TRONIX

Article 214-223

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

Bluetooth® cULus LISTED CE UKCA IC FC RoHS COMPLIANT CASAMBI

Important: *Read All Instructions Prior to Installation*

Function introduction

PIR sensor indicator: indicates when motion detected.

Light sensor: Ambient light detection and daylight harvesting

V+ GND NC +10V

V+   +10V

GND   NC

Prog.
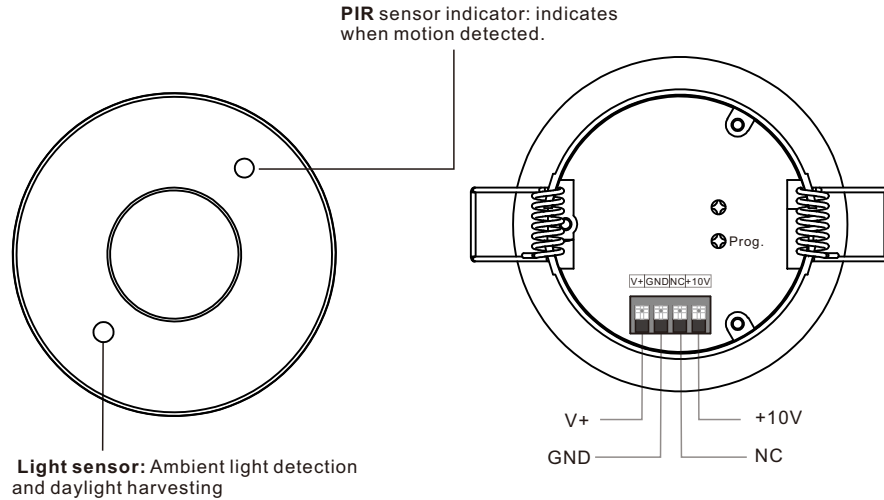
Product Description

The ceiling mounted 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.

Product Data

Physical Information

Dimensions / Weight	See Dimensions
Cutting Hole	70-73mm

Material / Color	ABS / White
Wire Gauge	26-16 AWG (0.2-1.3 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
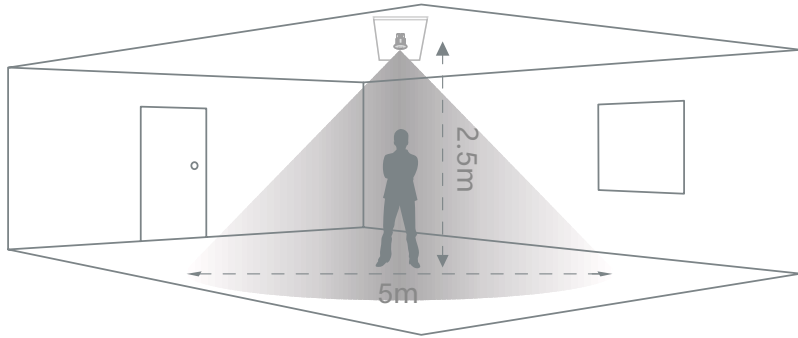• Autonomous sensor-based control
• Can be use for indoor applications

Applications
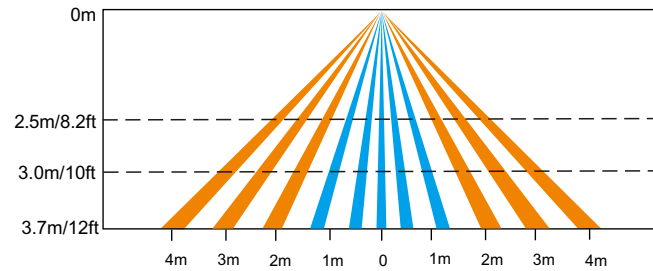
• Residences
• Offices
• Meeting rooms
• Corridors

Benefits

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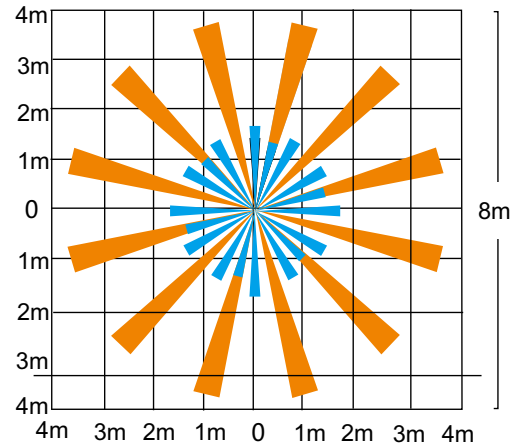• Energy code compliance
• Robust mesh network

Detection Pattern

2.5m

5m

Coverage Side View

0m

2.5m/8.2ft
3.0m/10ft
3.7m/12ft

4m 3m 2m 1m 0 1m 2m 3m 4m

Coverage Top View

4m
3m
2m
1m
0
1m
2m
3m
4m

4m 3m 2m 1m 0 1m 2m 3m 4m

8m

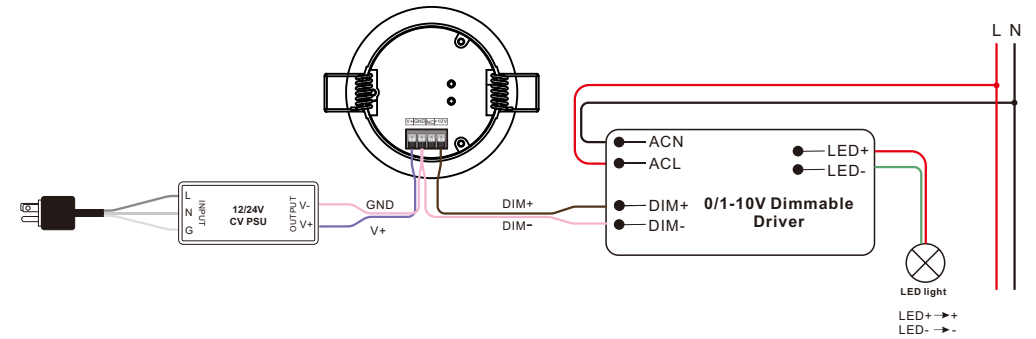The detection area for movement sensor can be roughly divided into two parts:

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

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

Wiring Diagram

Wire Code
• Violet: 12/24VDC Power V+
• Pink: 12/24VDC Power GND & 0/1-10 Dim-
• Brown: 0/1-10V Dim+

L N

ACN
ACL

LED+
LED-

DIM+
DIM-

DIM+
DIM-

0/1-10V Dimmable Driver

LED light

LED+ → +
LED- → -

L
N
G
INPUT

12/24V CV PSU

OUTPUT
V-
V+

GND

V+

Product Dimension

Φ83.0

Φ67.0

21.0