

LEDxR90S Series Sealed Ring Lights

LED Ring Lights for Use with PresencePLUS® Pro Sealed Sensors



- Rugged, waterproof housing, rated IEC IP68
- 90 mm light diameter
- Solid-state LED matrix; continuous or strobed operation is selectable via sensor software.
- Available with 316 stainless steel or nickel-plated aluminum housing and a choice of either acrylic or tempered optical glass windows
- Mounts directly to PresencePLUS Pro washdown sensors
- LEDs directly illuminate target

Shown with cable installed; see Cables list for options

Models		LED Color	Housing	Optional Ambient Light Filter Kit	Optional Polarizing Filter Kit
Acrylic Window	Glass Window				
LEDIR90S-P	LEDIR90S-G	Infrared, 940 nm	Nickel-plated aluminum	FLTI, included with IR lights	LEDRPFK90
LEDRR90S-P	LEDRR90S-G	Visible Red, 630 nm		FLTR, included with LEDRPFK90	
LEDWR90S-P	LEDWR90S-G	White, All Visible		FLTB or FLTG	
LEDBR90S-P	LEDBR90S-G	Blue, 464 to 475 nm		FLTB	
LEDGR90S-P	LEDGR90S-G	Green, 520 to 540 nm		FLTG	
LEDIR90SS-P	LEDIR90SS-G	Infrared, 940 nm	316 Stainless steel	FLTI, included with IR lights	
LEDRR90SS-P	LEDRR90SS-G	Visible Red, 630 nm		FLTR, included with LEDRPFK90	
LEDWR90SS-P	LEDWR90SS-G	White, All Visible		FLTB or FLTG	
LEDBR90SS-P	LEDBR90SS-G	Blue, 464 to 475 nm		FLTB	
LEDGR90SS-P	LEDGR90SS-G	Green, 520 to 540 nm		FLTG	

Specifications

Supply Voltage and Current

Infrared: 24V dc @ 180 mA max.
 All other colors: 24V dc @ 250 mA max.

Connections

8 mm male Pico-style connector; accessory cable required for operation, see page 3 for options

Construction

Housing: Nickel-plated aluminum or 100% 316 stainless steel, depending on model
 Window: Acrylic or tempered optical glass window, depending on model

Environmental Rating

Nickel-plated models: IEC IP68

Light Source

LED, see Models table above for wavelengths

Illumination

High-intensity ring light

Useful Life

When operated within specifications, output will decrease less than 30% after 20,000 hours and less than 50% (less than 40% for red and IR models) after 30,000 hours.

Cleaning Instructions

Regularly remove any dust, dirt, or fingerprints from the light source.

1. Blow off dust using anti-static compressed air.



Stainless steel models: NEMA 4X; IP68

Operating Conditions

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

2. If necessary, use a lens cloth and lens cleaner or window cleaner to wipe off remaining debris. Do not use any other chemicals for cleaning.

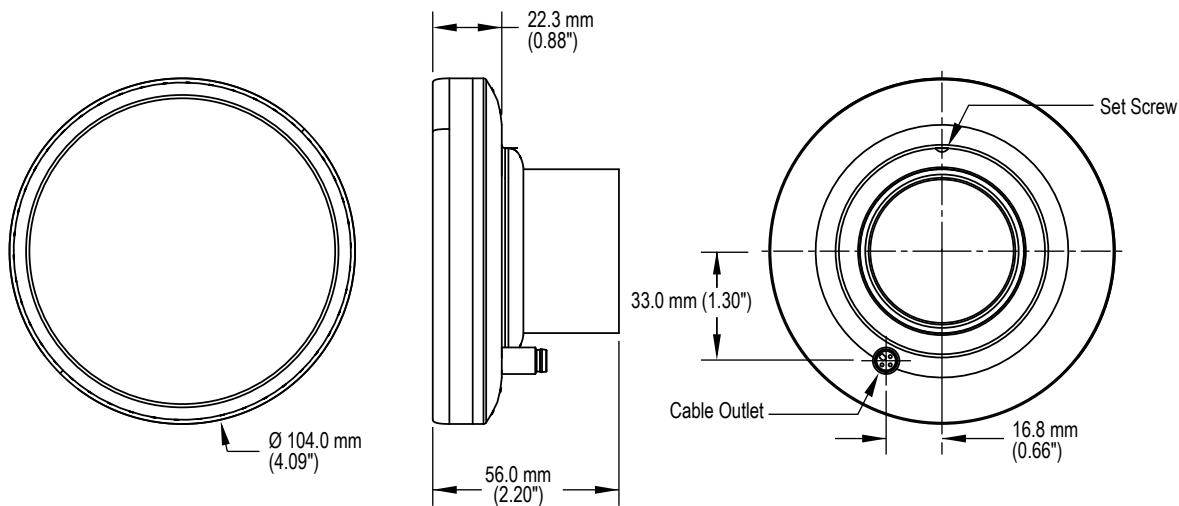


Figure 1. Dimensions

Installing the Ring Light

Before installing this ring light it is recommended that a light filter be installed behind the lens. The filter improves image quality by reducing unwanted ambient light. See Models table for further information.

1. Install and focus lens while holding ring light beside the sensor, illuminating the target.
2. Thread on ring light assembly until it is seated against the sensor.
3. Loosen the set screw and rotate the cable outlet to the desired position. Tighten set screw. Do not overtighten.
4. Install cable (not included, see page 3) to cable outlet.
5. Connect cable to power source.
6. Connect strobe signal output from Pro controller to strobe input wire (black) of light (optional).

Sensing Shiny Surfaces. To eliminate direct reflections without using polarizing filters, angle the sensor approximately 15° (or more) from perpendicular to a shiny surface.

Polarizing Kit. If it is necessary to mount the sensor at a 90° angle to a shiny surface, the polarizing filter kit provides filters for both the LED ring light and sensor to reduce the negative effects of strong, direct light reflections. The polarizing filters reduce the amount of light returned to the sensor.

Wiring Table

Cable Wire	PresencePLUS Pro Controller Terminal Block	External Power Supply (Strobed)	External Power Supply (Continuous)
Brown	Pin 1 (+V*)	+V	+V
Blue	Pin 2 (-V*)	-V	-V
Black	Pin 4 (strobe)	+5V dc OFF -V ON	-V

* For Banner-supplied wire

Cables for the LEDxR90S Series Sealed Ring Lights

Model	Length	Description	Use With
PKG3M-4	4 m (13')	Female Pico-style (8 mm) connector at one end; flying leads at opposite end	Nickel-plated aluminum models
PKG3M-7	7 m (23')		
PKG3M-10	10 m (33')		
PKG3M-4	4 m (13')	Female Pico-style (8 mm) 316 stainless steel connector at one end; flying leads at opposite end	Stainless steel models
PKG3M-7	7 m (23')		
PKG3M-10	10 m (33')		

Banner Engineering Corp Limited Warranty

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.

THIS LIMITED WARRANTY IS EXCLUSIVE AND IN LIEU OF ALL OTHER WARRANTIES WHETHER EXPRESS OR IMPLIED (INCLUDING, WITHOUT LIMITATION, ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE), AND WHETHER ARISING UNDER COURSE OF PERFORMANCE, COURSE OF DEALING OR TRADE USAGE.

This Warranty is exclusive and limited to repair or, at the discretion of Banner Engineering Corp., replacement. **IN NO EVENT SHALL BANNER ENGINEERING CORP. BE LIABLE TO BUYER OR ANY OTHER PERSON OR ENTITY FOR ANY EXTRA COSTS, EXPENSES, LOSSES, LOSS OF PROFITS, OR ANY INCIDENTAL, CONSEQUENTIAL OR SPECIAL DAMAGES RESULTING FROM ANY PRODUCT DEFECT OR FROM THE USE OR INABILITY TO USE THE PRODUCT, WHETHER ARISING IN CONTRACT OR WARRANTY, STATUTE, TORT, STRICT LIABILITY, NEGLIGENCE, OR OTHERWISE.**

Banner Engineering Corp. reserves the right to change, modify or improve the design of the product without assuming any obligations or liabilities relating to any product previously manufactured by Banner Engineering Corp.