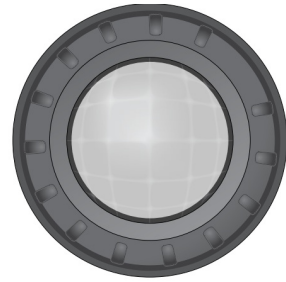


BEGA

**71328 Motion
and Light
Sensor**



BEGA 71328 Motion and Light Sensor Instruction Manual

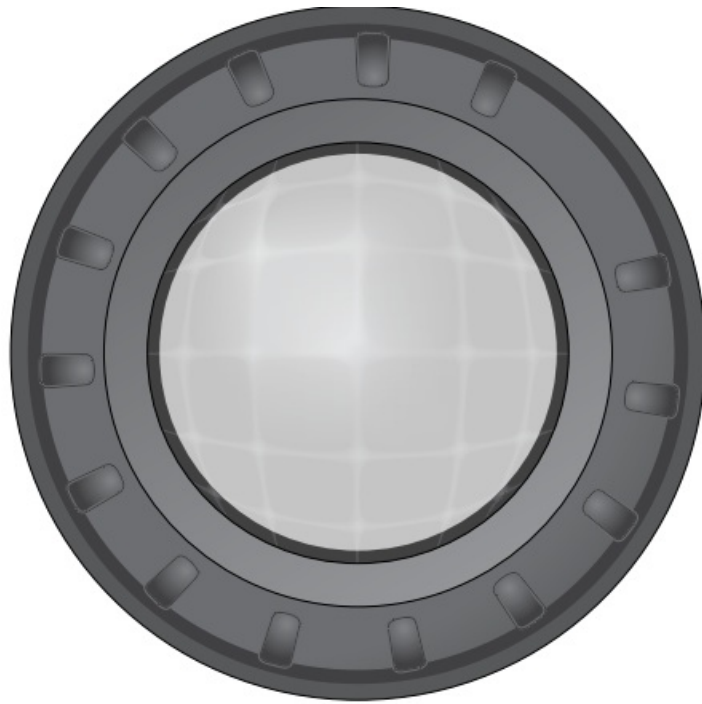
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BEGA 71328 Motion and Light Sensor

**Specifications:**

- Housing material: Synthetic
- Color: Dark grey (RAL 7040)
- Interface: Zhaga Book 18 Ed. 3.0 (Z-LEX-M)
- Detection area: 26 m x 12 m
- Protection class: IP 66
- Impact strength: IK08

Product Description:

The DALI-2 Zhaga motion and light sensor is designed for use with street illumination. It features two installed PIR sensors for motion detection and environment light monitoring. The sensor is suitable for luminaires with Zhaga Book 18 Ed. 3.0 (Z-LEX-R) interface, ideal for mounting heights of 4000 – 8000 mm.

Facility:

Installation and commissioning must be done by a qualified person in accordance with national safety regulations. Ensure the sensor is mounted within the recommended height range for optimal performance.

Operation:

The motion sensor detects objects with different surface temperatures within its detection area, primarily pedestrians and vehicles. Depending on the environment, adjustments may be needed to optimize sensitivity.

Important Notes:

Ensure the sensor is not obstructed by trees, branches, or small animals to avoid erroneous detections. Modifications to the sensor should only be done by authorized personnel to maintain safety and functionality.

FAQ

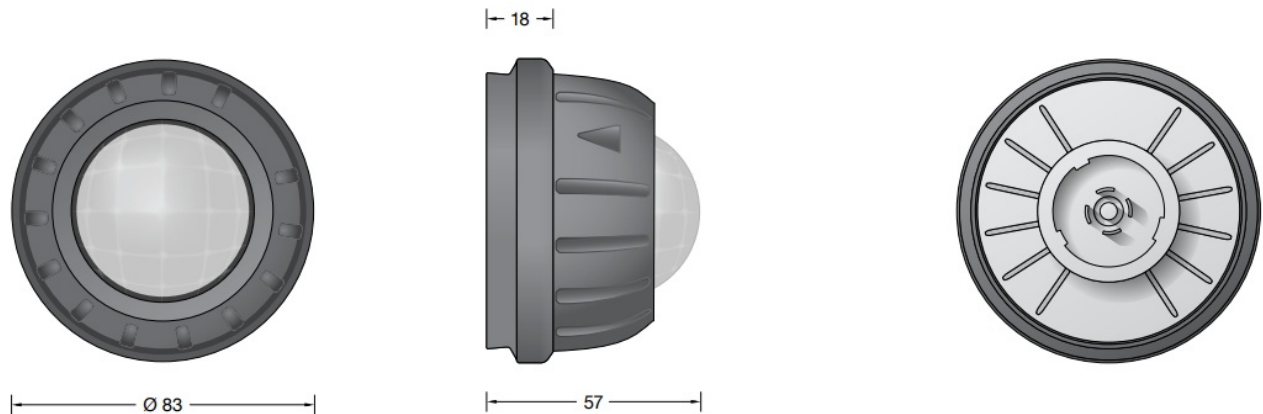
• **Q: What is the detection range of the sensor?**

- A: The detection area of the sensor is 26 mx 12 m, suitable for street illumination installations.

• **Q: Can the sensor detect objects with similar temperatures to the environment?**

- A: Objects with smaller temperature differences may not trigger the sensor, potentially leading to inaccurate detections.

Dimension




Instructions for use

Application

DALI-2 Zhaga motion and light sensor for installation of a pole-top luminaire with installed, downward-directed Zhaga Book 18 Ed. 3.0 (Z-LEX-R) interface. Thanks to the rectangular detection area, ideal for use around street illumination with mounting heights of 4000 – 8000 mm. For use in combination with Zhaga Air Connector 71 210.

Product Description

- Housing made of synthetic material
- Colour: Dark grey (RAL 7040)
- Zhaga Book 18 Ed. 3.0 (Z-LEX-M) suitable for luminaires with
- Zhaga Book 18 Ed. 3.0 (Z-LEX-R)
- Monitoring of environment light and motion detection
- 2 installed PIR sensors which enable directionspecific motion detection
- Motion sensor:
 - Detection area 26 m x 12 m with an installation
 - height of 6 m
 - Horizontal opening angle 110°
 - Vertical opening angle 93°
- Minimum temperature difference between
 - moving object and environment 4 °C
- Light sensor:
 - Detection angle light measurement 76°
 - Detection area 1-4000 lx, resolution 1 lx
- D4i approved and fully compatible with DALI

- Section 351 including MB201
- Supply voltage 9.5 – 22.5 V
- Power consumption (with LED) max. 8.1 mA
- Start time 30 s
- Ambient temperature: -25 °C to +50 °C
- Protection class IP 66
- Dust-tight and protection against strong water jets
- Impact strength IK08
- Protection against mechanical impacts < 5 joule
-  – Conformity mark
- Weight: 0.08 kg

Safety

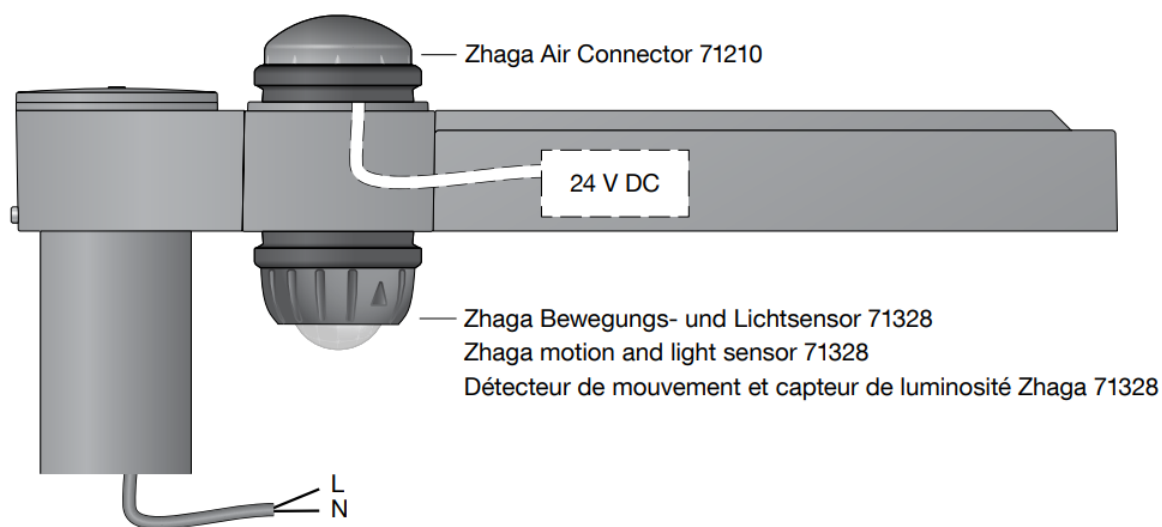
The installation and operation of this accessory are subject to national safety regulations. Installation and commissioning may only be carried out by a qualified person. The manufacturer accepts no liability for damage caused by improper use or installation. If modifications are subsequently made to the accessory, the person who makes these modifications shall be considered the manufacturer.

Range / Detection area

The DALI-2 Zhaga motion and light sensor is designed for use with street illumination. The sensor lens is designed for an inclination of 0° parallel to the roadway surface. The motion sensor detects a moving object with a different surface temperature than the environment (primarily pedestrians and vehicles). PIR technology is used, which covers a rectangular area (part of a street).

Import information regarding the operation of the sensor:

- The sensor was developed to cover the indicated detection area. Depending on the environment, the sensor can also detect objects that are located outside the indicated detection area.
- If the sensor is not installed at the recommended height, it may exhibit different characteristics. If it is attached higher, this reduces its sensitivity. If it is attached lower or too close to the pole, this reduces its detection area.
- The sensor can be triggered by nearby trees, branches, small animals or the movement of the pole.
- Faultless operation of the sensor cannot be ensured if it is operated outside the indicated ambient temperature.
- The minimum temperature difference between ambient temperature and the detected object is at least ± 4 °C. If the object has a smaller temperature difference from the environment, it may not be detected by the sensor.
- Heat sources that are located in the detection area can lead to erroneous detection of presence.
- Avoid direct illumination from the light source onto the sensor including housing.

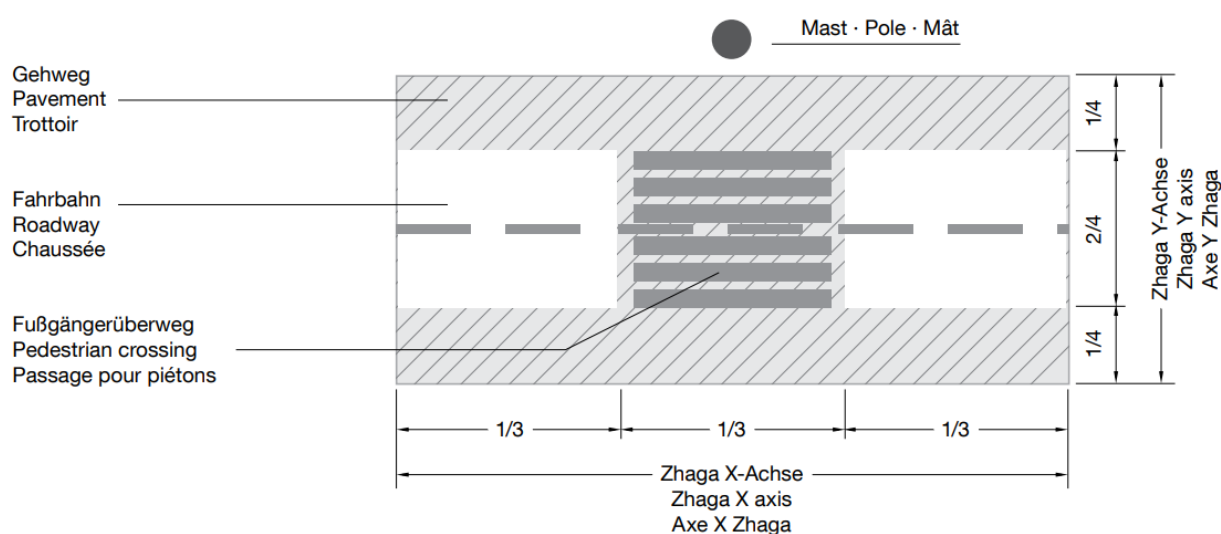


Installation

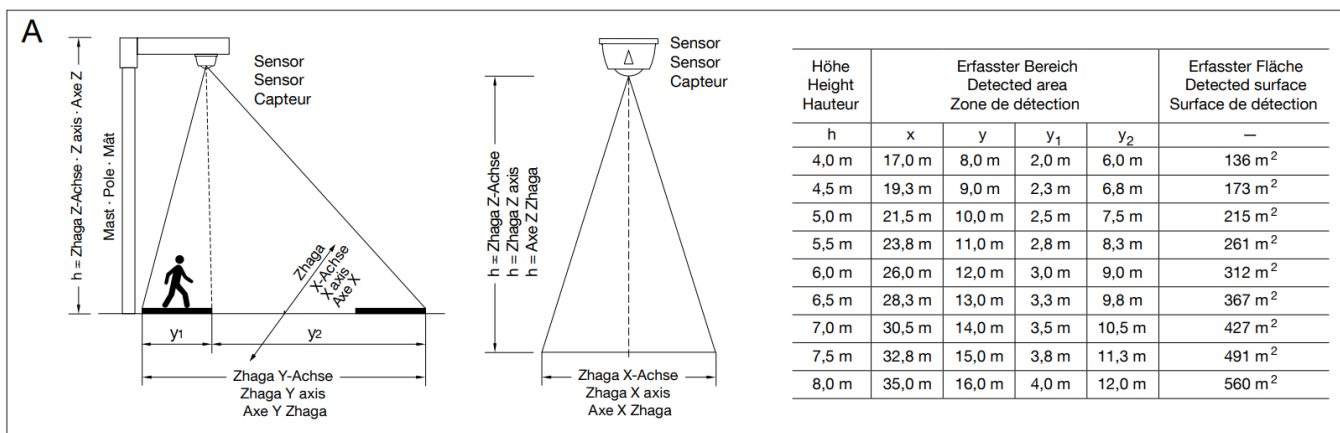
Fast and easy installation of a pole-top luminaire with installed, downward-directed Zhaga Book 18 Ed. 3.0 (Z-LEX-R) interface (e.g. BEGA 84 652). The Zhaga motion and light sensor is supplied directly via the DALI cable and must not be in direct contact with the main voltage. The DALI signal is not SELV. The installation regulations for low voltage apply.

Please note:

To operate the additionally required Zhaga Air Connector, a 24 V DC power supply is required in addition to DALI. This can be integrated into the LED driver or be a separate device within the luminaire. For customer installation of the Zhaga motion and light sensor to a BEGA pole-top luminaire, remove the factory-installed closing cap at the bottom from the luminaire housing by rotating anti-clockwise. Insert the Zhaga motion and light sensor into the socket, press and turn clockwise as far as it will go. Make absolutely sure that the protective rubber lip fits flush against the luminaire housing, that it has no kinks, and that there are no foreign bodies between the protective lip and the luminaire housing. The arrow on the luminaire housing indicates the direction of the road (Zhaga y-axis) when the sensor is engaged.

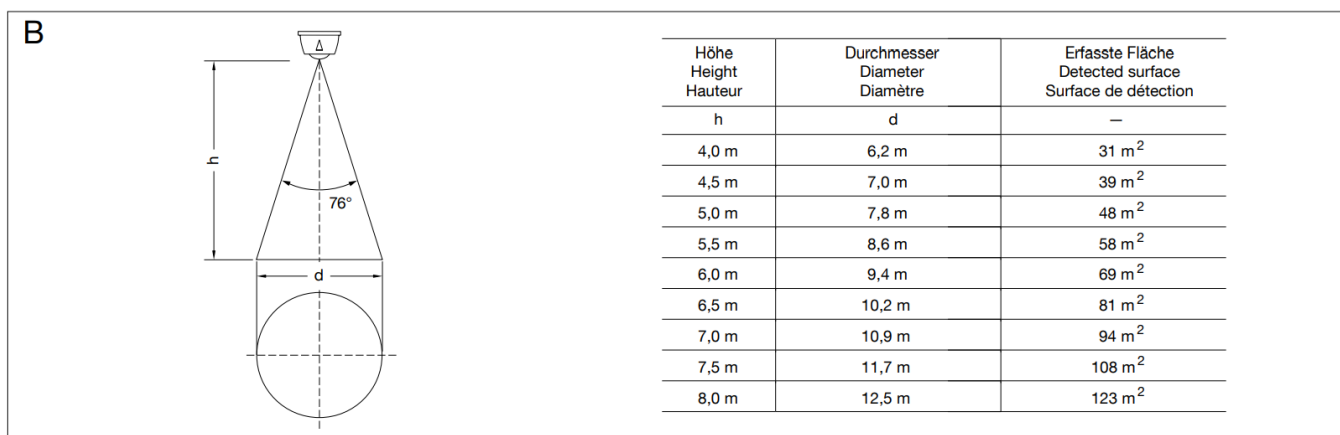


The entire detection area is rectangular, the crosshatched area is optimised for the detection of pedestrians and vehicles. The detection area does not have sharp edges; instead, it progresses gently over the marked borders



Motion detection area

The detection area y_1 can be reduced if the sensor is installed too close to the pole (see Fig. A).



Light measurement

Light measurement (see Fig. B) is recorded at an angle of 76°. The light sensor is positioned behind the sensor lens. For this reason, the sensor is not suitable for constant light control. The arrow on the sensor housing indicates the direction to the road (Zhaga y-axis) when the sensor is engaged.

Status display

When switching on the sensor, the green status LED in the sensor flashes for 5 seconds (2x / second) to signal that the sensor is ready for operation. The status LED is deactivated by default when the sensor carries out a light measurement so that this will not be influenced.

Contact

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- 58689 Menden
- info@bega.com
- www.bega.com

Documents / Resources



[BEGA 71328 Motion and Light Sensor](#) [pdf] Instruction Manual
71328, 84652, 71210, 71328 Motion and Light Sensor, 71328, Motion and Light Sensor, and Light Sensor, Light Sensor, Sensor

References

- BEGA **[BEGA · Das gute Licht.](#)**
- **[User Manual](#)**

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