





## All-scene spatial sensing sensor

2025 V 1.0

## Shenzhen Merrytek Technology Co., Ltd

- **\*** +86 (0)755 2305 7253/59
- **+** +86 (0)755 2786 3012
- www.Merrytek.com
- No.17th Building, Dianda Guyuan Industrial Park, Mashantou Community, Matian Street, Guangming District, Shenzhen, China, 518106





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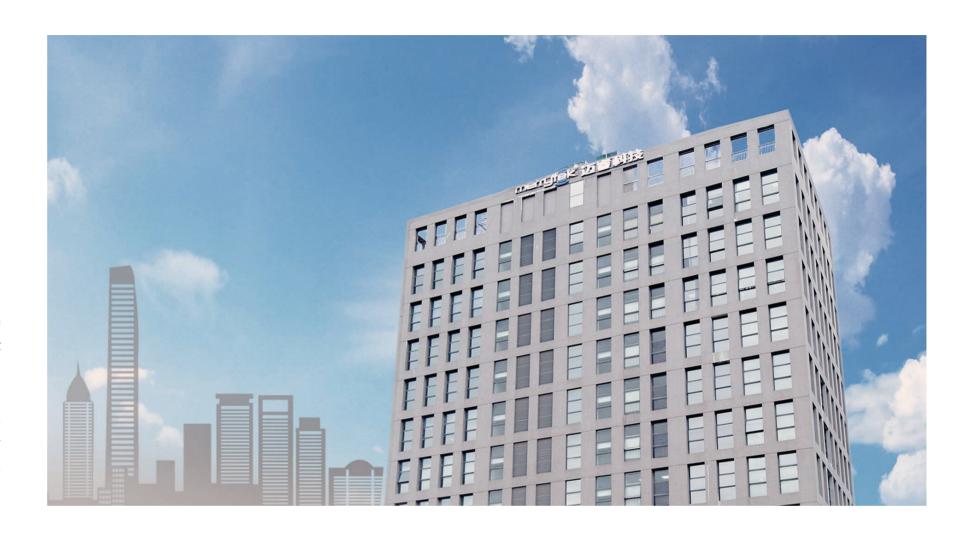




## Dedicated to innovation in intelligent lighting and sensing control for 17 years

Merrytek was founded in 2011. Headquartered in Shenzhen, the city of innovation and vitality. We are a leading provider of "Intelligent lighting control and Smart sensing solutions" in China.

As a pioneer in technological innovation of intelligent lighting control components, microwave/PIR/environmental sensors, we continue to provide professional products and technical solutions for fields such as intelligent lighting, smart buildings, smart homes, security door control, and health and elderly care.













2011

Established in Shenzhen

60+ R&D Team 600+

**Authorized Patent** 

1100+
Served Customers

## **Global Market**

Merrytek is supported by its Shenzhen headquarters and has multiple offices and channel agents in provinces/cities such as Fujian, Shandong, Henan, Shaanxi, Shanxi, Hangzhou, Suzhou, Zhongshan, Changsha, Wuhan, Chengdu, Chongqing, and Shanghai. In addition to the Chinese market, Merrytek's products are also exported to countries and regions such as Europe, South America, North America, Southeast Asia, and Central Asia, providing high-quality products and services to over 1100 customers in 110 countries/regions.

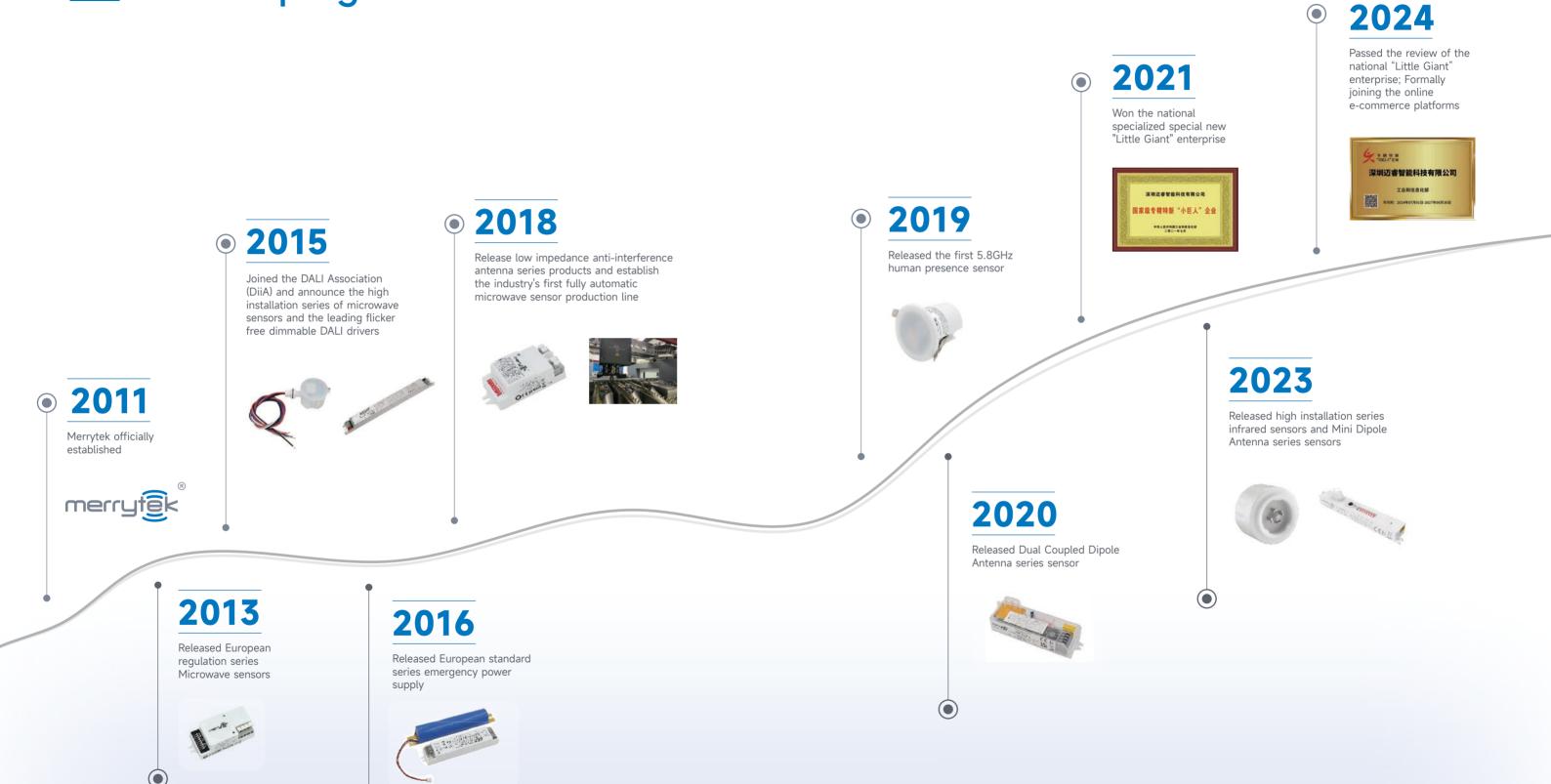
INNOVATION INTEGRITY

PROGRESS HONESTY

EFFICIENCY COOPERATION



## **Developing Process**



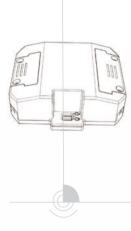




# Development history of engineering products

## 2015

Merrytek is the first in the industry to launch a human body micro motion detection sensor, which is applied to panel lights for office lighting.



## 2022

Merrytek launches the second generation: 24GHz millimeter wave human presence sensor, which uses Merrytek's independently designed RF antenna" 24GHz millimeter wave half wave folded antenna "with large detection angle and high gain characteristics. The product achieves overlapping detection distances for major motion, minor motion, and presence, becoming a major highlight product in the industry.



## 2023

We have developed "deep sleep detection sensors", "human occupancy sensors", and "Al posture sensors" for different application scenarios in the industry, enriching and improving the solutions of sensors in the field of intelligent buildings.



## 2025

Merrytek released its fourth generation human presence sensor - the industry's first plug and play Al human presence sensor. Pioneering Al adaptive spatial matching detection function, automatically configuring sensing parameters, and available immediately upon power on. Built in six major functions+original machine algorithm+Al model, effectively eliminating 99.9% of common indoor interference, bringing more accurate human presence sensing effect.



## 2018

Merrytek is the first company in the industry to launch the "5.8GHz human presence sensor". This product uses Merrytek's self-developed low-impedance dual-fed large-beam microwave module". The product is widely used in smart office, smart home. and smart hotel related smart scenes.



## 2024

Merrytek has upgraded the human presence sensor to the third generation, using German automotive-grade chips and self-developed patented antenna technology. The maximum sensing range can reach 8 meters in diameter approaching a circular detection range.

The anti-interference ability is further enhanced and accurate identification is achieved without false alarms.





## **Social Recognition**



Shenzhen Intellectual Property Advantage Unit

2022 National Intellectual Property

Advantage Enterprise

2022

National High Tech **Technology Companies** 

Guangdong Provincial Engineering Technology Research Center for Intelligent Sensors of Human Body Microwave Detection

Famous Brand in Shenzhen



National Level Specialized and Innovative "Little Giant" Enterprise



## **Intellectual Property**

Since its establishment, Merrytek has accumulated over 600 intellectual property rights.

Domestic Invention Patents

Intellectual Property

600+

60

Foreign Invention Patents























## **Cutting-edge Detection Technology**

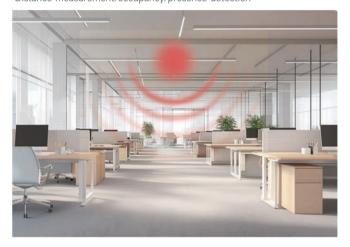
#### 60GHz Detection Radar

Partition/Presence/Trajectory/headcount/Falls/In bed/Out of bed/Respiratory and heart rate monitoring



**ToF Ranging Sensor** 

Distance measurement/occupancy/presence detection



#### 24GHz Detection Radar Distance

Distance measurement/ Major motion/ Minor motion/ Breath detection/ Partition detection/trajectory



### High Mounting Radar

15m installation height movement detection



### PIR Infrared Pyroelectric

Cost-effective human motion detection with high temperature resistant flat lens



## 60GHz millimeter wave radar

Based on Merrytek's self-developed MIMO antenna array, it can achieve precise four-Cut hole sizeal scanning of targets and generate high-quality point cloud signals for human detection. Combined with deep machine learning and massive model training algorithms, it can accurately detect and output the number, posture (such as falls), presence, and positioning information of indoor personnel.

At the same time, this technology has the advantages of high stability, high accuracy, good security, and no invasion of personal privacy, which can meet various health monitoring needs and overcome the limitations of traditional detection methods (such as infrared and visual systems) in protecting user privacy.



## 24GHz millimeter wave radar

Based on FMCW modulation, 24GHz millimeter wave radar can obtain real-time signal differences in both time and frequency domains between the transmitted and reflected signals.

Merrytek has adopted its self-developed real-time adaptive algorithm for bottom noise, which can accurately identify the weak motion characteristics of the chest and abdominal cavity generated by breathing in combination with the static state of the human body based on the shielding of interference motion signals such as curtains and green plants, thereby achieving precise human presence detection.



## ToF (Time of Flight)

The distance between nodes is mainly measured by the time required for signals to travel back and forth between two asynchronous transceivers (or reflectors).

Traditional ultrasonic ranging has high requirements for reflecting objects and is basically unable to detect small objects such as linear and conical objects. This problem can be completely overcome, and Time of Flight (ToF) ranging has the characteristics of high accuracy, long measurement range, and fast response.



## **High Mounting Microwave Sensor**

Based on Merrytek's self-developed high gain radar antenna and unique anti-interference algorithm, the Merrytek high mounting installation series millimeter wave radar can support human movement detection at a height of 15m, especially suitable for smart energy-saving applications such as warehouses and lobbies.



## PIR (Passive Infrared)

Pyroelectric infrared (PIR) sensors utilize infrared radiation emitted by the human body (with a wavelength of approximately 10 micrometers). The flat Fresnel lens independently developed and designed by Merrytek divides the detection area more precisely while optimizing the appearance flatness and aesthetics, thereby enabling the pyroelectric detection element to generate high signal-to-noise ratio signals when the human body enters the detection range.

Another, due to Merrytek's high-temperature resistant and anti-interference algorithms, the Merrytek PIR sensors can solve the false triggering in interference environments such as high temperature, high humidity, and high light.





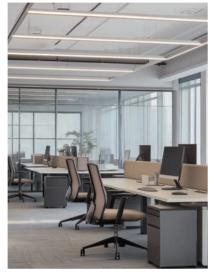
## Wide application

### Full scene coverage

One solution full scene detection needs in home, office, elderly care, hotel, education, and other areas.







Smart lighting

**Smart Home** 

Smart office



Smart Elderly Care

Smart Classroom

## Different mounting way



Surface mounting

Flush mounting





Wall mounting

European standard European junction box mounting

## Comprehensive system integration

### Multi-protocol integration support

Dry contact/RS485 / ON /OFF/DALI/KNX/PLC/Tuya/Zigbee/WiFi/Bluetooth mesh/Casambi / 0-10V/Mi Home/Control 4 / Crestron



















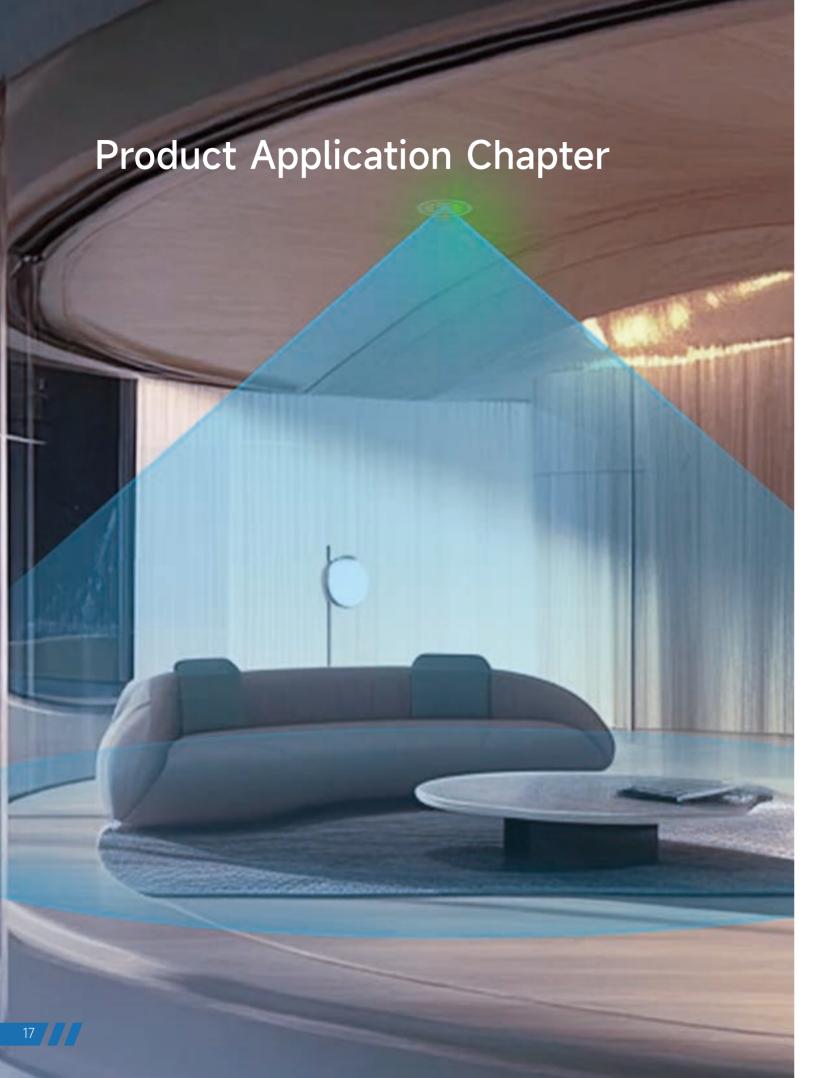






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**Smart Hotel** 



## **Product Classification Table**

**Detection Technology** 

**Function Application** 

Appearance Series

Connection Agreement

60GHz Detection Radar

Partition, Presence/Trajectory/headcount/Falls/in bed/Out of bed/Respira tory and heart rate monitoring

Rehabilitation center/Elderly care institution



RS485/WiFi/ Mi Home/Tuya

24GHz Detection Radar Distance

Distance measurement/ Major motion/ Minor motion/Breath detection/ Partition detection/trajectory

Smart Home/Smart Office/Smart Hotel/Smart



Dry Contact/RS485/ON /OFF/DALI/KNX /PLC/Tuya/Zigbee/WiFi/bluetooth mesh/0-10V/Mi Home

ToF Ranging Sensor

Distance measurement/ occupancy/presence detection

Smart Office/Smart Public Toilet/Shared Office/Study Room



Dry Contact/RS485

5.8GHz High Mounting Radar

15m installation height movement detection

High rise space/lobby/factory/airport/duplex residence



Dry contact/RS485/high voltage switch/DALI/KNX/PLC/Tuya/Zigbee/WiFi/Bluetooth Mesh/0-10V/Mi Home

PIR Infrared Pyroelectric Cost-effective human motion detection with high temperature resistant flat lens

Entrance hall/Corridor/corridor/stairwell



Dry contact/RS485/high voltage switch/DALI/KNX/PLC/Tuya/Zigbee/WiFi/Bluetooth mesh/0-10V

## **Smart Lighting**

24GHz millimeter-wave radar

Human body presence, micro-movement, and movement sensing

Areas where people frequently move around, such as shops, office Spaces, restrooms, and parking lots, or remain stationary for long periods or have relatively small movements during use.

PIR infrared curtain

20° narrow-angle curtain human movement sensor

In scenarios such as staircases and window edges where human movement is detected within a narrow range, the infrared curtain will operate in the form of a sensing surface.

PIR infrared pyroelectric

Human body movement sensing

Scenarios such as corridors and doorways where human movement triggers sensing.

TOF occupancy sensing

Occupying existence sensing

Human movement detection and human presence maintenance detection applications in extremely small Spaces such as workstations, toilet stalls, and telephone halls.

### Automatic turn on/off light

Automatic turn on/off light, when there is movement.

24GHz millimeter wave radar can be used in the display area and office area to detect mico movement and prensence.

### Multi dimming (0-10V, DALI)

0/1-10V, DALI sensor, supports direct connection to lighting fixtures for multi-stage dimming

When there is no person, the light keeps dim. Once there is movement, light turns on 100%, after the person leaves, the light keep dim.

The unmanned light is turned off, and the sensor detects that someone has passed by and turned on the light to brightness 1. If the person stays for more than 5 minutes, the light brightness will increase. After the person leaves, the light will turn off.

If the unmanned light is turned off for a long time, the sensor senses that someone has passed by and turned on the light, which is brightness 1. After the person leaves, the light decreases to brightness 2, and the unmanned light is turned off for a long time.

#### Daylight harveting function

Based on the lighting value and human perception, provide automatic dimming for people in the scene to maintain a constant indoor illumination

Set the lights to be constantly on, with people triggering the scene lights, and the lights gradually turning on to the set value.

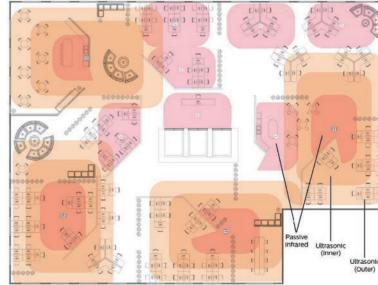
Set the lights to light up within the threshold, and when people come, determine the ambient lighting conditions and automatically adjust the brightness of the lights to supplement the lighting based on the illuminance.











## **Smart Home**

24GHz millimeter wave radar

Human presence, micro motion, and motion sensing

It is suitable for home scenarios such as kitchens, studies, bathrooms, and walk-in closets where users will remain stationary for long periods or have relatively small movements.

24GHz multi transmitter multi receiver millimeter wave radar

Detection of human presence, micro movement, movement, trajectory, and number of people

Suitable for large space scenarios such as living rooms and dining rooms, the multi-transmitter and multi-receiver 24GHz radar can divide the space, and a millimeter-wave radar can trigger applications for more precise zoning scenarios in large Spaces

PIR infrared Pyroelectric/Low-mounting Human Movement radar

Human body movement sensing

Scenarios such as corridors and doorways where human movement triggers sensing.

PIR infrared curtain

20 ° Narrow Angle Curtain Type Human Movement Sensing

The aisle, windowsill, etc. need to be used in scenes with narrow detection ranges based on whether people have entered, accurately achieving scene triggering based on boundary control.

## ON/OFF light

Turn on/ off light by sensor accroding to motion signal detected

24GHz millimeter wave radar can be used in restaurants and changing rooms to detect finer motion changes, including the presence of the human body in a stationary state and micro movements.

#### Panel Priority

Programming with panel on/off as trigger condition, manual control in priority

The panel lights up, sensor isn't inter-connected to the lights - the sensor stops working. The panel lights off, and the sensor starts to communicate with light.

### Nighttime Mode

Programming with time and departure/return to bed as triggering conditions, set departure sensing, and automatically turn on the night light when it senses waking up at night

When a person is detected leaving the bed during non rest time, report the departure status without triggering the scene. When a person leaves the bed within the set resting time, the night mode is triggered and the ambient night light is turned on.

#### Rehabilitation Health Monitoring

Using auxiliary monitoring radar, you can monitor in real time whether the elderly in the home are falling / leaving / leaving the bed, real-time feedback or alarm

Real-time monitoring of the state of human activity can be used in the elderly room and real-time alarm for abnormal situations. Placed in the shower room and some areas where elderly people are prone to fall, you can also monitor in real time whether there is a fall and overtime.

#### Partition scene triggering

After dividing the space into multiple areas, trigger/close preset scenes without feeling based on the length of time people enter different areas and stay in corresponding areas

When a person enters the entrance hall, the entrance lighting lights up. After entering the living room, the living room lighting lights up and the security mode is turned on. If the person stays in the living room for more than 10 minutes and the indoor temperature is detected to be above  $27\,^{\circ}$  C, the central air conditioning will automatically turn on.

When people leave the entrance, the brightness of the entrance lighting decreases to 10%. After no one in the entrance area exceeds 2 minutes, the lighting will automatically turn off. When a person leaves the living room, the central air conditioning adjusts the air volume to the lowest level. If there is no one in the living room for more than 3 minutes, the lights will automatically dim to 20%. If there is no one for more than 5 minutes, the lights will automatically turn off. If there is no one for more than 10 minutes, the air conditioning will automatically turn off.











## **Smart Office**

24GHz millimeter wave radar

Human presence, micro motion, and motion sensing

Office, conference rooms, and other office scenarios that remain stationary for extended periods of time or have minimal movement.

PIR infrared pyroelectric

Human motion sensing

Scenes triggered by human movement in corridors, front desks, etc

PIR infrared curtain sensor

20° narrow detection angle PIR curtain detection pattern sensor

Applied in places such as stairs, window area with narrow range.

TOF distance monitoring sensor

High precision occupancy sensor

Applied in places like working station, bathroom

#### Workstation occupancy sensing

Program the presence or absence of personnel on the seat as a triggering condition and output a signal indicating whether the workstation is vacant or not

There is someone on the seat - activate the power supply equipment at the workstation and report the presence signal. No one on the seat - automatically turn off all electrical equipment on the workstation and report the absence signal.

### Turn on/off light automatically

Turn on/off light automatically accroding to motion signal detected by sensor

The elevated hall can use high mounting radar for sensing and detecting human movement and micro motion status. 24GHz millimeter wave radar can be used in dimming room to detect finer motion changes, including the presence of the human body in a stationary state and micro movements.

#### Comfort Scene Linkage

Using light intensity/weather/temperature and humidity as triggering conditions, linking smart devices to trigger the set scene

When the environmental conditions are sunny/comfortable/with a light intensity greater than 200Lux - open the curtains and do not turn on the lights.

When the environmental conditions are rainy/humid/the light intensity is less than 100Lux - close the curtains, turn on the lights, and turn on the dehumidification equipment.











## **Smart Hotel**

Millimeter-wave radar technology presence detection in 24GHz

Human presence, micro motion, and motion sensing

Suitable for people who stay still for a long time or have small movements during the use of the master bedroom and bathroom in hotel rooms.

24GHz millimeter-wave deep sleep detection

Detect human movement, micro movement, and sleep status

Suitable for people in hotel rooms, master bedrooms, rest areas, etc. who may enter sleep and be covered with blankets, resulting in extremely weak chest and abdominal movement signals in the scene

PIR infrared pyroelectric/low mounting detection radar sensor

Human motion sensing

Suitable for scenarios where human movement is triggered and sensed in corridors, doorways, and other areas.

Auxiliary monitoring radar technology

Multi functional detection for falls/getting up at night/getting out of bed/leaving, etc

Suitable for high-risk areas such as bedrooms and bathrooms that are prone to falls, report any abnormal situations in a timely manner

#### • Realize multi-sensor comprehensive judgment and precise card free power supply

By detecting the status of people through sensors, accurately judge the presence or absence of people in the guest room, and control the use of electricity in the room, Or report to the customer control system, linking scenarios

Someone in the room - turn on the power in the room.

No one in the room - automatically turn off the electrical equipment inside the room.

### Implementation - Abnormal Status Monitoring

Detect any abnormal situations such as falls in certain areas and report them promptly for the hotel to manage and respond timely

When sensing abnormal situations such as falls in the bathroom, report the situation timely.

#### Implementation - Nighttime Mode

Programming with time and departure/return to bed as triggering conditions, set departure sensing in the auxiliary monitoring radar settings, and automatically turn on the night light when it senses waking up at night

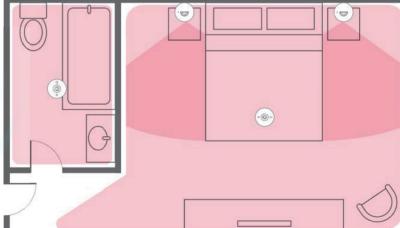
When a person is detected leaving the bed during non rest time, report the departure status without triggering the scene. When a person leaves the bed within the resting time, the night mode is triggered and the ambient night light is turned on.











## **Smart Elderly Care**

PIR infrared pyroelectric

Human motion sensing

Scenes triggered by human movement in corridors, doorways, etc.

PIR infrared curtain detection pattern sensor

20 ° Narrow Angle Curtain Type Human Movement Sensing

Used in narrow range scenarios such as stairs and window edges to detect human movement.

Auxiliary monitoring radar

Multi functional detection for falls/getting up at night/getting out of bed/leaving, etc

Report any abnormal situations promptly in high-risk areas such as retirement bedrooms and bathrooms that are prone to slipping.

## Abnormal State Alarm Using auxiliary monitoring range of the state of the

Using auxiliary monitoring radar, it can detect in real time whether the elderly have fallen, got out of bed, woken up at night, or abnormal respiratory and heart rate status

When there are situations such as falls or abnormal retention, report them in real time so that rescue can be provided as quickly as possible.

### Sleep/Breathing/Heart Rate Assisted Monitoring

Contactless devices assist in monitoring the sleep, breathing, and heart rate status of the elderly, respond promptly, and provide auxiliary care.

#### Nighttime Mode

Programming with time and departure/return to bed as triggering conditions, set departure sensing in the auxiliary monitoring radar settings, and automatically turn on the night light when it senses waking up at night

When a person leaves the bed during non rest hours, reporting the departure status does not trigger the scene. When a person leaves the bed during the set rest time, the night mode is triggered and the ambient night light is turned on.

#### Realization- Intelligent linkage in different scenarios

Using light intensity/weather/temperature and humidity as triggering conditions, linking smart devices to trigger the scene

When the environmental conditions are sunny/comfortable/with a light intensity greater than 200Lux - open the curtains and do not turn on the lights.

When the environmental conditions are rainy/humid/the light intensity is less than 100Lux - close the curtains, turn on the lights, and turn on the dehumidification equipment.

### Realization - The light follows the person's activity

Take on/off lights as conditions for programming, to control lights wirelessly

In areas such as the entrance hall and corridors where people walk but do not stay for a long time, PIR infrared sensors are used to detect human movement and trigger the lights in the area.

Infrared curtain sensor are used at the staircase to detect human movement within a narrow 20° Angle range and reduce false triggers.







## **Smart Campus**

24GHz millimeter wave radar

Human presence, micro motion, and motion sensing

Campus scenes such as classrooms and libraries that remain stationary for extended periods of time or have minimal movement during use.

PIR infrared pyroelectric

Human motion sensing

Scenes triggered by human movement in corridors, doorways, etc

PIR Infrared curtain

20 ° Narrow Angle Curtain Type Human Movement Sensing

Infrared curtains will work in the form of sensing surfaces when used in narrow range scenarios such as stairwells and doorways to detect human movement.

### Sensorless on/off light

The sensor is programmed accroding to human presence and daylight value change, to achieve auto control.

24GHz millimeter wave radar can be used in display and office areas to detect more subtle motion changes, including the presence of the human body in a stationary state and micro movements.

#### Multi segment dimming

0/1-10V, DALI sensor, supports direct connection to educational lighting fixtures for multi-stage dimming

Maintain light at half brightness when no one is around, full light when detect human motion, half brightness when people leave. Turn off light when on one is around, and switch on light at light level 1 when someone pass by,light level will be increased if people stay more than 5 minutes,switch off light when people leave.

Turn off light when on one is around, and switch on light at light level 1 when someone pass by,dim light to low brightness level 2 after people leave,switch off light after time delay.

#### Constant illumination dimming

Based on the lighting value and human perception, provide automatic dimming for people in the scene to maintain a constant indoor illumination

Set the light to be constantly on, scene is triggered by occupancy of people, automatically dim up or dim down light to maintain preset lux value.

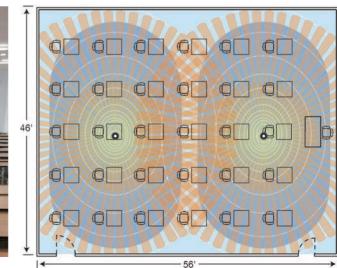
Set daylight threshold working mode, sensor will measure ambient brightness level when detect motion of people automatically dim up or dim down light to maintain preset lux value.













## **■**Product Selection

	PIR high-mounting sensing	PIR low mounting sensing	TOF occupancy sensing	Radar high-mount- ing sensing	Radar low mounting sensing	Radar space presence sensor	Radar sleeping presence sensor	Radar occupancy presence sensor
ON/OFF	MSA015S IR MSA050S IR MSA050S IR V MSA227S IR B1	MSA221 IR MSA222 IR		MSA003S RC MSA224 RF	MSA001S 1	MSA202S RC MSA235S 99 MSA065S 99 MSA063S 99 MSA050S 99 Z MSA227S 99 B1 MSA219 RF A		MSA215 99
0-10V	MSA050S IR V							
Passive dry contact	MSA015D IR MSA050D IR	MSA221D IR MSA222D IR MSA236D IR MSA238D IR	MSA245D 99	MSA003D RC	MSA001D MSA001D E	MSA200D RC MSA237D 99 MSA219D 99	MSA219D 99 B	MSA215D 99
DALI	MSA050 IR MSA227 IR B1					MSA063 99 MSA227 99 B1		
DALI 2.0	MSA059DIR	MSA017D IR			MSA055	MSA205		
KNX	MSA237K 99 IR	MSA017K IR			MSA056K IR MSA237K 99 D MSA237K 99 E	MSA206 K MSA219K 99 A MSA237K 99 A MSA237K 99 C	MSA219K 99 B	
Casambi	MSA227S IR B1 MSA227 IR B1					MSA211 B MSA227S 99 B1 MSA227 99 B1		
RS485		MSA236D IR 485 MSA238D IR 485	MSA245D99 485			MSA203D 485 MSA237D 99 485		
Tuya		MSA053 Z				MSA201 Z MSA201 B4 MSA219 Z1 MSA050S 99 Z	MSA219 Z MSA220 Z	
MIJIA						MSA223 A MSA223 C1		
Merrytek 2.4G RF				MSA224 RF		MSA219 RF A		

## PIR high mounting sensing series

### MSA015S IR



- ◆Adopting PIR infrared pyroelectric sensing and light sensing dual sensing
- ◆Accurately sense human movement and output ON/OFF signals
- ◆Support dialing/remote control to set sensing range, hold time, and daylight
- ◆Priority is given to mobile sensing detection in high mounting places such as warehouses and lobbies
- ◆Support surface mounting and flush mounting
- ◆The maximum installation height is 10 meters
- ♦One channel 16A relay output: supports a maximum load capacity of 800w (resistive)/400w (capacitive)

### MSA050S IR





- Adopting PIR infrared pyroelectric sensing and light sensing dual sensing
- ◆ Accurately sense human movement and output relay switch signals
- ◆ Support dialing/remote control to set sensing range, hold time, and daylight
- ◆ Priority recommendation for mobile sensing detection in high mounting places such as warehouses and lobbies
- Support surface mounting and flush mounting, exposed ceiling installation,
- ◆The maximum installation height is 10 meters
- ◆ Supports IP54 high-performance waterproofing
- ♦One 16A relay output: supports a maximum load capacity of 800w (resistive)/400w (capacitive)











Side View































Vertical View

[Working Voltage] [Working Current] [Products Size] [Cut hole size] (065-70mm

[Maximum Sensing Distance] Installation with a radius of 6m and a height of 8m

[Mounting Height]

ON /OFF (maximum load capacity 800w [Output Signal] incandescent lamp/400w LED)

[Detection Technology]

[Product Category] PIR high mounting motion sensing (ON/OFF)

[Level]



- and European junction mounting











Side View

100-240V AC

20mA max

[Maximum Sensing Distance] Installation with a radius of 6m and a height of 8m

0-150 Lux / Disable

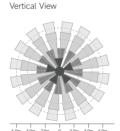
lamp/400w LED)

2.5-10m (Typical Value: 8m)









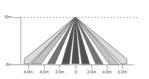
[Cut hole size]

[Lighting Threshold]

[Mounting Height]

[Detection Technology]

[Mounting]



105x105x80.8mm (Flush mounting)

105x105x65.8mm (Surface Mounting)

ON /OFF (maximum load capacity 800w incandescent

Flush mounting / Surface Mounting / European standard

PIR infrared pyroelectric+photosensitive detection

100-240V AC [Working Voltage] 20mA max [Working Current] φ85x56mm [Products Size]

[Lighting Threshold] 0-150 Lux / Disable 2.5-10m (Typical Value: 8m)

> [Output Signal] PIR infrared pyroelectric+photosensitive detection

[Mounting] Flush mounting

> [Product Category] PIR high mounting motion sensing (ON/OFF)

IP54 (Surface Mounting) / IP20 (Flush mounting)

## MSA050S IR V







- ◆Adopting PIR infrared pyroelectric sensing and light sensing dual sensing
- ◆Accurately sense human movement and output one ON/OFF and one 0-10V
- ◆Support dialing/remote control to set sensing range, hold time, and daylight
- ◆Priority recommendation for sensing detection in high mounting places such as warehouses and lobbies ◆Support surface mounting, flush mounting and European junction box
- ◆The maximum installation height is 10 meters
- ◆Supports IP54 high-performance waterproofing
- ◆One channel 16A relay output: supports a maximum load capacity of 800w (resistive)/400w (capacitive)

Side View





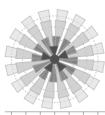


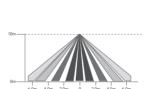






Vertical View





100-240V AC [Working Voltage] [Working Current] 20mA max

105x105x80.8mm (Flush mounting) 105x105x65.8mm (Surface Mounting) [Products Size]

[Cut hole size]

[Maximum Sensing Distance] Installation with a radius of 6m and a height of 8m 0-150 Lux / Disable

[Lighting Threshold] [Mounting Height] 2.5-10m (Typical Value: 8m) One ON/OFF+One 0-10V [Output Signal]

[Detection Technology] PIR infrared pyroelectric+photosensitive detection [Mounting] Hidden embedded ceiling installation / Surface Mounting / European junction set

PIR high mounting motion sensing (ON/OFF+0-10V) [Product Category]

IP54 (Surface Mounting) / IP20 (Flush mounting) [Level]

### **III** MSA015D IR



- ◆Adopting PIR infrared pyroelectric sensing and light sensing dual sensing
- ◆Accurately sense human movement and output passive dry contact signals
- ◆Support dialing/remote control to set sensing range, hold time, and daylight
- ◆Priority is given to sensing detection in high mounting places such as warehouses and lobbies
- ◆Support surface mounting and flush mounting

The maximum installation height is 10 meters

♦Supports IP20

◆The maximum withstand voltage of the passive dry contact port is 24V, and the maximum current is 50mA

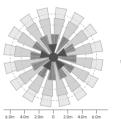


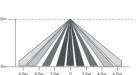






Vertical View Side View





12-24V DC [Working Voltage] [Working Current] 20mA max [Products Size] φ85x56mm [Cut hole size] φ65-70mm

[Maximum Sensing Distance] Installation with a radius of 6m and a height of 8m

[Lighting Threshold] 0-150 Lux / Disable [Mounting Height] 2.5-10m (Typical Value: 8m)

Normally open/normally closed dry contact (default [Output Signal] normally open)

[Detection Technology] PIR infrared pyroelectric+photosensitive detection

[Mounting] Flush mounting

> PIR high mounting motion sensing ((passive dry contact)

IP20 [level]

[Product Category]





## MSA050D IR







- $\blacklozenge \mbox{Adopting PIR}$  infrared pyroelectric sensing and light sensing dual sensing technology
- ◆Accurately sense human movement and output passive dry contact signals
- sensor
- ◆Priority is given to sensing detection in high mounting places such as warehouses and lobbies
- ◆Supports Flush mounting/surface mounting/European standard European junction mounting
- ◆The maximum installation height is 10 meters
- ◆Supports IP54 high-performance waterproofing
- ◆The maximum withstand voltage of the passive dry contact port is 24V, and the maximum current is 50mA







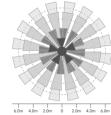


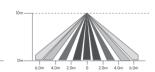












[Working Voltage] 12-24V DC [Working Current]

105x105x80.8mm (Flush mounting) 105x105x65.8mm (Surface Mounting) [Products Size]

[Cut hole size]

[Maximum Sensing Distance] Installation with a radius of 6m and a height of 8m

[Lighting Threshold] 0-150 Lux / Disable

[Mounting Height] 2.5-10m (Typical Value: 8m)

[Output Signal] Normally open/normally closed dry contact (default

[Detection Technology] PIR infrared pyroelectric+photosensitive detection

[Mounting] Flush mounting / Surface Mounting / European standard

[Product Category] PIR high mounting motion sensing (passive dry

IP54 (Surface Mounting) / IP20 (Flush mounting) [Level]

## **III**MSA050 IR







- ◆Adopting PIR infrared pyroelectric sensing and light sensing dual sensing
- ◆Accurately sense human movement and output DALI control signals
- ◆Support environmental daylight sensor control
- ◆Support light compensation dimming
- ◆Support surface mounting and flush mounting, exposed ceiling installation, and European junction mounting
- ◆Support dialing/remote control to set sensing range, hold time, and daylight
- ◆The maximum installation height is 10 meters
- ◆Supports IP54 high-performance waterproofing
- ◆Priority recommendation for sensing detection in high mounting places such as warehouses and lobbies
- ◆Support external PUSH switch for lighting switch and dimming











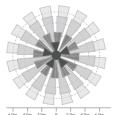


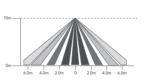












100-240V AC [Working Voltage] [Working Current]

105x105x80.8mm (Flush mounting) 105x105x65.8mm (Surface Mounting) [Products Size]

[Cut hole size]

[Maximum Sensing Distance] Installation with a radius of 6m and a height of 8m

[Lighting Threshold] 0-150 Lux / Disable [Mounting Height] 2.5-10m (Typical Value: 8m)

[Output Signal]

[Level]

[Detection Technology] PIR infrared pyroelectric+photosensitive detection Hidden embedded ceiling installation / Surface Mounting / European junction set [Mounting]

[Product Category] PIR high mounting motion sensing (DALI+PUSH)

IP54 (Surface Mounting) / IP20 (Flush

## MSA059D IR







- ◆Adopting PIR infrared pyroelectric sensing and light sensing dual sensina technoloav
- ◆Accurately sense human movement and transmit DALI 2.0 signals
- ◆Support ambient light intensity detection
- ◆Supports DALI bus power supply

- ◆Supports IP54 high-performance waterproofing
- Priority recommendation for sensing detection in conference halls, lobbies, and other places



















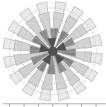


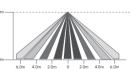












[Working Voltage] 21-30V DC (KNX bus power supply)

[Working Current]

105x105x65.8mm (Surface Mounting)

[Cut hole size]

[Light Sensing Range] 2-65000 Lux

[Output Signal]

[Detection Technology] PIR infrared pyroelectric+photosensitive detection

[Mounting] Hidden embedded ceiling installation / Surface

Mounting / European junction set

IP54 (Surface Mounting) / IP20 (Flush mounting) [level]





- - - Support surface mounting and flush mounting, exposed ceiling installation, and European junction mounting
    - ◆Support remote control to set sensing range and hold time
    - ◆The maximum installation height is 10 meters









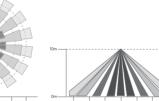












[Working Voltage] 9.5-22.5V DC (powered by DALI bus)

[Working Current] 20mA max

105x105x80.8mm (Flush mounting) [Products Size] 105x105x65.8mm (Surface Mounting)

[Cut hole size]

[Light Sensing Range] 2-65000 Lux

[Output Signal]

[Mounting Height]

[Product Category]

[Detection Technology] PIR infrared pyroelectric+photosensitive detection

2.5-10m (Typical Value: 8m)

[Maximum Sensing Distance] Installation with a radius of 6m and a height of 8m

Hidden embedded ceiling installation/Ceiling visible installation/European junction set [Mounting]

PIR high mounting motion sensing (DALI2.0) [Level] IP54 (Surface Mounting) / IP20 (Flush mounting)



- technology
- ◆Support remote control/ETS setting of sensing range, hold time, and daylight
- ◆Support surface mounting and flush mounting, exposed ceiling installation,
- ◆Supports KNX wired communication
- ◆Support master-slave network control
- ◆Supports two light channels and one HVAC channel control
- $\ensuremath{\bullet}\xspace \textsc{Priority}$  recommendation for sensing detection in high mounting places such















105x105x80.8mm (Flush mounting) [Products Size]

[Maximum Sensing Distance] Installation with a radius of 6m and a height of 8m

[Mounting Height] 2.5-10m (Typical Value: 8m)

[Product Category] PIR high mounting motion sensing (KNX)





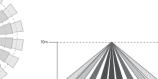
**III** MSA237K 99 IR

- ◆Adopting PIR infrared pyroelectric sensing and light sensing dual sensing
- ◆Accurately sense human movement and output KNX signals ◆Support light compensation dimming and daylight sensor function
- and European junction mounting
- ◆Supports a maximum installation height of 10 meters
- as warehouses and lobbies









## III MSA227S IR B1









- ◆Adopting PIR infrared pyroelectric sensing and light sensing dual sensing
- ◆Accurately sense human movement and output Casambi control signals with a
- ◆Support light compensation dimming and daylight sensor function
- ◆Support Casambi app/remote control to set sensing range, hold time, and daylight
- ◆Support surface mounting, flush mounting and European junction box mounting
- ◆Supports a maximum installation height of 10 meters
- ◆relay: supporting a maximum load capacity of 800w (resistive)/400w (capacitive)
- ◆Priority recommendation for sensing detection in high mounting places such as



































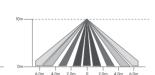












100-240V AC [Working Voltage] [Working Current] 20mA max

[Products Size] 105x105x80.8mm (Flush mounting)

[Cut hole size]

[Maximum Sensing Distance] Installation with a radius of 6m and a height of 8m

0-1200 Lux [Lighting Threshold]

[Output Signal]

[Mounting Height] 2.5-10m (Typical Value: 8m)

[Detection Technology] PIR infrared pyroelectric+photosensitive detection

Relay Switch+Casambi

[Mounting] Hidden embedded ceiling installation / Surface Mounting / European junction set

PIR high mounting motion sensing (ON/OFF+Casam-[Product Category]

IP54 (Surface Mounting) / IP20 (Flush mounting) [Level]

### **III**MSA227 IR B1









- ◆Adopting PIR infrared pyroelectric sensing and light sensing dual sensing
- ◆Connect to Casambi Bluetooth wireless control system
- ◆Support light compensation dimming and daylight sensor function
- ◆Accurately sense human movement and output Casambi control signals and one DALI dimming signal
- ◆Support PUSH panel switch/dimming
- ◆Support Casambi app/remote control to set sensing range, hold time, and
- ◆Supports a maximum installation height of 10 meters
- ◆Support surface mounting, flush mounting and European junction box
- ◆Priority recommendation for sensing detection in high mounting places such as warehouses and lobbies



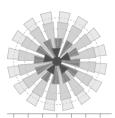


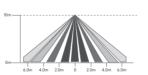












[Working Voltage] 100-240V AC [Working Current] 20mA max

105x105x80.8mm (Flush mounting) [Products Size] 105x105x65.8mm (Surface Mounting)

[Cut hole size]

[Mounting]

[Maximum Sensing Distance] Installation with a radius of 6m and a height of 8m

0-1200 Lux [Light Sensing Range]

[Mounting Height] 2.5-10m (Typical Value: 8m) [Output Signal] DALI+PUSH+Casambi

[Detection Technology] PIR infrared pyroelectric+photosensitive detection

Hidden embedded ceiling installation / Surface Mounting / European junction set

[Product Category] PIR high mounting motion sensing (DALI+PUSH+-

IP54 (Surface Mounting) / IP20 (Flush

## PIR low mounting motion sensing series

### III MSA221 IR





- ◆Adopting PIR infrared pyroelectric sensing and light sensing dual sensing
- ◆Accurately sense human movement and output ON/OFF signals
- daylight sensor
- ◆Priority corridors, hallways, stairwells, elevator halls, and other public area scenes with motion sensing detection
- ◆Support surface mounting and flush mounting
- ◆The maximum installation height is 6 meters
- ◆Built in Mairui high-temperature resistant and anti-interference algorithm
- ♦One 16A relay output: supports a maximum load capacity of 800w

### MSA222 IR



- ◆Adopting PIR infrared pyroelectric sensing and light sensing dual sensing
- ◆Accurately sense human movement and output ON/OFF signals
- ◆Support dialing/remote control to set sensing range, hold time, and daylight
- ◆Priority corridors, hallways, stairwells, elevator halls, and other public area scenes with motion sensing detection
- ◆Support ceiling mounting installation
- ◆The maximum installation height is 6 meters
- ◆Built in Mairui high-temperature resistant and anti-interference algorithm
- ♦One 16A relay output: supports a maximum load capacity of 800w



























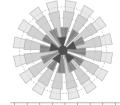


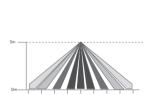








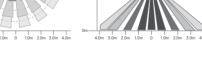




100-240V AC [Working Voltage] [Working Current] 20mA max [Products Size] φ105x32.4mm

[Maximum Sensing Distance] Installation with a radius of 4m and a height of 3m

[Lighting Threshold] 5-150 Lux / Disable [Mounting Height] 2-6m (Typical Value: 3m) [Output Signal] [Detection Technology] PIR infrared pyroelectric+photosensitive detection [Mounting] Surface Mounting [Product Category] PIR low mounting motion sensing (ON/OFF)



100-240V AC [Working Voltage] [Working Current] 20mA max [Products Size] φ52.5x34mm [Cut hole size] ω55mm

[Maximum Sensing Distance] Installation with a radius of 4m and a height of 3m

[Lighting Threshold] 5-50 Lux / Disable [Mounting Height] 2-6m (Typical Value: 3m)

ON /OFF [Output Signal] [Detection Technology] PIR infrared pyroelectric+photosensitive detection

Flush mounting / Surface Mounting (needs to be compatible with surface mounting kit

PIR low mounting motion sensing (ON/OFF)

[Level] IP20

[Product Category]



## MSA221D IR





- ◆Adopting PIR infrared pyroelectric sensing and light sensing dual sensina technoloav
- ◆Accurately sense human movement and output passive dry contact
- ◆Support dialing/remote control to set sensing range, hold time, and davlight sensor
- ◆Priority corridors, hallways, stairwells, elevator halls, and other public area scenes with motion sensing detection
- ◆Support surface mounting and flush mounting
- ◆The maximum installation height is 6 meters
- ◆Built in Mairui high-temperature resistant and anti-interference algorithm
- ◆The maximum withstand voltage of the passive dry contact port is 24V, and the maximum current is 50mA







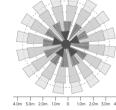


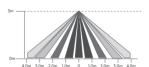












12-24V DC [Working Voltage] [Working Current] 20mA max ω52.5x34mm [Products Size] [Cut hole size] (055mm

[Maximum Sensing Distance] Installation with a radius of 4m and a height of 3m

[Lighting Threshold] 5-50 Lux / Disable [Mounting Height] 2-6m (Typical Value: 3m) [Output Signal] passive dry contact

[Detection Technology] PIR infrared pyroelectric+photosensitive detection

[Mounting] Flush mounting / Surface Mounting (needs to be compatible

[Product Category] PIR low mounting motion sensing (passive dry contact)

[Level] IP20

## MSA222D IR



- ◆Adopting PIR infrared pyroelectric sensing and light sensing dual sensing
- ◆Accurately sense human movement and output passive dry contact
- ◆Support dialing/remote control to set sensing range, hold time, and daylight sensor
- ◆Priority corridors, hallways, stairwells, elevator halls, and other public area scenes with motion sensing detection
- ◆Support ceiling mounting installation
- ◆The maximum installation height is 6 meters
- ◆Built in Mairui high-temperature resistant and anti-interference algorithm
- ◆The maximum withstand voltage of the passive dry contact port is 24V, and the maximum current is 50mA





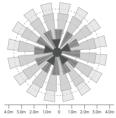


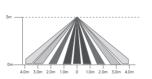












[Working Voltage] 12-24V DC [Working Current] 20mA max φ105x32.4mm [Products Size] [Cut hole size] N/A

[Maximum Sensing Distance] Installation with a radius of 4m and a height of 3m

5-150 Lux / Disable [Lighting Threshold] [Mounting Height] 2-6m (Typical Value: 3m) [Output Signal] passive dry contact

[Detection Technology] PIR infrared pyroelectric+photosensitive detection

[Mounting] Surface Mounting

[Product Category] PIR low mounting motion sensing (passive dry

[Level] IP20

## **III** MSA017D IR



- ◆Adopting PIR infrared pyroelectric sensing and light sensing dual sensing
- ◆Accurately sense human movement and output DALI2.0 signals
- ◆Support remote control to set sensing range and hold time
- ◆Priority corridors, hallways, stairwells, elevator halls, and other public area scenes with motion sensing detection
- ◆Supports ceiling mounting and European junction mounting
- ◆The maximum installation height is 6 meters
- ◆Built in Mairui high-temperature resistant and anti-interference algorithm
- ◆Supports DALI bus power supply

### MSA017K IR



- ◆Adopting PIR infrared pyroelectric sensing and light sensing dual sensing technology
- ◆Flat lens, exquisite appearance
- ◆Accurately sense human movement and output RS485 protocol
- ◆Supports RS485 protocol/remote control to set device ID, sensing range,
- ◆Priority recommendation for entrance hall and bathroom mobile sensing
- ◆Support hidden embedded installation and exposed ceiling installation
- ◆Ultra small size, embedded in the ceiling and integrated with the ceiling after installation
- ♦ It is recommended to deploy no more than 12 sensors and the bus distance should not exceed 300m for the 485 bus





























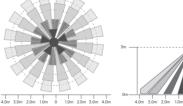








Side Viev



[Working Voltage] 9.5-22.5V DC (powered by DALI bus)

[Working Current] 20mA max [Products Size] φ89x50mm [Cut hole size] ω60mm

[Maximum Sensing Distance] Installation with a radius of 4m and a height of 3m

0-65535 Lux [Light Sensing Range]

2-6m (Typical Value: 3m) [Mounting Height]

DALI2.0 [Output Signal]

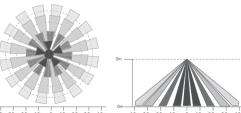
[Detection Technology] PIR infrared pyroelectric+photosensitive detection Flush mounting / European junction set (compatible

with 86 sided cover

[Product Category] PIR low mounting motion sensing (DALI2.0)

[Level] IP20





[Working Voltage] 21-30V DC powered by KNX bus

[Working Current] 10mA max [Products Size] φ89x34mm [Cut hole size] φ60mm

[Maximum Sensing Distance] Installation with a radius of 4m and a height of 3m

[Light Sensing Range] 0-65535 Lux

[Mounting Height] 2-6m (Typical Value: 3m) [Output Signal] KNX

[Detection Technology] PIR infrared pyroelectric+photosensitive detection

Flush mounting / European junction set (compatible with 86 sided cover) [Mounting]

PIR low mounting motion sensing (KNX)

[Level] IP20

[Product Category]



## MSA236D IR







- ◆Adopting PIR infrared pyroelectric sensing and light sensing dual sensina technology
- ◆Flat lens, exquisite appearance
- ◆Accurately sense human movement and output passive dry contact signals
- ◆Support remote control to set sensing range,hold time, and daylight sensor
- ◆Priority recommendation for entrance hall and bathroom mobile sensing detection
- ◆Support hidden embedded installation and exposed ceiling installation
- ◆Ultra small size, embedded in the ceiling and integrated with the ceiling after installation
- ◆The maximum withstand voltage of the passive dry contact port is 24V, and the maximum current is 50mA

### **III** MSA236D IR 485







- ◆Adopting PIR infrared pyroelectric sensing and light sensing dual sensing technology
- ◆Accurately sense human movement and output RS485 protocol
- ◆Supports RS485 protocol/remote control to set device ID, sensing range,
- ◆Priority recommendation for entrance hall and bathroom mobile sensing
- $\ensuremath{\blacklozenge} \ensuremath{\mathsf{Support}}$  hidden embedded installation and exposed ceiling installation
- after installation
- distance should not exceed 300m for the 485 bus







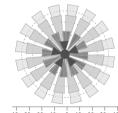


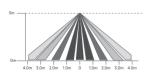












12-24V DC [Working Voltage] [Working Current] 20mA max [Products Size] φ58x34.5mm [Cut hole size] ω45mm

[Maximum Sensing Distance] Installation with a radius of 4m and a height of 3m

[Lighting Threshold] 0-50 Lux / Disable 2.5-4m (Typical Value: 3m)

[Mounting Height] [Output Signal] passive dry contact

[Detection Technology] PIR infrared pyroelectric+photosensitive detection

[Mounting] Flush mounting / Surface Mounting (needs to be compatible with surface mounting kit)

[Product Category] PIR low mounting motion sensing (passive dry contact)

[Level]

IP20







- ◆Flat lens, exquisite appearance
- hold time, etc

- ◆Ultra small size, embedded in the ceiling and integrated with the ceiling
- ♦It is recommended to deploy no more than 12 sensors and the bus



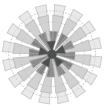


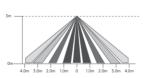












12-24V DC [Working Voltage] [Working Current] 20mA max [Products Size] φ58x34.5mm [Cut hole size]

[Maximum Sensing Distance] Installation with a radius of 4m and a height of 3m

0-1200 Lux (switchable daylight sensor mode [Light Sensing Range]

through protocol)

[Mounting Height] 2.5-4m (Typical Value: 3m)

[Output Signal]

[Detection Technology] PIR infrared pyroelectric+photosensitive detection [Mounting]

Flush mounting / Surface Mounting (needs to be compatible with surface mounting kit)

PIR low mounting motion sensing (RS485) [Product Category]

[|evel] IP20

### MSA238D IR







- ◆Adopting PIR infrared pyroelectric sensing and light sensing dual sensing technology
- ◆Curtain lens, exquisite appearance
- ◆Accurately sense human movement and output dry contact signals
- ◆Support remote control to set sensing range, hold time, and daylight
- ◆Priority recommendation for mobile sensing detection in scenes that
- require boundary control, such as window edges, entrances, corridors, etc ◆Support hidden embedded installation and exposed ceiling installation
- ◆Ultra small size, embedded in the ceiling and integrated with the ceiling after installation
- ◆The maximum withstand voltage of the passive dry contact port is 24V, and the maximum current is 50mA

## **III**MSA238D IR 485







- ◆Adopting PIR infrared pyroelectric sensing and light sensing dual sensing technology
- ◆Curtain lens, exquisite appearance
- ◆Accurately sense human movement and output RS485 protocol
- ◆Supports RS485 protocol/remote control to set device ID, sensing range,
- ◆Priority recommendation for mobile sensing detection in scenes that
- require boundary control, such as window edges, entrances, corridors, etc ◆Support hidden embedded installation and exposed ceiling installation
- ♦Ultra small size, embedded in the ceiling and integrated with the ceiling after installation
- ♦It is recommended to deploy no more than 12 sensors and the bus distance should not exceed 300m for the 485 bus























12-24V DC [Working Voltage] [Working Current] 20mA max ω58x34.5mm [Products Size] [Cut hole size] (n45mm

[Maximum Sensing Distance] Installation with a radius of 2m for the long side and 0.5m

0-50 Lux / Disable

for the short side at a height of 3m

[Lighting Threshold] [Mounting Height] 2.5-4m (Typical Value: 3m)

[Output Signal] passive dry contact [Detection Technology] PIR infrared pyroelectric+photosensitive detection

Flush mounting / Surface Mounting (needs to be compatible with surface mounting kit) [Mounting]

PIR low mounting motion sensing (passive dry contact)

[|evel] IP20

[Product Category]

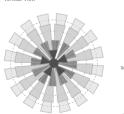


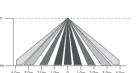












12-24V DC [Working Voltage] [Working Current] 20mA max φ58x34.5mm [Products Size] [Cut hole size]

[Maximum Sensing Distance] Installation with a radius of 2m for the long side and 0.5m for the short side at a height of 3m

[Light Sensing Range] 0-1200 Lux (switchable daylight sensor mode through protocol)

2.5-4m (Typical Value: 3m) [Mounting Height]

[Output Signal]

[Detection Technology] PIR infrared pyroelectric+photosensitive detection

RS485

Flush mounting / Surface Mounting (needs to be compatible with surface mounting kit) [Mounting]

[Product Category] PIR low mounting motion sensing (RS485)

[Level]



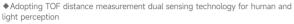
## TOF occupancy sensing series

### MSA245D 99









- ◆Accurately sense the presence of the human body and output dry contact
- ◆Support remote control to set sensing range, hold time, and daylight sensor
- ◆Priority Recommendations for recommending workstations, toilets, tea stands, and other locations that require precise small-scale distance control for presence sensing detection
- ◆Support hidden embedded installation and exposed ceiling installation
- lacktriangleUltra small size, embedded in the ceiling and integrated with the ceiling after
- ◆The maximum withstand voltage of the passive dry contact port is 24V, and the maximum current is 50mA

### **III**MSA245D 99 485







- Adopting TOF distance measurement and dual sensing technology for human perception and light perception
- ◆Accurately sense the presence of the human body and output RS485 protocol
- ◆Supports RS485 protocol/remote control to set sensing range, hold time, and
- ◆Priority Recommendations for recommending workstations, toilets, tea stands, and other locations that require precise small-scale distance control for presence sensing detection
- ◆Support hidden embedded installation and exposed ceiling installation
- ◆Ultra small size, embedded in the ceiling and integrated with the ceiling after
- ♦It is recommended to deploy no more than 12 sensors and the bus distance should not exceed 300m for the 485 bus



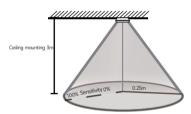












12-24V DC [Working Voltage] [Working Current] 40mA max ω58x34.5mm [Products Size] [Cut hole size] (n45mm

[Maximum Sensing Distance] Installation with a radius of 0.25m and a height of

0-50 Lux / Disable [Light Sensing Range]

[Mounting Height] 2.5-3m (Typical Value: 3m)

[Output Signal] passive dry contact

[Detection Technology] PIR infrared pyroelectric+photosensitive detection

Flush mounting / Surface Mounting (needs to be compatible with surface mounting kit)

[Product Category] TOF occupancy sensing (passive dry contact)

[level] IP20

[Mounting]



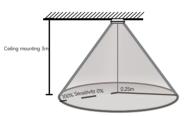












12-24V DC [Working Voltage] [Working Current] 40mA max φ58x34.5mm [Products Size] [Cut hole size]

[Maximum Sensing Distance] Installation with a radius of 0.25m and a height of

[Light Sensing Range] 0-50 Lux / Disable

[Mounting Height] 2.5-3m (Typical Value: 3m)

[Output Signal]

[Detection Technology] PIR infrared pyroelectric+photosensitive detection

Flush mounting / Surface Mounting (needs to be compatible with surface mounting kit) [Mounting]

TOF occupancy sensing (RS485) [Product Category]

[|evel] IP20

## Radar high mounting motion sensing series

## MSA003S RC



- ◆Adopting 5.8GHz radar dual sensing technology for human and light
- ◆Support dialing/remote control to set sensing range, hold time, and daylight sensor
- ◆Priority is given to recommending warehouse corridors and long corridor areas for mobile sensing detection
- ◆Support ceiling mounting installation
- ◆The maximum installation height is 10 meters
- ◆The maximum sensing radius for the long side is 7-8m, and for the short
- ◆One way 17A relay output: supports 800w (resistive)/400w (capacitive) maximum load capacity



MSA003D RC

- ◆Adopting 5.8GHz radar dual sensing technology for human and light
- ◆Accurately sense human movement and output passive dry contact signals
- ◆Support dialing/remote control to set sensing range, hold time, and daylight
- ◆Priority recommendation for mobile sensing detection in high mounting places such as warehouses and lobbies
- ◆Support ceiling mounting installation
- ◆The maximum installation height is 15 meters
- ◆The maximum withstand voltage of the passive dry contact port is 24V, and the maximum current is 50mA





















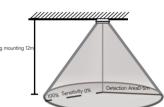












- 100-240V AC [Working Voltage] [Working Current] 50mA max 110x110x32mm [Products Size]
- [Maximum Sensing Distance] Installation with a radius of 8m for the long side and 3m for the short side at a height of 3m
- [Lighting Threshold] 5-150 Lux / Disable [Mounting Height] 2-10m (Typical Value: 3m)

[Output Signal]

[Detection Technology] 5.8GHz Microwave Human Movement Detection+Light Sensing Detection

[Mounting] Surface Mounting

[Product Category] Radar high mounting motion sensing (ON/OFF)

[Level]

12-24V DC [Working Voltage] [Working Current] 50mA max [Products Size] 110x110x32mm

[Lighting Threshold]

[Maximum Sensing Distance] Installation with a radius of 5m and a height of

5-150 Lux / Disable

[Mounting Height] 3-15m (Typical Value: 3m/12m)

[Output Signal] Normally open/normally closed dry contact

5.8GHz Microwave Human Movement [Detection Technology] Detection+Light Sensing Detection

[Mounting] Surface Mounting

[Product Category] Radar high mounting motion sensing (passive dry

[Level] IP20



## MSA224 RF



- Adopting 5.8GHz radar dual sensing technology for human and light
- ◆Accurately sense human movement and output 2.4G RF and one ON/OFF
- ◆Support dialing/remote control to set sensing range, Hold time, and daylight
- ◆Priority recommendation for mobile sensing detection in high mounting places such as warehouses and lobbies
- ◆Support ceiling mounting installation

The maximum installation height is 15 meters

- ◆Supports 2.4G RF group sensing control
- ♦One 16A relay output: supports a maximum load capacity of 800w (resistive)/400w (capacitive)







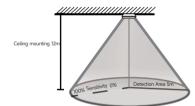












100-240V AC [Working Voltage] [Working Current] 50mA max 110x110x32mm [Products Size]

[Maximum Sensing Distance] Installation with a radius of 5m and a height of 12m

[Lighting Threshold] 5-150 Lux / Disable

3-15m (Typical Value: 3m/12m) [Mounting Height] 2.4G RF+One way Relay Switch (400w [Output Signal]

5.8GHz Microwave Human Movement Detection+Light [Detection Technology]

[Mounting] Surface Mounting

[Product Category] Radar high mounting motion sensing (ON/OFF)

[Level]

## Radar low mounting motion sensing series

## III MSA001D





- ◆ Adopting 5.8GHz microwave radar dual sensing technology for human and light perception
- ◆Adopting Merrytek's independently designed high gain low impedance
- ◆Accurately sense human movement and output passive dry contact signals
- ◆Support dialing/remote control to set sensing range, hold time, light sensitivity threshold
- ◆Priority recommendation for entrance hall and bathroom mobile sensing
- ◆Support hidden embedded installation and exposed ceiling installation
- ◆The ceiling is embedded and integrated with the ceiling after installation
- ◆The maximum withstand voltage of the passive dry contact port is 24V, and the maximum current is 50mA







- ◆Adopting Merrytek's independently designed high gain low impedance
- Accurately sense human movement and output passive dry contact signals
- ◆Support remote control to set sensing range, hold time, and daylight sensor
- ◆Priority recommendation for entrance hall and bathroom mobile sensing
- ◆Support hidden embedded installation and exposed ceiling installation
- The ceiling is embedded and integrated with the ceiling after installation
- ◆The maximum withstand voltage of the passive dry contact port is 24V, and

















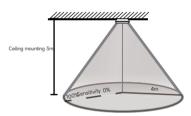












12-24V DC [Working Voltage] [Working Current] 20mA max φ65x51.5mm [Products Size] [Cut hole size] ω55mm

[Maximum Sensing Distance] Installation with a radius of 4m and a height of 3m

0-150 Lux/Disable [Lighting Threshold]

[Mounting Height] 2.5-4m (Typical Value: 3m)

Normally open/normally closed dry contact (default normally open) [Output Signal]

> 5.8GHz Microwave Human Movement Detection+Light Sensing Detection

Flush mounting / Surface Mounting (needs to be compatible with surface mounting kit) [Mounting]

[Product Category] Radar low mounting motion sensing (passive dry

IP20

[Detection Technology]

[Level]

[Working Voltage] 12-24V DC [Working Current] 20mA max [Products Size] φ52.5x34.5mm [Cut hole size] φ45mm

[Maximum Sensing Distance] Installation with a radius of 4m and a height of 3m

[Lighting Threshold] 0-150 Lux / Disable

[Mounting Height] 2.5-4m (Typical Value: 3m)

Normally open/normally closed dry contact (default normally open) [Output Signal]

[Detection Technology] 5.8GHz Microwave Human Movement Detection+Light Sensing Detection

Flush mounting / Surface Mounting (needs to be compatible with surface mounting kit) [Mounting]

[Product Category] Radar low mounting motion sensing (passive dry

IP20 [Level]

## **MSA001S 1**





- ◆Adopting 5.8GHz microwave radar dual sensing technology for human and light perception
- ◆Adopting Merrytek's independently designed high gain low impedance
- ◆Accurately sense human movement and output ON/OFF signals
- ◆Support dialing/remote control to set sensing range, hold time, and daylight sensor
- ◆Priority corridors, hallways, stairwells, elevator halls, and other public area scenes with motion sensing detection
- ◆Support surface mounting and flush mounting
- ◆The ceiling is embedded and integrated with the ceiling after installation
- ◆One 16A relay output: supports a maximum load capacity of 800w (resistive)/400w (capacitive)





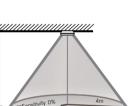














[Maximum Sensing Distance] Installation with a radius of 4m and a height of 3m

[Lighting Threshold] [Mounting Height] 2.5-4m (Typical Value: 3m)

5.8GHz Microwave Human Movement Detection+Light

Sensing Detection

[Mounting]

400w capacitive / 800w resistive

[Product Category] Radar low mounting motion sensing (ON/OFF)

[Level] IP20

[Maximum load power]

## **III** MSA053 Z





- ◆Adopting 24GHz millimeter wave radar human sensing technology
- ◆Adopting the independently designed 24GHz half wave folded radar
- ◆Accurately sense human movement and output graffiti ZigBee signals
- ◆Support graffiti app/remote control to set sensing range and hold time
- ◆Priority corridors, hallways, stairwells, elevator halls, and other public area scenes with motion sensing detection
- ◆Support surface mounting and flush mounting
- ◆The ceiling is embedded and integrated with the ceiling after installation
- ◆Support integration with graffiti app for scene automation control







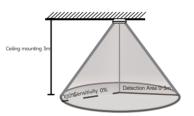












100-240V AC [Working Voltage] [Working Current] 50mA max φ65x51.5m [Products Size] [Cut hole size] ω55mm

[Maximum Sensing Distance] Installation with a radius of 4m and a height of 3m

[Light Sensing Range]

[Output Signal] Tuya Zigbee Wireless Communication

[Detection Technology]

[Mounting]

Radar low mounting motion sensing (Tuya

[level]

## **II** MSA055



- ◆Adopting 5.8GHz microwave radar human sensing technology
- ◆Adopting Mairui's independently designed high gain low impedance
- ◆Accurately sense human movement and output graffiti DALI2.0 signal
- ◆Support remote control setting of sensing range、hold Time
- ◆Priority corridors, hallways, stainwells, elevator halls, and other public area scenes with motion sensing detection
- ◆Support surface mounting and flush mounting
- $\ensuremath{\blacklozenge}$  The ceiling is embedded and integrated with the ceiling after installation
- ◆Supports DALI bus power supply





































[Working Current] 10mA max φ65x49.5mm [Products Size] [Cut hole size] φ55mm

[Maximum Sensing Distance] Installation with a radius of 4m and a height of 3m

[Light Sensing Range]

2.5-4m (Typical Value: 3m) [Mounting Height]

DALI 2.0 [Output Signal]

[Detection Technology] 5.8GHz Microwave Human Movement Detection+Light Sensing Detection

Flush mounting / Surface Mounting (needs to be compatible with surface mounting kit) [Mounting]

Radar low mounting motion sensing (DALI2.0)

[Level] IP20

[Product Category]

## **MSA056K 99**



- ◆Adopting 5.8GHz microwave radar human sensing technology
- ◆Adopting Merrytek's independently designed high gain low impedance 5.8GHz
- ◆Accurately sense human movement and output KNX signals
- ◆Support ETS/remote control to set sensing range, hold time
- ◆Priority corridors, hallways, stairwells, elevator halls, and other public area scenes with motion sensing detection
- ◆Support surface mounting and flush mounting and European junction
- lacktriangle The ceiling is embedded and integrated with the ceiling after installation
- ◆Support access to EASY Bluetooth control ecosystem
- ◆Support master-slave network control
- ◆Supports two sets of light channels and one set of HVAC channel control
- ◆Support light compensation and constant light control
- ◆Supports KNX bus power supply





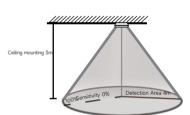












[Working Voltage] 21-30V DC (powered by KNX bus)

[Working Current] 30mA max φ89x34mm [Products Size] [Cut hole size] φ60-65mm

[Maximum Sensing Distance] Installation with a radius of 4m and a height of 3m

0-65535 Lux [Light Sensing Range]

[Output Signal] KNX

[Mounting Height]

[Detection Technology] 5.8GHz Microwave Human Movement Detection+Light Sensing Detection

Flush mounting / European junction set (compatible with 86 sided cover) [Mounting]

2.5-4m (Typical Value: 3m)

[Product Category] Radar low mounting motion sensing (KNX)

[level] IP20



[Detection Technology]

Flush mounting / Surface Mounting (needs to be compatible with surface mounting kit)

[Product Category]

[Mounting Height] 2.5-4m (Typical Value: 3m)

24GHz millimeter wave radar for human movement detection

Flush mounting / Surface Mounting (needs to be compatible with surface mounting kit))

Zigbee)

## **III** MSA237K 99 D





- ◆Adopting 5.8GHz microwave radar human sensing technology
- ◆Adopting Merrytek's independently designed high gain low impedance
- ◆Accurately sense human movement and output KNX signals
- ◆Support ETS/remote control to set sensing range、hold time
- ◆Priority corridors, hallways, stairwells, elevator halls, and other public area scenes with motion sensing detection
- ◆Support surface mounting and flush mounting
- ◆The ceiling is embedded and integrated with the ceiling after installation
- ◆Support access to EASY Bluetooth control ecosystem
- ◆Support master-slave network control
- ◆Supports two sets of light channels and one set of HVAC channel control
- ◆Support daylight sensor control
- ◆Supports KNX bus power supply





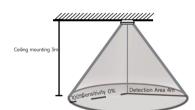












[Working Voltage] 21-30V DC (powered by KNX bus)

[Working Current] 30mA max

0-65535 Lux [Light Sensing Range]

[Mounting Height] 2.5-4m (Typical Value: 3m)

[Output Signal]

[Mounting] Flush mounting

[Product Category]

[Level]

## **■**MSA237K 99 E





- ◆Adopting 5.8GHz microwave radar human sensing technology
- ◆Adopting Merrytek's independently designed high gain low impedance 5.8GHz
- ◆Accurately sense human movement and output KNX signals
- ◆Support ETS/remote control to set sensing range、hold time
- ◆Priority corridors, hallways, stairwells, elevator halls, and other public area scenes with motion sensing detection
- ◆Support surface mounting and flush mounting
- ◆The ceiling is embedded and integrated with the ceiling after installation
- ◆Support access to EASY Bluetooth control ecosystem
- ◆Support master-slave network control
- ◆Supports two sets of light channels and one set of HVAC channel control
- ◆Support light compensation and constant light control
- ◆Supports KNX bus power supply
- ◆Support light compensation and constant light control
- ◆Supports KNX bus power supply







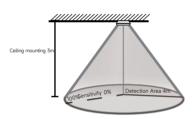












ω63x35mm [Products Size] (050-55mm [Cut hole size]

[Maximum Sensing Distance] Installation with a radius of 4m and a

height of 3m

[Detection Technology] 5.8GHz Microwave Human Movement

Detection+Light Sensing Detection

Radar low mounting motion sensing

[Working Voltage]

[Mounting]

21-30V DC (powered by KNX bus)

[Working Current] [Products Size] φ63x35mm [Cut hole size] (050-55mm

[Maximum Sensing Distance] Installation with a radius of 4m and a

height of 3m

0-65535 Lux [Light Sensing Range]

[Mounting Height] 2.5-4m (Typical Value: 3m)

[Output Signal]

[Detection Technology] 5.8GHz Microwave Human Movement Detection+Light Sensing Detection

[Product Category] Radar low mounting motion sensing

## Radar space presence sensor series

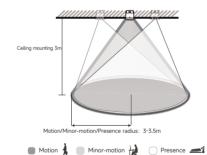
### MSA202S RC





- ◆Adopting dual sensing technology of human and light perception using 24GHz
- ◆Accurately sense the presence of the human body and output ON/OFF signals
- ◆Support dialing/remote control to set detection area, hold time, and daylight
- ◆Priority Recommendations for human presence sensing detection in public office areas, offices, bathrooms, etc
- ◆Support surface mounting and flush mounting
- ◆Adopting Merrytek's patented 24GHz binary orthogonal radar antenna, with a maximum coverage of 40 square meters per unit for detection
- ◆Built in Mairui Al based ultra strong anti-interference live breathing detection algorithm
- ♦One 16A relay output: supports a maximum load capacity of 800w (resistive)/400w (capacitive)





100-240V AC [Working Voltage] [Working Current] 50mA max [Products Size] φ65x51.5mm [Cut hole size] ω55mm

[Maximum Sensing Distance] Radius movement/micro movement/existing 3.5m @ 3m high installation

0-150 Lux / Disable [Lighting Threshold] [Mounting Height] 2-4m (Typical Value: 3m)

[Output Signal]

[Detection Technology] 24GHz millimeter wave radar for human presence detection+Light sensing detection

Flush mounting / Surface Mounting (needs to be compatible with surface mounting kit)

[Product Category] Radar space has induction (ON/OFF)

IP20

[Mounting]

### MSA235S 99



- Adopting dual sensing technology of human and light with 24GHz millimeter
- ◆Accurately sense the presence of the human body and output ON/OFF signals
- ◆Support dialing/remote control to set detection area, hold time, and daylight
- ◆Priority Recommendations for human presence sensing detection in public office areas, offices, bathrooms, etc
- ◆Support surface mounting and flush mounting
- Adopting Merrytek's patented 24GHz binary orthogonal radar antenna, with a maximum coverage of 40 square meters per unit for detection
- ♦ Built in Merrytek Al based ultra strong anti-interference live breathing detection algorithm
- ◆One 16A relay output: supports a maximum load capacity of 800w (resistive)/400w (capacitive)







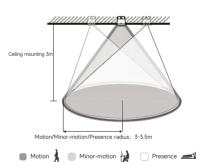












100-240V AC [Working Voltage] [Working Current] 50mA max [Products Size] φ85x52.5mm [Cut hole size] φ65-70mm

[Maximum Sensing Distance] Radius movement/micro movement/existing 3.5m @ 3m high installation

0-150 Lux / Disable [Lighting Threshold] [Mounting Height] 2-4m (Typical Value: 3m)

[Output Signal]

[Detection Technology] 24GHz millimeter wave radar for human presence

detection+Light sensing detection

[Mounting]

[Product Category] Radar space has induction (ON/OFF)

[level] IP20



## MSA065S 99



- ullet Adopting dual sensing technology of human and light with 24GHz millimeter wave radar
- ◆Accurately sense the presence of the human body and output ON/OFF signals
- ◆Support dialing/remote control to set detection area, hold time, and davlight sensor
- ◆Priority Recommendations for human presence sensing detection in public office areas, offices, bathrooms, etc
- ◆Support ceiling mounting installation
- ◆ Adopting Merrytek's patented 24GHz binary orthogonal radar antenna, the maximum coverage of a single machine is 40 square meters for detection
- ◆Built in Merrytek AI based ultra strong anti-interference live breathing detection algorithm
- ♦One 16A relay output: supports a maximum load capacity of 800w (resistive)/400w (capacitive)







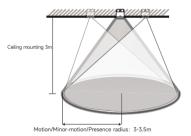












■ Motion Minor-motion Presence



[Working Voltage] 100-240V AC [Working Current] 50mA max 110x110x32mm [Products Size]

[Maximum Sensing Distance] Radius movement/micro movement/existing

3.5m @ 3m high installation

0-150 Lux / Disable [Lighting Threshold] 2-4m (Typical Value: 3m) [Mounting Height]

[Output Signal]

[Detection Technology] 24GHz millimeter wave radar for living body detection: breathing & static presence sensing

[Mounting] Surface Mounting

Radar space has induction (ON/OFF) [Product Category]

[Level]

## MSA063S 99







- ullet Adopting dual sensing technology of human and light with 24GHz millimeter
- ◆Accurately sense the presence of the human body and output ON/OFF signals
- ◆Support dialing/remote control to set detection area, hold time, and daylight
- ◆Priority Recommendations for human presence sensing detection in public office areas, offices, bathrooms, etc
- $\ensuremath{\blacklozenge}\xspace$  Support surface mounting and flush mounting, exposed ceiling installation, and European junction mounting
- Adopting Merrytek's patented 24GHz binary orthogonal radar antenna, the maximum coverage of a single machine is 40 square meters for detection
- lacktriangle Built in Merrytek AI based ultra strong anti-interference live breathing detection
- ◆One 16A relay output: supports a maximum load capacity of 800w (resistive)/400w (capacitive)
- ◆Support one-way PUSH switch control
- ◆Supports IP54 high-performance waterproofing









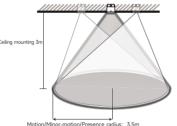












■ Motion Minor-motion Presence

[Working Voltage] 100-240V AC

[Working Current] 50mA max

105x105x60.6mm (Flush mounting) [Products Size] 105x105x45.6mm (Surface Mounting)

[Cut hole size]

[Maximum Sensing Distance] Radius movement/micro movement/existing 3.5m @ 3m high installation

[Lighting Threshold] 0-150 Lux / Disable 2-4m (Typical Value: 3m)

[Mounting Height] [Output Signal]

[Detection Technology] 24GHz millimeter wave radar for living body detection: breathing & static presence sensing

Hidden embedded ceiling installation / Surface [Mounting]

Mounting / European junction set

Radar space has induction (ON/OFF+PUSH) [Product Category]

IP54(Surface Mounting) / [Level] IP20(Flush mounting)

## MSA200D RC



- ◆Adopting dual sensing technology of human and light with 24GHz millimeter wave
- Accurately sense the presence of the human body and output passive dry contact signals
- ◆Support remote control to set sensing range, hold time, and daylight sensor
- $\ensuremath{\bullet}\xspace$  Priority Recommendations for human presence sensing detection in public office areas, offices, bathrooms, etc
- ◆Support ceiling mounting and ceiling mounting installation
- $\blacklozenge$  Adopting Merrytek's patented 24GHz binary orthogonal radar antenna, the maximum coverage of a single machine is 40 square meters for detection
- ◆Built in Merrytek Al based ultra strong anti-interference live breathing detection
- ◆The maximum withstand voltage of the passive dry contact port is 24V, and the maximum current is 50mA



























office areas, offices, bathrooms, etc

◆Support ceiling mounting installation

**MSA237D 99** 

maximum current is 50mA ◆Support Mairui mini program to adjust sensing parameters and OTA

◆Adopting dual sensing technology of human and light with 24GHz millimeter

Accurately sense the presence of the human body and output passive dry

◆Priority Recommendations for human presence sensing detection in public

◆Support remote control to set sensing range, hold time, and daylight sensor





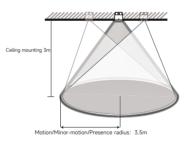














[Maximum Sensing Distance] Radius movement/micro movement/existing 3.5m @ 3m high installation

■ Motion Minor-motion Presence ■

0-150 Lux / Disable [Lighting Threshold] 2-4m (Typical Value: 3m) [Mounting Height]

[Output Signal] Normally open/normally closed dry contact (factory default normally open)

24GHz millimeter wave radar for human presence [Detection Technology] detection+Light sensing detection

Flush mounting / Surface Mounting (needs to be

compatible with surface mounting kit)

Radar space has induction (passive dry contact) [Product Category]

IP20 [Level]

[Mountina]



[Working Voltage] 12-24V DC [Working Current] 50mA max φ63x35mm [Products Size] [Cut hole size] φ50-55mm

[Maximum Sensing Distance] Radius movement/micro movement/existing 3.5m @ 3m high installation

0-150 Lux / Disable [Lighting Threshold] 2-4m (Typical Value: 3m) [Mounting Height]

[Output Signal] Normally open/normally closed dry contact (factory default normally open)

[Detection Technology] 24GHz millimeter wave radar for human presence detection+Light sensing detection

[Mountina] Flush mounting

[Product Category] Radar space has induction (passive dry contact)

IP20 [level]

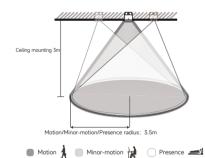


## MSA021D RC



- $\blacklozenge \text{Adopting dual sensing technology of human and light with 24GHz millimeter wave}$
- ◆Accurately sense the presence of the human body and output passive dry contact signals
- ◆Support remote control to set sensing range, hold time, and daylight sensor
- $\ensuremath{\blacklozenge}$  Priority Recommendations for human presence sensing detection in public office areas, offices, bathrooms, etc
- ◆Support ceiling mounting installation
- coverage of a single machine is 40 square meters for detection
- ◆Built in Merrytek Al based ultra strong anti-interference live breathing detection
- $\blacklozenge \mbox{The maximum with stand voltage of the passive dry contact port is 24V, and the$ maximum current is 50mA





12-24V DC [Working Voltage] 50mA max [Working Current] φ85x52.5mm [Products Size] [Cut hole size] φ65-70mm

[Maximum Sensing Distance] Radius movement/micro movement/existing 3.5m

@ 3m high installation

0-150 Lux / Disable [Lighting Threshold]

2-4m (Typical Value: 3m) [Mounting Height]

[Output Signal] Normally open/normally closed dry contact (factory default normally open)

[Detection Technology] 24GHz millimeter wave radar for human presence detection+Light sensing detection

[Mounting] Flush mounting

[Product Category] Radar space has induction (passive dry contact)

IP20 [Level]

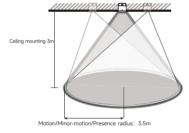
## **MSA203D 485**





- $\blacklozenge \text{Adopting dual sensing technology of human and light with 24GHz millimeter}$ wave radar
- Accurately sense the presence of the human body and output passive dry contact signals
- ◆Support RS485/remote control to set sensing range, hold time, daylight sensor, and set ID
- ◆Priority Recommendations for human presence sensing detection in public office areas, offices, bathrooms, etc
- ◆Support ceiling embedding and ceiling visible installation
- Adopting Merrytek's patented 24GHz binary orthogonal radar antenna, the maximum coverage of a single machine is 40 square meters for detection
- ◆Built in Merrytek Al based ultra strong anti-interference live breathing detection algorithm
- ♦It is recommended to deploy no more than 12 sensors and the bus distance should not exceed 300m for the 485 bus





■ Motion Minor-motion Presence

[Working Voltage] 12-24V DC 50mA max [Working Current] φ65x51.5mm [Products Size] [Cut hole size]

[Maximum Sensing Distance] Radius movement/micro movement/existing 3.5m @ 3m high installation

0-1200 Lux [Light Sensing Range]

2-4m (Typical Value: 3m) [Mounting Height]

[Output Signal] RS485

[Detection Technology] 24GHz millimeter wave radar for human presence

detection+Light sensing detection

Flush mounting / Surface Mounting (needs to be compatible with surface mounting kit) [Mounting]

[Product Category] Radar space has induction (RS485)

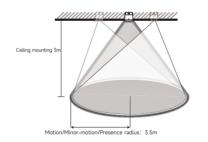
IP20 [Level]

## MSA219D 99



- $\blacklozenge \text{Adopting dual sensing technology of human and light with 24GHz millimeter wave}$
- Accurately sense the presence of the human body and output passive dry contact signals
- ◆Support remote control to set sensing range, hold time, and daylight sensor
- $\ensuremath{\bullet}\xspace$  Priority Recommendations for human presence sensing detection in public office areas, offices, bathrooms, etc
- ◆Support ceiling mounting installation
- coverage of a single machine is 40 square meters for detection
- ◆Built in Meryytek Al based ultra strong anti-interference live breathing detection
- $\ensuremath{\blacklozenge}\xspace$  The maximum withstand voltage of the passive dry contact port is 24V, and the maximum current is 50mA
- ullet The sensing angle can be adjusted from -30  $^{\circ}$  to 30  $^{\circ}$





■ Motion Minor-motion Presence



[Maximum Sensing Distance] Radius movement/micro movement/existing

3.5m @ 3m high installation

0-150 Lux/Disable [Lighting Threshold]

2-4m (Typical Value: 3m) [Mounting Height]

[Output Signal] Normally open/normally closed dry contact (factory default normally open)

24GHz millimeter wave radar for human [Detection Technology]

presence detection+Light sensing detection

[Mounting] Flush mounting

[Product Category] Radar space has induction (passive dry

IP20 [Level]

## **III**MSA237D 99 485



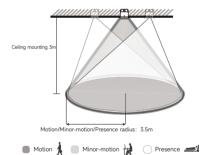


- ◆Adopting dual sensing technology of human and light with 24GHz millimeter
- ◆Accurately sense the presence of the human body and output passive dry
- ◆Support remote control setting of sensing range、 hold time、 device ID
- ◆Priority Recommendations for human presence sensing detection in public office areas, offices, bathrooms, etc
- ◆Support ceiling mounting installation
- ◆Adopting Merrytek's patented 24GHz binary orthogonal radar antenna, with a maximum coverage of 40 square meters per unit for detection
- ◆Built in Merrytek Al based ultra strong anti-interference live breathing detection
- ♦It is recommended to deploy no more than 12 sensors and the bus distance should not exceed 300m for the 485 bus
- ◆Support Merrytek mini program to adjust sensing parameters and OTA

485

24GHz







[Maximum Sensing Distance] Radius movement/micro movement/existing 3.5m @ 3m high installation

0-1200 Lux [Light Sensing Range]

2-4m (Typical Value: 3m) [Mounting Height]

[Output Signal] RS485

24GHz millimeter wave radar for human presence [Detection Technology]

detection+Light sensing detection

Flush mounting [Mounting]

[Product Category] Radar space has induction (RS485)

IP20 [Level]

## **MSA201 Z**





- ◆Accurately sense the presence of the human body and output Tuya Zigbee signals
- ◆Priority Recommendations for human presence sensing detection in public office
- ◆Adopting Merrytek's patented 24GHz binary orthogonal radar antenna, with a
- ◆Built in Merrytek Al based ultra strong anti-interference live breathing detection
- ◆Support integration into the Tuya ecosystem for scene automation control

### **MSA201 B4**

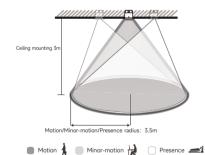




- ◆Adopting dual sensing technology of human and light with 24GHz millimeter
- ◆Accurately sense the presence of the human body and output Tuya Bluetooth signals
- ◆Support tuyaApp/remote control to set detection area, hold time and other parameters
- ◆Priority Recommendations for human presence sensing detection in public office areas, offices, bathrooms, etc
- ◆Support ceiling embedding and ceiling visible installation
- Adopting Merrytek's patented 24GHz binary orthogonal radar antenna, with a maximum coverage of 40 square meters per unit for detection
- ◆Built in Merrytek AI based ultra strong anti-interference live breathing detection
- ◆Support integration into the Tuya ecosystem for scene automation control







100-240V AC [Working Voltage] [Working Current] 50mA max [Products Size] φ65×49.5mm [Cut hole size]

[Maximum Sensing Distance] Radius movement/micro movement/existing 3.5m @ 3m high installation

0-1200 Lux [Light Sensing Range]

2-4m (Typical Value: 3m) [Mounting Height]

[Output Signal] Tuva Zigbee 3.0

[Detection Technology] 24GHz millimeter wave radar for human presence

detection+Light sensing detection

Flush mounting / Surface Mounting (needs to be compatible with surface mounting kit) [Mounting]

Radar space has induction (Tuya Zigbee)

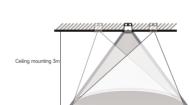
[Level] IP20

[Product Category]

## **III** MSA219 Z1



- ◆Adopting dual sensing technology of human and light perception using 24GHz millimeter wave radar
- ◆Accurately sense human presence and output Tuya Zigbee signals
- ◆Support tuya app/remote control to set detection area, hold time and other parameters ◆Priority Recommendations for human presence sensing detection in public office areas, offices, bathrooms, etc.
- ◆Support ceiling mounting installation
- ◆Adopting Merrytek's patented 24GHz binary orthogonal radar antenna, with a maximum coverage of 40 square meters per unit for detection
- ◆Built in Merrytek Al based ultra strong anti-interference live breathing detection
- ◆Support integration into the Tuya ecosystem for scene automation control
- ♦Induction angle -30 ° -30 ° adjustable





[Working Voltage] 100-240V AC [Working Current] 50mA max φ85 × 43.5mm [Products Size] [Cut hole size] φ70mm

[Maximum Sensing Distance] Radius movement/micro movement/existing

3.5m @ 3m high installation

0-1200 Lux [Light Sensing Range]

[Mounting Height]

[Output Signal] Tuva Zigbee 3.0

IP20 [Level]

## **III**MSA050S 99 Z









- ◆Accurately sense the presence of the human body and output Tuya Zigbee signal and one ON/OFF signal
- ◆Support tuya App/remote control to set sensing range, hold time and other
- ◆Priority Recommendations for human presence sensing detection in public office areas, offices, bathrooms, etc
- ◆Support surface mounting and flush mounting, exposed ceiling installation, and European junction mounting ◆Adopting Merrytek's patented 24GHz binary orthogonal radar antenna, with a
- maximum coverage of 40 square meters per unit for detection ◆Built in Merrytek Al based ultra strong anti-interference live breathing detection
- ◆Support integration into the Tuya ecosystem for scene automation control One 16A relay output: supports a maximum load capacity of 800w (resistive)/400w (capacitive)
- ◆Supports IP54 high-performance waterproofing





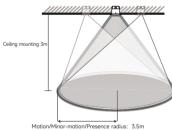














[Working Voltage] 100-240Vac [Working Current] 50mA max

105x105x60.6mm (Flush mounting) [Products Size] 105x105x45.6mm (Surface Mounting)

[Cut hole size]

[Maximum Sensing Distance] Radius movement/micro movement/existing 3.5m @ 3m high installation

[Light Sensing Range] 0-1200 Lux

[Mounting Height] 2.5-4m (Typical Value: 3m)

Relay Switch (Max 800w(resistive load) [Output Signal]

400w capacitive load) / Tuya Zigbee

[Detection Technology]

IP54(Surface Mounting) [Level]

56





◆Support tuyaApp/remote control to set detection area, hold time and other parameters

areas, offices, bathrooms, etc.

◆Support ceiling embedding and ceiling visible installation

maximum coverage of 40 square meters per unit for detection







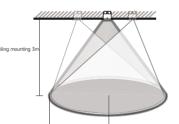












100-240V AC 50mA max φ65x49.5mm

[Cut hole size] [Maximum Sensing Distance] Radius movement/micro movement/existing 3.5m @ 3m high installation

2-4m (Typical Value: 3m) [Mounting Height]

[Detection Technology]

detection+Light sensing detection

Radar space has induction (Tuva BLE)

Flush mounting / Surface Mounting (needs to be compatible with surface mounting kit) [Mounting]

IP20 [| evel]

[Product Category]

■ Motion Minor-motion Presence

[Working Voltage] [Working Current] [Products Size]

0-1200 Lux [Light Sensing Range]

[Output Signal] Tuva Bluetooth

24GHz millimeter wave radar for human presence

2-4m (Typical Value: 3m) [Detection Technology] 24GHz millimeter wave radar for human presence detection+Light sensing detection [Mounting] Flush mounting [Product Category] Radar space has induction (Tuya BLE)



[Mounting] Flush mounting / Surface Mounting [Product Category] Radar space has induction (ON/OFF+Tuya Zigbee)

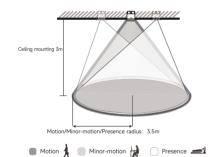
IP20 (Flush mounting)

## MSA223 A



- ◆Adopting dual sensing technology of human and light with 24GHz millimeter wave
- ◆Accurately sense the presence of the human body and output Mijia Bluetooth signals
- ◆Support MI home app/remote control to set detection area, hold time and other
- ◆Priority Recommendations for human presence sensing detection in public office areas, offices, bathrooms, etc
- ◆Support ceiling mounting installation
- ◆Adopting Merrytek's patented 24GHz binary orthogonal radar antenna, with a maximum coverage of 40 square meters per unit for detection
- ◆Built in Merrytek Al based ultra strong anti-interference live breathing detection
- ◆Support integration into the Mi Home ecosystem for scene automation control





[Working Voltage] 100-240Vac [Working Current] 50mA max [Products Size] φ70x48mm [Cut hole size] φ55mm

[Maximum Sensing Distance] Radius movement/micro movement/existing 3.5m

@ 3m high installation

0-2000 Lux [Light Sensing Range]

2.5-4m (Typical Value: 3m) [Mounting Height] [Output Signal] MLIIA Bluetooth5 0/MLIIA Mesh1 0

[Detection Technology] 24GHz millimeter wave radar for human presence

detection+Light sensing detection

[Mounting] Flush mounting

[Product Category] Radar space has induction (Xiaomi Bluetooth)

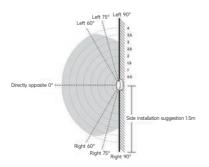
IP20 [Level]

## **MSA223 C1**



- ◆Adopting dual sensing technology of human and light perception using 24GHz millimeter wave radar
- ◆Accurately sense the presence of the human body and output Mi Home
- ◆Support Mi HomeApp/remote control to set sensing range, hold time and other parameters
- ◆Priority Recommendations for human presence sensing detection in public office areas, offices, bathrooms, etc
- ◆Support wall side installation and ceiling visible installation
- Adopting Merrytek's patented 24GHz binary orthogonal radar antenna, with a maximum coverage of 40 square meters per unit for detection
- ◆Built in Merrytek Al based ultra strong anti-interference live breathing detection
- ◆Support integration into the Mi Home ecosystem for scene automation control





[Working Voltage] 5V DC (Type C power supply) [Working Current] 50mA max

[Products Size] φ60x25.8mm

[Cut hole size]

[Maximum Sensing Distance] Radial movement/micro movement/existing 4m @ 1.5m high installation

0-2000 Lux / Disable [Light Sensing Range] [Mounting Height] 1-2m (Typical Value: 1.5m)

[Output Signal] MIJIA Bluetooth5.0/MIJIA Mesh1.0

[Detection Technology] 24GHz millimeter wave radar for human presence detection+Light sensing detection

Wall mounting (supporting magnetic suction, 3m adhesive, screw holes) [Mounting]

[Product Category] Radar space has induction (Xiaomi Bluetooth)

[| evel] IP20

## **III**MSA205



- ◆Adopting dual sensing technology of human and light with 24GHz millimeter wave
- ◆Accurately sense the presence of the human body and output DALI2.0 signals
- ◆Support remote control to set parameters such as detection area and hold time
- ◆Priority Recommendations for human presence sensing detection in public office areas, offices, bathrooms, etc.
- ◆Support ceiling mounting installation
- ◆Adopting Merrytek's patented 24GHz binary orthogonal radar antenna, with a maximum coverage of 40 square meters per unit for detection
- ◆Built in Merrytek Al based ultra strong anti-interference live breathing detection
- ◆Support integration into the DALI2.0 ecosystem for scene automation control



## ◆Adopting dual sensing technology of human and light with 24GHz millimeter

- ◆Accurately sense the presence of the human body and output KNX signals
- ◆Support ETS/remote control/mini program settings for detection area, hold time and other parameters
- ◆Priority Recommendations for human presence sensing detection in public office areas, offices, bathrooms, etc
- ◆Supports ceiling mounting and European junction mounting
- ◆Adopting Merrytek's patented 24GHz binary orthogonal radar antenna, with a maximum coverage of 40 square meters per unit for detection
- ◆Built in Merrytek AI based ultra strong anti-interference live breathing detection
- ◆Support integration into the KNX ecosystem for scene automation control
- ◆Support access to EASY Bluetooth control ecosystem
- ◆Support master-slave network control

**III**MSA206K 99

- ◆Supports two sets of light channels and one set of HVAC channel control
- ◆Support light compensation and constant light control





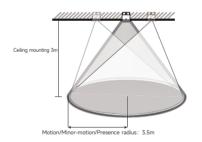














[Maximum Sensing Distance] Radius movement/micro movement/existing 3.5m @ 3m high installation

0-1200 Lux [Light Sensing Range]

2-4m (Typical Value: 3m) [Mounting Height]

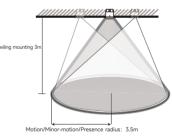
[Output Signal] DAI 12 0

24GHz millimeter wave radar for human presence detection+Light sensing detection [Detection Technology]

[Mounting] Flush mounting

[Product Category] Radar space has induction (DALI2.0)

IP20 [Level]





Auxiliary ports 12-24V DC/KNX ports 21-30V DC [Working Voltage]

[Working Current] 50mA max φ89 x34mm [Products Size] [Cut hole size]

[Maximum Sensing Distance] Radius movement/micro movement/existing 3.5m @ 3m high installation

0-65535 Lux [Light Sensing Range]

2-4m (Typical Value: 3m) [Mounting Height]

[Output Signal] KNX

[Detection Technology] 24GHz millimeter wave radar for human presence

detection+Light sensing detection

Flush mounting / European junction set (compatible with 86 sided cover) [Mounting]

[Product Category] Radar space has induction (KNX)

IP20 [level]



## **III**MSA219K 99 A

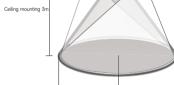


- ◆Adopting dual sensing technology of human and light with 24GHz millimeter wave
- ◆Accurately sense the presence of the human body and output KNX signals
- ◆Support ETS/remote control/mini program settings for decay area, hold time and other parameters
- ◆Priority Recommendations for human presence sensing detection in public office areas, offices, bathrooms, etc.
- ◆Supports ceiling mounting and European junction mounting
- ◆Adopting Merrytek's patented 24GHz binary orthogonal radar antenna, with a maximum coverage of 40 square meters per unit for detection
- ◆Built in Merrytek Al based ultra strong anti-interference live breathing detection
- ◆Support integration into the KNX ecosystem for scene automation control

KNX

◆The sensing angle can be adjusted from -30 ° to 30 °





■ Motion Minor-motion Presence ■

Auxiliary ports 12-24V DC/KNX ports 21-30V DC

[Working Current] 50mA max φ80x45mm [Products Size] [Cut hole size]

[Working Voltage]

[Maximum Sensing Distance] Radius movement/micro movement/existing 3.5m

@ 3m high installation

0-65535 Lux [Light Sensing Range]

2-4m (Typical Value: 3m) [Mounting Height]

[Output Signal]

[Detection Technology] 24GHz millimeter wave radar for human presence

detection+Light sensing detection

[Mounting] Flush mounting

[Product Category] Radar space has induction (KNX)

[Level]

## MSA237K 99 A





- ullet Adopting dual sensing technology of human and light perception using 24GHz millimeter wave radar
- ◆Accurately sense the presence of the human body and output KNX signals
- ◆Support ETS/remote control to set detection area, hold time and other
- ◆Priority Recommendations for human presence sensing detection in public office areas, offices, bathrooms, etc.
- ◆Support ceiling mounting installation
- ◆Adopting Merrytek's patented 24GHz binary orthogonal radar antenna, with a maximum coverage of 40 square meters per unit for detection
- ◆Built in Merrytek Al based ultra strong anti-interference live breathing detection
- ◆Support integration into the KNX ecosystem for scene automation control
- ◆Support master-slave network control
- ◆Supports two sets of light channels and one set of HVAC channel control
- ◆Support daylight sensor control









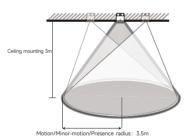












■ Motion Minor-motion Presence ■

[Working Voltage] Auxiliary ports 12-24V DC/KNX ports 21-30V DC [Working Current] 12V: 55±3mA Max 24V: 30±3mA Max

[Products Size] φ63x35mm [Cut hole size] φ50-55mm

[Maximum Sensing Distance] Radius movement/micro movement/existing 3.5m

@ 3m high installation

0-65535 Lux [Light Sensing Range]

2-4m (Typical Value: 3m) [Mounting Height]

[Output Signal]

[Detection Technology] 24GHz millimeter wave radar for human presence

detection+Light sensing detection

[Mounting] Flush mounting

[Product Category] Radar space has induction (KNX)

## **MSA237K 99 C**





- ◆Adopting dual sensing technology of human and light with 24GHz millimeter wave
- ◆Accurately sense the presence of the human body and output KNX signals
- other parameters
- ◆Priority Recommendations for human presence sensing detection in public office areas, offices, bathrooms, etc.
- ◆Support ceiling mounting installation
- ◆Adopting Merrytek's patented 24GHz binary orthogonal radar antenna, the maximum coverage of a single machine is 40 square meters for detection
- ◆Built in Merrytek Al based ultra strong anti-interference live breathing detection
- ◆Support integration into the KNX ecosystem for scene automation control
- ◆Support access to EASY Bluetooth control ecosystem
- ◆Support master-slave network control
- ◆Supports two sets of light channels and one set of HVAC channel control
- ◆Support light compensation and constant light control





[Working Voltage]

[Working Current]

[Products Size]

[Cut hole size]

[Light Sensing Range]

[Detection Technology]

[Product Category]

[Mounting Height]

[Output Signal]

[Mounting]

[Level]









■ Motion Minor-motion Presence

φ63x35mm

φ50-55mm

0-65535 Lux

Flush mounting

KNX

IP20

[Maximum Sensing Distance] Radius movement/micro movement/existing 3.5m

@ 3m high installation

2-4m (Typical Value: 3m)







Auxiliary ports 12-24V DC/KNX ports 21-30V DC

12V: 55±3mA Max 24V: 30±3mA Max

24GHz millimeter wave radar for human

Radar space has induction (KNX)

presence detection+Light sensing detection







54 IP54



MSA063 99

office areas, offices, bathrooms, etc

◆Support access to PUSH switch control

◆Supports IP54 high-performance waterproofing



 $\bullet \mbox{Adopting dual sensing technology of human and light with 24GHz millimeter$ 

◆Support remote control to set parameters such as detection area and hold time ◆Priority Recommendations for human presence sensing detection in public

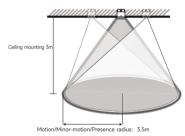
◆Adopting Merrytek's patented 24GHz binary orthogonal radar antenna, with a

◆Built in Merrytek AI based ultra strong anti-interference live breathing detection

◆Accurately sense the presence of the human body and output DALI signals

Supports ceiling mounting, ceiling mounting, and European junction sets

maximum coverage of 40 square meters per unit for detection



[Working Voltage] 100-240V AC [Working Current] 50mA max

105x105x60.6mm (Flush mounting) [Products Size] 105x105x45.6mm (Surface Mounting)

■ Motion Minor-motion Presence

[Cut hole size]

[Mounting]

[Maximum Sensing Distance] Radius movement/micro movement/existing 3.5m @ 3m high installation

[Light Sensing Range] 50 Lux / Disable

[Mounting Height] 2.5-4m (Typical Value: 3m)

[Output Signal]

[Detection Technology] 24GHz millimeter wave radar for human presence

detection+Light sensing detection

Flush mounting / Surface Mounting / European

Radar space has induction (DALI+PUSH) [Product Category] IP54(Surface Mounting)/IP20(Flush mounting)

[Level]

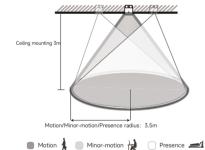


## **MSA211** B



- ◆Adopting dual sensing technology of human and light with 24GHz millimeter wave
- ◆Accurately sense the presence of the human body and output Casambi signals
- ◆Support Casambi/remote control to set parameters such as detection area .hold time Priority Recommendations for human presence sensing detection in public office areas, offices, bathrooms, etc
- ◆Support ceiling mounting installation
- Adopting Merrytek's patented 24GHz binary orthogonal radar antenna, with a maximum coverage of 40 square meters per unit for detection
- ◆Built in Merrytek Al based ultra strong anti-interference live breathing detection





100-240V AC [Working Voltage] [Working Current] 50mA max [Products Size] φ90x80mm [Cut hole size]

[Maximum Sensing Distance] Radius movement/micro movement/existing 3.5m @ 3m high installation

0-65535 Lux [Light Sensing Range]

2.5-4m (Typical Value: 3m) [Mounting Height]

[Output Signal] Casambi

[Detection Technology]

24GHz millimeter wave radar for human presence detection+Light sensing detection

[Mounting] Flush mounting

[Product Category] Radar space has induction (ON/OFF+Casambi)

IP20 [Level]

## **III**MSA227S 99 B1

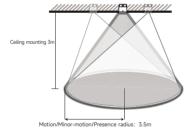






- ◆Adopting dual sensing technology of human and light with 24GHz millimeter
- ◆Accurately sense the presence of the human body and output Casambi signal and one ON/OFF signal
- ◆Support Casambi/remote control to set detection area, hold time and other
- ◆Priority Recommendations for human presence sensing detection in public office areas, offices, bathrooms, etc.
- ◆Supports ceiling mounting, ceiling mounting, and European junction sets
- Adopting Merrytek's patented 24GHz binary orthogonal radar antenna, with a maximum coverage of 40 square meters per unit for detection
- ◆Built in Mairui Al based ultra strong anti-interference live breathing detection algorithm
- ◆The maximum load capacity of the relay can reach 800w (resistive load) and 400w (capacitive load)
- ◆Supports IP54 high-performance waterproofing





■ Motion Minor-motion Presence ■

[Working Current] 50mA [Products Size] 105x105x60.6mm (Flush mounting) 105x105x45.6mm (Surface Mounting)

[Cut hole size]

[Working Voltage]

[Maximum Sensing Distance] Radius movement/micro movement/existing 3.5m

100-240V AC

@ 3m high installation

[Light Sensing Range] 0-1200 Lux

[Mounting Height] 2.5-4m (Typical Value: 3m) Relay Switch+Casambi [Output Signal]

[Detection Technology] 24GHz millimeter wave radar for human presence detection+Light sensing detection

Flush mounting / Surface Mounting / European [Mounting]

[Product Category] Radar space has induction (ON/OFF+Casambi) [Level] IP54(Surface Mounting)/IP20(Flush mounting)

### **III** MSA227 99 B1



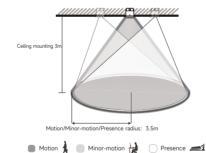






- ◆Adopting dual sensing technology of human and light with 24GHz millimeter wave
- ◆Accurately sense the presence of the human body and output Casambi signals and one DALI signal
- ◆Support Casambi/remote control to set detection area, hold time and other
- ◆Priority Recommendations for human presence sensing detection in public office areas, offices, bathrooms, etc.
- ◆Supports ceiling mounting, ceiling mounting, and European junction sets
- Adopting Merrytek's patented 24GHz binary orthogonal radar antenna, the maximum coverage of a single machine is 40 square meters for detection
- ◆Built in Merrytek AI based ultra strong anti-interference live breathing detection algorithm
- ◆Supports IP54 high-performance waterproofing
- ◆Support access to PUSH switch control





[Working Voltage] 100-240V AC [Working Current] 50mA max

105x105x60.6mm (Flush mounting) [Products Size] 105x105x45.6mm (Surface Mounting)

[Cut hole size]

[Mounting]

[Maximum Sensing Distance] Radius movement/micro movement/existing 3.5m @ 3m high installation

[Light Sensing Range] 0-1200 Lux

[Mounting Height] 2.5-4m (Typical Value: 3m) DALI+PUSH+Casambi [Output Signal]

[Detection Technology] 24GHz millimeter wave radar for human presence detection+Light sensing detection

Flush mounting / Surface Mounting / European

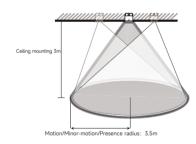
Radar space has induction (DALI+PUSH+Casambi) [Product Category] IP54(Surface Mounting)/IP20(Flush mounting) [Level]



IIIMSA219 RF A

- ◆Adopting dual sensing technology of human and light with 24GHz millimeter
- ◆Accurately sense the presence of the human body and output 2.4G RF signal and one ON/OFF signal
- ◆Support remote control to set parameters such as detection area and hold time
- ◆Priority Recommendations for human presence sensing detection in public office areas, offices, bathrooms, etc.
- ◆Supports ceiling mounting, ceiling mounting, and European junction sets
- ◆Adopting Merrytek's patented 24GHz binary orthogonal radar antenna, the maximum coverage of a single machine is 40 square meters for detection
- ◆Built in Merrytek AI based ultra strong anti-interference live breathing detection
- ◆The maximum load capacity of the relay can reach 800w (resistive load) and 400w (capacitive load)
- ◆Supports IP54 high-performance waterproofing
- ◆Supports 2.4G RF networking control







[Cut hole size]

■ Motion Minor-motion Presence ■

Radius movement/micro movement/existing 3.5m [Maximum Sensing Distance] @ 3m high installation

0-150 Lux / Disable [Light Sensing Range] 2-4m (Typical Value: 3m) [Mounting Height] 2.4G RF+ON /OFF [Output Signal]

[Detection Technology] 24GHz millimeter wave radar for human presence

detection+Light sensing detection

[Mounting] Flush mounting

[Product Category] Radar space has induction (2.4G RF+ON/OFF)

IP20 [Level]

## Radar Sleep Presence Sensing series

## **III**MSA219D 99 B



- ullet Adopting multi array high gain 24GHz millimeter wave planar antenna technology, dedicated for deep sleep detection
- ◆Within the confines of a bed, the sensor can detect the human presence
- ◆Accurately detecting human presence and outputting a passive dry contact signal
- ◆Support remote control to set parameters such as detection area and hold time
- ◆Priority bedroom detection of human presence during deep sleep
- ◆Support ceiling mounting installation
- Adopting Merrytek's patented 24GHz binary orthogonal radar antenna, the maximum coverage of a single machine is 40 square meters for
- ◆Built in Merrytek Al based ultra strong anti-interference live breathing
- ◆The sensing angle can be adjusted from -30 ° to 30 °
- ◆The maximum withstand voltage of the passive dry contact port is 24V, and the maximum current is 50mA



















## **III**MSA219 7



- ◆Adopting multi array high gain 24GHz millimeter wave planar antenna technology, dedicated for deep sleep detection
- ◆Within the confines of a bed, the sensor can detect the human presence with zero signal loss
- ◆Accurately detecting human presence and outputting a passive dry
- ◆ Support TUYA app/remote control to set detection area, hold time and other parameters
- ◆Priority bedroom detection of human presence during deep sleep
- the maximum coverage of a single machine is 40 square meters for
- ◆The sensing angle can be adjusted from -30 ° to 30 °

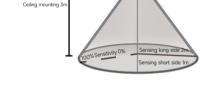












[Working Voltage] 12-24V DC [Working Current] 50mA max φ85x45mm [Products Size] [Cut hole size] φ70mm

[Maximum Sensing Distance] Radius movement/micro movement/with a long side of 2m and a short side of 1m

@3m high installation

5-150 Lux / Disable [Light Sensing Range]

[Mounting Height] 2-3.5m (Typical Value: 3m)

Normally open/normally closed (adjustable) Dry [Output Signal]

[Detection Technology] 24GHz millimeter radar sleeping presence sensor

+Light sensing detection

[Mounting] Flush mounting

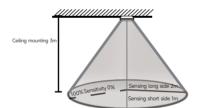
[Product Category] Radar Sleep Presence Sensing (passive dry contact)

[Level]



- contact signal
- Support ceiling mounting installation
- Adopting Merrytek's patented 24GHz binary orthogonal radar antenna,
- ◆Built in Merrytek AI based ultra strong anti-interference live breathing





[Working Voltage] 100-240Vac [Working Current] 50mA max φ80x66.5mm [Products Size] [Cut hole size]

[Maximum Sensing Distance] Radius movement/micro movement/with a long side of 2m and a short side of 1m

@3m high installation

0-1200 Lux [Light Sensing Range]

[Mounting Height] 2-3.5m (Typical Value: 2.5m)

[Output Signal] Tuya Zigbee

24GHz millimeter wave radar for human [Detection Technology] presence detection+Light sensing detection

[Mountina] Flush mounting

[Product Category] Radar Sleep Presence Sensing (Tuya Zigbee)

[Level]

## **III**MSA219K 99 B



- ◆Adopting multi array high gain 24GHz millimeter wave planar antenna technology, dedicated for deep sleep detection
- ♦ Within the confines of a bed, the sensor can detect the human presence with zero
- ◆Accurately sense the presence of the human body and output a KNX signal
- ◆Support ETS/remote control to set parameters such as detection area and hold
- ◆Priority bedroom detection of human presence during deep sleep
- ◆Support ceiling mounting installation
- Adopting Merrytek's patented 24GHz binary orthogonal radar antenna, with a maximum coverage of 40 square meters per unit for detection
- ◆Built in Merrytek Al based ultra strong anti-interference live breathing detection
- ◆The sensing angle can be adjusted from -30 ° to 30 °



### MSA220 7



- Adopting multi array high gain 24GHz millimeter wave planar antenna technology, dedicated for deep sleep detection
- ◆Within the confines of a bed, the sensor can detect the human presence with
- ◆Accurately sense the presence of the human body and output a Tuya ZigBee
- ◆Support Tuya APP/remote control to set detection area, hold time and other parameters
- ◆Priority bedroom detection of human presence during deep sleep
- ◆Support ceiling embedding and ceiling visible installation
- ◆Adopting Merrytek's patented 24GHz binary orthogonal radar antenna, with a maximum coverage of 40 square meters per unit for detection
- ◆Built in Merrytek AI based ultra strong anti-interference live breathing detection









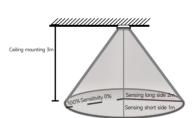














[Working Current] 55mA max φ89x45mm [Products Size] [Cut hole size] φ60mm

[Maximum Sensing Distance] Radius movement/micro movement/with a long side of 2m and a short side of 1m

@3m high installation

presence detection+Light sensing detection

[Light Sensing Range] 0-65535 Lux

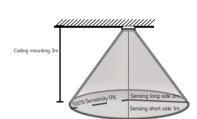
[Mounting Height] 2-3.5m (Typical Value: 3m) [Output Signal]

[Detection Technology] 24GHz millimeter wave radar for human

Flush mounting [Mounting]

[Product Category] Radar Sleep Presence Sensing (KNX)

IP20 [Level]



[Working Voltage] 100-240Vac 50Hz/60Hz

[Working Current] 50mA max φ65x49.5mm [Products Size] [Cut hole size]

[Maximum Sensing Distance] Radius movement/micro movement/with a long

side of 2m and a short side of 1m @3m high installation

[Light Sensing Range] 0-1200 Lux

[Mounting Height] 2-3.5m (Typical Value: 3m)

Tuya ZigBee Wireless Communication [Output Signal]

[Detection Technology] 24GHz millimeter wave radar for human presence detection+Light sensing detection

[Mounting] Flush mounting

[Product Category] Radar Sleep Presence Sensing (Tuva Zigbee)

IP20 [level]



## Radar occupancy presence sensor series

## **MSA215 99**



- ◆Adopting multi array high gain 24GHz millimeter wave planar antenna technology, dedicated for detecting human body occupancy
- Adopting dual sensing technology of 24GHz presence and light sensing
- ◆Accurately sense the presence of a person and output an ON/OFF signal
- ◆Support remote control to set detection area, hold time, and daylight
- ◆Priority Recommendations for recommending workstations, toilets, tea stands, and other locations that require precise small-scale distance control
- ◆Support hidden embedded installation
- ◆The ceiling is embedded and integrated with the ceiling after installation
- ◆One 16A relay output: supports a maximum load capacity of 800w

## **MSA215D 99**



- $\bullet$  Adopting multi array high gain 24GHz millimeter wave planar antenna technology, dedicated for detecting human body occupancy
- ◆Adopting dual sensing technology of 24GHz presence and light sensing
- ◆Accurately sense the presence of people and output dry contact signals
- Support remote control to set detection area, hold time, and daylight sensor
- ◆Priority Recommendations for recommending workstations, toilets, tea stands, and other locations that require precise small-scale distance control for presence sensing detection
- ◆Support hidden embedded installation
- ◆The ceiling is embedded and integrated with the ceiling after installation
- ◆The maximum withstand voltage of the passive dry contact port is 24V, and the maximum current is 50mA



































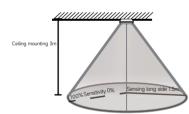














Radius movement/micro movement/with a long side of 1.5m @3m high installation [Maximum Sensing Distance]

50 Lux / Disable [Light Sensing Range] 2-4m (Typical Value: 3m)

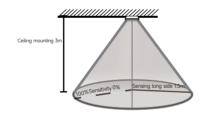
[Mounting Height] ON /OFF [Output Signal]

[Detection Technology] 24GHz millimeter wave radar for human presence detection+Light sensing detection

[Mounting] Flush mounting

[Product Category] Radar occupancy presence sensor (ON/OFF)

[Level]



12-24V DC [Working Voltage] [Working Current] 125mA max [Products Size] φ85x52.5mm [Cut hole size] φ65-70mm

Radius movement/micro movement/with a long side of 1.5m @3m high installation [Maximum Sensing Distance]

50 Lux / Disable [Light Sensing Range] 2-4m (Typical Value: 3m) [Mounting Height] [Output Signal] passive dry contact

[Detection Technology] 24GHz millimeter wave radar for human presence detection+Light sensing detection

[Mounting] Flush mounting

[Product Category] Radar occupancy presence sensor (passive dry

contact)

[Level]

## Intelligent Circuit Breaker Series

**III**MSA058 Z



- ◆Quick access to Tuya ecosystem, supports remote control
- ◆Supports Tuya APP control and timed switch function
- ◆Support Tuya ecological scene linkage
- ◆Supports wireless modification of 86 panel switches
- ◆Supports rail installation

[Working Voltage]

[Products Size]

[Output Signal]

[Level]

[Product Category]

- ◆Supports over temperature and overload protection
- Output of two 16A relays: maximum load capacity of a single circuit: 1200W (resistive load), 600W (capacitive load)

220-240V AC

46x48x22mm

IP20

Two-way ON /OFF

[Maximum load power] Single channel 600W capacitive/1200W resistive

Intelligent switch (Tuya)

**MSA058 B5** 

- ◆Quick access to MI Home ecosystem, supports remote control
- ◆Supports MI Home APP control and timed switch function
- ◆Support MI HOME ecological scene linkage
- ◆Supports wireless modification of 86 panel switches ◆Supports rail installation
- ◆Supports over temperature and overload protection
- ♦16A relay output: maximum load capacity: 1200W (resistive load) 600W

[Working Voltage] 220-240V AC 46x48x22mm [Products Size] ON /OFF

[Maximum load power] 600W capacitive/1200W resistive

[Product Category] Intelligent switch (MIJIA)

[Level]

[Output Signal]



## MSA058 RF



◆Quick access to Merrytek 2.4G RF ecosystem

◆Support Merrytek 2.4G RF sensor networking linkage

◆Support wireless modification of 86 panel switch

◆Support rail installation

◆Supports over temperature and overload protection

◆Two relay outputs: Maximum load capacity of a single relay: 1200w (resistive load) 600w (capacitive load)

[Working Voltage] 220-240V AC [Products Size] 46x48x22mm

[Output Signal] Two-way ON /OFF

[Maximum load power] Single channel 600W capacitive/1200W resistive

[Product Category] Intelligent switch (Merrytek 2.4G RF)

[Level] IP20

## Structural accessories

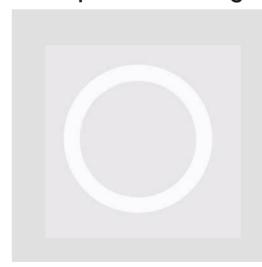
■ 45mm exposed sleeve



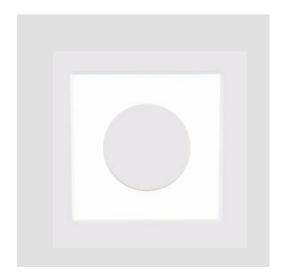
**■**55mm exposed sleeve



■45mm to 55mm compensation ring



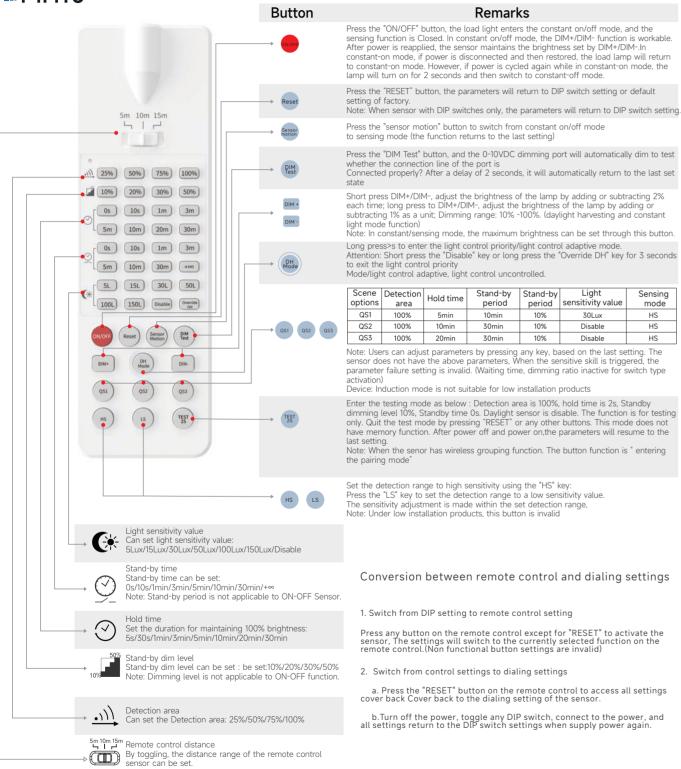
■ 86 sided cover



## merrytek

## Remote

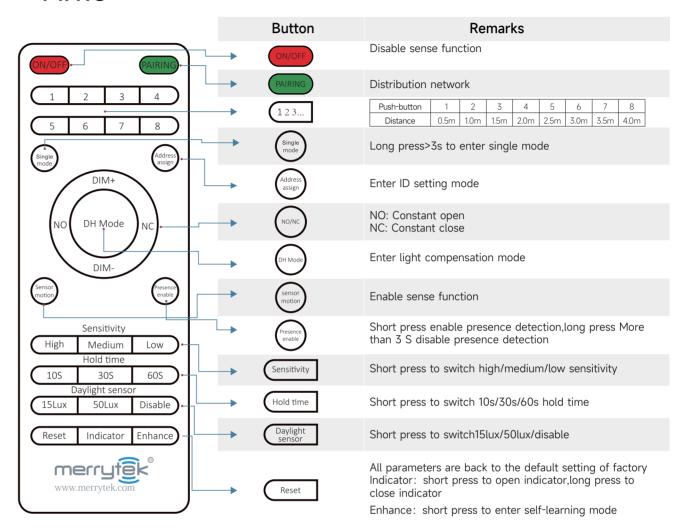




Note: In combination with different products,

The button functions of the remote control may vary, please refer to the remote control instructions on the specific product acceptance certificate for accuracy!

## **■** MH18



## merrytek

## **Case Section**

## Smart hotel series













## Smart office series













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## **Case Section**

## Smart home series





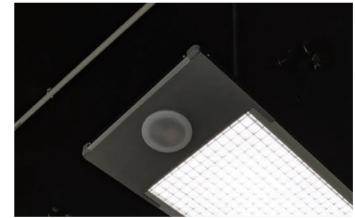






## Smart campus series







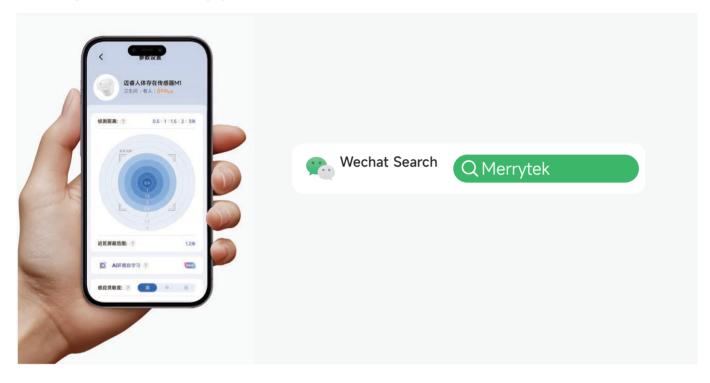




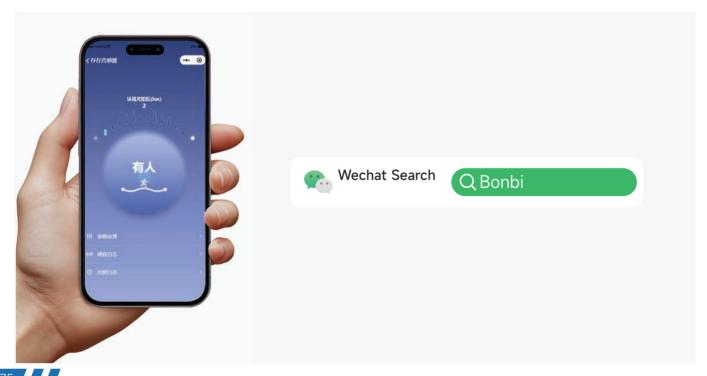


## **APP Download**

## Merrytek Mini App



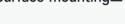
## Easy systematic Mini App



## Casambi APP



Surface mounting— Surface mounting—



Download path for User manual







Download Cacambi App from" IOS APP Store" or "Google Play"

Casambi APPScan the QR code to download the Casambi app

Scan the QR to download the Casambi APP