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DRO-11 v.2

Microwave
presence detector



Do not dispose of this device in the trash along with other waste!

According to the Law on Waste, electro coming from households free of charge and can give any amount to up to that end point of collection, as well as to store the occasion of the purchase of new equipment (in accordance with the principle of old-for-new, regardless of brand). Electro thrown in the trash or abandoned in nature, pose a threat to the environment and human health.



Purpose

The DRO-11 v.2 microwave presence detector is used to automatically switch on the lighting when movement is detected and to keep the lights on as long as presence is detected in the sensor zone. Integration with the light sensor prevents the light from being switched on during the day.

Functioning

The DRO-11 v.2 presence sensor works on the basis of a radar operating at very high frequency (24 GHz). It allows precise detection of micro movements such as chest movement, eye blink or other minimal body movements. Once movement is detected, the light remains on for the duration of the presence detection. When the sensor stops detecting presence, the light is switched off after a time set using the TIME knob.

The DRO-11 v.2 is also equipped with a brightness sensor to prevent the light from switching on during the day or when the brightness level is too high. The operating level of the brightness sensor can be set using the LUX knob. The sensor's detection

zone covers a full 360° around the sensor axis. Within a radius of 1.5÷3 metres from the axis, the sensor functions as a presence detector, within a radius of 2 ÷4 metres it can be treated as a classic motion sensor.

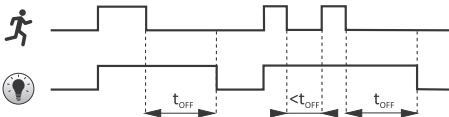
The sensitivity and range of the detection zone can be set using the SENS knob.

The sensor's accuracy is not dependent on the ambient temperature. The sensor is designed for indoor use.

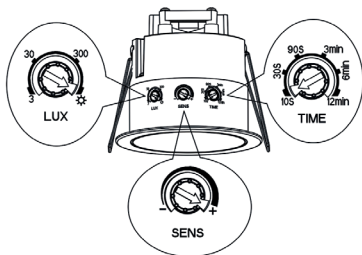


The power of microwave radiation is relatively low and completely safe for humans and animals. Its value is below 10 mW. In comparison, a microwave oven and a mobile phone radiate with a power of approx. 1000 mW.

Diagram



Settings



Twilight switch sensitivity (LUX)



The sensitivity of the twilight automatic control can be adjusted in the range of 3÷2000 lx. Turning the knob towards the value 3 lx means, that the light will be switched on later (when it is darker in the room). Turning towards higher values means, that the light will switch on earlier (when it is still light in the room).

Detection area (SENS)



The detection radius of the sensor can be adjusted 1.5÷3 m (presence)/2÷4 m (movement). Parameters given for a sensor mounted at a height of 2.5 m.

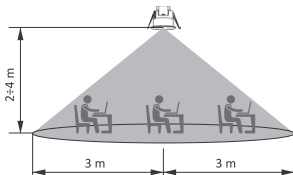
Turning the knob clockwise [max] increases the detection area, turning it counterclockwise [min] decreases the detection area.

Switch-on hold time (TIME)



The switch-on hold time (from the moment the sensor no longer detects presence until the switch-off of the receiver) can be adjusted between 10 s and 12 min. Turning the rotary knob clockwise [max] extends the holding time, turning it anticlockwise [min] shortens the holding time.

Detection area (ceiling mounting)



Mounting

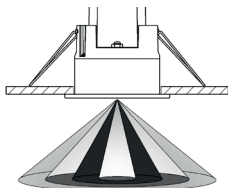
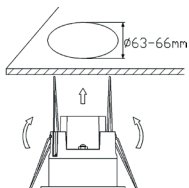
1. Disconnect power supply.
2. Make a mounting hole in the soffit.
3. Connect the wires according to the diagram.
4. Set the sensitivity of the twilight automatic control unit and the switching time.
5. Swing the fixing springs upwards - vertically.
6. Insert the body into the mounting hole.
7. Connect power supply.



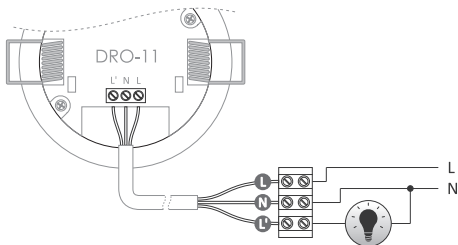
No obstacles should be placed in front of the sensor and the sensor should not be mounted near metal or glass objects. **Failure to take these considerations into account may affect the sensor's accuracy.**



Switching on the sensor's power supply may cause the light to switch on automatically for approximately 10 seconds at a time.



Wiring diagram



Technical data

power supply	110÷240 V AC
maximum load current (AC-1)	16 A*
frequency of microwaves radiation	24 GHz
radiation power	10 mW
presence detection radius (adjustable)	1.5÷3 m
motion detection radius (adjustable)	2÷4 m
speed of detected objects	0.6÷1.5 m/s
detection field	360°
activation threshold (adjustable)	3÷2000 lx
switching time (adjustable)	10 s (±3 s)÷12 min. (±1 min.)
activation delay	1 s
power consumption	0.9 W
terminal	2.5 mm ² screw terminals
tightening torque	0.4 Nm
working temperature	-25÷50°C
dimensions	ø76, H= 67 mm
mounting	surface
mounting hole	ø63÷66 mm
mounting height	2÷4 m
ingress protection	IP54

* Load of a resistive nature [AC-1].

For loads of a different nature (e.g. LED lighting), the maximum load current may be significantly lower.

More information:

www.fif.com.pl/en/content/24-wskazowki



Warranty

The F&F products are covered by a warranty of the 24 months from the date of purchase. Effective only with proof of purchase. Contact your dealer or directly with us.

CE declaration

F&F Filipowski L.P. declares that the device is in conformity with the essential requirements of The Directive 2014/53/EU of the European Parliament and of the Council of 16 April 2014 on the harmonisation of the laws of the Member States relating to the making available on the market of radio equipment and repealing Directive 1999/5/EC.

The CE Declaration of Conformity, along with the references to the standards in relation to which conformity is declared, can be found at www.fif.com.pl on the product page.

Compliance with standards

PN-EN 62368-1:2015-03

PN-EN 62479:2011

PN-ETSI EN 301 489-1 V2.1.1:2017-08

PN-ETSI EN 300 489-3 V1.6.1:2014-03

PN-ETSI EN 300 440-2 v.2.1.1: 2017-10