

DALI External Light Sensor (329)

The 329 DALI External Light Sensor, when used in conjunction with a Helvar Lighting Router based controls system, can provide energy savings by adjusting light levels based on the available daylight.

Mount the 329 outdoors to monitor the level of daylight. For instance, bright sunlight will raise the overall light level in the rooms of a building. The sensor will detect this, and the system will reduce the energy levels supplied to the lamps. If the day then becomes overcast, the system will respond to the lower levels of ambient light by increasing the energy provided to the lamps. By profiling the building (measuring the daylight contribution per room), the system can be used to maintain an approximate constant light level, and thereby reduce energy use.

The 329 is for mounting outdoors. The unit head assembly is waterproof when correctly installed and mounted vertically, and can tolerate a wide range of operating temperatures and conditions.

Key Features

- Open loop light control
- Light range of 1 lx 100 000 lx
- Simple mounting
- Easy connection to Helvar router system

Incident Light (lx)	Light Level Output Value	Equivalent To
≤ 1	0	Darkness
2	11	
5	26	
10	38	Twilight
20	49	
50	65	
100	76	Dark day
200	87	
500	102	
1000	114	Overcast day
2000	125	
5000	140	
10 000	152	Full daylight
20 000	163	
50 000	178	
100 000	190	Bright sunlight



Helvar

freedom in lighting

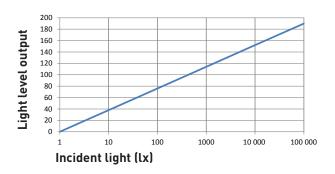
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Installation Notes

- The unit is intended for wall mounting.
- Isolate the mains supply before installation.
- Cabling must be 230 VAC mains rated.
- Do not mount sensor in direct line of artificial light sources, e.g. lamps, uplighters.
- The unit must be mounted vertically, i.e. with the clear Sensor Head Cover pointing upwards. Any convenient surface may be used as long as the sensor element has a reasonably unrestricted view of the sky.
- To avoid the possible risk of lightning strikes, never install the external light sensor at the highest point on a building.

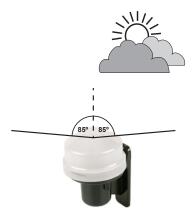
Light Level Output

The external light sensor is calibrated to provide a scaled light level output of 0 to 200 covering the full range of daylight. The sensitivity of the external light sensor is factory-set, and no adjustment is required.



Light Sensing Angle

Vertical plane: Unrestricted viewing angle of 170°. Horizontal plane: 360° viewing angle.



Technical Data



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Connections

DA	LI	

Connector type:

Cable rating:

Power supply

DALI power supply: DALI consumption:

Sensor

Sensor element:

Light sensing angle:

Working light range: Light level reading output: Mounting

Mounting angle:

Mounting points:

Mechanical data

Dimensions:	148 mm × 82 mm × 87 mm
Materials	
Base & mounting bracket:	Black ABS
Socket & sensor accessory:	Black glass-filled nylon
Sensor cover:	Toughened acrylic (UV stabl
Weight:	250 g
IP code:	IP65

Operating conditions

Ambient temperature:	-35 °C to +70 °C
Relative humidity:	Max. 90 %, noncondensing
Storage temperature:	–35 °C to +70 °C

Conformity and standards

EMC emission:	EN 55015
EMC immunity:	EN 61547
Safety:	EN 61347-2-11
Environment:	Complies with WEEE and RoHS directives.

Wire size: 1.0 mm² – 2.5 mm² 2-core solid. flexible or stranded Max. length: 300 m @ 2.5 mm² (part of DALI subnet) Screw terminals: N: DALI+

LO: DALI-L1: No connection All cables must be mains rated. 13 V – 22 V 10 mA

Photodiode matched to human eye response. When mounted vertically: • 85° from vertical

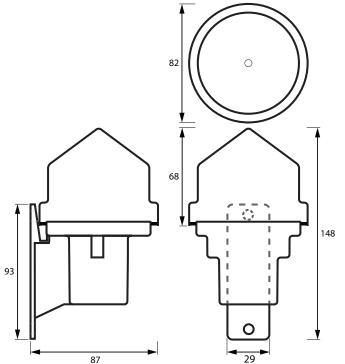
• Horizontal plane: 360° 1 lx - 100 000 lx

0-200

Vertical (clear sensor head at top) 2 × M4 (No. 8 woodscrew) For fixing centres, see diagram.

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Dimensions (mm)



Fixing Centre Locations (mm)

