

OPERATION MANUAL



Brightness sensor with (measuring) transducer 0...10 V 0...100000 Lux

Description



Performance features

- Standard signal 0...10 V with AC/DC supply
- Measuring range 0...100000 Lux
- 3-point-calibrated and linearized
- High long term stability
- Sensor and transducer compactly combined in a casing
- High-quality plastic casing (IP54)

Application areas

- Building automation, dark/light switching operations
- Sun sensors
- Brightness sensor for rain-protected weather stations
- Brightness sensor for switching of appliances in applications with solar panels
- Brightness sensor also for use at high solar irradiation
- OEM applications

Technical data

Brightness sensor with transducer	
Measuring range	0...100000 Lux
Sensor	Photodiode
Maximum spectral sensitivity	600 nm
Output scale	0...100000 FS
CE-Conformance	2014/30/EU
Accuracy	$\pm 10\%$ at vertically incidence of light
Operating temperature	-20...+75 °C
EMV-Noise emission	EN 61000-6-3:2001
EMV-Noise withstanding	EN 61000-6-1:2001
Power supply	12...24 V AC/DC
Current consumption	approx. 6,2 mA
Power consumption	approx. 75 mW at 12 V DC approx. 150 mW at 24 V DC
Output supply	0...10 V DC
Over voltage protection	Varistor and RC filter
Connection	Cable Connection M16 x 1,5, clamping range: 4,5...10,0 mm
Dimensions (B x H x T) without the coupling of the brightness-sensor	59 x 65 x 38
Article	Art.-No.
Brightness sensor with transducer 0...10 V	0555 3001

Description

The brightness sensor is a light sensor for the building automation. It is protected against overvoltage and transients and is suitable for continuous operation.

Further aspects are the possible choice between AC or DC supply and the output of the measurement as a 0...10 V standard signal.

A variety of possible applications result from the determination of the brightness for the dynamic control of devices - like a sun sensor - in the home and building automation.

For the measurement of the illumination level a precise and long-term stable photodiode with industrial performance data is used. The processing of the measured signal is done through advanced sensor technology. The high sensitivity in a wide range of luminance intensity as well as the wiring make it possible to use the sensor under very bright lighting conditions.

The three-point calibration results in a high precision over a wide range of brightness for a good accuracy of typical control tasks.

Supply

The supply is guaranteed with a +12...24 V AC/DC voltage either directly through our control systems or with an external power supply unit.

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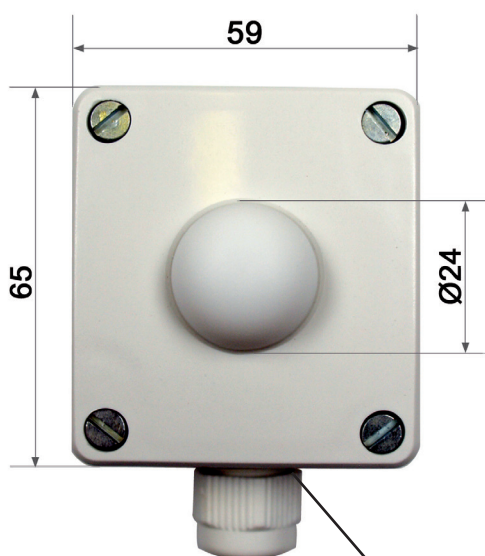
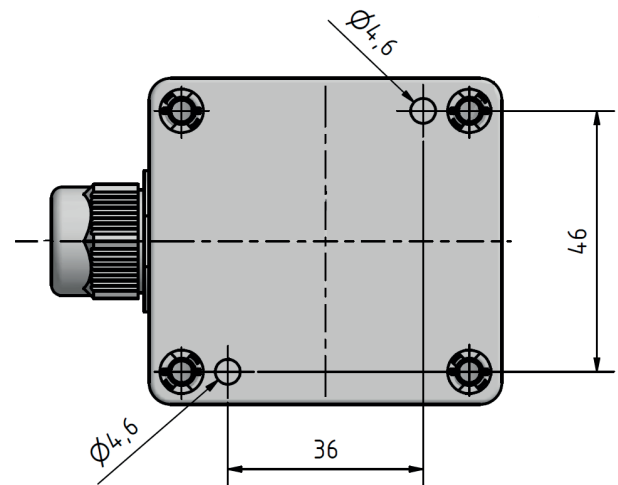
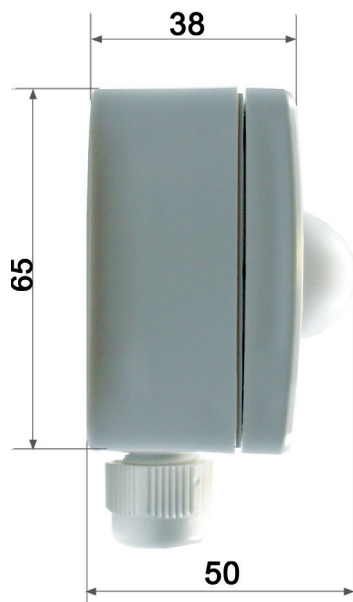
Brightness sensor with (measuring) transducer 0...10 V 0...100000 Lux

Installation of the brightness sensor

The installed sensor could be directly attached to the surface of the combined transducer. Please have a look at the drawing where you can see the boreholes for the fixation screws. Look out for a rain-protected installation.

Connection

For the connection shielded connection cables should preferentially be used. Especially in EMI-disturbed areas this has to be taken into account. The shielding has to be grounded.



**M 16 x 1,5,
Clamping range 4,5-10,0**

Attention

Please avoid extreme mechanical and inappropriate exposure.

The device/product is not suitable for potential explosive areas and medical-technical applications.