Low-Profile Microwave Detector (313)

The 313 Low-Profile Microwave Detector provides occupancy detection for the automatic control of DALI lighting loads.

The unit detects movement using its highly sensitive microwave detector. It emits low-power microwave signals, and measures the reflections as the signals bounce off moving objects.

When an area is no longer occupied, the load will switch off after a certain time. This time-out period is configured using Helvar’s lighting system design and control software: Designer, or Toolbox. It can also be controlled using a Helvar infrared remote handset.

The unit can be mounted into a ceiling or wall void, or onto a solid surface using Helvar’s SBB-A back box (available separately).

From hardware revision 4, the Low-Profile Microwave Detector can be used with a Helvar 401, 402 or 403 or a generic 12 V to 24 V power supply unit.

Key Features

- The microwave sensor detects movement within the detection range allowing load control in response to changes in room occupancy.
- The IR receiver receives control and programming commands from a Helvar infrared remote handset (available separately).
- The Status LEDs flash red to indicate the following:

<table>
<thead>
<tr>
<th>Valid setting received</th>
<th>Identify active</th>
</tr>
</thead>
<tbody>
<tr>
<td>🟥</td>
<td>🟥 🟥 🟥 🟥 🟥</td>
</tr>
</tbody>
</table>

하였습니다. 🟥 = Red LED

Detection Pattern

Sensitivity set to maximum

Valid setting received
Identify active
**Technical Data**

**Connections**

External power / DALI: Removable terminal block
- Wire section: 0.5 mm² – 2.5 mm² solid or stranded
- Optional connection to external power.
  - 12 V to 24 V

Cable rating: All cables must be mains rated.

**Power**

DALI supply input: 13 V to 22.5 V
DALI consumption: 20 mA

*Note: DALI consumption is less than 2 mA when external power is supplied to the unit.*

[Optional] External power: 12 V to 24 V, 0.3 W

**Remote control functions**

Use Helvar infrared remote handset to:
- Recall lighting scenes 1–4.
- Adjust light levels.
- Store current level.
- Install preset levels for scenes 1–4.

*Note: Adjust sensitivity using Designer, or Toolbox (not by remote control unit).*

Factory setting for sensor sensitivity: 9 (maximum).

**Microwave operating frequency**

Frequency: 5.8 GHz

**Mechanical data**

- Mounting hole diameter: 68 mm
- Bezel diameter: 76 mm
- Recommended clearance depth (incl. 50 mm for cabling):
  - 80 mm (without protective cover)
  - 100 mm (with protective cover)
- Material (casing): Flame retardant ABS and PC/ABS
- Finish/Colour: Matt / White RAL 9003
- Weight: 90 g
- IP code: IP30

**Operating conditions**

- Ambient temperature: 0 °C to +50 °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.

**Version information**

- Software version: 6
- Hardware version: Rev. 4

**Software compatibility**

- Designer: 4.1 or later
- Toolbox: 2.2.16 or later