

Specification

Product Name: DC Controller

Product Model: MC079D IR series

Versions	Release/ change Date	Reason	Publishing
V1.0	2023.05.17		James Guo

【Product Feature】

- Thimble interface; Earphone interface; Zhaga interface
- 12 meters maximum installation height, suitable for most warehouses
- Mini Microwave motion detector for High Bay Lights.
- IP65 design
- Sensor parameters can be adjusted by remote
- High mounting PIR sensor



MC079D IR A

MC079D IR DI

MC079D IR Z

【Parameters】

Input				
Rated voltage	12±1VDC			
Operating Voltage	12V DC			
Ripple voltage	<100mVp-p			
output				
Output signal	☑0 -10VDC dimming signal			
Sensor parameters				
Detection mode	PIR detection			
Daylight priority	Switch ON	5Lux/15Lux/30Lux/50Lux	100Lux	150Lux
	Switch OFF	150Lux	200Lux	300Lux
Dimming level	10%, 20%, 30%, 50%			
Detection range (radius)	2-4m (indoor,sensitivity 100%,no direct sunlight to sensor)			
Installation height	Typical 10m (12m Max)			
Environment				
Working temperature	0~35℃			
Storage temperature	-20℃~~+80℃ Humidity: 10%-95% (non-condensing)			
Certification standards				
Certified	UL 8750(Pending)			
Environmental requirements	Comply with RoHS 2.0 , Reach requirements			
IP Rating	IP65			

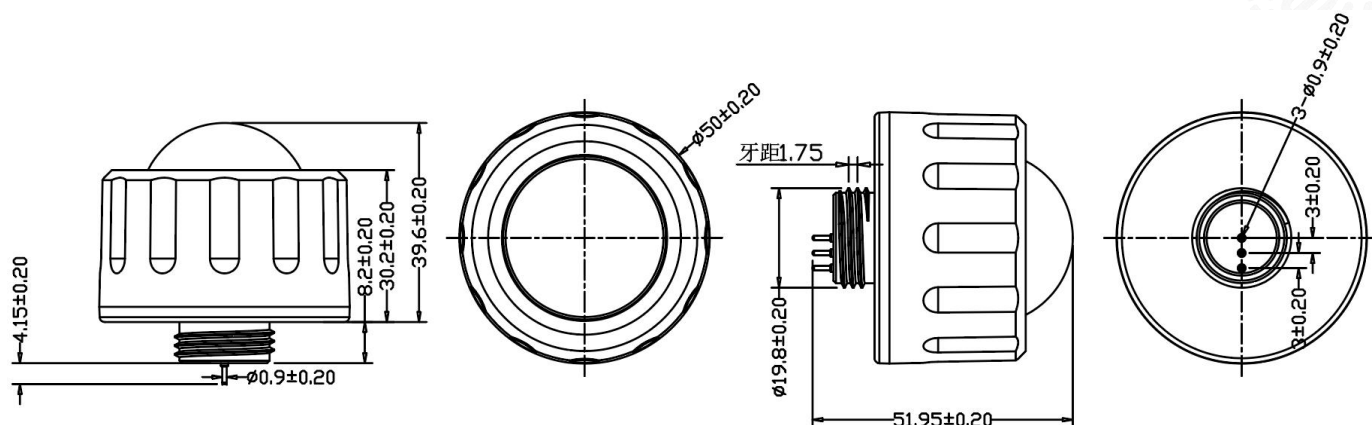
Other	
Wiring	Thimble interface
Installation requirements	Mount center or side of highbay
Packaging requirements	Clapboard + Carton(K=A)
Net weight	80g
Lifetime	3 years warranty @Ta

【Function description】

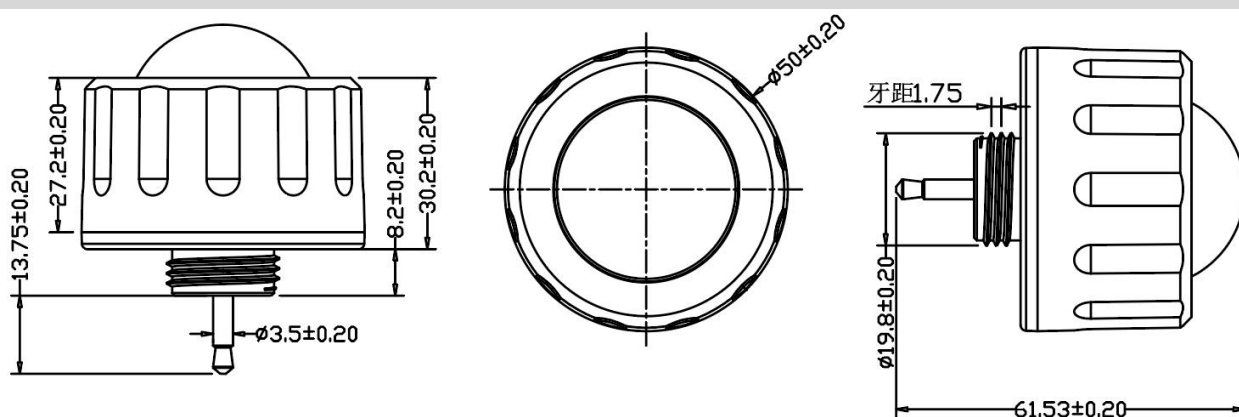
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|---|---|
| ☒ ON-OFF function | Stand-by Period be set to "0s" |
| ☒ 2-step dimming | Stand-by Period be set to "+∞" |
| ☒ 3-step dimming | Stand-by Period be set to "10s/1min/3min/5min/10min/30min" |
| ☒ Daylight priority | Remote press DH Mode and Daylight Sensor be set to "5Lux/15Lux/30Lux/50Lux/100Lux/150Lux" |
| ☐ Daylight harvesting | N/A |

【Product Information】

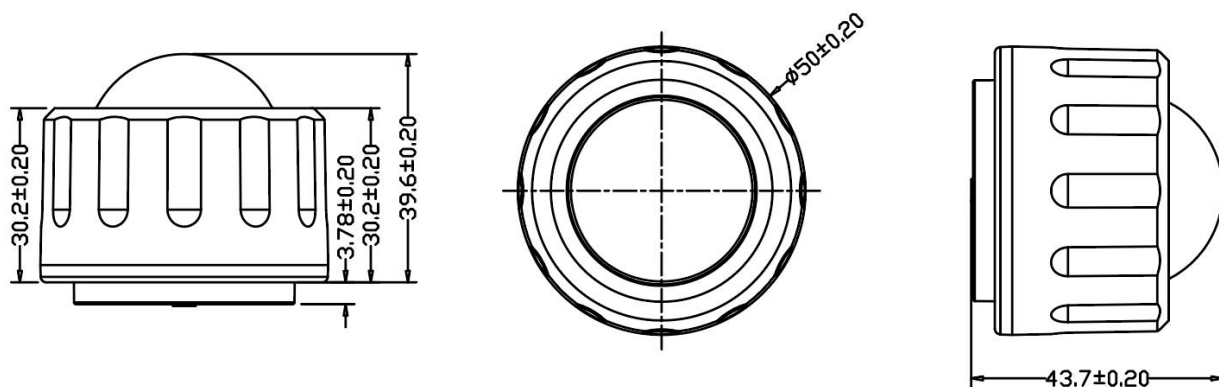
- Dimension (Unit: mm)



MC079D IR A

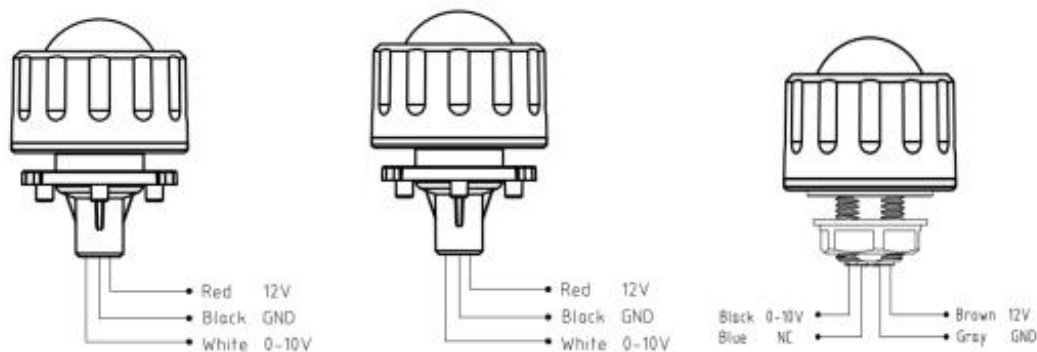
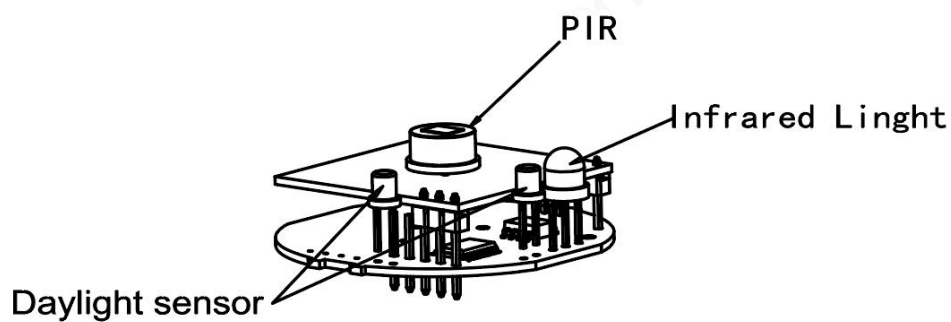


MC079D IR DI



MC079D IR Z

● Function



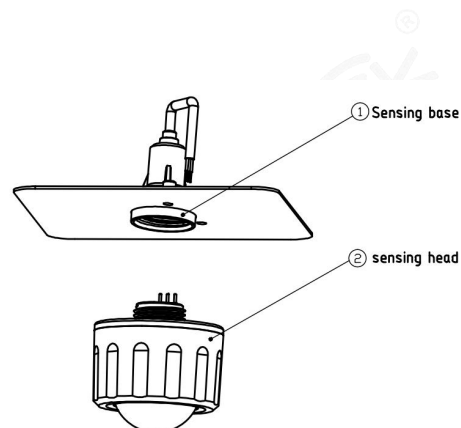
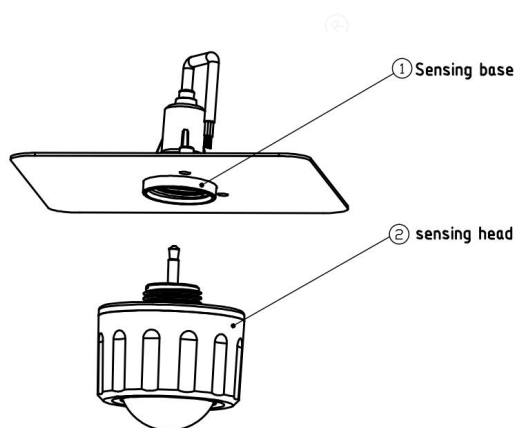
● Wiring

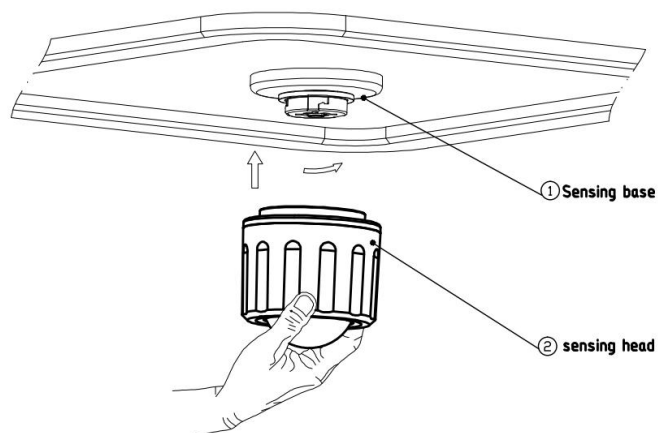
MC079D IR A

MC079D IR DI

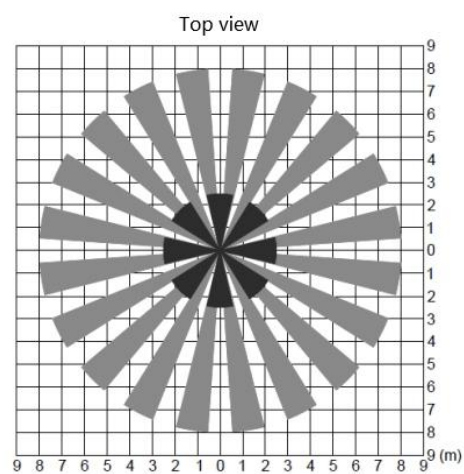
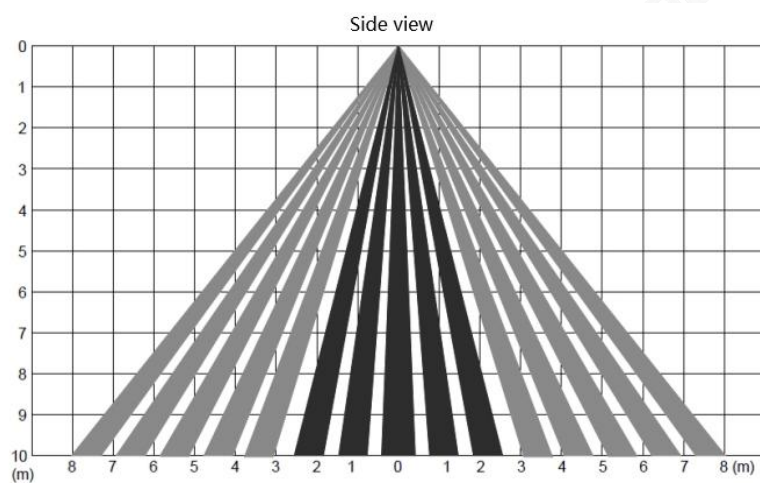
MC079D IR Z

● Installation Instruction



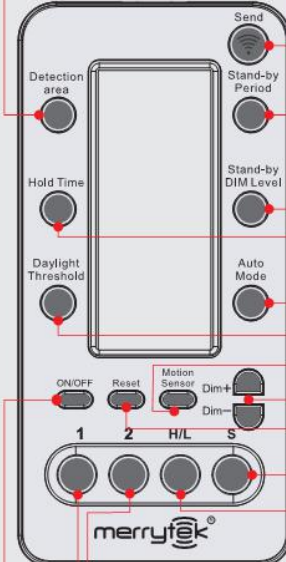


【Detection Range】



【Retome】

● MH12



Detection area	Short press to set detection area 25% / 50% / 75% / 100%, long press (>3s) to transmit selected value.
Send	Short press to transmit all selected value on remote screen.
Stand-by Period	Short press to set standby period 0S / 30S / 1min / 3min / 5min / 10min / 20min / 30min / +∞ Long press >3s to transmit selected value
Stand-by DIM Level	Short press to set standby dimming level 10% / 20% / 30% / 50%. Long press >3s to transmit selected value
Hold Time	Short press to set hold time 0S / 30S / 1min / 3min / 5min / 10min / 20min / 30min., Long press >3s to transmit selected value
Auto Mode	Short press to set working mode: MD=Motion+daylight threshold; MP=Motion +Daylight priority (daylight switch) / Daylight harvesting; P= Daylight priority / Daylight harvesting Long press >3s to transmit selected mode Note: MP or P is not available for all modes, please follow spec. sheet of motion sensor.
Daylight Threshold	Short press to set Daylight threshold 5Lux / 15Lux / 30Lux / 50Lux / 100Lux / 150Lux / Disable. Long press >3s to transmit selected value When set Daylight threshold to Disable sensor will switch on light when detect motion regardless of ambient brightness level.
Motion Sensor	Short press to quit from constant on/off mode, sensor start to work (the previous setting stays in validity)
Dim+/Dim-	Short press to set occupancy light level 50%-100% in MD mode; set target lux level in MP(Motion+Daylight harvesting) mode Dim level will change 5% each time press this button
Reset	Short press to return to factory default setting.
S	NA for user
H/L	NA for user
2	2nd optional quick setting, short press to show the setting configuration, long press >3s to save this configuration. Press "Send" to transmit selected quick setting
1	1st optional quick setting, short press to show the setting configuration, long press >3s to save this configuration. Press "Send" to transmit selected quick setting
ON/OFF	Short press to switch on/off light, sensor function will recover after turn off and on power Long press >3s to switch on/off light, sensor function won't recover only if press "Motion sensor"

Detection Area	Hold Time	Daylight sensor	Stand-by period	Stand-by dim level
100%	5s	Disable	0s	10%

Remote Control Setting	Button	Remarks																												
	ON/OFF	Press the "ON/OFF" button, the light goes to constant on/off mode, sensor is disabled. Press Sensor motion to quit from this mode and the sensor starts to work. The button have power-off memory function																												
	Reset	Press "Reset" button, all parameters are same as setting of DIP switch or factory settings.																												
	Sensor motion	Press "Sensor motion" button, the light quits from the constant on/ off mode, and the sensor starts to work (The latest setting stays in validity)																												
	DIM Test	Press "DIM Test" button, the 0-10 V dimming works to test whether the 1-10Vdc dimming ports are connected properly. After 2s, it returns to the latest setting automatically.																												
	DIM+ DIM-	Short press "DIM+/DIM-" button to transmit dimming signal. The brightness of the lamp adjusts at 5% per unit. (only apply for sensor with daylight harvesting function)																												
	DH Mode	Long Press 3S to enter the Daylight priority function Long Press 3S "Override DH" button to exit the Daylight priority mode and enter the Daylight Sensor mode Short press "Disable" button to exit the Daylight priority mode and the Daylight Sensor mode to enter the normal induction mode																												
	Q1 Q2 Q3	<table border="1"> <thead> <tr> <th>Scene Options</th> <th>Detection Area</th> <th>Hold Time</th> <th>Stand-by period</th> <th>Stand-by dim level</th> <th>Daylight Sensor</th> <th>Induction model</th> </tr> </thead> <tbody> <tr> <td>QS1</td> <td>100%</td> <td>5min</td> <td>10min</td> <td>10%</td> <td>30Lux</td> <td>Hs</td> </tr> <tr> <td>QS2</td> <td>100%</td> <td>10min</td> <td>30min</td> <td>10%</td> <td>Disable</td> <td>Hs</td> </tr> <tr> <td>QS3</td> <td>100%</td> <td>20min</td> <td>30min</td> <td>10%</td> <td>Disable</td> <td>Hs</td> </tr> </tbody> </table> Note: Detection area / Hold time / Stand-by period / Stand-by dim level / Daylight sensor can be adjusted by pressing the corresponding button. The latest setting will stay valid.	Scene Options	Detection Area	Hold Time	Stand-by period	Stand-by dim level	Daylight Sensor	Induction model	QS1	100%	5min	10min	10%	30Lux	Hs	QS2	100%	10min	30min	10%	Disable	Hs	QS3	100%	20min	30min	10%	Disable	Hs
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	QS3	100%	20min	30min	10%	Disable	Hs																							
	TEST 2S	Press the "TEST 2S" button can enter the test mode anytime. At the mode, the sensor parameters as below: Detection Area is 100%, Hold Time is 2s, Stand-by Dim Level is 10%, Stand-by Period is 0s, daylight sensor disable. This function only for testing. Quit the mode by pressing "RESET" or any other function buttons.																												
	HS LS	N/A																												
	Daylight Sensor	Set up daylight threshold: 5Lux/15Lux/30Lux/50Lux/100Lux/150Lux/ Disable																												
	Stand-by period	Set up stand-by time: 0S/10S/1min/3min/5min/10min/30min/+∞																												
Hold time	Set up hold time: 5S/30S/1min/3min/5min/10min/20min/30min																													
Stand-by dim level	Set up stand-by dim level: 10%/20%/30%/50%																													
Detection Area	Set up detection area: 25%/50%/75%/100%																													
Remote Distance	Toggle bottom can set the remote distance of remote control and sensor.																													

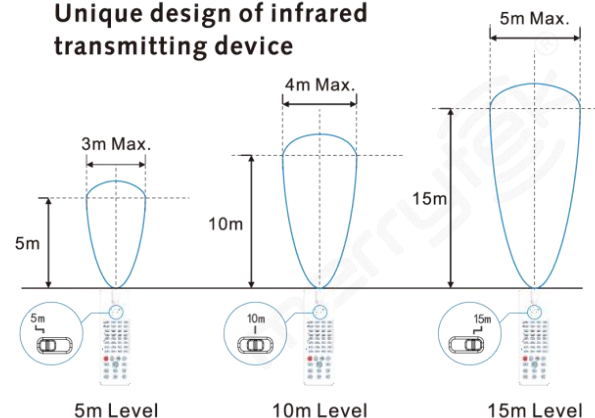
Remote control and code setting conversion

1. DIP switch setting convert to remote control Press any bottom except "RESET" on the remote control, and the sensor settings convert to the function currently selected by the remote control.
(No function button settings invalid)

2 remote control convert to DIP switch setting

- Press the "RESET" button on the remote control, and all settings return to the DIP switch settings of the sensor.
- Turn off the power, toggle any DIP switch, connect to the power, and all settings return to the DIP switch settings when supply power again.

Unique design of infrared transmitting device



【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

【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, and etc.
- 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.