

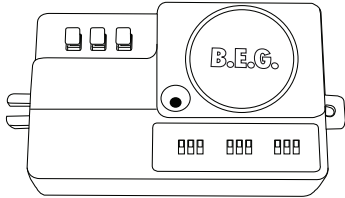
B.E.G. LUXOMAT® RADAR

Installation and Operating Instruction for B.E.G. - RADAR-detector HF-H-MD1-FM Standard

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!

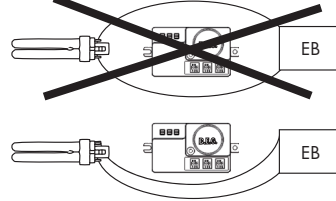


2a. Function

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.

When installing the detector in lamps, observe a distance of at least 80 mm from electronic ballasts.

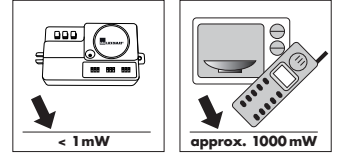
When internally wiring the lamps, ensure that the HF detector is not installed between the individual wires.



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 output of the HF sensor is approx. 10 mW – that's just 1th of the transmission power of a mobile phone or microwave oven.

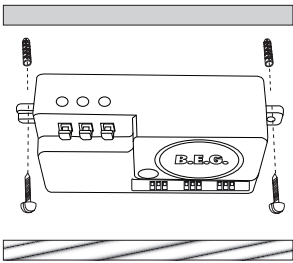


3. Article / Part nr.

Type	Part nr.
HF-H-MD1-FM Standard	94431

4. Installation

For installation of the device, the in-house fuse has to be turned off!



Note: Since movement may also be detected through walls, the detector is ideally suited to flush-mount installation or installation above suspended ceilings.

Example applications: Installation in lamps, flush-mount sockets or behind wall cladding or ceiling lining. If no light falls on the light sensor due to covered installation, the detector operates without light sensitivity.

5. Putting into operation / Settings (Fig. 1)

Twilight setting (DIP switch A)

Adjustments by DIP switch from 2 - 30 Lux.

- I = 2 Lux, Operation in darkness only
- II = 5 Lux, Operation in darkness only
- III = 20 Lux, Twilight operation
- IV = 30 Lux, Twilight operation
- V = Daylight, photo-electric switch off, light on

Time setting (DIP switch B)

The light can be set to stay ON for any period of time between approx. 5 sec. and a maximum of 25 min. 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.

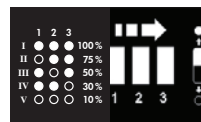
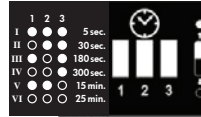
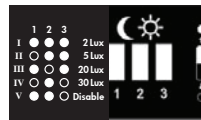
- I = 5 sec.
- II = 30 sec.
- III = 180 sec.
- IV = 300 sec.
- V = 15 min.
- VI = 25 min.

Range / Sensitivity (DIP switch C)

The detection range is directly set at the sensor. The higher the sensitivity, the tighter the detection range.

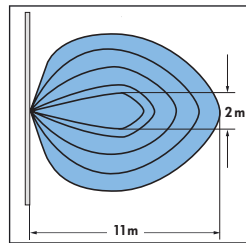
Note: We recommend to adjust the range starting at the maximum and then reducing it, if not time delay may occur while setting the range.

- I = max. range of 100% (8 m)
- II = Range up to 75%
- III = Range up to 50%
- IV = Range up to 30%
- V = Range up to 10%

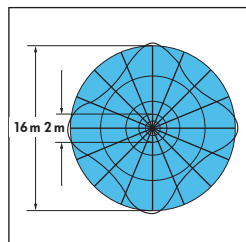


6. Range of Coverage max. (Mounting height = 2.50 m)

Wall mounting



Ceiling mounting



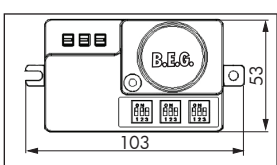
The range depends on the size and speed of the object.

7. Technical data

Power supply: 230 V ~ ±10%
Switching power: 1000 W, μ -Contact
Time settings: approx. 5 sec. - 25 min.
Photo electric switch: 2 - 30 Lux
Range: r = 1 - 5.5 m
Detection area: 360°
Mounting: wall or ceiling installation
HF-transmitter consumption: 5.8 GHz, < 1 mW, ISM band
Power consumption: < 1 W
Protection/class: IP20 (only for inside use) II/CÉ
Dimensions: H 26 x L 103 x W 53 mm
Ambient temperature: -35°C to +70°C

Note: When taking the detector into operation or after each power failure, the motion detector will switch on for a duration of 8 seconds.

CE Declaration of conformity: The product complies with the low voltage recommendation 2006/95/EC and the EMV recommendation 2004/108/EC.



8. Connections (Fig. 2)

Connect power supply as indicated in the terminal connection:

Phase = L
 Connected phase = L'
 Neutral conductor = N

Note: This appliance is made out of synthetic material and of class II, it does not need a protective conductor.

Attention: To ensure a long lifespan, we advise the use of an external relay for lamps with a long starting current.

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, ceiling fans, curtains etc.), remove from area of coverage

Reduce range / sensitivity with regulating screw

Light illuminated constantly, also during the day

Twilight-value not reconcilable with the given situation

Adjust twilight-value with regulating screw

Light will not switch

Mechanical

Check bulb, Check connection

Fig. 2

Connections: Sensor

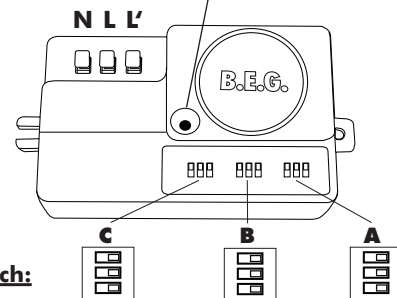


Fig. 1

DIP switch:

r = 1 - 8 m

5 sec. - 25 min.

2 - 30 Lux

Fig. 3

Standard mode with 1-channel motion detector

