

314 Tilting Microwave Detector

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



1. Mounting Bezel
2. Microwave sensor: Detects movement within the detection range allowing load control in response to changes in room occupancy.

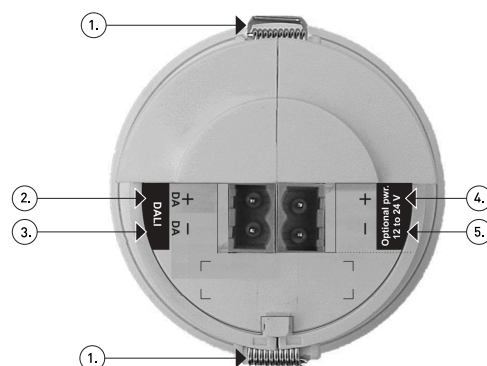
IR Receiver: Receives control and programming commands from a Helvar infrared remote handset (available separately).

Status LED: The red LED flashes to indicate the following:

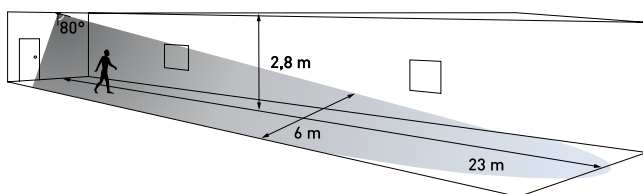
-  x1: Valid setting received.
-  x6: Identify active.

Connections

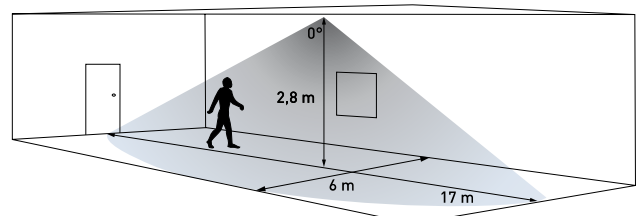
1. Retaining spring
2. DALI +
3. DALI -
The DALI connection is made via DA+ and DA- terminals. The DALI input is not polarity sensitive unless you are using an external power supply.
4. Optional DALI + -connection to external power, 12 V to 24 V. See 314 Tilting Microwave Detector Installation Guide for details.
5. Optional DALI - -connection to external power.



Detection pattern

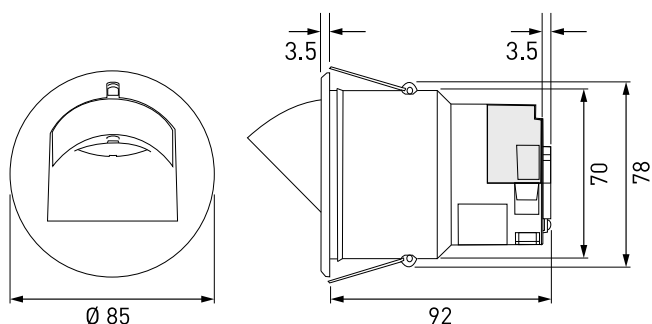


Detector head position at 80° to the vertical for large offices or classrooms, and for corridor and aisles. Sensitivity set to maximum.




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


Dimensions (mm)



Technical Data

Connections	
DALI:	Removable connector block
Wire section:	0.5 mm ² – 1.5 mm ² solid or stranded
Cable rating	All cables must be mains rated.


Electrical data	
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:	<ul style="list-style-type: none"> – 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

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

Conformity and standards	
Conformity:	
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