

Additional information on this product is immediately available online at www.bannerengineering.com/125680



For further assistance, contact a Banner Engineering Applications Engineer at (763) 544-3164 or (888) 373-6767.



Standard K50 Models

- Job light is ON at all times while job input is active.
- Presence of hand (or pressing push button) activates output.

Models	Sensing Mode/LED	Range	Cable*	Output Type	Job Light
K50RPLPGXDQ	 POLAR RETRO Visible red, 680 nm	2 m	Integral 4-pin Euro QD	PNP (Sourcing)	Green
K50RNLPGXDQ				NPN (Sinking)	
K50APFF50GXDQ	 FIXED-FIELD Infrared, 880 nm	50 mm Cutoff		PNP (Sourcing)	
K50ANFF50GXDQ				NPN (Sinking)	
K50APFF100GXDQ		100 mm Cutoff		PNP (Sourcing)	
K50ANFF100GXDQ				NPN (Sinking)	
K50APPBGXDQ	 PUSH-BUTTON	—		PNP (Sourcing)	
K50ANPBGXDQ				NPN (Sinking)	

*Standard integral QD models are listed (mating cable required).

For 2 m (6') cable model: omit suffix "Q" from model number (e.g., K50APLPGXD).

For 9 m (30') cable model: replace suffix "Q" with "W/30" (e.g., K50APLPGXD W/30).

For 150 mm (6") PVC pigtail with 4-pin Euro-style fitting: replace suffix "Q" with "QP" (e.g., K50APLPGXDQP), mating cable required.



WARNING . . . Not To Be Used for Personnel Protection


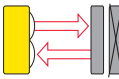

Never use these products as sensing devices for personnel protection. Doing so could lead to serious injury or death.

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.

K50 Series Pick-to-Light

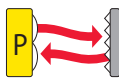
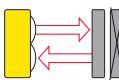

Specialty C-Series Models

- Job light is Green while job input is active (unless hand is present).
- Presence of hand (or pressing push button) activates output and overrides job light (turns Red) for visual verification that action was sensed.
- Retroreflective models: To simplify alignment, sensor provides Red signal when retroreflective target is not correctly aligned.

Models	Sensing Mode/LED	Range	Cable*	Output Type	Job Light
K50RPLPGRCQ	 POLAR RETRO Visible red, 680 nm	2 m	Integral 4-pin Euro QD	PNP (Sourcing)	Green (Red)
K50RNLPGRQC				NPN (Sinking)	
K50APFF50GRQC	 FIXED-FIELD Infrared, 880 nm	50 mm Cutoff		PNP (Sourcing)	
K50ANFF50GRQC		NPN (Sinking)			
K50APFF100GRQC		100 mm Cutoff		PNP (Sourcing)	
K50ANFF100GRQC				NPN (Sinking)	
K50APPBGRQC	 PUSH-BUTTON	—		PNP (Sourcing)	
K50ANPBGRQC				NPN (Sinking)	

Specialty E-Series Models

- Job light is Green at all times while job input is active.
- Presence of hand (or pressing push button) activates output.
- Presence of hand (or pressing push button) while job input is inactive causes unit to light Red, for visual verification that sensor is functioning properly.

Models	Sensing Mode/LED	Range	Cable*	Output Type	Job Light
K50RPLPGREQ	 POLAR RETRO Visible red, 680 nm	2 m	Integral 4-pin Euro QD	PNP (Sourcing)	Green (Red)
K50RNLPGREQ				NPN (Sinking)	
K50APFF50GREQ	 FIXED-FIELD Infrared, 880 nm	50 mm Cutoff		PNP (Sourcing)	
K50ANFF50GREQ		NPN (Sinking)			
K50APFF100GREQ		100 mm Cutoff		PNP (Sourcing)	
K50ANFF100GREQ				NPN (Sinking)	
K50APPBGREQ	 PUSH-BUTTON	—		PNP (Sourcing)	
K50ANPBGREQ				NPN (Sinking)	

*Standard integral QD models are listed (mating cable required).

For 2 m (6') cable model: omit suffix "Q" from model number (e.g., K50APLPGRC).

For 9 m (30') cable model: replace suffix "Q" with "W/30" (e.g., K50APLPGRC W/30).

For 150 mm (6") PVC pigtail with 4-pin Euro-style fitting: replace suffix "Q" with "QP" (e.g., K50APLPGRCQP), mating cable required.

Specifications

Supply Voltage and Current

12 to 30V dc,
 < 60 mA max. current @ 12V dc (exclusive of load);
 < 40 mA max. current @ 30V dc (exclusive of load).
 ASI Compatible.

Supply Protection Circuitry

Protected against reverse polarity and transient voltages

Output

PNP or NPN (depending on model)

Output Rating

150 mA max., OFF-state leakage current < 10 μ A @ 30V dc;
 ON-state voltage < 2V @ 10 mA dc; < 2.5V @ 150 mA dc

Output Protection

Protected against false pulse on power-up and continuous overload or short circuit of output

Output Response

3 ms ON and OFF

Indicators

Entire translucent dome provides indicator light; either Job or Pick Sensed indicator inhibits the other light, depending on model.

Job ("Pick") indicator: green

Pick Sensed indicator: red or no indicator, depending on model

Job Light Enable Input

Input Impedance: 8000 ohms

Sinking: Input low < 1.5V

Sourcing: Input high > 7V

Environmental Rating

Fully encapsulated, IEC IP67

Integral QD models: IP69K when used with IP69K rated cable

Pigtail and cabled models: IP69K when mounted using conduit

Connections

Depending on model: 4-wire, 2 m (6.5') integral cable; 4-pin M12 Euro-style integral QD or 150 mm PVC pigtail

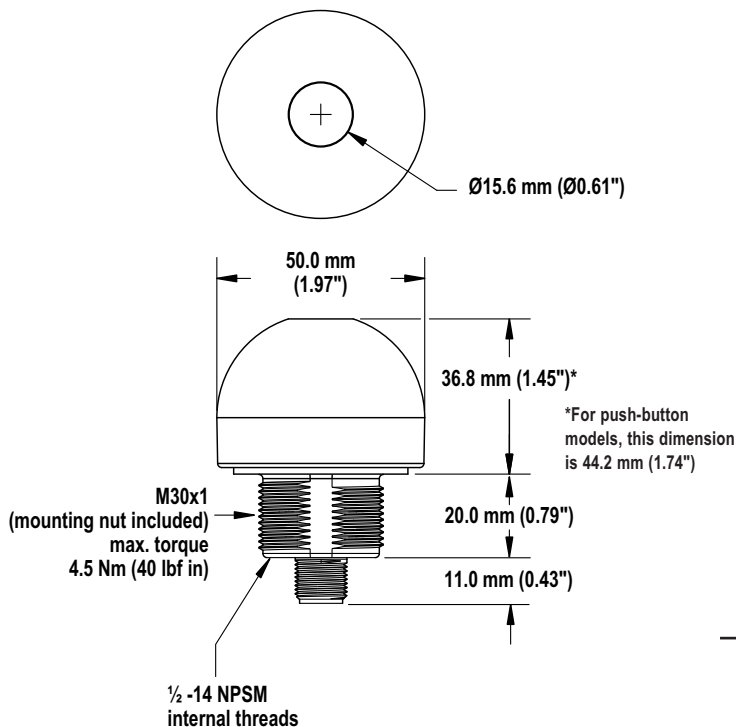
Operating Conditions

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

Certification  

Dimensions

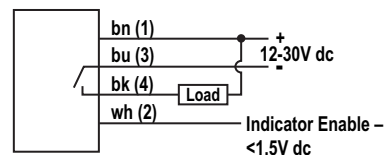
QD models shown



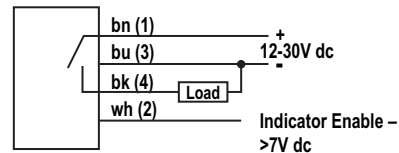
Hookups

NOTE: Cable and QD hookups are functionally identical.

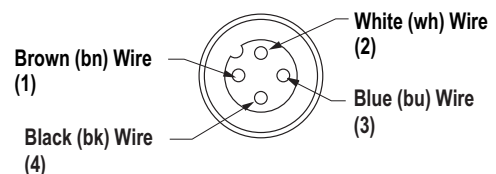
NPN (Sinking) Output Models



PNP (Sourcing) Output Models



M12 Euro-style Pinout



K50 Series Pick-to-Light

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