

# Tilting Microwave Detector

The 314 Tilting Microwave Detector provides occupancy detection for the automatic control of DALI lighting loads.



The 314 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 optimized for each particular purpose.

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

## Key Features

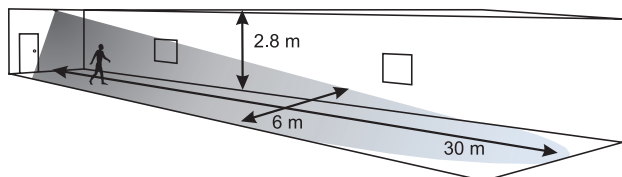
- Microwave sensor detects movement within detection range allowing load control in response to changes in room occupancy.
- IR Receiver receives control and programming commands from a Helvar 303 IR (infrared) handset (available separately).
- Status LEDs flash red to indicate the following:


Valid setting received	
Identify Active	



 = Red LED

## Detection Patterns

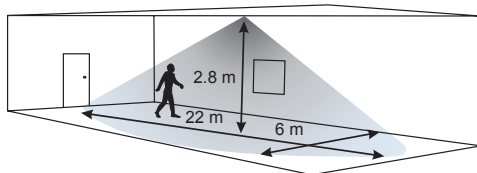
Ideal for large office or classroom, and for corridor and aisle applications






 Sensitivity set to maximum  
Detector head position: 80°

Area of higher sensitivity  Area of lower sensitivity 

Ideal for open plan areas and offices



 Sensitivity set to maximum  
Detector head position: 0°

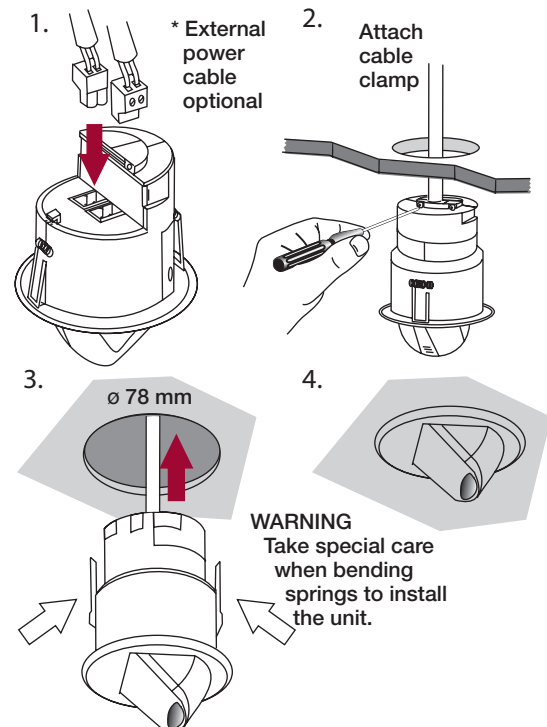
Area of higher sensitivity  Area of lower sensitivity 

## Installation Notes

- Position the sensor so that the occupants of the room are normally inside the detection zone.
- Do not install the sensor within 1 m of any lighting, forced air heating, or ventilation equipment.
- Do not fix the sensor to an unstable or vibrating surface.
- Install the unit as far away as possible from the surface of metal objects.
- The detection pattern illustrated is based on a mounting height of 2.8 m.
- A lower mounting height will decrease the overall size of the detection zone.

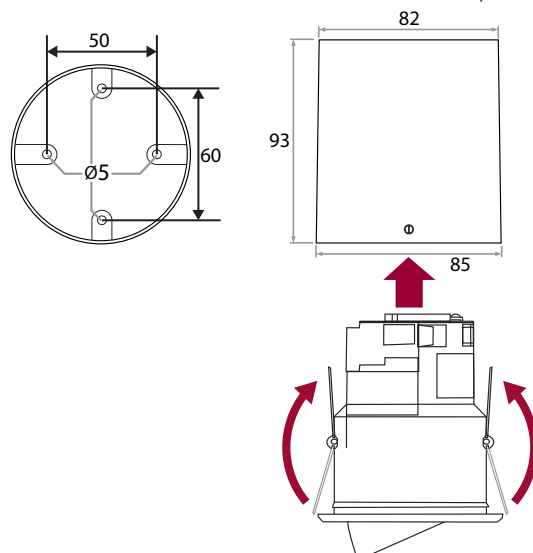


## Installation: mounting hole



## Installation: Surface back box SBB-B

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



## Technical Data

### Connections

**External power / DALI:** Removable 2-pole connectors  
Wire size: 0.5 mm<sup>2</sup> - 2.5 mm<sup>2</sup>  
Solid or stranded

**Power cable rating:** All cables must be mains rated

### Power

**DALI Supply Input:** 13 V to 22.5 V

**DALI Consumption\*:** 40 mA

**(Optional) External Power:** 12 V to 24 V; 0.5 W

\* NOTE: DALI consumption is less than 2 mA when external power is supplied to the unit. If an external power supply is used, it should be a Helvar **401**, **402** or **403** power supply unit or Helvar **LL6-U-CC** LED driver.

### Microwave Operating Frequency

Model	Frequency	Territories
314	10.687 GHz	UK, China, Hong Kong, India, Malaysia, Middle East, Singapore
314/R2	10.525 GHz	Australia, and Europe, <i>except for: UK, France, Portugal, Germany, Switzerland, Austria, Slovak Republic, Republic of Ireland</i>
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

**Dimensions:** See diagram

**Material (casing):** Non-flammable ABS

**Finish / Colour:** Matt / White

**Weight:** 124 g

**IP rating:** IP 30

**Mounting hole:** 78 mm

### Operating Conditions

**Ambient Temperature:** 0°C to +35°C

**Storage Temperature:** -10°C to +70°C

**Relative Humidity:** Max 95%, non-condensing

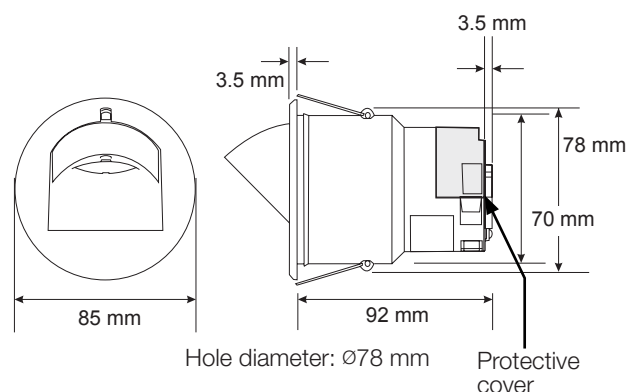
### Conformity and Standards

**EMC:** Immunity: EN 61000-6-1  
Emissions: EN 61000-6-3

**Safety:** EN 60730-1

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

## Dimensions



### External power supply (optional)

#### Helvar DALI PSUs

If an external power supply is required, use a Helvar **401**, **402** or **403** power supply unit, or a Helvar **LL6-U-CC** LED driver. Contact your Helvar representative for further information.

Helvar 401



Helvar 403



Helvar 402



Helvar LL6-U-CC

