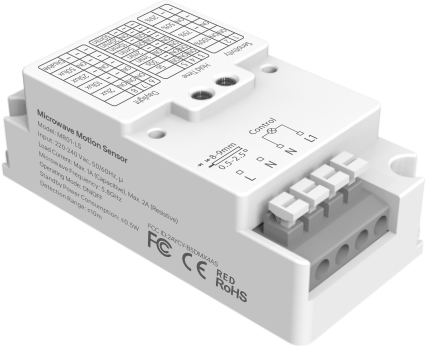
MR01-LS

Microwave Motion Sensor

(ON/OFF Control)



Manual

ON/OFF

Detect Motions

Sense Daylight & LED Light

Daylight Threshold

Product Introduction

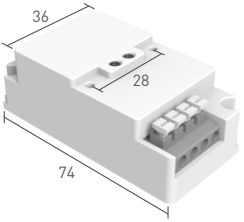
- Microwave motion sensor is combined with microwave detection and light sensing function.
- It can sense daylight, LED light source and adopts a photosensor that removes IR interference.
- With high sensitivity and anti-interference capacity, sensors are widely used in the motion activated light control.
- It adopts zero-crossing detection technology. Through software calculation and control, current flowing through the relay contacts is close to zero at the moment when the relay is turned on or off, effectively improving the lifetime of a relay.
- This compact motion sensor supports surface mounting and recessed mounting.

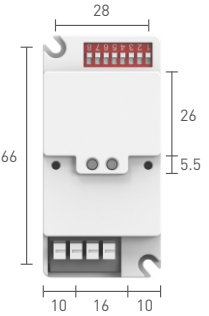
Technical Specs

Input	Working voltage	220-240Vac, 50/60Hz μ
Output	Control mode	ON/OFF
	Stand-by power consumption	≤0.5W
	Load Current	≤1A(Capacitive load), ≤2A(Resistive load)
Parameters	Microwave frequency	5.8GHz
	Detection sensitivity	100%, 75%, 50%, 25%
	Hold time	5s, 30s, 1min, 2min, 5min, 10min, 20min, 30min
	Luminance level	2lux, 10lux, 25lux, 50lux, Disable
	Detection range	≤10m
	Mounting height	≤6m
Environment	Working temperature	-20°C~60°C
	Storage temperature/ humidity	-40°C~80°C, 10~95%RH
Others	Terminal specs	Wire diameter: 0.5-2.5mm², Strip length: 8-9mm
	IP rating	IP20
	Installing methods	Surface mounting or recessed mounting
	Net weight	41g±10g
	Dimensions	74×36×25mm (L×W×H)
	Package size	78×40×28mm (L×W×H)

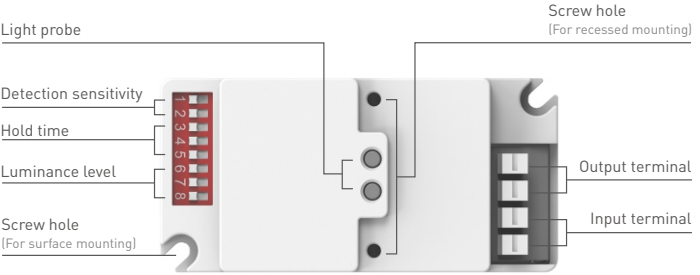
Product Size

Unit: mm

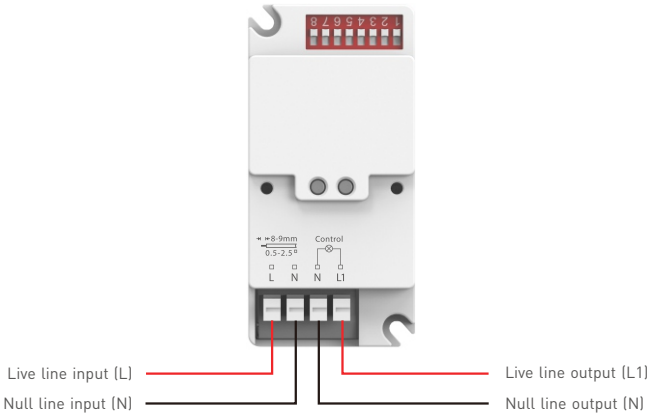




Product Structure



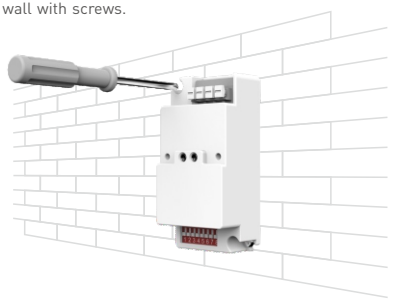
Wire Connection



Surface Mounting

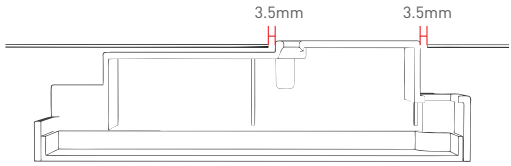
⚠ The product should be installed by a qualified electrician in accordance with electrical codes and product requirements.

Before you install the product and connect wires, please be sure to disconnect the power. Then secure the sensor to the wall with screws.

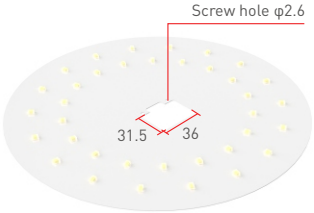


Recessed Mounting

Note: Microwaves cannot pass through metal, so please make sure there is no metal object above the sensor. The distance between the microwave antenna and the metal object should be at least 3.5mm. It is not allowed to place the antenna and the metal object on the same horizontal level, as shown in the figure below.



1. Cut a 36x31.5mm hole on the metal light panel to insert the sensor into it, and two screw holes need to be cut as well.



2. Insert the sensor into the metal light panel (the sensor should be higher than the metal light panel), and then secure the sensor with screws.

Dip Switch Settings

Switch 1-2: Detection sensibility. Based on the positions of the switches, the sensor has different detection sensibility so as to detect motions in different detection range.

Switch 3-5: Hold time. It refers to the time period the lamp remains 100% illuminated after no motion is detected.

Switch 6-8: Luminance level. The sensor can be set up to work based on the ambient light level. When the ambient light is 2lux, 10lux or even reaches 25lux、50lux, the sensor will trigger the light fixture to turn on. Switching to "Disable" mode will disable the light sensing feature, which means the light fixture will be triggered to turn on once a motion is detected regardless of the ambient light level.

Detection sensibility

1	2	
●	●	100%
●	○	75%
○	●	50%
○	○	25%

Hold time

3	4	5	
●	●	●	5s
●	●	○	30s
●	○	●	1min
●	○	○	2min
○	●	●	5min
○	●	○	10min
○	○	●	20min
○	○	○	30min

Luminance level

6	7	8	
●	●	●	2lux
●	○	○	10lux
○	●	○	25lux
○	○	●	50lux
○	○	○	Disable

Note:

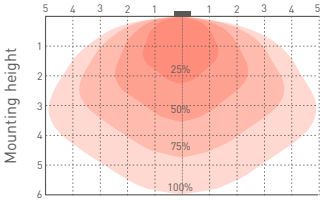
1. The higher the detection sensitivity you set, the farther the range the sensor can detect. The wide range of detection sensitivity can be applied in cases where microwaves pass through walls to mistrigger the light fixture to turn on, so detection sensitivity needs to be reduced to narrow the detection area.

2. There are many factors that may affect the detection range of the sensor, such as mounting height, the height and speed of moving people, the position of people and the sensor, the size of the environment for installation, and obstructive and reflecting objects.

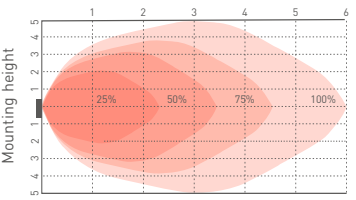
3. Please do not place dip switches in positions that are not shown in the figure above. Otherwise, the function may be affected.

Coverage Pattern

Ceiling mounting pattern



Wall mounting pattern



Product Functions

Detect minor movements of humans during their normal daily lives and at the moments when they are not in the sleeping state.

Leaning forward

Bending backward

Lowering the head

Raising the hand

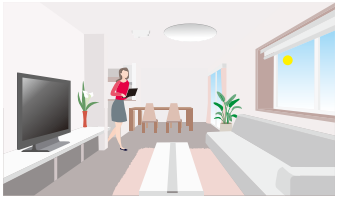
Turning right

Turning left

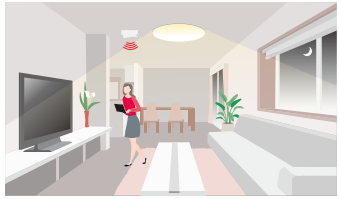
Looking right

Looking left

ON/OFF Control



❶ With sufficient ambient light (light sensing feature enabled), the light fixture won't switch on even when a motion is detected.



❷ With insufficient ambient light, the light fixture will switch on when a motion is detected

❸ When the sensor does not detect a motion, time will start counting down according to the pre-defined hold time. After the hold time ends, the light fixture will automatically switch off. If a motion is detected during the hold time, time will start counting down again.

Attentions

- The sensor must be debugged and installed by qualified professionals.
- The sensor must be fixed on the ceiling if you test them, which cannot be placed on the table or on the floor.
- It is better to connect a lamp to the sensor before you test it, so that you can test the sensor work well or not by testing whether the lamp remains on.
- To avoid blocking microwave signals, please place the sensor away from metal panels, concrete walls and beams when you install.
- To avoid mistriggering light fixtures, please place the sensor away from glass, plasterboard and other objects that are easily penetrated by microwaves when you install.
- To avoid wireless signal interference, please place the sensor away from wireless devices such as inter-changers and routers. The distance between the sensor and wireless devices should be at least 2m.

- If a pet passes through the detection area, light fixtures may be triggered.
- When several sensors are installed side by side, please be sure the distance between sensors is no less than 1m, so that each sensor functions individually and is not be affected other sensors.

* This manual is subject to change without prior notice. If there is inconsistency between the manual and the actual product, the actual product shall prevail. If you have any question, please feel free to contact our authorized distributor.

Warranty Agreement

- Warranty periods from the date of delivery: 5 years.
- Free repair or replacement services for quality problems are provided within warranty periods.

Warranty exclusions below:
Following conditions are not within the guarantee range of free repairing or replacement services:

- Beyond warranty periods.
- Any artificial damage caused by high voltage, overload, or improper operations.
- Products with severe physical damage.
- Damage caused by natural disasters and force majeure.
- Warranty labels and barcodes have been damaged.
- No any contract signed by our company.

1. Repair or replacement provided is the only remedy for customers. Our company is not liable for any incidental or consequential damage unless it is within the law.
2. Our company has the right to amend or adjust the terms of this warranty, and release in written form shall prevail.