PHILIPS

Sensors

EasyAir

Occu-DL MP 4M sensor MC

MP sensor recessed

MP sensor ceiling mount

Datasheet

EasyAir Occu-DL MP 4M sensor MC

With the Philips EasyAir mains powered sensor presence detection and daylight based light regulation can be added to wireless lighting systems set up with the Philips MasterConnect app. This sensor is mounted stand-alone but electrically connected to mains power. It can be configured for recessed mounting or surface mounted. The sensor triggers automatic responses to turn on/of or dim the lights according to occupancy detection and daylight variation - for more energy savings and enhanced flexibility in your space.
The Philips EasyAir mains powered sensor is commissioned via Bluetooth and the Philips MasterConnect app. The sensor communicates with the lights in the network via Zigbee.

Works with PHILIPS MasterConnect

zigbee

April 2025

Product features

Occupancy Detection

- Passive Infrared (PIR) technology to detect occupancy accurately.
- 39 sqm Field-of-View at typical mounting height.

Daylight Sensing

- High accuracy of ambient light measurement from 1-2000 LUX
- Closed loop daylight regulation
- Daylight fast report for calibration

Installation

- Mains powered 230V 50Hz/60Hz
- Loop through option
- Quick and easy mounting with springs (recessed) or screws (ceiling mount)
- Mounting height 2.5m - 4m
- Indoor use

Environment

- No Mercury.
- Low Carbon Footprint.

Connectivity

- 2.4GHz ZigBee mesh networking technology.
- Reliable and secure wireless communication, nominal range 15m.
- Easy commissioning via Bluetooth.

Control Functionality

- Automatic light control based on occupancy detection and daylight sensing.
- Adjustable sensor parameters for personalized lighting behaviors.

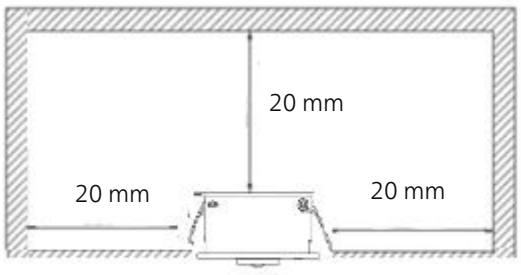
Reliability

- Reliable operation between 0°C and +50°C ambient temperature.
- IP20 (IEC standard 60529)

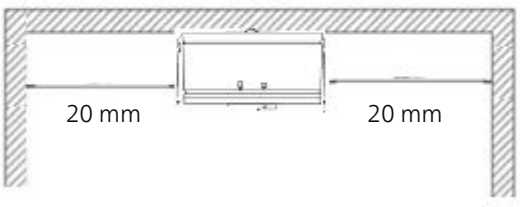
Safety warnings and installation instructions

Warnings

- Avoid touching live parts!
- Do not use damaged products
- Do not use the product with damaged wires
- Do not service the sensor when the mains voltage is connected
- Keep a distance of > 20mm to other objects when mounting the sensor



Recessed mounting



Ceiling mount

Ordering Information

Commercial product name	Colour	Description	EOC	12NC	Carton Quantity
EasyAir Occu-DL MP 4M sensor MC	White	Stand alone mains powered sensor	872110306170600	929003455106	12
Surf. Mount. Box for MP 4M	White	Cap for surface mounting of MP sensor	872110306095200	929003874106	6

Product Data

All specific ations are typical and at 25 °C Tcase unless otherwise specified.

Physical Information	
Overall Dimensions	Φ 78 mm x 41 mm (ceiling mount), Φ 76 mm x 36 mm (recessed)
Ceiling Hole for recessed mounting	Φ 69 mm +/- 1mm
Net Weight per Piece	recessed 79.3 g, ceiling mount: 114.8 g
Connectors	WAGO 250 4-pole terminal block (for loop through) rated for AWG24-16 solid or stranded wire
Input wire cross-section (solid conductor wire)	0.75-1.5mm2, wire 8mm stripped
Input wire cross-section (stranded wire)	0.75-1.5mm2, wire 8mm stripped

Electrical Information	
Input Voltage	230V, 50Hz/60Hz
Nominal Power Consumption	250 mW
Frequency	2.4 GHz

Occupancy Sensing	
Type	Passive infrared (PIR)
Occupancy Based Control	Default enabled
Occupancy Mode	Auto on/off, Manual on/off, Manual on/auto off; Red LED indicates occupancy detected
Hold Time	2 - 100 minutes
Prolong Time	2 - 100 minutes + infinite
Viewing Angle	X = 2x63°, Y = 2x69° (See detection pattern)

Daylight Sensing	
Daylight based control	Enabled/disabled. Default Enabled with target light level of "~600lux X Eco-ON%".
Calibration	Selectable. Light Level calibrated to "Max light output from fixture X Eco-ON%".
Viewing Angle	40° (half value sensitivity); 2% cut-off point at 75°

Environment & Approbation	
Operating Ambient Temperature Range	0 °C to 50 °C
Operating Humidity	20 – 85% non condensing
Storage Temperature	-25 °C - 85 °C
Storage Humidity	10 - 95% non condensing
Ingress Protection	IP20
Agency Approbations	CE, ENEC, UKCA, RCM, CQC, CB
Applications	Indoor (no protection against aggressive chemicals)
Warranty	5 years

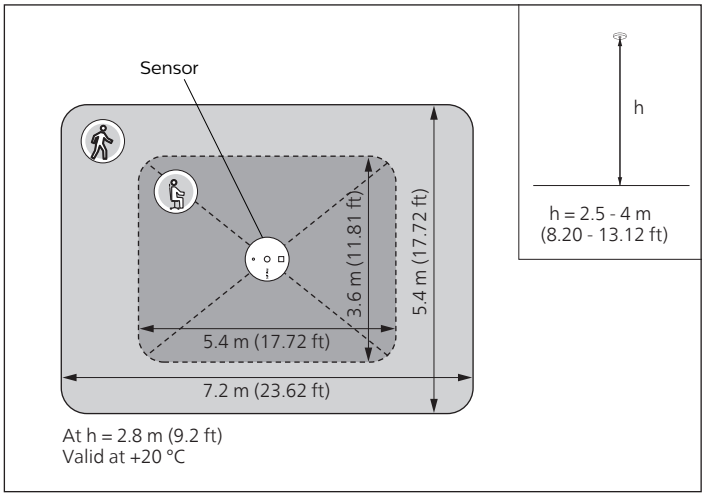
Other	
Wireless protocol	2.4 GHz, IEEE 802.15.4
Encryption	AES - 128
Status Indicators	After commissioning: Red LED on: Motion is detected; Green LED on: Vacancy detected & Sensor is functional
Max Distance Sensor-to-Luminaire	15 m line-of-sight to first luminaire
Field Configuration	via BLE, parameters set via Philips MasterConnect app
BLE range for user to sensor	10 m line-of-sight

Field of view

Occupancy Sensing

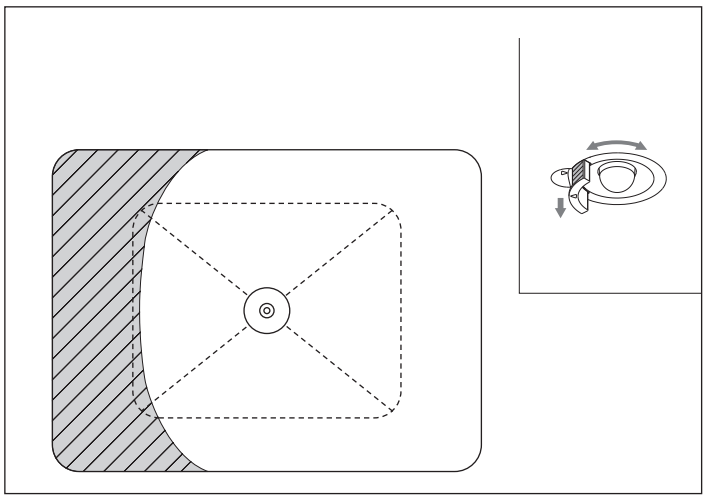
Field-of-view (FOV) for motion detection is determined at typical height (h=2.8m) for major and minor motion with NEMA tests, respectively. The detection area for the movement sensor can be roughly divided into two parts:

- Minor movement (person moving ≤ 0.9 m/s).
- Major movement (person moving ≥ 0.9 m/s)..



- Orientation of the rectangular motion field of view:

- Motion FOV can be reduced using the plastic shield around the lens.



Field of view

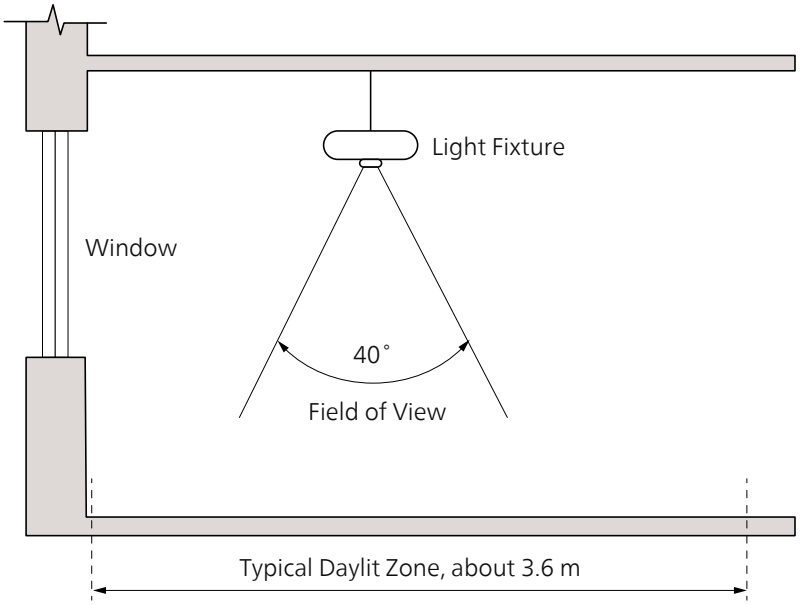
Daylight Sensor

The light sensor measures the total amount of light in a circular field of ≈ 80% of the PIR detection area. The following aspects should be observed during installation:

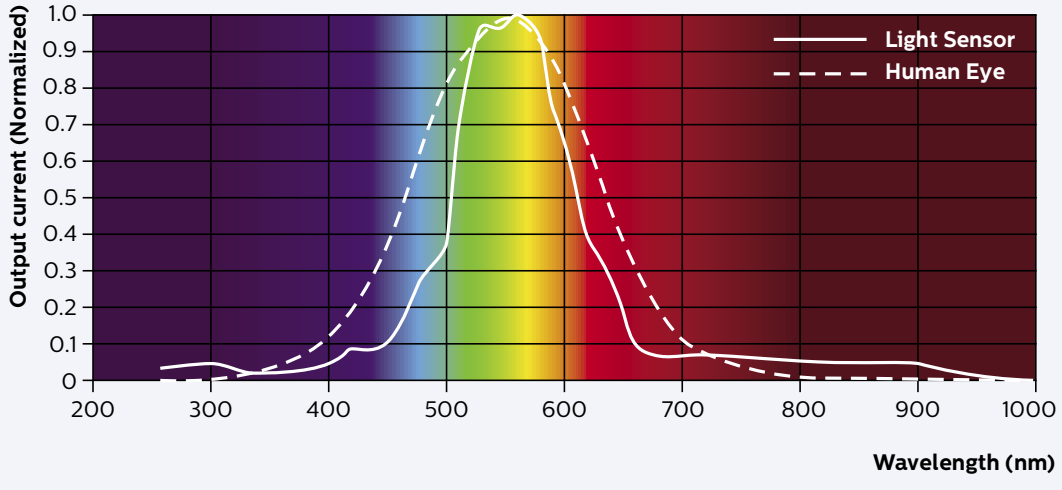
- Minimum distance from the window ≥ 0.6 m.
- Prevent light reflections from outside entering the sensor (for example sunlight reflection on a car bonnet) as this will lead to incorrect light regulation.

As a guideline the formula 0.72 x h can be used to calculate the minimum horizontal distance between the window and sensor whereby h is the vertical height of the sensor measured from the bottom of the window.

Photosensor Spatial Response

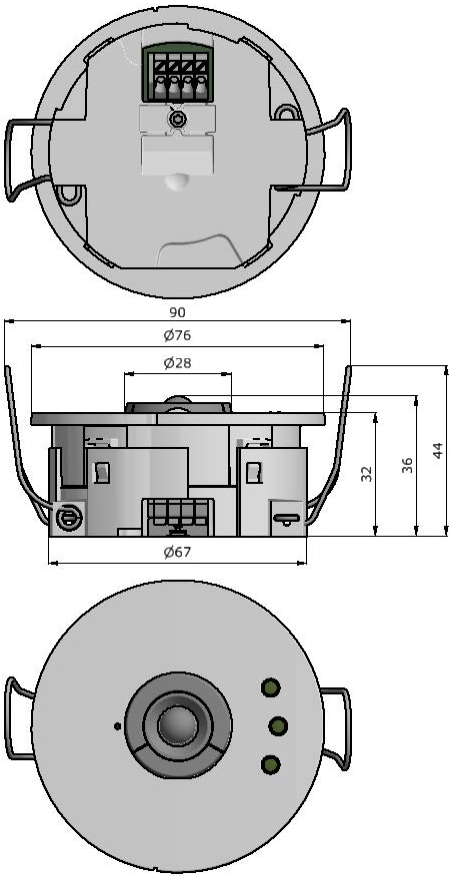


Photosensor Spectral Response

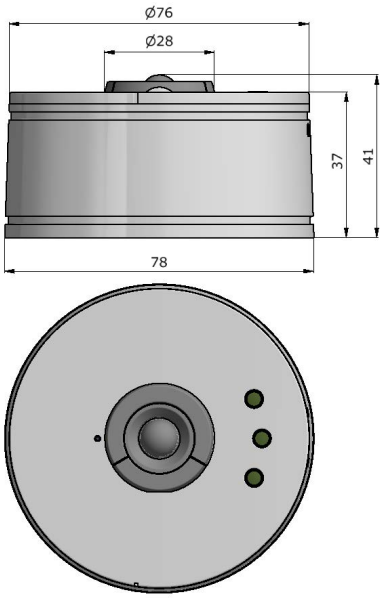


Dimensions

Configuration for recessed mounting



Configuration for ceiling mount

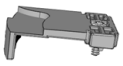


Installation instruction

What is in the box?

Box of Mains Powered Sensor

Sensor with springs for recessed mounting



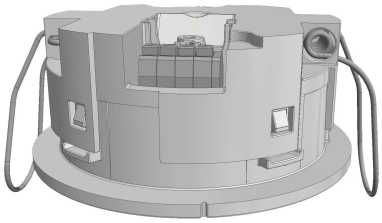
Strain relief cap with screw

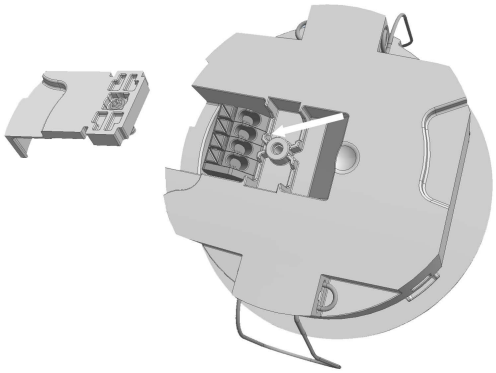
Box with ceiling mount housing

Ceiling mount housing

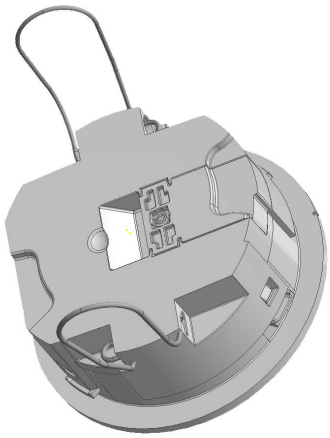
2x screw ceiling mount

Recessed mounting





Connect the mains wires to the sensor using the two ports (1x line, 1x neutral) on one side of the connector, and secure them with the strain relief cap. The screw is a PZ1 cross-head.
The remaining two ports can be used for loop through installations.



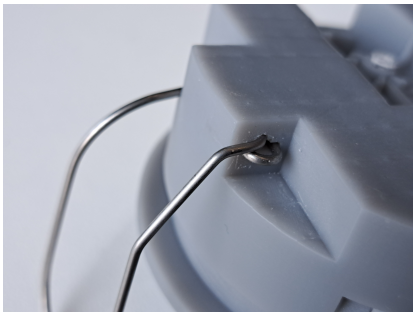
Push up the springs and insert the sensor into the recessed ceiling.

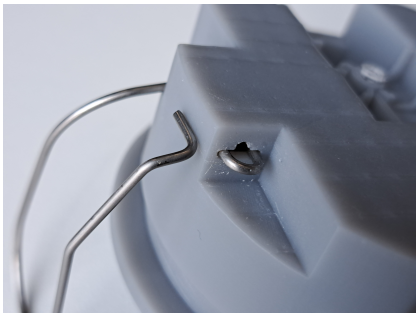
Installation instruction

Ceiling mount installation

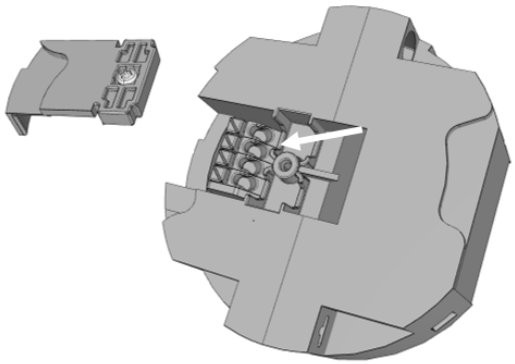
Screw the ceiling mount cap to the ceiling.

Remove the springs from the sensor:



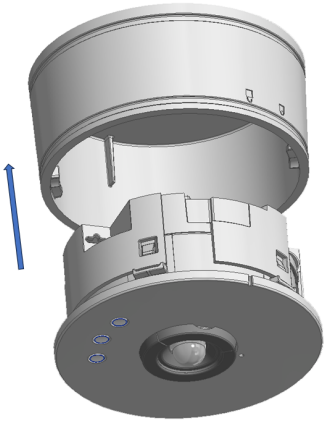


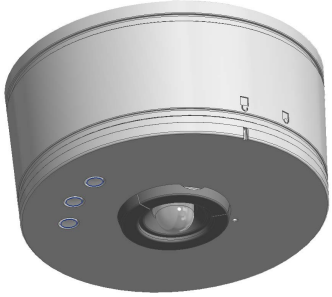
Unlock the hook and pull out the spring



Connect the mains wires to the sensor using the two ports (1x line, 1x neutral) on one side of the connector, and secure them with the strain relief cap. The screw is a PZ1 cross-head.
The remaining two ports can be used for loop through installations.

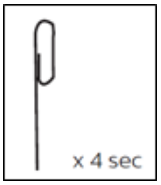
Insert the sensor to the housing while observing the alignment marks and twist to lock.





Hardware reset

Reset



The mains powered sensor can be reset with the MasterConnect app via the standard method (remove from group) or via Safe Mode. Next to that a hardware reset of the sensor is possible by pushing a small in hole button with a thin stick (<1mm), e.g. with a paperclip. Be aware that this doesn't remove the sensor in the app automatically.

Radio directives

RED

This device meets the EU requirements (2014/53/EU) on the limitation of exposure of the general public to electromagnetic fields by way of health protection. The device complies with RF specifications when the device used at 20cm from your body.

SRRC

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使用环境温度范围为0℃到+50℃。

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