

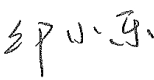


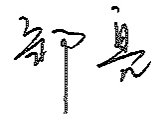
SPECIFICATION

Product Name: Microwave Motion Sensor

Model No.: MC085S RA/ MC085S RB

Issue Date: Dec. 20, 2019

CUSTOMER APPROVED

PRODUCT DIRECTOR APPROVED	SALES CHECKED	R&D CHECKED	PREPARED
			

Shenzhen Merrytek Technology Co.,Ltd

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1. Features

MC085S RA (Needle Connector)



MC085S RB (Lead Connector)



- Two connector can be selected: needle connector or lead connector, easy for installation.
- Detection area, hold time and daylight sensor can be set by DIP switch.
- Adopt Patent RS antenna ,RED approval ,Anti-interference for breeze & raindrop.
- Two modes optional: Photocell function and Motion function.
- Quick switch ON/OFF 3 times to override sensor function. Lights will switch on all the time.
- Water-proof housing with IP65 rating for outdoor use.
- 5 years warranty.

2. Parameter

Input	Operating Voltage Range	198-264V AC, 50Hz/60Hz
	DC Input Voltage	N/A
	Rated Voltage	220-240V AC, 50Hz/60Hz
	No-load Power	N/A
	Stand-by Power	≤0.5W
	Surge Test	L--N: 1kV
Output	Working Mode	Photocell function or Motion function
	Type of Load	Inductive or Resistive
	Load Capacity	400W(Inductive) ; 800W(Resistive)
	Current of Load	N/A
	Max. Surge Capacity	10A: 30A (50% I _{peak} , twidth =500uS, 230Vac full load, cold start); 60A (50% I _{peak} , twidth =200uS, 230Vac, full load, cold start) 17A: 50A (50% I _{peak} , twidth =500uS, 230Vac full load, cold start); 80A (50% I _{peak} , twidth =200uS, 230Vac, full load, cold start)

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	Wiring Method	Needle Connector or Lead Connector
Sensor Parameters	Operating Frequency	5.8 GHz \pm 75 MHz, ISM Band.
	Transmitting power	0.5mW Max.
	Hold time	5S/30S/1min/3min/20min/30min
	Detection Sensitivity	100%/75%/50%/25%
	Daylight Sensor	2Lux/10Lux/25Lux/50Lux/100Lux/Disable
	Daylight open/close	10Lux/50Lux ; 25Lux/75Lux; 50Lux/100Lux; 100Lux/200Lux; 150Lux/300Lux; Disable
	Detecting Radius	4-6m (mounting height 3m) , see note 2
	Mounting Height	6m Max.
	Detecting Angle	150° (Wall mounted), 360° (Ceiling mounted)
Operating Environment	Operating Temperature	-20℃...+60℃
	Storage Temperature	-40℃...+80℃ (Humidity: 10%-95%)
Certificate Standards	Safety standards	EN61058-1
	EMC standards	EN300440; EN301489-1; EN55015; EN61547; EN61000-3-2; EN61000-3-3; EN62479
	Environmental Requirement	Compliant to RoHS
	Certificate	CE
Others	Wiring	MC085S A Needle connector MC085S B Lead connector with 260mm cable out
	IP Rating	IP65
	Protection Class	Class II
	Installation	Independent installation
	Dimension	Φ16mm
	Package	Bubble bag+Clapboard + Carton (K=A)
	Net Weight	77.7g
	Lifetime	5 years warranty @Ta 230V full load

Note

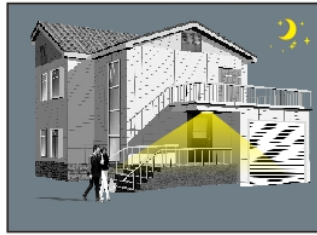
1. "N/A" means not available.
2. Detection area is effected on volume of motion object and motion speed. The detection area is tested by a 165cm height person and walking speed is 0.5m/s.

3. Function

1) Motion ON-OFF Function



- ① With sufficient ambient light, the light will not be switched on.



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

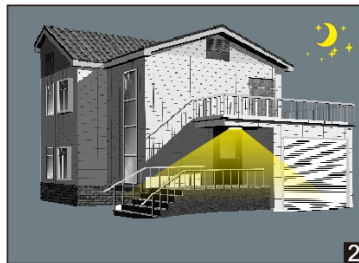


- ③ After elapse of hold time, the sensor switches off the light when no motion is detected.

2) Photocell Night/Light Function



Automatically switches on the lights at dusk.



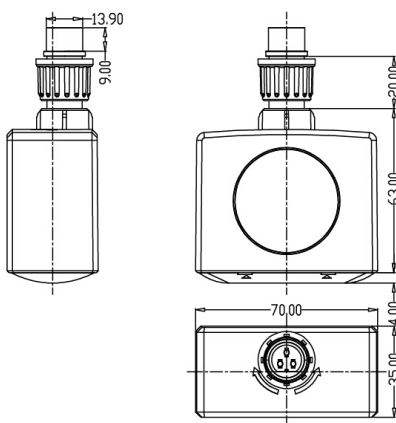
Stays continuously illuminated throughout the night.



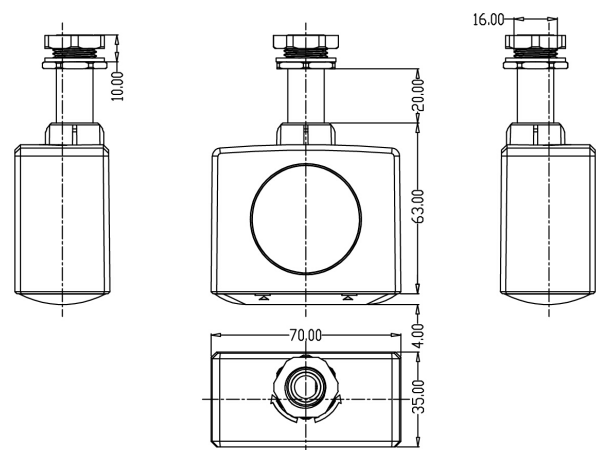
Switches off the lights at dawn.

4. Dimension (mm)

MC085S RA (Needle Connector)



MC085S RB (Lead Connector)



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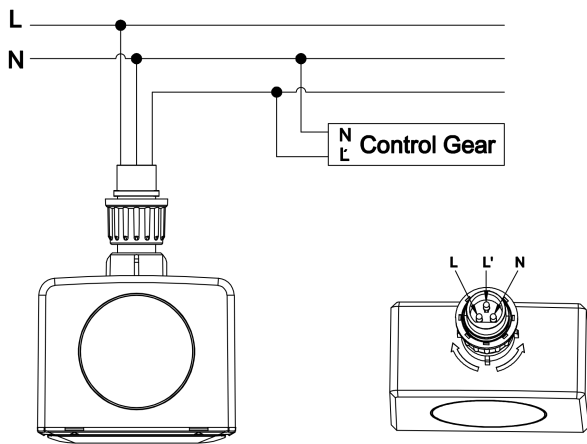
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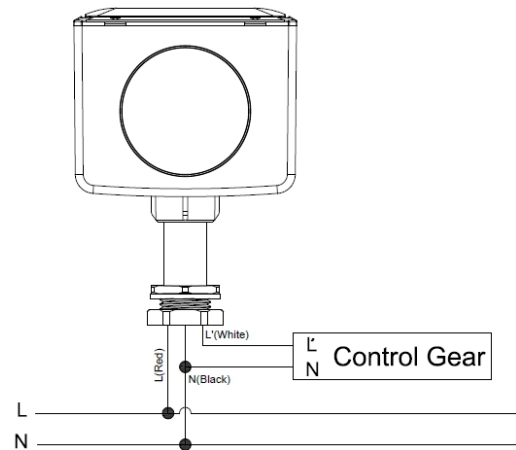
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5. Wiring



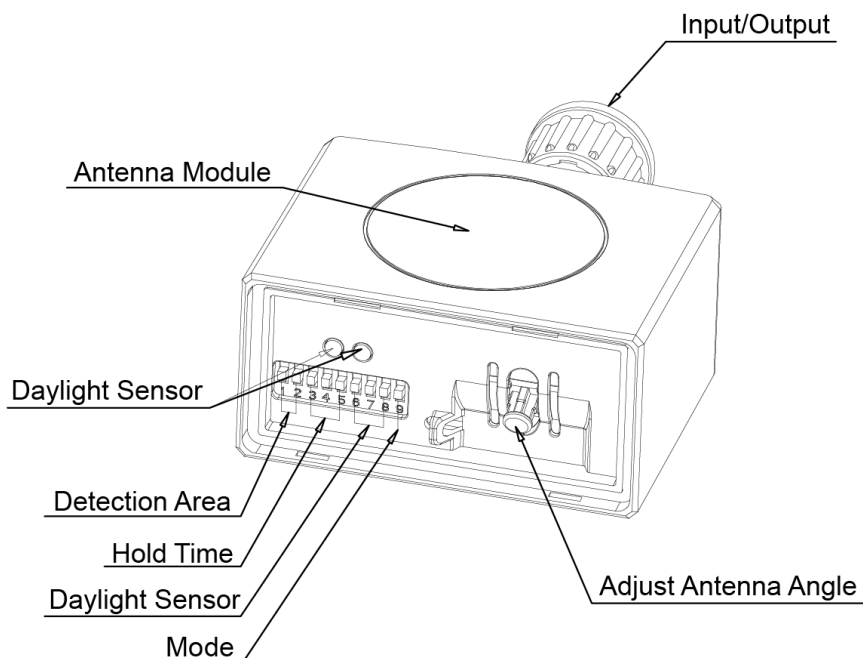
MC085S RA



MC085S RB

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

6. Structure

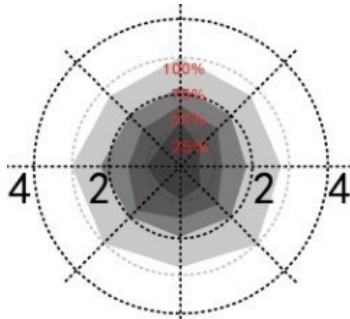


7. Detection pattern

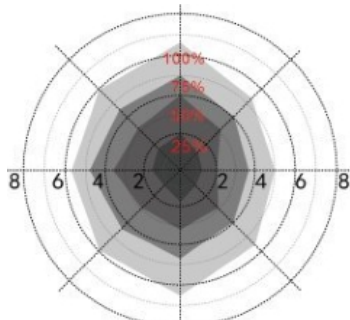
1) Ceiling mounting

Height: 3m

Sensitivity: 100%/75%/50%/25%



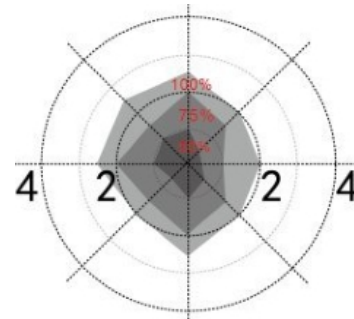
Normal moving (Speed: 1m/s)



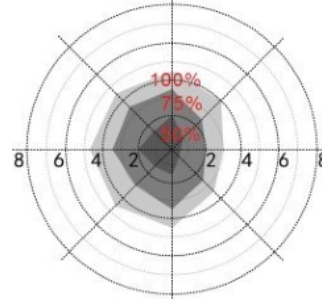
Slow moving (Speed 0.3m/s)

Height: 6m

Sensitivity: 100%/75%/50%



Normal moving (Speed: 1m/s)

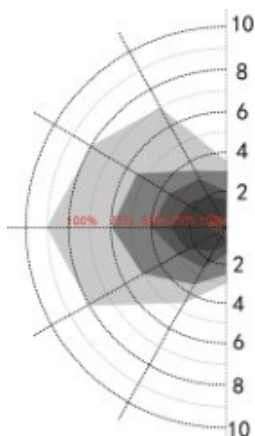


Slow moving (Speed 0.3m/s)

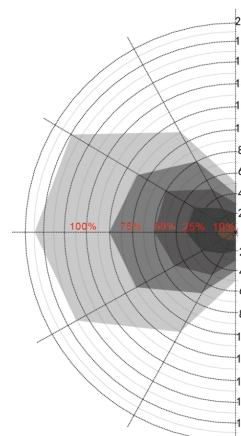
2) Walling mounting

Horizontal installation: 2m

Sensor range setting: 100%/75%/50%/25%



Normal walking (walking speed: 1m/s)



Slow walking (walking speed: 0.3m/s)

8. DIP Switch Setting

● Detection Area (Sensitivity)

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

● Hold Time

	3	4	5	
I	ON	ON	ON	5s
II	-	ON	ON	30s
III	ON	-	ON	1min
IV	-	-	ON	3min
V	ON	ON	-	20min
VI	-	-	-	30min

● Daylight Threshold

	6	7	8	
I	ON	ON	ON	2Lux
II	-	ON	ON	10Lux
III	ON	-	ON	25Lux
IV	-	-	ON	50Lux
V	ON	ON	-	100Lux
VI	-	-	-	Disable*

*Disable means the daylight sensor does not work. The sensor will turn on light once motion is detected regardless of ambient light level.

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● Photocell

	6	7	8	Open/Close
I	ON	ON	ON	10Lux/50Lux
II	-	ON	ON	25Lux/75Lux
III	ON	-	ON	50Lux/100Lux
IV	-	-	ON	100Lux/200Lux
V	ON	ON	-	150Lux/300Lux
VI	-	-	-	Disable*

*Disable means the daylight sensor does not work. The sensor will turn on light once motion is detected regardless of ambient light level.

● Mode Settings

	9	Mode Settings
I	ON	Motion
II	-	Photocell

9. Override Function

Quick switch ON/OFF 3 times within 2sec to override sensor function. Lights will switch on all the time. Power off and on again to recover sensor function.

10. Factory Setting

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

11. Application Notice

When switch between the Photocell function and the Motion function , Please turn off the power first before change the mode.