



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 |

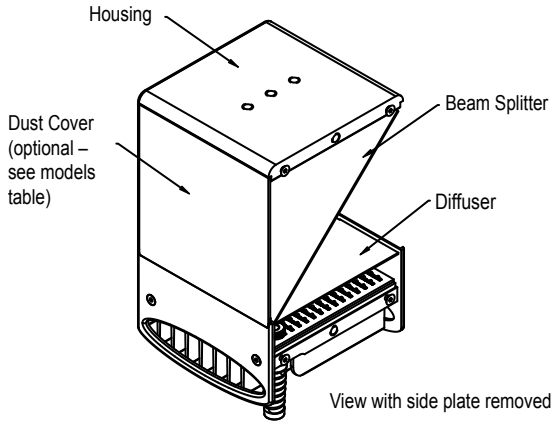
* Extension cables with flying leads are available for connecting to models other than *PresencePLUS* P4.

** Optical glass anti-reflective coating, both sides

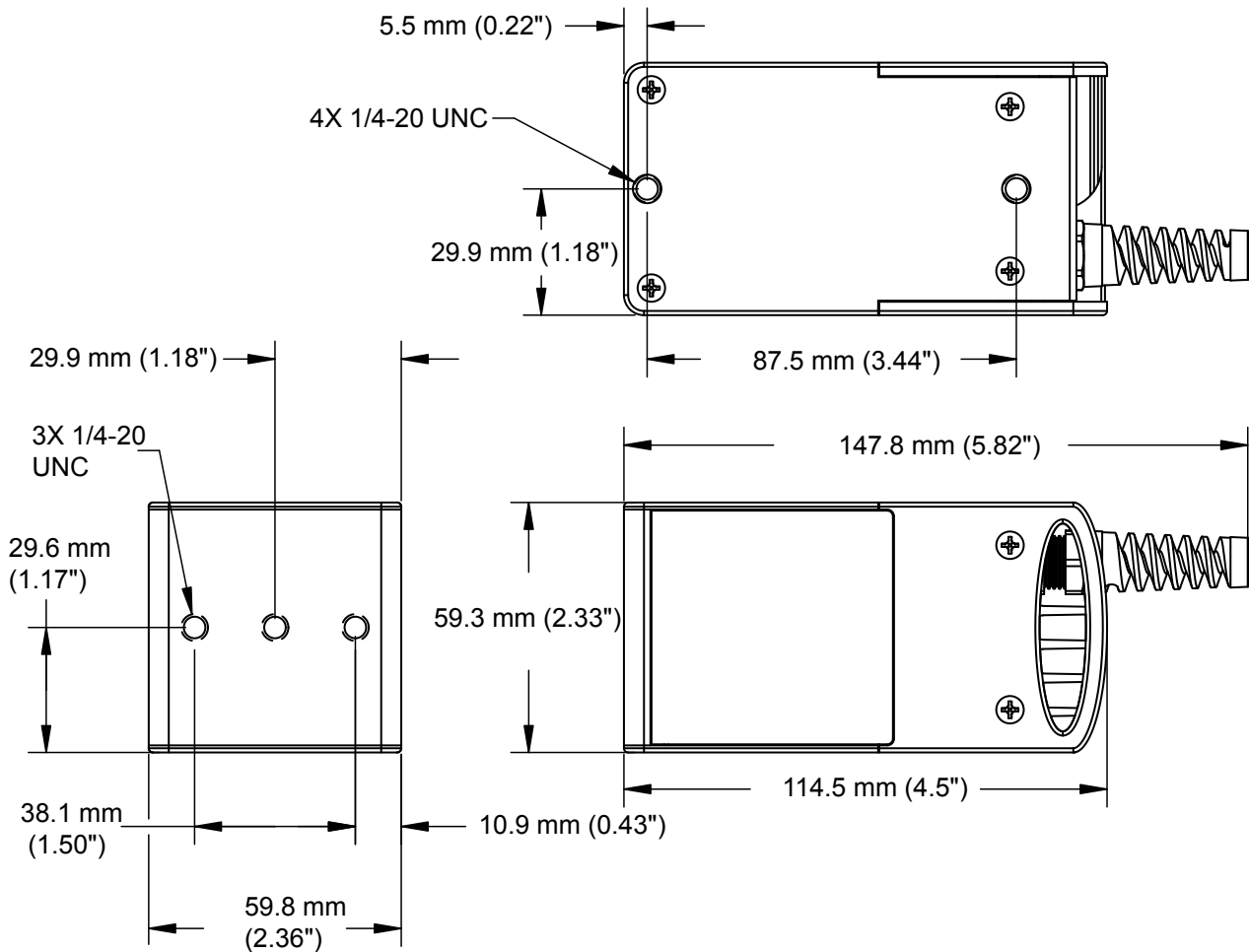
Specifications

| 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> |

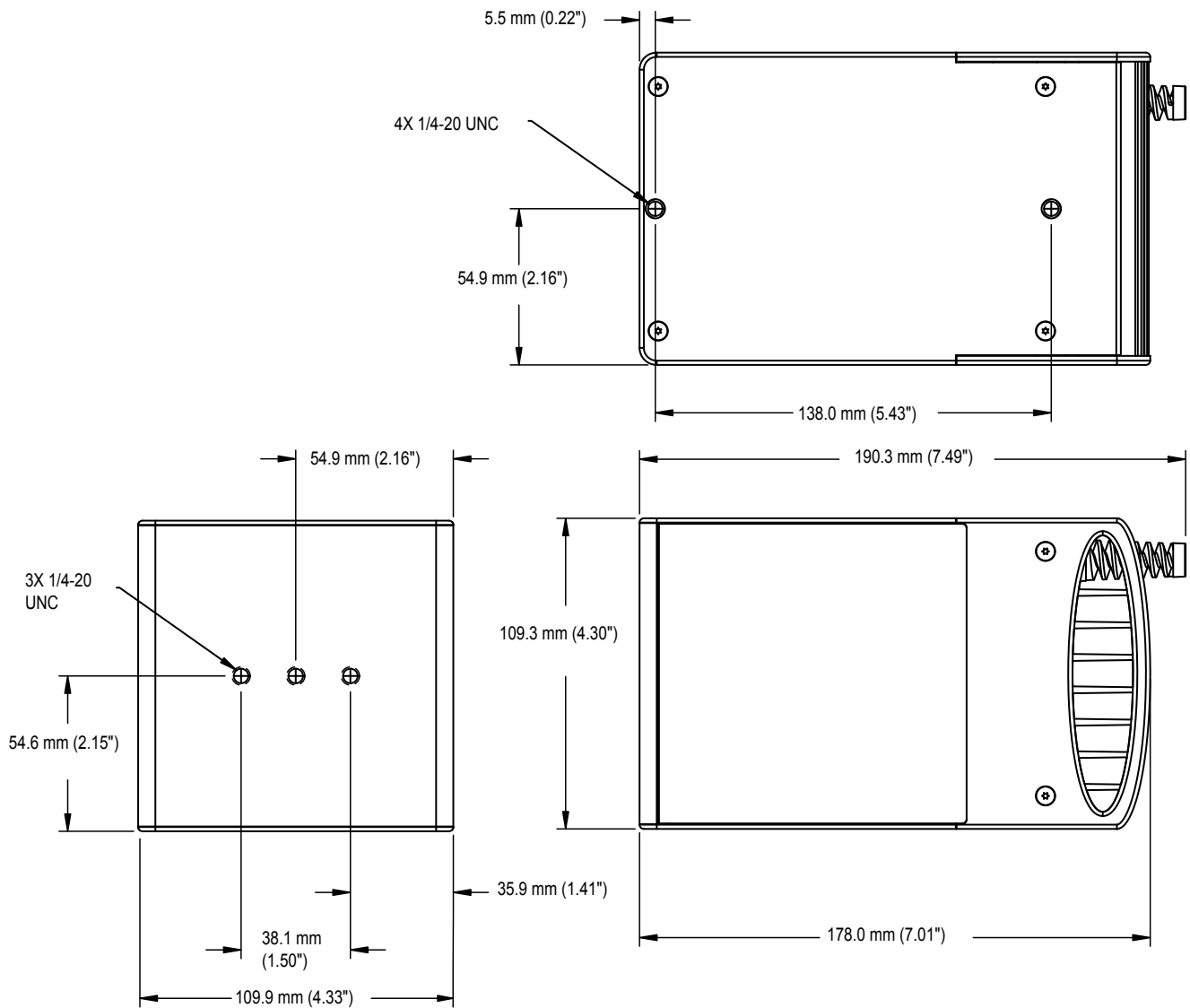
Dimensions



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 \pm 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 |  |
|-------------------------|--|--|

Refer to your current Banner Sensors catalog for more mounting bracket options. Bracket dimensions can be found at Banner Engineering website.