

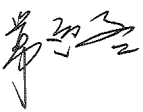
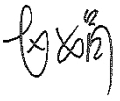
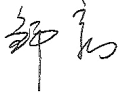

SPECIFICATION

Product Name: Sensor

Model No.: MC602S RC

Issue Date: Sept 15, 2022

CUSTOMER APPROVED

PRODUCT DIRECTOR APPROVED	SALES CHECKED	R&D CHECKED	PREPARED
			

Shenzhen Merrytek Technology Co.,Ltd

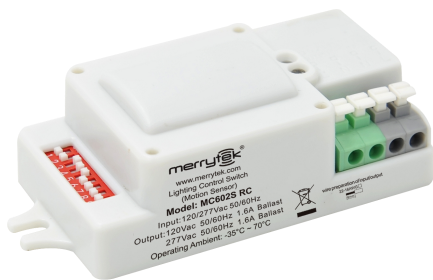
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Tel: +86 (0)755-2305 7253

Fax: +86 (0)755-2786 3012

Website: www.merrytek.com

1. Features



- High installation, can support 12m
- Override is available
- Patented high-gain antenna, supporting high-inductance low-inductance mode (low-inductance) Mode suitable for metal ceiling, metal reflector environment
- Compatible with dialing code and remote control design, parameters can be set simply
- 5 years warranty

2. Parameter

Input	Operating Voltage	108-305V AC 50/60Hz
	Rated Voltage	120/277V AC 50/60Hz
	Stand-by Power	<1W
	Surge Test	L--N: 1kV
Output	Working Mode	ON/OFF function,
	Type of Load	Inductive or resistive Load
	Load Capacity	120VAC 1.6A 277VAC 1.6A
	Max. Surge Capacity	30A (50%I _{peak} , twidth =500uS, 230Vac full load, cold start); 60A (50% I _{peak} , twidth=200uS, 230Vac, full load, cold start)
Sensor Parameters	Operating Frequency	5.8 GHz ±75 MHz, ISM Band.
	Transmitting power	0.5mW Max.
	Hold time	5S/30S/90S/3min/20min/30min 5s/30s/1min/3min/5min/10min/20min/30min(Remote Control)
	Detection Area	100%/75%/50%/25%
	Daylight Sensor	5lux/15lux/30lux/50lux/100lux/Disable 5lux/15lux/30lux/50lux/100lux/150lux/Disable(Remote Control)
	Detecting Radius	5-7m in radius (installed at 9 m high)
	Mounting Height	12m Max
	Detecting Angle	150°
Operating Environment	Operating Temperature	-35℃...+70℃ Humidity:85% (non-condensing)
	Storage Temperature	Temperature: -35℃...+80℃
Certificate Standards	Safety standards	EN61058-1,EN61058-1-2
	EMC standards	EN55015,EN61547,EN61000-3-2,EN61000-3-3

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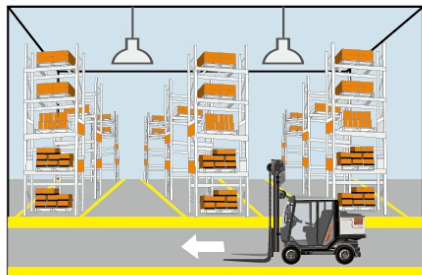
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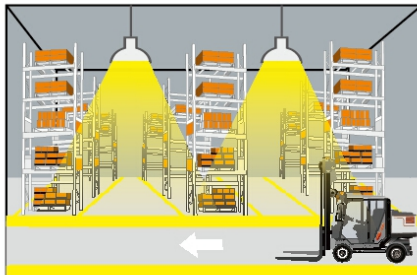
Certificate Standards	Environmental Requirement	Compliant to RoHS
	Certificate	CE,
Others	Input/output terminal specifications	Push-type terminal block; wire diameter: 0.75-1.5mm ²
	IP Rating	IP20
	Protection Class	Class II
	Installation	Built-in installation
	Dimension	98*43*25mm
	Package	White bag + partition + outer box (K=A)
	Net Weight	53g
	Lifetime	5 years warranty @Ta 230V 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

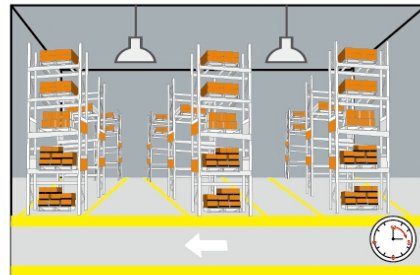
1) On/OFF Function (stand-by period be set to "0"s)



- 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.

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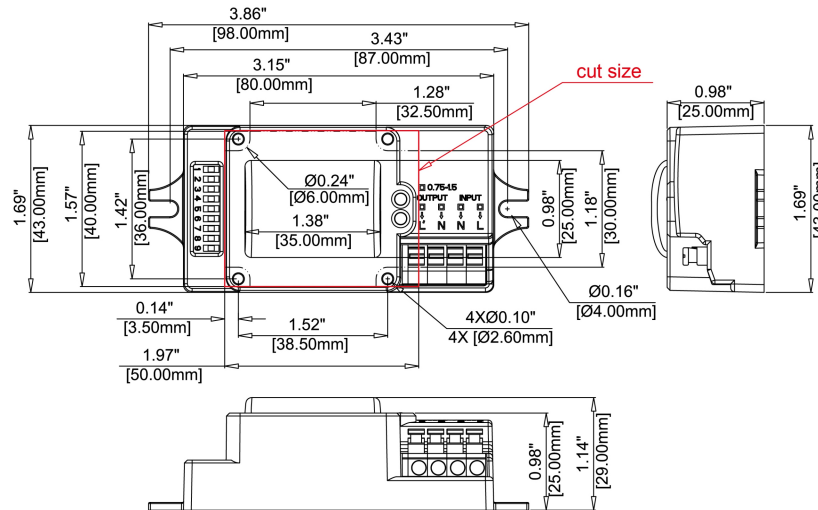
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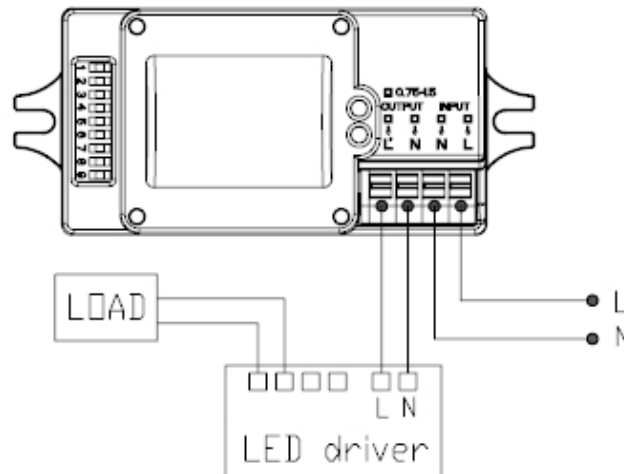
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4. Dimension (mm)



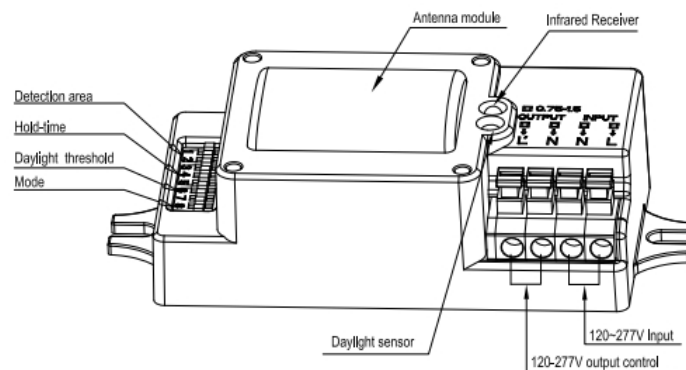
*To avoid blocking microwave transmitting, please cut hole as image above to make sure microwave antenna exposed from any metal.

5. Wiring



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

6. Function Diagram



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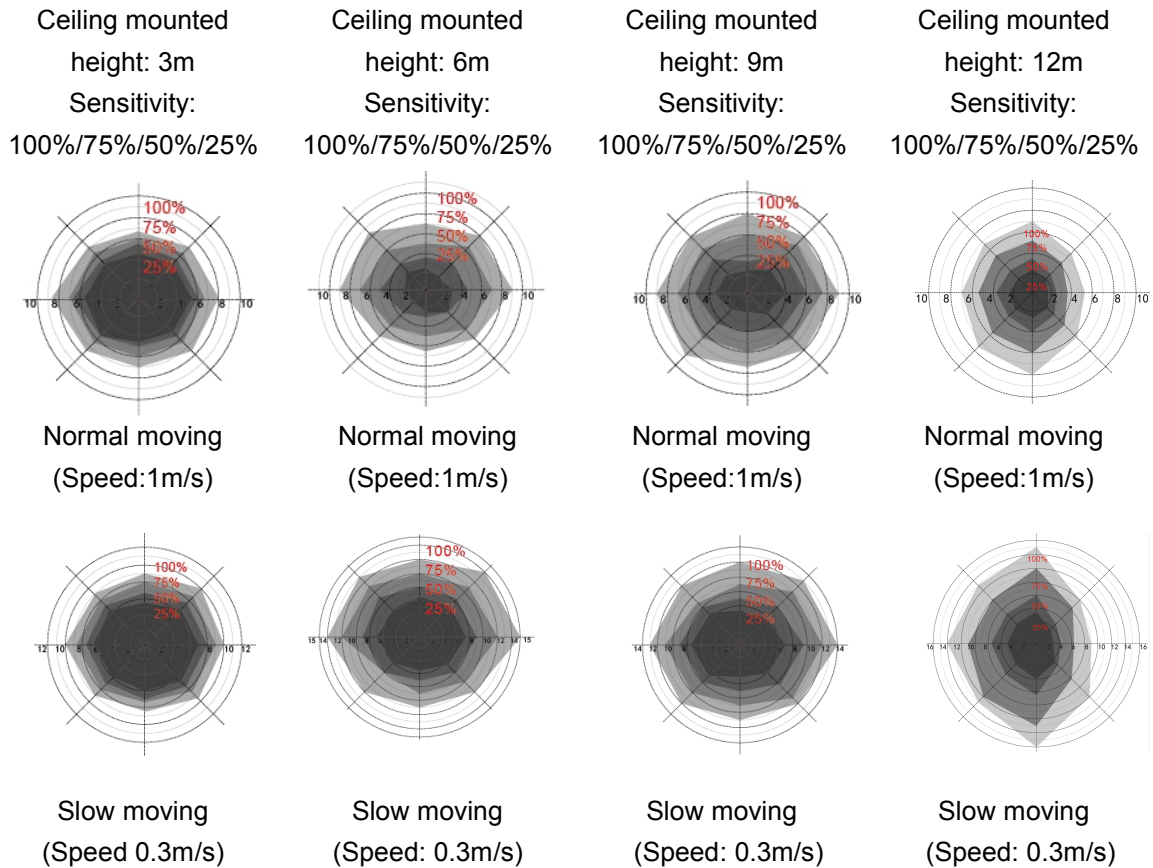
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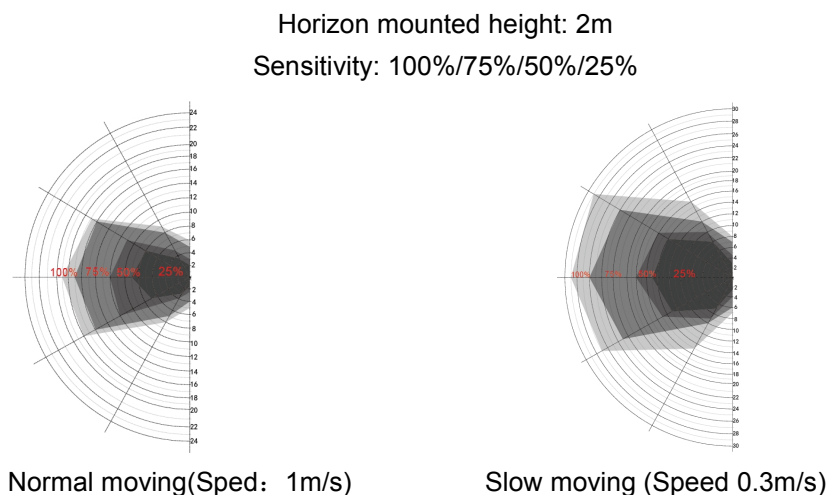
7. Radiation Pattern

Ceiling mounting

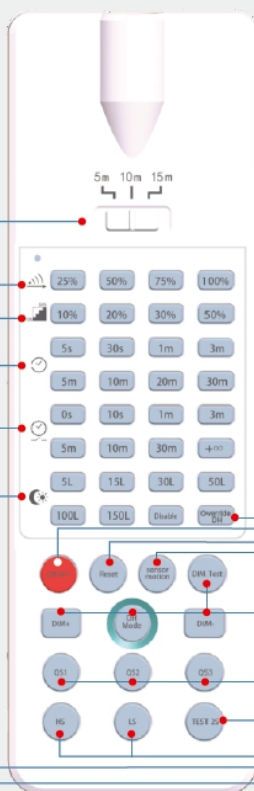








*Only 100%/75%/50% detection sensitivity is workable when installed at 10m & 15m mounting height. 25% sensitivity is not able to detect motion signal.

Wall mounting



8. Remote Control

Remote Control Setting	Button	Remarks																				
		Press the "ON/OFF" button, the light goes to constant on/off mode, sensor is disabled. Press "Reset" or "Sensor Motion" to quit this mode and the sensor starts to work.																				
	Reset	Press "Reset" button, all parameters are same as setting of DIP switches																				
	Sensor motion	Press "Sensor motion" button, the light quits from constant on/off mode, and the sensor starts to work(the latest setting stays in validity)																				
	DIM+ DIM- DH Mode DIM Test	"DIM+", "DIM-", "DH Mode", and "DIM Test" that the four functions are not applicable for MC602S RC.																				
	Q1 Q2 Q3	<table border="1"><thead><tr><th>Scene Options</th><th>Detection Area</th><th>Hold Time</th><th>Daylight Sensor</th><th>Induction mode</th></tr></thead><tbody><tr><td>QS1</td><td>100%</td><td>5min</td><td>30Lux</td><td>Hs</td></tr><tr><td>QS2</td><td>100%</td><td>10min</td><td>Disable</td><td>Hs</td></tr><tr><td>QS3</td><td>100%</td><td>20min</td><td>Disable</td><td>Hs</td></tr></tbody></table> <p>Note: Detection area/Hold time/ Daylight sensor can be adjusted by pressing the corresponding button. The latest setting will stay valid.</p>	Scene Options	Detection Area	Hold Time	Daylight Sensor	Induction mode	QS1	100%	5min	30Lux	Hs	QS2	100%	10min	Disable	Hs	QS3	100%	20min	Disable	Hs
	Scene Options	Detection Area	Hold Time	Daylight Sensor	Induction mode																	
	QS1	100%	5min	30Lux	Hs																	
	QS2	100%	10min	Disable	Hs																	
	QS3	100%	20min	Disable	Hs																	
	TEST 2S	Under any status, press the "TEST 2S" button, sensor enter into test mode, the parameters are as below: Detection Area is 100%, Hold time is 5s, Daylight sensor disable. This function is only testing. Quit this mode by pressing "RESET" or any other function buttons.																				
	HS LS	Press "HS" button to set the detection area to be high sensitive. Press "LS" button to set the detection area to be low sensitive. The adjustment bases on the "Detection Area" parameter you set.																				
		Daylight Sensor Set up daylight threshold: 5Lux/15Lux/30Lux/50Lux/100Lux/150Lux/ Disable.																				
		Hold time Set hold time: 5S/30S/1min/3min/5min/10min/20min/30min																				
	Override DH 	"Override DH", Stand-by dim level and Stand-by period that the three functions are not applicable for MC602S RC.																				
		Detection Area Set detection area: 25%/50%/75%/100%																				
	Remote Distance Toggle button can set the remote distance between remote control and sensor																					

9. DIP Setting

1) Detection Area

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

2) 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	-	-	-	30min

3) Daylight Sensor

	6	7	8	
I	ON	ON	ON	5Lux
II	-	ON	ON	15Lux
III	ON	-	ON	30Lux
IV	-	-	ON	50Lux
V	ON	ON	-	100Lux
VI	-	-	-	Disable

4) Mode

	1	
I	ON	HS
II	-	LS

10. Initialization

After power on, the sensor automatically turns on light at 100% brightness. After 10sec, it turns off the light. During the initialization, the sensor is not able to detect movement.

11. Factory Setting

Detection Area: 100%, Hold Time: 5S, Daylight Sensor: Disable, Mode:HS

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12. 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.
- 2) The sensor which installed in the plastic and glass lampshade will reduce the sensitivity. For every 3mm increase in thickness, the sensitivity will be reduced by 20%.
- 3) The light sensitivity threshold is in a sunny environment, no shadow and ambient light diffuse reflection. Ambient lux level could be different in different environment, weather, climate, time-of-day and season.
- 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) This sensor is for indoor use only. It will affect the waterproof effect for outdoor use. Wind, rain, and moving objects around will cause false triggering.
- 6) The distance between any inductive sensors should be greater than 3m.
- 7) Do not place the sensor close to high-density objects such as metal, glass, concrete walls, etc, false triggering could happen. When the sensor is installed in a metal lamp, metal reflective surface, or a narrow enclosed environment, the microwave will be reflected repeatedly and cause false triggering. Please reduce the sensitivity or contact the manufacturer for technical support.
- 8) Please ensure that there are no moving signals around the sensor, such as fan, DC motor, sewer pipe, air outlet, etc., the sensor may generate false trigger.
- 9) You are advised to test 5 samples before mass application of sensor in a new lighting project.
- 10) Due to continuous improvement, the contents of this instruction could be changed without prior notice.
- 11) You are advised to test 5 samples before mass application of sensor in a new lighting project.