

BEGA 85 054 Garden and Pathway Luminaire With Pir Motion and Light Sensor



BEGA 85 054 Garden and Pathway Luminaire With Pir Motion and Light Sensor Instruction Manual

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BEGA

BEGA 85 054 Garden and Pathway Luminaire With Pir Motion and Light Sensor



Product Specifications

- **Model:** 85 054
- **Data Matrix Code:** 120
- **Application:** Unshielded garden and path luminaire with rotationally symmetrical light distribution
- **Features:** Integrated passive infrared motion and light sensor, Bluetooth configuration with BEGA Smart app
- **Lamp Module Connected Wattage:** 8 W
- **Luminaire Connected Wattage:** 10.2 W
- **Color Temperature:** 3000 K or 4000 K
- **Colour Rendering Index (CRI):** >80
- **Luminous Flux:** 1395 lm or 1415 lm
- **Luminous Efficiency:** 85.6 lm/W or 86.8 lm/W
- **Recommended Light Point Interval:** 9 m

Product Usage Instructions

Safety

The installation and operation of this luminaire must adhere to national safety regulations. Only a qualified electrician should handle installation and commissioning to prevent damage due to improper use. The manufacturer is not liable for damages caused by improper installation or modifications.

Installation

Handle LED components carefully during installation to avoid direct contact with the light output opening. Follow these steps:

1. Close the connection box securely.
2. Lead the bollard tube onto the anchorage unit and align it properly.
3. Tighten the screws evenly.

Screw the glass with the gasket into the luminaire housing firmly, ensuring the correct seating of the gasket as shown in the sketch provided.

Commissioning

The power supply must be connected for commissioning. The brightness sensor may take up to 10 minutes after power activation to calibrate correctly. No smartphone configuration is needed.

FAQ

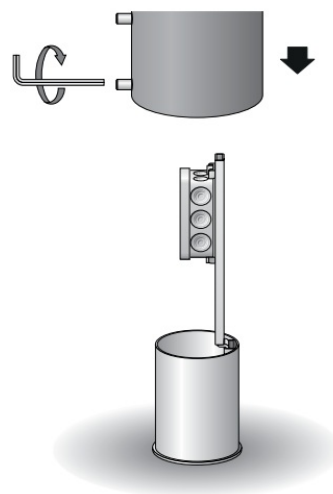
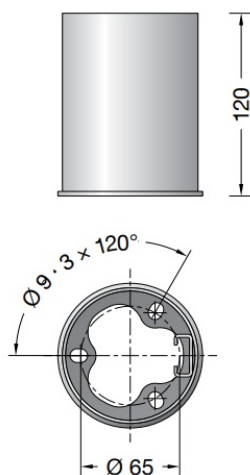
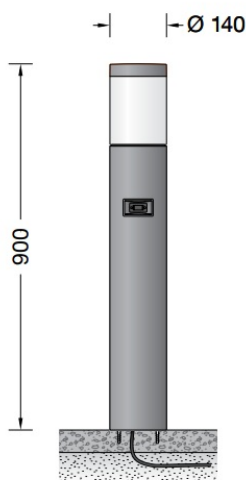
- **Q: Can the luminaire be installed in public areas?**
 - **A:** Yes, it is suitable for private and public areas with no risk of vandalism.
- **Q: How is the luminaire configured?**
 - **A:** Configuration is done via Bluetooth using a smartphone or tablet with the free BEGA Smart app.

Garden and pathway luminaire with PIR motion and light sensor

Project

Location

Data Matrix Code



Instructions for use

Application

Unshielded garden and path luminaire with rotationally symmetrical light distribution. Suitable for private and public areas in which there is no risk of vandalism. The integrated passive infrared motion and light sensor responds to heat emission in the dark and activates in case of human or animal movement in the vicinity of the luminaire. Configuration is done via Bluetooth using a smartphone or tablet and the free BEGA Smart app.

Lamp

Module connected wattage/ 8 W

Luminaire connected wattage /10.2 W

Rated temperature/ $t_a=25\text{ }^{\circ}\text{C}$

Ambient temperature / $t_a\text{ max}=50\text{ }^{\circ}\text{C}$

85 054K3

Module designation /LED-0292/830

Color temperature /3000 K

Color rendering index /CRI >80

Module luminous flux/ 1395 lm

Luminaire luminous flux/ 873 lm

Luminaire luminous efficiency /85,6 lm/W

85 054K4

Module designation/ LED-0292/840

Color temperature/ 4000 K

Color rendering index /CRI >80

Module luminous flux /1415 lm

Luminaire luminous flux /885 lm

Luminaire luminous efficiency /86,8 lm/W

Lighting technology

Recommended light point interval 9m

Product Description

Luminaire made of cast aluminum, aluminum, and stainless steel

BEGA Unidure® coating technology

Color graphite or silver

Opal glass with screw neck

Luminaire with a mounting base made of hot-dip galvanised steel according to EN ISO 1461 for bolting onto a foundation provided by the customer or on other paved surfaces such as terraces and paving stones

Base plate with 3 fixing holes $\varnothing 9\text{ mm}$ · Pitch 120° · Pitch circle $\varnothing 65\text{ mm}$

Mounting bracket with connection box for through-wiring of up to $3 \times 2,5\text{ mm}^2$

Passive infrared motion sensor (PIR)

Range up to 12m

Opening angle 120° – 150°

Decals for reducing the detection range are provided

Minimum temperature difference between moving object and environment 4°C Object speed ideally 1 m/s

Adjustable sensitivity of the motion sensor (inertia) Shut-down delay adjustable between 5s and 240min

Light sensor: adjustable value range from darkness (ca. 0lx) to approaching dusk (approx. 150 lx)

Fixed pre-set hysteresis for suppression of undesired switching operations in luminaires during rapid brightness fluctuations

Transmission frequency range: 2400-2483.5MHz

Maximum transmission output: 10mW

Luminaire switchable via relay output (on/off) integrated into the sensor module

Relay contact with a switching capacity of 2300W · 10A

Please note the starting current of the switching loads – max. 100A

Ambient temperature: -25°C to +55°C

Luminaire power supply unit

Starting current: 7A (112µs)

220-240 V ~ 50-60 Hz

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 IK04

Protection against mechanical impacts < 0.5 joule

CE – Conformity mark

This product contains light sources of energy efficiency class(es) C

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.

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. 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 71320.

Installation

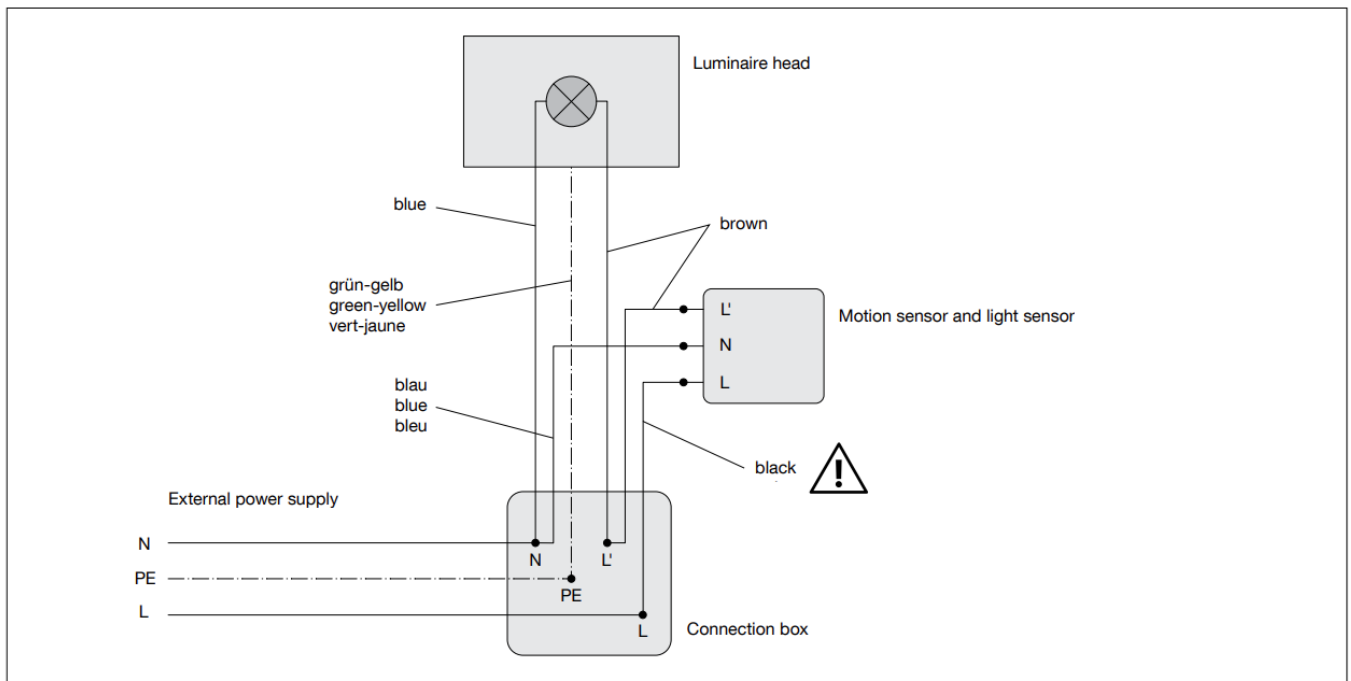
LED are high-quality electronic components!

Please avoid touching the light output opening of the LED directly during installation or relamping. The base of the luminaire must not be below top edge of the ground surface. A cable length of 400mm above the ground surface is required for the electrical connection of the luminaire. Remove the mounting base from the luminaire by undoing the screws at the base of the luminaire.

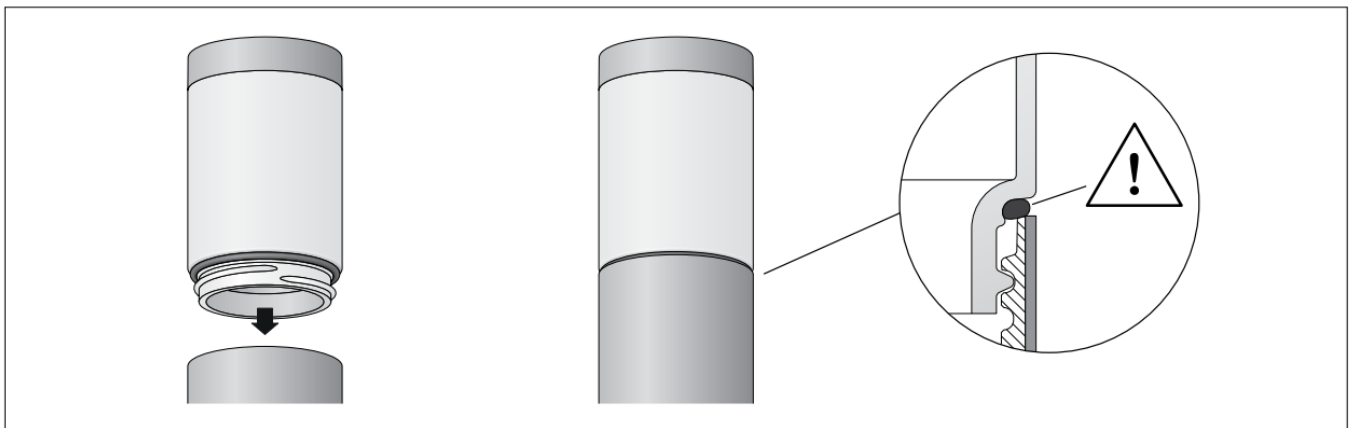
Lead underground cable from below in the mounting base.

Fix the mounting base with enclosed or any other suitable fixing material onto the mounting surface.

Open the connection box. Lead the luminaire wiring and mains supply cable into the connection box. Make the earth conductor connection and the electrical connection. Note the correct configuration of the terminals (see drawing).



- Close the connection box.
- Lead the bollard tube on the anchorage unit and align.
- Tighten the screws evenly



Screw the glass with the gasket into the luminaire housing and tighten it firmly. Make sure that the glass gasket is seated correctly (see sketch).

Commissioning

The power supply must be connected for the commissioning of the luminaire. The brightness sensor will need up to 10 minutes after activation of the power supply to correctly calibrate the brightness value. Once installed, the luminaire can be operated immediately in its factory settings; configuration via smartphone will not be required.






The factory settings as are follows:

Mode: Motion and light

Motion sensitivity: 100 % (high sensitivity)

Shut-down delay: 5 minutes

Brightness threshold: 32 (approx. 50lx) Alternatively, the integrated PIR motion and light sensor can be configured via smartphone or tablet using the free BEGA Smart app. The default values can be reinstated at any time via the BEGA Smart app.

 <div>App herunterladen Download app Télécharger l'application Descargar aplicación Scarica App Download App</div>	 bega.com/bega-smart-ios		 bega.com/bega-smart-android	
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Download the app for Android or iOS and add the luminaire as your starting point. The Data Matrix code needed for commissioning is provided on the sensor housing, the luminaire head, and on the connecting cable of the luminaire. Please retain the additional enclosed QR codes in your customer documentation (e.g. Instructions for use, at the top of).

Select the “Share access” function in the BEGA

The tool app enables parameterization or control via additional smartphones. function in the BEGA Tool app if you want to use a different or additional smartphone for the configuration of the integrated sensor module or controlling the luminaire head.

Please note:

The integrated light sensor operates with a time delay to prevent responses to short-term brightness fluctuations in the environment of the luminaire. Delay time approx. 1 to 3 min. A manual darkening of the sensor will therefore not result in an immediate response.

Once successfully commissioned, the sensor can be configured in the BEGA Smart app.

The following 3 states can be set:

“Illumination during movement”

State that is activated for the configured shut-down delay period when movement is detected.

If the light sensor is also active, motion detection is only activated if the light sensor detects the environmental brightness to be below the configured threshold. After the shut-down delay period, the state “Illumination at specific environmental brightness” is executed. If the light sensor is deactivated, the state is activated independently of the environmental brightness if movement is detected. After the configured shut-down delay period, “Illumination in default state” is activated.

- “Illumination at specific environmental brightness”
- State which is activated when the environmental brightness falls below the configured threshold.

“Illumination in default state”

- State which is activated when the environmental brightness has exceeded the configured threshold value and no movement is detected.

The motion sensor as well as the light sensor can be switched off individually. This reduces the respective states. The shut-down delay is freely adjustable up to 4 hours.

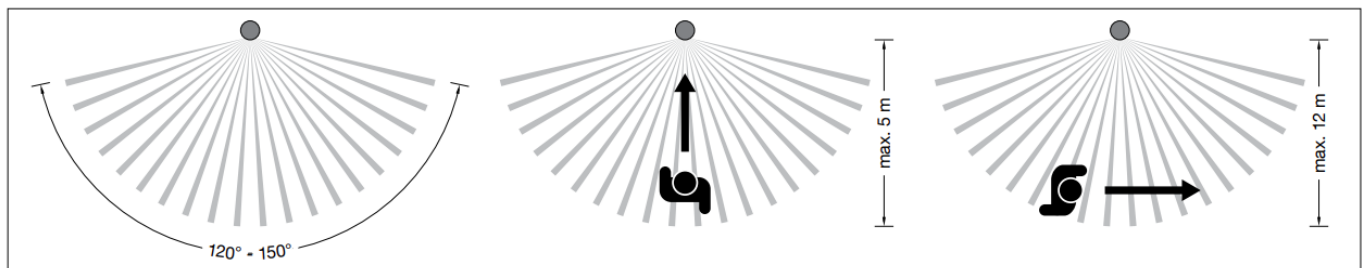
The current measured environmental brightness can be queried. This is shown by the grey sun symbol. The threshold value can also be set there.

All other components in the BEGA Smart System can be allocated and configured to these states. Depending on the additionally used BEGA Smart components, different light levels, light colors or colour temperatures can be set.

The luminaire head of the bollard can only be switched on or off.

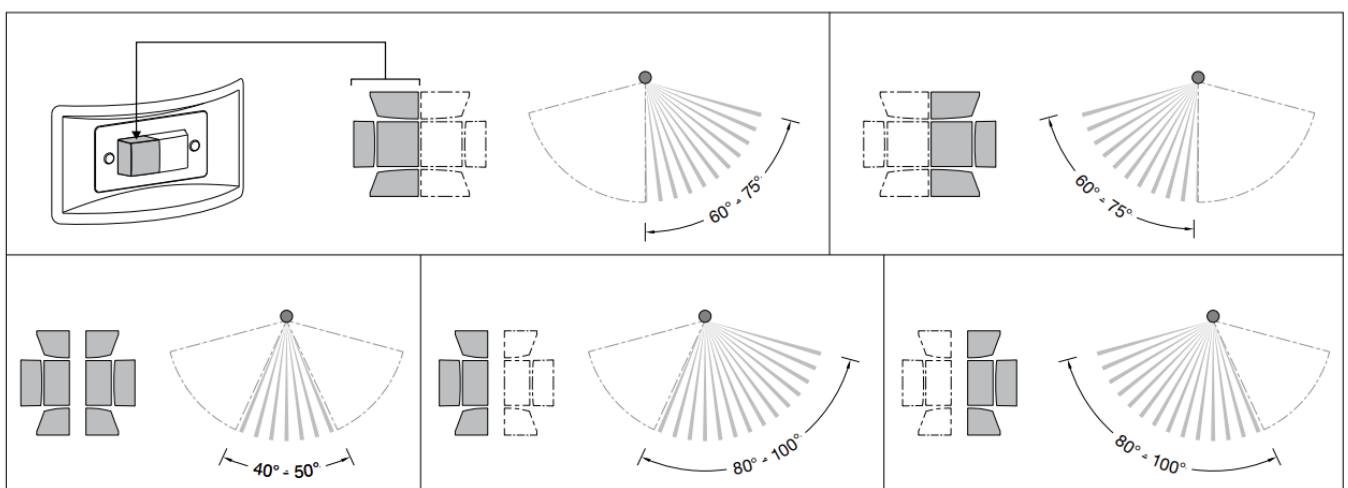
Range / Detection area

The specifications for the range and detection area of the PIR motion sensor are reference values. The detection range is 120° to 150° at a depth of 5m up to max. 12m, depending on motion direction (see illustration). Too minor a 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.



Reducing the detection range

Use the decals provided to reduce the vertical detection area of the sensor. The smaller decals reduce the detection area by around one-third, the larger ones by around one-half (see sketch). Clean the sensor with a soft cloth soaked in alcohol before applying the decals. Ensure exact positioning when attaching the decals.

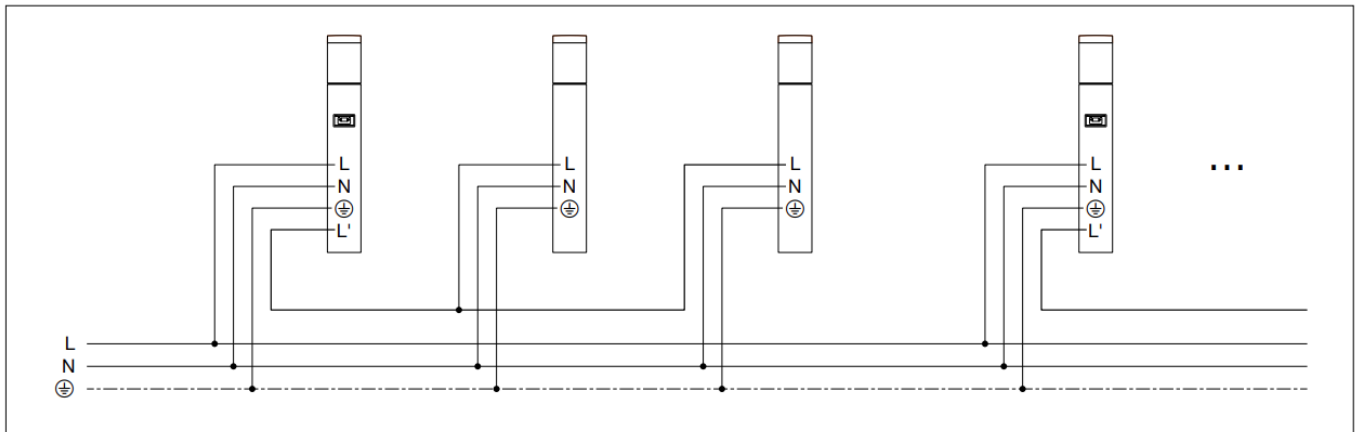


Circuit variants

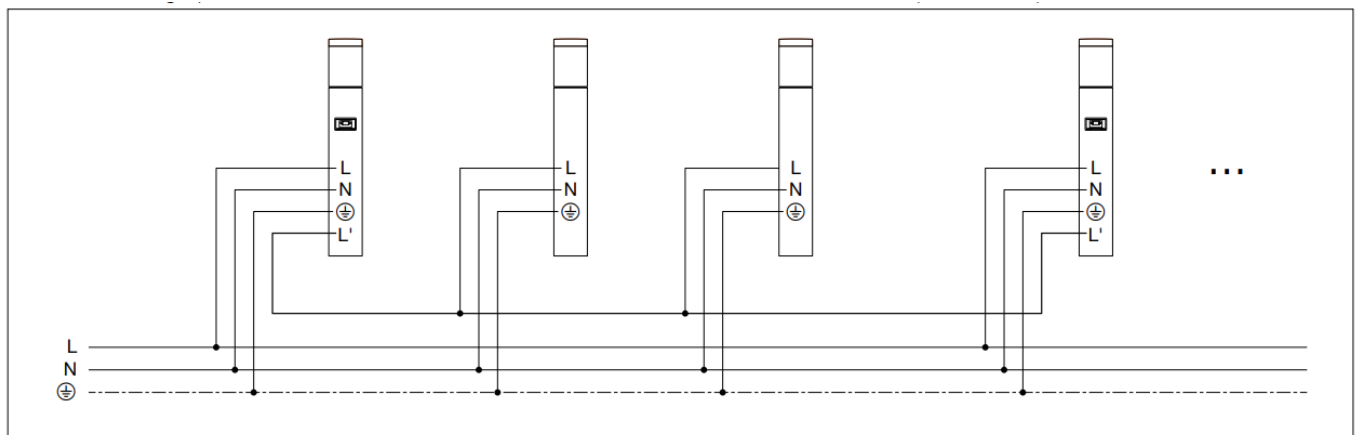
Forwarding of the switching signal to additional luminaires can be achieved via the relay contact L' (see circuit diagram 1).

Circuit diagram 1:

The first sensor of a luminaire controls a group of luminaires, while the second luminaire sensor controls another group.



Circuit diagram 2:

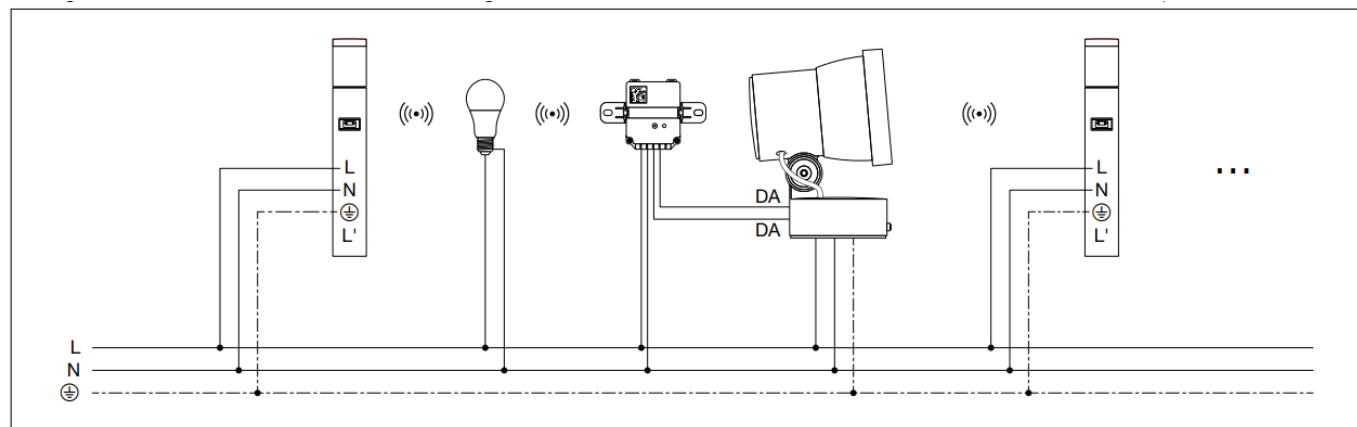


Sensors of multiple luminaires control the same luminaire group.

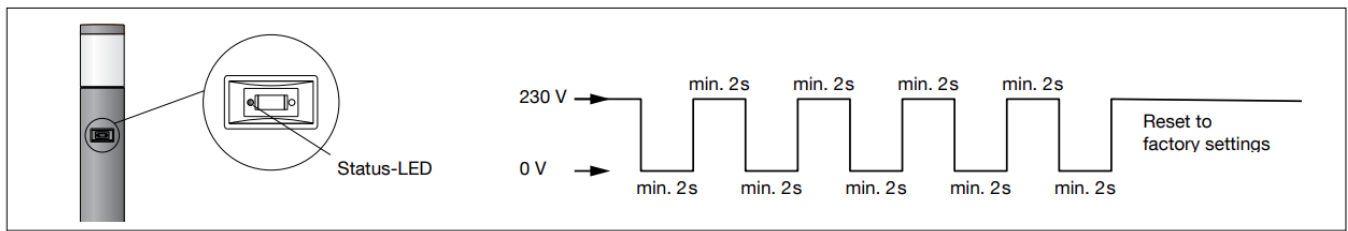
All luminaires in the group will be switched on as soon as one of the sensors detects movement. It is important to note that all sensors within one group are fed via the same phase.

Circuit diagram 3:

Apart from wired control, the sensor also offers the option of wireless communication with Zigbee lamps or other BEGA Smart actuators, e.g. 71149



Reset to factory settings



The luminaire must be switched off five times within 30 seconds for at least 2 seconds each time to manually reset it to factory settings (see sketch).

The luminaire can furthermore be reset to the factory settings via the BEGA Smart app. The reset is confirmed with five flashes of the luminaire.

The smartphone will be disconnected.

Status display

Status LED flashes green: The luminaire is searching for a nearby network and is ready for configuration. If no start-up procedure is executed within 180 seconds, the status LED goes out. Status LED flashes green and the luminaire is already configured:

The luminaire opens the network for new participants in the BEGA Smart System.

EU Declaration of Conformity

BEGA Gantenbrink-Leuchten KG hereby declares that the radio system type 85 054 complies with Directive 2014/53/EU (RED).

The complete text of the EU Declaration of Conformity is available at the following Internet address:

<https://www.bega.com/conf/de/85054>

Cleaning · Maintenance

Clean the luminaire regularly with solvent-free cleansers from dirt and deposits.

Do not use high-pressure cleaners.

Replacing the LED module

The designation of the LED module is noted on a separate label in the luminaire or on the underside of the specific LED module. The light color 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.

The defective glass must be replaced. Close the luminaire.

Spares

- LED power supply unit /DEV-0136/700

- **LED module 3000 K /LED-0292/830**
- **LED module 4000 K/ LED-0292/840**
- **The mounting base/75 003 354**
- **Spare glass graphite /75 005 209**
- **Spare glass silver/ 75 005 210**
- **PIR and light sensor graphite/ 75 005 858**
- **PIR and light sensor silver /75 005 860**
- **Gasket glass/ 83 001 997**

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Documents / Resources



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85054K3, 85054K4, 85 054 Garden and Pathway Luminaire With Pir Motion and Light Sensor, 85 054, Garden and Pathway Luminaire With Pir Motion and Light Sensor, Luminaire With Pir Motion and Light Sensor, Pir Motion and Light Sensor, Light Sensor

References

- BEGA [BEGA Smart - Apps on Google Play](#)
- BEGA [BEGA · Das gute Licht.](#)
- [User Manual](#)

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