

LED..O..M Series Diffused On-Axis Lights

Uniform Lighting for Machine Vision Applications

Features



- Diffused on-axis illumination for uniform lighting on specular surfaces
- Five light colors
- Two sizes available
- Continuous or strobed operation selectable via sensor software
- Glass dust-covered models available (see table below for models ending in -D)
- Bracket options available

Models

Model		Color	Aper- ture Size	Cable*	Connections	Ambient Light Filter Kit		
Without Dust Cover	With Dust Cover**							
LEDRO50M	LEDRO50M-D	Visible Red (630 nm)	50 mm	0.6 m (2') attached pigtail	8 mm male Pico- style (for direct connection to <i>PresencePLUS</i> P4 sensor)	FLTR		
LEDIO50M	LEDIO50M-D	Infrared (880 nm)				FLTI		
LEDBO50M	LEDBO50M-D	Blue (470 nm)				FLTB		
LEDWO50M	LEDWO50M-D	White (5500K)				—		
LEDGO50M	LEDGO50M-D	Green (530 nm)				FLTG		
LEDRO100M	LEDRO100M-D	Visible Red (630 nm)	100 mm			0.6 m (2') attached pigtail	8 mm male Pico- style (for direct connection to <i>PresencePLUS</i> P4 sensor)	FLTR
LEDIO100M	LEDIO100M-D	Infrared (880 nm)						FLTI
LEDBO100M	LEDBO100M-D	Blue (470 nm)						FLTB
LEDWO100M	LEDWO100M-D	White (5500K)						—
LEDGO100M	LEDGO100M-D	Green (530 nm)						FLTG

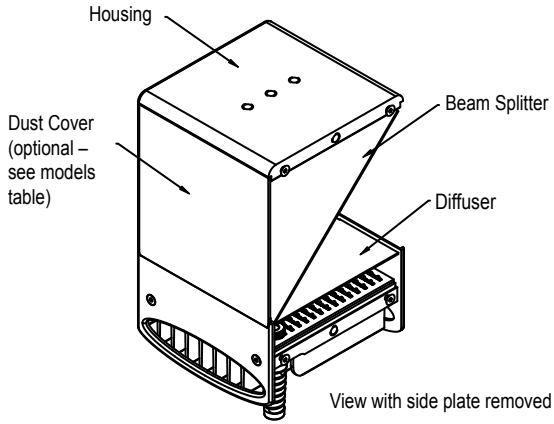
* Extension cables with flying leads are available for connecting to models other than *PresencePLUS* P4.

** Optical glass anti-reflective coating, both sides

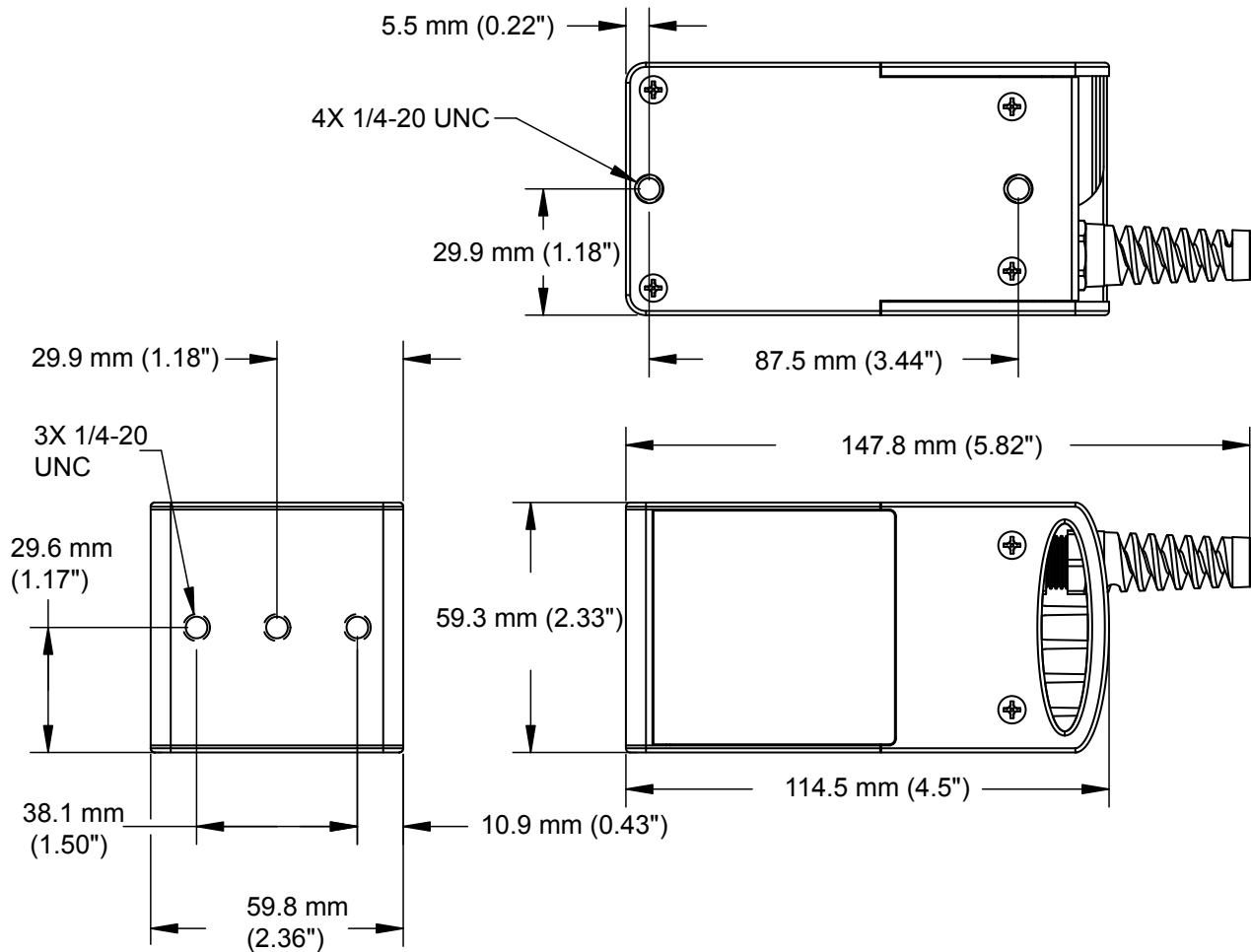
Specifications

Feature	Description
Light Source	Visible red LED (630 nm), Infrared (880 nm), Blue (470 nm), White (5500 K), or Green (530 nm), depending on model
Supply Voltage and Current	24V dc \pm 10% 500 mA max., 125 mA max for 50 mm models. Direct connect to <i>PresencePLUS</i> P4 sensor operating at 24V dc only.
Construction	<p>Housing: Aluminum with black anodizing</p> <p>Beam Splitter: Optical glass with optical coatings on both sides.</p> <p>Diffuser: High-precision cast acrylic</p> <p>Dust Cover: Optical glass with broadband anti-reflective coating (425 – 675 nm) (some models)</p>
Useful Life	When operated within specifications, output will decrease less than 20% after 10,000 hours and less than 30% after 20,000 hours (based on continuous operation). NOTE: Actual useful life of strobed lights depends on duty cycle.
Operating Conditions	<p>Temperature: 0° to +50° C (+32° to +122° F)</p> <p>Maximum Relative Humidity: 90% at 50° C (non-condensing)</p>
Cleaning Instructions	<p>Regularly remove any dust, dirt, or fingerprints from the light source:</p> <ol style="list-style-type: none"> 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. <p>Do not use any other chemicals for cleaning.</p>
Installation Note	<p>Before installing an on-axis light, it is recommended that the listed ambient light filter be installed behind the camera lens.</p> <p>The filter improves image quality by reducing unwanted ambient light.</p> <p>100 mm models: 50 x 50 mm suggested field of view and 25 mm minimum suggested stand off</p> <p>50 mm models: 25 x 25 mm suggested field of view and 25 mm minimum suggested stand off</p>

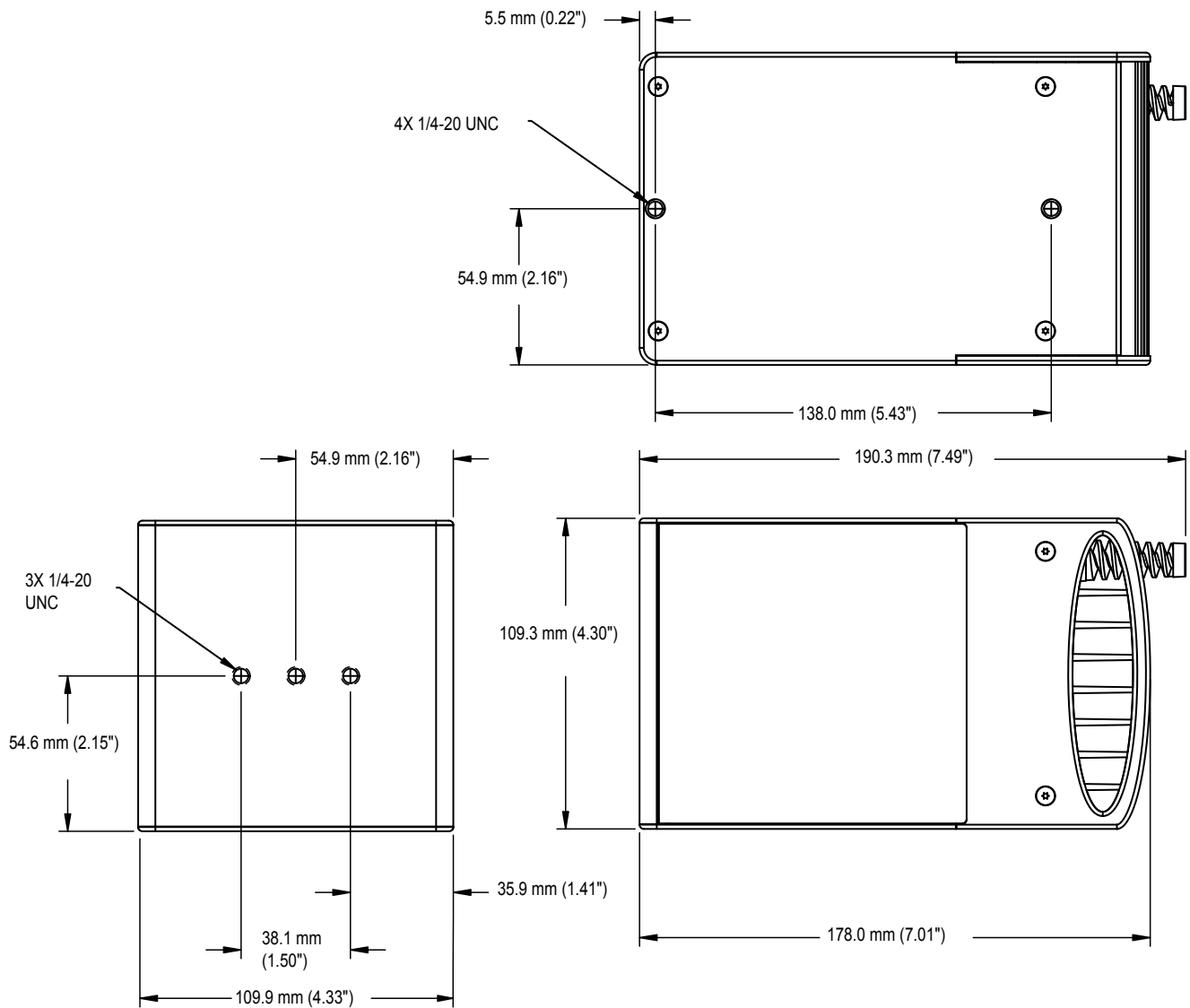
Dimensions



50 mm Models



100 mm Models






Wiring Table


On-Axis Light Wire	PresencePLUS Pro Controller Terminal Block	External Power Supply (Strobed)	External Power Supply (Continuous)
Brown	Pin 1, +V (24V dc ±10%)	+V	+V
Blue	Pin 2, -V (dc common)	-V	-V
Black	Pin 4 (strobe)	+5 to 24V dc OFF	-V
		-V ON	

Quick Disconnect Cables

Model	Length	Connection
PKG3M-2	2 m (6.5')	Female Pico-style (8 mm) connector at one end; flying leads at opposite end
PKG3M-4	4 m (13')	
PKG3M-7	7 m (23')	
PKG3M-9	9 m (30')	

Mounting Brackets

SMBP4OAL100	<ul style="list-style-type: none"> • For use with right-angle or in-line P4 sensors and 100 mm on-axis light • Centers lens on light opening • Black zinc-plated steel • (4) M5 and (4) ¼-20 socket drive, button-head screws included 	
SMBP-POAL100	<ul style="list-style-type: none"> • For use with Pro sensors and 100 mm on-axis light • Centers lens on light opening • Black zinc-plated steel • (4) M5 and (4) ¼-20 socket drive, button-head screws included 	
SMBP4OAL50	<ul style="list-style-type: none"> • For use with right-angle or in-line P4 sensors and 50 mm on-axis light • Centers lens on light opening • Black anodized aluminum and zinc-plated steel • (4) M3 flat head torx, (4) M5 and (4) ¼-20 socket drive, button-head screws included 	

SMBP- POAL50	<ul style="list-style-type: none">• For use with Pro sensors and 50 mm on-axis light• Centers lens on light opening• Black zinc-plated steel• (4) M5 and (4) ¼-20 socket drive, button-head screws included	
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Refer to your current Banner Sensors catalog for more mounting bracket options. Bracket dimensions can be found at www.bannerengineering.com.