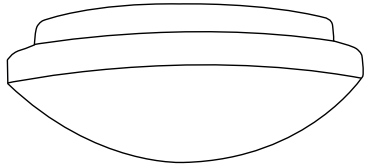# B.E.G. LUXOMATIC® RADAR-Lamp

Installation and Operating Instruction for B.E.G. - Radarlamp LUXOMATIC® HF-L7/-L8/-L11

1. Mounting preparations

Work on the 230 V mains supply may only be carried out by qualified professionals or by instructed persons under the direction and supervision of qualified skilled electrical personnel in accordance with electrotechnical regulations.

Disconnect supply before installing!

The device is not suited for safe disconnection of the mains supply.

2a. Function

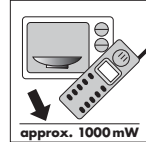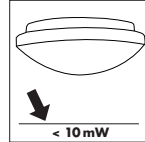**B.E.G.** high-frequency motion detectors transmit and receive waves with a frequency of 5.8 GHz.
Based on the Doppler effect, the change in frequency of the waves reflected by a moving object are measured and the result is used to detect movement. The detection area depends on the size and speed of the moving object.
Since high-frequency waves can pass through walls, when HF technology is used it is not always possible to clearly limit the detection area to one room. As a result, people in adjacent rooms may also be detected and activate the light.
Metal surfaces close to the installation location of the detector can lead to extremely strong reflections of the signal, which may prevent the HF detector from switching reliably and/or change the detection area.

Note: Since this functional principle can affect the detection quality, always check the suitability of this technology for your application.

2b. Transmitter output
This is used in roughly the same frequency range as for W-LAN n. The hight-frequency output of the HF sensor is approx. 10 mW - that is just 100 th of the transmission power of a mobile phone or mirowave oven.
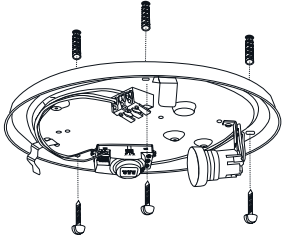
< 10 mW   approx. 1000 mW

3. Article / Part nr.

Type	Part nr.
HF-L7 – Polycarbonate	94450
HF-L8 – Acrylic glass	94445
HF-L11 – Acrylic glass	94447
L7 – Polycarbonate	94451
L8 – Acrylic glass	94446
L11 – Acrylic glass	94448

4. Installation

For device installation, the in-house mains fuse must be removed.

Open the lamp by lightly turning the glass anti-clockwise. Lead the mains cable on the back of the lamp through the rubber bushing. Mark drill holes on the ceiling or wall. Drill suitable holes and push the plugs tightly into the holes. Screw on the lamp.

For wall mounting, please note:
for optimal thermal management pay attention to the fact that the RF detector is positioned downward.

7a. Technical data radarlamp

- **Adjustments:** manually by potentiometers
- **Power supply:** 230 V~ ±10 %
- **Contact load:** 1200 W, µ-Contact, max. 5 EB
- **Lamps:**
  HF-L7/L8: max. 23 W E27
  HF-L11: max. 2x 23 W E27
- **HF-transmitter consumption:** 5.8 GHz, < 10 mW
- **Detection area / Range:**
  Wall mounting: r = 0.2 to 8 m
  Ceiling mounting: Ø 0.4 to 16 m
- **Photo electric switch:** 2 - 2000 Lux
- **Time settings:** 15 s - 15 min.
- **Mounting:** wall or ceiling installation
- **Power consumption:** < 1 W
- **Protection / class:** IP40 / I
- **Ambient temperature:** -15°C to +30°C

Note: When taking the detector into operation or after each power failure, the motion detector will switch on for a duration of 3 seconds.

7b. Technical data lamp

- **Power supply:** 230 V~ ±10 %
- **Lamps:**
  L7/L8: max. 23 W E27
  L11: max. 2x 23 W E27
- **Mounting:** wall or ceiling installation
- **Protection / class:** IP40 / I
- **Ambient temperature:** -15°C to +30°C

EU Declaration of Conformity:

This product respects the directives concerning
1. electromagnetic compatibility (2014/30/EU)
2. low voltage (2014/35/EU)
3. restriction of the use of certain hazardous substances in electrical and electronic equipment (2011/65/EU)

CE

5. Putting into operation / Settings radarlamp

Twilight setting (Rotary control dial **C**)
The chosen light response threshold can be infinitely varied from approx. 2 - 2000 Lux.
Symbol "**MOON**" = dusk-to-dawn operation
Symbol "**SUN**" = daylight operation

Time setting (Rotary control dial **B**)
The light can be set for a duration of max. 15 minutes. Any movement detected before this time elapses will re-start the timer. There will be no twilight evaluation (daytime operation) for as long as the motion detector is switched on.
Note: After the light switches OFF, it takes approx. 1 sec. before it is able to start detecting movement again.
Attention: We recommend for fluolamps to use a minimal follow-up time of 5 minutes.

HIGH OFF LOW **Range / Sensitivity** (Switch **D**, Rotary control dial **A**)
Range / sensitivity of the sensor can be reduced over switch **D** and potentiometer **A**.
Switch **D** = "**LOW**": Range can be adjusted between approx. 0.4 - 8 m Ø.
Switch **D** = "**HIGH**": Range can be adjusted between approx. 6 - 16 m Ø.
Switch **D** = "**OFF**": Detector is switched off.
Note: We recommend to adjust the range starting at the maximum and then reducing it, if not time delay may occur while setting the range.
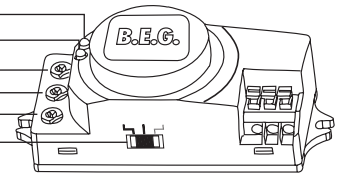
Test setting
In order to adjust the detection range during the day, the twilight value must be set to day ("sun" symbol) and time should be set to the minimum.
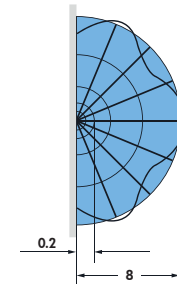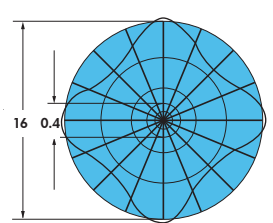
light sensor
working LED
A
B
C
D

6. Typical detection area [in m]
(Mounting height = 2.50 m / Switch C = "HIGH")

Wall mounting   Ceiling mounting

0.2
8   16   0.4

The range depends on the size and speed of the object.

8. Connections

Connect power supply as indicated in the terminal connection:
Phase = L
Protection conductor = ⏚
Neutral conductor = N
Connection of further lamps = L'

9. Fault-finding / Troubleshooting

Light not illuminated
Twilight-value not reconcilable with the given situation
Adjust twilight-value with regulating screw

Light illuminated constantly during darkness
Constant movement activity in the area of coverage
If movements caused by sources of interference (animals, ventilation, etc.), remove from area of coverage
Reduce range/sensivity with "SENS" regulating screw

Light illuminated constantly, also during the day
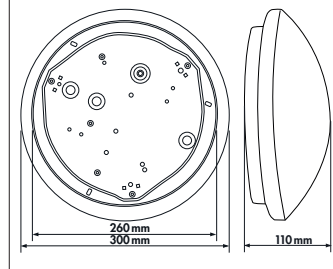*Twilight-value not reconcilable with the given situation*
Adjust twilight-value with regulating screw
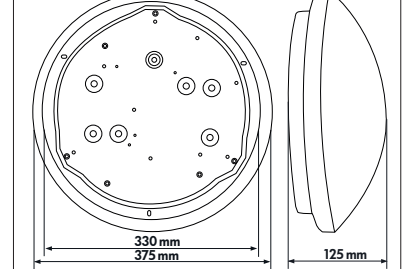Check the installation location (see Section 2)

Light will not switch
Photo electric switch has not been reached.
Check bulb
Check connection
Check the installation location (see Section 2)

10. Dimensions

260 mm
300 mm   110 mm

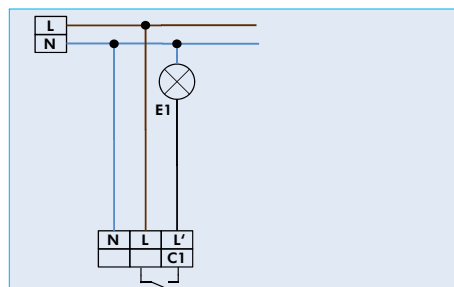**HF-L7, HF-L8, L7, L8**

330 mm
375 mm   125 mm

HF-L11, L11

11. Wiring diagram
Schematic diagram - when connecting the lamp, please respect the labelling of the terminal connections at the lamp!

Standard mode with 1-channel motion detector extern

L
N

E1

N L L'
C1