

OB-1101 iDim Orbit

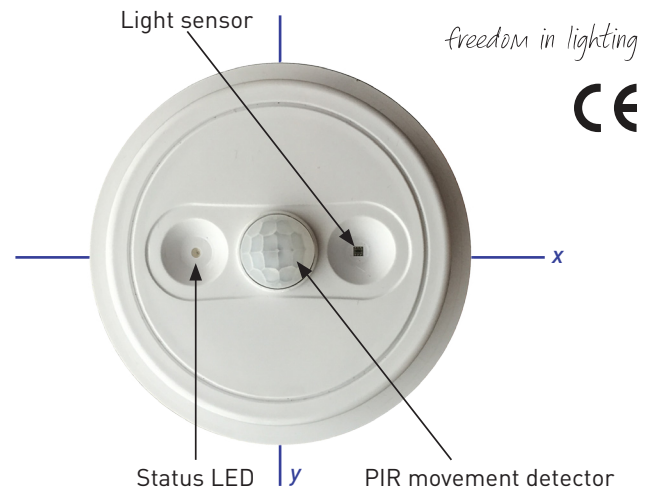
The OB-1101 iDim Orbit with single movement detector is a standalone, flush-mounted sensor that provides easy installation and configuration of lighting control applications. It contains:

- A passive infrared (PIR) movement detector
- A light sensor
- A Bluetooth® Smart™ module for configuration via a smartphone or tablet
- A time clock for profile scheduling
- A DALI power supply with two DALI broadcast outputs
- A mains relay for switched load control
- A functional extra-low voltage (FELV) manual switch interface
- A status LED that flashes green each time a valid setting is received

The PIR movement detector enables the sensor to switch the lights on when a room is occupied, and off when it is unoccupied. In addition, a switch can be connected to the sensor for manual control.

The unit has out-of-box functionality for configuration-free operation. It uses removable connector blocks for simple, screwless termination of mains, DALI and switch-input cables. The sensor's settings can be customised via an Apple iOS mobile app that is available from the App Store. For information, see the *iDim Orbit App Guide*.

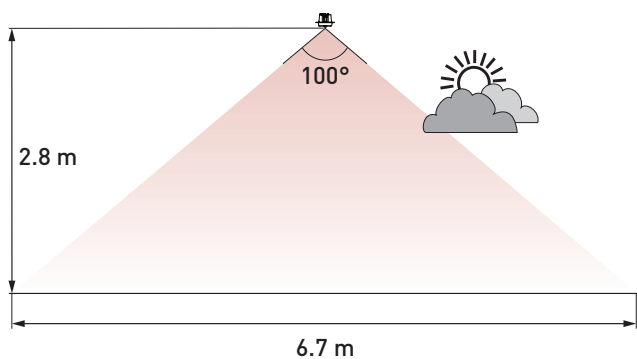
The sensor is designed to be recessed in a ceiling void.



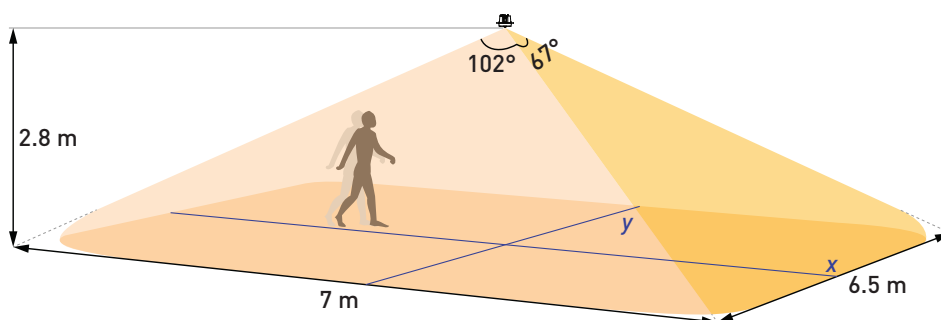
Key Features

- Presence and absence detection modes.
- Movement detection area of up to 7 m × 6.5 m at 2.8 m mounting height. For details, see the 'Presence Detection Coverage' section below.
- Possibility of extending the movement detection area by connecting a remote sensor with a normally open, volt-free signal relay output to the manual switch interface.
- Three independently configurable control outputs (2 × DALI broadcast and 1 × mains relay).
- Daylight harvesting for energy efficiency.
- Seven-day scheduler allowing two sensor behaviour profiles per day.
- Manual control through switch inputs.
- Manual control of DALI channels can be altered within the app to suit different switch types.
- Easy installation over two-part mains and DALI connectors with screwless terminations and built-in strain relief.
- Configuration via iOS devices. The app includes a library of application files for classrooms and offices, as well as custom profiles.
- Backup and sharing of profiles via cloud services and email.

Daylight Harvesting Coverage



Presence Detection Coverage



Technical Data

Connections

Mains: 4-pole removable connector block with strain relief
Cable diameter: 9 mm – 13 mm mains rated.
Cable section: 0.5 mm² – 4 mm² solid;
0.5 mm² – 2.5 mm² stranded.

Power

Mains supply: 100 VAC – 240 VAC (nominal)
85 VAC – 264 VAC (absolute)
50 Hz – 60 Hz

Power consumption: Nominal: 0.9 W
Maximum: 2.5 W

DALI power: 2 × 40 mA DALI power supply
2 × 2-pole removable connector blocks with strain relief
Cable diameter: 3.8 mm – 8.2 mm mains rated.
Cable section: 0.25 mm² – 1.5 mm² solid; 0.25 mm² – 1.0 mm² stranded.

External protection: Max. 16 A Type C MCB

Relay loads: Limited by external protective device.

Switch inputs: 5 × retractive (momentary) switch plus common input.
Switch inputs are functional extra-low voltage (FELV).
Cable section: 0.08 mm² – 1.5 mm² solid; 0.08 mm² – 1.0 mm² stranded.
Max. length: 50 m.

Communications: DALI broadcast

Mechanical data

Mounting hole diameter: 83 mm – 86 mm

Recommended clearance depth: 115 mm plus cable bending radius

Material (casing) Flame-retardant ABS

Colour: White RAL 9003

Weight: 255 g

IP code: IP40

Operating conditions

Ambient temperature: 0 °C to +50 °C
Note: The temperature difference between the detection target and the background must be at least 4 °C.

Relative humidity: Max. 90 %, noncondensing

Storage temperature: –10 °C to + 70 °C

Conformity and standards

EMC: EN 55015
EN 61547

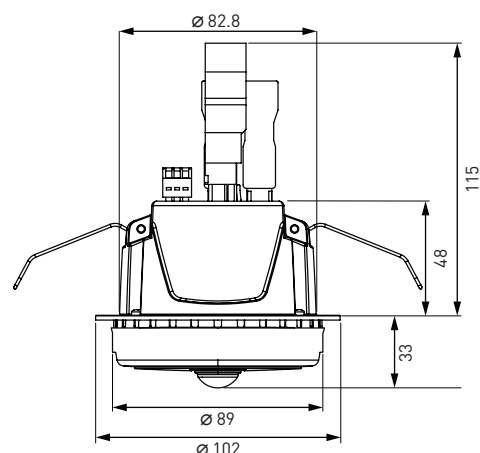
RED: EN 300328
EN 301489-17

Safety: EN 60669-2-5

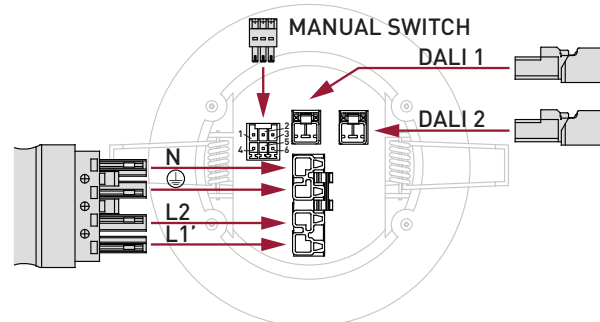
Environment: Complies with WEEE and RoHS directives.

FCC: Contains FCC ID: T7VPAN17.

Dimensions (mm)



Connections



N: Neutral
⊕: Earth

L2: Live in
L1': Switched live

Input function (selectable in the app)		
Switch input*	Single-pole switch	Double-pole switch†
1	Common	Common
2	DALI 1 switch control‡	DALI 1 on/raise
3	DALI 1 switch control‡	DALI 1 off/lower
4	Relay on/off	(Single-pole switch only)
5	DALI 2 switch control‡	DALI 2 on/raise
6	DALI 2 switch control‡	DALI 2 off/lower

* Switch inputs are functional extra-low voltage (FELV).

† Two-position, centre-biased retractive switch.

‡ Switch control enables on/off and dimming control from a single-pole retractive switch.

Doc. D007154, issue 3,

2017-07-28