



EBDHS-DNET1 & EBDHS-DNET1-LT30

Ceiling PIR HS presence detector DALI network

Overview



The EBDHS-DNET1 is a combined passive infrared (PIR) motion sensor and photocell designed to be part of a DALI network. The EBDHS-DNET1 is a high sensitivity PIR detector suitable for high bay applications, such as warehouses and factories, and where high detection sensitivity is needed

Functioning as a presence detector, the unit returns occupancy data to the DALI network.

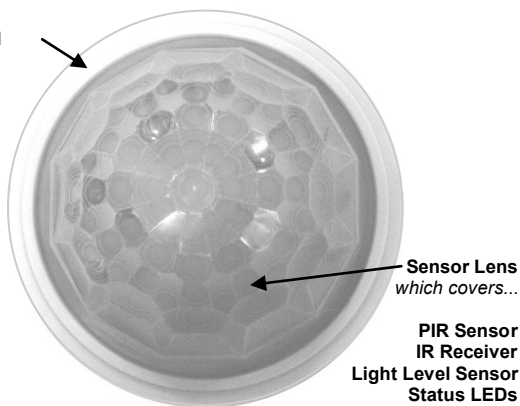
The photocell provides a lux level measurement value to the DALI network.

For a copy of the DALI 'Command set', contact CP Electronics' technical support.

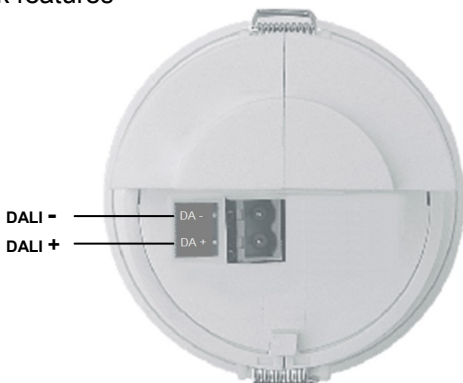
Features & wiring

Front features

Mounting Bezel

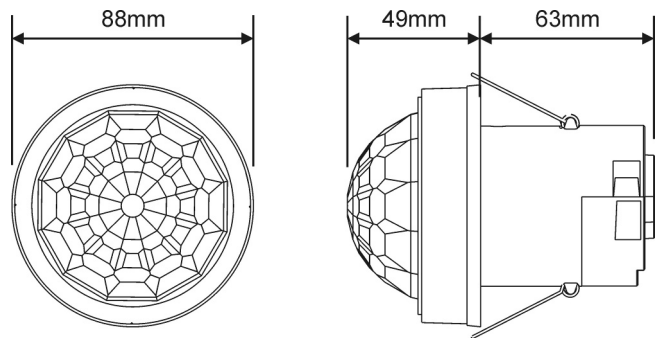


Back features

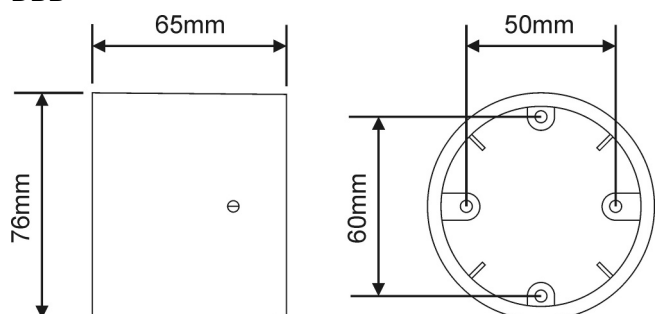


Dimensions

EBDHS-DNET1



DBB

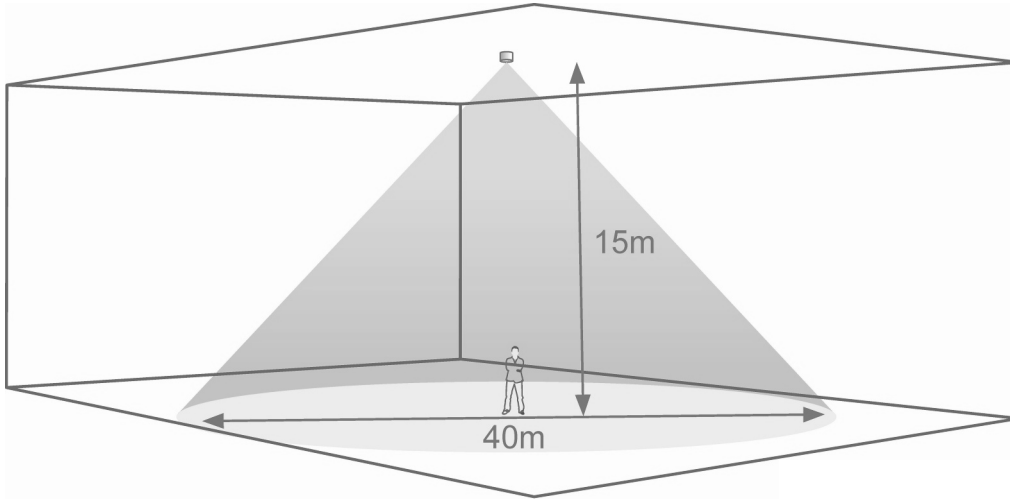


EBDHS-DNET1-LT30

A special order version that can be used down to -30°C

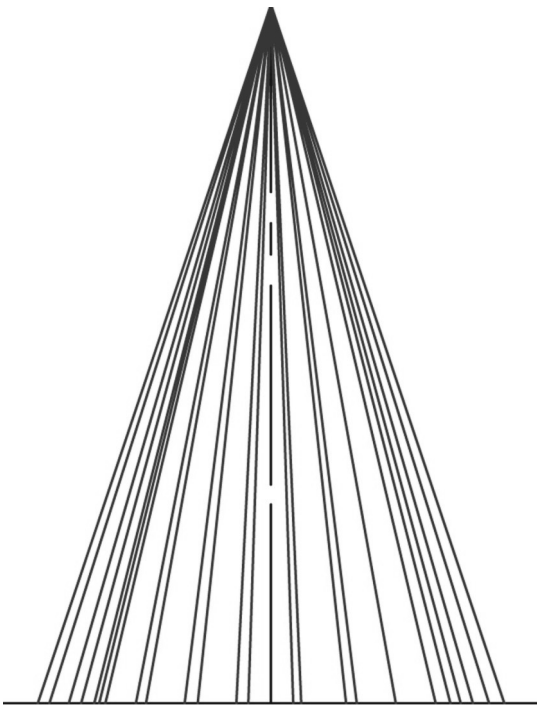
Detection diagrams

Range

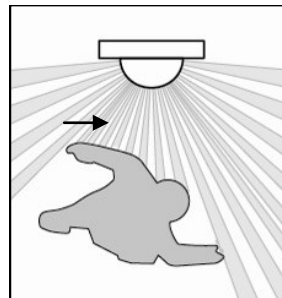


Maximum mounting height 20m

Detection pattern

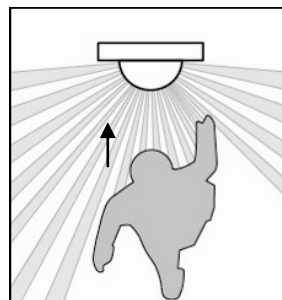


Walk across



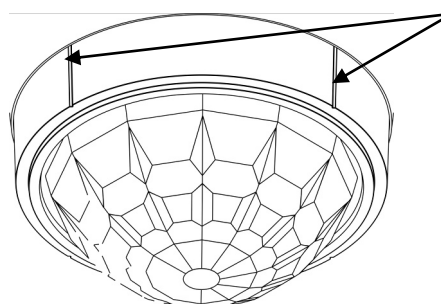
Height	Range Diameter
15m	40m
10m	26m
6m	16m
3m	9m

Walk towards



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

Alignment marks

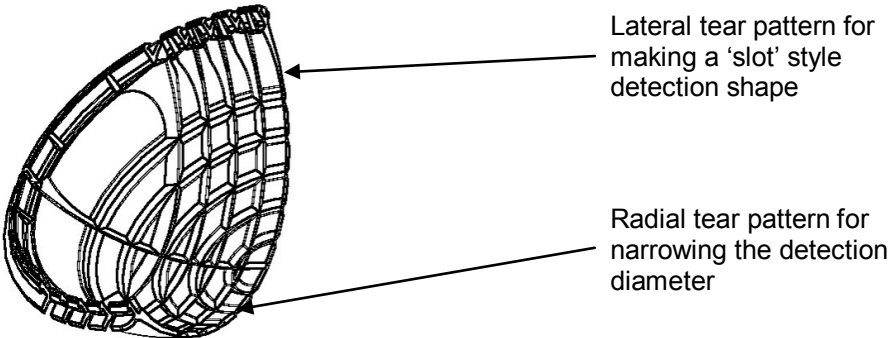


The sensor head has 4 alignment marks. These correspond to the 4 outer passive infrared sensors under the lens. Use these marks to align with aisles and corridors to ensure the best detection characteristics. See example overleaf.

Masking

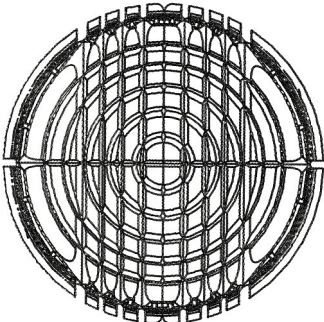
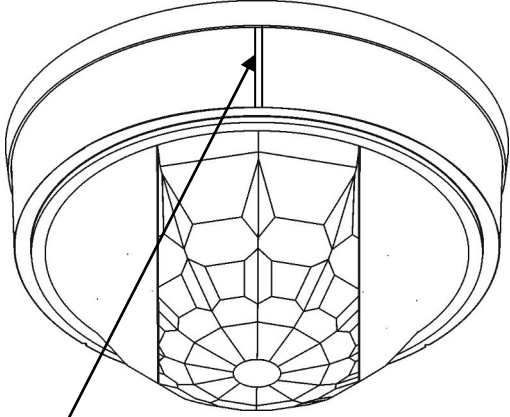
The EBDHS-DNET1 includes two clip-on masking shields to allow for precise masking of the detection shape. The masks can be easily shaped to produce detection patterns suitable for applications such as aisles and corners and for narrowing the detection diameter.

Important note. Ensure all infra-red (IR) programming is completed before affixing the masking shields to the detector.
The masking shields may impair the light sensor and IR sensors by covering them. Ensure correct operation before completing commissioning.



Aisles

Masking shields trimmed for aisle shaped detection



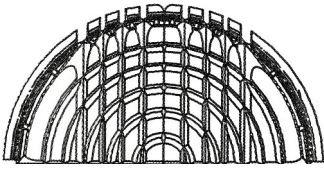
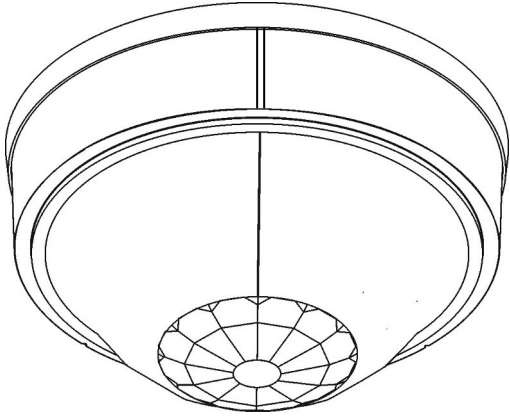
Slot number	Masking shield % coverage
1	45%
2	32%
3	22%
4	11%

Slot number 1 2 3 4 4 3 2 1

Example
 Mounting height 6m
 Trimmed to slots 2
 Aisle detection width 16m x 32% = 5.1m walk across
 12m x 32% = 3.8m walk towards

Narrow detection

Masking shields trimmed for a narrow beam of detection



Diameter number	Masking shield % coverage
1	89%
2	63%
3	45%
4	32%
5	22%

Diameter number 1 2 3 4 5 5 4 3 2 1

Example
 Mounting height 15m
 Trimmed to diameter 3
 Detection diameter 40m x 45% = 18m walk across
 30m x 45% = 13.5m walk towards

Installing the PIR Detector

Choosing a Suitable Location

The PIR Detector is designed to be ceiling mounted and must satisfy the following criteria:

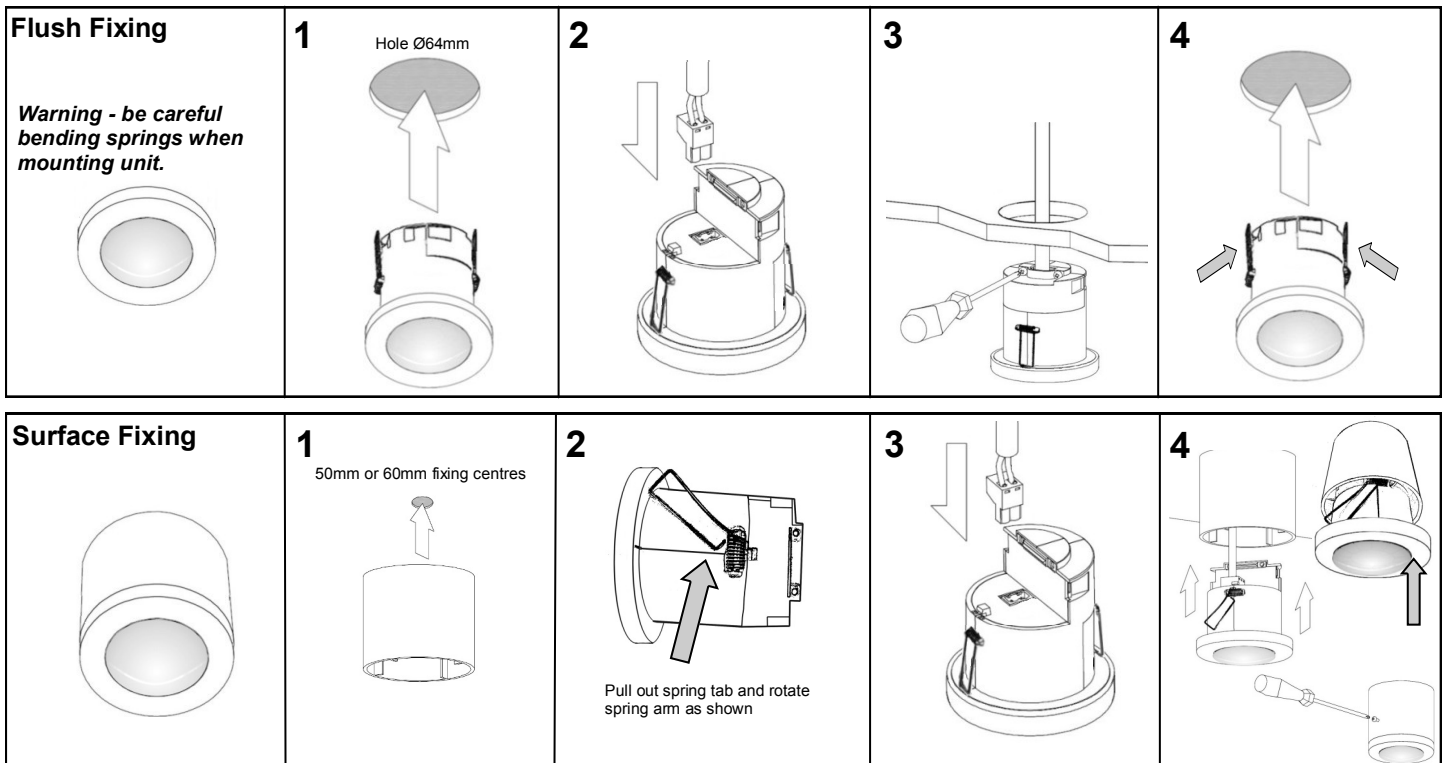
- Avoid positioning the unit where direct sunlight may enter the sensor element.
- Do not site the sensor within 1m of any lighting, forced air heating or ventilation.
- Do not fix the sensor to an unstable or vibrating surface.
- Position the sensor so that the occupants of the room fall inside the detection zone. Note that the detection zone illustrated is based on a recommended mounting height of 2.8m. A lower height will decrease the overall size of the detection zone.

Mounting Methods

The Detector is designed to be mounted using either:

- Flush fixing (recommended), or
- Surface fixing, using the optional Surface Mounting Box (part no. DBB).

Both methods are illustrated in below.



Technical data

Dimensions	See diagrams on page 1
Weight	0.10kg
Supply Voltage	9.5VDC—22.5VDC via DALI
Supply Current	8mA
Terminal Capacity	2.5mm ² (solid or stranded)
Material (casing)	Flame retardant ABS and PC/ABS
Temperature	EBDHS-DNET1 -10°C to 35°C EBDHS-DNET1-LT30 -30°C to 35°C
Humidity	5 to 95% non-condensing
IP rating	40 without gasket. 65 with gasket.
Compliance	EMC-2014/30/EU LVD-2014/35/EU



UK and international patents applied for



CP Electronics - a business unit of
Legrand Electric Limited
Brent Crescent, London NW10 7XR UK
Tel: +44 (0)333 900 0671
Fax: +44 (0)333 900 0674

A brand of **legrand**[®]
www.cpelectronics.co.uk
enquiry@cpelectronics.co.uk