

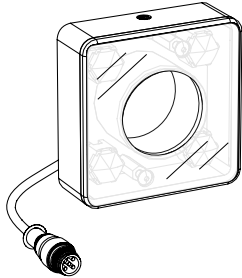
LED High-Intensity Ring Light



Datasheet

High-Intensity LED Ring Light for use with PresencePLUS and other Vision Systems

For the latest technical information about this product, including specifications, dimensions, and wiring, see <http://www.bannerengineering.com>.



- Compact ring light for PresencePLUS and other Vision Systems
- Four extremely bright LEDs for illumination of targets from 0.15 meters to beyond 2 meters
- Continuous or strobed operation
- Optically isolated strobe signal
- Fixed or adjustable intensity, depending on model
- Maintenance-free, rugged construction
- Evenly and intensely illuminates a 610 millimeters (24 inches) diameter at 1 meter

Models

Model ¹	LED Color	Bracket	Cable
LEDRR70XD5-XQ	Red, 620 nm to 630 nm	Optional bracket available (see Mounting Bracket)	150 mm (6 in) pigtail with threaded 5-pin Euro-style connector ²
LEDWR70XD5-XQ	White, 5000 K to 8300 K		
LEDBR70XD5-XQ	Blue, 465 nm to 485 nm		
LEDGR70XD5-XQ	Green, 520 nm to 535 nm		
LEDIR70XD5-XQ	Infrared, 850 nm		
LEDUV395R70XD5-XQ	UV, 395 nm		
LEDRR70XD5-XM	Red, 620 nm to 630 nm	Built-in P4 bracket (see dimensions)	300 mm (12 in) pigtail with threaded 3-pin Pico-style connector ³
LEDWR70XD5-XM	White, 5000 K to 8300 K		
LEDBR70XD5-XM	Blue, 465 nm to 485 nm		
LEDGR70XD5-XM	Green, 520 nm to 535 nm		
LEDIR70XD5-XM	Infrared, 850 nm		
LEDUV395R70XD5-XM	UV, 395 nm		

The following caution applies to UV 395 nm models:



CAUTION:

Risk Group 2: UV Emitted from this product.

Eye or skin irritation may result from exposure. Use appropriate shielding and eye protection. Risk Group 2 (RG 2) products generally do not pose a realistic optical hazard if aversion responses limit the exposure duration or where lengthy exposures are unrealistic.

- IEC 62471

¹ For models with controllable intensity, add "P" to the model number (e.g., LEDRR70XD5-PQ).

² Requires Euro-style cordset.

³ Connects directly to the P4 sensor.



Specifications

Light Source

Four high-intensity LEDs; see models table for wavelengths

Illumination

610 mm (24 in) diameter usable light pattern at 1 m

Strobe

Optically isolated

Supply Voltage and Current

Operating Voltage: 24 V dc \pm 10%

Strobe Voltage: 5 V dc to 24 V dc @ 15 mA maximum

Current Draw at Full Intensity: 350 mA maximum

Built-in constant current regulator for LEDs

Potentiometer controls variable intensity for "P" models

Construction

Enclosure rating: IP50

Housing: aluminum, black anodized

Window: acrylic, clear with frosted diffusing surface on inside

Bracket: aluminum, black anodized. Attaches ring light directly to PresencePLUS P4 with 2 included M4x14 screws

Useful Life

When operated within specifications, output will decrease less than 30% after 50,000 hours for visible and IR models, 20,000 hours for UV models

Operating Conditions

Temperature: 0 °C to +50 °C (+32 °F to +122 °F)

Humidity: 90% maximum relative humidity (non-condensing)

Certifications



Wiring

Wire Purpose	Cable Wire Color ⁴	Continuous On Mode	Strobed Mode	PresencePLUS Pro Controller Terminal Block
Power Wires	Brown (1)	+24 V dc	+24 V dc	Pin 01 ⁵
	Blue (3)	common	common	Pin 02
Strobe Polarity Control	Gray (5)	open	Active Low: open	Open — Active Low
			Active High: connect to common (Blue wire)	Pin 02 — Active High
Strobe Voltage Wires	White (2)	open	0 V dc = ON (Active Low)	Pin 04
			+5 V dc to 24 V dc = OFF (Active Low)	
	Black (4)	open	Strobe common	Pin 02

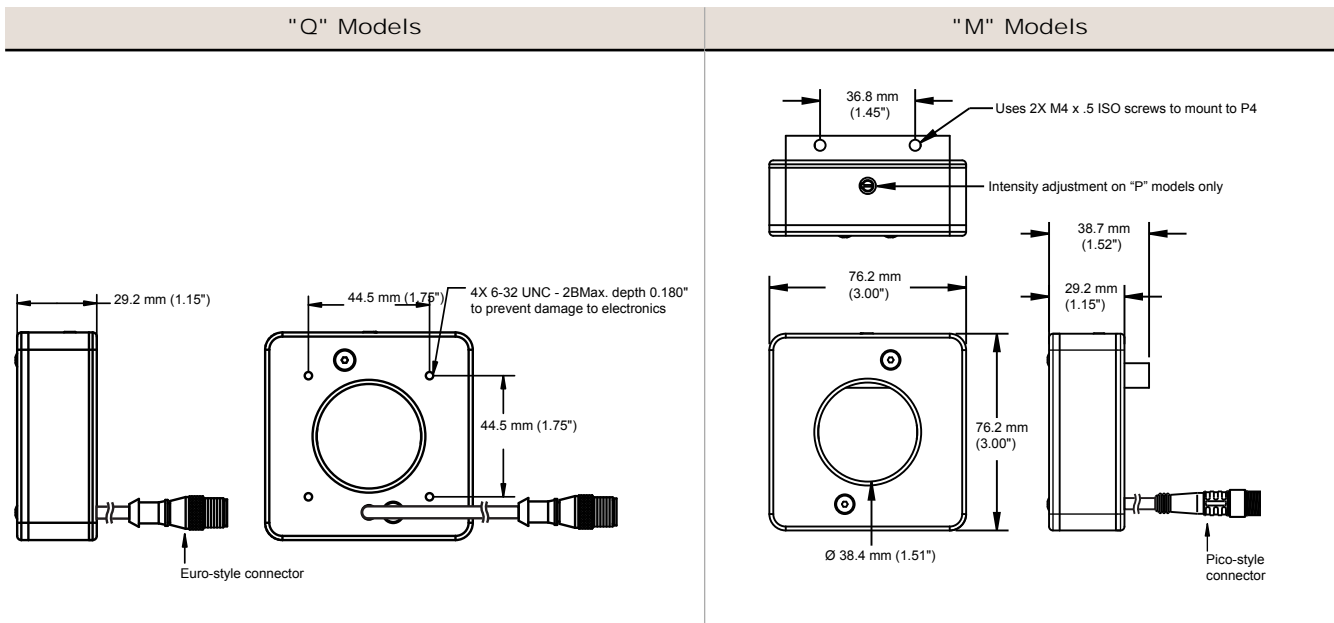
Figure 1. Pinouts for Mating Cordset

Light Intensity Adjustment

Adjust the light's intensity by turning the 270° Intensity potentiometer with a small flat-blade screwdriver. Apply power to the light and turn the potentiometer all the way clockwise for max. intensity. If the object to be sensed is too bright at max. intensity, turn the potentiometer down a little at a time, testing with the object, until the correct brightness is achieved.

⁴ For Banner-supplied wire.

⁵ When connecting the light to a PresencePLUS Pro controller terminal block, the controller supply must be 24 V dc \pm 10%.



All measurements are listed in millimeters (inches), unless noted otherwise.

5-Pin Euro-Style Cordsets

5-Pin Threaded M12/Euro-Style Cordsets—Single Ended				
Model	Length	Style	Dimensions	Pinout (Female)
MQDC1-501.5	0.50 m (1.5 ft)	Straight		<p>1 = Brown 2 = White 3 = Blue 4 = Black 5 = Gray</p>
MQDC1-506	1.83 m (6 ft)			
MQDC1-515	4.57 m (15 ft)			
MQDC1-530	9.14 m (30 ft)			
MQDC1-506RA	1.83 m (6 ft)	Right-Angle		
MQDC1-515RA	4.57 m (15 ft)			
MQDC1-530RA	9.14 m (30 ft)			

Accessory Brackets

SMBPPRHI

- Black zinc plated cold rolled steel bracket
- Mounts directly to PresencePLUS Pro sensor
- Includes: 2 – 6-32 screws (socket drive, button head) 4 – M3 screws (socket drive, cap head)



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