Ceiling PIR Detector (311)

The 311 Ceiling PIR Detector is a compact unit that provides energy-saving functions in a DALI system. It contains these sensors:

- Passive infrared detector (PIR)
- Infrared receiver

As a presence detector, the unit can turn the lights on when a room is occupied, and off when the room is unoccupied. The 311 is fully compatible with Helvar’s lighting system design and control software: Designer, and Toolbox.

Key Features

- The PIR sensor detects movement within detection range, allowing load control in response to changes in room occupancy.
- IP55 and cold environment (~30 °C) versions available. Order codes:
  - 311P: IP55 version;
- Status LEDs flash red to indicate the following:

<table>
<thead>
<tr>
<th>Status Description</th>
<th>LED Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>Valid setting received</td>
<td></td>
</tr>
<tr>
<td>Identify Active</td>
<td>R R R R R</td>
</tr>
</tbody>
</table>

= Red LED

Installation

All versions of the Detector can be mounted into a ceiling or wall void, or onto a solid surface using a back box. The standard version (311) can be mounted onto Helvar’s SBB-A back box, whereas the 311P and 311M versions need to be mounted onto Helvar’s fully sealed SBB-P back box to maintain the IP rating.

When mounting the 311P and 311M versions, the supplied silicone gasket must always be used.

For information on how to install the Ceiling PIR Detector, see the Installation Guide.

Detection Pattern

![Detection Pattern Diagram]
Technical Data

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: 58 g
IP code: 311: IP40
311P*: IP55
311M*: IP55
* Only when the supplied gasket is used and the unit is mounted onto Helvar’s SBB-P back box or flush in a ceiling.

Operating conditions
Ambient temperature: 311 & 311P: 0 °C to +35 °C
311M: –30 °C to +35 °C
Note: The temperature difference between the detection target and the background must be at least 4 °C.
Relative humidity: Max. 90 %, noncondensing
Storage temperature: 311 & 311P: –10 °C to +70 °C
311M: –30 °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.

Version information
Software version: 6.08
Hardware version: Rev. 2

Dimensions (mm)