Specification

Product series: Low-mounting PIR motion sensor (dry contact version)

Product model: MSA236D IR

Product version: V1.0

Versions	Release Date	Record	Publishing
V1.0	2025.1.7	Initial version	Jacky

【Product description】

MSA236D IR is an compact PIR motion sensor with daylight detection function. Combined with the unique software algorithm of Merrytek, it can accurately detect human movements in almost all indoor spaces to trigger smart scene application in smart home, smart hotel, and smart office.

【Product Feature】

- PIR motion detection
- Exquisite appearance with planar fresnel lens
- Accurate NO/NC dry contact output
- Daylight sensor detection available
- Detection area,hold time and daylight threshold can be set by remote
- Max detection range: 8-10m in diameter
- Factory setting is NO dry contact,yet can switch to NC by remote
- Hallway and Toilet motion detection highly recommended
- Flush mounting and surface mounting available
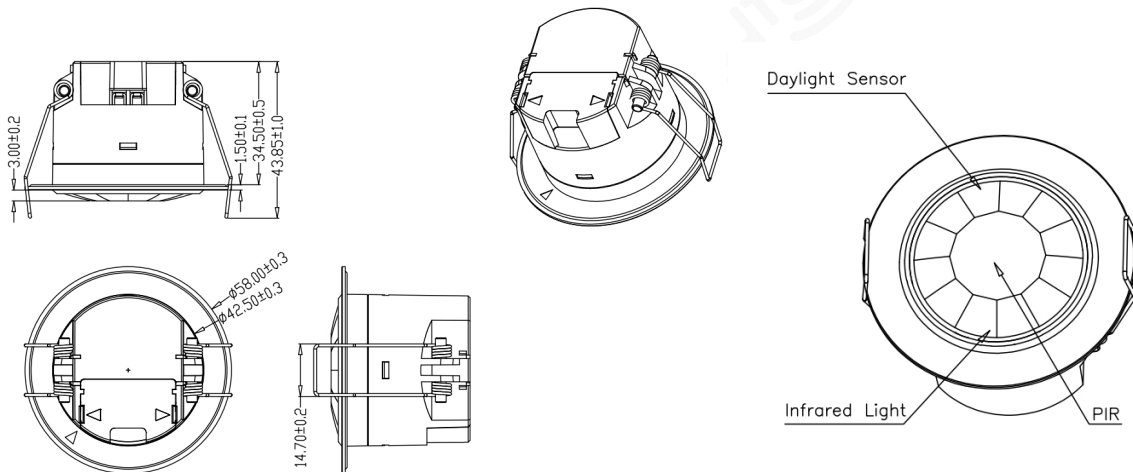- Compacted mini size for perfect ceiling mounting

【Dimension】

- Product size: φ58x36mm
- Connection interface: 4-pin terminal

【Parameter】

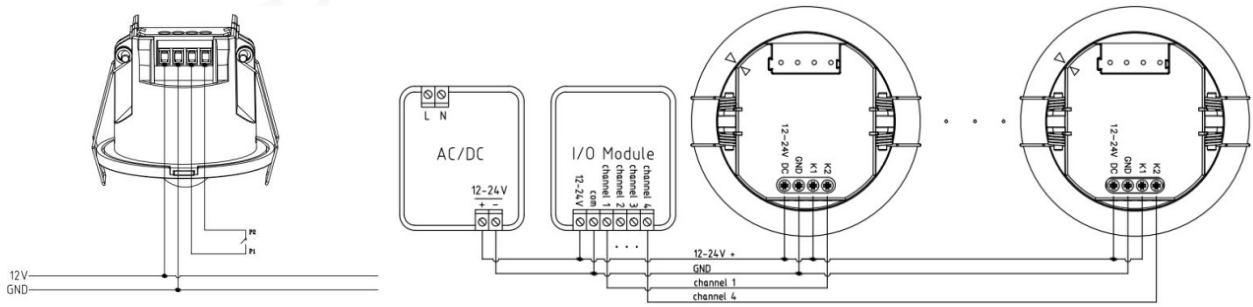|		
Input/Out put	Input voltage	12-24V DC
	Rated voltage	12/24V DC
	Working current	20mA max
	Power consumption	≤0.5W @12/24V DC
	Output signal	NO/NC dry contact (Factory setting is NO dry contact)
Sensor parameter	Function	PIR motion detection+ daylight sensor
	Detection Area	Remote setting: 100%/75%/50%/25%
	Hold Time	Remote setting: 2s/1min/3min/5min/10min/30min
	Daylight Sensor Threshold	Remote setting: 15lux/50lux/Disable
	Radius detection range(based on 100% sensitivity)	Tangential moving based on 3m high installation: 4-5m @25℃（radial moving detection range will shorten）
	Remote control	Available
	Mounting height	2.5-4m typical value:3m
Application environme nt	Drill hole	Φ45mm
	Working temperature	-25℃...+50℃(detection range might differ based on different temperature)
	Storage temperature	-40℃~+80℃
Certificate Standard	Certificate	Compliant to CE
	Environmental requirements	Compliant to RoHS
	IP rating	IP20
"N/A" means not available		

【Dimension and Function diagram】

Daylight Sensor

Infrared Light

PIR

【Wiring instruction】

Wiring layout suggestion：

1. Hand-in-hand wiring is highly recommended,yet star-topology or tree-topology is strongly deprecated

2. When there's more than 1pc sensor is a line,you shall consider all equipment current consumption shall not surpass your driver's loading capacity.
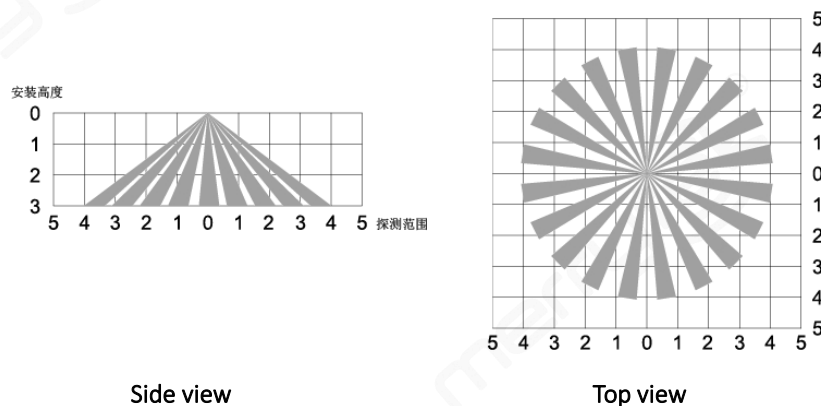
【Initialization】

When power on,our sensor will enter self-checking mode and will not respond to any motion movement for 10s,within when K1 K2 terminal will be conducting. After 10s,our sensor will detect if there's movement trigger. If no movement detected,K1 K2 terminal will disconnect,if movement detected, K1 K2 terminal will remain conducting until no movement detected and hold time passed.All sensor parameter such as detection range,hold time etc can be set by remote.

【Factory setting】

Detection Area:100%, Hold Time: 2s,Daylight Sensor: Disable

【Detection radiation】

MSA236D IR is highly recommended ceiling flush mounting and its detection radiation is as below shows:
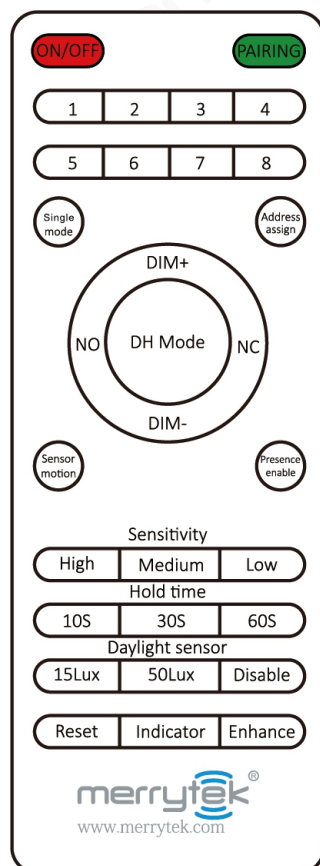

Side view   Top view

【Detection Signal】

The product detects human moving signals and below is a description of the moving signals:

● **Moving signal:** detect the human significant moving (walking) in the detection area.

【Remote manual】

MH18 remote

ON/OFF: disable sense function

Detection range:
1=100%,2=75%,3=50%,4=25%

DIM+:short press to disable sense function

NO: short press enter Normal Open single output

NC：short press enter Normal Close single output

Sensor motion: enable sense function

Hold time: short press to switch 10s/30s/60s hold time
5=5min,6=10min,7=20min,8=30min

Daylight sensor threshold: short press to switch 15lux/50lux/disable

Reset: all parameter back as factory setting

Indicator:short press to open indicator,long press to close indicator

【Application tips】

1. Our sensor shall be installed by professional electrician under power-off state

2. Our sensor support 8m high installation for indoor use only.And it's strongly suggested installed far away from hot or temperature-change-fast area to avoid false trigger

3. To ensure normal detection,there shall be no big object within our sensor's detection area because our sensor can't detect by penetrating object

4. There shall also no strong-reflect object,wifi router,microwave oven etc before our sensor to avoid false trigger

5. Our sensor's detection area function is based on 25℃ environment temperature,when environment temperature is higher/lower than this temperature,our sensor will be dull/sensitive,such the detection area will be shorter/longer

6. Our sensor's detection area function is based on tangential movement,and become short if you test by radial movement due to PIR character

【Disclaimer】

Due to the complexity of product technology and differences in application environment, it is difficult to guarantee a completely accurate or complete description, so this specification is only for user reference.

We will reserve the right to make changes to the product specifications without notifying the user, and do not make any commitments and guarantees in the legal sense. At the same time, our company encourages users to supplement or modify the contents of our specifications after using our products.