

Introduction

PD-43 CASAMBI is a passive infrared sensor designed for occupancy detection and wireless control of Casambi luminaries. It utilizes a pyroelectric sensor that reacts to changes in thermal radiation. The sensor has a detection range of 40 meters in a 90-degree field of view, and can be increased up to 80 meters by swapping to Lens 47. The lens can also be changed to Lens 51 to increase the sensitivity of the sensor to small movements, such as in a classroom.

Casambi technology

The Casambi technology is based on Bluetooth Low Energy technology, where all Casambi products serve as both signal amplifiers and information distributors. This results in a robust system that enables a continuous operation of the system even if one unit fails.

Wireless features

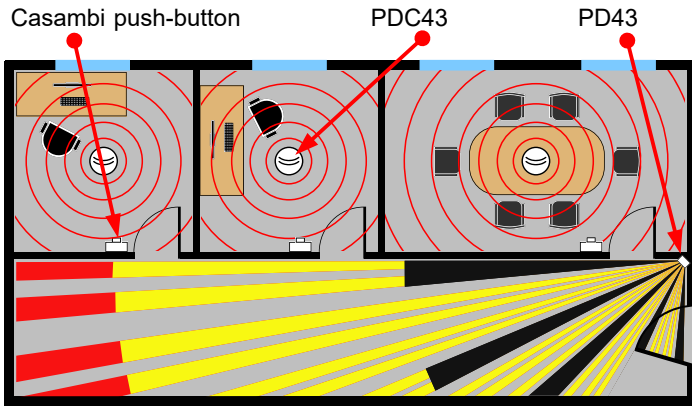
- ▶ Wireless communication
- ▶ On/off and dimming control of Casambi fixtures
- ▶ Provides occupancy readings to the Casambi network
- ▶ Grouping of luminaries
- ▶ Color temperature
- ▶ Daylight harvesting
- ▶ Occupancy sensor

Sensor features

- ▶ Up to 80 m detection range (lens 47)
- ▶ Passive Infrared sensor
- ▶ Automatic lighting control via detector or manual control via push button.
- ▶ Adjustable sensitivity.
- ▶ Possibility to connect and control DALI luminaries

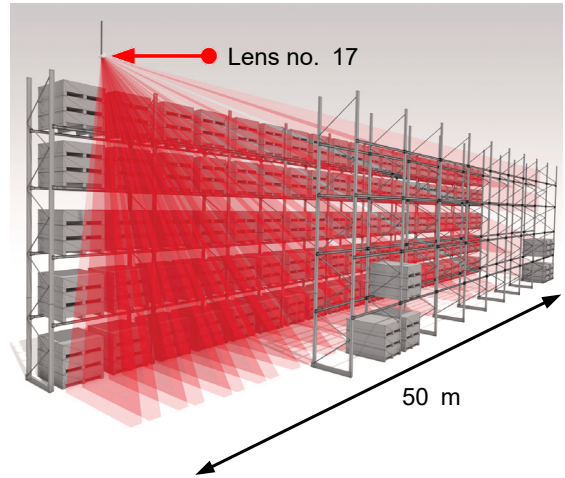
Office Spaces

In office spaces with various types of rooms and corridors, the choice of sensors depends on the layout of the rooms. In offices and conference rooms, the ceiling sensor PDC43 works well, while in corridors the corner-mounted sensor PD43 is preferred.



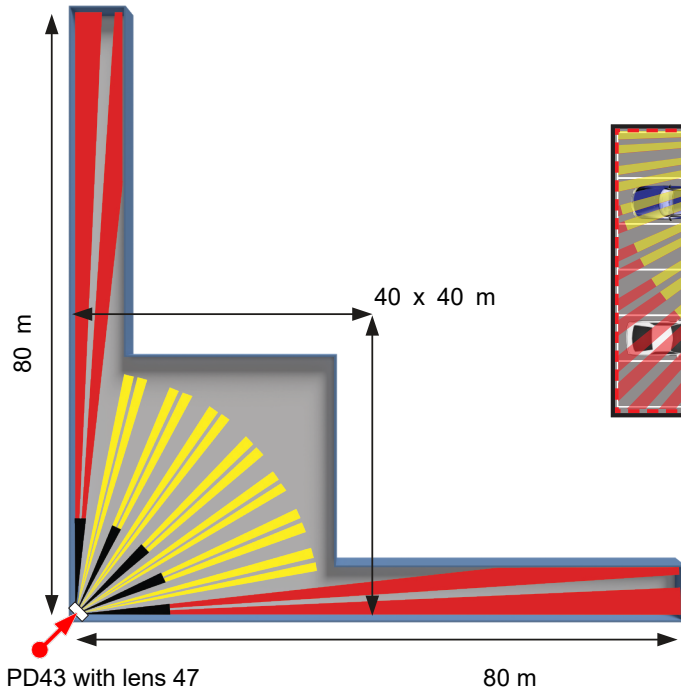
Warehouse Aisles

Lens 17 detection range covers aisles up to 50 meters long. The mounting height can be up to 15 meters. The sensor must be mounted horizontally when using lens 17.



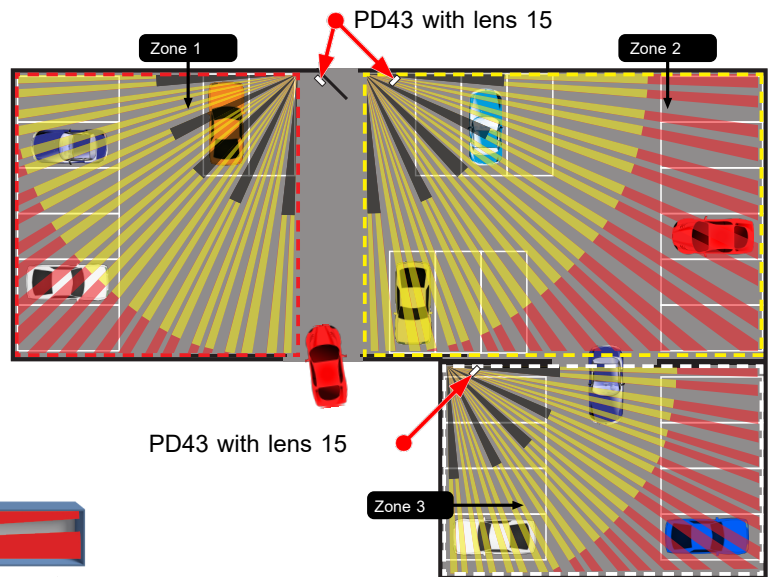
Corridors

Lens 15 covers corridors up to 40 meters long. In longer corridors, lens 47 is preferred to increase the detection range up to 80 meters.



Garages

With Casambi sensors it is easy to divide garages into different zones using the Casambi app.



Lenses

A variety of lenses can be used to optimize the PD sensors for different environments. The sensors are delivered with the standard lens 15.

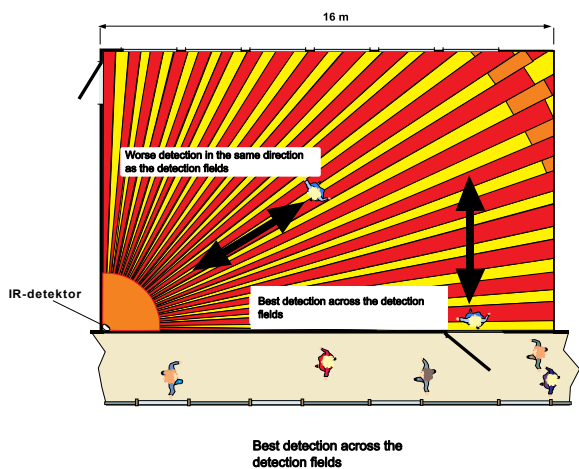
Feel free to contact Extronic for further information.

No. 15	No. 17	No. 47	No. 51
Number of fields 58	Number of fields 24	Number of fields 28	Number of fields 168
Angle 90°	Angle 100°	Angle 90°	Angle 104°
Maximum range 40 x 40 m	Maximum range 50 x 50 m	Maximum range 80 x 80 m	Maximum range 16 x 16 m

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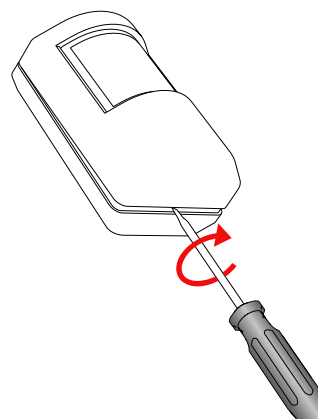
Mounting

A corner mounted sensor is preferred because the best detection is achieved when crossing the detection fields.

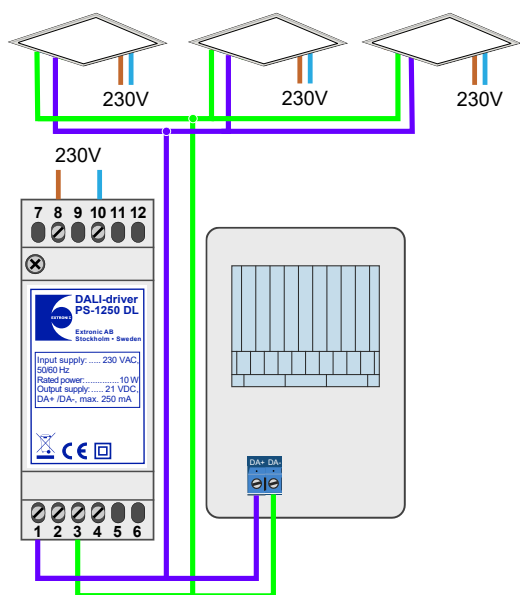


Opening of Housing

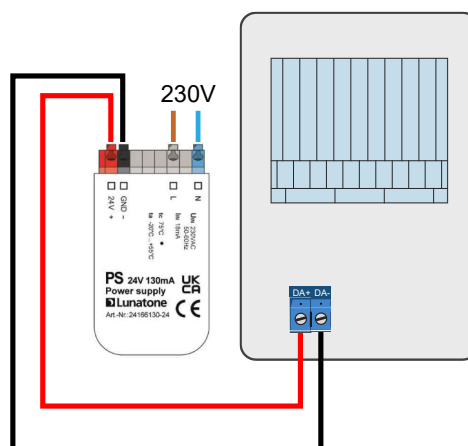
The housing of the sensor can be opened using by rotating a screwdriver.



DALI connection via PS1250 DL



24VDC connection via 130mA Lunatone Power Supply



Light Sensor

The light level (1-4000 lux) of the light sensor is displayed in the Casambi app. Transfer curves can be created in the Casambi app to determine lighting levels from different lux values.

The lux level can be calibrated in the Casambi app to compensate for the sensors location.

Semi-Conductor Relay

When presence is detected, a semi-conductor relay is activated through a C, NO connection. The relay is closed when there is no presence and the timer runs out. The timer is set in the Casambi app.

In some Casambi profiles, the relay can also be controlled from the Casambi system as a luminaire.

In this case, the relay must be set in the Casambi app to [relay → relay as lamp].

Power Supply and DALI Connection

The detector can be powered from 12-24VDC or 12VAC. The sensor can also be powered with a DALI power supply. If the sensor is connected to a DALI bus, DALI-luminaires can be controlled from the sensor. E.g. Profile "PD43 Dali BC".

Create a Network

- Download the Casambi app for iOS or Android
 - Start the app
 - Create a new network
 - Choose firmware (*our products are compatible with both versions*)
 - Classic
 - Evolution (*Always choose Evolution in new projects*)
 - Mandatory fields
 - Name
 - Email
 - Sharing

After the network is created

- Network
 - Control hierarchy ON
 - Timers at start ON

Add devices to the network

- More
 - Nearby devices
 - Press the device
 - Optional profile change (*can only be changed when the device is not in a network*)
 - Add to network

Create a Scene

- Scenes
 - Add a scene
 - Enter scene name
 - Choose which luminaire the scene will control

Sensor settings

(A scene must be created before these settings)

- More
 - Sensors
 - Press the sensor
 - Press "not in use under" Presence Sensor
 - Presence
 - Presence Scenes
 - Choose scene
 - Set delay time
 - Set dimming time

Technical Specification	
Mechanical Data	
Vertical adjustment	+10° to -20° calibrated scale
Horizontal adjustment	Up to 30°
Dimensions (L+W+H)	102 x 50 x 70
Weight	95 g
Finish/Color	Semi-matte / White RAL 9003
IP rating	IP42
Recommended mounting height standard lens	1.80 - 3 m
Recommended mounting height lens 17 (aisles 2 x 50)	2 - 15 m
Power	
Operating voltage	12-24 VDC, 12 VAC, DALI
Power consumption	22 mA
Start-up time	2 min
LED-indication	Yes, on motion and location mode
Sensor	
Detection range	40 x 40 m with standard lens
Sensor type	Passive infrared (PIR)
Wire terminals	
Stranded	0,327- 2 mm ²
Solid	0,327- 2 mm ²
Operating and storage conditions	
Ambient temperature	-40 °C till +70°C
Storage temperature	-40 °C till +85°C
Humidity	Max 90% , non-condensing
Compliance and Standards	
Environment	Complies with the REACH and RoHS directives
Software compatibility	Classic/ Evolution/ Long range