



LED..R90S Series Sealed Ring Lights

LED Ring Lights for Use with PresencePLUS® Pro Sealed Sensors



Shown with cable installed; see page 3 for cable options

Features

- 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

Models

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

Light Source	LED, see Models table above for wavelengths
Illumination	High-intensity ring light
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 Stainless steel models: NEMA 4X; IP68
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.
Operating Conditions	Temperature: 0° to +50° C (+32° to 122° F)
Cleaning Instructions	Regularly remove any dust, dirt, or fingerprints from the light source. 1. Blow off dust using anti-static compressed air. 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.

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Installing the Ring Light

NOTE: 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.

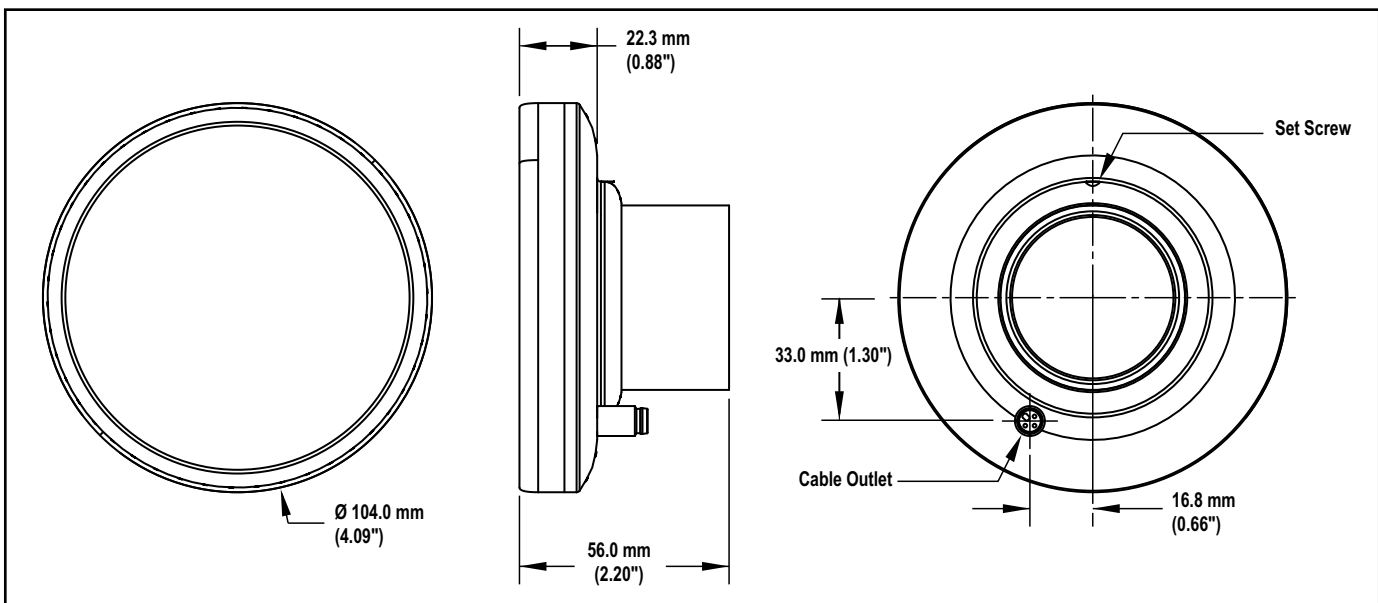


Figure 1. Dimensions

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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			
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')		
PKGV3M-4	4 m (13')	Female Pico-style (8 mm) 316 stainless steel connector at one end; flying leads at opposite end	Stainless steel models
PKGV3M-7	7 m (23')		
PKGV3M-10	10 m (33')		

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