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DRM-02

MICROWAVE MOTION DETECTOR (with presence sensor function)



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F&F products are covered by an 24 months warranty from date of purchase

Purpose

The motion detector is used for automatic, temporary lighting attach if a person or another object appears in detector's range in places such as hallways, courtyards, approaches and driveways, garages, etc.

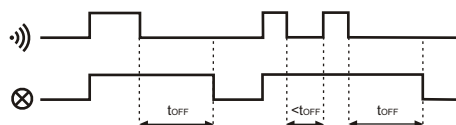
DRM-01 can be used as a presence sensor.

Microwave sensor allows for motion detection by wooden boards, plasterboard panels, glass and plastics.

Functioning

DRM sensor emits and bounces high-frequency 5.8GHz electromagnetic waves. The sensor detects changes in the reflected waves caused by movement of the object in the area of detection. The sensor detects movement of an object to and from the sensor. Movement in the range of detection will automatically attach the lighting. Since the moment of lighting is attached, continuous movement in detection area causes permanently lighting attach. Next move in detection area and its loss during the time countdown will start the time of sustain from the beginning. The way of functioning allows to use of DRM as a presence sensor.

Diagram



Technical data

supply	180÷253VAC
current load	<5A
frequency of the microwaves radiation	5,8GHz
power radiation	<10mW
detection range	360°
detection ray - adjustable (for h=2,5m)	1÷10m
activation threshold - adjustable	45÷2000Lx
receiver's activation time - adjustable	5sec÷12min
activation delay	1sec
power consumption	0,9W
connection	screw terminals 1mm ²
working temperature	-25÷50°C
dimensions	Ø103 h=42mm
fixed	two screws to the substrate

Mounting

1. Unscrew the outer shield of the detector. Unscrew the two screws and remove the sensor cover. Pict.1
2. Disconnect the power.
3. Wires provide throughout eyelet rubber in mounting base of the sensor.
4. Basis with two screws attached to the substrate. Pict.2
5. Connect according to wiring diagram.

ATTENTION! After supply the power DRM is inactive for 10sec.

6. Set area of detection, set the sensitivity of the light dependant

After this time the lights will be turned off automatically. The motion sensor is equipped with Light dependant relay able to attaching lighting during the day. Detection status and stand-by to attach lights are activated only after dusk. Sensor activation time might be adjust by the user. In addition, there is a possibility of adjustment of the detection area in range 3-10m (for h = 2.5 m) and the receiver actuation time adjustment to 5sec-12min. The inclusion of the receiver is signaled by a shining green LED. Sensor can work indoors. The sensor allows for motion detection by wooden boards, plasterboard panels, glass and plastics. Temperature changes do not affect on motion detection.

ATTENTION!

The power of microwave radiation is relatively low and is completely safe for humans and animals. Its value is less than 10mW. By comparison, microwaves and cell phones radiate about 1000mW of power (100 times harder).

Settings

Detection range



Radius of the sensor detection can be adjusted in the range from 2m to 10m (the parameters for the sensor mounted at a height of 2.5 m). Rotate the knob to the right [max] increases the area of a field of detection, rotate left [min] reduces the area of the field detection.

Actuation time



Receiver's actuation time can be adjusted between 8sec for 12min. Rotate knob to the right [max] increases ON time, rotate left [min] reduces the attached time. After a set time receiver is turned off automatically.

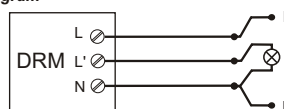
Sensitivity of light dependant relay



Sensitivity of light dependant relay can be adjusted in range from 2Lx to 2000Lx. Rotate the knob toward to the "moon" sign - attached later, rotation to the "sun" sign - attached earlier.

In order to sensor was active throughout the day, set the knob maximally toward the "sun".

Wiring diagram



Device assembly

