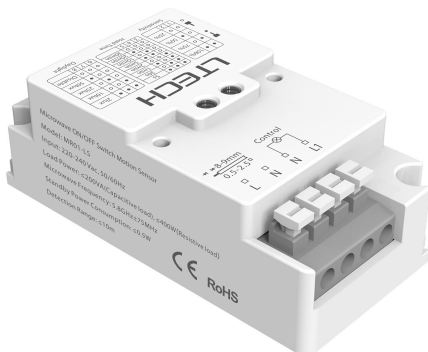


LTECH

MR01-LS

Microwave Motion Sensor

(ON/OFF Control)



Manual



ON/OFF



Detect Motions



Sense Daylight & LED Light



Daylight Threshold

Product Introduction

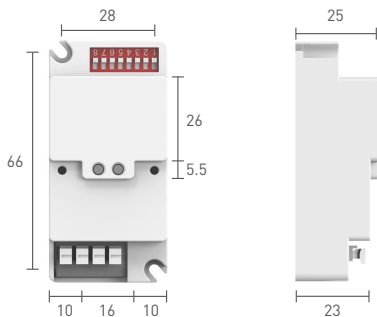
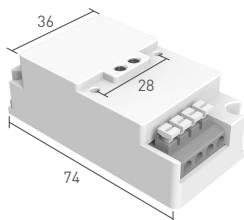
- Microwave motion sensor is combined with microwave detection and light sensing function.
- It can sense daylight, LED light source and adopts a photosensor that removes IR interference.
- With high sensitivity and anti-interference capacity, sensors are widely used in the motion activated light control.
- 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

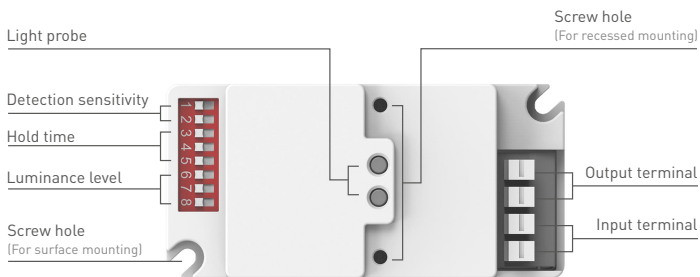
Input	Working voltage	220-240Vac, 50/60Hz
Output	Control mode	ON/OFF
	Stand-by power consumption	≤0.5W
	Load power	≤200VA(Capacitive load), ≤400W(Resistive load)
Parameters	Microwave frequency	5.8GHz±75MHz
	Detection sensitivity	100%, 75%, 50%, 25%
	Hold time	5s, 30s, 1min, 2min, 5min, 10min, 20min, 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: 0.5-2.5mm ² , 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

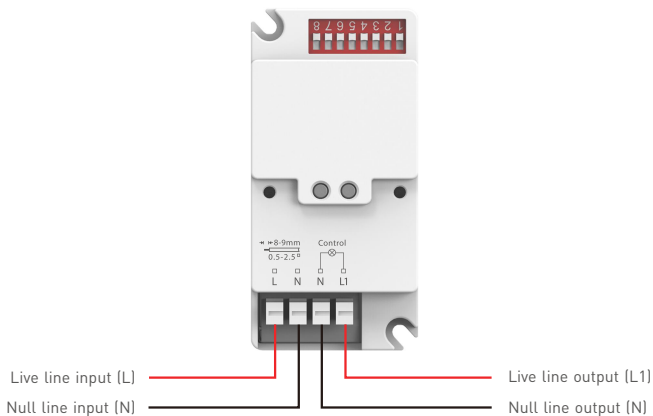
Unit: mm



Product Structure



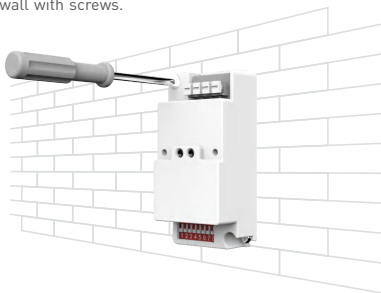
Wire Connection



Surface Mounting

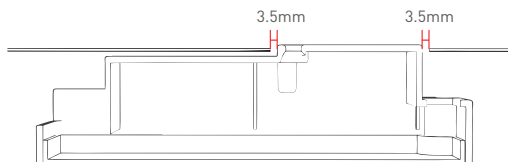
⚠ The product should be installed by a qualified electrician in accordance with electrical codes and product requirements.

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

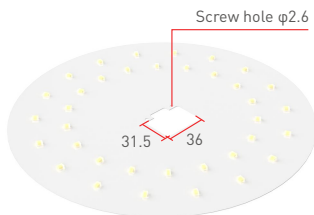


Recessed Mounting

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.

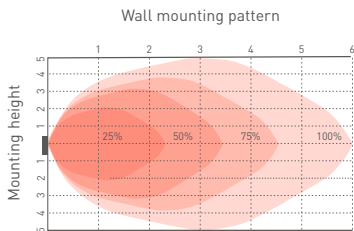
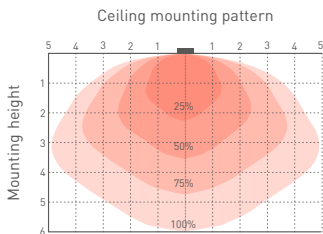
Switch 6-8: Luminance level. The sensor can be set up to work based on the ambient light level. When the ambient light is 2lux, 10lux or even reaches 25lux, 50lux, the sensor will trigger the light fixture to turn on. Switching to "Disable" mode will disable the light sensing feature, which means the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

Detection sensibility			Hold time				Luminance level				
	1	2		3	4	5		6	7	8	
	●	●	100%	●	●	●	5s	●	●	●	2lux
	●	○	75%	●	○	○	30s	●	○	○	10lux
	○	●	50%	●	○	○	1min	○	●	○	25lux
	○	○	25%	○	●	●	5min	○	○	●	50lux
	○	○		○	○	○	10min	○	○	○	Disable
	○	○		○	○	○	20min	○	○	○	
	○	○		○	○	○	30min	○	○	○	

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 mis-trigger 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



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

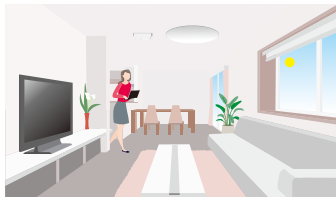


Looking right

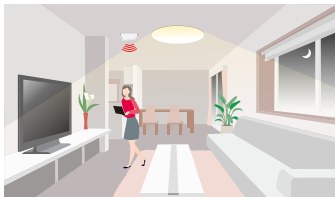


Looking left

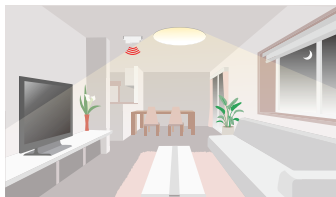
ON/OFF Control



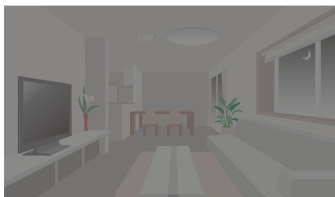
- ❶ With sufficient ambient light (light sensing feature enabled), the light fixture won't switch on even when a motion is detected.



- 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:

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

LTECH

MR01-LS

微波开关感应器



产品说明书



通断功能



移动探测



双鉴感光



光感阈值

产品介绍

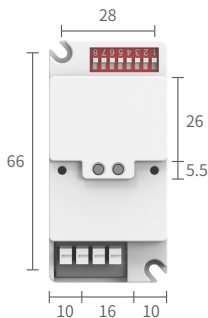
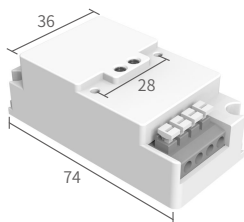
- MR01-LS 是一款具备微波和光感功能相结合的微波感应器。
- 采用双光感检测技术和滤除红外干扰的光敏元件，智能控灯、高灵敏度、高抗干扰性，可广泛应用于各类灯具的自动感应控制。
- 采用过零点检测技术，通过软件计算控制，使得继电器在开合瞬间，通过触点的电流几乎为0，有效提高继电器的使用寿命。
- 超小尺寸支持外置和内置两种安装方式，轻松实现智能灯控。

技术参数

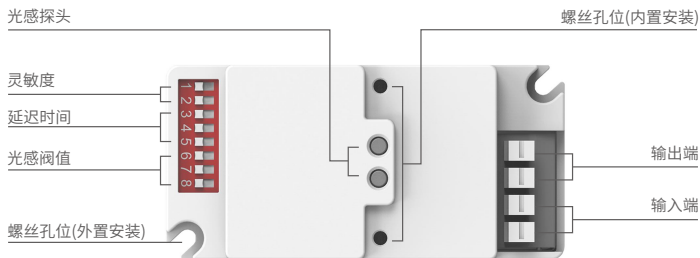
输入	工作电压	220-240Vac, 50/60Hz
输出	工作模式	通断
	待机功耗	≤0.5W
	负载功率	≤200VA(容性负载), ≤400W(阻性负载)
参数	微波频率	5.8GHz ± 75MHz
	灵敏度	100%、75%、50%、25%
	延迟时间	5s、30s、1min、2min、5min、10min、20min、30min
	光感阈值	2lux、10lux、25lux、50lux、Disable
	探测范围	≤10m
	安装高度	≤6m
环境	工作温度	-20°C~60°C
	储存温度/湿度	-40°C~80°C, 10~95%RH
其他	端子规格	线径:0.5-2.5mm ² , 剥线长度:8-9mm
	IP等级	IP20
	安装方式	外置和内置安装
	产品重量	41g±10g
	产品尺寸	74x36x25mm (LxWxH)
	包装尺寸	78x40x28mm (LxWxH)

产品尺寸

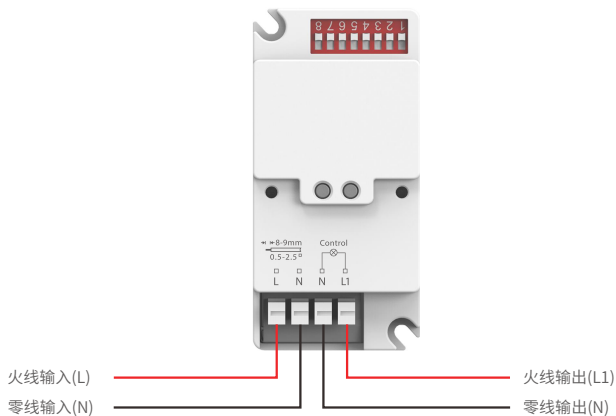
单位: mm



产品结构



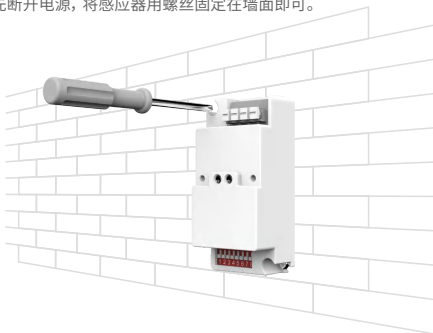
产品接线



外置式安装

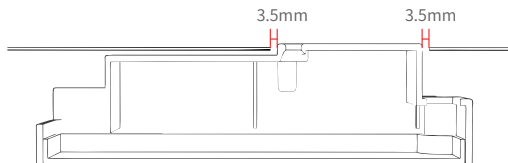
△ 本产品需由专业电工按照电工规范和产品说明要求进行安装。

在安装、接线时请先断开电源，将感应器用螺丝固定在墙面即可。

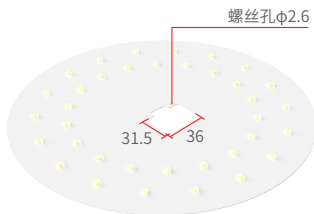


内置式安装

注意：微波不能穿过金属，确保感应器上方没有金属；微波天线周围距离金属至少3.5mm，不允许将天线和金属放在同一水平面上，如下图所示。



1. 在金属面板开孔36x31.5mm便于感应器嵌入，螺丝孔处同样需开孔。



2. 将感应器嵌入金属面板中(感应器应高于金属面板)，用螺丝固定即可。



拨码开关定义

1-2位：灵敏度。通过不同的拨码组合，对感应范围大小做出合适选择。

3-5位：延迟时间。在没有检测到运动后，灯具保持100%全亮的时间。

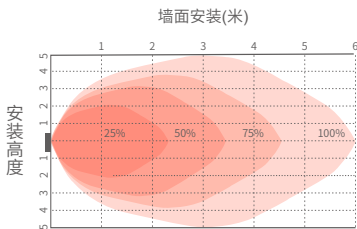
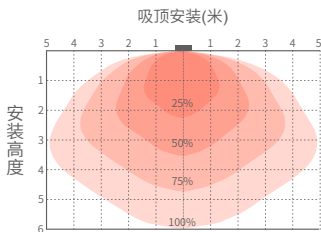
6-8位：光感阈值。可选择让感应器在什么条件下工作。“2lux、10lux”仅在黑暗时工作，“25lux、50lux”仅在微暗时工作；“Disable”关闭光感功能，无论环境亮度是否充足，只要检测到物体运动，传感器都会打开。

灵敏度			延迟时间				光感阈值			
1	2		3	4	5		6	7	8	
●	●	100%	●	●	●	5s	●	●	●	2lux
●	○	75%	●	●	○	30s	●	○	○	10lux
○	●	50%	●	○	○	1min	○	●	○	25lux
○	○	25%	○	●	●	2min	○	○	●	50lux
			○	●	○	5min	○	○	○	Disable
			○	○	●	10min				
			○	○	○	20min				
			○	○	○	30min				

注意：

1. 探测灵敏度越高探测距离越远。如遇微波穿墙或误触发需降低灵敏度使用。
2. 感应器的探测距离与安装高度、人员身高及移动速度、人员与感应器的相对位置、安装环境大小、是否有遮挡及反射物等因素相关。
3. 请勿将各参数拨码调至上图不涉及的档位，否则会影响使用。

感应范围图



产品功能

人们在正常工作生活中身体轻微的运动感应，在非睡眠条件下实现近似人体运动检测。



前倾



后仰



低头



抬手



右转



左转

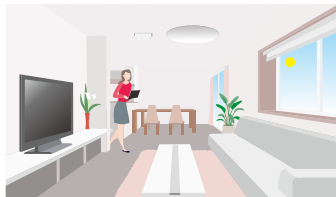


右看

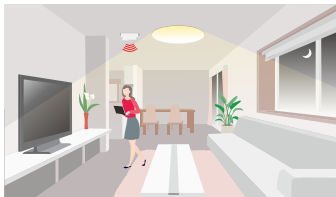


左看

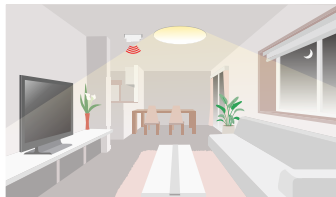
开/关功能



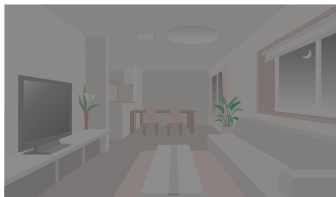
- ① 在环境光照充足的情况下(光感功能有效时)，即使有运动信号，灯光也不会打开。



- ② 在环境光照不足的情况下，当检测到有运动时，感应器会自动打开灯光。



- ③ 当感应器没有检测到运动后，根据设置的延迟时间开始计时，延迟时间结束后自动关灯。如延迟时间内再次检测到运动，则重新计时。



注意事项

- 请由具有专业资格的人员进行调试安装；
- 感应器测试时需固定在天花板上，不可放置在桌上或地上进行测试；
- 感应器测试时最好接入灯具，通过灯具是否常亮来判断感应器是否工作；
- 安装时远离金属板、混凝土墙，横梁，以避免遮挡微波信号；
- 安装时应远离玻璃、石膏板等易被微波穿透物质，以免误触发；
- 感应器应远离交换机、路由器等无线设备，安装间隔至少2米，避免无线电干扰；
- 如监测区域内有宠物经过，可能触发感应；
- 在多个感应器并排安装的情况下，应相距1米以上，保证感应器相互独立，不受影响。

* 本说明书内容如有变更，恕不另行通知。若内容与您使用的功能有所不同，则以实物为准。如有疑问，欢迎向我司授权的经销商咨询。

保修条例

- 自出厂之日起保修服务期为5年。
- 在保修服务期内出现产品质量问题雷特将给予免费修理或更换服务。

非保修条例:

属下列情况不在免费保修或更换服务范围之内:

- 已经超出保修服务期;
- 过高电压、超负载、操作不当等人为造成的损坏;
- 产品外形严重损坏或变形;
- 自然灾害以及人力不可抗拒原因造成的损坏;
- 产品保修标签和产品唯一条形码损坏;
- 无雷特签订的合同或发票凭证。

1. 修理或更换是雷特对客户的一补救措施。雷特不承担任何附带引起的损害赔偿責任, 除非在适用法律范围之内。
2. 雷特享有修正或调整本保修条款的权利, 并以书面形式发布为准。