Specification

Product Name: AC Controller

Product Model: MC605V D 99

Versions	Release/ change Date	Reason	Publishing
V1.0	2023.03.16		James Guo

【Product Feature】

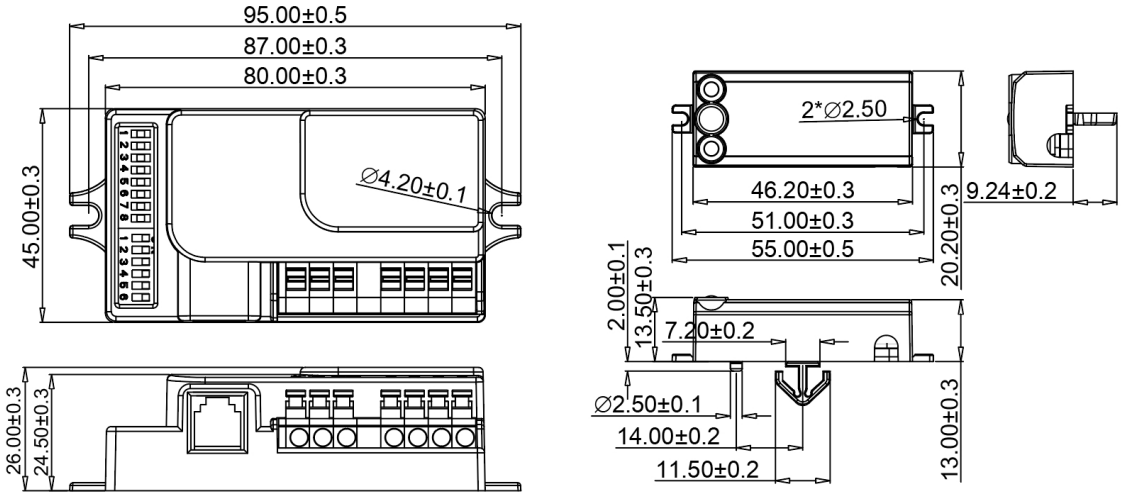
- Low impedance planar antenna
- With mini sensor detector, which does not block light
- Low transmitting power, no harm to human
- Support Remote Controller and DIP switch to adjust parameters
- With Sync port for wiring grouping
- 0-10V match MS01 can achieve daylight harvesting function
- Not affected by temperature, humidity, noise, dust etc.

【Function】

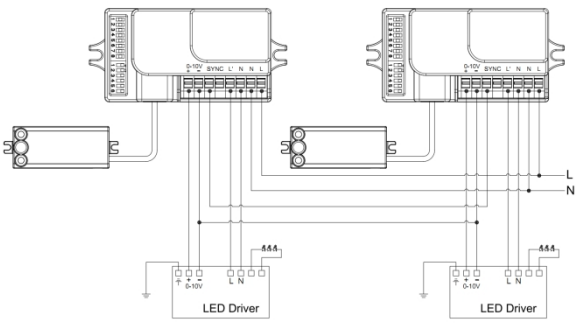
㋡ON-OFF function
㋡2-step dimming
㋡3-step dimming
◯override function
◯Daylight harvesting
◯Daylight priority
◯High-low sensitivity
㋡Grouping

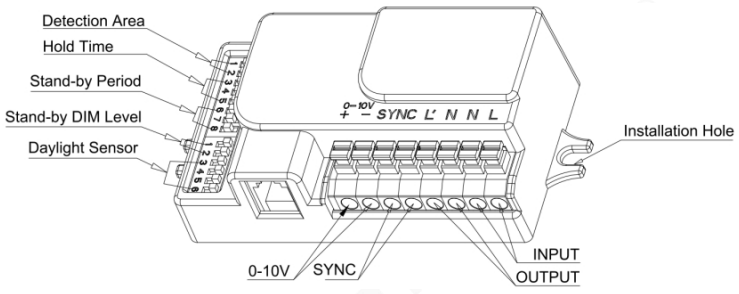
【Product Information】

- Dimension (Unit：mm)

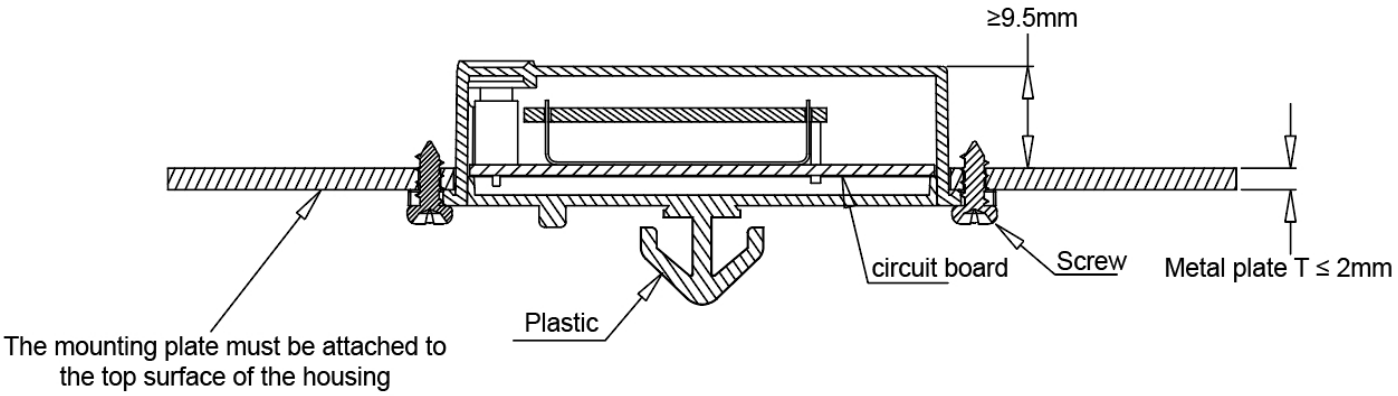


- Wiring、Function





【Installation Instruction】

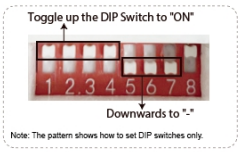


Note

The sensor is allowed to be connected to one load only. The sensor may be damaged if connecting more than one load.

Sensor antenna should be above LED tray.

【DIP Setting】



ON

Detection Area

	1	2		Detection Radius
I	ON	ON	100%	Around 3 meters
II	ON	–	75%	Around 2.5 meters
III	–	ON	50%	Around 2 meters
IV	–	–	25%	Around 1 meters

Hold Time

	3	4	5	
I	ON	ON	ON	5S
II	–	ON	ON	30S
III	ON	–	ON	90S
IV	–	–	ON	3min
V	ON	ON	–	20min
VI	–	–	–	+∞

Stand-by Period

	6	7	8	
I	ON	ON	ON	0S
II	–	ON	ON	5S
III	ON	–	ON	5min
IV	–	–	ON	10min
V	ON	ON	–	30min
VI	–	ON	–	1h
VII	–	–	–	+∞

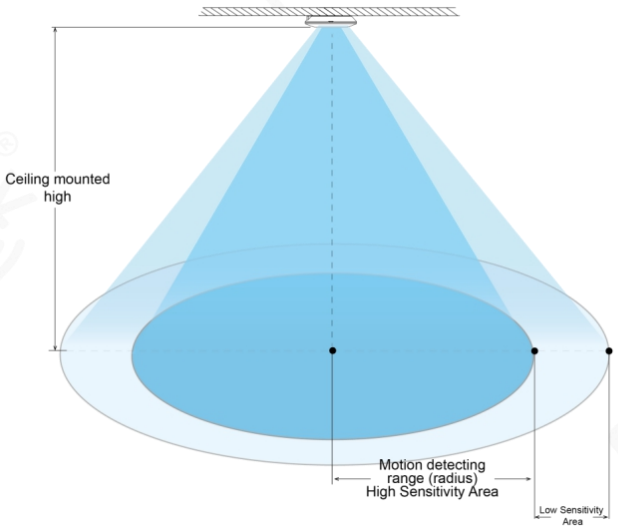
Stand-by DIM Level

	1	2	
I	ON	ON	50%
II	–	ON	30%
III	ON	–	20%
IV	–	–	10%

Daylight Sensor

	3	4	5	6	
I	ON	ON	ON	ON	5Lux
II	–	ON	ON	ON	15Lux
III	ON	–	ON	ON	30Lux
IV	–	–	ON	ON	50Lux
V	ON	ON	–	ON	100Lux
VI	ON	ON	ON	–	150Lux
VII	–	–	–	–	Disable

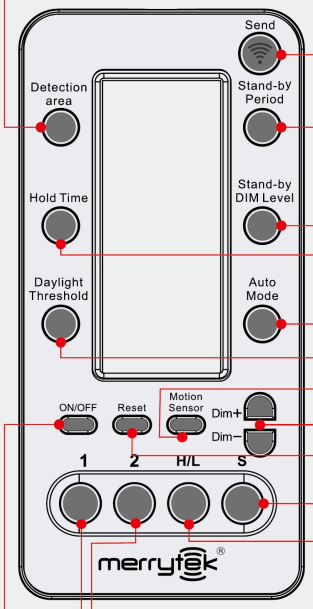
【Detection Range】



【Parameter】

Input		
Rated Voltage	120/277VAC 50/60Hz	
Stand-by Power	≤0.5W	
Surge Test	1KV(L/N,EN61000-4-5)	
Output		
Output dimming Mode	0-10VDC Dimming Signal	ON/OFF Signal
Load Capacity	@120VAC 3.6A Ballast	@277VAC 3.4A Ballast
Max. Surge Capacity	30A (50% Ipeak, twidth =500us, 230Vac full load, cold start)	
Dim interface		
0-10V Dimming	< 50mA（Non-constant source） 10%(1-2V) 20%(1.9-2.1V) 30%(2.9-3.1V) 40% (3.9-4.1V)	
Sensor Parameter		
Operating Frequency	5.8 GHz ±75MHz, ISM wave band.	
Transmitting power	1mW Max.	
Detecting Radius	1m/s ≥2.5m. @ 3m ceiling mounting, 1m/s ≥4m @ 2m wall mounting Test conditions : the product is set to 100% sensitivity, and there is no obvious occlusion in the room of 60 ㎡, 165cm person.	
Mounting Height	3-6m (ceiling mounting)	
3db beam angle	80°@XZ plane	
	96°@YZ plane	
Environment		
Operating Temperature	-35~70℃	
Storage Temperature	-40℃~80℃, Humidity: ≤85%(Non-condensing)	
Certificate Standard		
Certificate	UL	
Environmental Requirement	Compliant to RoHS 2.0, Reach	
Safety Standards	UL60730	
IP Rating	IP20	
Protection Class	Class II	
Other		
Wiring	Press-in terminals wire diameter：10-24 AGW	
Installation	Built-in	
Package	Clapboard + Carton(K=A)	
Net Weight	119±5g	
Lifetime	5 years warranty @Ta 230V	

【Retome】

MH12		
Remote Control Settings	Button	Function
	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 / 10s / 1min / 3min / 5min / 10min / 30min / +∞ Long press 3s to transmite selected value
	Stand-by DIM Level	Short press to set stand-by DIM Level 10% / 20% / 30% / 50%. Long press 3s to transmit selected value
	Hold Time	Short press to set hold time 5s / 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) ; P= Daylight priority Long press 3s to transmit selected mode Note: MP or P is not available for all models, 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 "Dim+/Dim-" for dimming, to add or subtract 2% per press Note: In normal “daylight” mode, set the maximum brightness via Dim+/Dim-, the maximum brightness value should be higher than the stand-by dimming level.
	Reset	Short press to return to factory default setting.
	S	N/A
	H/L	N/A
	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	Press this button to enter the “constant on/off” mode, this mode without memory function. Press "Reset" or "Motion Sensor" to exit to sensor function mode.

【Initialization】

● Switch function/three-stage dimming function: the light will be turned on 100% brightness by the initial energizing sensor, and will be turned off after 10 seconds. During initialization, no external motion sensing signal will be detected.

● Two-phase dimming function: the light will turn on 100% brightness in the initial energizing sensor, and turn to low brightness 10 seconds later (the brightness set by stand-by dim level). During initialization, no external motion sensing signal will be detected.

【Default setting】

Sensitivity: 100%, Hold time: 5s, Daylight sensor: Disable, Stand by period: 0s, Stand by DIM level: 50%

【Application Notice】

● Sensor should be installed by a professional electrician. Please turn off power before installing, wiring, or setting the DIP switches.

● Microwaves cannot penetrate metal. Do not place product in a closed or a half-closed metal lamp. Neither metal nor glass is not allowed to cover above the product. If antenna needs to pass through the

metal plate, please ensure that the top of sensor is close to the metal plate.

● Sensitivity area is related to moving speed of objects, size of moving objects, mounting height, mounting angle, working environment, reflecting materials and etc.. Given detecting area is typical value that was measured by 165cm high testers in an indoor open environment.

● The daylight thresholds are measured on a sunny day without shadow and in an ambient light diffuse reflection status. Different environment and climate cause different brightness values that daylight sensor measures.

● The installation spacing between sensors is recommended to be greater than 3m, and the installation spacing between sensors and routers is recommended to be greater than 2m.

● Sensor should not be covered or hided by metal, PCB, LED tray etc..The spacing between the sensor antenna and surrounding materials should be greater than 5mm. There should be no metal or PCB tracks near the sensor antenna, above or below it. The recommended thickness of cover is 2mm, and keep the spacing between the sensor antenna and cover is greater than 3.2mm.

● Vibration signals will be regarded as moving signals to trigger sensor. Installing sensor should be away from the object that vibrates for a long time, such as large metal equipment, pipes, air conditioning outlets, exhaust vents, smoke exhaust machine ports, shaking fans, etc. Pets in detecting area may cause false trigger.

● The antenna surface of microwave module should be away from input AC, output DC, rectifier bridge, transformer, switch tube and other high-power devices to avoid high frequency signals affecting the normal operation of microwave sensor’s antenna.

● Sensor is for indoor use only. The waterproof effect for outdoor or half-outdoor use will be affected. Wind, rain, and moving objects may cause false triggering.