313 Low-Profile Microwave Detector

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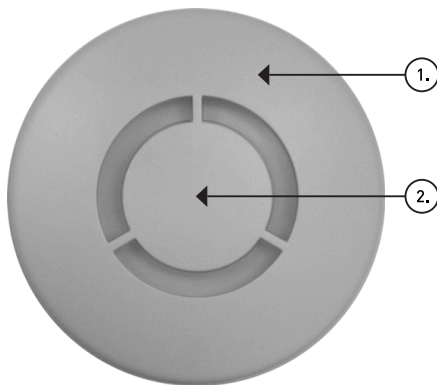
When an area is no longer occupied, the load will switch off after a certain time. This time-out period is configured using Helvar's lighting system design and control software: Designer, or Toolbox. It can also be controlled using a Helvar infrared remote handset.

The unit can be mounted into a ceiling or wall void, or onto a solid surface using Helvar's SBB-A or SBB-AB back boxes (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

1. Mounting bezel
2. IR Receiver: Receives control and programming commands from a Helvar infrared remote handset (available separately).

   Microwave sensor: Detects movement within the detection range allowing load control in response to changes in room occupancy.
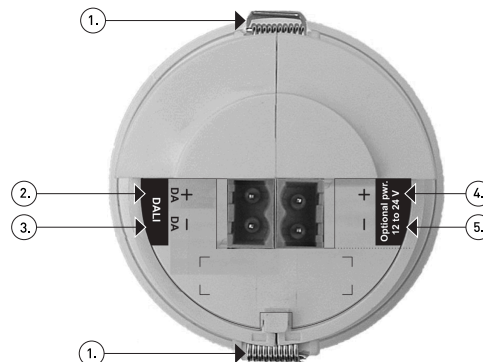
   Status LED: The red LED flashes to indicate the following:
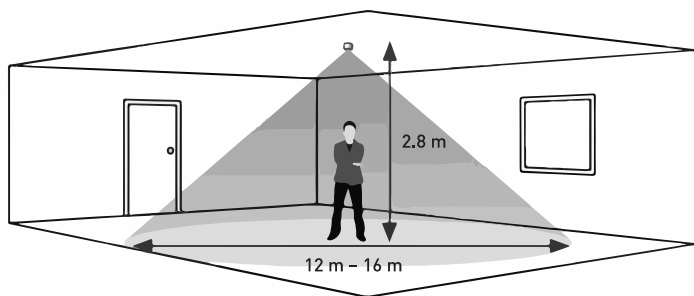
   x1: Valid setting received.

   x6: Identify active.

Connections

1. Retaining spring
2. DALI +
3. DALI –
   The DALI connection is made via DA+ and DA– terminals.
   The DALI input is not polarity sensitive unless you are using an external power supply.
4. Optional DALI + -connection to external power, 12 V to 24 V. See 313 Low-Profile Microwave Detector Installation Guide for details.
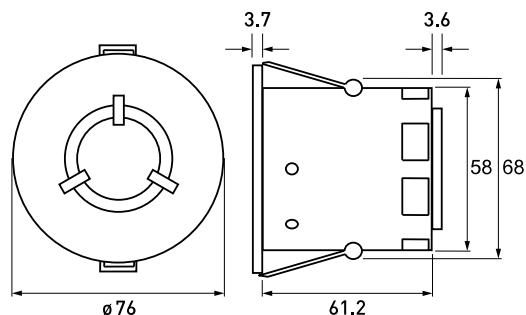5. Optional DALI – -connection to external power

Detection Pattern

⚠️ Note: Sensitivity set to maximum.

Dimensions (mm)

Technical Data

Connections	
External power / DALI:	Removable terminal block
Wire section:	0.5 mm² – 2.5 mm² solid or stranded
Cable rating:	All cables must be mains rated.

Electrical data	
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

Operating and storage conditions	
Ambient temperature:	0 °C to +50 °C
Relative humidity:	Max. 90 %, noncondensing
Storage temperature:	-10 °C to +70 °C

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

Conformity and standards	
Conformity:	CE UKCA
EMC immunity:	EN 61000-6-1
EMC emission:	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

313 Low Profile Microwave Detector: Datasheet
Data is subject to change without notice.

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