

EZ-LIGHT® K80L Segmented Indicator



Point-of-Use Indicator with 1, 2, 3, or 4 Color Segments

For the latest technical information about this product, including specifications, dimensions, and wiring, see www.BannerEngineering.com.



- Individual color segments can be lighted separately or in combination
- For error-proofing and “Andon”* applications
- Provides operator guidance, even for those with limited color recognition ability
- PNP (sourcing) or NPN (sinking) input type, depending on model
- Optional labels for enhanced segment identification

* Andon lights on machines or production lines indicate operation status. They are often located overhead for workers or a supervisor to view them.

Model*		LED Colors**	Inputs	Model*		LED Colors**	Inputs
	K80L4GRYB1PQ	1: Green 2: Red 3: Yellow 4: Blue	PNP		K80L2HGRXX1PQ	1: Green 2: Red	PNP
	K80L4GRYB1NQ		NPN		K80L2HGRXX1NQ		NPN
	K80L3THGRYX1PQ	1: Green 2: Red 3: Yellow	PNP		K80L1WXXX1PQ	1: White	PNP
	K80L3THGRYX1NQ		NPN		K80L1YXXX1PQ	1: Yellow	
					K80L1RXXX1PQ	1: Red	
					K80L1GXXX1PQ	1: Green	
					K80L1BXXX1PQ	1: Blue	

* Integral QD models only are listed.

- For 150 mm PVC pigtail with QD, replace **Q** with **QP** in model number (example, “K80L4GRYB1PQP”).
- For terminal-wired models, omit suffix **Q** from model number (example, “K80L4GRYB1P”).
- For 150 mm (6”) PUR pigtail cable with 5-Pin threaded Euro-Style QD, add suffix **QPMA** to the model number (example, “K80L4GRYB1PQPMA”).
- A model with a QD requires a mating cable (see [5-Pin Euro-Style Cordsets](#)).

** Contact factory for other colors and segment combinations.



WARNING: Not To Be Used for Personnel Protection

Never use this product as a sensing device for personnel protection. Doing so could lead to serious injury or death. This product does NOT include the self-checking redundant circuitry necessary to allow its use in personnel safety applications. A sensor failure or malfunction can cause either an energized or de-energized sensor output condition.



Overview

The EZ-LIGHT™ K80L Segmented Indicator is a color point-of-use indicator which can be used to send nonlingual messages to an operator or to monitor multiple locations.

Up to four independently selected colors provide the ability to communicate up to four messages, or more if they are used in combination. For example, a green sector could be lit to communicate “all systems OK,” and blue could represent “service needed soon” or a “shoplifter is on the floor.” Green plus red ON together could mean something different from either color ON individually. See hookups for color selection information.

Indicator colors are fixed in a standardized location, which is helpful for people who have limited color recognition capability.

The K80L Segmented mounts easily on a flat surface, but can also be placed on various types of pipe for elevated use. In addition to customer-supplied pipe and conduit, Banner offers stainless steel pipe and other mounting accessories.

Specifications

Supply Voltage and Current

18 to 30V dc;

K80L4 models: @ 35 mA max. per LED color, @ 90 mA max. with all LEDs ON

K80L3 models: @ 50 mA max. with 1 color ON, @ 35 mA max. with color 2 or 3 ON, @ 90 mA max. with all LEDs ON

K80L2 models: @ 50 mA max. with color 1 or 2 ON, @ 90 mA max. with all LEDs ON

K80L1 models: @ 90 mA max.

Supply Protection Circuitry

Protected against reverse polarity and transient voltages

Indicators

LEDs are independently selected: Green, Red, Yellow, Blue, or White; 1-4 colors, depending on model. For other colors, contact Factory for availability.

Input Response Time

Indicator ON: Initial light — 250 ms max., additional lights — 10 ms max.

Indicator OFF: 10 ms max.

Adjustments

The K80L Segmented features a 6-position Program DIP switch on the back of the indicator cover. For normal operation, no adjustment should be necessary; these switches should remain all in the down position. For alternate operation (flash functionality for 1-color models, Demo mode for 2-, 3-, and 4-color models), see Setup.

Construction

Base: ABS/polycarbonate

Translucent face: acrylic

Connections

5-pin Euro-style integral QD (Q)connector standard; 150 mm (6") pigtail QD (QP); or terminal-wired, depending on model.

Environmental Rating

Rated IEC IP67 (NEMA 6)

Vibration and Mechanical Shock

All models meet Mil. Std. 202F requirements method 201A (vibration: 10 to 60 Hz max., double amplitude 0.06", maximum acceleration 10G). Also meets IEC 947-5-2; 30G 11 ms duration, half sine wave.

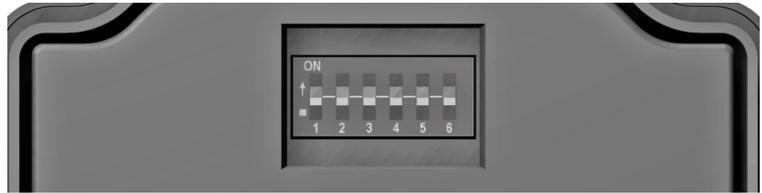
Certifications



Setup for Alternate Operation



NOTE: The Program DIP switch is located inside the K80L cover.



Remove the four screws to remove the cover.

Configuration for Flash function (1-color models only)

DIP Switch Positions						LED Function
SW1	SW2	SW3	SW4	SW5	SW6	
OFF	OFF	OFF	OFF	OFF	OFF	Color 1 ON solid
ON	OFF	OFF	OFF	OFF	OFF	Color 1 Flashes – 50% duty cycle; 2 Hz rate
OFF	ON	OFF	OFF	OFF	OFF	Color 1 Flashes – 50% duty cycle; 1 Hz rate
OFF	OFF	ON	OFF	OFF	OFF	Color 1 Flashes – 50% duty cycle; 0.5 Hz rate
OFF	OFF	OFF	ON	OFF	OFF	Color 1 Flashes – 25% duty cycle; 1 Hz rate
OFF	OFF	OFF	OFF	ON	OFF	Color 1 Flashes – 25% duty cycle; 0.5 Hz rate
OFF	OFF	OFF	OFF	OFF	ON	Color 1 Flashes – 25% duty cycle; 0.25 Hz rate

Configuration for Demo mode (2-, 3-, and 4-color models only)

Change the switch 1 position to ON.

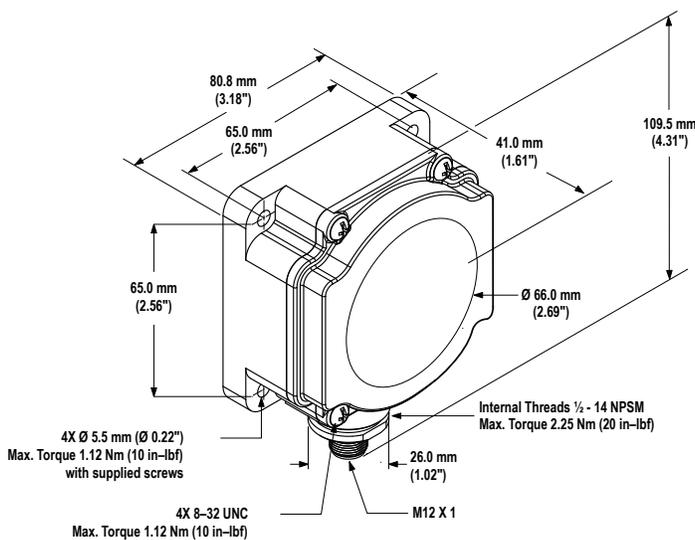
The individual sectors will light depending on the input power, as described at right:

Black wire input: Colors 1 and 2 alternate

Brown wire input: Colors light simultaneously

White wire input: Colors light in rotation (3- and 4-color models only)

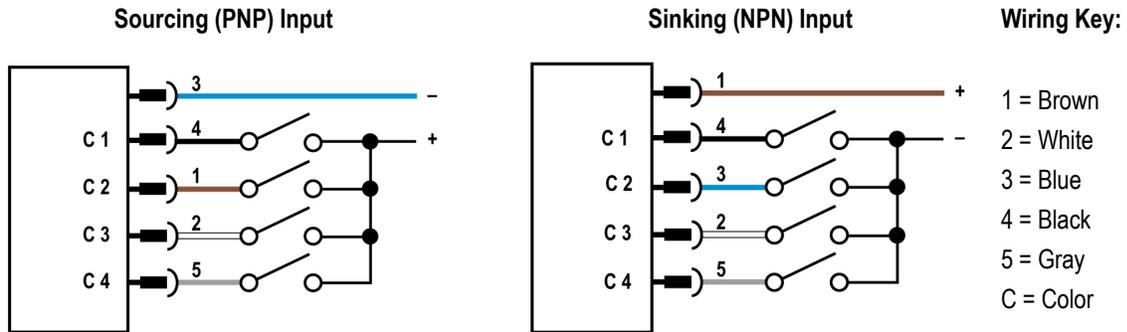
Dimensions



Wiring

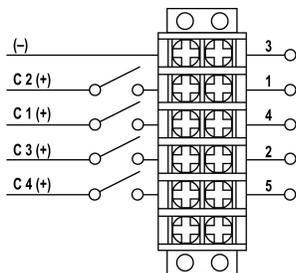


NOTE: Wiring shown is for 4-color segmented models. Depending on the model and number of segments, pins 5, 3, 2 and 1 may not be used.

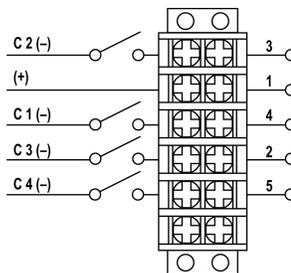


Terminal Block Locations

PNP Internal Terminal Blocks



NPN Internal Terminal Blocks



Wiring Key:

- 1 = Brown
- 2 = White
- 3 = Blue
- 4 = Black
- 5 = Gray
- C = Color

5-Pin Euro-Style Cordsets

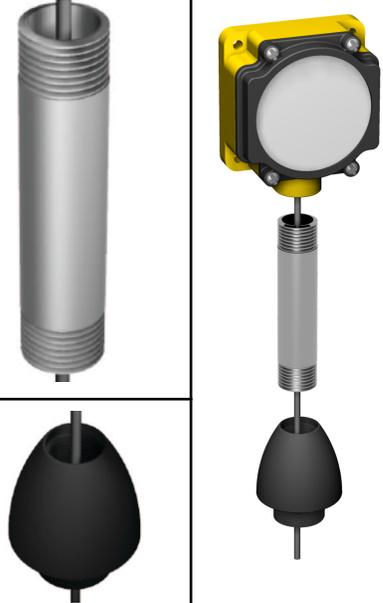
5-Pin M12/Euro-Style Cordsets (straight connector)

- MQDC1-506 , 2 m (6.5 ft)
- MQDC1-515 , 5 m (15 ft)
- MQDC1-530 , 9 m (30 ft)

5-Pin M12/Euro-Style Cordsets (right-angle connector)

- MQDC1-506RA , 2 m (6.5 ft)
- MQDC1-515RA , 5 m (15 ft)
- MQDC1-530RA , 9 m (30 ft)

Mounting Brackets

Model		Features	Mounting System	
SMBDX80D		<ul style="list-style-type: none"> • DIN-mount bracket for K80L models • Hardware included to mount to K80L housing • ABS 		
Stainless Steel	Aluminum	<ul style="list-style-type: none"> • Elevated-use stand-off pipe (½" NPSM/ DN15) • Polished 304 stainless steel or anodized aluminum surface • ½" NPT thread at both ends • Compatible with most industrial environments 		
SOP-E12-150SS 150 mm (6") long	SOP-E12-150A 150 mm (6") long			
SOP-E12-300SS 300 mm (12") long	SOP-E12-300A 300 mm (12") long			
SA-E12M30		<ul style="list-style-type: none"> • Streamlined acetal mounting base adapter/cover • Connects between ½" NPSM/DN15 pipe and 30 mm (1-3/16") drilled hole • Mounting hardware included 		

Accessory Quadrant Labels

Transparent self-adhesive cover labels for printing in a standard laser printer; print your own labels to easily identify each quadrant. Clear protective labels provide additional protection for laser print work in many industrial environments. Six labels per sheet; 5 sheets per package.

Model	Description	Size
SALK-K80L4-0	1-quadrant transparent laser label (includes 30 labels)	8.5" x 11"

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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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