digidim　**Installation Guide**

Helvar

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High-Bay PIR Spot Detector (319)

The 319 High-Bay PIR Spot Detector is a compact unit containing sensors to provide energy-saving functions when used in a DALI system.

Functioning as a presence detector, the unit can turn the lights on when a room is occupied, and off when unoccupied. It is fully compatible with Helvar's lighting system design and control software: Designer, and Toolbox.

Features and Connections

Mounting bezel

Sensor lens
- PIR Sensor
- Status LED
- IR Receiver

Retaining spring

DALI +
DALI –

Retaining spring

PIR Sensor

Detects movement within the detection range, allowing load control in response to changes in room occupancy.

Status LED

The red LED flashes to indicate:

- **Valid setting received** (single flash of LED)
- **Identify active** (LED flashes repeatedly)

DALI Connection

The DALI connection is made via DA+ and DA– terminals. The device is not polarity-sensitive.

Sensitivity, Time-Outs, Identify

Sensitivity

Adjust the sensitivity using Designer or Toolbox – Helvar's lighting system design and control software.

The factory default setting is 9 (maximum).

Note: *On maximum sensitivity, the detector unit is* **extremely sensitive** *to movement and may detect through glass, thin walls or partitions. If this causes a problem, reduce its sensitivity.*

The temperature difference between the detection target and the background must be at least 4 °C.

Adjusting On, Exit and Transition Time-Outs

The default time-outs for On, Exit and Transition can be altered using Designer or Toolbox.

Identify: Check Connection to DALI Network

To make sure that the sensor is correctly connected to the DALI network, use the *Identify* function in Designer or Toolbox. The sensor's status LED flashes repeatedly until *Identify* is cancelled.

Detection Pattern

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20°

15 m

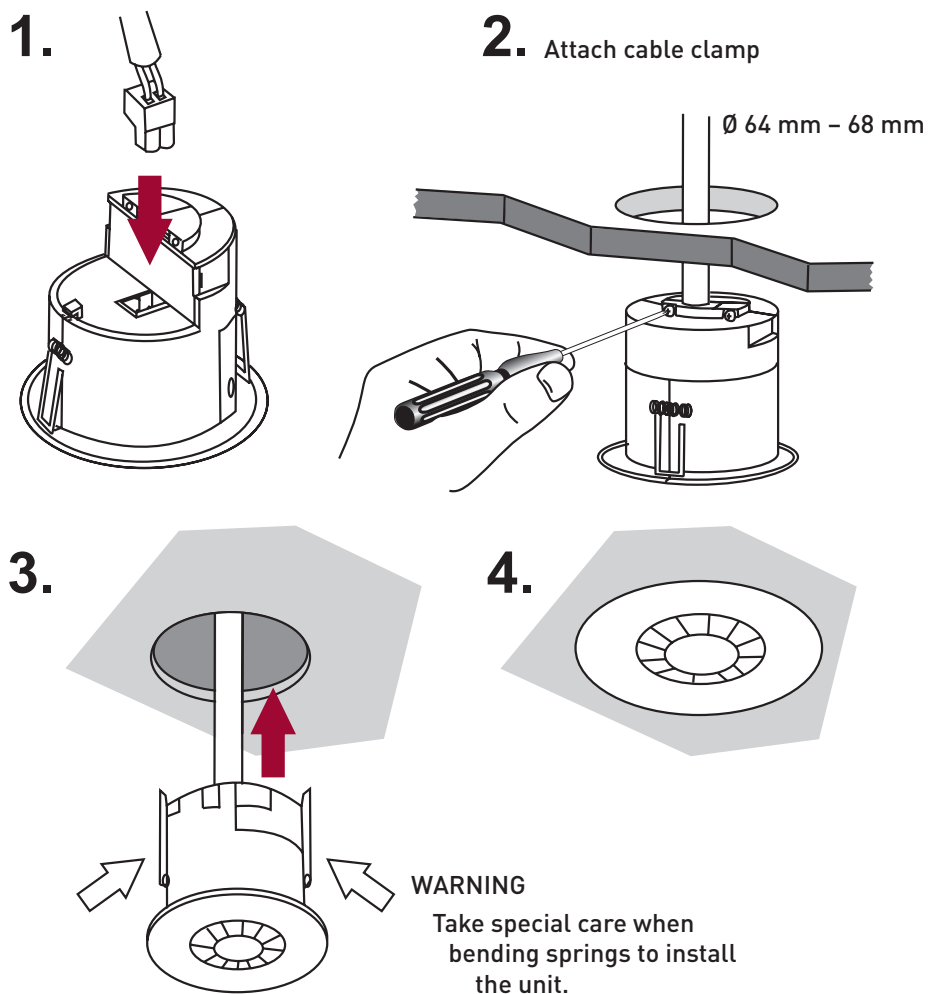**5.1 m**

20°

6 m

2 m
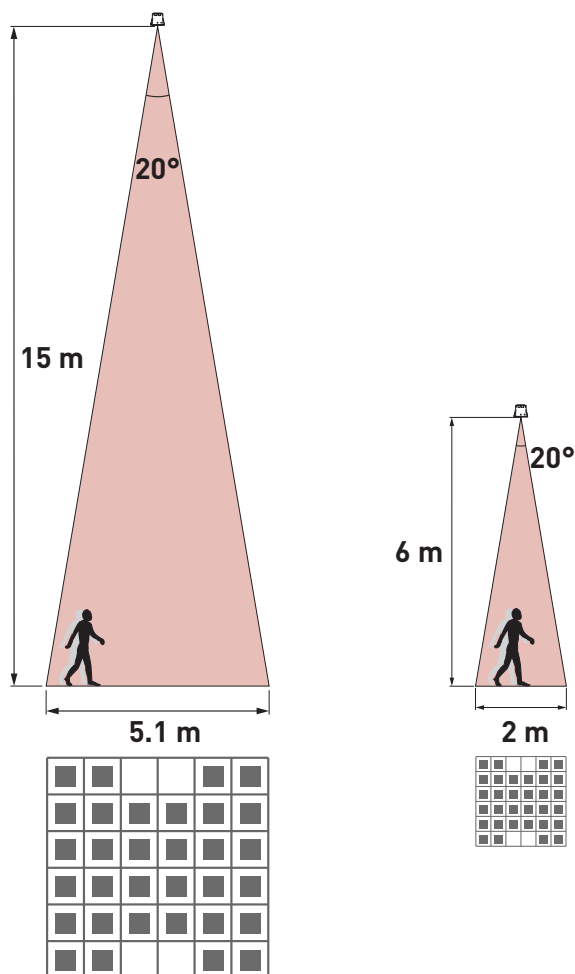
Installation

The High-Bay PIR Spot Detector can be mounted into a ceiling or wall void or onto a back box. The following steps are required for all installations of the unit.

1. Connect the DALI connector to the socket located at the rear of the sensor.
2. **Flush fixing:** Insert the unit into the ceiling or wall (see 'Connection and Fixing: Flush Fixing' on page 3); or
    Surface mounting: Install the unit using the SBB-A or the SBB-P surface back boxes, as appropriate (see 'Connection and Fixing: Surface Mounting' on page 4).
3. Power the unit up.
4. Configure the unit using Designer or Toolbox.
5. If the load triggered by the sensor comes on, by default it will take 20 minutes (of no movement detected) for the load to switch off.

Align indents with aisle

Aisle
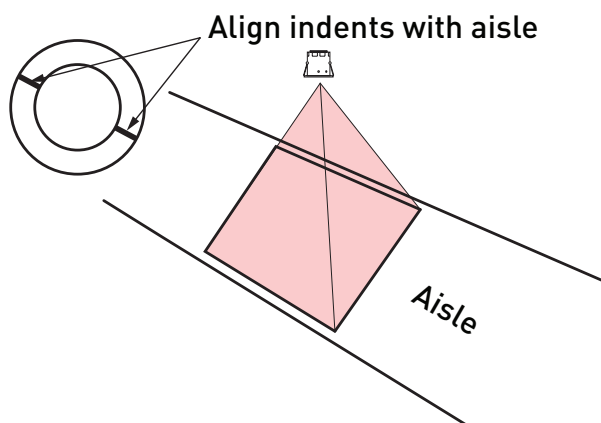
Installation Notes

- Do not fix the sensor to an unstable or vibrating surface.
- Do not install the sensor within 1 m of any lighting, forced air heating, or ventilation equipment.

Connection and Fixing: Flush Fixing

1.

2. Attach cable clamp

Ø 64 mm – 68 mm

3.

4.

WARNING
Take special care when bending springs to install the unit.

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Connection and Fixing: Surface Mounting

There are two different mounting procedures: one onto the SBB-A surface back box, the other onto the SBB-P surface back box using the supplied silicone gasket must always be used.

Both back boxes must be ordered separately.
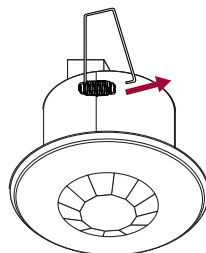
Mounting onto Surface Back Box SBB-A (IP 40)
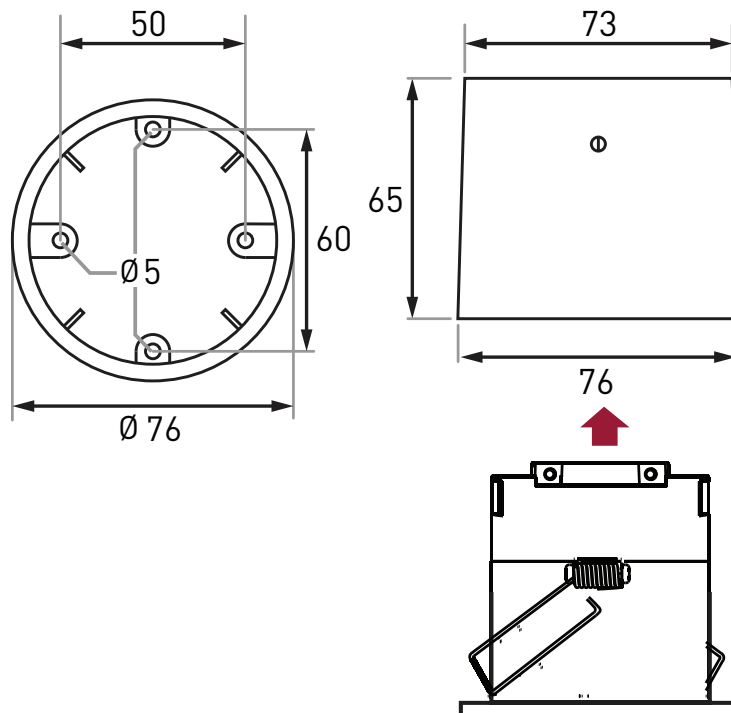
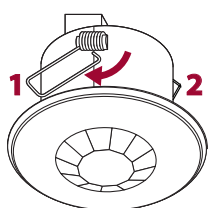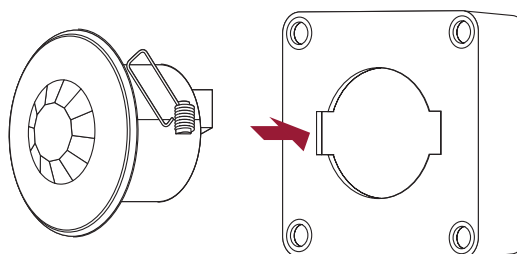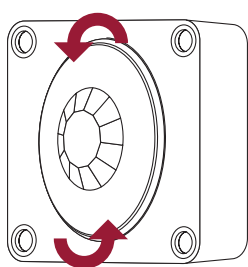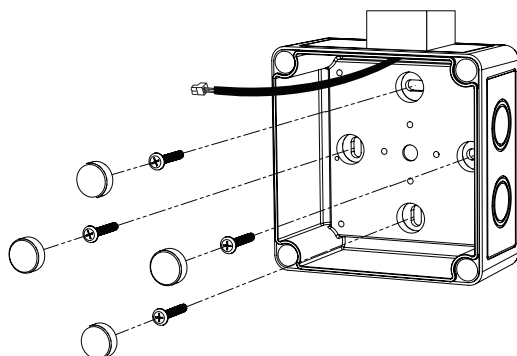**Mounting onto Surface Back Box SBB-P (IP 40)**

1.
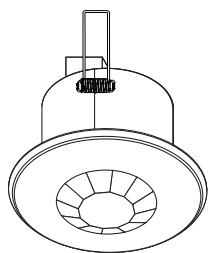
2.

3.

4.

5.

6.

7.

8.

Technical Data

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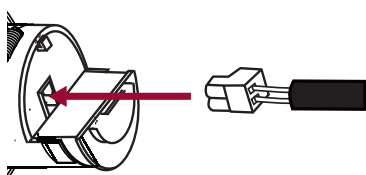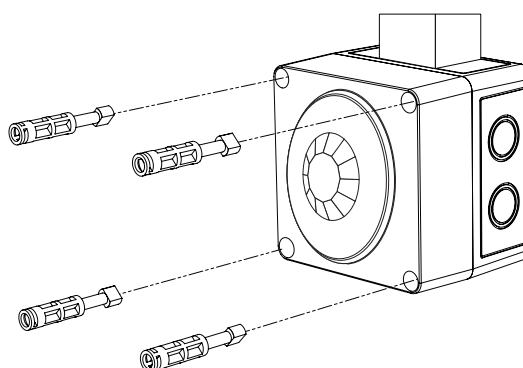
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Connections

External power / DALI:	Removable connector block. Wire size: 0.5 mm² – 1.5 mm² solid or stranded.
Cable rating:	All cables must be mains rated. Max. length: 300 m @ 1.5 mm²

Power

DALI supply input:	13 V to 22.5 V
DALI consumption:	15 mA

Sensors

Presence detector:	PIR: Passive infrared presence detector
Infrared receiver:	For remote control commands. *Note: Adjust sensitivity using Designer or Toolbox (not by remote control unit).*

Mechanical data

Mounting hole diameter:	68 mm
Bezel diameter:	76 mm
Material (casing):	Flame-retardant ABS
Finish / Colour:	Matt / White RAL 9003
Weight:	82 g
IP code:	IP40

Operating conditions

Ambient temperature:	0 °C to +35 °C
Relative humidity:	Max. 90 %, noncondensing
Storage temperature:	–10 °C to +70 °C

Conformity and standards

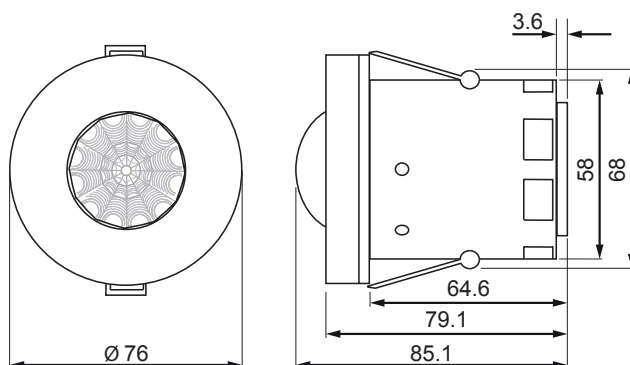|	
EMC emission:	EN 61000–6–1
EMC immunity:	EN 61000–6–3
Safety:	EN 60730–1
Environment:	Complies with WEEE and RoHS directives.

Dimensions (mm)