Specification

Product Name: Network Sensor(Casambi)

Product Model: MC079D IR ZB1

Version	Release / Change Date	Reason	Publishing
V1.0	2024.04.08		James.Guo

【Product Feature】

- 12Vdc Input, suitable for DC systems or LED driver with 12V DC auxiliary power output.
- 0--10V dimming terminal, 3-step or 2-step is optional, detection area adjustable
- Mini size PIR detection sensor
- Indoor maximum mounting height is 12m
- All sensor parameters can be set by Casambi App setting

Connected with CASAMBI

【Parameter】

Input	
Rated Voltage	12±1V DC
Working Current	35±5mA
Ripple Voltage	<100mVp-p
Output	
Output Signal	0-10V dimming signal
Sensor parameters	
Detection way	PIR
Sensor sensitivity	Casambi App setting
Daylight Priority	Casambi App setting
Stand-by dim level	Casambi App setting
Detection Area(Radius)	Ceiling mounting height 12m: r≥4m@0.3m/s, r≥3m@1m/s
Mounting Height	10m (12m Max),see note 1 & 2
Wireless parameters	
BLE Module	Casambi Bluetooth
Working Frequency	2.402-2.480GHz
Transmitting Power	+7dBm(max)
Transmitting Distance	Point to point transmit 25m Max
Fixture ID	32022
Environment	
Working Temperature(Ta)	-25~55℃
Storage Temperature	-40℃~80℃, humidity≤85% (Non-condensing)
Certification Standards	
Certified	CE
Environmental requirements	Comply with RoHS 2.0, Reach requirement
IP Rating	IP65
Other	
Wiring	Standard Zhaga Book 18 connector
Installation	External

Package	Clapboard+box (K=A)
Net Weight	38±3g
Lifetime	5 years warranty@Ta(indoor)

Note:

1. When ambient temperature approaches the human body temperature range (36℃~37℃/96.8~98.6℉), PIR motion detection will significantly weaken or non-responsive.
2. When ambient temperature or LED tray temperature is higher than 55℃/131℉, false triggering may happen, please try to reduce detecting sensitivity to improve. If stays false triggering, the PIR sensor should not suitable to be used in the space.

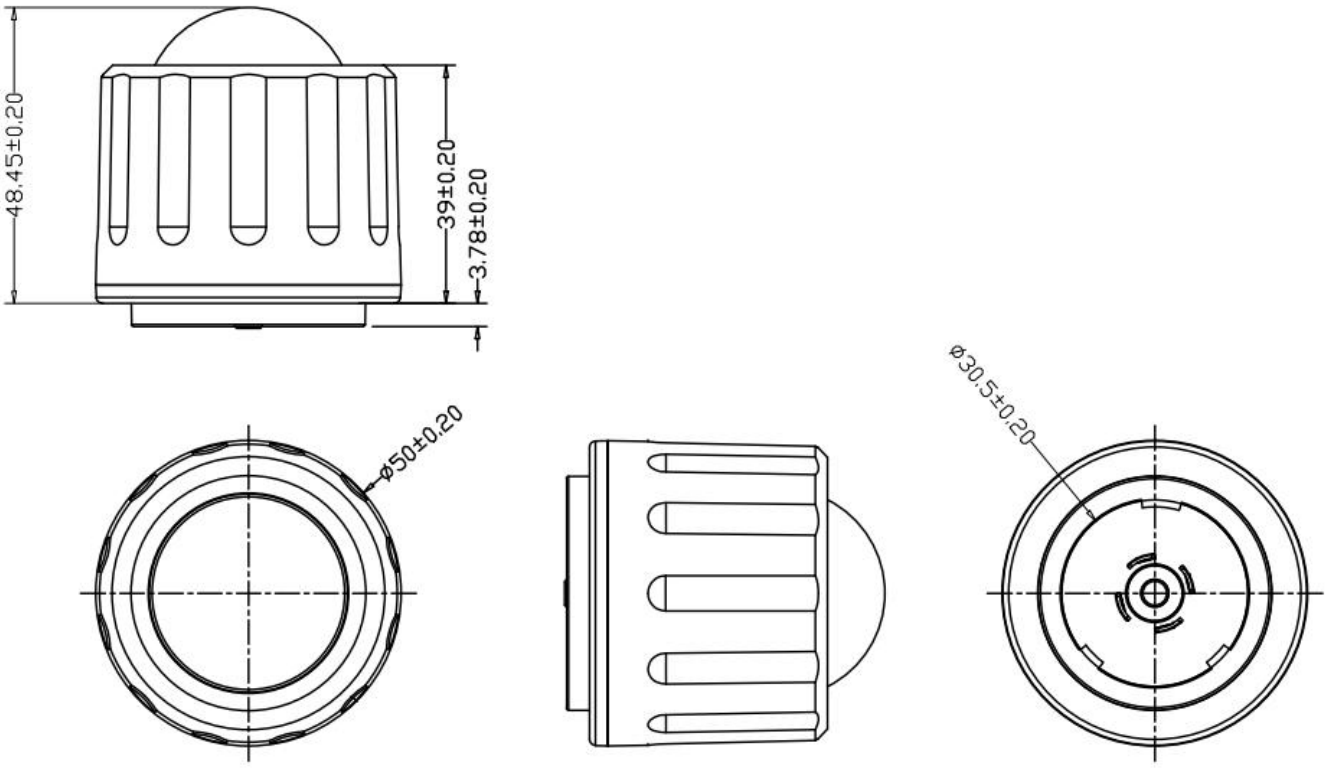
【Function】

☑ON/OFF function	Casambi App setting
☑2-step dimming function	Casambi App setting
☑3-step dimming function	Casambi App setting
☑Daylight harvesting	Casambi App setting
☑Daylight priority	Casambi App setting
☑Network function	Casambi App setting

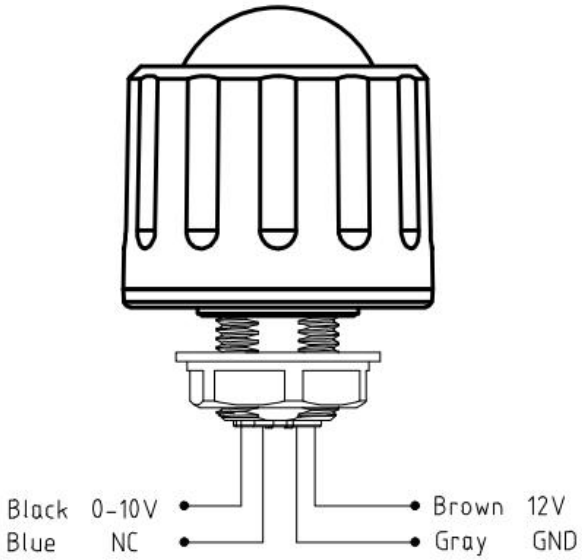
Features and operations are detailed:
https://support.casambi.com/support/solutions/articles/12000074041-presence-sensors

【Product Information】

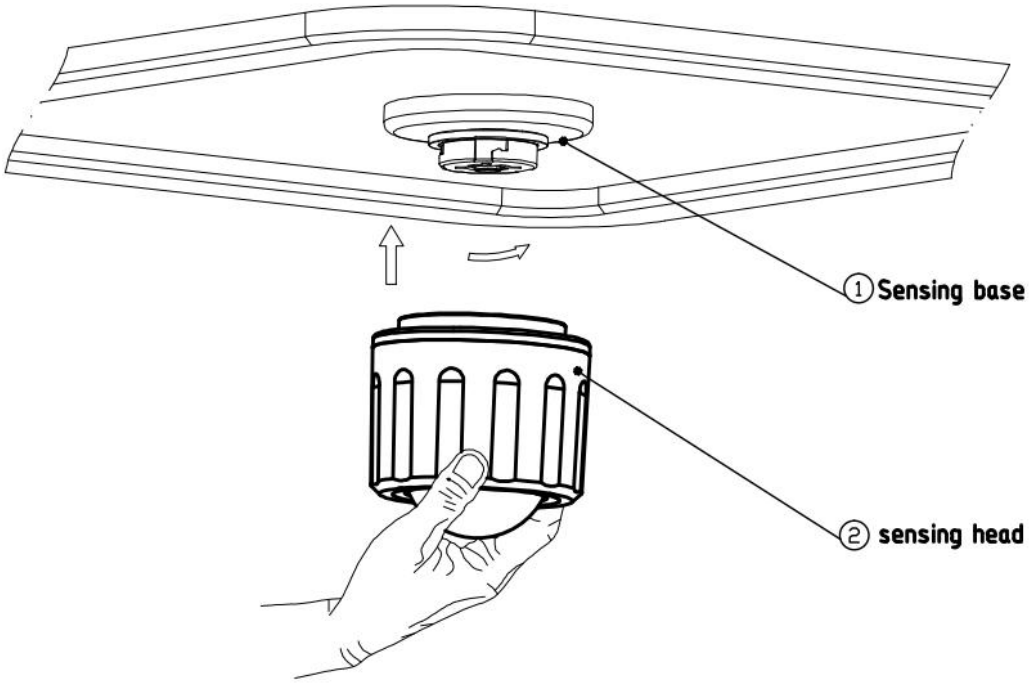
- Dimension (Unit：mm)



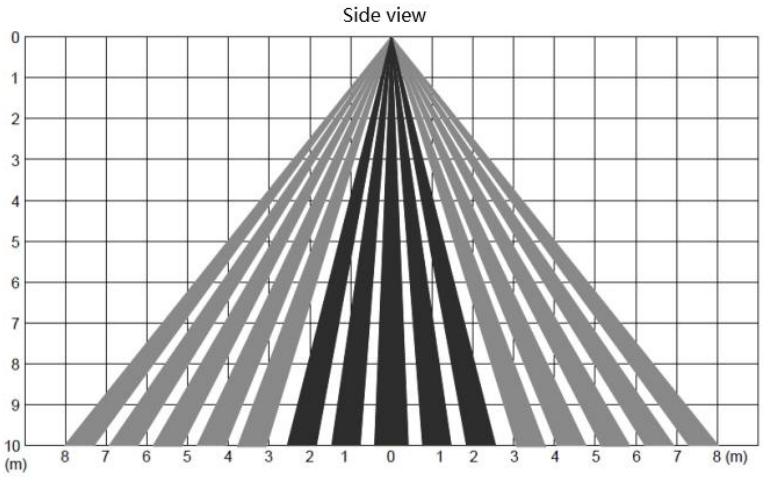
- Function

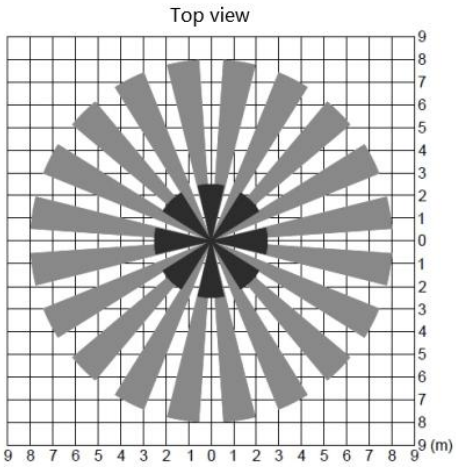


【Installation Instruction】



【Detection Range】





【Initialization】

● After switch on power, sensor will be warmed 45-60s then start to work. During initialization, the sensor is not able to detect movement.

【Default setting】

Sensitivity: 100%, Hold time:10s, Daylight sensor: Disable, Stand by period: 0s, Stand by DIM level: 10%

【Application Notice】

● The sensor should be installed by a professional electrician. Please turn off the power before installing, wiring and changing parameters.

● PIR sensor can't penetrate any materials, please make sure no obstacle between sensor and moving people/object.

● Sensor may hard to detect people if wear thick clothes in cold winter.

● Heat signals will be regarded as moving signals to trigger the sensor. Avoid facing sensor to air condition or other heating source.

● Sensor is for indoor use only. Outdoor sunlight could affect the detection of sensor.

● Due to continuous improvement, the contents of this instruction could be changed without prior notice.

● The dimming performance could be different when work with different 0-10V drivers.

● The daylight threshold is measured in a sunny environment without shadow and ambient light diffuse reflection. Ambient lux level could be different in different environment, weather, climate, time-of-day and season.

- Detection distance is related to height of people, mounting height, mounting angle, working environment temperature and etc. When ambient temperature approaches the human body temperature range (36℃~37℃/96.8~98.6℉), PIR motion detection will significantly weaken or non-responsive. When ambient temperature or LED tray temperature is higher than 55℃/131℉, false triggering may happen, please try to reduce detecting sensitivity to improve. If stays false triggering,

the PIR sensor should not suitable to be used in the space.

- Given detecting area is typical value that was measured by 165cm high testers in an indoor open environment.

- This product have to use with voltage-stabilized DC power supply whose input voltage is stable and ripple factor is low(ripple factor is lower than 100mV; load current is greater than 25mA).

- When installing in new environment, please install and test at least 5pcs product firstly before mass installation.

- PIR is a pyroelectric infrared sensor that detects changes in infrared rays. Pls pay attention to the following matters during actual use, such as: detecting heat sources other than the human body, the temperature of the heat source does not change or the heat source does not move, and other related environmental factors and violations of the PIR application principle impact.

- When detecting heat sources other than the human body due to the following phenomena, the PIR may be falsely triggered.
  1. When small animals enter the detection range
  2. When far-infrared rays from sunlight, car headlights, incandescent lamps, etc. are directly exposed to the sensor
  3. When the temperature in the detection range changes drastically due to warm air, cold air from cold greenhouse equipment, water vapor from humidifiers, etc.

When detecting heat sources due to the following phenomena, the PIR may not trigger

1. When there are substances such as glass and acrylic that block the transmission of far-infrared rays between the sensor and the detection object.

2. The heat source within the detection range hardly moves or moves at high speed.