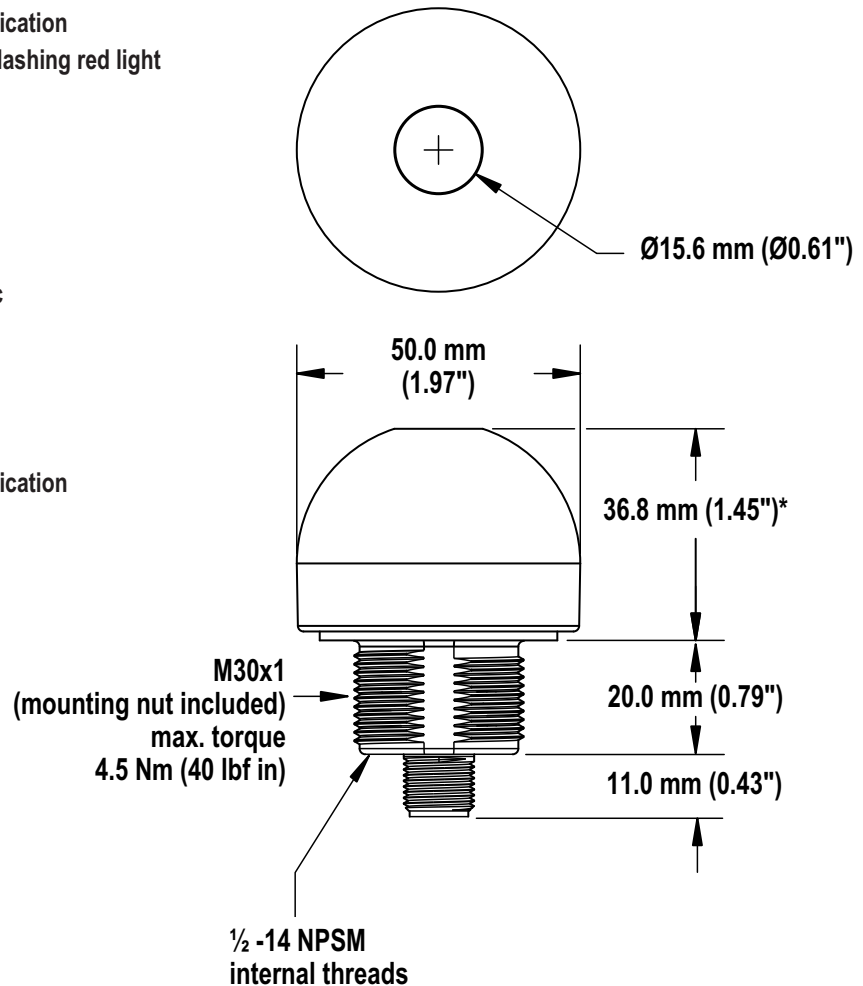
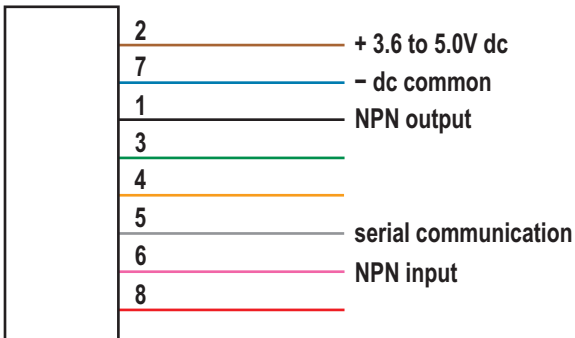
No.	Wire Color	K50L (without push button)	K50 (with push button)
1	White	No function	NPN (sinking) output
2	Brown	3.6V dc	3.6V dc
3	Green	NPN Input for flashing green light	No function
4	Yellow	NPN Input for flashing amber light	No function
5	Gray	Serial communications	Serial communications
6	Pink	NPN Input for flashing red light	NPN (sinking) input
7	Blue	dc common (GND)	dc common (GND)
8	Red	No function	No function



### K50L (without button)



### K50 (with push button)



# SureCross™ EZ-LIGHT™ FlexPower™ Family

## Specifications

Many of the parameters are configurable. The values in the tables represent factory defaults unless otherwise noted.

General	
<b>Supply Voltage and Current</b>	3.6 to 5V dc (10% maximum ripple) Less than 45 mA max current @ 3.6V dc (exclusive of load) Typically less than 7.5 mA average current @ 3.6V dc (exclusive of load) flashing Less than 40 µA with no inputs activated
<b>Supply Protection Circuitry</b>	Protected against transient voltages (fast-transient and over-voltage) and reverse polarity
<b>Indicators</b>	Entire translucent dome provides indicator light
<b>Materials</b>	Construction base: polycarbonate Translucent dome: polycarbonate Push button: thermoplastic
<b>Connections</b>	Integral 8-pin Euro-style QD fitting QPMA-style PUR pigtail models are also available; contact Banner for more information.
K50L (without push button)	
<b>Inputs</b>	Three Sinking (NPN); Compatible with DX80 FlexPower™ Nodes
<b>Outputs</b>	None
<b>Indicators*</b>	Green wire activates flashing green light Yellow wire activates flashing amber light Pink wire activates flashing red light
<b>Light Supply Voltage and Current*</b>	3.6 to 5V dc Less than 45 mA max current at 3.6V dc Less than 3.5 mA average current at 3.6V dc (exclusive of color) flashing Less than 40 µA quiescent current
K50 (with push button)	
<b>Inputs</b>	One Sinking (NPN); Compatible with DX80 FlexPower™ Nodes
<b>Outputs</b>	One Sinking (NPN); Compatible with DX80 FlexPower™ Nodes
<b>Indicator*</b>	Flashing green
<b>Button Pushed Indicator*</b>	Flashing yellow
<b>Output Rating Maximum Load</b>	150 mA
<b>ON-state Saturation Voltage</b>	Less than 0.5V at 10 mA; Less than 3.0V at 110 mA
<b>OFF-state Output Leakage Current</b>	Less than 1 µA at V +
<b>Output Protection Circuitry</b>	Protected against false pulse on power-up and continuous overload or short-circuit of output
<b>Output Response Time</b>	45 milliseconds ON and OFF
<b>Light Supply Voltage and Current*</b>	3.6 to 5V dc Less than 45 mA max current at 3.6V dc Less than 3.5 mA average current at 3.6V dc (exclusive of color) flashing Less than 40 µA quiescent current

\* LED intensity and flash rate (duty cycle) can be configured using the DIP switches on the DX80N\*X1\*1K3 Node.

# SureCross™ EZ-LIGHT™ FlexPower™ Family

## Specifications, continued

### Environmental

#### Environmental Rating

Fully encapsulated; IEC IP67  
Integral QD models: DIN 40050 (IP69K) when using IP69K-rated cables  
Pigtail and cable models: IP69K when mounted with conduit

#### EMI/RFI Immunity

Immune to EMI and RFI noise sources, per IEC 947-5-2.

#### Operating Conditions Temperature

-20° to +50° C (-4° to +122° F)

#### Max. Relative Humidity

90% @ +50° C (non-condensing)

#### Ambient Light Immunity

Up to 5,000 lux

The manufacturer does not take responsibility for the violation of any warning listed in this document.



### CAUTION . . .

Make no modifications to this product.

Any modifications to this product not expressly approved by Banner Engineering could void the user's authority to operate the product. Contact the Factory for more information.

Always use lightning arrestors/surge protection with all remote antenna systems to avoid invalidating the Banner Engineering Corp. warranty. No surge protector can absorb all lightning strikes. Do not touch the SureCross device or any equipment connected to the SureCross device during a thunderstorm.

**WARRANTY:** Banner Engineering Corp. warrants its products to be free from defects for one year. Banner Engineering Corp. will repair or replace, free of charge, any product of its manufacture found to be defective at the time it is returned to the factory during the warranty period. This warranty does not cover damage or liability for the improper application of Banner products. This warranty is in lieu of any other warranty either expressed or implied.

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