Specification

Product Name: DC Controller（PIR）

Product Model: MC182D IR

Versions	Release/ change Date	Reason	Publishing
V1.0	2024.10.31		James.Guo

【Product Feature】

- International standard Zhaga BooK20 interface
- 4 meters maximum installation height, suitable for Open offices, Individual Offices
- PIR motion detector for Panel Light,Linear Light.
- Sensor parameters can be adjusted by remote
- Low mounting PIR sensor

【Parameters】

Input		
Rated voltage	12±1VDC	
Operating current	25±5mA	
Ripple voltage	<100mVp-p	
output		
Output signal	0 -10VDC/PWM dimming signal	
Sensor parameters		
Detection mode	PIR detection	
Daylight priority	Switch ON	15Lux/50Lux
	Switch OFF	150Lux
Dimming level	10%(1.4-1.6V) 20%(1.9-2.1V) 30%(2.9-3.1V) 50% (4.9-5.1V)	
Detection range (radius)	2.5m (indoor, sensitivity 100%,no direct sunlight to sensor; temperature:25℃)	
Installation height	Typical 3m (4m Max), see note 1 & 2	
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 size hole	
Packaging requirements	Clapboard + Carton(K=A)	
Net weight	±3g	
Lifetime	3 years warranty @Ta (indoor)	

Note:

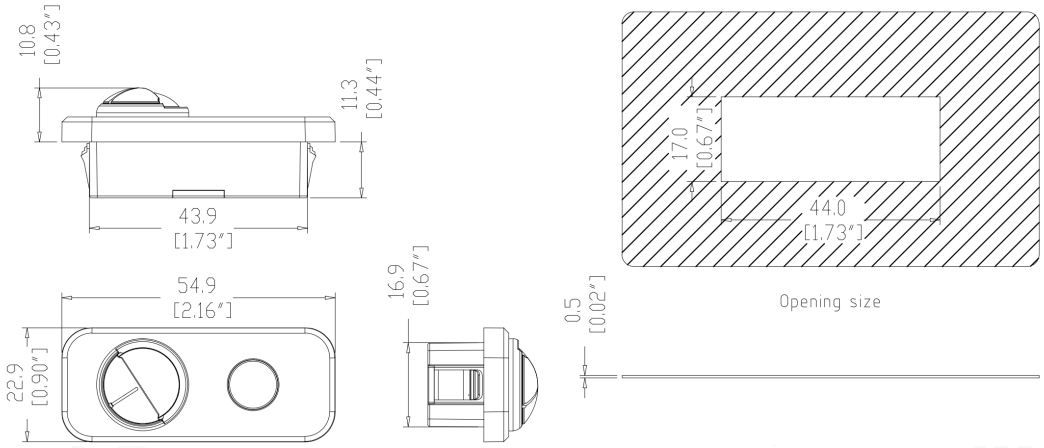
1. When ambient temperature approaches the human body temperature range (36℃~37℃/96.8~98.6℉), PIR motion detection will significantly weaken or non-responsive.
2. When ambient temperature or LED tray temperature is higher than 55℃/131℉, false triggering may happen, please try to reduce detecting sensitivity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

【Function description】

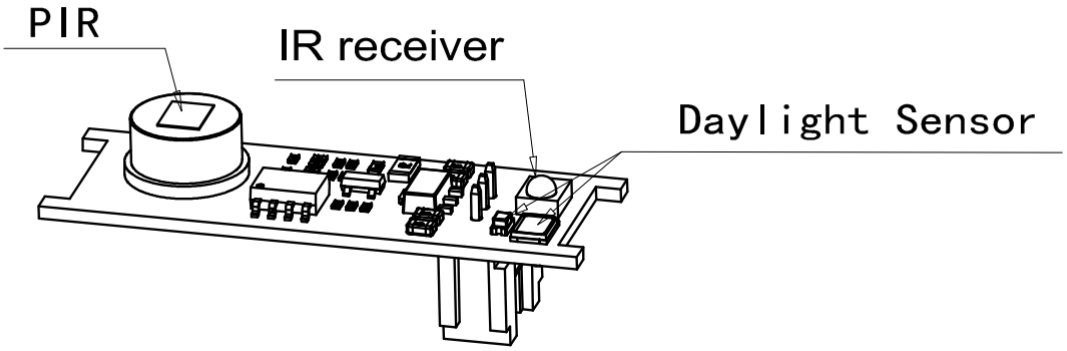
☑ON-OFF function	Stand-by Period be set to “0s”
☑2-step dimming	Stand-by Period be set to “+∞”
☑3-step dimming	Stand-by Period be set to “3min/10min”
☑Daylight priority	Remote press DH Mode and Daylight Sensor be set to “15Lux/ 50Lux”
☐Daylight harvesting	N/A

【Product Information】

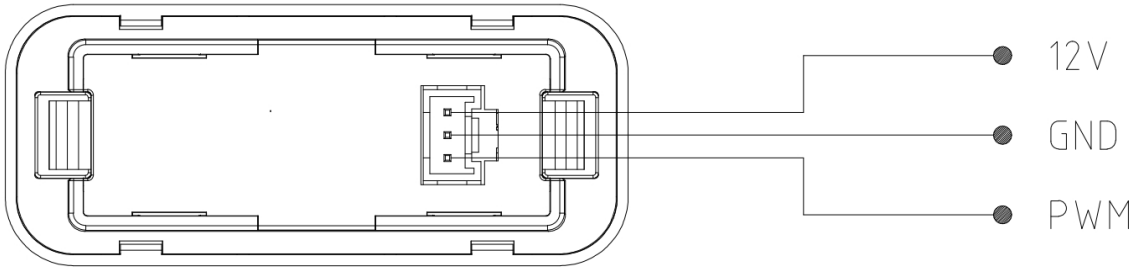
- Dimension (Unit：mm)



- **Function**

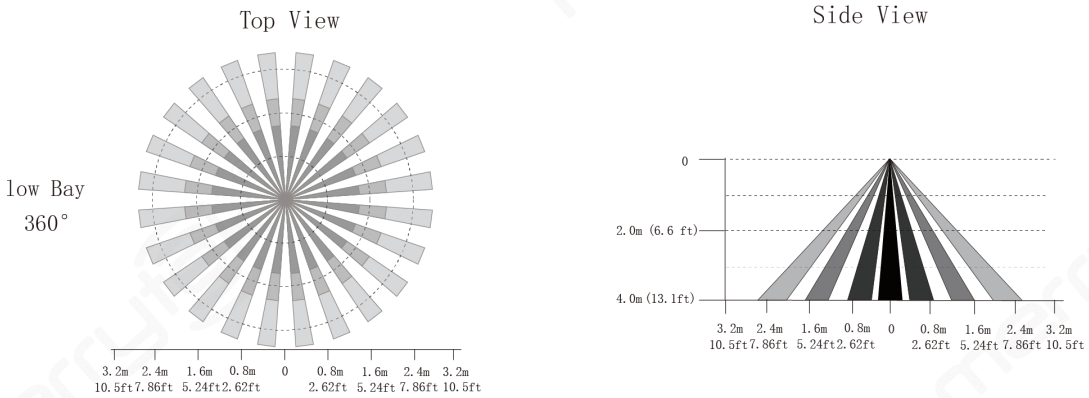


- **Wiring**

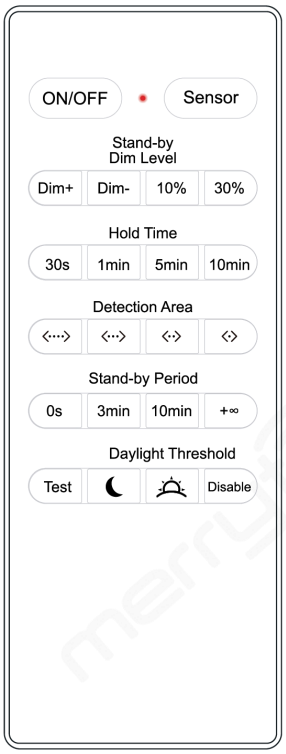


● **Installation Instruction**

【Detection Range】



【Remote】



遥控按键	按键介绍	按键功能介绍
ON/OFF	常亮常灭	按“ON/OFF”键，负载灯进入常亮/常灭模式，感应功能取消，有断电记忆功能，即：在负载灯常亮模式下重新上电，负载灯进入常亮模式；在负载灯常灭模式下重新上电，负载灯亮2s后进入常灭模式
Sensor	感应功能	恢复感应。
Dim+	亮度增加	连续按下此按键，亮度增加，每次增加 5%。调整全亮时的亮度。ON/OFF 模式下依然可用。
Dim-	亮度减少	连续按下此按键，亮度增加，每次减少 5%。调整全亮时的亮度。ON/OFF 模式下依然可用。
Stand-by Dim Level	低亮亮度	10%, 30%
Hold Time	全亮时间	30s, 1min, 5min, 10min
Detection Area	灵敏度设置	100% ⟷ , 75% ⟷ , 50% ↔ , 25% ↔
Stand-by Period	守候时间	0s , 3min, 10min, +∞
Test	测试开关	按Test按键，灯延时2秒关闭。断电后恢复到上一次感应设置。
Daylight Threshold	照度阈值	15lux , 50lux , Disable

【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.