
AL-432-00-868 EnOcean motion sensor "EnoSense PIR ceiling" IMDA / SINGAPORE

**Motion detector (PIR), energy self-sufficient with solar cell
Item no. 12795 (white)**

Interfaces:

1x EnOcean bi-directional (antenna internal), supply: solar cell, no battery



The EnoSense PIR Ceiling is a flexible motion detector with its own power supply, which detects the movement of people and measures the ambient brightness.

The EnoSense PIR Ceiling housing has dimensions of approximately 114 x 66 x 31 mm and is designed for mounting under the ceiling or on the wall.

The EnoSense PIR Ceiling integrates the following sensors:

- Motion (PIR)
- Brightness

Some parameters of the sensor can be configured via the NFC interface. It is delivered from the factory preconfigured to the recommended settings.

Technical data

Interfaces

Type	EnOcean
Quantity	1
Transmit/receive center frequency	868.3 MHz / ASK
Frequency range used	868.0 - 868.6 MHz
Maximum transmit power	Type. +5 dBm @ 868.300 MHz
Receiver category according to EN	2
Device Type	Short range / low power device (SRD/LPD)

User interfaces

Service button	Yes, service
Service LED	Yes, for walktest
Selector switch	DIP switch for sensitivity high / low

Housing / Connection technology

Connection	n.a.
Housing	Plastic, PA12, white

Supply

Supply voltage	Integrated solar cell
Backup battery	CR2032
	Lifetime: 200 lux / 2 h per day: up to 15 years
	65 lux / 5 h per day: Up to 12.5 years
	No light: Up to 5 years

Environmental conditions

Operating	0°.. 30°C
Storage temperature	-20°..+70°C
Humidity	20..85% relative humidity, non-condensing
Protection class	IP20

Dimensions and weight

Weight	100 g
Dimensions	114 x 66 x 31 mm

Table of supported EEP (EnOcean Equipment Profile)

Send / TX

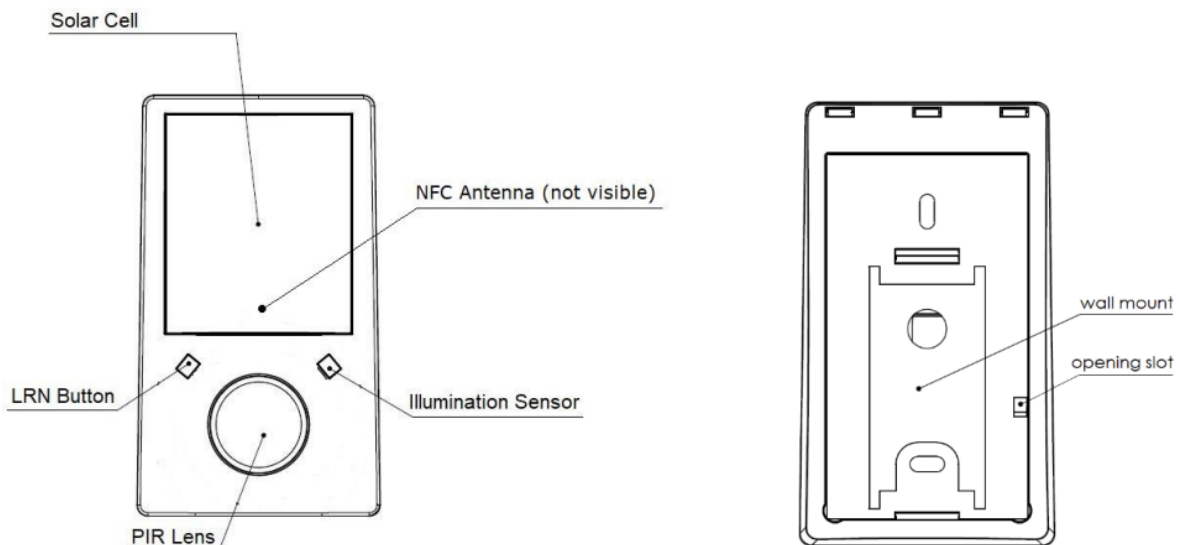
Lfd. No.	EEP	Description
1	A5-07-03 (default)	Occupancy with Supply voltage monitor and 10-bit illumination measurement
2	A5-07-01	Occupancy with Supply voltage monitor
3	A5-08-01	Range 0lx to 510lx, 0°C to +51°C and Occupancy Button
4	A5-08-02	Range 0lx to 1020lx, 0°C to +51°C and Occupancy Button
5	A5-08-03	Range 0lx to 1530lx, -30°C to +50°C and Occupancy Button

Receive / RX

Lfd. No.	EEP	Description
-	-	-

Device description

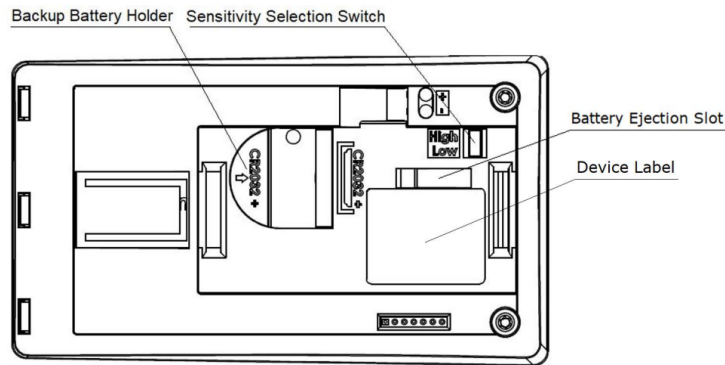
The following figure shows the exterior view of the EnoSense® PIR Ceiling:



Power supply

The EnoSense PIR ceiling is usually powered by the integrated solar cell. For support in (partial) darkness, it has a backup battery of type CR2032.

To change the battery, the housing can simply be opened at the rear (see opening slot).

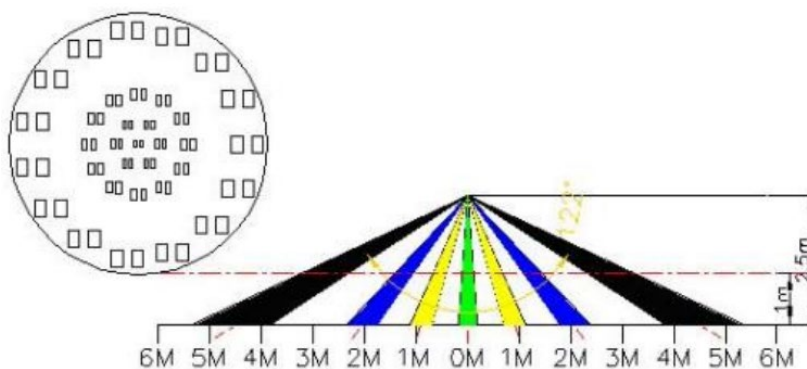


EnOcean communication

The integrated EnOcean transceiver sends the data to a control system or an EnOcean wireless actuator.

Motion detection

The detection takes place via the integrated PIR sensor. At a recommended ceiling/mounting height of 3 m, the detection radius is approx. 5 m. The following figure shows the structure and characteristics of the sensor element (source: EMDCx User Manual):



Operating modes

The LRN button in the front is used to select the different operating modes of the EnoSense PIR ceiling. The LED signals / confirms the corresponding mode.

The following table lists the different operating modes, depending on the operation of the LRN button.

Actuation	Duration	Operating mode	LED
1x short	Press < 1 s	Exit Sleep-Mode Send Learn-Telegram	Success: 1x flashing Error: -
2x short	< press 1 s < release 1 s < press 1 s	Start Walk Test (will exit automatically after 2 minutes)	Flashes briefly whenever motion is detected
3x short	< 1 s press < 1 s release < 1 s press < 1 s release < 1 s press	LED On/Off	LED on: 4x flashing LED off: -
1x long	3 s < press < 5 s	Enter Sleep mode	Success: 3x flashing Error: -
2x long	3 s < press < 5 s < release 1 s	Enter Secure Mode Send Secure Teach-in Telegram	Success: 2x flashing Error: -
1x very long	Press > 8 s	Load factory setting	Success: 5x flash Error: -

Transmission interval

By default, the EnoSense PIR ceiling sends the message "No motion" every 120 seconds when the sensor does not detect motion, and the message "Motion detected" every 60 seconds as long as motion is detected. The following table lists the possible transmission intervals depending on illuminance in lux and duration of illumination per day in hours.

Ambient light level / hours per	6h / day	8 h / day	10 h / day	12 h / day
50 lux	Not supported	Not supported	180 s	120 s
100 lux	120 s	90 s	90 s	60 s
150 lux	90 s	60 s	60 s	45 s
200 lux	60 s	45 s	45 s	30 s
300 lux	45 s	30 s	30 s	20 s
400 lux	30 s	25 s	25 s	15 s
500 lux	25 s	20 s	20 s	15 s

If you need different settings in your project according to the table, please contact us.

Device Label



Ordering information

Article text	Order no.	Description
AL-432-00-868 EnOcean motion sensor "EnoSense PIR ceiling" / white / IMDA	12795	Combined PIR motion sensor and brightness sensor, ceiling mounted, EnOcean 868.3 MHz, mounting height 2.5...3.0 m, detection radius typ. 5 m at 2.5 m height, Brightness sensor: 0 ... 65,000 lux +/- 10%, integrated solar cell, backup battery CR2032 (optional), min. Light intensity 200 lux for 6 hours daily, typ. 96 hours runtime without light, Dimensions: 114 x 66 x 31 mm, ambient temp. 0..60 °C, IMDA SINGAPORE



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