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here comes the light



# SENSORS

SYSTEM

SENSORS FOR LIGHTING  
MANAGEMENT



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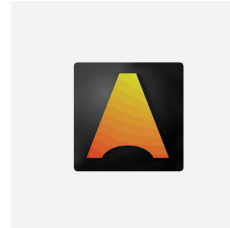
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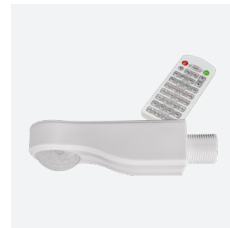
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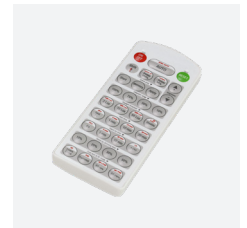
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# THE BEST ALLIED FOR YOUR LIGHTING



## PRESENCE DETECTOR

A presence detector is an electronic device equipped with sensors capable of detecting any movement in the area in which it is installed. The purpose is to activate a lighting, air conditioning, ventilation or surveillance system.

## FLOW SENSOR

The flow sensor or brightness sensor is a device that allows us to make a responsible use of the energy we use, regulating the lighting of the luminaires taking into account the existing ambient light. This sensor is connected to other drivers to adjust the luminous flux of the luminaires and maintain a constant light level in the desired area.

## WIRELESS SENSOR

Wireless sensors have the advantage of not needing a wired installation to work, saving time and materials in the installation.

The most promising protocol on the market is CASAMBI, a standard in performance, reliability and accessibility.

## WIRED SENSOR

Wired sensors need a communication bus to work. This bus must link all the elements of the installation, including the sensors, for correct operation.

Examples of wired systems are the DALI or 1/10V protocols.

## STAND-ALONE SENSOR

An autonomous sensor has the capacity to manage an installation without the need for a control unit or a superior control unit.

The sensor has the capacity to receive simple instructions from the user to personalise the behaviour of the installation, being an economical way of achieving a professional result and complying with the most demanding regulations.

## PASSIVE SENSOR

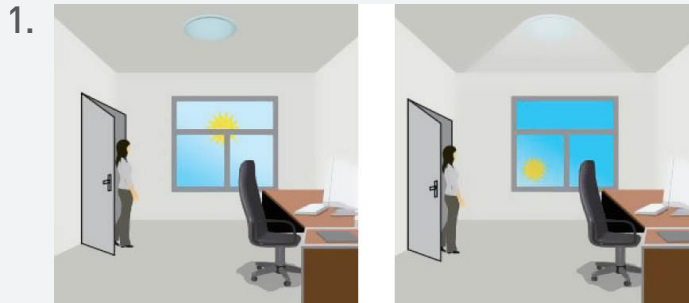
The passive sensor needs a superior control unit to work.

They are suitable for integration in professional DALI installations, with multiple rooms and different purposes for them.

# DAYLIGHT FUNCTION



**OPERATING MODE WHEREBY THE SENSOR DETERMINES THAT THERE IS SUFFICIENT DAYLIGHT TO BE ABLE TO SWITCH OFF THE LUMINAIRES COMPLETELY. SAVINGS CAN BE UP TO 70%.**

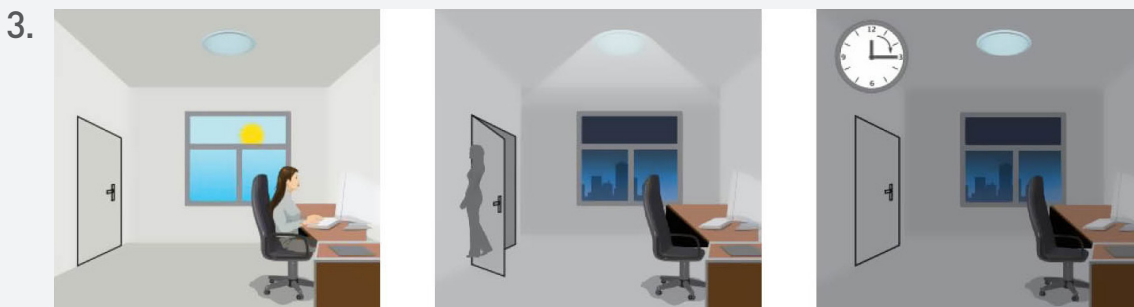


The luminaire shall not be switched on when daylight is sufficient, even if motion is detected.

The luminaire switches on automatically when it detects presence and there is insufficient natural light.



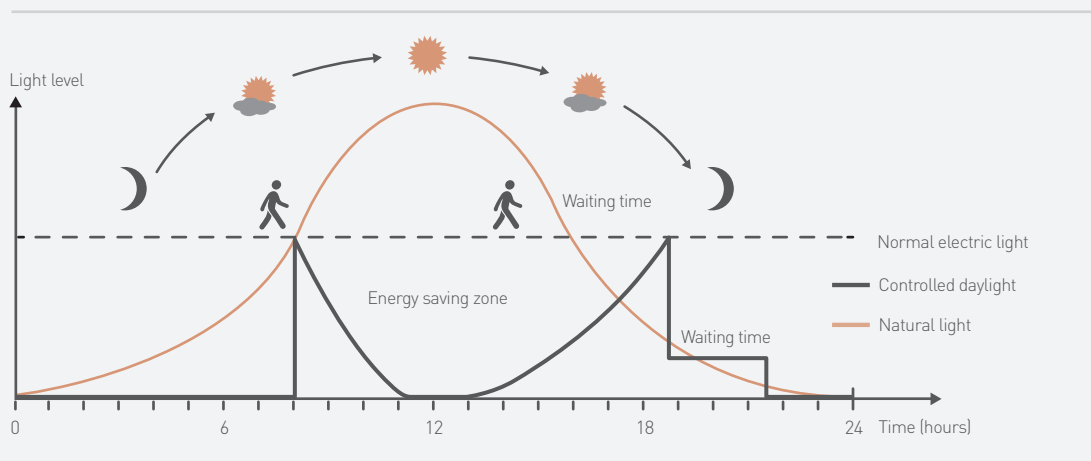
The luminaire is switched on at maximum or dimmed to maintain the lux level. The luminaire is dimmed according to the level of available daylight.



The light is switched off when the ambient daylight is sufficient.

The light dims during the standby period and remains at the selected minimum dimming level.

The light switches off completely after the standby period.



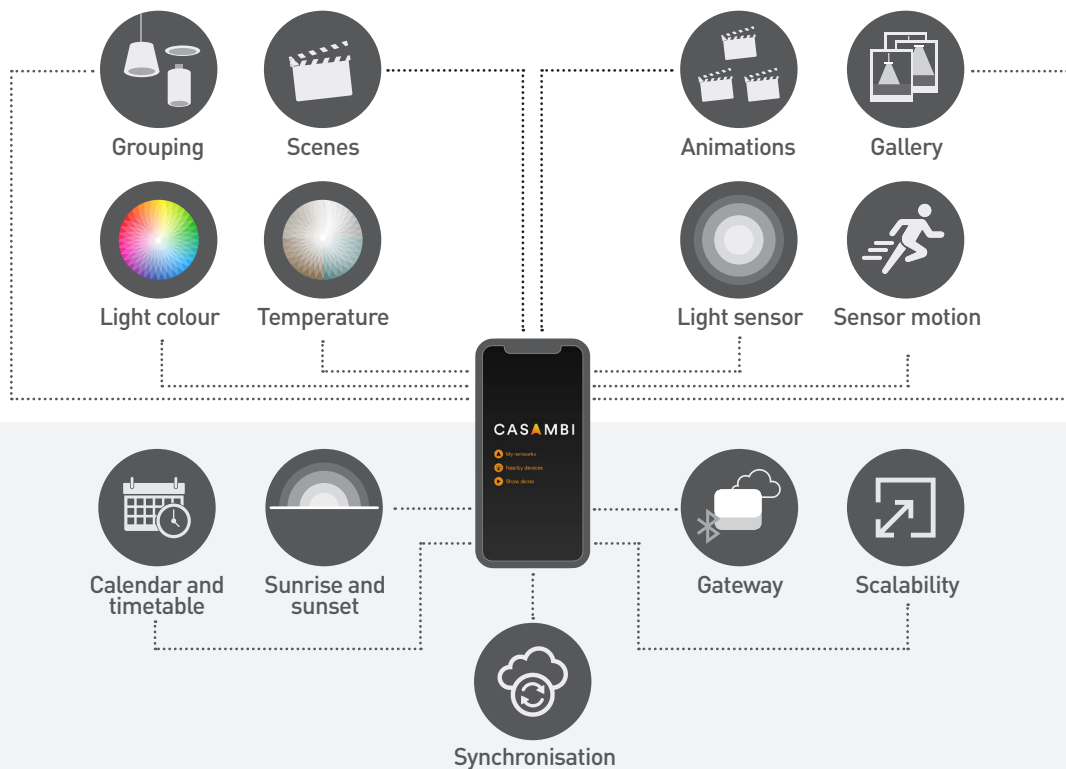
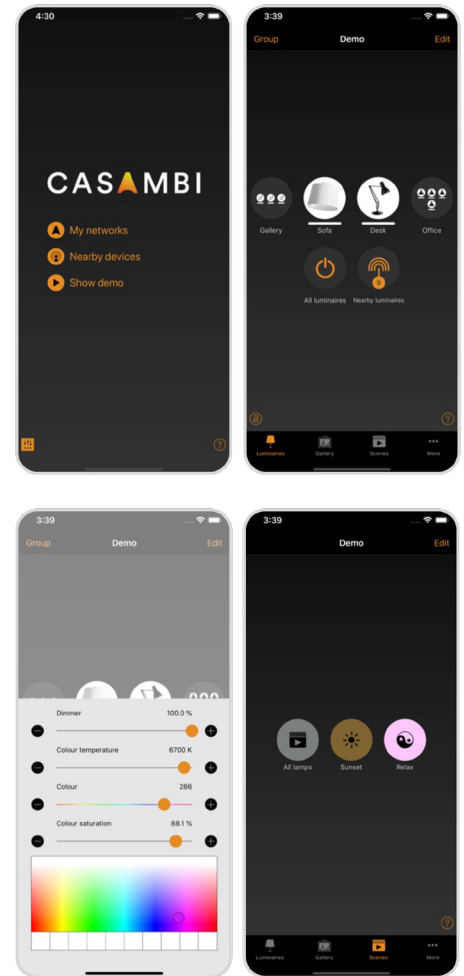
## CASAMBI COMMUNICATION PROTOCOL

# CASAMBI

CASAMBI is a wireless communication protocol based on bluetooth low energy, born in the nokia research center, with the aim of bringing the smart home to everyone in the easiest way possible, using the smartphone that we all have as a control centre.

The operation of a CASAMBI system is simple to understand. All the elements of the installation talk to each other, creating a mesh communication network. With a signal range of 40 metres, we can connect the luminaires of an entire building without any problems. Thanks to this network, we only need to connect to one element to have total control of the system, using a very intuitive application for phone or tablet.

As it is wireless communication, it is not necessary to add control wiring, with the savings in materials and labour that this entails, making it easy to convert a building with a classic installation into a domotic building without having to modify or add new systems or wiring.



# SENSOR

WIRELESS CASAMBI INDOOR

CE emc CB IP20

Ref. S3328A

CASAMBI 



## ADVANTAGES



Visual configuration by APP



Fast installation



No wiring between luminaires

## CASAMBI WIRELESS COMMUNICATION FLOW AND PRESENCE SENSOR.

MAKE YOUR INSTALLATION SMART WITHOUT THE NEED TO MODIFY THE INSTALLATION. CONFIGURE IT THROUGH THE CASAMBI APP IN A SIMPLE WAY.

CASAMBI elements have a communication range of 40 metres between devices, creating an invisible network and bouncing the information between them within the range of an element.

Configuration via the free CASAMBI app, requiring CASAMBI compatible luminaires.

Installation height from 2.5m to 12m.

Sensor for recessed applications in ceilings of: offices, shops, classrooms, stairs, corridors, etc. ....





## CHARACTERISTICS



BLUETOOTH 4.0

Option to connect pushbuttons for manual control of each channel. Switch dimmer.



Configuration by App CASAMBI



Intelligent photocell (daylight): daylight reading function to regulate the light output and maintain the required lux level. The luminaires only operate when necessary.



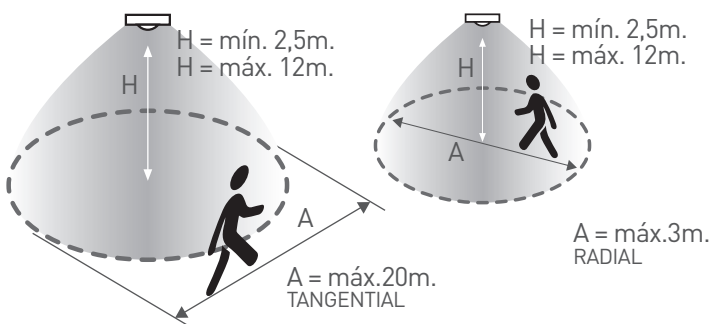
DAYLIGHT function



5 YEARS WARRANTY

## DETECTION RANGE

INSENSITIVE  SENSIBILITY



## TECHNICAL INFORMATION

### INPUT CHARACTERISTICS

Operating voltage	220-240 V CA 50/60 Hz
Standby consumption	<0.5W

### SECURITY AND CEM

EMC Standard (EMC)	EN55015, EN61000
Safety standard (LVD)	EN60669, AS/NZS60669
Certifications	CB, CE, CEM, RCM

ASSEMBLY HEIGHT	Tangential (A)	Radials (B)
2,5 m.	Máx. 50m2 (Ø = 8m.)	Máx. 7m2 (Ø = 3m.)
6 m.	Máx. 104m2 (Ø = 11,5m.)	Máx. 7m2 (Ø = 3m.)
8 m.	Máx. 154m2 (Ø = 14m.)	Máx. 7m2 (Ø = 3m.)
10 m.	Máx. 227m2 (Ø = 17m.)	Máx. 7m2 (Ø = 3m.)
11 m.	Máx. 269m2 (Ø = 18,5m.)	Máx. 7m2 (Ø = 3m.)
12 m.	Máx. 314m2 (Ø = 20m.)	Máx. 7m2 (Ø = 3m.)

# SENSOR

WIRELESS CASAMBI INDOOR

CE emc IP42

Ref. S3327A	ANTENNA SENSOR (SAM)
Ref. S3326A	CONTROLLER



ANTENNA SENSOR (SAM)

CONTROLLER



## ADVANTAGES



Visual configuration by APP



Fast installation



No wiring between luminaires

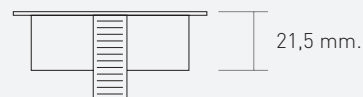
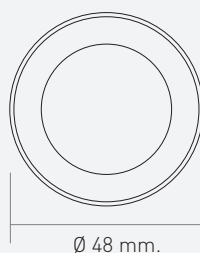
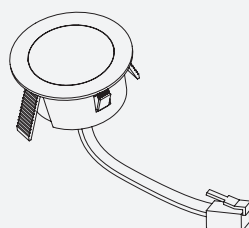
## CASAMBI SENSOR CONTROLLER, TO SUIT THE REQUIREMENTS OF ANY INDUSTRIAL ENVIRONMENT.

Flow and presence sensor controller with CASAMBI technology.

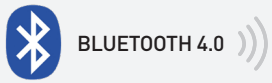
Allows different sensor formats, which gives flexibility when dealing with any installation.

Working range from 2.5m to 15m.

It uses the CASAMBI application for its configuration and controls up to 250 luminaires.



## CHARACTERISTICS



BLUETOOTH 4.0

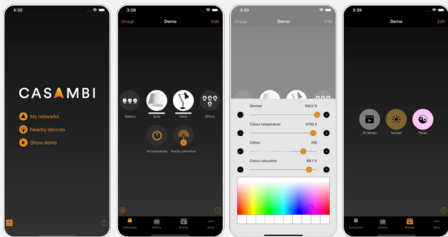
Option to connect pushbuttons for manual control of each channel. Switch dimmer.



Configuration by App CASAMBI

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Download on the  
App Store



Intelligent photocell (daylight): daylight reading function to regulate the light output and maintain the required lux level. The luminaires only operate when necessary.

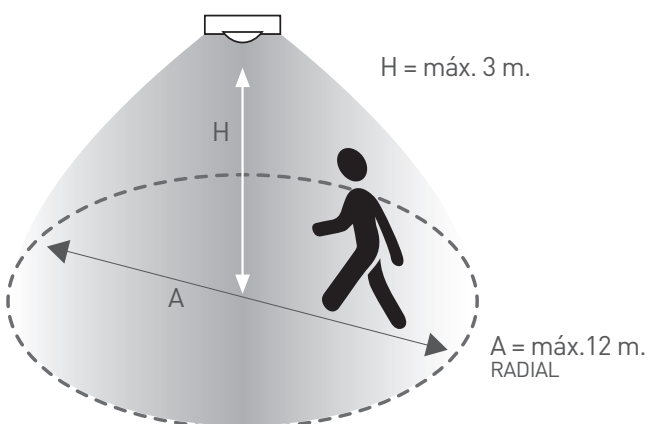


DAYLIGHT function

5

YEARS  
WARRANTY

## DETECTION RANGE



## TECHNICAL INFORMATION

### INPUT CHARACTERISTICS

Operating voltage	220~240 V CA 50/60 Hz
Standby consumption	<0.5W

### SECURITY AND CEM

EMC Standard (EMC)	EN55015, EN61547, EN61000-3-21-3-3
Safety standard (LVD)	EN61347-1, EN61347-2-11
Certifications	ENEC, CE, CEM, LVD, RCM

### OUTPUT CHARACTERISTICS

Sensor	PIR
Detection range	Max. height 3 m. Max. detection range: 12 m. Ø
Angle of detection	360°

\* Detection patterns are based on 5 km/h movement speed.









# SENSOR

STAND-ALONE WIRING INDOOR

CE emc  CB IP20

Ref. S3324A SENSOR

Ref. S3331A REMOTE CONTROL



## STAND-ALONE FLOW AND PRESENCE SENSOR, DESIGNED WITH A LOW PROFILE FOR AESTHETICALLY DEMANDING ARCHITECTURAL PROJECTS.

The sensor uses the DALI protocol for communication, generates its own self-powered DALI bus (up to 40 DALI luminaires on two independent lines).

Fully configurable sensor via remote control, with program memory, allowing start-up with a single key and where common configurations are used for multiple devices.

Installation height up to 6m.

Sensor for recessed applications in ceilings of: offices, shops, classrooms, stairways, corridors, etc. ....





## CHARACTERISTICS



Self-powered DALI communication  
(up to 40 DALI luminaires on two  
independent lines)



DAYLIGHT function



Configuration via remote control with memory  
(by saving the configuration you can program  
multiple devices with one button).



Option to connect pushbuttons for manual  
control of each channel.  
Switch dimmer.



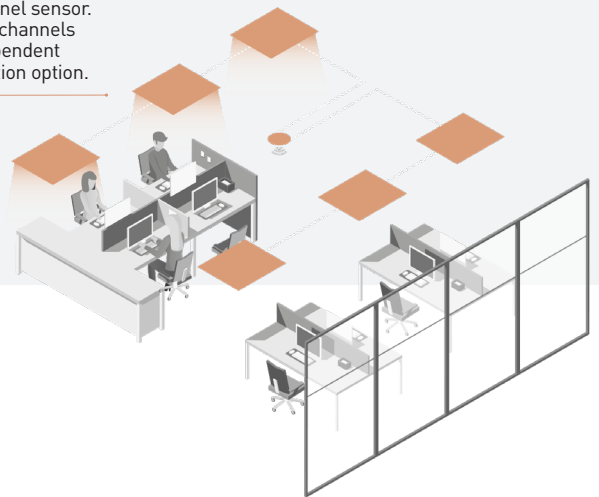
Intelligent photocell (daylight): daylight  
reading function to regulate the light  
output and maintain the required lux  
level. The luminaires only operate when  
necessary.



5

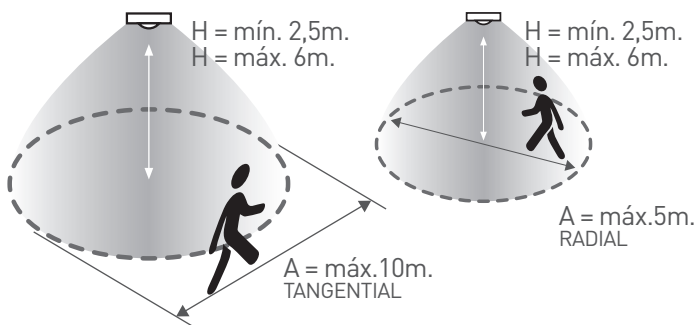
YEARS  
WARRANTY

Dual channel sensor.  
Two DALI channels  
with independent  
configuration option.



## DETECTION RANGE

INSENSITIVE SENSIBILITY



## TECHNICAL INFORMATION

### INPUT CHARACTERISTICS

Operating voltage	220-240 V CA 50/60 Hz
Standby consumption	<0.5W

### SECURITY AND CEM

EMC Standard (EMC)	EN55015, EN61000
Safety standard (LVD)	EN60669, AS/NZS60669
Certifications	CB, CE, CEM, RCM

### OUTPUT CHARACTERISTICS

DALI Channel 1	50 mA, máx. 25 drives
DALI Channel 2	30 mA, máx. 15 drivers

ASSEMBLY HEIGHT	Tangential (A)	Radiales (B)
2,5 m.	Máx. 72m <sup>2</sup> (Ø = 10m.)	Máx. 20m <sup>2</sup> (Ø = 5m.)
3 m.	Máx. 79m <sup>2</sup> (Ø = 10m.)	Máx. 20m <sup>2</sup> (Ø = 5m.)
4 m.	Máx. 64m <sup>2</sup> (Ø = 9m.)	Máx. 20m <sup>2</sup> (Ø = 5m.)
5 m.	Máx. 50m <sup>2</sup> (Ø = 8m.)	Máx. 20m <sup>2</sup> (Ø = 5m.)
6 m.	Máx. 50m <sup>2</sup> (Ø = 8m.)	Máx. 20m <sup>2</sup> (Ø = 5m.)

# SENSOR

STAND-ALONE INDUSTRIAL WIRING

CE emc  IP65

Ref. S3329A SENSOR

Ref. S3331A REMOTE CONTROL



**FLOW AND PRESENCE SENSOR FOCUSED ON THE INDUSTRIAL FIELD, WITH A DESIGN TO BE INTEGRATED IN LINEAR LUMINAIRES IN A SIMPLE WAY.**

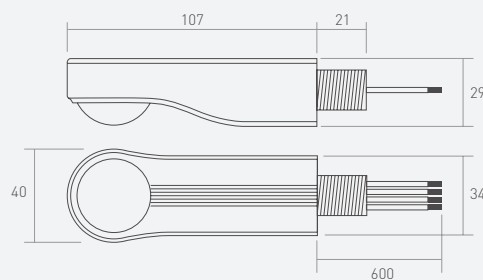
The luminaires are controlled via DALI communication.

Sensor with capacity to control up to 15 luminaires.

The sensor is configured by means of a remote control with program memory, allowing one-touch start-up and using common settings for multiple devices. memory, allowing start-up with a single key and where common configurations are used for multiple devices.

Installation height up to 12 metres for detection of people and up to 15 metres for detection of industrial vehicles (forklift trucks, etc.).

## INSTALLATION IN LUMINAIRE





## CHARACTERISTICS



Self-powered DALI communication (control up to 15 luminaires, 2 channels) based on occupancy.



DAYLIGHT function



Configuration via remote control with memory (by saving the configuration you can program multiple devices with one button).

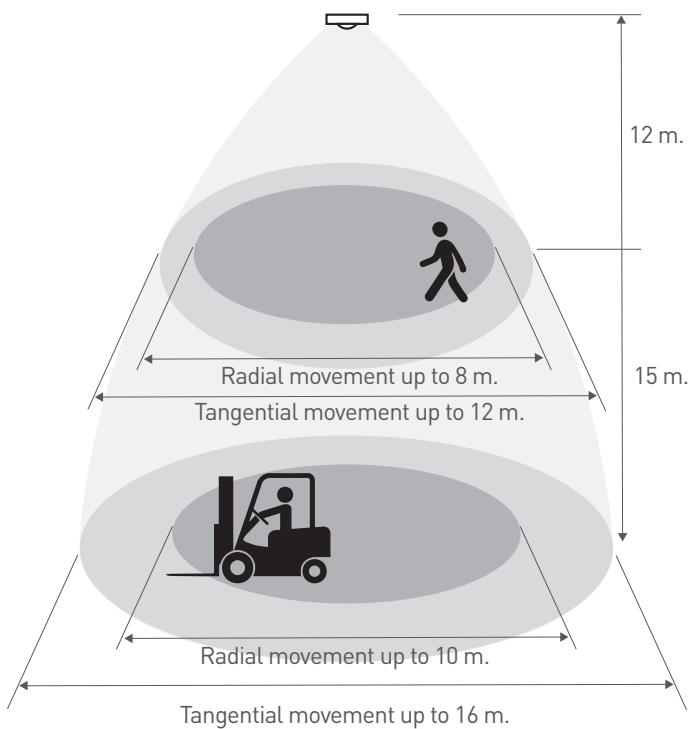
Intelligent photocell (daylight): daylight reading function to regulate the light output and maintain the required lux level. The luminaires only operate when necessary.



5

YEARS  
WARRANTY

## DETECTION RANGE



\* Detection patterns are based on 5 km/h movement speed.

## TECHNICAL INFORMATION

### INPUT CHARACTERISTICS

Operating voltage	220~240 V CA 50/60 Hz
Standby consumption	<0.5W

### SECURITY AND CEM

EMC Standard (EMC)	EN55015, EN61547, EN61000-3-21-3-3
Safety standard (LVD)	EN61347-1, EN61347-2-11
Certifications	ENEC, CE, CEM, LVD, RCM

### OUTPUT CHARACTERISTICS

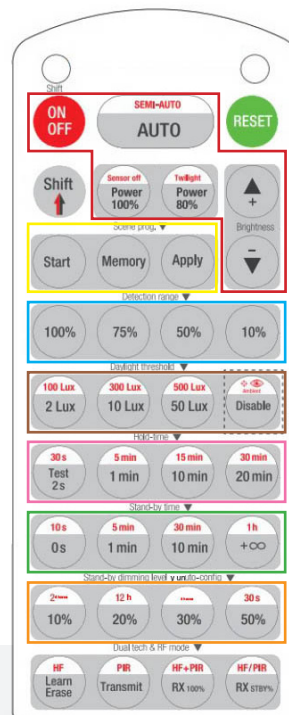
Sensor	PIR
Detection range	Max. height 15m. (for forklift truck) Max. height 12m. (single person) Max. detection range: 16m. Ø
Angle of detection	360°

## REMOTE CONTROL



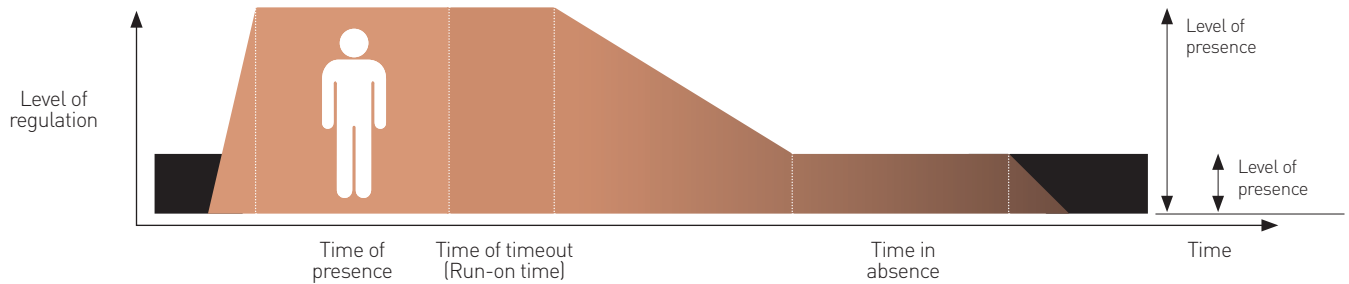
Ref. S3331A

With this small infrared remote control we can program the behaviour of our sensor at will. We can adapt the needs of the installation with a few simple parameters, and have different programming for each sensor.



- MANUAL INSTALLATION CONTROL**  
 Manual ignition, light level adjustment and activation of AUTO AND SEMIAUTO mode.
- CONFIGURATION START-UP**  
 Configuration dump to the sensor.
- SENSOR DETECTION AREA SETTING**  
 Default 100%.
- DAYLIGHT MODE TOLERANCE THRESHOLD**  
 Regulation level for the room.
- SWITCH-ON TIME FROM DETECTION**  
 Time of presence since detection.
- STAND-BY TIME AT END OF POWER-ON DETECTION**  
 Absence time at the end of the detection time.
- STAND-BY LIGHT LEVEL**  
 Absence time light level.

## LEVEL OF REGULATION



This graph shows a typical behaviour of a sensor, and the parameters that can be set with our programmer control:

### INTENSITY LEVELS

**Level of regulation:** Light level to be maintained even with natural light.

**Level of presence:** Light level when motion is detected.

**Level of absence:** We can set a minimum level in the installation if we do not want the luminaires to switch off completely.

### DETECTION TIMES

**Presence time:** Time that the installation remains switched on from the moment it detects movement.

**Waiting time:** Also called courtesy time, it is a time that we can set from the moment we stop detecting movement.

**Time away:** The time we can set the level of absence, before shutdown. This time can be infinite if we want.



# SENSOR

CABLEADO PASIVO INDOOR

CE emc  IP20

Ref. S3320 RECESSED

Ref. S3321 SURFACE



RECESSED SENSOR



SURFACE SENSOR



## PASSIVE SENSOR FOR INTEGRATION IN A DALI SYSTEM

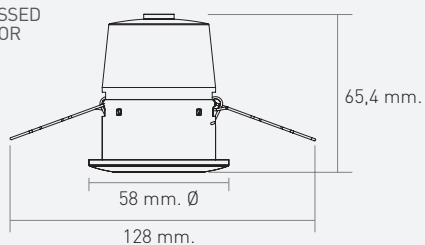
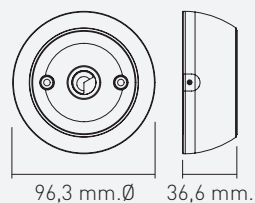
The luminaires are controlled via DALI communication.

Luminous flux sensor and motion detector.

The detector can work independently as a flux sensor or presence sensor.

Detection angle 85°.

Maximum range 5 m.

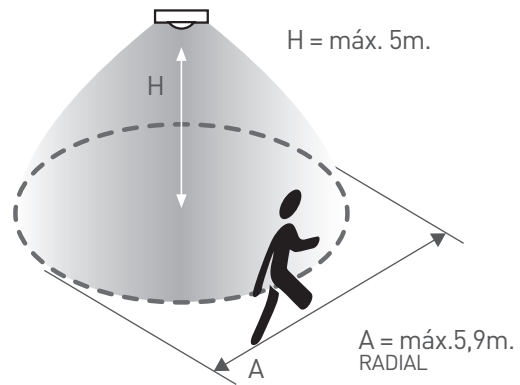
RECESSED  
SENSORSUPERFICIE  
SENSOR





## DETECTION RANGE

INSENSITIVE  SENSIBILITY



ASSEMBLY HEIGHT	Radiales (B)
2 m.	Máx. Ø = 2,2m.
3 m.	Máx. Ø = 3,5m.
4 m.	Máx. Ø = 4,7m.
5 m.	Máx. Ø = 5,9m.

## TECHNICAL INFORMATION

### INPUT CHARACTERISTICS

Operating voltage	Bus Dalí 9,5-22,5V
Standby consumption	máx. 8mA
Via food	Bus Dali

### SECURITY AND CEM

EMC Standard (EMC)	EN55015, EN61547, EN61000-3-21-3-3
Safety standard (LVD)	EN61347-1, EN61347-2-11
Certifications	ENEC, CE, CEM, LVD, RCM

### OUTPUT CHARACTERISTICS

Sensor	PIR
Detection range	Max. height 5m.
Angle of detection	360°

# SENSOR

INDUSTRIAL PASSIVE WIRING

CE emc  IP65

Ref. S3322 RECESSED

Ref. SOTR0102 SURFACE BOX



RECESSED SENSOR



SURFACE BOX



## PASSIVE SENSOR FOR INTEGRATION IN A DALI SYSTEM

The luminaires are controlled via DALI communication.

Luminous flux sensor and motion detector.

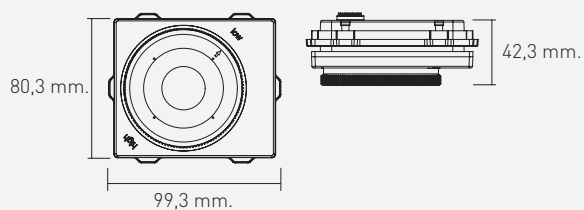
The detector can work independently as a flux sensor or presence sensor.

It can manage a maximum of 10 luminaires.

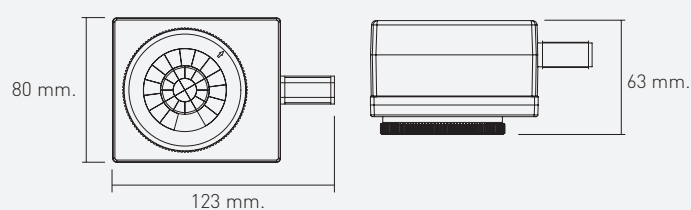
Detection angle 72°.

Maximum range 16 m.

RECESSED SENSOR

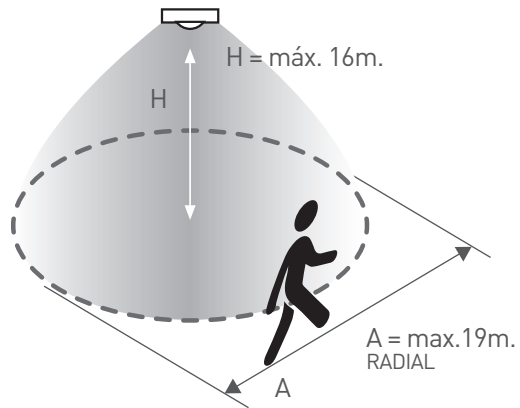


SURFACE BOX



## DETECTION RANGE

INSENSITIVE  SENSIBILITY



ASSEMBLY HEIGHT	Radials (B)
8 m.	Máx. Ø = 12 m.
9 m.	Máx. Ø = 13,5 m.
10 m.	Máx. Ø = 15 m.
11 m.	Máx. Ø = 16,5 m.
12 m.	Máx. Ø = 18 m.
13 m.	Máx. Ø = 15,2 m.
14 m.	Máx. Ø = 16,4 m.
15 m.	Máx. Ø = 17,6 m.
16 m.	Máx. Ø = 19 m.

## TECHNICAL INFORMATION

### INPUT CHARACTERISTICS

Operating voltage	Bus Dali 9,5-22,5V
Standby consumption	max. 8mA
Standby consumption	Bus Dali

### SECURITY AND CEM

EMC Standard (EMC)	EN55015, EN61547, EN61000-3-21-3-3
Safety standard (LVD)	EN61347-1, EN61347-2-11
Certifications	ENEC, CE, CEM, LVD, RCM

### OUTPUT CHARACTERISTICS

Sensor	PIR
Detection range	Altura máx. 16m.
Angle of detection	72°

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