

# 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

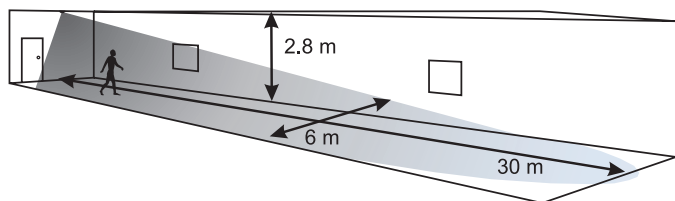
- The microwave sensor detects movement within the detection range allowing load control in response to changes in room occupancy.
- The IR receiver receives control and programming commands from a 303 IR (infrared) handset (available separately).
- Status LEDs flash red to indicate the following:

Valid setting received	
Identify Active	

= Red LED

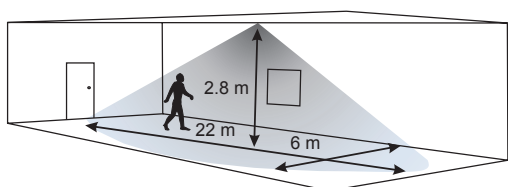
## Detection Pattern

Ideal for large office or classroom, and for corridor and aisle applications



Sensitivity set to maximum  
Detector head position: 80°

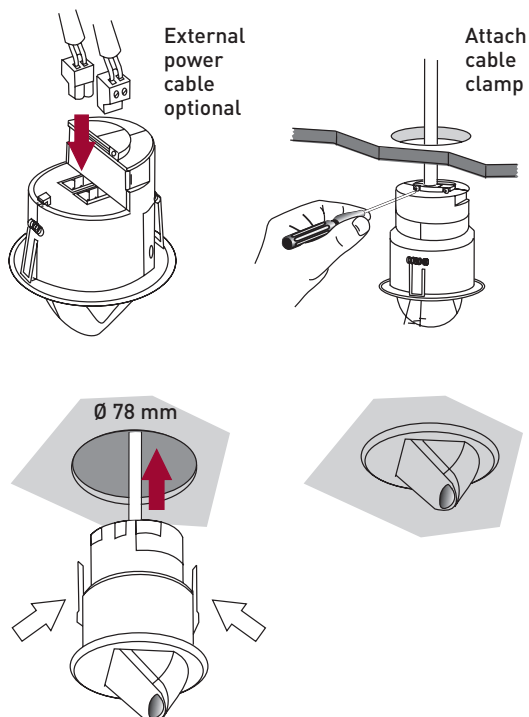
Ideal for open plan areas and offices



Sensitivity set to maximum  
detector head position: 0°

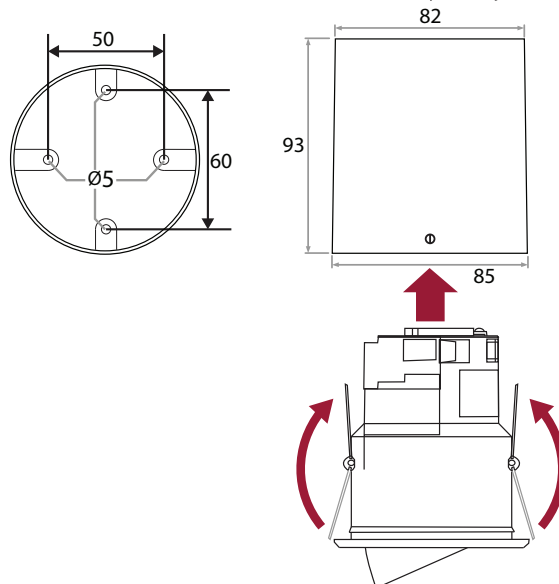


## Installation: Mounting hole



## Installation: Surface back box SBB-A

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



## Technical Data

### Connections

**External power / DALI:** Removable terminal block  
Wire size: 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).*

### Microwave operating frequency

Model	Frequency
314	10.687 GHz UK, China, Hong Kong, India, Malaysia, Middle East, Singapore
314/R2	10.525 GHz Australia, and Europe, except for: UK, France, Portugal, Germany, Switzerland, Austria, Slovak Republic, Republic of Ireland
314/R3	9.900 GHz France, Portugal, Switzerland
314/R4	9.350 GHz Austria, Germany, Slovak Republic
314/R5	10.41 GHz Republic of Ireland

### 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

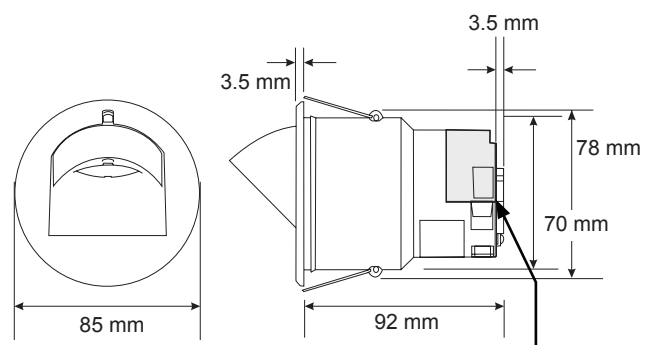
**Environment:** Complies with WEEE and RoHS directives

### Version information

**Software version:** 6

**Hardware version:** Rev. 4

### Dimensions



**Hole diameter: ø78 mm Protective cover**