

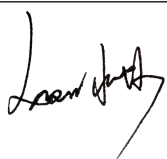

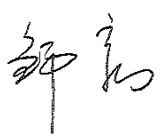

SPECIFICATION

Product Name: Microwave motion sensor

Model No.: MC090S E2

Issue Date: April 26, 2020

CUSTOMER APPROVED

PRODUCT DIRECTOR APPROVED	SALES CHECKED	R&D CHECKED	PREPARED
			

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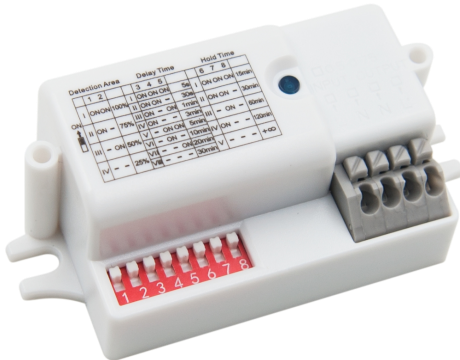
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Tel: +86 (0)755-2305 7253

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Website: www.merrytek.com

1. Features



- 1, Special motion sensor for sterilizing lamp: the light turn off when detect people come; the light turn on when people leave.
2. Free ISM band 5.8ghz microwave band, active detection, stable and reliable.
- 3 Ultra-small installation size, multiple installation methods (surface and bottom screw installation)
- 4 Batch products to ensure compliance with FCC certification requirements, the lamp with sensor certification is guaranteed.
5. Switch the power supply for three times continuously to cancel the detection function, and the sensor enters always on mode.

2. Parameter

Input	Operating Voltage Range	198-265VAC 50/60Hz
	DC Input Voltage	N/A
	Rated Voltage	220-240VAC 50/60Hz
	No-load Power	≤1.2W
	Stand-by Power	≤0.5W
	Surge Test	Between L and N: 1KV
Output	Working Mode	ON/OFF
	Type of Load	Resistive or Capacitive
	Load Capacity	800W (Resistive) or 400W (Capacitive)
	Current of Load	N/A
	Load surge current	30A relay - 30A (test twidth 500us @230Vac at 50% Ipeak, cold start at full load) or 60A (test twidth 200us @230Vac at 50% Ipeak, cold start at full load)
Interface	1-10V dimmer	N/A
	Synchronization control interface	N/A
	High and Low Level Interface	N/A
	PWM control interface	N/A
	Interface terminal wiring mode	N/A
Sensor	Operating Frequency	5.8 GHz ±74.9 MHz.ISM wave band
	Transmitting power	0.5mW Max.
	Delay time	5S/30S/60S/3min/5min/10min/20min/30min
	Hold time	15min/30min/60min/120min//+∞
	DIM down	N/A

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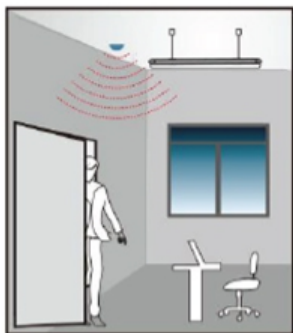
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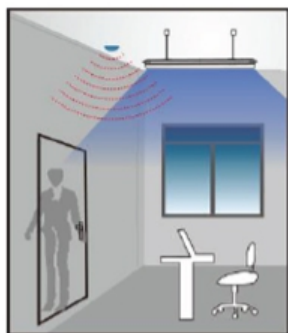
	Cut off	N/A
	Detection Area	100% / 75% / 50% / 25%
	Daylight on/off	N/A
	Detecting Radius	4-7m(mounting height 3m)
	Mounting Height	2.5-6 m(Suction Top Installation)
	Detecting Angle	Ceiling mount 150°
Wireless module	Operating Frequency	N/A
	Transmitting power	N/A
	transmission distance	N/A
	modulation mode	N/A
	Coding group number	N/A
Operating Environment	Operating Temperature	-20℃...+60℃ Humidity: 85% (non-condensing)
	Storage Temperature	-40℃...+80℃
Certificate Standards	Safety (LVD)standards	EN61058-1,EN61058-1-2
	EMC standards	EN55015,EN61547,EN61000-3-2,EN61000-3-3
	Environmental Requirement	RoHS
	Certificate	TUV RED
Others	Input/output terminal specifications	0.5-0.75mm ²
	IP Rating	IP20
	Protection Class	Class II
	Installation	Built-in installation
	Dimension	62*36*25mm
	Package	Bubble bag + partition + outer box (K=A)
	Net Weight	36g
	Lifetime	50,000h @ Ta Full load
<p>Note</p> <p>1. "N/A"means not available.</p> <p>2. Detection area is effected on volume of motion object and motion speed. The detection area is tested by a 165cm height person and walking speed is 0.5m/s.</p>		

3. Function

On/Off function:



When detect human being, the sterilization light turn off.



When human being leave, the sterilization light turn on.

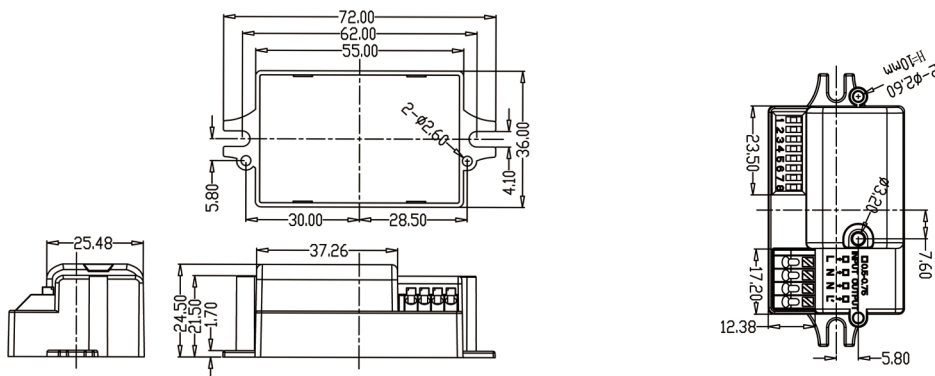


Can pre-set the light on time when no human being trigger.

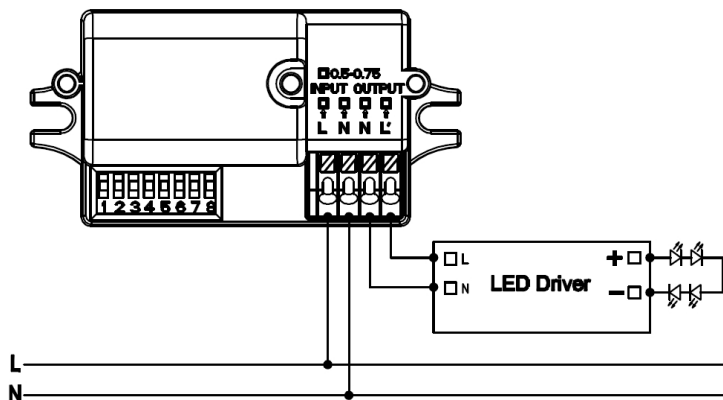


Light turn off when the pre-set time finished.

4. Dimension (mm)



5. Wiring



*The sensor is designed for connect one load only. Connect more than one loads may damage the sensor .

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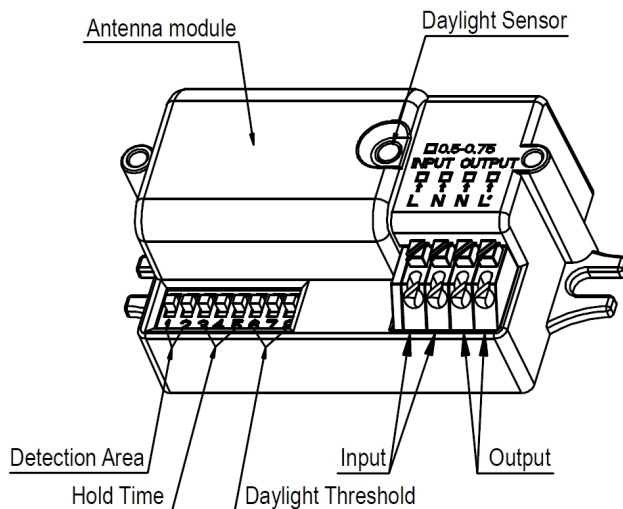
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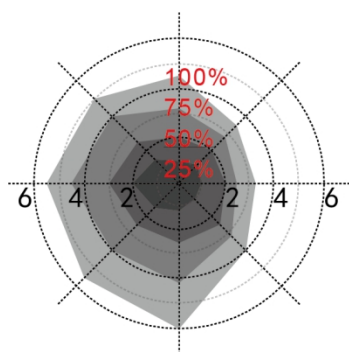
6. Structure



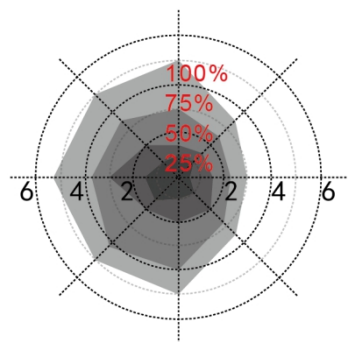
7. Radiation Pattern

Ceiling mounting

Ceiling mounted height: 3m
Sensitivity: 100%/75%/50%/25%

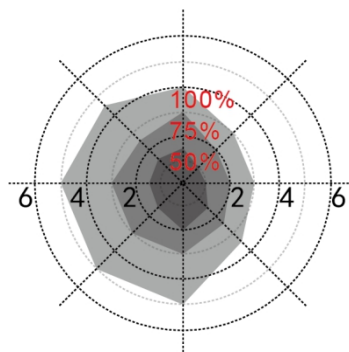


Normal moving (Speed:1m/s)

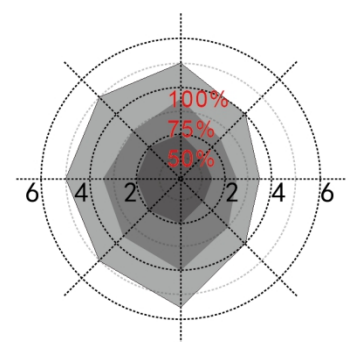


Slow moving (Speed 0.3m/s)

Ceiling mounted height: 6m(*)
Sensitivity:100%/75%/50%



Normal moving (Speed:1m/s)



Slow moving (Speed: 0.3m/s)

* 50%,75%,100% detection sensitivity is workable when installed at 6 m mounting height. Only 25% sensitivity is not able to detect motion signal.

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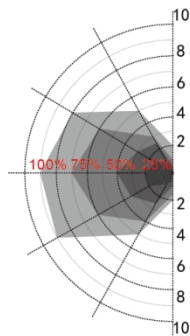
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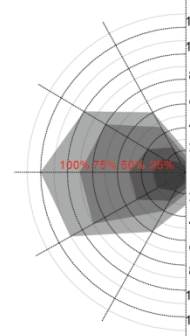
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Wall mounting:

Wall mounted height: 2m
Sensitivity: 100%/75%/50%/25%



Normal moving (Speed: 1m/s)



Slow moving (Speed 0.3m/s)

8. Function Dialing Settings

Detection Area

	1	2	
I	ON	ON	100%
II	ON	-	75%
III	-	ON	50%
IV	-	-	25%

Hold Time(delay time)

	3	4	5	
I	ON	ON	ON	5S
II	ON	ON	-	30S
III	ON	-	ON	1min
IV	ON	-	-	3min
V	-	ON	ON	5min
VI	-	ON	-	10min
VII	-	-	ON	20min
VIII	-	-	-	30min

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Hold time 2 (sterilizing time)

	6	7	8	
I	ON	ON	ON	15min
II	ON	ON	-	30min
III	-	ON	-	60min
V	ON	-	-	120min
IV	-	-	-	$+\infty$

9. Initialization

Attachment:

- 1>. Self-test: there is no output of self-test on power (12S). After self-test 2 seconds detection. The sterilization light was turn on when no one trigger the sensor ,No output when the detect human body was moving, and the sterilization light was on after the pre-set delay time when the human being left.
- 2>. Delay time: after the human being left, the pre set delay time enter into the hold time (the sterilizing time).
- 3>. Hold time: The time of the sterilization light on, the hold time has the interrupt function, the hold time (the sterilization light is on), when the human being came ,the light will be turn off, after the human being leaves,the sensor get into the delay time, after run the delay time, the sterilization light will be turn on. The hold time will not start the timer from the beginning, it will continue to account the time base on previous lighting time, until the pre set hold time finished ,then the light off, need to power again after the restart.
- 4>. Switch three times: AC input switch three times to five times, cancel the detection function into the always on mode, the above function failure when power off.

10. Factory settings

Detection Area: 100%, Delay Time: 5S, Hold Time2: $+\infty$

11. Use Caution

1. Be sure to cut off the power supply before installing or adjusting the setting of the dial switch.
2. The microwave cannot pass through the metal, make sure there are no metal above the sensor.
3. It has to be at least 15mm away from metal around the microwave antenna. It is not allowed to place antenna and metal on the same horizontal.

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