

# Tilting Microwave Detector (314)

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.

The unit is compatible with Helvar's lighting system design and control software: Designer, and Toolbox.

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.

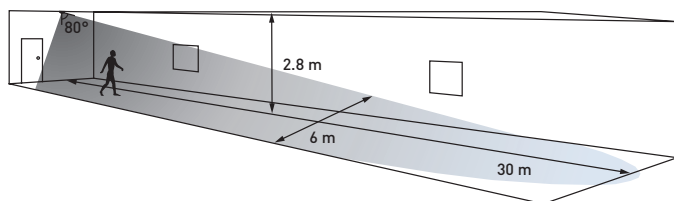
## Key Features

- 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 303 Infrared Remote Control (available separately).
- Status LEDs flash red to indicate the following:

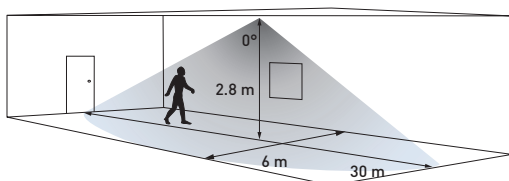
Valid setting received	
Identify Active	

= Red LED

## Detection Pattern



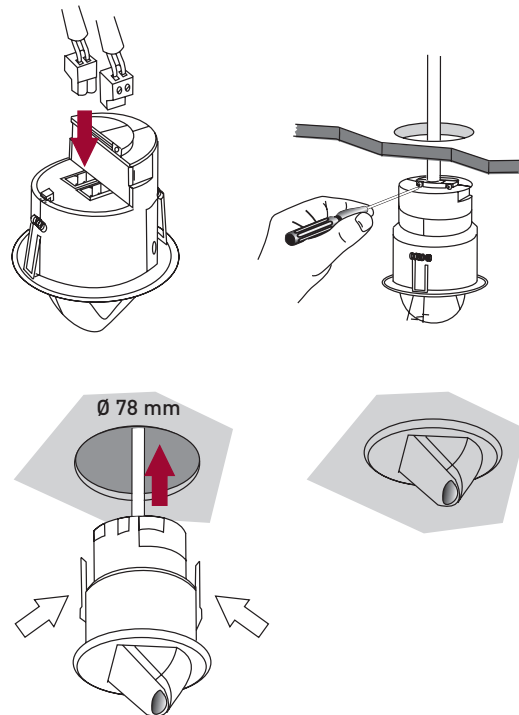
Detector head position at 80° to the vertical for large offices or classrooms, and for corridor and aisles. Sensitivity set to maximum.



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

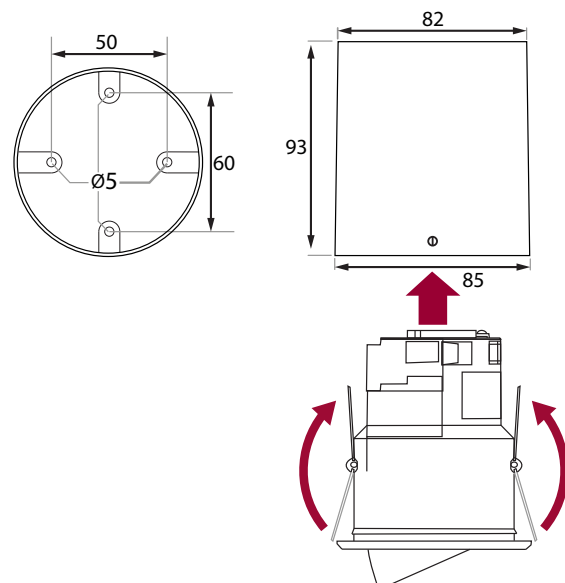


## Installation: Mounting Hole



## Installation: Surface Back Box SBB-B

Note: Order the SBB-B surface mount box separately.



## Technical Data

### Connections

**External power / DALI:** Removable terminal block  
Wire section: 0.5 mm<sup>2</sup> – 1.5 mm<sup>2</sup> 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 303 remote control to:**

- recall lighting scenes 1–4;
- adjust light levels;
- store current level; and
- 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, UK
314/R2	10.525 GHz Australia, Europe except for Austria, France, Germany, Ireland, Portugal, Slovakia, Switzerland and the UK
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 conditions

**Ambient temperature:** +10 °C to +35 °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

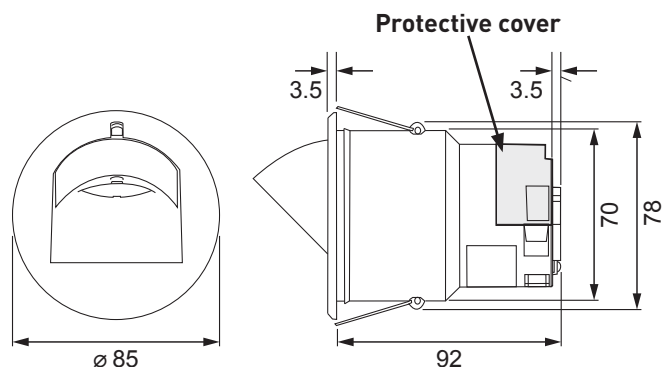
**Environment:** Complies with WEEE and RoHS directives.

### Version information

**Software version:** 6

**Hardware version:** Rev. 4

### Dimensions (mm)



**Hole diameter:  $\varnothing$  78 mm**