




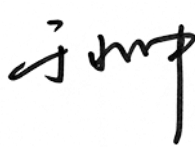
SPECIFICATION

Product Name: Microwave Motion Sensor

Model No.: MC002D DI

Issue Date: 2022-08-10

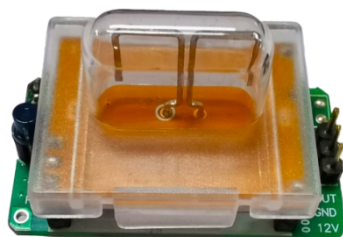
CUSTOMER APPROVED

PRODUCT DIRECTOR APPROVED	P&M CHECKED	R&D CHECKED	PREPARED
			

Version	Model No.	Updating Reason	Stage	Date
A0	MC002D DI	First Version		2022-08-10

*Please read the 11th instruction carefully before using this product, since the performance of DC-powered microwave products is closely related to the stability and characteristics of the auxiliary power supply of the LED driver.

1. Features



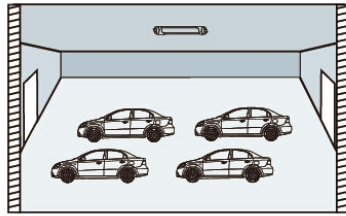
- (1) Built-in microwave module and daylight sensor;
- (2) Input voltage: 7.5-12VDC
- (3) Output ON/OFF;
- (4) Five-year-warranty

2. Parameter

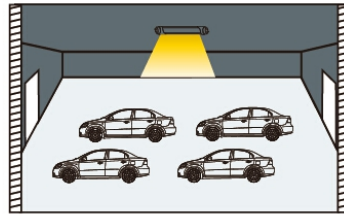
Input	Input Voltage	7.5-12V DC	
	Operating Current	<20mA	
	Ripple Voltage	<100mVp-p	
Output	ON/OFF	5V switch signal	
Sensor Parameters	Operating Frequency	5.8 GHz \pm 75 MHz, ISM wave band.	
	Transmitting Power	1mW Max.	
	Detection Area	100%	
	Hold Time	5S/15min	
	Daylight Sensor	Daylight sensor	15Lux/Disable(ambient light diffusion)
	Detection Radius (Detection Area: 100%)	Ceiling mounting(mounting height: 3m): 0.3m/S \geq 3m, 1m/S \geq 2.5m ;	
	Mounting Height	Typical value: 3m	
	3db Field Angle	130°@Xz field 89°@Yz field	
Operating Environment	Operating Temperature	-25~70℃	
	Storage Temperature	20~30℃ Humidity: \leq 60%	
Certificate Standards	Certificate	CE RED	
	Environmental Requirement	Compliant to RoHS	
Others	Wiring Method	terminal	3pin 2.54mm pins
	Installation	<input checked="" type="checkbox"/> Built-in	
	Dimension	See "4. Dimension"	
	Package	Clapboard+carton(K=A)	
	Net Weight	8.7g	
	Lifetime	5 years warranty@Ta 12V DC	

3. Function

(1) On/OFF Function (setting stand-by period to "0"s)



① With sufficient ambient light, the light will not be switched on even if with motion signal.

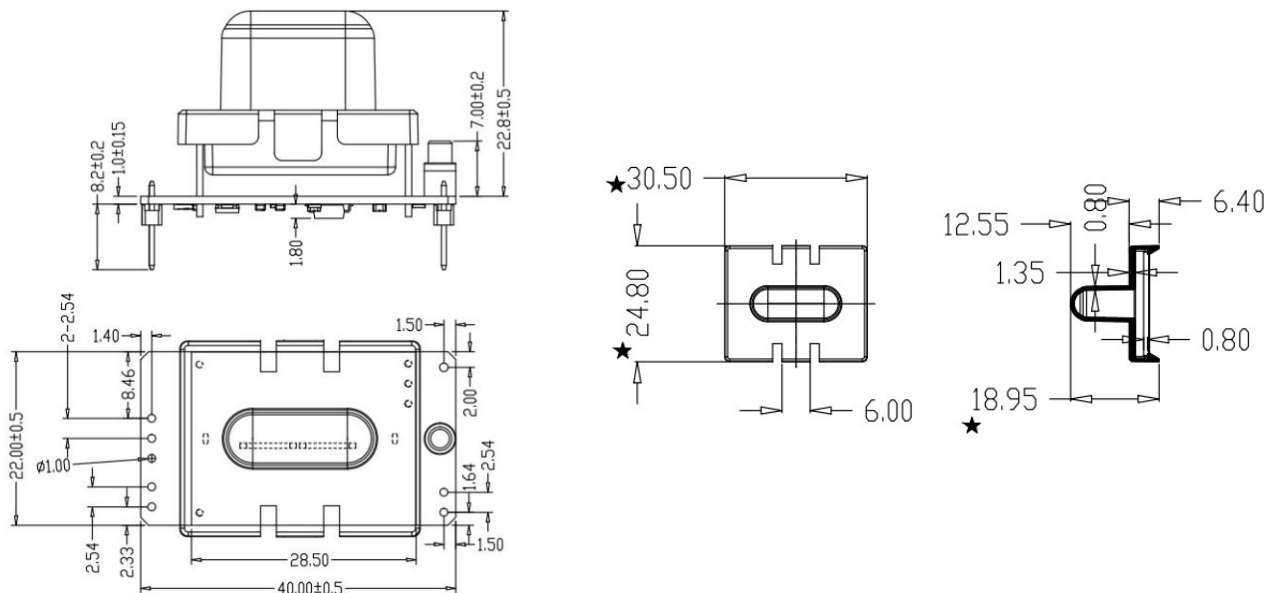


② With insufficient ambient light, the sensor switches on the light when motion is detected.

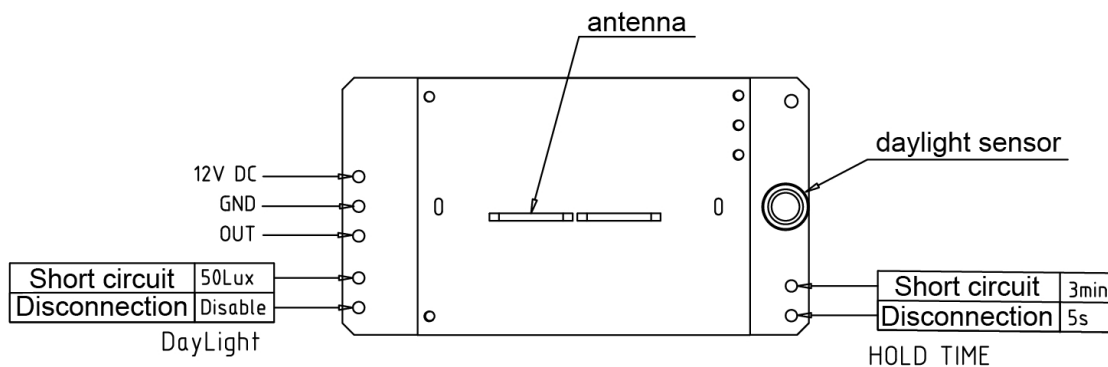


③ After elapse of hold time, the sensor switches off the light when no motion is detected.

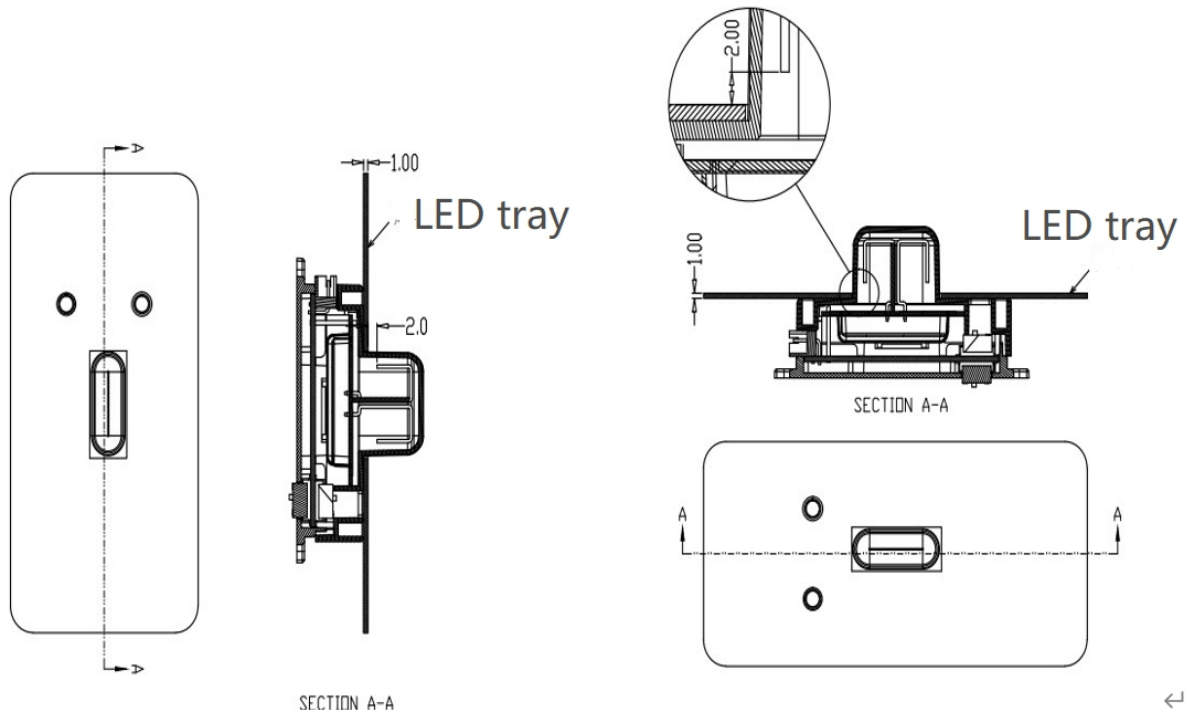
4. Dimension (mm)



5. Function and Wiring



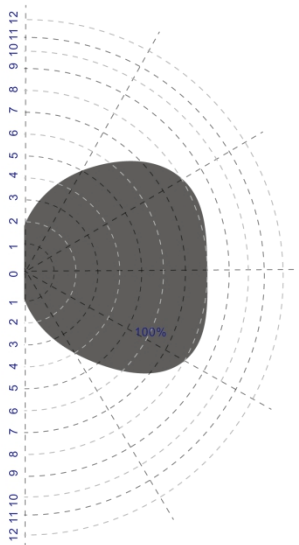
6. Installation



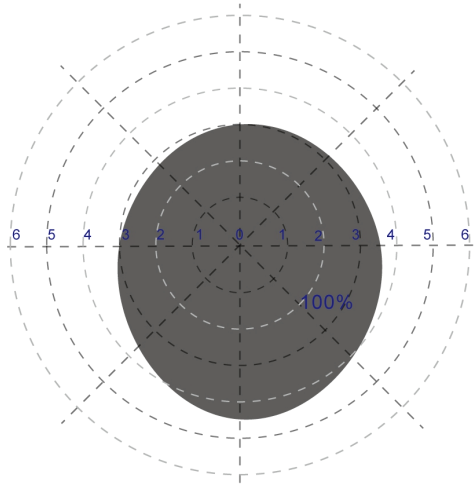
Note: The light board needs to be higher than 2mm from the bottom of the antenna corner, otherwise the detection distance will be affected.

7. Radiation Pattern

Ceiling mounting: 2m
Detection Area: 100%

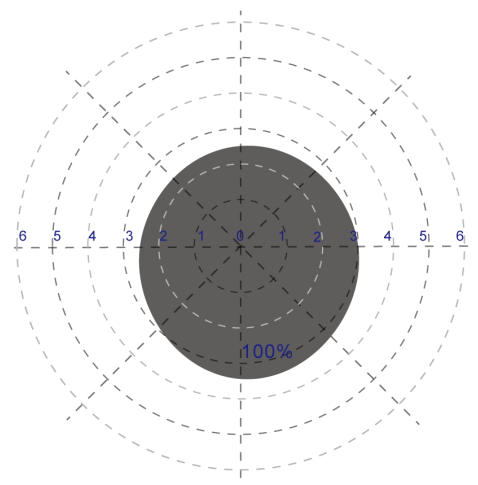


Ceiling mounting: 3m
Detection Area: 100%



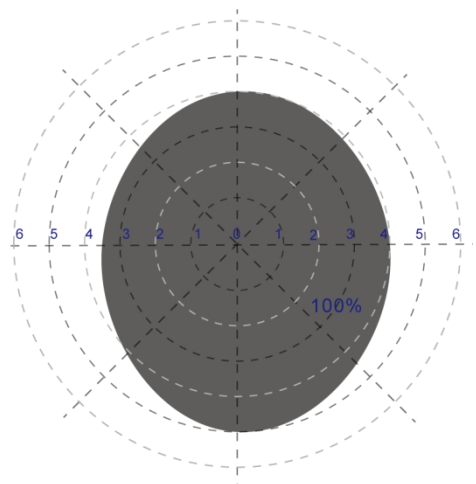
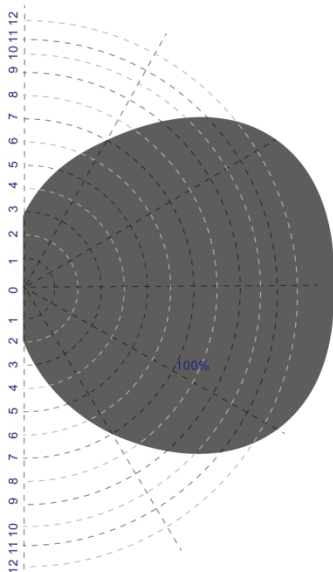
Normal moving (speed: 1m/s)

Ceiling mounting: 6m
Detection Area: 100%

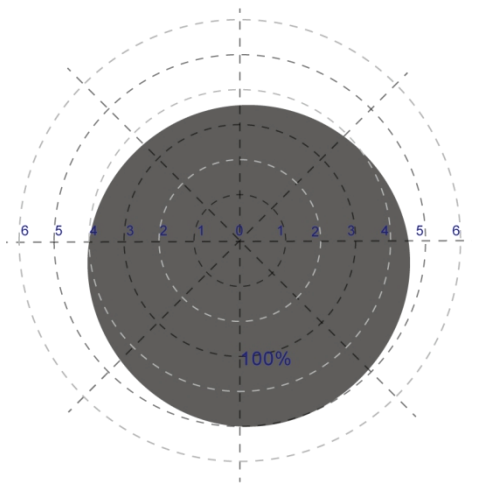


Normal moving (speed: 1m/s)

Normal moving (speed: 1m/s)



Slow moving (speed: 0.3m/s)



Slow moving (speed: 0.3m/s)

Slow moving (speed: 0.3m/s)

8. Initialization

Sensor turns on the light at 100% brightness when first power on and turns off the light after ten seconds. During the initialization, sensor does not detect moving signals.

9. Application Notice

(1) The sensor should be installed by a professional electrician. Please turn off the power before installing, wiring, changing the setting of the DIP switch.

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- (2) The detection distance is related to factors such as the moving speed of the moving object, the size of the moving object, the installation height, the installation angle, whether the installation environment is open, and the material of the reflector. The detection distance given in the specification is a typical value, which is obtained by testing a person with a height of 165cm/65kg in an open indoor environment
- (3) When the microwave sensor is installed on the wall, the detection distance will be greatly increased compared with that installed on the ceiling. If you use the wall installation method, please reduce the sensitivity to use or contact our company to confirm the use setting. The daylight threshold is tested in a sunny environment, no shadows, and ambient light diffuse reflection conditions. In different time periods, climates, and environments, the illuminance value detected by the light sensor may be different.
- (4) The parameters of the sensor may need to be reconfigured in different installation environments, please refer to the following instructions or contact the manufacturer
- (5) The sensor is only for indoor use, outdoor wind and rain, and surrounding moving objects will cause false triggering.
- (6) The sensor can be installed at no more than 6 meters, and the optimal height is 3 meters; the distance between two sensors should be greater than 3 meters.
- (7) When the sensor is installed in a metal lamp, on a metal reflective surface, or in a small closed environment, microwave will be reflected multiple times and cause false triggering. Please reduce the detection area or contact the manufacturer for technical support.
- (8) Please make sure that there are no moving signals such as fans, DC motors, sewer pipes, air outlets, etc. around the sensor, otherwise the sensor may cause false triggering.
- (9) Microwaves cannot penetrate metal, avoid installing in closed or semi-closed metal lamps, and there should be no metal or glass blocking the product.
- (10) The sensor is equipped with different PWM drivers, and the low-light effect may be different.
- (11) 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).
- (12) Product specifications and parameters may be optimized without prior notice.