CP electronics EBDHS-PRM High Bay Presence Detectors Installation Guide

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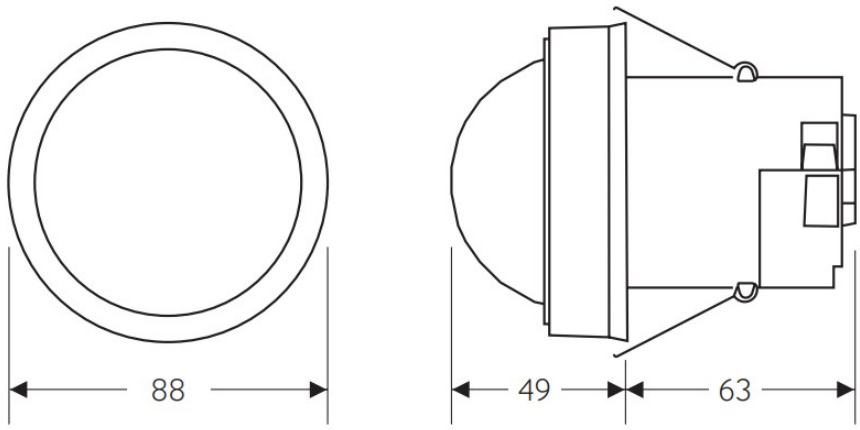
PRM switching, high bay

Warning

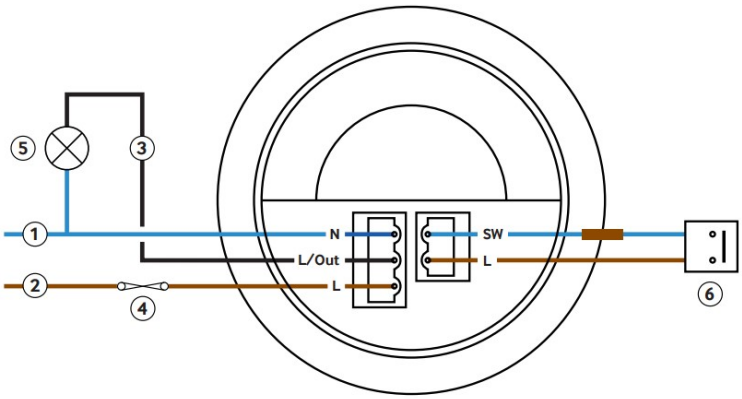
This device should be installed by a qualified electrician in accordance with the latest edition of the IEE wiring regulations.

Downloads and Videos

Dimensions (mm)



Wiring



Key

1. Neutral
2. Live
3. Switched output
4. 10A circuit protection if required
5. Load
6. Momentary push-to-make switch, 230V (for absence detection)

Contents

Presence or absence detection

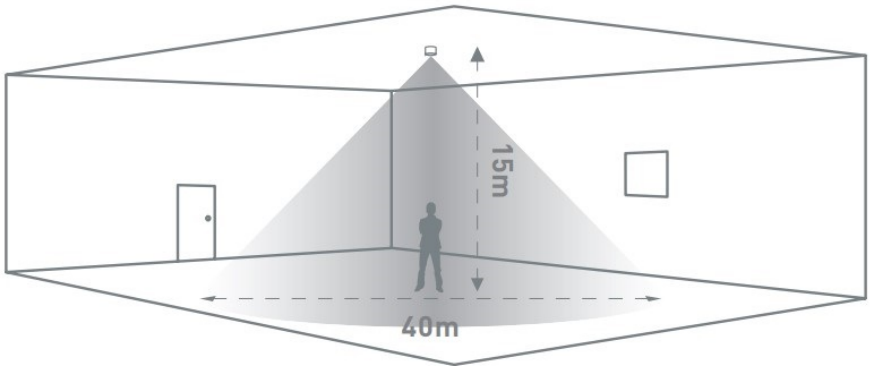
The unit ships with presence detection as default

- To change over to absence detection, press and release the external switch 5 times within the first minute of power up. The LED will turn on red for 30 seconds to indicate absence mode has been selected.
- To change back to presence detection, repeat the above procedure – the LED will flash red for 30 seconds to indicate presence mode has been selected.

To use absence detection a retractive (momentary) switch must be connected between the 2 terminals on the diagram. Note that this will be switching mains voltage.

Note: the above adjustments can also be made using the optional UHS5 or UNLCDHS handsets.

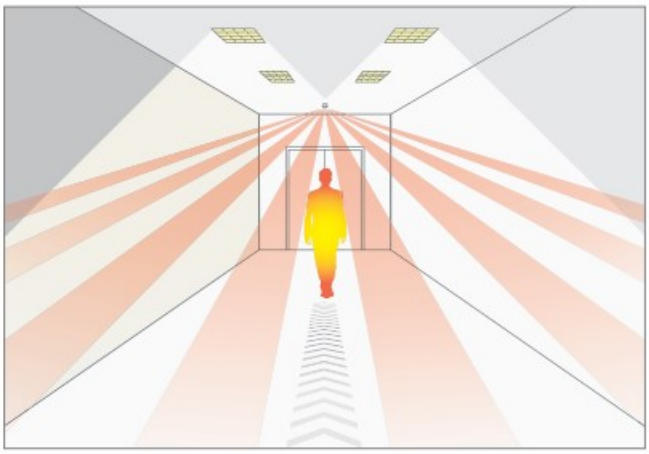
Detection pattern



Walk acros

Height	Range Diameter
15m	40m
10m	26m
6m	16m
3m	9m

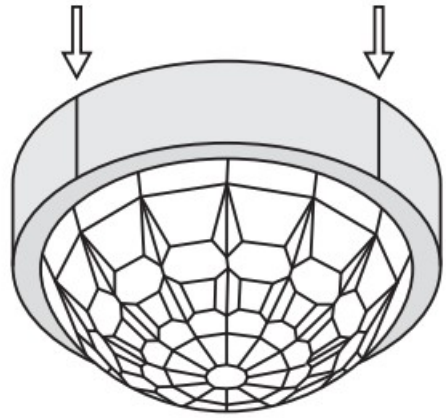
Walk towards|

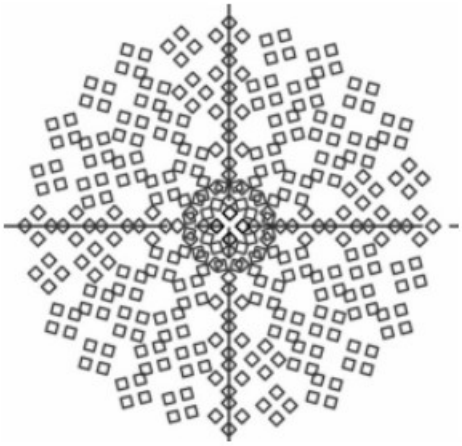


Height	Range Diameter
15m	30m
10m	20m
6m	12m
3m	8m

Walk towards & walk across explained

Alignment marks





The sensor head has 4 alignment marks. These correspond to the 4 outer passive infrared sensors under the lens. Use these marks to align with aisles and corridors to ensure the best detection characteristics.

Masking shields

The detector includes two clip-on masking shields, enabling precise masking of the detection shape for aisles and corners as well as narrowing the detection diameter.

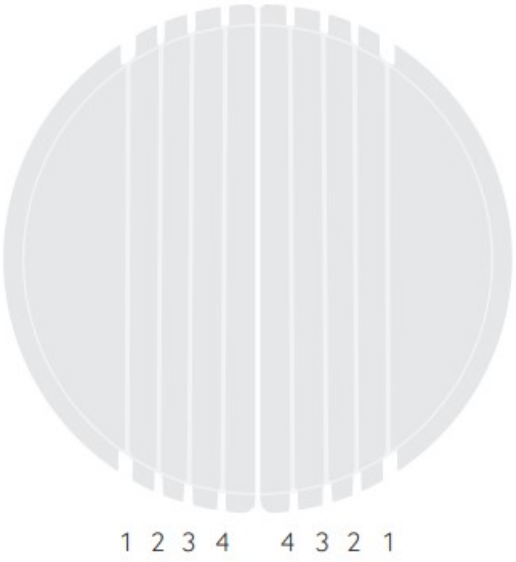
1. Lateral trim pattern for slot style detection.
2. Radial trim pattern for narrowing the detection diameter.

Ensure all infra-red (IR) programming is completed before affixing the masking shields to the detector.

Masking shield application

Aisles

Trim the masks laterally to reduce the detection width for aisles.

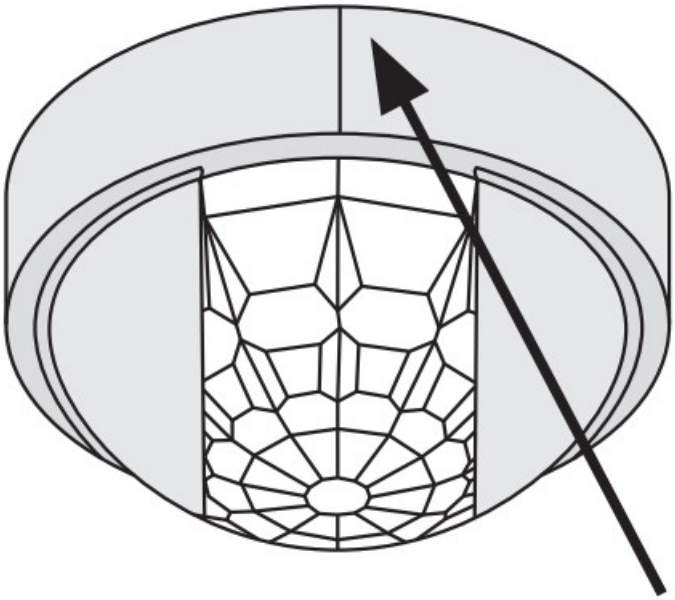


Key

- **a.** Trim line
- **b.** 15m Mounting height
- **c.** 10m Mounting height
- **d.** 6m Mounting height
- **e.** 3m Mounting height
- wa = walk across
- wt = walk towards

a	B	c	d	e
1	wa 18m x 40m wt 13 .5m x 30m	wa 11.7m x 26m wt 9m x 20m	wa 7.2m x 16m wt 5. 4m x 12m	wa 4m x 9m wt 3.6m x 8m
2	wa 12.8m x 40m wt 9.6m x 30m	wa 8.3m x 26m wt 6. 4m x 20m	wa 5.1m x 16m wt 3. 8m x 12m	wa 2.8m x 9m wt 2.5 m x 8m
3	wa 8.8m x 40m wt 6. 6m x 30m	wa 5.7m x 26m wt 4. 4m x 20m	wa 3.5m x 16m wt 2. 6m x 12m	wa 1.9m x 9m wt 1.7 m x 8m
4	wa 4.4m x 40m wt 3. 3m x 30m	wa 2.8m x 26m wt 2. 2m x 20m	wa 1.7m x 16m wt 1. 3m x 12m	wa 0.9m x 9m wt 0.8 m x 8m

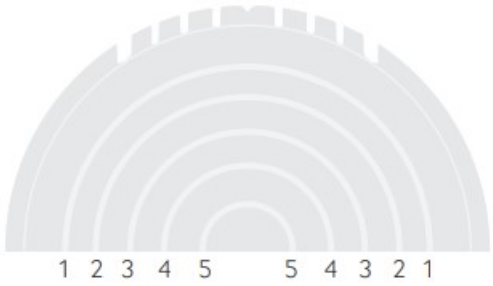
Install shields to detector



Align trimmed shields with sensor head alignment marks and aisle

Narrow detection

Trim the masks along radial lines to narrow the detection diameter



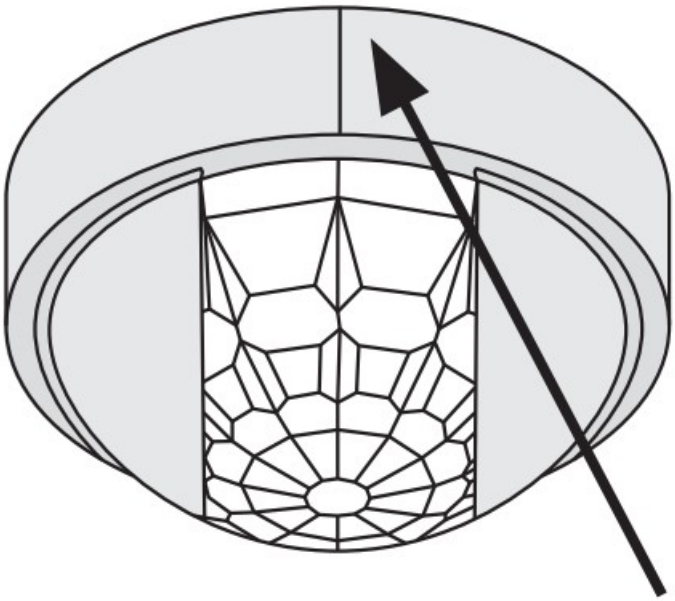
a	B	c	d	e
1	wa 35.6m wt 26.7m	wa 23.1m wt 17.8m	wa 14.2m wt 10.6m	wa 8m wt 7.1m
2	wa 25.2m wt 18.9m	wa 16.3m wt 12.6m	wa 10m wt 7.5m	wa 5.6m wt 5m
3	wa 18m wt 13.5m	wa 11.7m wt 9m	wa 7.2m wt 5.4m	wa 4m wt 3.6m
4	wa 12.8m wt 9.6m	wa 8.3m wt 6.4m	wa 5.1m wt 3.8m	wa 2.8m wt 2.5m
5	wa 8.8m wt 6.6m	wa 5.7m wt 4.4m	wa 3.5m wt 2.6m	wa 1.9m wt 1.7m

Key

- **a.** Trim line
- **b.** 15m Mounting height
- **c.** 10m Mounting height
- **d.** 6m Mounting height
- **e.** 3m Mounting height

- wa = walk across
- wt = walk towards

Install shields to detector

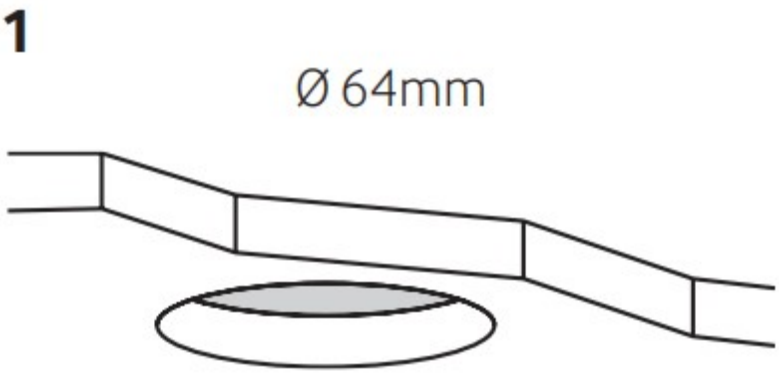


Installation

This device is designed to be flush ceiling-mounted. See page 20 for additional mounting options.

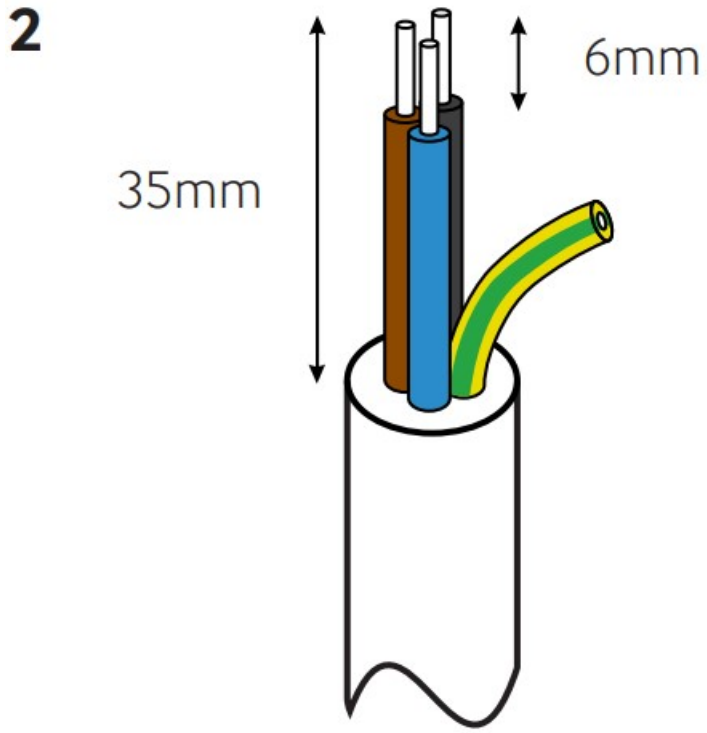
- Do not site the unit where direct sunlight might enter the sensor.
- Do not site the sensor within 1m of any lighting, forced air heating or ventilation.
- Do not fix the sensor to an unstable or vibrating surface.

Create cut out



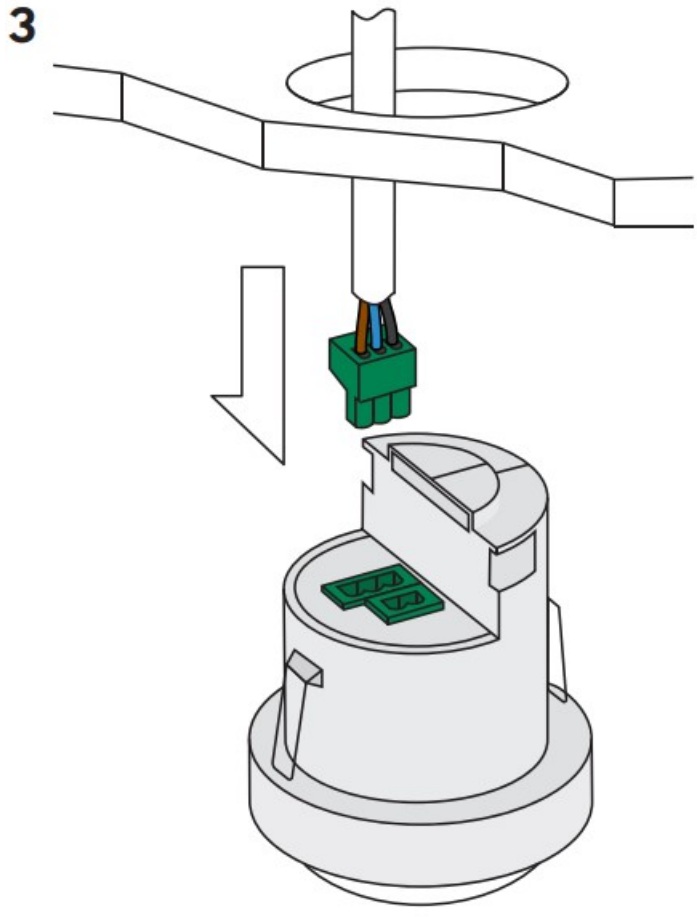
Cut a 64mm diameter hole in the ceiling

Wire stripping



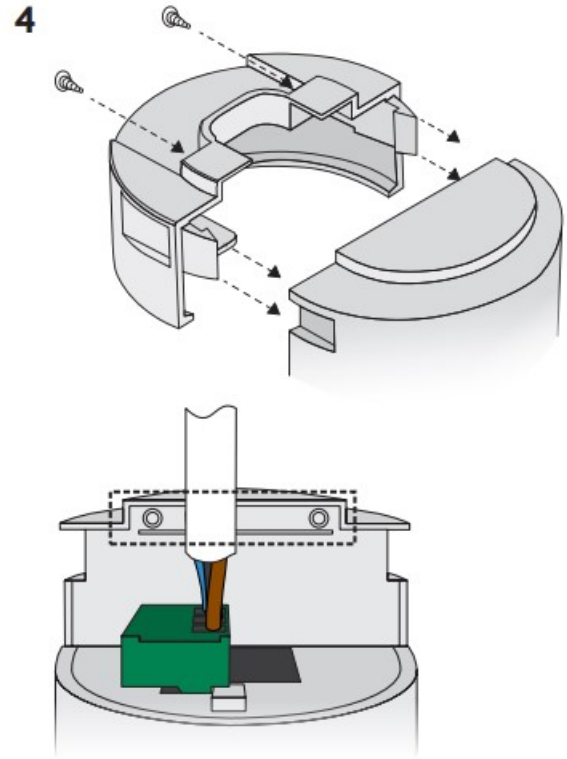
Strip the wires as shown opposite. Presence detector does not require earth conductor.

Wire in plugs & connect to detector



Wire in plug/s, using wiring diagram on page 2 as a guide. Connect the plug/s to the detector.

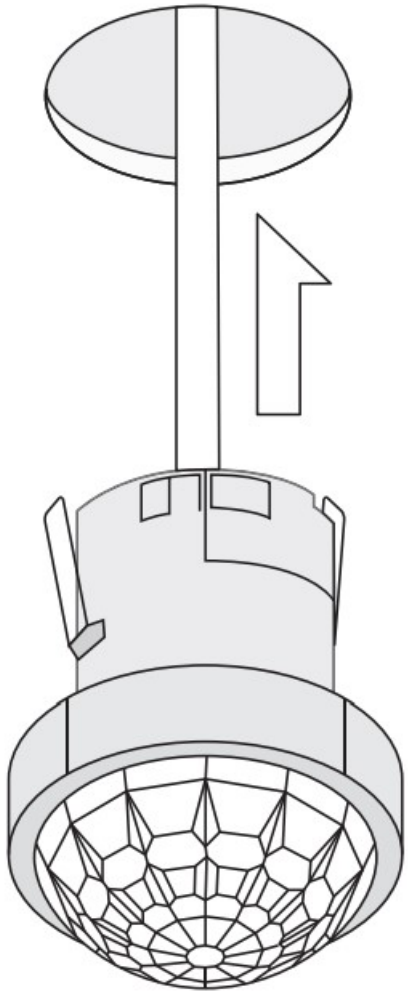
Clamp cable



Continue tightening the screws until the clamp bar snaps out and is tightly engaged against the cable/s. The cable clamp must clamp the outer sheath only

Install detector

5



Bend the springs up and push detector through hole in ceiling. When fully inserted the springs snap back to hold the device in place.

To avoid injury, take care when bending springs.

Default Settings

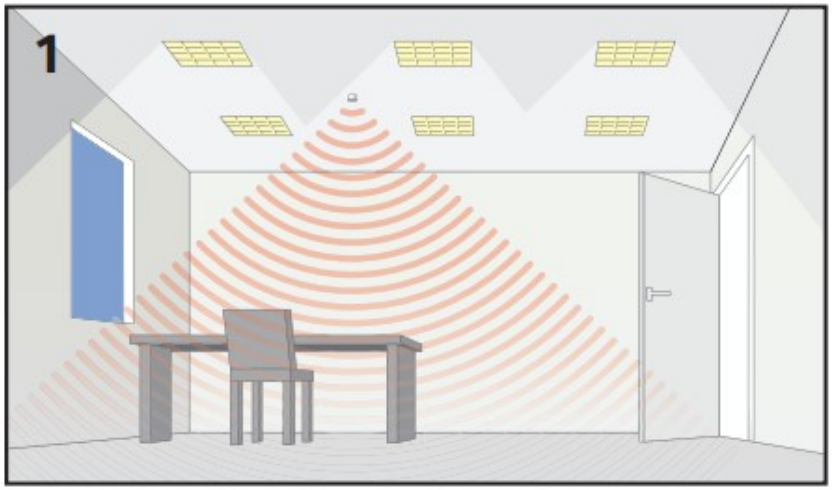
- Time out: 20 minutes.
- LUX on level: 9
- LUX off level: 9
- Sensitivity: 9
- Detection: Presence

Adjustments can be made using the optional UHS5 or UNLCDHS handsets.

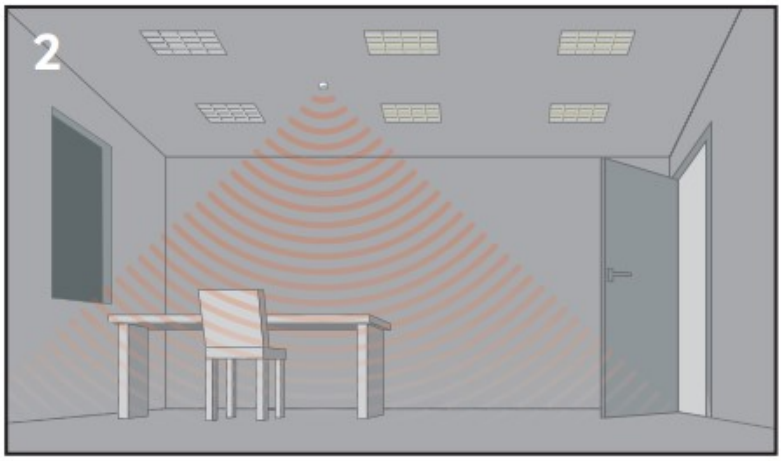
Testing

Presence Detection

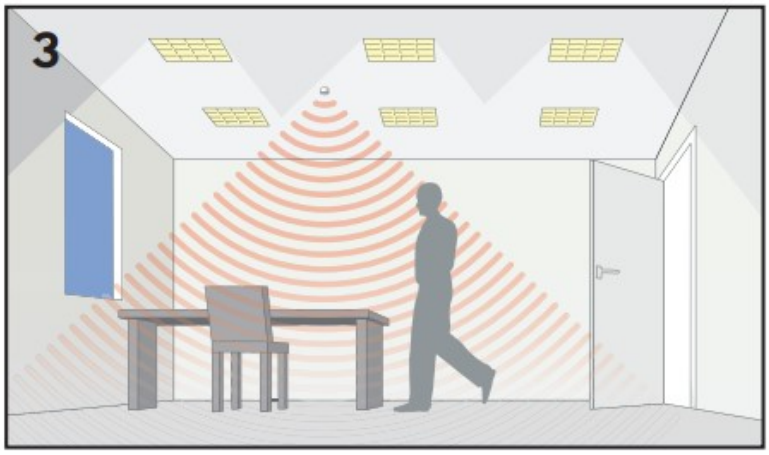
1. Power up the sensor. The load should come on immediately.



2. Vacate the room or remain very still and wait for the load to switch off (this should take less than 20 minutes).

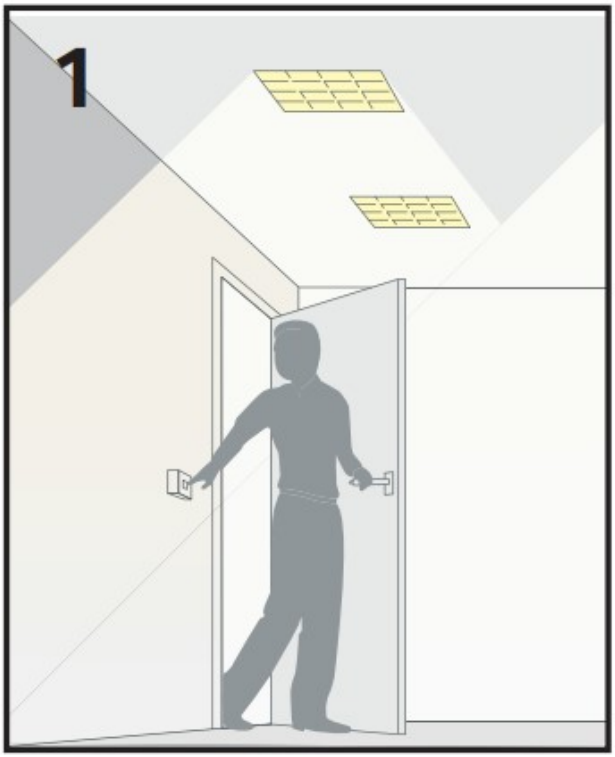


3. Enter the room or make some movement and check that the load switches on.

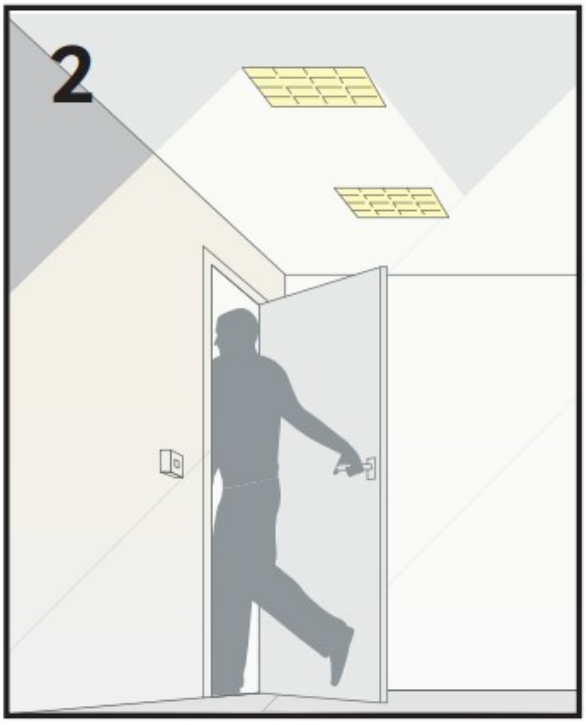


Absence Detection

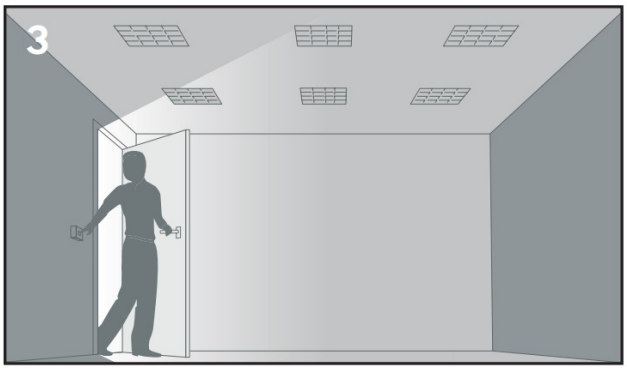
1. Power up the sensor. Switch the load on.



2. Vacate the room and wait for the load to switch off (this should under than 20 minutes).



3. Enter the room, the load will remain off until you switch it on again.



Technical Data

Part code	EBDHS-PRM
Weight	0.200kg
Supply voltage AC	230 VAC +/- 10%
Supply frequency	50Hz
Circuit protection	10A
Power consumption parasitic	847mW
Terminal capacity	2.5mm²
Max load:	
Incandescent lighting	10A
Fluorescent lighting	10A
Compact fluorescent lighting	10A
LED lighting	10A
Resistive heaters	10A
Fans and ventilation equipment	10A
Time out range	10 seconds to 99 minutes
Working temperature range	10 to 35°C
Humidity	5 to 95% noncondensing
Material (casing)	Flame retardant ABS and PC/ABS
Insulation class	2
IP rating	40
Compliance	EMC-2014/30/EU LVD-2014/35/EU

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Accessories & associated products

Part Numbe	Description
 DBB	Surface mounting box
 DBB-EXT	Surface mount back box extender
 EBD-ENCIP1	Pre-drilled 64mm hole IP65 detector enclosur
 EXD-HSC	Extended wiring housing
 UHS5	Compact, programming
 UHS7	Compact, user handset
 UNLCDHS	Universal LCD IR handset/commissioning handset

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WD407 Issue 11 Installation Guide, EBDHS-PR

Documents / Resources

	CP electronics EBDHS-PRM High Bay Presence Detectors [pdf] Installation Guide EBDHS-PRM, High Bay Presence Detectors, EBDHS-PRM High Bay Presence Detectors, Presence Detectors, Detectors

References

- Technical Guides | Support Library | CP Electronics
- Presence and Absence Detection Explained | Knowledge Hub | CP Electronics
- Walk Towards and Walk Across explained | Knowledge Hub | CP Electronics
- Presence Detectors and Energy Efficient Lighting Control Systems | CP Electronics