





SPECIFICATION

Product Name: Motion sensor for highbay & vapor

Model No.: MC628S RC

Issue Date: December 24, 2019

CUSTOMER APPROVED

PRODUCT DIRECTOR APPROVED	SALES CHECKED	R&D CHECKED	PREPARED
			

1. Features



- 1) Operating voltage 120~277V AC.
- 2) Mounting height is 12m Max.
- 3) Supports high-sensitivity and low-sensitivity modes (for metal ceilings, metal reflector mounting environments).
- 4) M20 side mount, fit for linear highbay and vapor.
- 5) Compact design, all parameters can be set by remote control MH10.
- 6) 5 years warranty.

2. Parameter

Input	Operating Voltage Range	108-305VAC	50/60Hz
	Rated Voltage	120-277VAC	50/60Hz
	Stand-by Power	<1W	
	Surge Test	L N: 1kV	
Output	Working Mode	On-off	
	Type of Load	Resistive & inductive	
	Load Capacity	400w – inductive or 800w - resistive	
	Max. Surge Capacity	30A(Measured at 50% Ipeak,twidth=500us @230Vac Cold start) or 60A(Measured at 50% Ipeak,twidth=200us @230Vac Cold start)	
Sensor Parameters	Operating Frequency	5.8 GHz ±75 MHz, ISM band	
	Transmitting power	0.5mW Max.	
	Hold time	5s/30s/1min/3min/5min/10min/20min/30min	
	Detection Area)	25%/50%/75%/100%	
	Daylight Sensor	Daylight threshold:5lux/15lux/30lux/50lux/100lux/150lux/Disable(no shadow or direct light to sensor)	
	Detecting Range	See detection pattern	
	Mounting Height	12m Max.	
	Detection Angle	150° (wall mount) , 360° (ceiling mount)	
Operating Environment	Operating Temperature	-35℃...+55℃	
	Storage Temperature	-40℃...+80℃ humidity:10%-95% (non-condensing)	
Certificate Standards	Safety standards	IEC60669-2-1, IEC60669-1 AS/NZS 60669.1, AS/NZS 60669.2.1 UL60730-1	
	EMC standards	EN55015, EN61000-3-2, EN61000-3-3, EN61547 AS/NZS CISPR 15, AS/NZS 4268 FCC Part 15C, Part 15B	

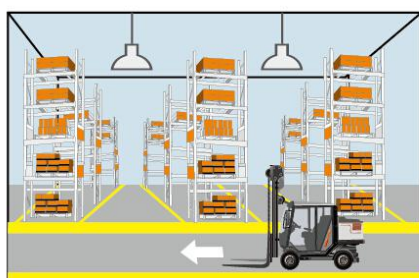
		EN 60950-1, EN301489-1, EN 201489-3, EN300440
	Environment Request	Compliant to RoHS
	Certificate	CE
Others	Wiring	UL1015, 2*18AWG, exposed line length 810mm
	Wiring color	L(Black), N(White), L'(Red)
	IP Rating	IP65
	Protection Class	Class II
	Installation	M20 side mount
	Dimension	See dimension
	Package	White paper box+cartons
	Net Weight	85g
	Lifetime	5 years warranty@Ta 230V full load

Note 1. "N/A" means not available.

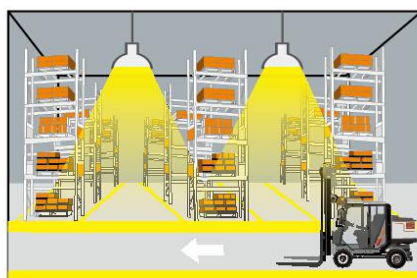
2. Detection area is effected on volume of motion object and motion speed. The detection area is tested by a 165cm height person and walking speed is 0.5m/s.

3. Function

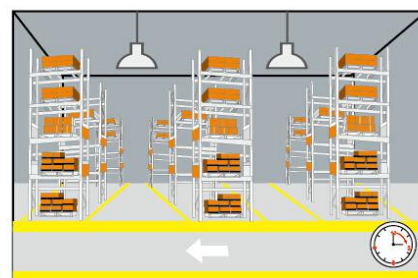
1) On/OFF Function (stand-by period be set to "0"s)



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

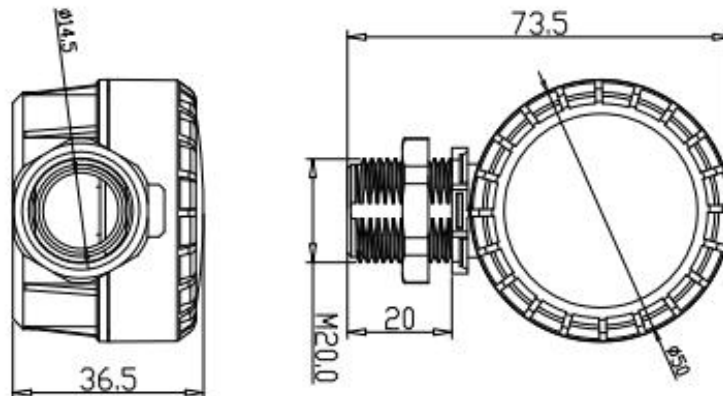


② With insufficient ambient light, the sensor switches on the light when motion is detected.

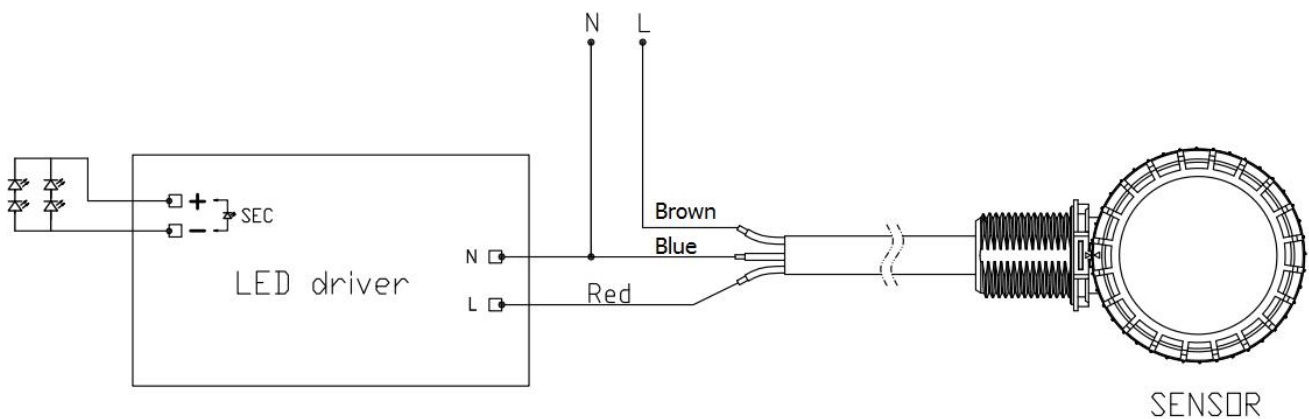


③ After elapse of hold time, the sensor switches off the light when no motion is detected.

4. Dimension (mm)

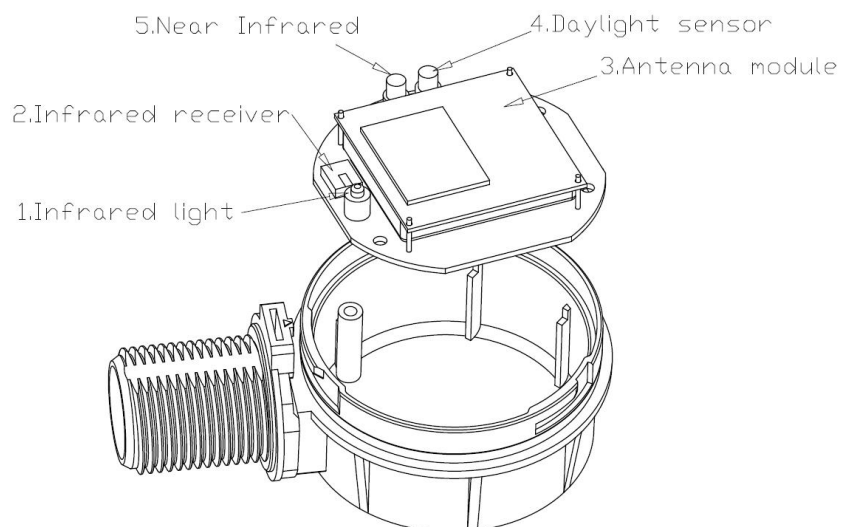


5. Wiring



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

6. Function Diagram



7. Radiation Pattern

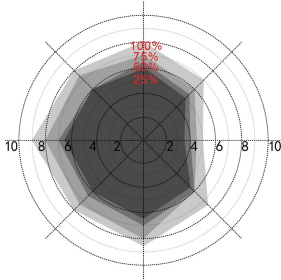
Ceiling mounting

Ceiling mounted

height: 3m

Sensitivity:

100%/75%/50%/25%



Normal moving

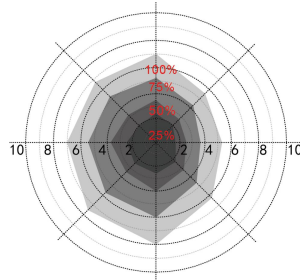
(Speed:1m/s)

Ceiling mounted

height: 6m

Sensitivity:

100%/75%/50%/25%



Normal moving

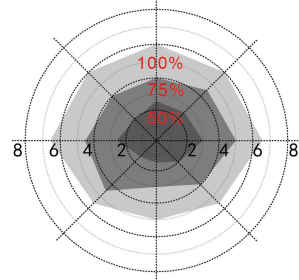
(Speed:1m/s)

Ceiling mounted

height: 9m

Sensitivity:

100%/75%/50%/25%



Normal moving

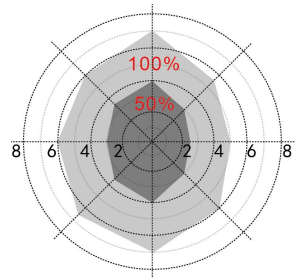
(Speed:1m/s)

Ceiling mounted

height: 12m

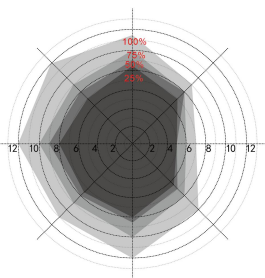
Sensitivity:

100%/75%/50%



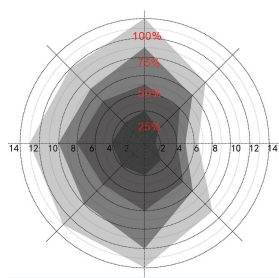
Normal moving

(Speed:1m/s)



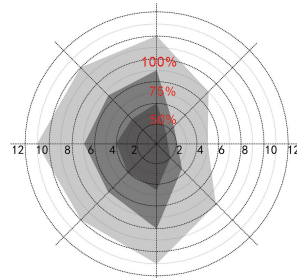
Slow moving

(Speed 0.3m/s)



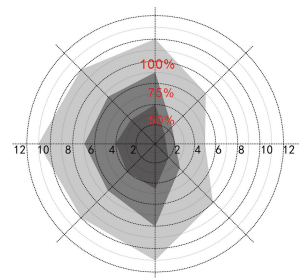
Slow moving

(Speed: 0.3m/s)



Slow moving

(Speed: 0.3m/s)



Slow moving

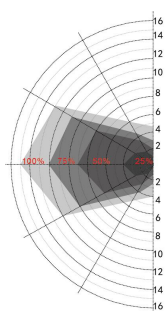
(Speed: 0.3m/s)

*Only 100%/75%/50% detection sensitivity is workable when installed at 12m mounting height. 25% sensitivity is not able to detect motion signal.

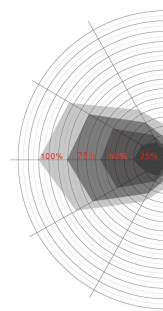
Wall mounting

Horizon mounted height: 2m

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



Normal moving (Speed: 1m/s)



Slow moving (Speed 0.3m/s)

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.																				
		Press "Reset" button, all parameters are same as default setting.																				
		Press "Sensor motion" button, the light quits from constant on/off mode, and the sensor starts to work(the latest setting stays in validity)																				
		NA																				
		NA																				
		NA																				
		NA																				
		<table><tr><th>Scene Options</th><th>Detection Area</th><th>Hold Time</th><th>Daylight Sensor</th><th>Induction mode</th></tr><tr><td>Q1</td><td>100%</td><td>5min</td><td>30Lux</td><td>Hs</td></tr><tr><td>Q2</td><td>100%</td><td>10min</td><td>Disable</td><td>Hs</td></tr><tr><td>Q3</td><td>100%</td><td>20min</td><td>Disable</td><td>Hs</td></tr></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	Q1	100%	5min	30Lux	Hs	Q2	100%	10min	Disable	Hs	Q3	100%	20min	Disable	Hs
	Scene Options	Detection Area	Hold Time	Daylight Sensor	Induction mode																	
	Q1	100%	5min	30Lux	Hs																	
	Q2	100%	10min	Disable	Hs																	
	Q3	100%	20min	Disable	Hs																	
		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.																				
		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																				
	NA																					
	Detection Area Set detection area: 25%/50%/75%/100%																					
	Remote Distance Toggle button can set the remote distance between remote control and sensor																					

9. Initialization

On/Off function: 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.

10. Factory setting

Detection area:100%,Hold time:5s ,Daylight Sensor: Disable

11. 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 dimming performance could be different from different 1-10v drivers.

- 4) The light sensitivity threshold is in a sunny environment, no shadow and ambient light diffuse reflection..Lux level detected by sensor could be different in different environment, weather, climate, time-of-day and season.
- 5) The parameters of the sensor may need to be reconfigured in different installation environments. Please refer to the following instructions or contact the manufacturer.
- 6) 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.
- 7) The distance between any inductive sensors should be greater than 3m.
- 8) 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.
- 9) 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.
- 10) You are advised to test 5 samples before mass application of sensor in a new lighting project.
- 11) Due to continuous improvement, the contents of this instruction could be changed without prior notice