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Helvar

314 Tilting Microwave Detector Datasheet

CE

The 314 Tilting 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. The adjustable sensor head allows the area of detection to be optimised for the required application.
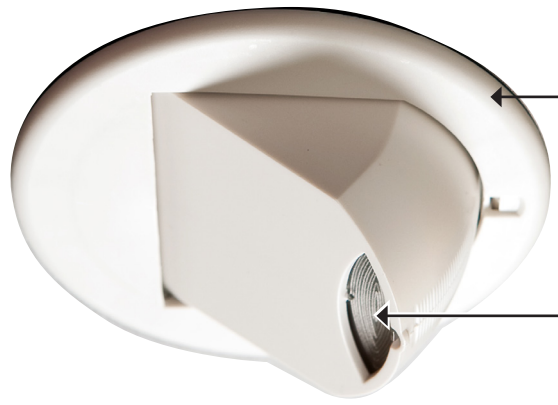
This product is compatible with Helvar's lighting system design and control software: Designer, and Toolbox. It can also be controlled using a Helvar infrared remote handset.

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 Tilting 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

Mounting bezel

Microwave sensor: Detects movement within the detection range allowing load control in response to changes in room occupancy.
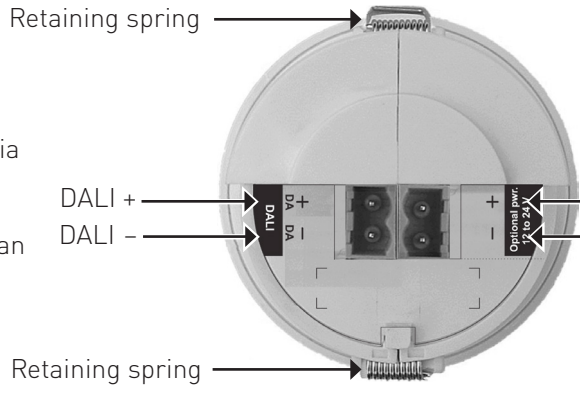
IR Receiver: Receives control and programming commands from a Helvar infrared remote handset (available separately).
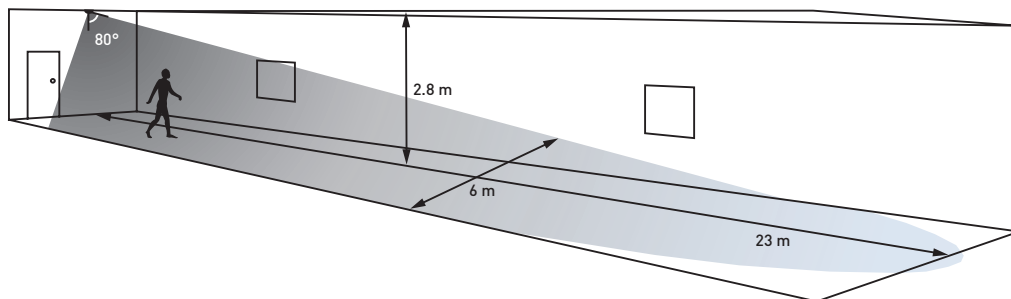
Status LED: The red LED flashes to indicate the following:

Valid setting received	☀ x1
Identify active	☀ x6

Connections

Retaining spring

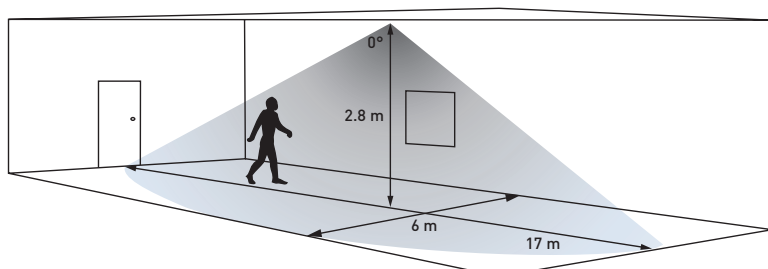The DALI connection is made via DA+ and DA− terminals.
The DALI input is not polarity sensitive unless you are using an external power supply.

DALI +
DALI −

Optional connection to external power, 12 V to 24 V. See 314 Tilting Microwave Detector Installation Guide for details.

Retaining spring

Detection Pattern

80°

2.8 m

6 m

23 m

Detector head position at 80° to the vertical for large offices or classrooms, and for corridor and aisles. Sensitivity set to maximum.

0°

2.8 m

6 m

17 m

Detector head position at 0° to the vertical for open plan areas and offices. Sensitivity set to maximum.

Technical Data

Connections

External power / DALI:	Removable terminal block
	Wire section: 0.5 mm² – 1.5 mm² solid or stranded
Cable rating:	All cables must be mains rated.

Power

DALI supply input:	13 V to 22.5 V
DALI consumption:	40 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; 0.5 W

Remote control functions

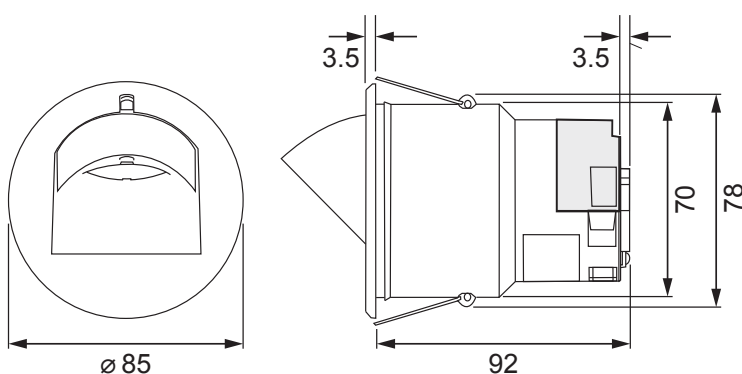|	
Use Helvar infrared remote handset to:	– Recall lighting scenes 1–4.
	– Adjust light levels.
	– Store current level.
	– Install preset levels for scenes 1–4.
	Note: Adjust sensitivity using Designer or Toolbox (not by remote control unit). Factory setting for sensor sensitivity: 9 (maximum).

Microwave operating frequency

Model	Frequency
314	10.687 GHz - China, Hong Kong, India, Malaysia, Middle East, Singapore, United Kingdom
314/R2	10.525 GHz - Australia, Europe except for Austria, France, Germany, Ireland, Portugal, Slovakia, Switzerland, United Kingdom
314/R3	9.900 GHz - France, Portugal, Switzerland

Mechanical data

Mounting hole diameter:	78 mm
Bezel diameter:	85 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:	124 g
IP code:	IP30

Dimensions (mm)

3.5

3.5

70

78

ø 85

92

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 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