BEGA 85 059 Garden and Pathway Luminaire With Pir Motion and Light Sensor Instruction Manual

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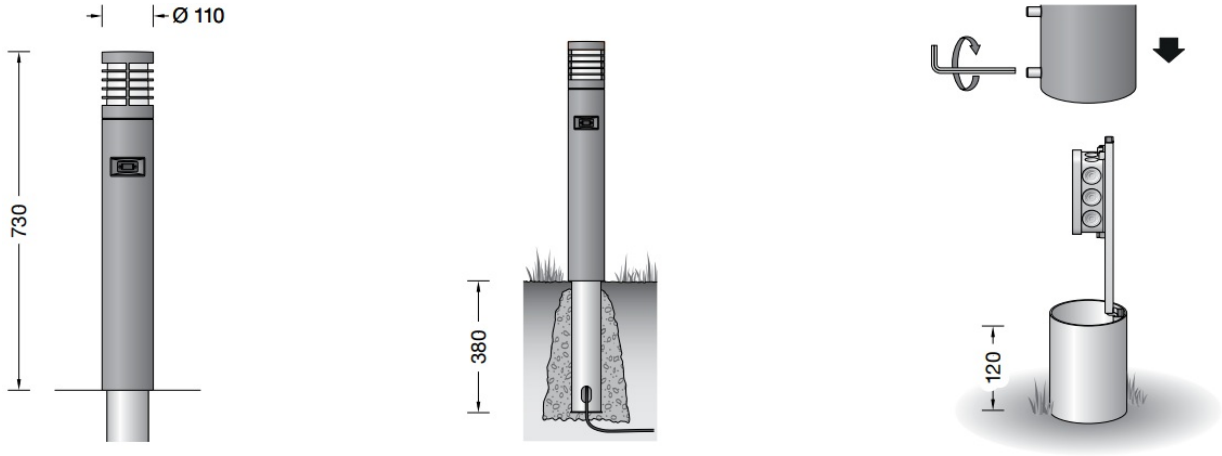
Contents

Instructions for use

Garden and pathway luminaire with PIR motion and light sensor

Project ·

Location
Data Matrix
Code



Application
Unshielded garden and path luminaire withsafety guard. Light exit 360°.
With hand-blown, three-ply opal glass and pleasantly uniform light effect for effective illumination in private gardens.
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 luminary.
Configuration is done via Bluetooth using smartphone or tablet and the free BEGA Smart app.
Lamp

Module connected wattage : 3.9 W
Luminaire connected wattage : 5.4 W
Rated temperature : ta=25 °C
Ambient temperature : ta max=45 °C

85 059K3

Module designation : LED-0794/830
Colour temperature : 3000 K
Colour rendering index : CRI >80
Module luminous flux : 750 lm
Luminaire luminous flux : 190 lm
Luminaire luminous efficiency : 35,2 lm/W

85 059K4

Module designation : LED-0794/840
Colour temperature : 4000 K
Colour rendering index : CRI >80
Module luminous flux : 770 lm
Luminaire luminous flux : 195 lm
Luminaire luminous efficiency : 36,1 lm/W

Lighting technology

Recommended light point interval 4.5m

Product description

Luminaire made of cast aluminium,
aluminium and stainless steel
BEGA Unidure® coating technology
Colour graphite or silver
Opal glass with screw neck
Silicone gasket
Luminaire with anchorage unit for fixing in the soil
The anchorage unit is made of galvanised steel according to EN ISO 1461
Mounting bracket with connection box for
through-wiring of up to 3 x 2,5mm²
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 1m/s
Adjustable sensitivity of the motion sensor (inertia)
Shut-down delay adjustable between 5s and 240min
Light sensor : adjustable value range from darkness to approaching dusk (approx. 150lx)
Fixed pre-set time hysteresis for suppression of undesired switching operations in luminaires during rapid brightness fluctuations
Transmission frequency range:
2400-2483.5MHz
Maximum transmission output : 10mW

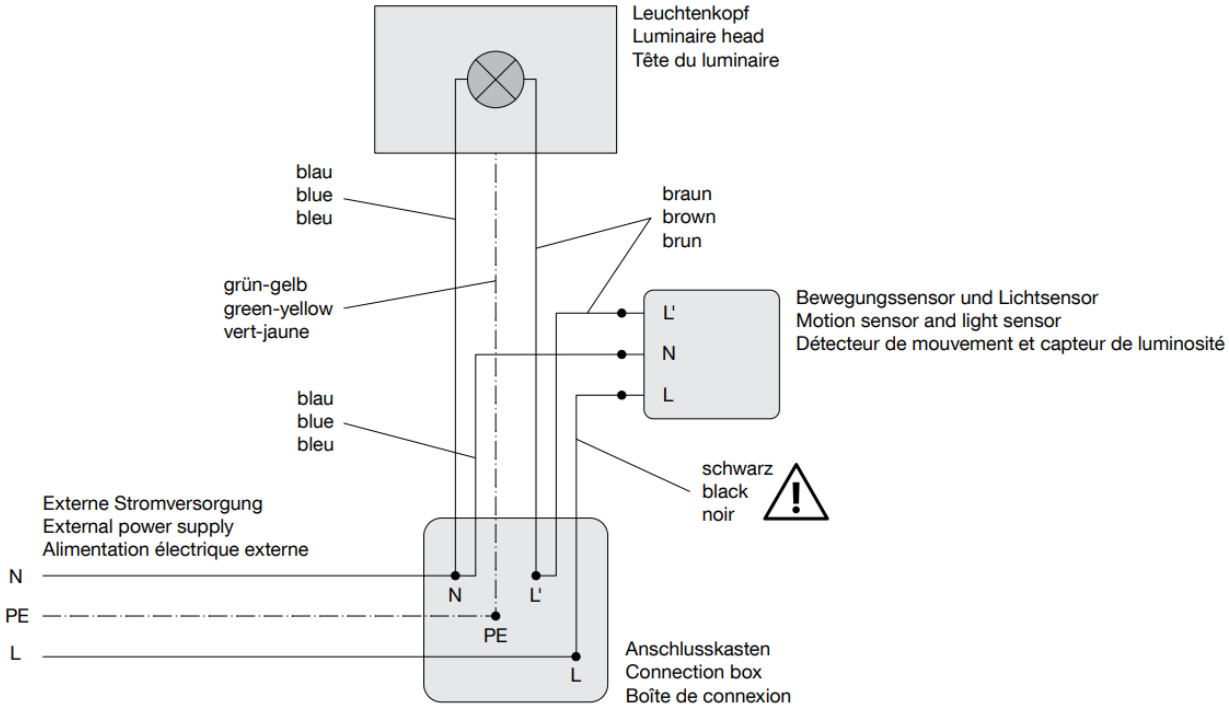
Luminaire switchable via relay output (on/off)
integrated in the sensor module
Relay contact with a switching capacity of
2300W · 10A
Please note the starting current of the switching loads – max. 100A
Ambient temperature : -25°C to +55°C
Luminaire power supply unit
Starting current : 7A (112µs)
220-240 V y 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.

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 anchorage unit from the luminaire by undoing the screws at the base of the luminaires.
Remove the connecting bracket from the anchorage unit and fix it at the anchorage unit (see sketch on page 1).
The anchorage unit is to be installed firmly according to its application and the condition of the fixing ground.
The size of the foundation required to set the anchorage unit in concrete must be determined at site.
Lead mains supply cable into anchorage unit through lateral cable entry.
When installing the anchorage unit, make sure that the tube is absolutely vertical and 120 mm above the upper edge of the floor covering.
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 luminary housing and tighten 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.

App herunterladen

Download app

Download on the App Store

bega.com/bega-smart-ios

GET IT ON Google Play

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 Page 1). Select the “Share access” function in the BEGA Tool app enables parameterisation 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.

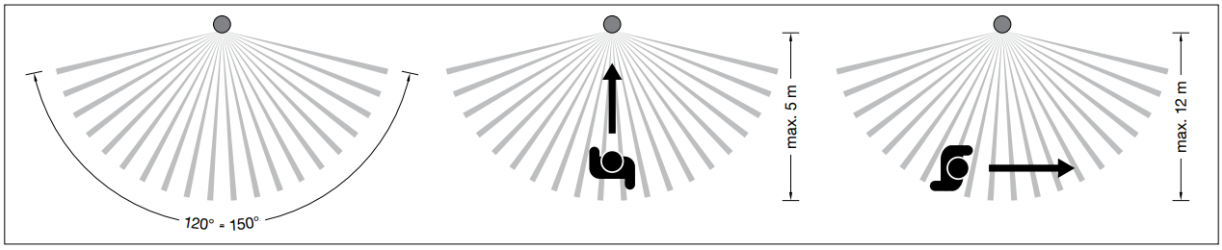
Please note:
The integrated light sensor operates with a time delay to prevent responses to short-term brightness fluctuations in the environment of the luminaire. Delay time approx. 1 to 3 min.
A manual darkening of the sensor will therefore not result in an immediate response.

- 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.

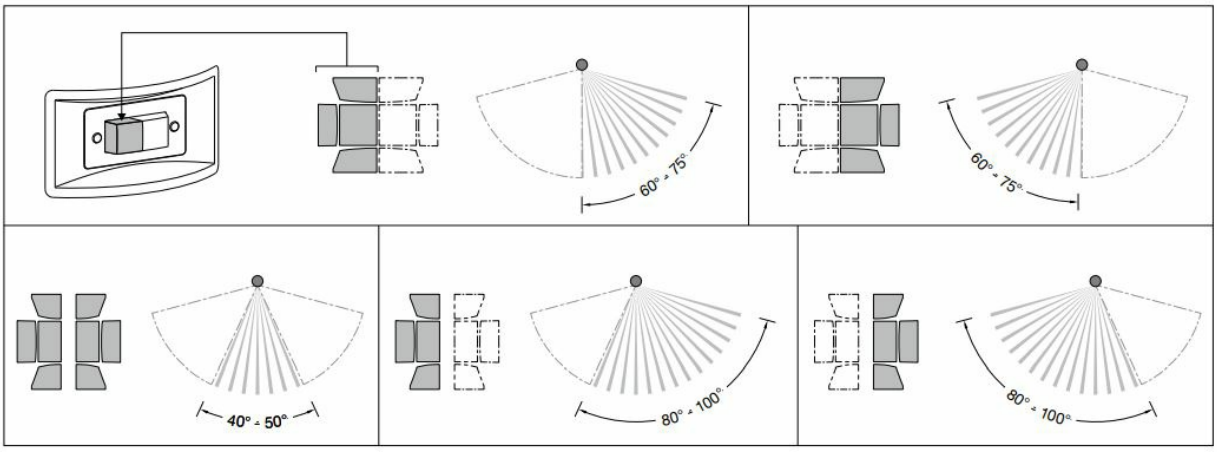
All other components in the BEGA Smart System can be allocated and configured to these states. Depending on the additionally used BEGA Smart components, different light levels, light colours or colour temperatures can be set.
The luminaire head of the bollard can only be switched on or off.

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



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.

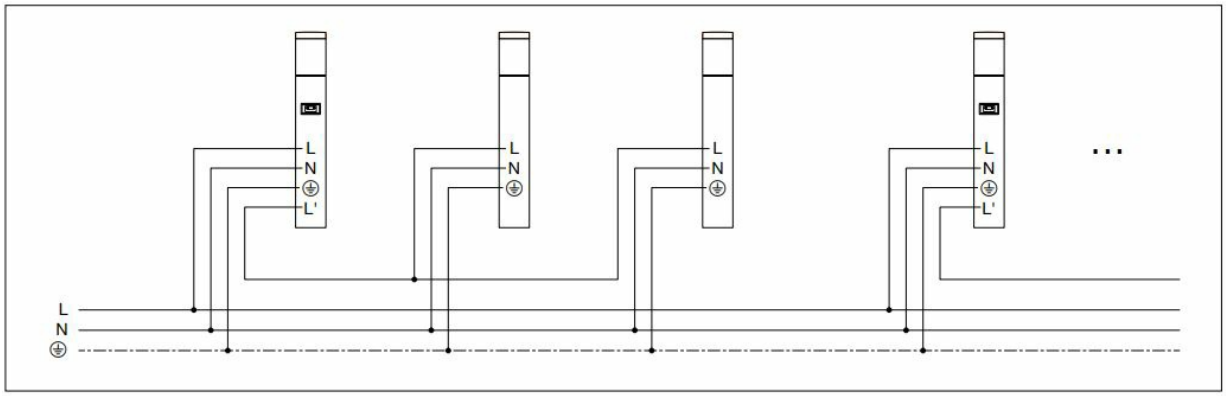


Circuit variants

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

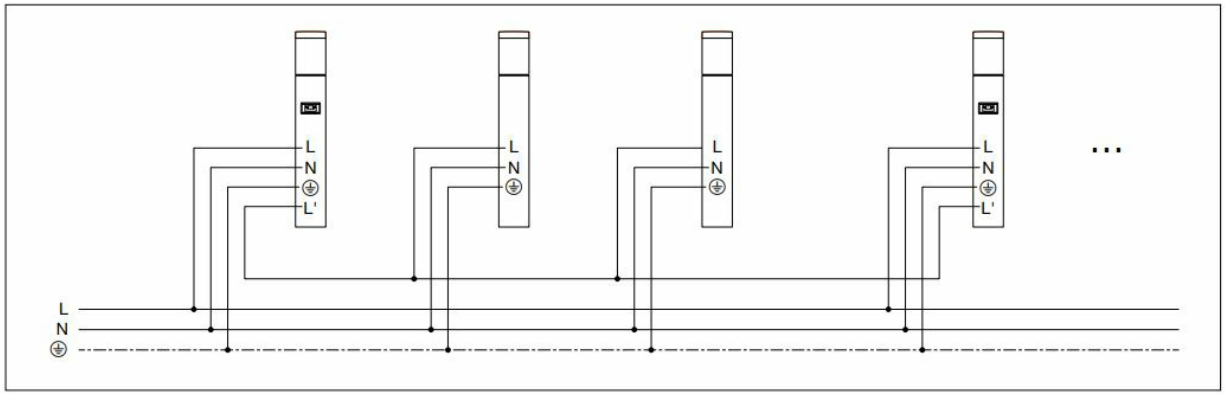
Circuit diagram 1 :

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

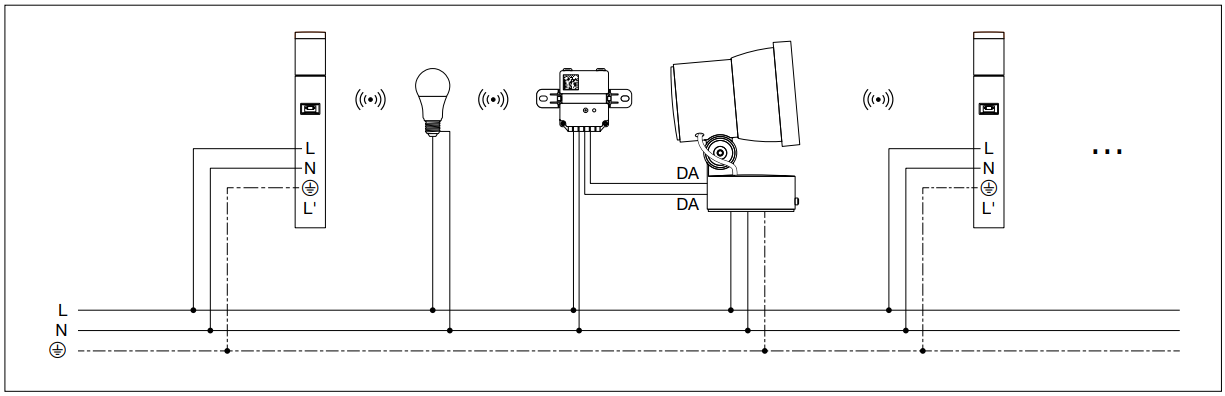


Circuit diagram 2 :

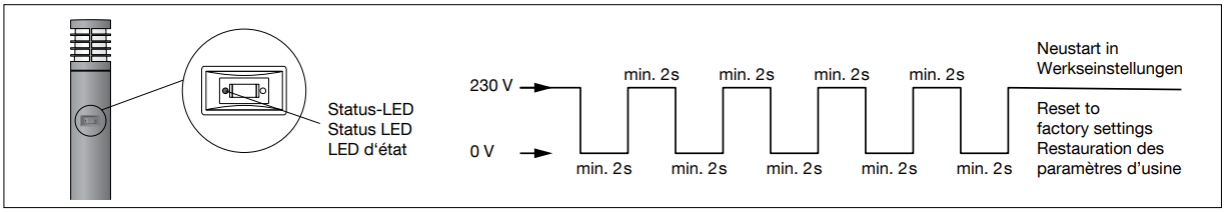
Sensors of multiple luminaires control the same luminaire group.
All luminaires in the group will be switched on as soon as one of the sensors detects movement.
It is important to note that all sensors within one group are fed via the same phase.



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.

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.

U Declaration of Conformity
KG hereby declares that the radio system type 85 059 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/85059

Cleaning · Maintenance
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 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.

Spares

Spare glass 11 003 514 .1
LED power supply unit DEV-0303/350
LED module 3000 K LED-0794/830
LED module 4000 K LED-0794/840
PIR and light sensor graphite 75 005 857
PIR and light sensor silver 75 005 859
Gasket glass 83 001 998

 BEGA Gantenbrink-Leuchten KG · Postfach 3160 · 58689 Menden · info@bega.com · www.bega.com

Documents / Resources

	BEGA 85 059 Garden and Pathway Luminaire With Pir Motion and Light Sensor [pdf] Instruction Manual 85 059, 85 059 Garden and Pathway Luminaire With Pir Motion and Light Sensor, Garden and Pathway Luminaire With Pir Motion and Light Sensor, Pathway Luminaire With Pir Motion and Light Sensor, Luminaire With Pir Motion and Light Sensor, Pir Motion and Light Sensor, Light Sensor, Sensor

References

- BEGA Smart - Apps on Google Play
- BEGA · Das gute Licht.
- User Manual