Specification Sheet

Occupancy sensor

Product description

This ceiling mount occupancy sensor is part of the wireless Lighting Control family of products that provide automatic lighting control for energy management. The wireless feature adapts well to retrofit installations where pulling wires across existing ceilings is cost prohibitive.

The wireless occupancy sensor can be installed with the other wireless products to create a complete wireless lighting control system for a single space. Up to 16 devices (switches, occupancy sensors and multi-sensors) can be linked to automatically control the lighting.

Features and benefits

- White enclosure, mounting bracket
- 2 LED indicators for information on commissioning, battery, and occupancy status
- Designed for 8-year no-maintenance operation with a heavy-duty long-life Lithium battery
- Sleek low-profile design easily blends into any office or other professional setting.
- Controls associated end points without access to cloud (lighting behavior)
- Lighting behavior of end devices remains operational upon failure
- Can be remotely managed, upgraded, and controlled
- The underlying lighting network will implement graceful degradation upon failures
- Secure wireless communication based on the ZigBee PRO standard (IEEE 802.15.4, WPAN) operating at 2.4GHz radio frequency (RF).
- Functions for the WG and all connected devices can be modified with software configurable settings.

Applications

Classrooms, conference rooms, offices, restrooms (fan and lights), multi-media rooms, lounges, break rooms, lab spaces, storage areas, etc.

Wireless communication

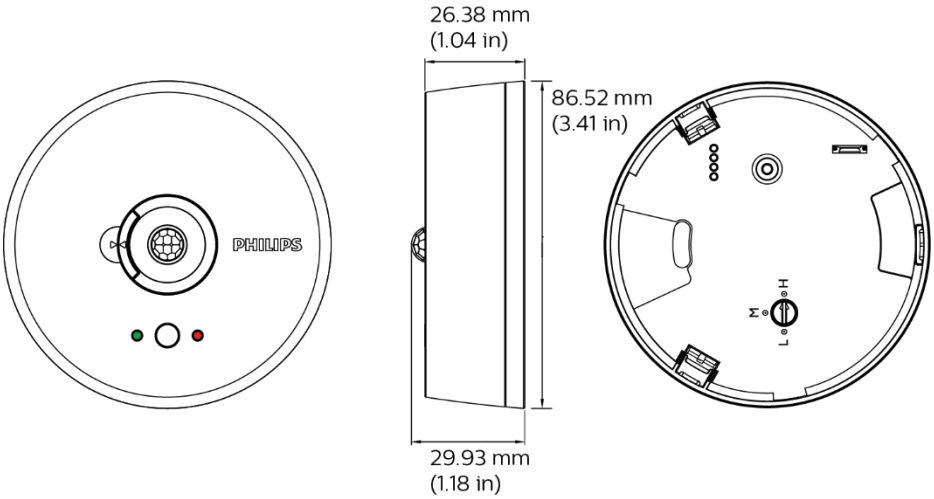
The Wireless network is based on the ZigBee PRO standard (IEEE 802.15.4, WPAN) which is targeted at radio-frequency (RF) applications and operates at 2.4 GHz. The ZigBee protocol enables fully distributed peer-to-peer communication models. This means no master/ slave relationship whereby the application is divided over the devices in the network. Every device knows how it functions within the network. The result is that if one device does not function (removed or defect), the remaining devices keep functioning as intended.

The network is based on a mesh network, so devices pass on the received commands. The distance between the devices should not exceed 10 m (33 ft.). The advantage of a mesh network is the capability for self-healing routing, enabling automatic route discovery over the mesh network. ZigBee has tolerance for a large number of co-located networks due to use of multiple communication channels and CSMA-CA channel access. The commands have network security according to AES 128-bits network encryption. Other connected lighting wireless devices like the kinetically-powered ZigBee Green Power (ZGP) Switches use of the same protocol so they can be combined to interact in a seamless way.

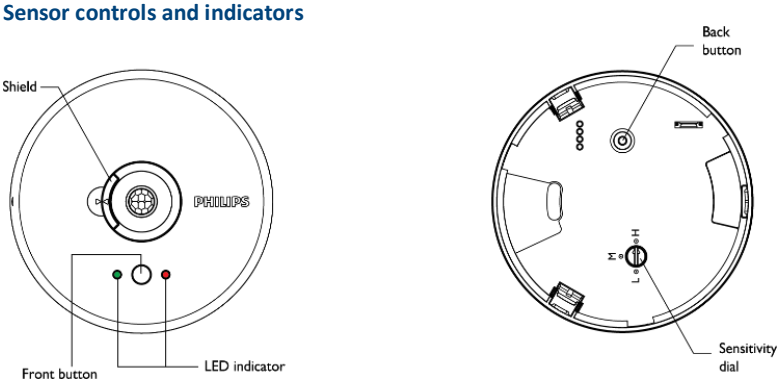
The WG supports encrypted and secure wireless network communication. Third-party ZigBee devices can only join the ZigBee network if their unique identifiers are explicitly enabled in the InterAct Office system.

Note: Wireless signals may be subject to radio frequency interference.

Dimensions



Sensor controls and indicators



Position Sensors

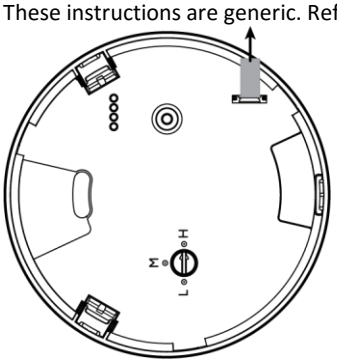
Position the sensors at a proper location to achieve optimal performance in occupancy detection.

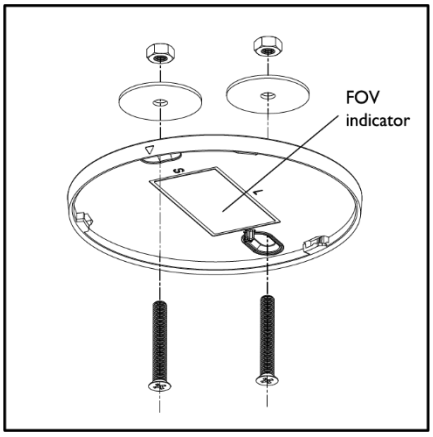
While selecting the mounting sites for sensors, follow these guidelines:

- Position the sensor to cover the majority of space for detecting all large movements, in particular near the entry points. Small movements should be detected where occupants tend to move less.
  You may need multiple sensors for larger spaces.
- Motion in adjacent areas shall not be detected to avoid false triggering of the lights.
- The mounting height should not exceed 4 m (13 ft) from the floor. The recommended height is 2.5 m (8.2 ft).
- Position the multi sensor to detect both artificial light and sunlight.
- Do not expose sensors to direct sunlight or heating/cooling sources.

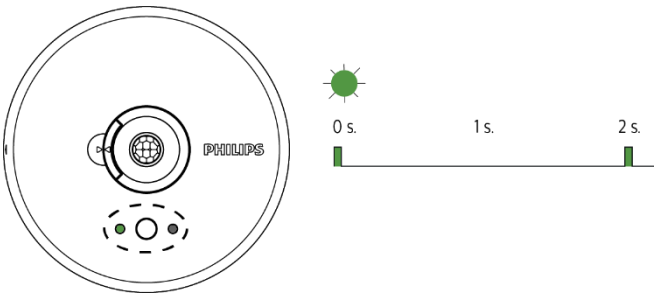
Installation

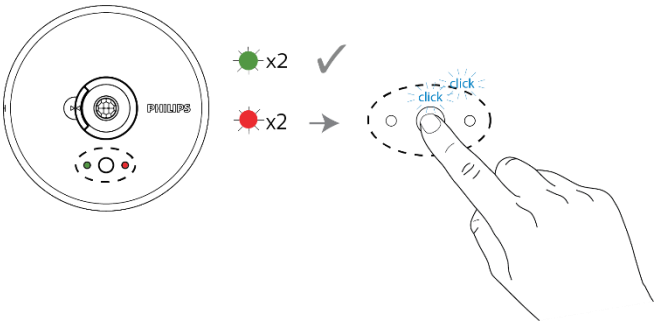
These instructions are generic. Refer to system-specific documentation where applicable.





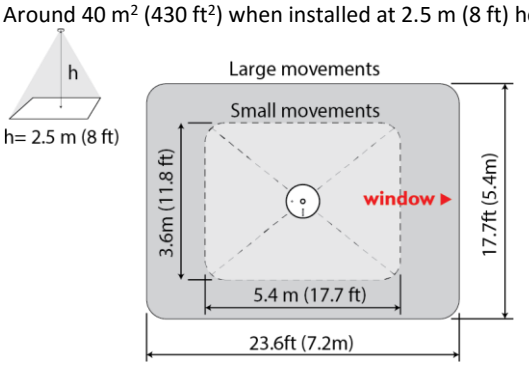
Refer to the rectangular symbol on mounting plate for FOV orientation.



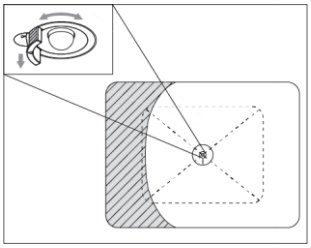


Field of view

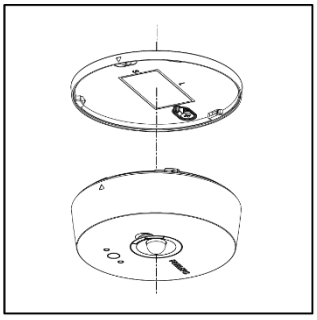
Around 40 m^2 (430 ft^2) when installed at 2.5 m (8 ft) height. Refer to the figure below.

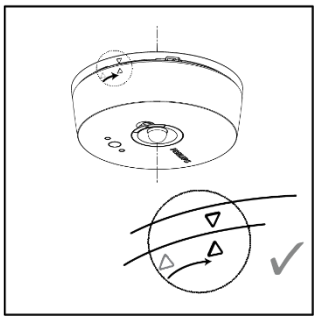


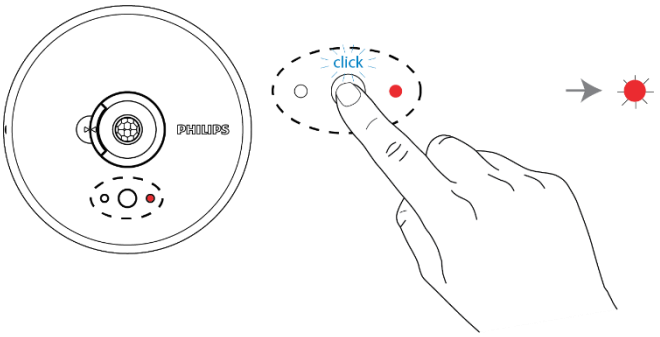
Larger areas will require multiple sensors. The retractable sensor shield can be rotated to partially mask the sensor's field of view and prevent unwanted movement detection.



Performing a walk test will help optimize the occupancy detection coverage and sensitivity.
Commission the sensor before you perform the test.



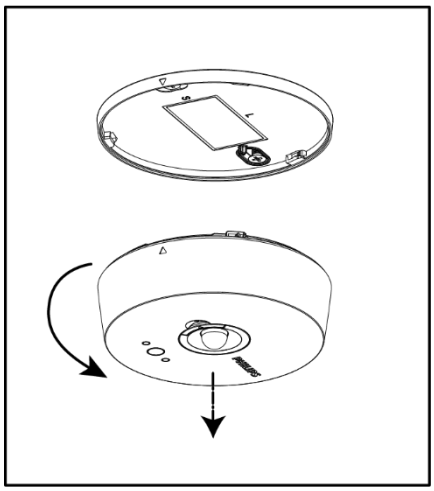


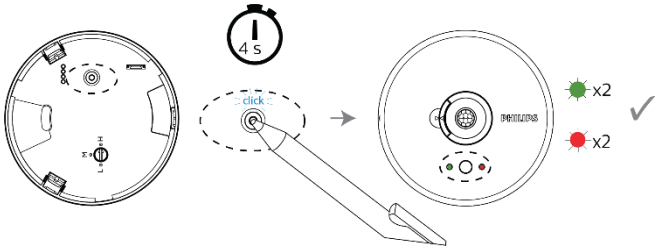


Make sure the sensor successfully detects movement within the designated area, especially at the perimeter and entry points.

Reset to default settings

A factory reset restores sensors to un-commissioned status.
All settings are deleted, and sensors are removed from the current network (if any).





Technical data

Power source	Self-contained ER 14505H battery
Battery life	> 8 years, based on the following mission profile: • Meeting room in office use case • Office open for 10 hours per day, 7 days per week • Presence in the meeting room 75% of the time (every office hour 45 min occupied, 15 min unoccupied) • Periodical occupancy report event, with occupancy / vacancy status • Power consumption for LED indication • Energy consumption during commissioning and installation are not considered
Environmental conditions operating ambient temperature range	-5 to 45 °C (23 to 113 °F)
relative humidity range	0 to 95%, non-condensing
Environmental conditions storage temperature range	-25 to 65 °C (-13 to 149 °F)
Wireless Communication	ZigBee PRO standard (IEEE 802.15.4, WPAN)
Dimensions (radius, height including sensor)	86.5 mm x 29.9 m (3.41 x 1.18 in)
Protection rating	IP42
User Controls	Rear Push Button, Front Push Button, Sensitivity Dial Status LEDs
Regulatory compliance	CE FCC UL60730 California Title 20 ZigBee Green Power certification

Ordering data

Packing data

Type	Dimensions	Qty/Box	Material	Weight (net)	Weight (gross)
Occupancy sensor	94×94×43 mm (× × in)	1	Cardboard	0.xx kg (0.xx lb.)	0.xx kg (0.xx lb.)

Ordering data

EU version

Type	MOQ	Ordering number	EAN code level 1	EAN code level 3	EOC
Occupancy sensor	1	9290 018 19002	8718696777527	8718696777534	871869677752700

US version

Type	MOQ	Ordering number	UPC code level 1	UPC code level 3	Catalog code
Occupancy sensor	1	9290 018 19004	046677476182	50046677476187	476184

FCC/IC compliance statement

This device complies with part 15 of the FCC rules for the United States and Industry Canada (IC) license - exempt RSS standard(s). Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation. Any changes or modifications not expressly approved by Philips could void the user's authority to operate this equipment.
This product is intended for commercial use only.

FCC Compliance Statement

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

IC Compliance Statement

This device complies with Industry Canada license-exempt RSSs. Operation is subject to the following two conditions: (1) this device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of the device. Any changes or modifications not expressly approved by Philips could void the user's authority to operate this equipment. This equipment is intended for commercial use only.

FCC Radiation Exposure Statement

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment.
This equipment should be installed and operated with minimum distance 20 cm between the radiator & your body.

IC Radiation Exposure Statement

This equipment complies with IC RSS-102 radiation exposure limits set forth for an uncontrolled environment.
This equipment should be installed and operated with minimum distance 20 cm between the radiator & your body.

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