



MULTISENSORS



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Daylight and motion sensors both enable greater energy savings to be made and increase the convenience factor. For this reason, we have developed a new MultiSensor that can capture light levels and detect motion.

VS MultiSensors do not include an external power supply, which means they are fully powered via the DALI bus.

And with the aim of serving a wide variety of applications, the sensors are available in four different casings, suitable for in-ceiling installation, surface mounting on ceilings, for integration into luminaires and for high-bay lighting purposes.

Areas of Use

Thanks to differing casing versions, the sensor is ideal for all indoor applications using different DALI Light Controllers.

NEW

The tried-and-tested MultiSensor is now also available in a high-bay version that is suitable for ceiling heights of up to 12 m.

Advantages MultiSensors

- **LOW POWER CONSUMPTION: ONLY 4 mA**
- **VERY COMPACT DESIGN**
- **OPERATING LIFETIME: 50,000 HRS.**
- **PRODUCT GUARANTEE: 5 YEARS**



MultiSensors

Integrating daylight and motion sensors not only enables greater energy savings to be made, but also increases the convenience factor.

VS MultiSensors detect light levels and motion. No external power supply is required. The sensors are solely powered via the DALI bus.

Technical Specifications

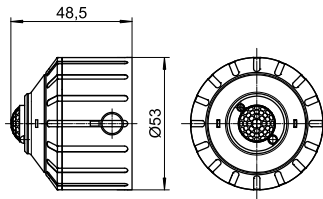
Configuration interface: via the light controller's ambient temperature t_a : 0 to 50 °C
Screw terminal: 0.75–2.5 mm²
Current consumption from DALI: 4 mA

Functions

Detecting motion and measuring light levels.
With integrated LED (red): this flashes when in configuration mode if the sensor is selected.

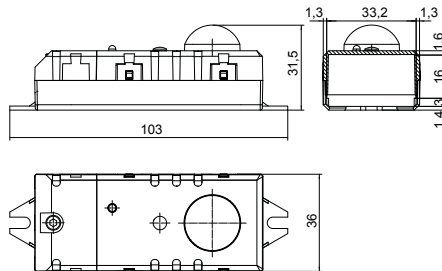
MultiSensor SM-E

For surface mounting
Dimensions (Ø x H): 53 x 48.5 mm
Weight: 30 g
Ref. No.: 186320



MultiSensor SM-HB

For surface mounting
Dimensions (Ø x H): 36 x 84.5 mm
Weight: 37 g
Ref. No.: 186668



Product guarantee

- 5 years
- The conditions for the Product Guarantee of the Vossloh-Schwabe Group shall apply as published on our homepage (www.vossloh-schwabe.com). We will be happy to send you these conditions upon request.



The values shown in this datasheet can change at any time due to technical innovations and any changes will be undertaken without separate notification.



General Safety Instructions

- LiCS products may be installed and commissioned only by authorised and suitably trained staff.
- Please read these instructions with care prior to installing and commissioning the system since this is the only way to ensure safe and correct operation.
- Any work performed on the devices must be carried out only after disconnecting the device from its power source.
- All valid safety and accident prevention directives must be observed.
- Never attempt to open the device yourself since this involves danger to life by electrocution (voltage). Repairs must be carried out only by the manufacturer.
- On no account may mains voltage or any other external voltage be applied to the DALI control line as this can destroy individual system components.

MultiSensors

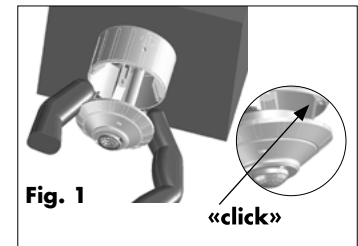
Mounting

SM-E (Surface Mounted)

After suitably preparing the cable, thread it – from the side or from behind – through the underside of the sensor. Attach the underside with the two supplied screws at the chosen position and connect the cable to the sensor. Gently compress the spring-mounted levers on the sensor cover using two fingers and let them snap into place in the corresponding grooves on the inside of the sensor's underside (see Fig. 1).

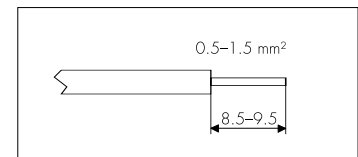
SM-HB (High-bay)

Please use the provided mounting lugs.



Installation Instructions

- Conductor cross-section for all terminals: 0.5–1.5 mm² for rigid or flexible conductors
- Preparing the sensor cables (see right)
- In its standard version, the DALI bus is not SELV, for which reason cables must be mains voltage-proof.
- It is possible to lay the DALI bus line alongside the mains voltage line within a single cable up to a maximum of 100 m, e.g. with NYM 5 x 1.5 mm². During installation, please ensure the maximum length of the DALI bus is not exceeded:

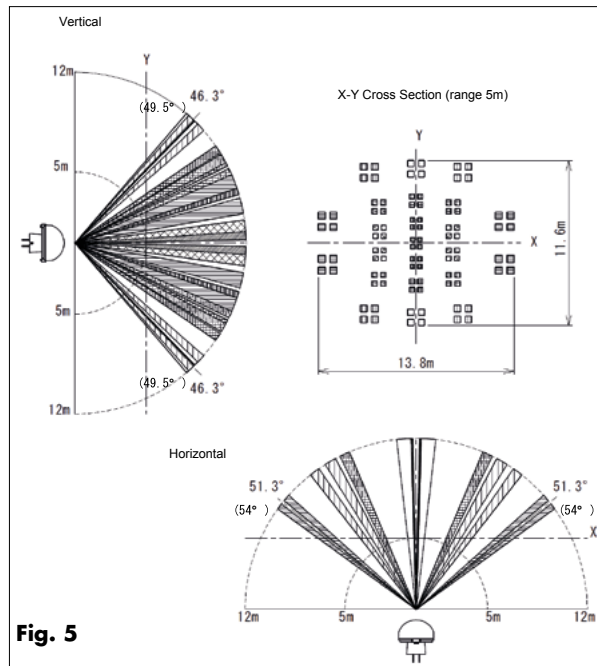
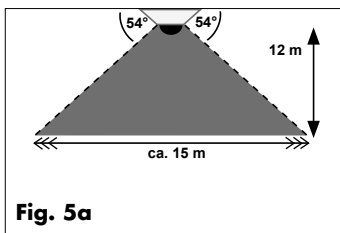
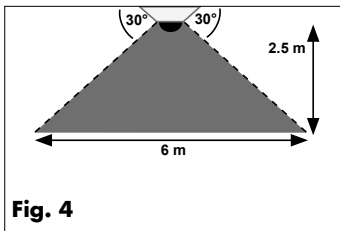



	1.5 mm ²	1 mm ²	0.75 mm ²	0.5 mm ²
6.2 Ω max.	300 m	180 m	130 m	80 m

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Further Instructions

- The exact sensor system configuration procedure can be found in the manual available at www.vossloh-schwabe.com.
- To ensure safe operation of the sensor, the maximum permissible ambient temperature must not be exceeded.
- When positioning the sensor, please ensure its capture range is not obstructed by objects, furniture, etc..
- Capture range of the MultiSensor, see Fig. 4.
The height specified in Fig. 4 is to be understood as a reference value.
- Capture range of the SM-HB version totals 12 m in height (Fig. 5).
At a height of 10 m, the detectable field covers an area of approximately 15x15 m (Fig. 5a).
- Capture range in general: For other heights it may be advisable to test the sensitivity of the sensor on site as the sensitivity of the motion sensor decreases with increasing height.




IMPORTANT

PIR sensors detect changes in heat radiation. All range information refers to a room temperature of 20 °C. Objects that are colder or warmer, in conjunction with high or low temperatures, usually lead to altered detection ranges. For example, the range decreases in winter, or increases in the summer. Please check, therefore, whether these sensors are suitable for the intended application.

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Technical Specifications for MultiSensors

MultiSensors	SM-E	SM-HB
Ref. No.:	186320	186668
Control Input	DALI in acc. with IEC 62386	
Power consumption from DALI	4 mA	
Ambient temperature t_a	0 to 50 °C	
Casing temperature t_c	max. 50 °C	
Degree of Protection	IP20	
Protection Class	II	
Weight	30 g	37 g
CE requirement	Safety in accordance with EN 61347-2-11	

Text for Tendering Purposes: – MultiSensors (Measured Value Loggers)

Type of measured value logger: surface mounting / in-luminaire installation / ceiling installation for motion and/or light level detection in offices, schools and industrial facilities. The transmitted measured values are used by light controllers connected upstream to address electronic control gear units as well as for constant light control purposes. The light controller clearly defines the measured values. Both the transfer of measured values and the supply of power are enabled by the bus system. The circular capture range encompasses 6 m in diameter at an installation height of 2.5 m. Installation height can vary between 0.1 m and 5.7 m. The light controller sets the parameters of the MultiSensor. Parameters cannot be set on the sensor itself.

Interface: voltage supply and transfer of measured values to the DALI bus.

Light controller types: installation in a distribution board with an antennae jack for self-sufficient installation with MultiSensors / Installation in a distribution board for self-sufficient installation with MultiSensors /with a cord grip for self-sufficient installation with MultiSensors / integration in luminaires for self-sufficient installation with MultiSensors by Vossloh-Schwabe Deutschland GmbH or comparable.

Motion sensor: 2-element PIR (Passive Infrared), feedback if motion is detected. Retrieval of defined specifications by a light regulator.

Light sensor: 0...1 kLux, ultra-compact surface-mounted IC with integrated photo-diode for brightness measurements and IC current booster in a single chip.

Sensitivity: close to human vision (600 nm)

Ambient temperature: 0°C...50°C

Dimensions (Ø x H): SM-E: 53 x 48.5 mm | FM-E: 40 x 43.8 mm | IL-E: 45 x 31.9 mm

Casing material: PC, white

Supply voltage of the DALI bus in acc. with EN 62386: 9.5–22.5 V

Power consumption: Type 0.1W

Connection terminals: push-in connectors, max. 1.5 mm²

Degree of protection: IP20

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