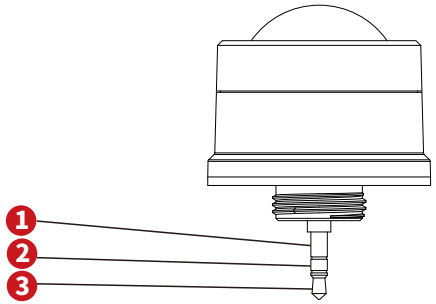
Casambi Wireless IP65 Motion Sensor Controller with 3.5mm Audio-Jack Interface

Important: *Read All Instructions Prior to Installation*

Function introduction



① Port 1 : GND/ Dim-(0-10V signal)
② Port 2 : VCC (12-24V)
③ Port 3 : DIM+(0-10V signal)

Product Description

The IP65 motion sensor combines presence sensing, daylight harvesting, 0-10V dimming and Casambi radio technology. The sensor can work with 0-10V dim-to-off LED drivers, and the 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.

Key Features
• PIR motion detection
• Daylight harvesting
• Works with 0-10V dim-to-off drivers
• Autonomous sensor-based control
• Can be use for outdoor applications
• 3.5mm Audio-Jack interface (Plug & Play)

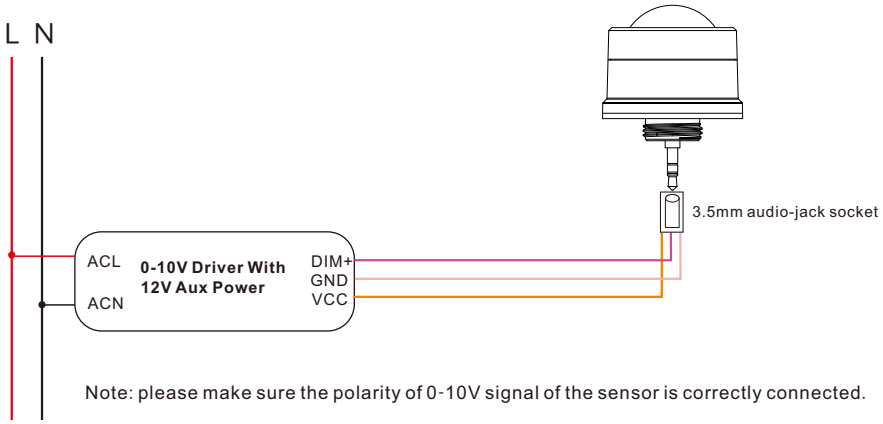
Benefits
• Cost-effective solution for energy savings
• Energy code compliance
• Robust mesh network

Applications
• Warehouses
• Factories
• Street and Area Lighting
• Outdoor Luminaires - Wall Packs - Parking Lots - Walkways
• Photo Controls
• Central Management System

Product Data

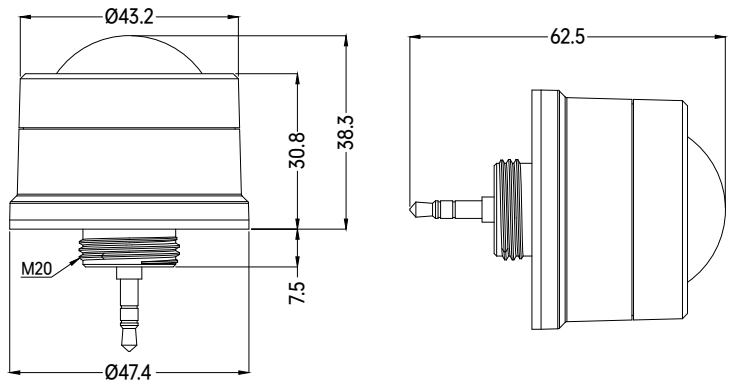
Electrical Information	
Power Supply	12-24 VDC
0-10V Signal Output	20mA
Control	0-10V
Marking Terminals	V+, DIM+, GND(DIM-)
Status Indicators	Green(commissioning), Red(motion detection)
Sensing	
Motion Detection	PIR
Daylight Harvesting	YES
Mounting Height	Max. 17m, recommended height: 12-15m
Detection Angle/Range	360° (ceiling)/18m(Diameter)
Environment	
Operating Temperature Range	-40℉ to 104℉/-40℃ to 70℃
Operating Humidity	0-95%(non-condensing)
Safety Certification	cULus Listed, CE

Wiring Diagram



Note: please make sure the polarity of 0-10V signal of the sensor is correctly connected.

Dimension

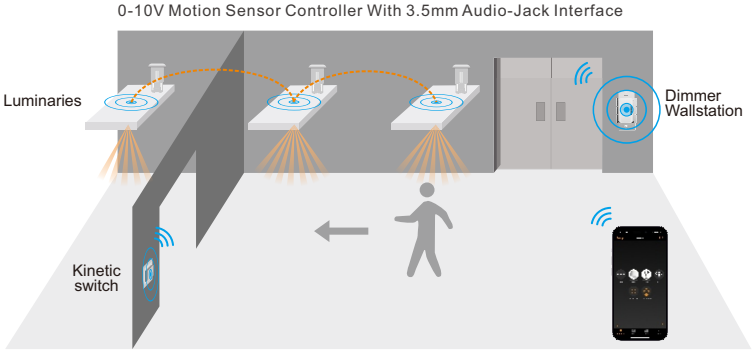


Application

Indoor Low/High-bay Application

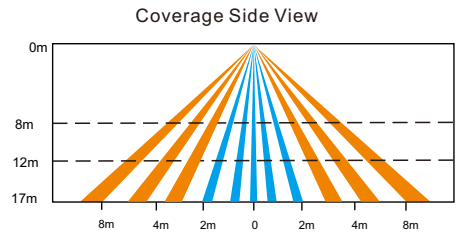
Outdoor Application

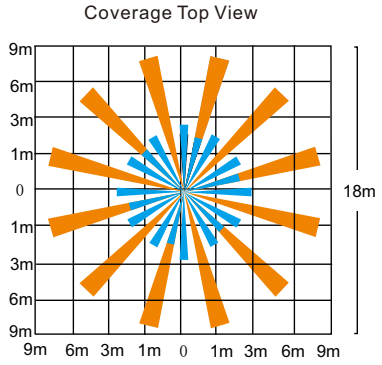
System Overview



Casambi Commissioning Tools

Detection Pattern





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

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

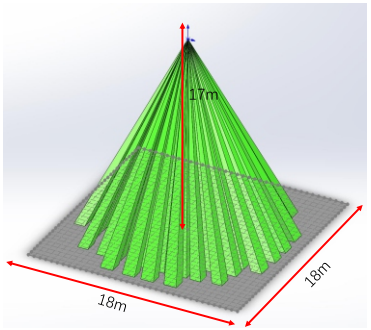
Quick movement (person moving > 1.3/s or 0.4m/s)

Detection Area

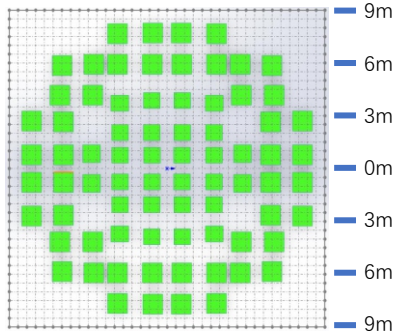
Note:

1) Following different detection areas are based on different installation heights & patterns.

2) Detection Pattern is a relevant value, the performance should depends on the site conditions (installation height/ temperature/ sunlight/ humidity/ Blind area...etc)



Detection pattern at 17m height



Detection pattern at 17m height

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.