

# HF MOTION SENSOR

## Mounting

HF Motion Sensor has a three-way connection terminal:

- N neutral conductor / 230 VAC
- L mains lead conductor / 230 VAC
- L' switched lead conductor / 230 VAC

The device must be connected as shown in the following diagram:

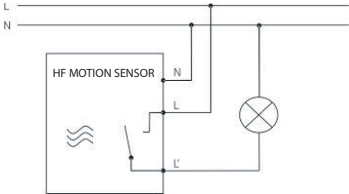


Figure 1: Electrical connection

The module must be fitted flat on the base plate of the lighting fixture, so as to permit the detection field to lie at right angles to the base plate.

Any metal parts in front or to the side of the sensor can change the size and shape of the detection field

The module should be protected from vibrations during operation

The brightness sensor should not be directly covered

HF Motion Sensor can be affixed either with screws or with double-sided adhesive tape

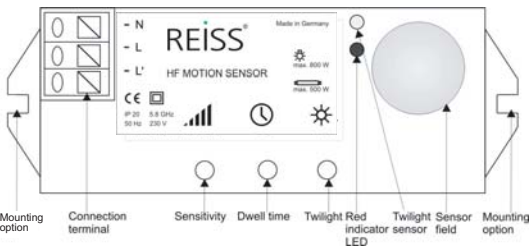


Figure 2: Description of the device

## Functions

### DETECTION

When the device detects movements within the detection field, the electric consumer is automatically switched on for a defined dwell time.

The maximum range (unconcealed mounting) frontally to the wall mounting is up to 10 m.

If mounted concealed in light fittings, etc. the range of the detection field will vary.

The range and sensitivity are adjustable in predefined steps.

### DAYLIGHT SENSOR

HF Motion Sensor is fitted with a daylight sensor, which can be adjusted using the following steps:

“Daylight”: The consumer can be triggered at any time, even in daylight

„300 Lux”: The consumer can be triggered when the ambient is less than approx. 300 Lux.

„150 Lux”: The consumer can be triggered when the ambient is less than approx. 150 Lux.

“Twilight”: The consumer can be triggered only at twilight of less than approx. 50 Lux.

“Darkness”: The consumer can be triggered only in darkness (less than approx. 5 Lux).

“Teach-in”: The sensor switch-on value calibrated for the consumer as the current brightness or less

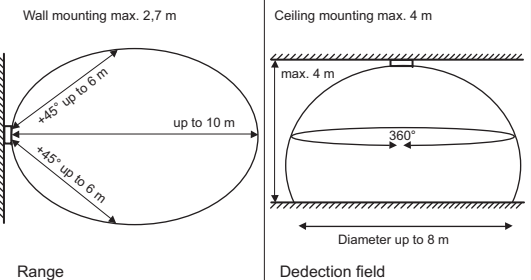
### TEMPERATURE PROTECTION

The electronic components are designed for a maximum continuous operating temperature of 70°C - if this temperature is exceeded, a temperature sensor protects the electronics in two levels:

From approx. 85°C HF Motion Sensor switches to a „protection mode”, i.e. switch-on time is reduced to 10 s. Retriggering cannot occur until after a pause of 10 s has elapsed. The red LED flashes with a frequency of approx 1 Hz.

From approx. 95°C the consumer is switched off completely. The red LED flashes with a frequency of approx. 2Hz

Only the consumer is switched off, the electronics continues to operate. After it has cooled down, HF Motion Sensor reverts back to normal mode.



## Settings

HF Motion Sensor is fitted with three buttons to adjust the following functions.

1. Sensitivity or Range
2. Dwell time
3. Twilight

### FACTORY SETTINGS

HF Motion Sensor is delivered with the following factory settings:

- Sensitivity / Range 75 %
- Dwell time 10 s
- Twilight level „Daylight”

All factory settings are retained even after loss of power.

By simultaneous pressing of „Sensitivity” and „Dwell time” for 5 s, current settings can be reset to the factory settings.

### INDIVIDUAL SETTINGS

Pressing a button advances the respective function to the next stop. (LED flashes for acknowledgement)

After the highest step, the setting recommences with the step „1”.

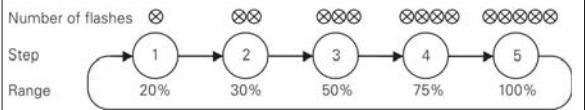


Figure 3: Setting of Sensitivity / Range (Button 1)

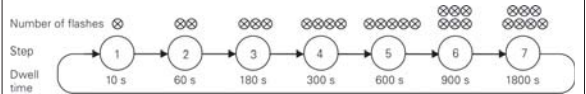


Figure 4: Setting of Dwell time (Button 2)

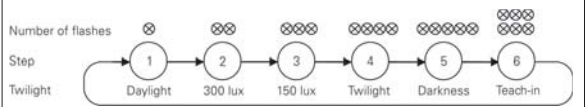


Figure 5: Setting of Twilight (Button 3)

The „Teach-in mode” is activated by pressing button 3 for longer than 3 s. It is indicated visually by continuous slow flashing. After two minutes the current twilight value is measured for the period of a minute. The LED flashes more quickly. On completion of this process the currently measured brightness is saved as the twilight threshold setting in HF Motion Sensor and is available as the twilight value for step 6.

## Technical data

<b>Output:</b>	
Operating voltage	230 V +/- 10%, 50 Hz
Switching capacity	800 W (light bulbs), 500 W (fluorescent lamps)
Stand by -power	< 1 W
Interfaces	3-p in plug-in connection block (N, L, L') for 1.5 mm² conductors
<b>Sensor:</b>	
Sensor principle	HF-motion detector
Frequency range	5.8 GHz +/- 75 MHz
Radiated power	< 5 mW
<b>Detection field:</b>	
Range	Up to 10 m (at 100% sensitivity, frontal, sensor uncovered)
Detection angle	A pprox. 120° (depending on the cover)
Detection triggering speed	0.3 ... 3 m/s (1...10 km/h)
<b>Adjustable functions:</b>	
Sensitivity steps	20 / 30 / 50 / 75 / 100%
Dwell time steps	10 / 60 / 180 / 300 / 600 / 900 / 1800 s
Brightness steps	Daylight / 300 Lux / 150 Lux / twilight / darkness / teach -in
<b>Operating conditions:</b>	
Mounting height	Max. 2.70 (wall mounting), max. 4.00 m (ceiling mounting)
Operating temperature	-20 ... +70°C