

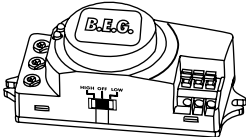
B.E.G. - Radar-Motion Detector

Installation and Operating Instruction for B.E.G. - RADAR-motion detectors HF-MD1

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.

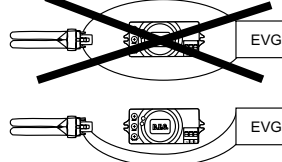
Disconnect supply before installing!



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.

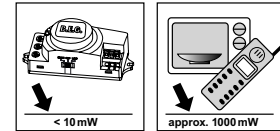
When installing the detector in lamps, observe a distance of at least 80 mm from electronic ballasts. When internally wiring the lamps, ensure that the HF detector is not installed between the individual wires.



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 range as W-LAN. The high-frequency output of the HF sensor is approx. 10mW - that's just 1/10th of the transmission power of a mobile phone or microwave oven.

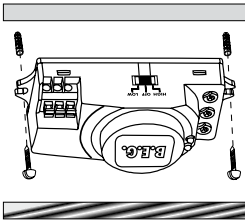


3. Article / Part nr.

Type	Part nr.
HF-MD1	94401
HF-MD1 ESL	94417

4. Installation

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



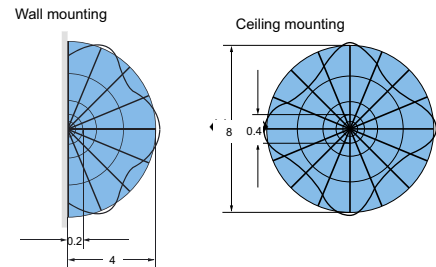
Note: Since movement may also be detected through walls, the detector is ideally suited to flush-mount installation or installation above suspended ceilings.

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 and 2)

- Twilight setting (Rotary control dial A)
The chosen light response threshold can be initially varied from approx. 2-2000Lux
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 5 seconds - 15 minutes or 5 - 15 minutes. Any movement detected before this time elapses will re-start the timer. There will be no twilight evaluation (day - time 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.
- Range/Sensitivity (Switch C, Rotary control dial D)
Range/sensitivity of the sensor can be reduced over switch C and potentiometer D.
Switch C = "LOW": Range can be adjusted between approx. 0.2 - 4m Ø.
Switch C = "HIGH": Range can be adjusted between approx. 3 - 8m Ø.
Switch C = "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 (approx. 5 sec.).

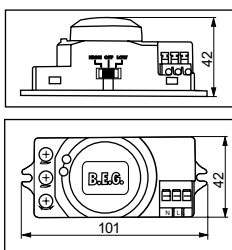
6. Typical detection area [in m] (Mounting height = 2.50 m / Switch C = "HIGH")



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

7. Technical data

Power supply: 230V ~ +6%
Switching power: 1200W
Time settings:
HF-MD1 approx. 5 sec. - 15min.
HF-MD1 ESL approx. 5 - 15min.
Dämmerungswert: 2 - 2000Lux
Range/detection area: Ø = 0,4 - 8m
Detection angle: 360°, resp. 160°
Mounting: wall or ceiling installation
HF-transmitter consumption: 5.8GHz, < 10mW
Power consumption: < 1W
Protection: IP20 (only for inside use)
Class: II/CE
Dimensions: H 42 x W 42 x D 101mm
Ambient temperature: -15°C to +50°C
Note: When taking the detector into operation or after each power failure, the motion detector will switch on for a duration of the set time-value.
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. 3)

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 service life for the motion detector, control lamps with high starting currents via an external relay.

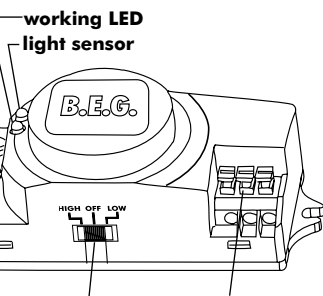
9. Fault-finding / Troubleshooting

- 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 / sensitivity 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
Mechanical
Check bulb
Check connection
Check the installation location (see Section 2)

Fig. 1

Rotary control dial

- D
r = 0,2 - 4m
resp. 3 - 8m
- B
5sec. - 15min.
resp. 5 - 15min.
- A
Lux
2 - 2000



Range switch C: Connections:

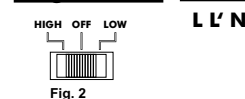
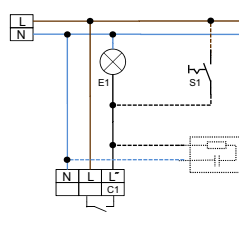


Fig. 3

Standard mode with 1-channel motion detector



MAN 5734 - 231210-4