

EZ-LIGHT™ K80L Quad Indicator

Segmented Four-Color Point-of-Use Indicator



Features

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



Models

Model	LED Colors	Input Type	Connector
K80L4GRYB1P			Terminal-wired
K80L4GRYB1PQ		PNP	5-Pin Euro-style integral QD connector
K80L4GRYB1PQP	Color 1 Green Color 2 Red		150 mm (6") PVC pigtail with 5-Pin Euro-style connector
K80L4GRYB1N	Color 3 Yellow Color 4 Blue		Terminal-wired
K80L4GRYB1NQ		NPN	5-Pin Euro-style integral QD connector
K80L4GRYB1NQP			150 mm (6") PVC pigtail with 5-Pin Euro-style connector



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

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Overview

The K80L Quad is a 4-color point-of-use indicator which can be used to send nonlingual messages to an operator or to monitor multiple locations.

The 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 (see Figure 1).

The K80L Quad 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.

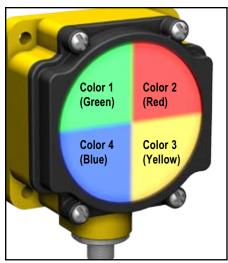


Figure 1. Features

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Supply Voltage and Current	18 to 30V dc, 35 mA per LED color; 90 mA maximum with all LEDs ON Protected against reverse polarity and transient voltages			
Input Response	Indicator ON: 250 millisecond maximum Indicator OFF: 10 millisecond maximum			
Adjustments	The K80L Quad 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, as shown in Figure 2.			
	For Demo mode, remove the four screws to remove the cover; change the switch 1 position to ON. The individual sectors will light depending on the input power as follows. Black wire input: Colors 1 and 2 alternate (Green/Red) Brown wire input: Colors 1–4 light simultaneously (Green-Red-Yellow-Blue) White wire input: Colors 1–4 light in rotation (Green/Red/Yellow/Blue)			
Construction	Base: ABS/polycarbonate Translucent face: acrylic			
Connections	5-pin Euro-style integral QD connector, 150 mm (6") PVC pigtail with 5-pin Euro-style QD connector, or terminal-wired, depending on model			
Operating Conditions	Temperature: -20° to +50° C (-4° to +122° F) Max. Relative Humidity: 90% @ 55° C (non-condensing)			
Environmental Rating	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.			

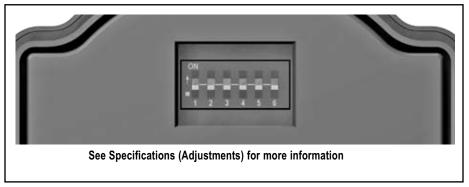
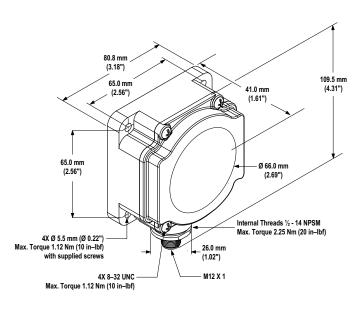


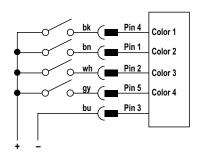
Figure 2. Program DIP switch located on the inside of the K80L cover

Dimensions

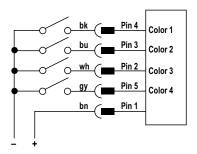


Hookups

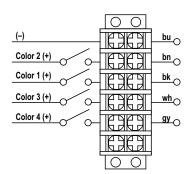
PNP Cable, QD, and Pigtail Models



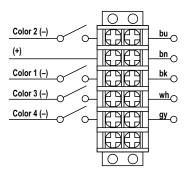
NPN Cable, QD, and Pigtail Models



PNP Internal Terminal Blocks



NPN Internal Terminal Blocks



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Accessories

Quick-Disconnect (QD) Cables

Style	Model	Length	Dimensions	Pinout
5-Pin Euro Straight	MQDC-506 MQDC-515 MQDC-530	2 m (6.5') 5 m (15') 9 m (30')	# 15 mm (0.6°) 44 mm max. (1.7°)	Brown Wire
5-Pin Euro Right-Angle	MQDC-506RA MQDC-515RA MQDC-530RA	2 m (6.5') 5 m (15') 9 m (30')	38 mm max. (1.5") 38 mm max. (1.5") M12 x 1 \$ 15 mm (0.6")	Blue Wire Gray Wire

Mounting Brackets

Model	Description	Length	
SMBDX80D	DIN-mount bracket for K80L models Hardware included to mount to K80L housing ABS	N/A	\\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\
SOP-E12-150SS	Stainless steel elevated-use stand-off pipe (1/2" NPSM/DN15) Polished 304 stainless steel surface	150 mm (6")	Ö
SOP-E12-300SS	1/2 NPT thread at both ends Compatible with most industrial environments	300 mm (12")	•
SA-E12M30	Streamlined acetal mounting base adapter/cover Connects between 1/2" NPSM/DN15 pipe and 30 mm (1-3/16") drilled hole Mounting hardware included	N/A	•

For bracket dimension information, go to www.bannerengineering.com.



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