

BEGA 24 186 Wall Luminaire with PIR Motion And Light Sensor



# BEGA 24 186 Wall Luminaire with PIR Motion And Light Sensor Installation Guide

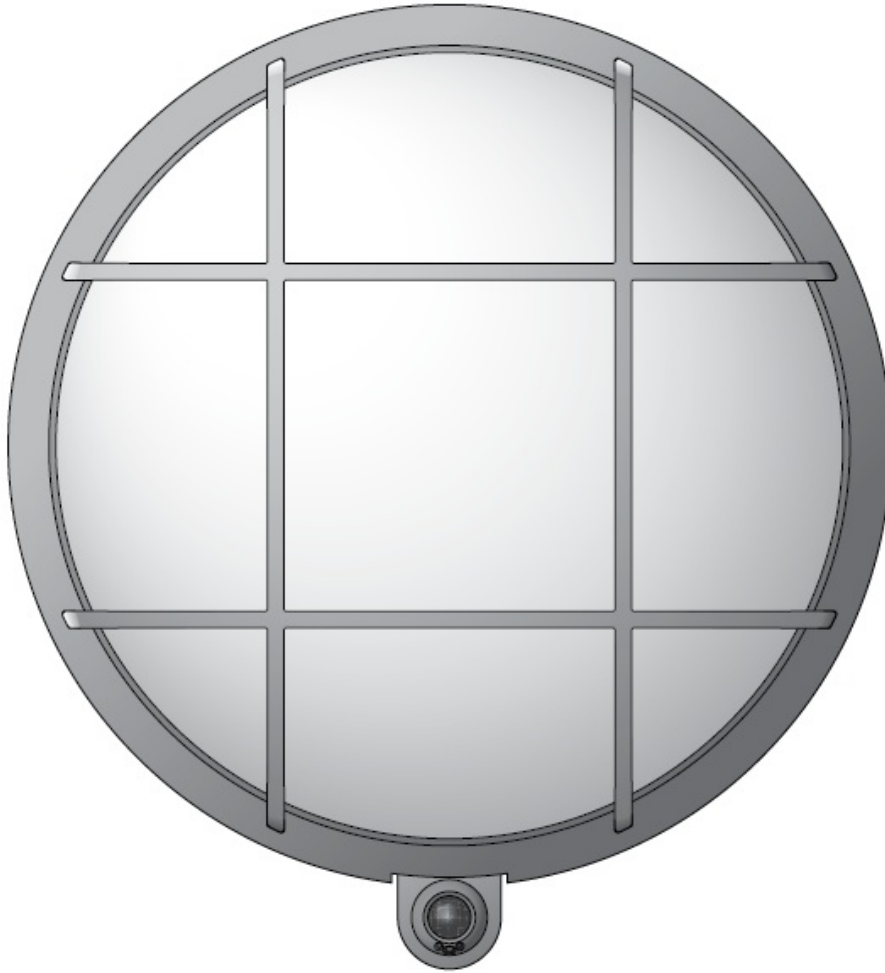
[Home](#) » [BEGA](#) » BEGA 24 186 Wall Luminaire with PIR Motion And Light Sensor Installation Guide 

## Contents

- [1 BEGA 24 186 Wall Luminaire with PIR Motion And Light Sensor](#)
- [2 Product Information](#)
- [3 Dimensions](#)
- [4 Instructions For Use](#)
- [5 Product Description](#)
- [6 Installation](#)
- [7 Functions And Settings](#)
- [8 Maintenance](#)
- [9 Accessories](#)
- [10 Documents / Resources](#)
  - [10.1 References](#)

# BEGA

**BEGA 24 186 Wall Luminaire with PIR Motion And Light Sensor**



## Product Information

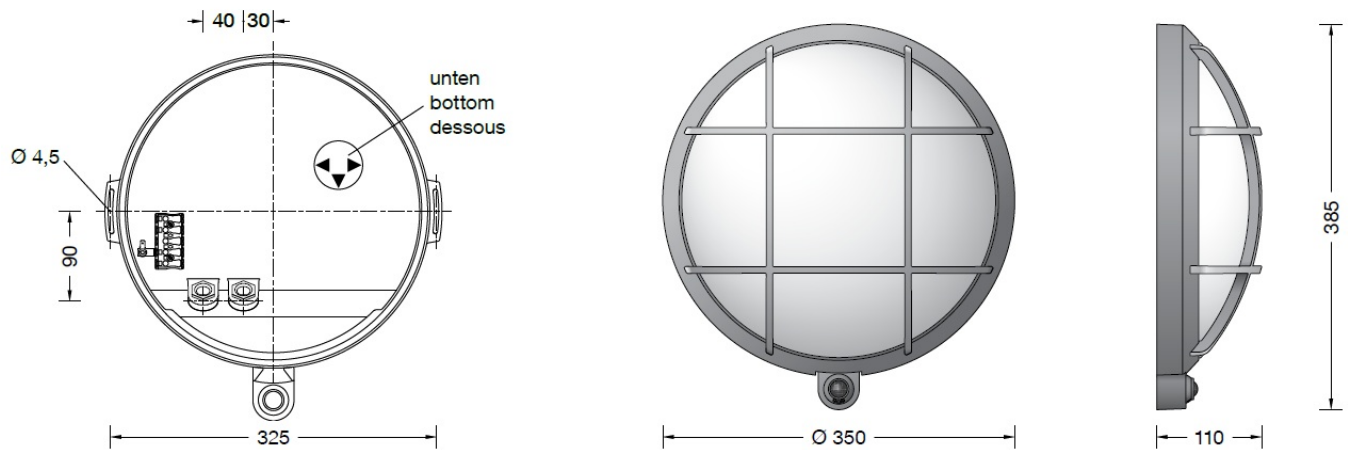
### Specifications

- **Material:** Die-cast aluminium
- **Color:** Graphite or silver
- **Light Source:** LED-0993/830 (3000 K) or LED-0993/840 (4000 K)
- **Color Rendering Index (CRI):** > 80
- **Luminous Flux:** 3975 lm – 4180 lm
- **Connected Wattage:** 23.9 W – 27.2 W
- **Luminous Efficiency:** 90.6 lm/W – 95.3 lm/W
- **Protection Rating:** IP 65
- **Impact Resistance:** IK05

### FAQ

- **Q:** What is the range of the passive infrared motion sensor?
  - **A:** The sensor has a range of up to 10 meters.
- **Q:** What is the protection rating of the luminaire?
  - **A:** The luminaire has an IP rating of IP65, making it dust-tight and protected against water jets.
- **Q:** Can the luminaire be connected to a DALI system?
  - **A:** Yes, the luminaire is designed for use in an existing DALI system.

## Dimensions



## Instructions For Use

### Application

- Unshielded wall luminaire with integral passive infrared motion and light sensor for use in an existing DALI system.
- A luminaire made of die-cast aluminium and an impact-resistant synthetic cover.

### Lamp

- **Module connected wattage:** 23.9 W
- **Luminaire connected wattage:** 27.2 W
- **Rated temperature:**  $t_a = 25\text{ }^{\circ}\text{C}$
- **Ambient temperature:**  $t_a \text{ max} = 35\text{ }^{\circ}\text{C}$

### 24 186 K3

- **Module designation:** LED-0993/830
- **Colour temperature:** 3000 K
- **Colour rendering index:** CRI > 80
- **Module luminous flux:** 3975 lm
- **Luminaire luminous flux:** 2465 lm
- **Luminaire luminous efficiency:** 90,6 lm / W

### 24 186 K4


- **Module designation:** LED-0993/840
- **Colour temperature:** 4000 K
- **Colour rendering index:** CRI > 80
- **Module luminous flux:** 4180 lm
- **Luminaire luminous flux:** 2592 lm

- **Luminaire luminous efficiency:** 95,3 lm / W

## Safety

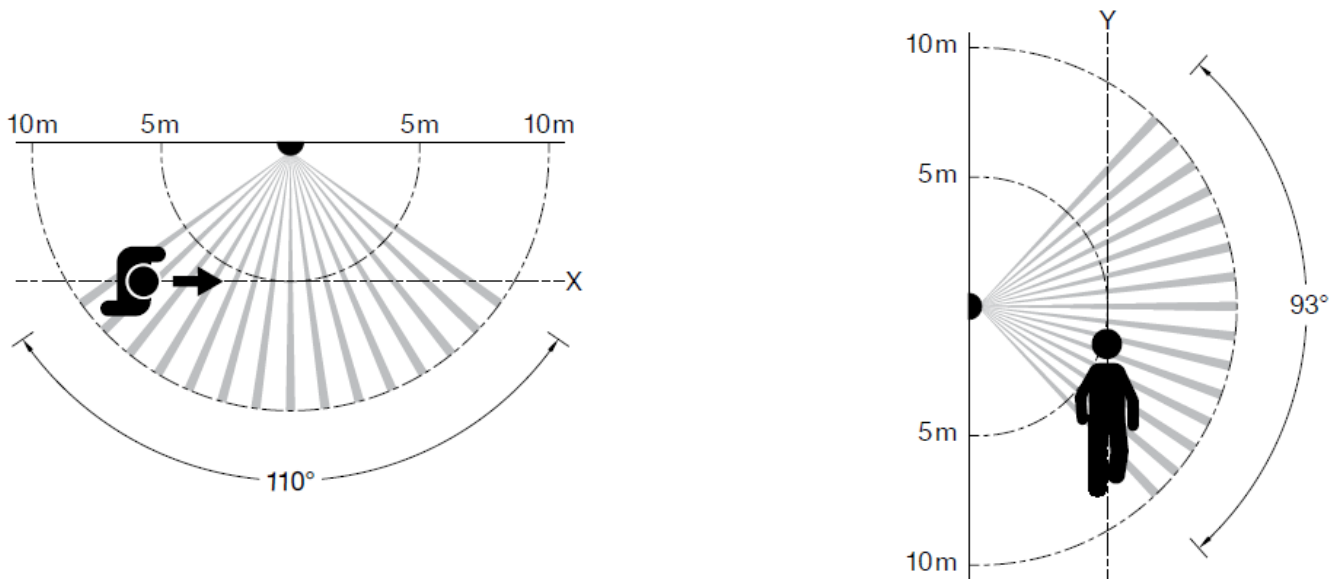
The installation and operation of this luminaire are subject to national safety regulations. Installation and commissioning may only be carried out by a qualified electrician. The manufacturer accepts no liability for damage caused by improper use or installation. If subsequent modifications are made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

## Product Description

- Luminaire made of aluminium alloy, aluminium and stainless steel
- BEGA Unidure® coating technology
- Colour graphite or silver
- Impact-resistant synthetic cover
- 2 mounting holes  $\varnothing$  4.5 mm
- Distance apart 325 mm
- 2 screw cable glands with strain relief for through-wiring power connecting cable  $\varnothing$  7–12 mm
- 1 screw cable gland closed at the factory with a dummy plug
- Connection terminal 2.5@
- Earth conductor connection
- Passive infrared motion sensor (PIR)
- Range up to 10 m
- Horizontal opening angle 110°
- Vertical opening angle 93°
- Minimum temperature difference between moving object and environment 4 °C
- Object speed 1 m/s
- Light sensor
- Measuring range adjustable using
- DALI Cockpit 0-2500 lx, Resolution 1 lx
- Power consumption on the DALI bus:
- Sensor: 3.5 mA
- Power supply unit: 2 mA
- Time hysteresis for suppressing rapid fluctuations in brightness
- Complies with flicker requirements in accordance with IEEE 1789,
- DIN IEC/TR 63158, DIN IEC/TR 61547-1
- LED power supply unit
- 220-240 V  0/50-60 Hz
- DC 170-280 V
- DALI-controllable
- **Number of DALI addresses:** 1
- Basic insulation is provided between the mains and control cables
- BEGA Thermal Switch®
- Temporary thermal shutdown to protect temperature-sensitive components
- Safety class I

- Protection class IP 65
- Dust-tight and protection against water jets
- Impact strength IK05
- Protection against mechanical impacts < 0.7 joule
- **CE** – Conformity mark
- **Weight:** 3.6 kg
- This product contains light sources of energy efficiency class(es) C, D

## Range / Detection area



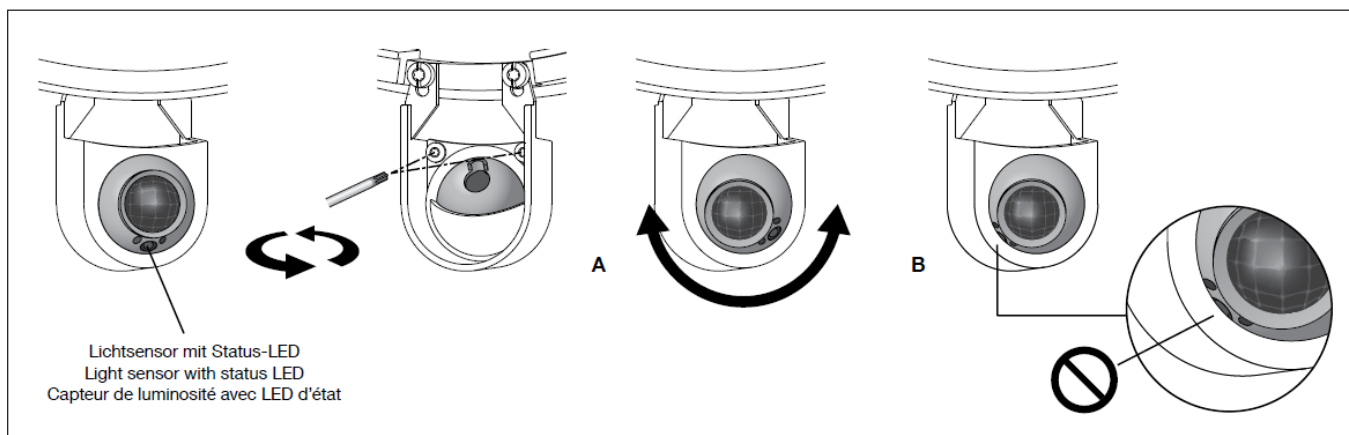
The specifications for the range and detection area of the PIR motion sensor are reference values. The detection area is up to 110° horizontally and 93° vertically, with a depth of max. 10 m depending on the direction of motion (see sketch). Too minor temperature difference between the moving object and the ambient temperature can influence the detection range. Local conditions and external heat sources may affect both the range and the detection area.

## Installation

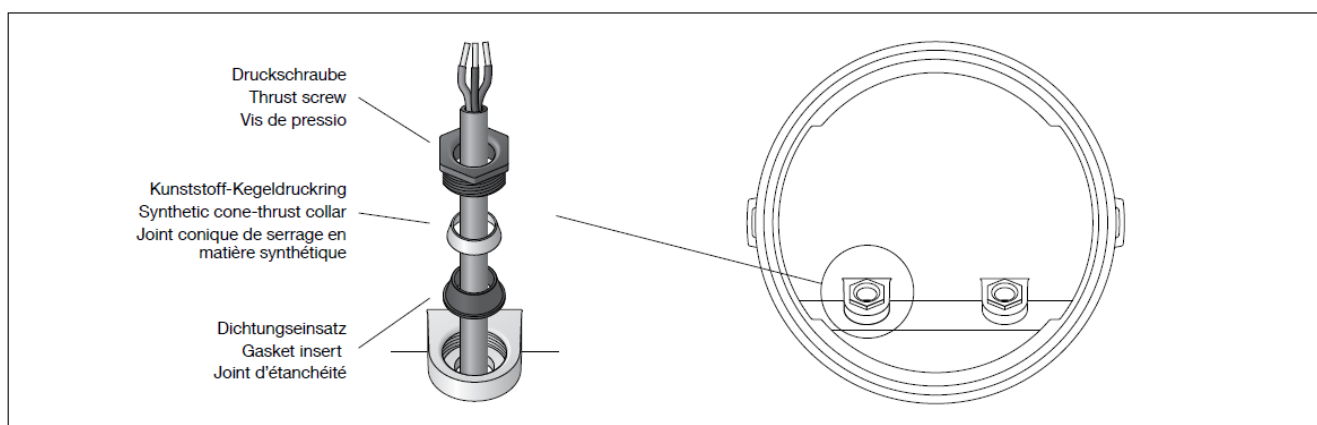
### Please note:

- A separate DALI power supply is required to operate the luminaire.
- If this is not provided by the customer, we recommend using DALI power supply 71 094 or 70 866 (see accessories).
- Undo hexagon socket head screws (wrench size 3 mm) through the opening in the luminaire housing up to the stop and lift luminaire top.
- Disconnect the earth conductor connection from the plug connection.
- Disconnect plug-connection of the LED connecting cable.

## Orientation of the sensor



- The sensor is factory-configured for the maximum detection area.
- In order to avoid the unintentional adjustment of the sensor in public areas, the alteration of the factory setting must be made before the luminaire base is mounted.
- To do so, loosen the two rear screws (Torx driver T10) slightly and rotate the sensor ball to the desired position (see Fig. A). In the process, make sure that the light sensor embedded in the sensor ball is not directed upwards or covered by the edge of the surrounding housing! (see Fig. B)
- Tighten the mounting screws evenly.



- Lead the mains supply cable through the screw cable gland into the luminaire back housing.
- The installed black gasket insert is intended for cables  $\varnothing < 10$  mm.
- For cables  $\varnothing 10-12$  mm the enclosed grey gasket insert must be used.
- In case of through-wiring replace the factory installed dummy plug with the enclosed corresponding gasket insert.
- At the same time, use the enclosed synthetic cone-thrust collar between gasket insert and thrust screw (wrench size 22 mm) (see sketch).
- Notice position of use "arrow down" of the luminaire back plate.
- Fix luminaire base with enclosed or any other suitable fixing material onto the mounting surface.
- Tighten screw cable gland.
- Make the earth conductor connection and the electrical connection.
- For digital control please use the connecting terminal DA, DA.
- In case this terminal is not used the luminaire will be operated at full light output.
- In order to guarantee the maximum service life of the electrical components, the enclosed desiccant pouch must be placed in the luminaire.
- Remove the desiccant pouch from the foil packaging and place it in the position marked by the red information label immediately before finally closing the luminaire.

- Connect the LED connection cable by means of a plug connector.
- Make earth conductor connection between luminaire top and luminaire base.
- Push plug into coupler as far as it will go.
- Make sure that gasket is positioned correctly.
- Install luminaire top and tighten.

## Functions And Settings

A combination of several DALI motion and light sensors in one DALI line is possible. Following installation, the PIR motion and light sensor can be immediately operated in its factory settings; configuration is not required in this case.

### *The factory settings as are follows:*

- **Holding time:** 5 min
- **Brightness threshold:** almost dark /100 lx
- **Target address:** broadcast
- **Constant light control:** off
- **Status display:** Green LED off (can be activated and deactivated using the DALI Cockpit software)
- **Time hysteresis:** 1 min
- **Threshold hysteresis:** 0 lx

### Function testing:

- After the power supply and the DALI power supply have been switched on, the luminaire is switched on for the duration of hysteresis (factory setting 1 min).
- After this period has expired, the lighting switches off automatically.
- If the lighting does not switch on again automatically (after the end of hysteresis) during commissioning or on the return of power, the light sensor must be darkened for the duration of hysteresis.
- If the brightness threshold is exceeded (factory setting "almost dark /100 lx"), a movement in the detection area does not cause the lighting to switch itself on.
- For function testing, the light sensor must be darkened.
- Brightness must be below the threshold for the duration of hysteresis; only then does a movement in the detection area cause the lighting to switch itself on.
- The lighting now remains switched on for the duration of the holding time (factory setting 5 min).
- If there are any more movements in the detection area, the holding time starts over again.
- Movement in the detection area does not cause the lighting to switch itself on when the holding time has expired and the brightness threshold has been exceeded for the duration of hysteresis.

### DALI configuration

To adjust the settings and for additional functions such as basic brightness (luminaire switches to adjustable dimming value 1 if the brightness threshold is not reached and to adjustable dimming value 2 if movement is detected), a DALI USB interface (71 024 or 71 054) and the DALI Cockpit software are additionally required. DALI Cockpit is available as a free download from our website at [www.bega.com](http://www.bega.com).

- Configuration is also possible via smartphone and tablet using the BEGA Tool app in conjunction with Bluetooth DALI gateway 71 075 or 71 151.
- Resetting to factory settings is done via DALI reset in the DALI Cockpit software or in the BEGA Tool app.

## Overvoltage protection

- The electronic components installed in the luminaire are protected against overvoltage in accordance with DIN EN 61547.
- To achieve an additional protection against e. g. transients, etc. we recommend separate overvoltage protection components.
- You can find them on our website at [www.bega.com](http://www.bega.com).
- The ideal protection of all electronic components installed in the luminaires is achieved by using bounce-free switching contacts such as an electronic relay (solid-state relay), e.g. BEGA 71 320.

## Maintenance

### Cleaning · Maintenance

- Clean dirt and debris from the luminaire regularly with a clean, soft, lint-free cloth that is kept damp throughout the cleaning.
- If possible, please use water for this, adding a little commercial dishwashing detergent.
- For lacquered surfaces we recommend the use of BEGA Lacquer Care Set 71 179.
- Cleaning agents containing solvents and high-pressure cleaners are unsuitable for cleaning and maintenance.

### Replacing the LED module

- The designation of the LED module is noted on a label in the luminaire.
- The light colour and light output of BEGA replacement modules correspond to those of the modules originally fitted.
- The module can be replaced by qualified persons using standard tools.
- Disconnect the system and open the luminaire.
- Please follow the installation instructions for the
- LED module.
- Inspect and, if necessary, replace the luminaire gaskets.
- Defective glass must be replaced.
- Close the luminaire.

## Accessories

- **71 094** DALI Power supply 30 mA in device boxes or installed cable connection box
- **70 866** DALI Power supply 240 mA for DIN rail mounting
- **71 024** DALI USB interface for installations in device boxes or preexisting connection boxes
- **71 054** DALI USB interface for DIN rail mounting
- **71 075** Bluetooth DALI gateway for DIN rail mounting



- **71 151** Bluetooth DALI gateway for installation in device boxes

A separate instructions for use can be provided upon request.

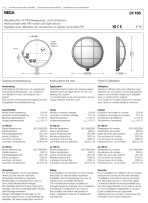
## Spares

- **Synthetic cover** 15 000 585
- **PIR Light sensor** 61 001 632
- **LED power supply unit** DEV-0365/700
- **LED module 3000 K** LED-0993/830
- **LED module 4000 K** LED-0993/840
- **Gasket glass** 83 001 927
- **Gasket wall plate** 83 002 166 B1

## BEGA Gantenbrink-Leuchten KG

- Postfach 31 60 · 58689 Menden
- [info@bega.com](mailto:info@bega.com)
- [www.bega.com](http://www.bega.com)

## Documents / Resources

	<p><b><a href="#">BEGA 24 186 Wall Luminaire with PIR Motion And Light Sensor</a></b> [pdf] Installation Guide</p> <p>24 186 Wall Luminaire with PIR Motion And Light Sensor, 24 186, Wall Luminaire with PIR Motion And Light Sensor, Luminaire with PIR Motion And Light Sensor, PIR Motion And Light Sensor, And Light Sensor, Light Sensor, Sensor</p>
---	--

## References

- [User Manual](#)

[Manuals+](#), [Privacy Policy](#)

This website is an independent publication and is neither affiliated with nor endorsed by any of the trademark owners. The "Bluetooth®" word mark and logos are registered trademarks owned by Bluetooth SIG, Inc. The "Wi-Fi®" word mark and logos are registered trademarks owned by the Wi-Fi Alliance. Any use of these marks on this website does not imply any affiliation with or endorsement.