Specification

Product Name:	**Casmbi Bluetooth Network PIR Sensor**
Product Model:	**MC182D IR B1 (0-10V)** **MC182D IR 1 B1 (PWM)**

Versions	Release/ change Date	Reason	Publishing
V1.0	2025.04.27		James.Guo

【Product Feature】

- International standard Zhaga book20 interface
- 4 meters maximum installation height
- 5 years warranty
- Suitable for Open offices, Individual Offices
- PIR motion detector, daylight sensor function
- Casambi Bluetooth module, connected with casmbi App platform

ected with CASAMBI

【Parameters】

Input		
Rated voltage	12±1VDC	
Operating current	35±5mA	
Ripple voltage	<100mVp-p	
output		
Output signal	MC182D IR B1	MC182D IR 1 B1
	0-10VDC dimming signal	PWM dimming signal
Sensor parameters		
Detection mode	PIR detection	
Detection area	Casambi APP set	
Hold time	Casambi APP set	
Daylight sensor	Casambi APP set	
Daylight priority	Casambi APP set	
Dimming level	Casambi APP set	
Detection range (radius)	Ceiling installation 3m high Motion and minor motion: r≥2.5m Test condition: 100% sensitivity, 60 ㎡ indoor open space	
Installation height	Typical 3m (4m 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	40924	
Environment		
Working temperature(Ta)	-20℃-55℃	
Storage temperature	-40℃~+80℃ Humidity: ≤85% (non-condensing)	
Certification standards		
Certified	CE	
Environmental requirements	Comply with RoHS 2.0, Reach requirements	
IP Rating	IP20	

Other	
Wiring	3 pin PH2.0 terminal
Installation requirements	Zhaga book20 installation
Packaging requirements	Clapboard + Carton(K=A)
Net weight	15.8±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.

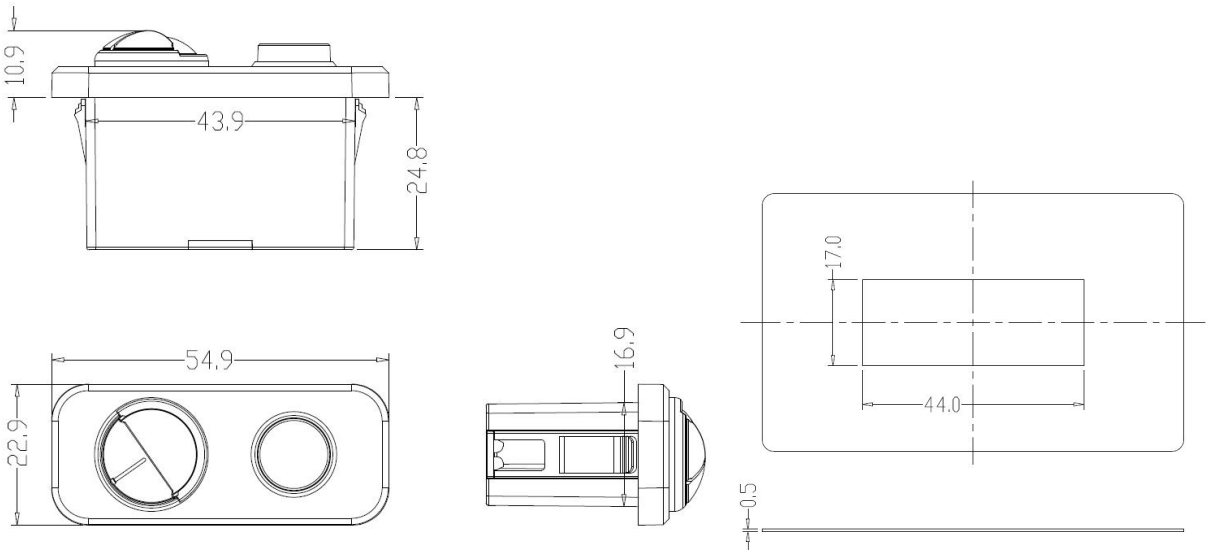
【Function description】

☑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

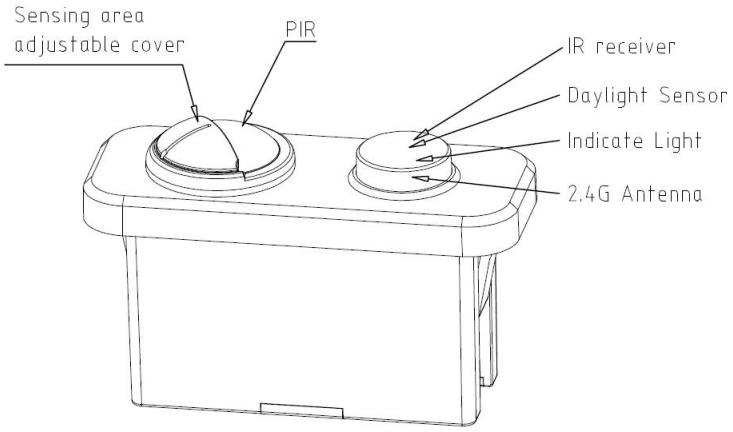
【Product Information】

- Dimension (Unit：mm)

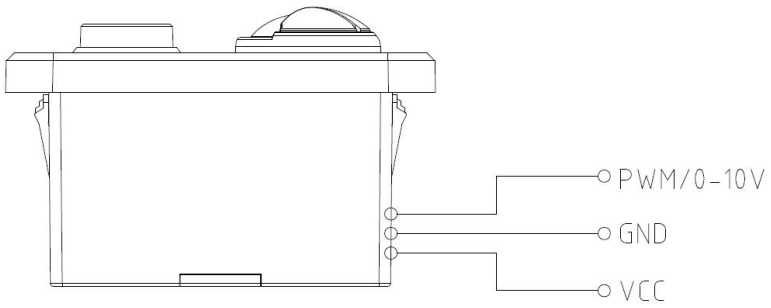


Cut-hole size

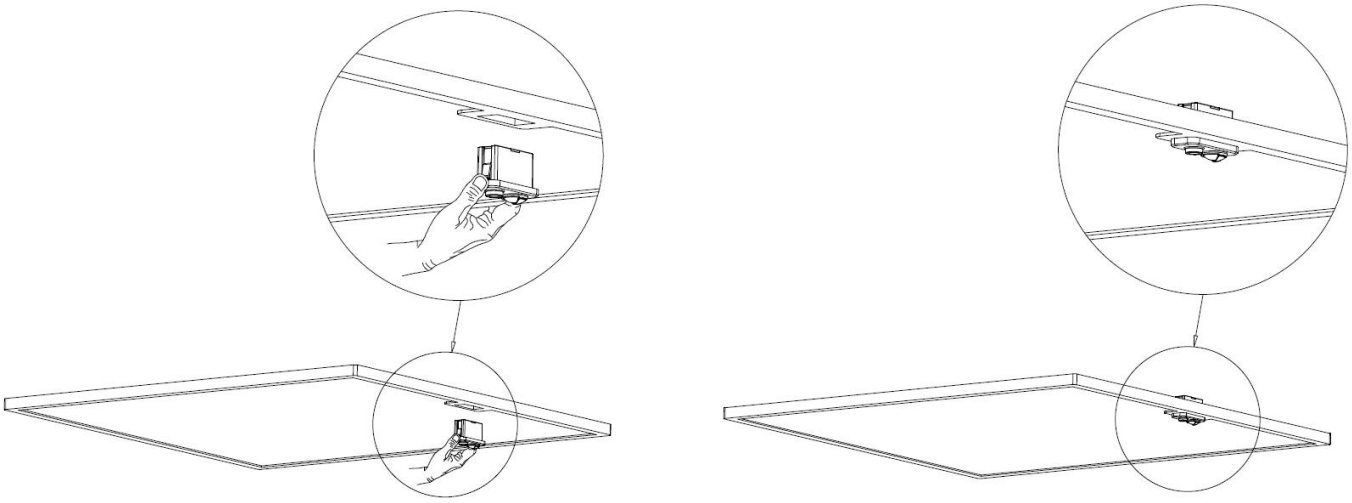
● Function



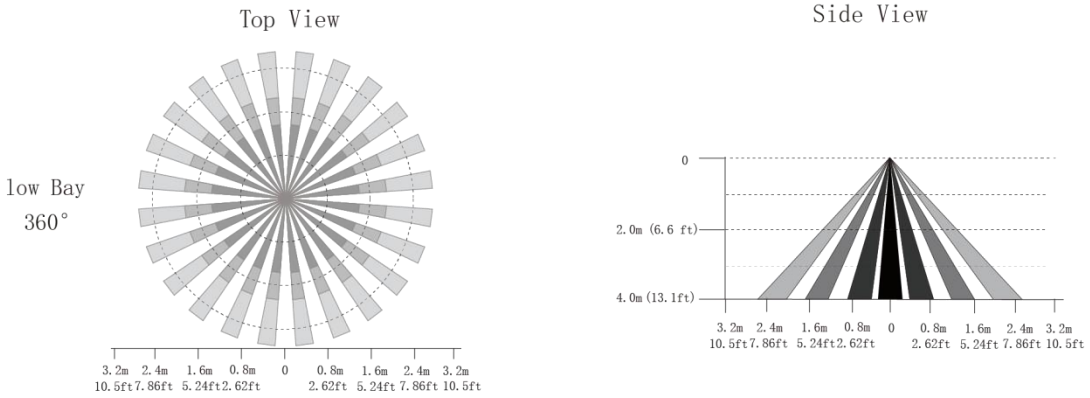
● **Wiring**



● **Installation Instruction**



【Detection Range】



【Initialization】

After switch on power,sensor will be warmed 45-60s then start to work.

【Default setting】

Sensitivity: 100%, Hold time: 5s, 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.