

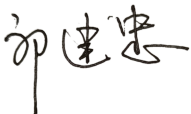
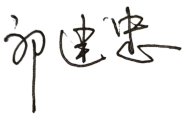

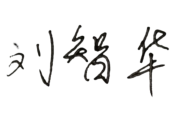
SPECIFICATION

Product Name: Motion sensor for highbay & vapor

Model No.: MC628S RC

Issue Date: March 22, 2022

CUSTOMER APPROVED

PRODUCT DIRECTOR APPROVED	PRODUCT CHECKED	R&D CHECKED	PREPARED
			

Version	Product Name	Updating Reason	Stage	Date
A0	MC628S RC	First Version	Design Verification	2019-12-24
A1	MC628S RC	Replace Radiation Pattern	Production	2022-03-22

1. Features



- 1) Operating voltage 120~277V AC.
- 2) Mounting height is 12m Max. 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.
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

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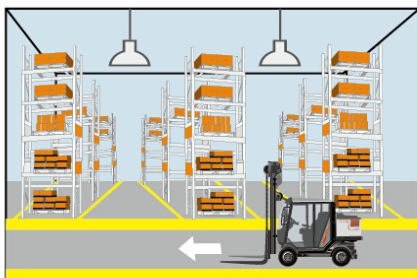
		EN 60950-1, EN301489-1, EN 201489-3, EN300440
	Environment Request	Compliant to RoHS
	Certificate	CE
Others	Wiring	UL1015, 2*18AWG, exposed line length 810mm
	Wiring color	L(Black), N(White), L'(Red)
	IP Rating	IP65
	Protection Class	Class II
	Installation	M20 side mount
	Dimension	See dimension
	Package	White paper box+cartons
	Net Weight	80g
	Lifetime	5 years warranty@Ta 230V full load

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

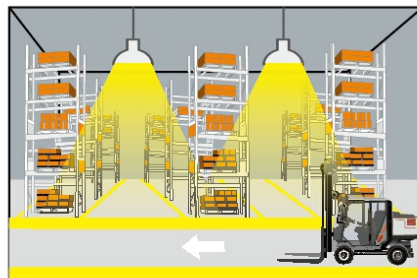
2. Detection area is effected on volume of motion object and motion speed. The detection area is tested by a 165cm height person and walking speed is 0.5m/s.

3. Function

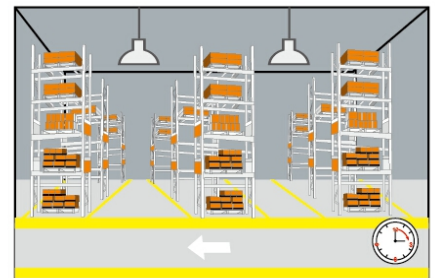
On/OFF Function (stand-by period be set to "0"s)



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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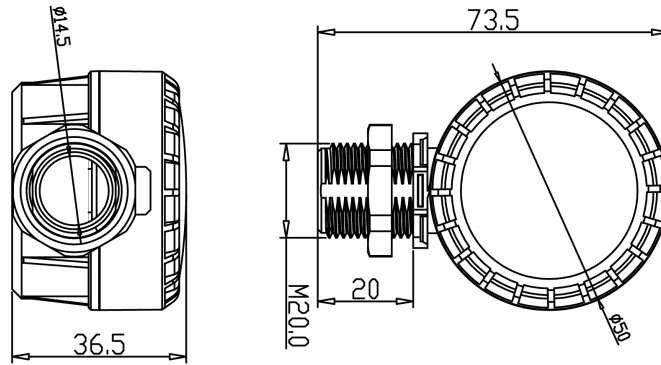
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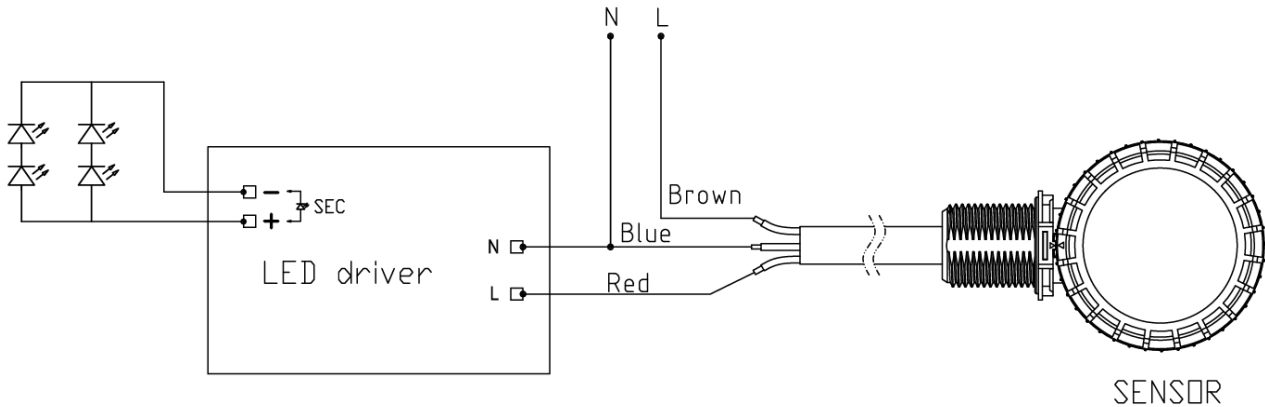
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4. Dimension (mm)

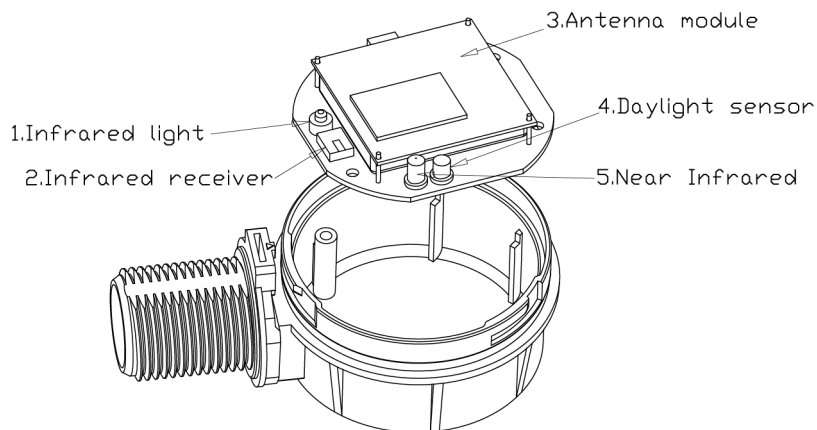


5. Wiring



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

6. Function Diagram



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7. Radiation Pattern

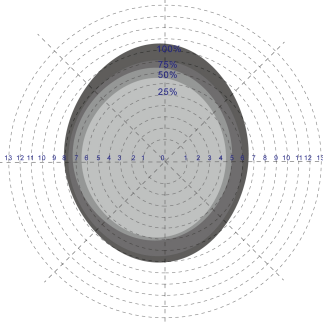
Ceiling mounting

Ceiling mounted

height: 3m

Sensitivity:

100%/75%/50%/25%



Normal moving

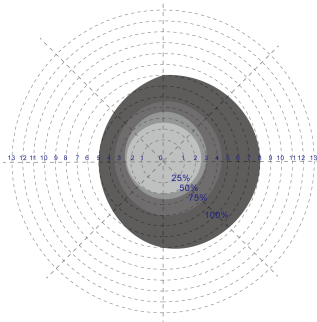
(Speed:1m/s)

Ceiling mounted

height: 6m

Sensitivity:

100%/75%/50%/25%



Normal moving

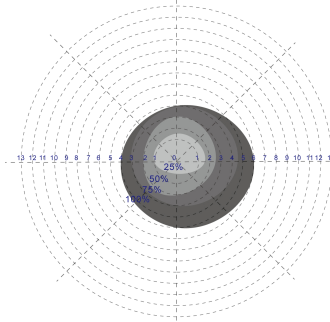
(Speed:1m/s)

Ceiling mounted

height: 9m

Sensitivity:

100%/75%/50%/25%



Normal moving

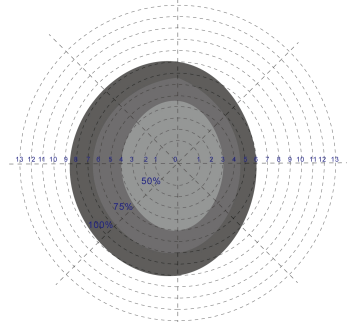
(Speed:1m/s)

Ceiling mounted

height: 12m

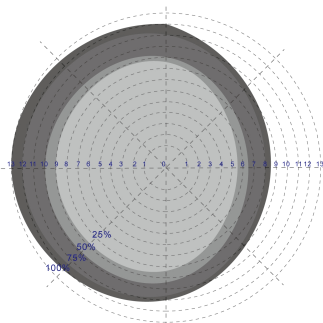
Sensitivity:

100%/75%/50%



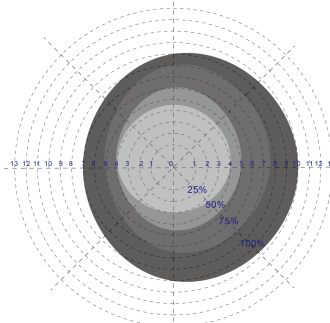
Normal moving

(Speed:1m/s)



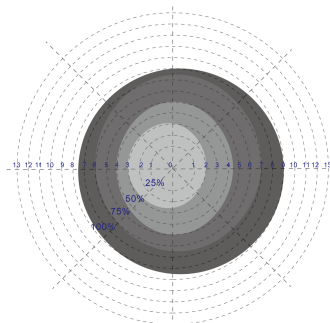
Slow moving

(Speed: 0.3m/s)



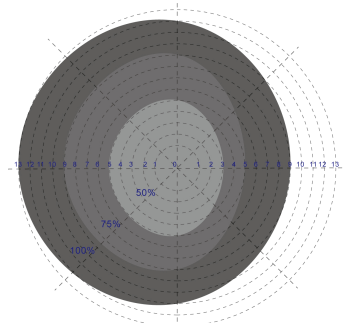
Slow moving

(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.

8. Remote Control

Button	Remarks																				
ON/OFF	Pressing "ON/OFF" button, light remains on or off and sensing function is disable; "ON/OFF" button has the memory function when the power is off. Pressing any button, exit the mode of light remaining on/off and sensing function is available.																				
Reset	Press "Reset" button to restore to factory mode.																				
Sensor motion	Press "Sensor motion" button, the light quits from the constant on/ off mode, and the sensor starts to work (The latest setting stays in validity)																				
DIM Test	NA																				
DIM+	NA																				
DIM-	NA																				
DH Mode	NA																				
QS1	<table border="1"> <thead> <tr> <th>Scene Options</th> <th>Detection Area</th> <th>Hold Time</th> <th>Daylight Sensor</th> <th>Induction model</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>	Scene Options	Detection Area	Hold Time	Daylight Sensor	Induction model	QS1	100%	5min	30Lux	Hs	QS2	100%	10min	Disable	Hs	QS3	100%	20min	Disable	Hs
Scene Options	Detection Area	Hold Time	Daylight Sensor	Induction model																	
QS1	100%	5min	30Lux	Hs																	
QS2	100%	10min	Disable	Hs																	
QS3	100%	20min	Disable	Hs																	
QS2																					
QS3	Note: Detection area / Hold time / Daylight sensor can be adjusted by pressing the corresponding button. The latest setting will stay valid.																				
TEST 2S	Press the "TEST 2S" button can enter the test mode any time. At the mode, the sensor parameters as below: Detection Area is 100%, Hold Time is 5s, Stand-by Dim Level is 10%, Stand-by Period is 0s, daylight sensor disable. This function only for testing. Quit the mode by pressing "RESET" or any other function buttons.																				
HS	Press "HS" button to set the detection area to be high sensitive.																				
LS	Press "LS" button to set the detection area to be Low sensitive. The adjustment bases on the "Detection area" parameter you set.																				

Light sensor	Setting: 5Lux/15Lux/30Lux/50Lux/100Lux/150Lux/ Disable
Stand-by Time	Setting: 0S/10S/1min/3min/5min/10min/30min/+∞
Hold Time	Setting: 5S/30S/1min/3min/5min/10min/20min/30min
Stand-by Dim Level	NA
Detection area	Setting: 25%/50%/75%/100%
Remote Distance	Setting: 5m 10m 15m Toggling the button can set the distance of remote control controlling 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.

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10. Factory setting

Detection area:75%, 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 and changing parameters.
- (2) Microwaves cannot penetrate metal. Do not place the product in a closed metal lamp or a half-closed metal lamp and metal or glass are not allowed to cover above the product. If antenna needs to pass through the metal plate, please ensure that the top of the sensor is close to the metal plate.
- (3) The distance between any inductive sensors should be greater than three meters. Keep sensor away from switches, routers and other wireless devices to avoid radio interference, more than three meters.
- (4) Vibration signals will be regarded as moving signals to trigger the sensor. Avoid using objects that vibrate for a long time around the sensor, such as large metal equipment, pipes, air conditioning outlets, exhaust vents, smoke exhaust machine ports, shaking fans, etc. Pets in detecting area may trigger sensing.
- (5) Sensor is for indoor use only. The waterproof effect for outdoor use will be affected. Wind, rain, and moving objects around will cause false triggering. 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.
- (6) Due to continuous improvement, the contents of this instruction could be changed without prior notice.
- (7) The daylight threshold is measured in a sunny environment without shadow and ambient light diffuse reflection. Ambient lux level could be different in different environment, weather, climate, time-of-day and season.
- (8) Sensitivity distance is related to moving speed of objects, size of moving objects, mounting height, mounting angle, working environment, reflecting materials and etc.
- (9) Given detecting area is typical value that was measured by 165cm high testers in an indoor open environment.
- (10) When installing in new environment, please install and test at least 5pcs product firstly before mass installation.