

Microwave Motion Sensor

MS04-LS



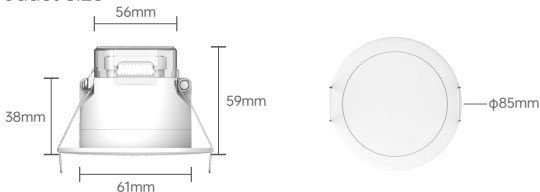
Manual

CE FCC RoHS

Product Features

- 24GHz advanced detection technology can detect human body movement and micro-movement states in the detection area, and accurately output occupied/unoccupied signals;
- Supports photosensitive threshold switching;
- Supports remote setting of sensitivity, delay time and photosensitive threshold;
- Supports relay power on/off, meeting application requirements in different scenarios such as corridors, stairwells and offices;
- Adopts zero-crossing detection technology and software-calculated control, ensuring the current passing through the contacts is almost zero at the moment of relay opening and closing, effectively extending the service life of the relay;
- Ceiling-mounted structural design, suitable for multi-scenario applications such as offices, shopping malls and homes, enabling easy intelligent lighting control;
- Induction parameters can be set via multiple methods including DIP switches and infrared remote controls;
- Ultra-low RF power output, harmless to human health;
- Unaffected by environmental factors such as temperature, humidity, noise, air flow, dust and light.

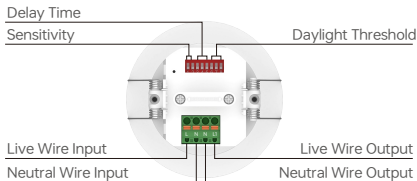
Product Size



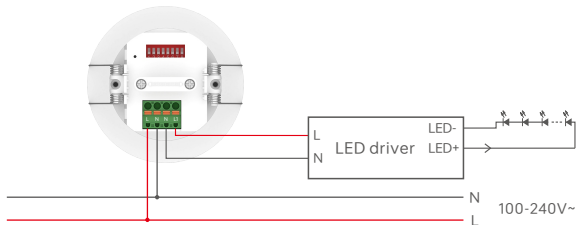
Technical Specs

Input	Input Voltage	100-240V~, 50/60Hz
	Inrush Current	Cold Start 15A (tested at 50% Ipeak, twidth=188μs) / 230V~
Output	Operating Mode	ON/OFF
	Load Type	Capacitive or Resistive
	Load Current	Max.4A(Capacitive) , Max.8A(Resistive)
	Relay Surge Current Withstand Capacity	Max.65A@2ms
	Transmit Power	0.3mW
	Standby Power Consumption	≤1.5W
Parameters	Radar Frequency	24GHz
	Sensitivity	100%、75%、50%、25%
	Delay Time	15s、30s、1min、2min、5min、10min、20min、30min (15s for testing only)
	Daylight Threshold	2lux、10lux、25lux、50lux、Disable
Environment	Mounting Height	2.5-4m
	Operating Temperature	-20℃~55℃
	Storage Temperature/Humidity	-40℃~80℃, 10-95%RH
Others	Terminal Specification	Wire diameter: 0.5-2.5mm ² /22-14AWG, Strip length: 5mm-6mm
	IP Rating	IP20
	Mounting Method	Ceiling-mounted installation
	Cutout Dimension	φ65mm-φ70mm (Recommend φ65mm)
	Product Weight	97g
	Product Dimension	Φ85×59mm
	Package Dimension	93×93×80mm(LxWxH)

Product Structure

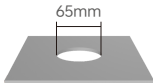


Wiring Diagram



Installation Steps

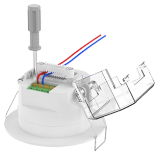
1. Drill a 65mm hole at the position where the product is to be installed.



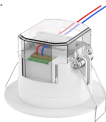
2. Gently pry open the housing with a small straight screwdriver.



3. Connect the power cord.



4. Press and hold the terminal block, fasten the screws, then cover the side panel.



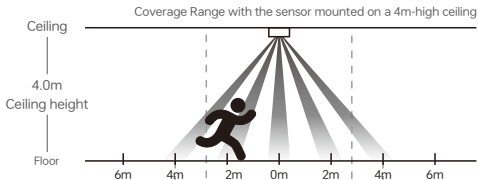
5. Bend the spring clip upward and push it into the pre-drilled hole.



6. Ensure the sensing surface is flat after installation.

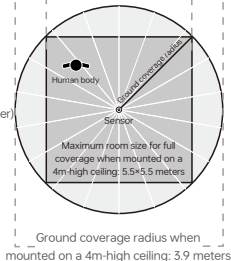


Mounting Height vs. Sensing Range (Motion Detection)



Sensor Coverage Diagram (mounted at the center)

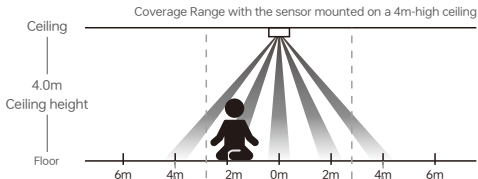
Mounting Height	Room Coverage Dimension	Ground Coverage Radius
2.5m	4.2×4.2m	3.4m
3.0m	5.2×5.2m	4.3m
4.0m	5.5×5.5m	3.9m



Note: Multiple sensors can be added to expand the coverage. The maximum number of sensors allowed in the system depends on the specifications of the receiving device.

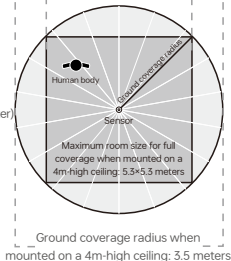
* Data is derived from laboratory tests. Actual values may vary depending on the usage scenario; please refer to real-world performance.

Mounting Height Sensing Range (Motion Detection)



Sensor Coverage Diagram (mounted at the center)

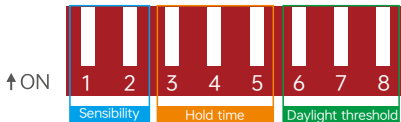
Mounting Height	Room Coverage Dimension	Ground Coverage Radius
2.5m	3.9×3.9m	3.0m
3.0m	4.8×4.8m	3.8m
4.0m	5.3×5.3m	3.5m



Note: Multiple sensors can be added to expand the coverage. The maximum number of sensors allowed in the system depends on the specifications of the receiving device.

* Data is derived from laboratory tests. Actual values may vary depending on the usage scenario; please refer to real-world performance.

Definition of DIP Switches



Bits 1-2: Sensitivity. Select the appropriate sensing range via different DIP switch combinations.

Bits 3-5: Delay Time. The duration for which the luminaire remains at 100% full brightness after no motion is detected.

Bits 6-8: Photosensitive Threshold. Select the operating conditions for the sensor.
 "2lux, 10lux": The sensor operates only in darkness; "50lux": The sensor operates only in dim light; "Disable": The photosensitive function is turned off, and the sensor will activate whenever motion is detected.

Sensitivity

1	2	
ON	ON	100%
ON	—	75%
—	ON	50%
—	—	25%

Hold time

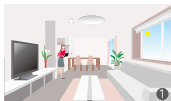
3	4	5	
ON	ON	ON	15s
ON	ON	—	30s
ON	—	ON	1min
ON	—	—	2min
—	ON	ON	5min
—	ON	—	10min
—	—	ON	20min
—	—	—	30min

Daylight threshold

6	7	8	
ON	ON	ON	2lux
ON	—	—	10lux
—	ON	—	25lux
—	—	ON	50lux
—	—	—	Disable

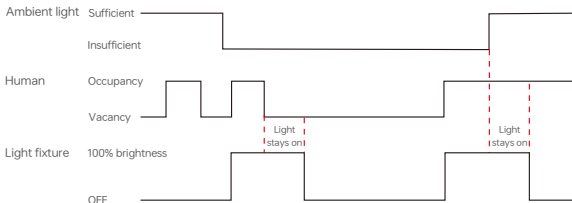
*Delay time of 15s for testing only.

Functions

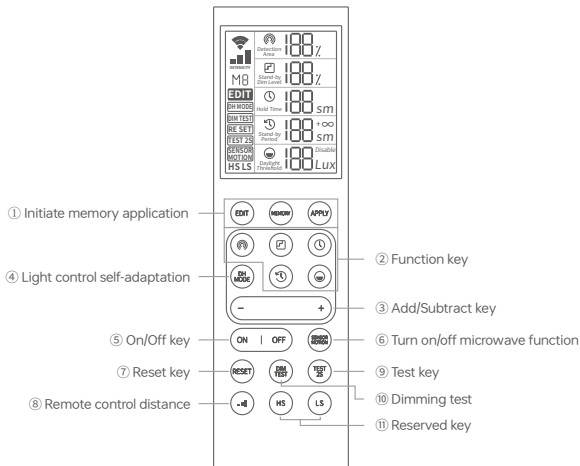


- ❶ With sufficient ambient light (light sensing feature enabled), the light fixture won't switch on even when a motion is detected.
- ❷ With insufficient ambient light (light sensing feature enabled), the light fixture will switch on when a motion is detected.
- ❸ When the sensor does not detect a motion, time will start counting down according to the preset hold time. After the hold time passes, the light fixture will automatically switch off. If a motion is detected during the hold time, time will start counting down again after no motion is detected.

Sensor Working Principle Diagram



Matched with Infrared Remote Control



Note: For the specific operation method of the infrared remote control, please refer to the LR1 instruction manual.

Attentions

- This product must be installed and adjusted by a qualified professional.
- The higher the sensitivity you set, the farther the range the sensor can detect. If microwaves pass through walls to mistrigger the light fixture to turn on, sensitivity needs to be lowered to shorten the detection range.
- 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.
- 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 product is non-waterproof (special models excepted). Please avoid the sun and rain. When installed outdoors, please ensure it is mounted in a water proof enclosure.
- Good heat dissipation will extend the life the product. Please install the product in a environment with good ventilation.
- If a fault occurs, please do not attempt to fix the product by yourself. If you have any question, please contact the supplier.

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 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.

* This manual is subject to changes without further notice. Product functions depend on the goods. Please feel free to contact our official distributors if you have any question.