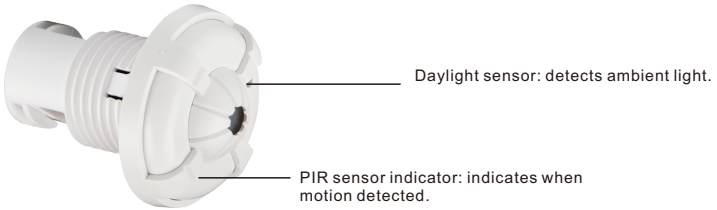
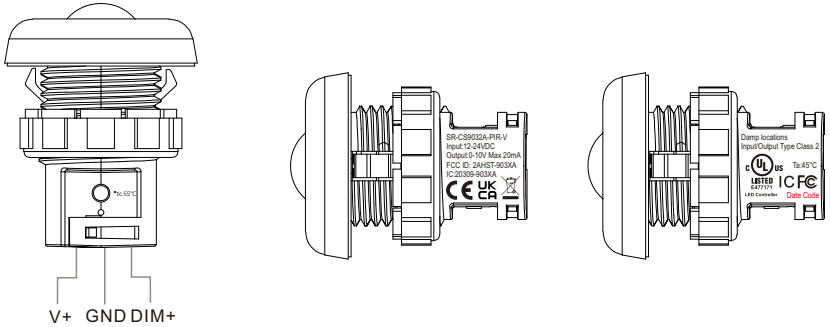
Casambi Wireless Fixture Mounted PIR Sensor + Light Sensor + 0-10V Dimming

Important: *Read All Instructions Prior to Installation*

Function introduction





Product Description

The fixture-Integrated sensor combines presence sensing, daylight harvesting, 0-10V dimming and Casambi radio technology into a small package that fits into various luminaires. When used with 0-10V dim-to-off LED drivers, it enables any lighting manufacturer to deliver wirelessly-controllable and sensor-equipped fixtures with minimal engineering effort. The sensor-equipped luminaires just need to be connected to mains power. The result is increased occupant comfort and significant energy savings that meet the most demanding building energy codes.

Casambi Technology Explained

The Casambi technology provides a mesh network where all the intelligence of the system is replicated in every node and, in such a way, creates a system with no single point of failure. In this kind of fully distributed architecture, any unit can go offline and catch up from others when they return back online.

Wireless Features

• Control a large number of fixtures from any point
• Simple to use UI
• Wide range of functionality – Grouping Luminaires, different lighting situations for different occasions, colour temperature, daylight sensor, occupancy sensor and much more.

Product Data

Physical Information

Dimensions / Weight	See Dimensions / 12.3g (without locknut) / 21.3g (with locknut)
Mounting (Luminaire Hole)	1/2" trade size knockout (22.2-22.3mm)
Material / Color	ABS / White
Connectors / Wire Gauge	3 pin connectors / 24-18 AWG (0.2-0.75 mm2)
Strip Length	0.28-0.35 in. / 7-9 mm

Electrical Information

Input Voltage	12/24 VDC
Current Consumption	< 30mA (when dimming method = sink)
Dimming Control	Analog (0-10V)
Dimming Output	4mA (sink) / 20mA (source)
Status Indicators	Red (motion detection)

Wireless Communication

Transceiver Frequency	2.4GHz ISM band
Radio Range	164 feet (50m) in open field
Radio Certification	FCC/IC, CE

Lighting Control

Features	Continuous dimming , Individual/group addressing, Scene control, Task tuning (0-100%) Autonomous sensor-based control, Scheduler control

Sensing

Occupancy Sensing Type	PIR sensor
Lux Detection Range	0-1000 Lux
Mounting Height	Recommended height: 8ft (2.5m)
Detection Angle	130°
Detection Range	Up to 5 meters @ 2.5m installation height

Environment

Operating Temperature Range	32˚F to 104˚F / 0˚C to 40˚C (indoor use only)
Operating Humidity	0-95% (non condensing)
Safety Certification	cULus Listed, CE

Key Features

• PIR motion detection
• Daylight harvesting
• Works with 0-10V dim-to-off LED drivers
• Autonomous sensor-based control
• Fixture mount installation
• Can be use for indoor applications

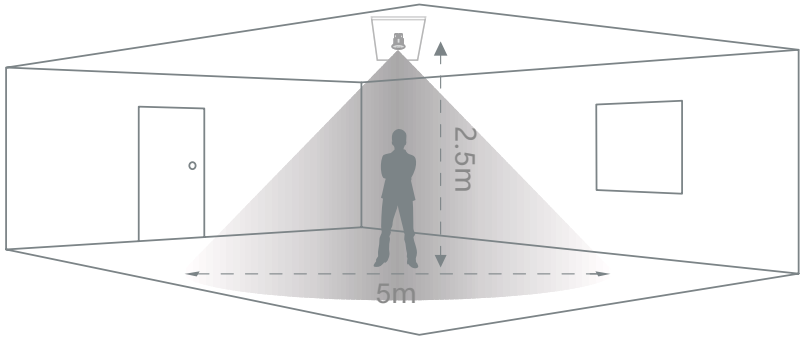
Applications

• Residences
• Offices
• Meeting rooms
• Corridors

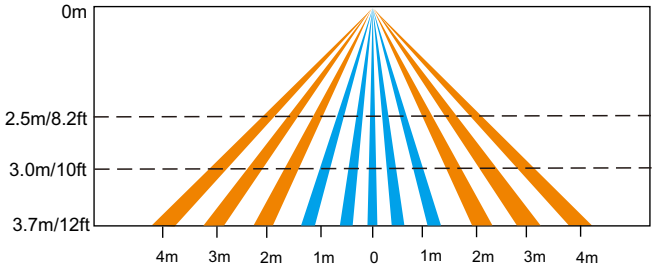
Benefits

• Cost-effective solution for energy savings
• Energy code compliance
• Robust mesh network

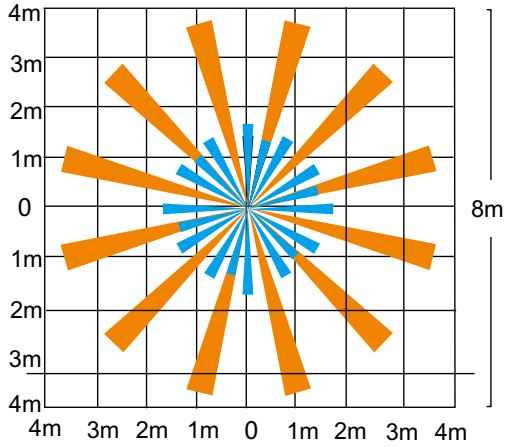
Detection Pattern



Coverage Side View



Coverage Top View



The detection area for movement sensor can be roughly divided into two parts:

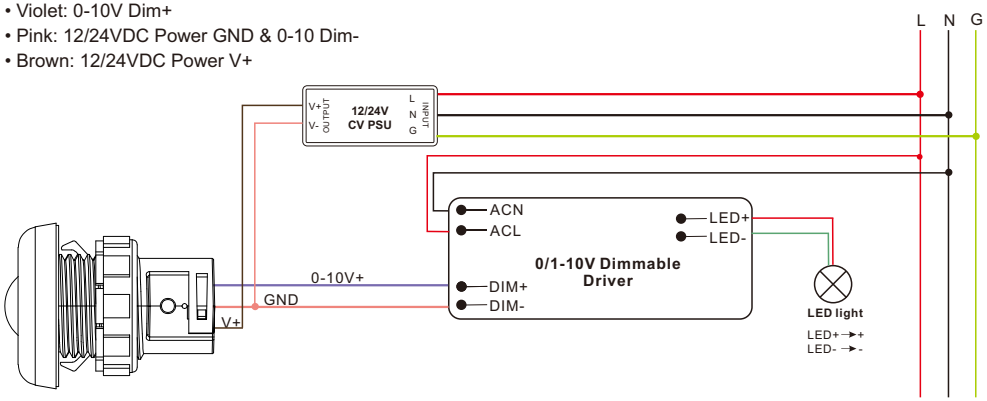
Slow movement (person moving < 1.0'/s or 0.3m/s)

Quick movement (person moving > 1.3'/s or 0.4m/s)

Wiring Diagram

Note:

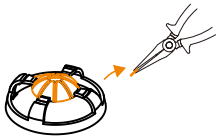
- Violet: 0-10V Dim+
- Pink: 12/24VDC Power GND & 0-10 Dim-
- Brown: 12/24VDC Power V+



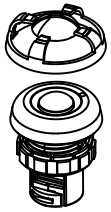
Accessory

Lens Cover, free to manage the detection pattern.

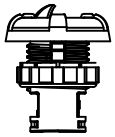
How to install the accessory



Step1. Per different demands, using tweezers to subtract the shielding piece.

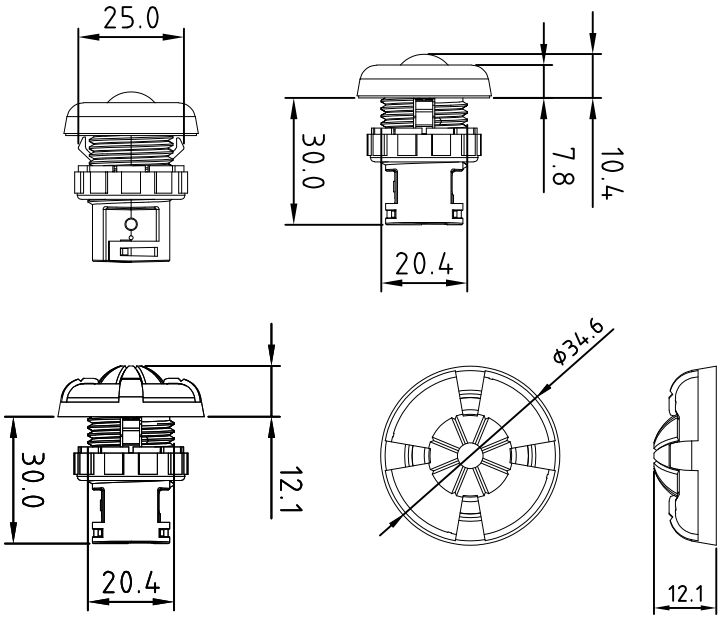


Step 2. Put the Lens cover on the sensor.
And rotate it to the right spot of detection pattern.



Done!

Product Dimension



Installation Precautions

- Avoid areas with frequent temperature changes: Keep away from air conditioners, fans, refrigerators, ovens, and other objects that cause rapid temperature changes. The detection effectiveness of PIR motion sensors is closely related to temperature fluctuations, and vents or heat sources can lead to false alarms.
- Avoid areas with significant air flow.
- Avoid facing glass doors and windows directly: 1) Do not face glass doors and windows directly to avoid interference from strong light. 2) Avoid complex environments outside doors and windows, such as direct sunlight, crowds, and moving vehicles.
- Avoid installing opposite large, constantly moving objects: Large objects with significant motion can cause sudden changes in airflow within the detection area, leading to false alarms. Outdoor PIR motion sensors should not be installed opposite large trees or tall bushes.
- Avoid areas with screens, furniture, large potted plants, or other obstacles within the detection range.
- Avoid areas exposed to direct sunlight.