

INTRODUCTION



MC054V RC A



MH10



MC054V RC D

1. Operating voltage 120~277V AC.
2. Patented microwave antenna, mounting height is 15m Max, suitable to install in most of warehouses.
3. Work with 1-10V dimmable LED driver, easy to achieve 2-step or 3-step dimming function.
4. Work with optional remote controller MH10 order separately, easy to adjust sensor parameters.

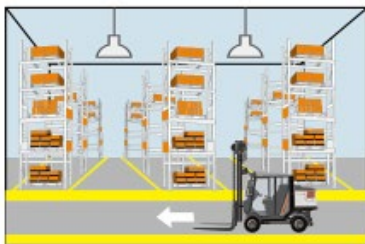
PARAMETER

Output	Rated Voltage	120/277Vac, 50/60Hz
	Stand-by Power	<1W
	Surge Test	L--N: 2kV
Output	Working Mode	120/277Vac, 50/60Hz
	Type of Load	<1W
	Load Capacity	L--N: 2kV
	Max. Surge Capacity	50A (50% Ipeak, twidth =500uS, 277Vac full load, cold start); 80A (50% Ipeak, twidth =200uS, 277Vac, full load, cold start)
Dim Interface	1-10V Dimming	< 50mA (Non-constant source) 10%(1.4-1.6V), 20%(1.9-2.1V), 30%(2.9-3.1V), 50% (4.9-5.1V)
Sensor Parameters	Operating Frequency	5.8 GHz ±75 MHz, ISM Band.
	Transmitting power	0.5mW Max.
	Hold time	DIP switch: 5s/30s/1min/3min/20min/30min Remote control: 5s/30s/1min/3min/5min/10min/20min/30min
	Stand-by DIM Level	DIP switch & Remote control: 10%/20%/30%/50%
	Stand-by Period	DIP switch: 0s/1min/3min/10min/30min/+∞ Remote control: 0s/10s/1min/3min/5min/10min/30min/+∞
	Detection Area	DIP switch: 100%/50% Remote control: 25%/50%/75%/100%
	Daylight Sensor	DIP switch & Remote control: 5lux/15lux/30lux/50lux/100lux/150lux/Disable (Ambient light diffusion)
	Daylight on/off	N/A
	Detecting Radius	5-7m (mounting height 8m) See note 2
	Mounting Height	15m Max
	Detecting Angle	150°(wall mounting), 360°(ceiling mounting)

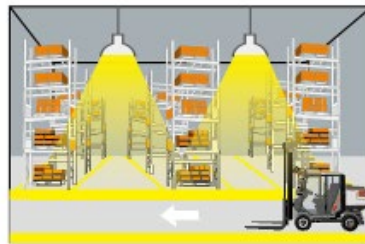
Operating Environment	Operating Temperature	-35°C...+55°C
	Storage Temperature	Temperature: -40°C...+80°C; Humidity: 10%-95% (non-condensing)
Certificate Standards	Safety standards	IEC60669-2-1, IEC60669-1 AS/NZS 60669.1, AS/NZS 60669.2.1 UL60730-1
	EMC standards	EN55015, EN61000-3-2, EN61000-3-3, EN61547 AS/NZS CISPR 15, AS/NZS 4268 FCC Part 15C, Part 15B EN 60950-1, EN301489-1, EN 201489-3, EN300440
	Environmental Requirement	Compliant to RoHS
	Detecting Certificates	cULus, CE, SAA, FCC, RED

FUNCTION

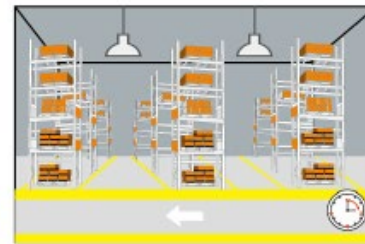
1) On/OFF Function (stand-by period be set to “0”s)



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

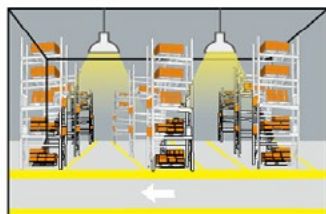


2 With insufficient ambient light, the sensor switches on the light when motion is detected.

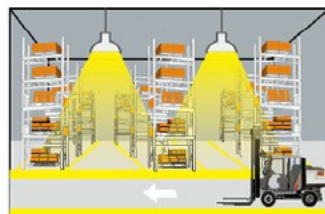


3 After elapse of hold time, the sensor switches off the light when no motion is detected.

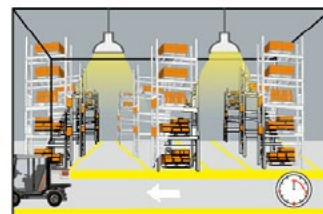
2) 2-step dimming function (stand-by period be set to “+∞”)



1 If there is no motion detected, the light will be remained at a low light level all the time.

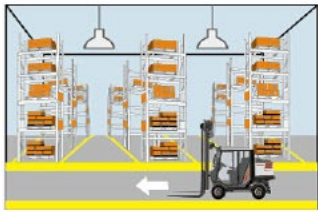


2 When motion is detected, the sensor will switch on the light to 100% brightness

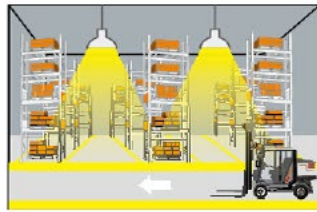


3 After elapse of hold time, the sensor dims the light at the present low light level if no motion is detected.

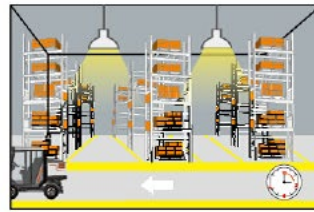
3) 3-step dimming function (stand-by period be set to “10s/1min/3min/5min/10min/30min”)



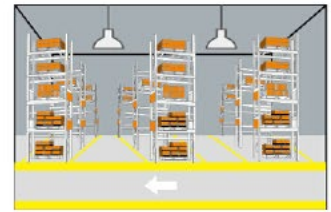
1 With sufficient ambient light, the light will not be switched on even if with motion signal.



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

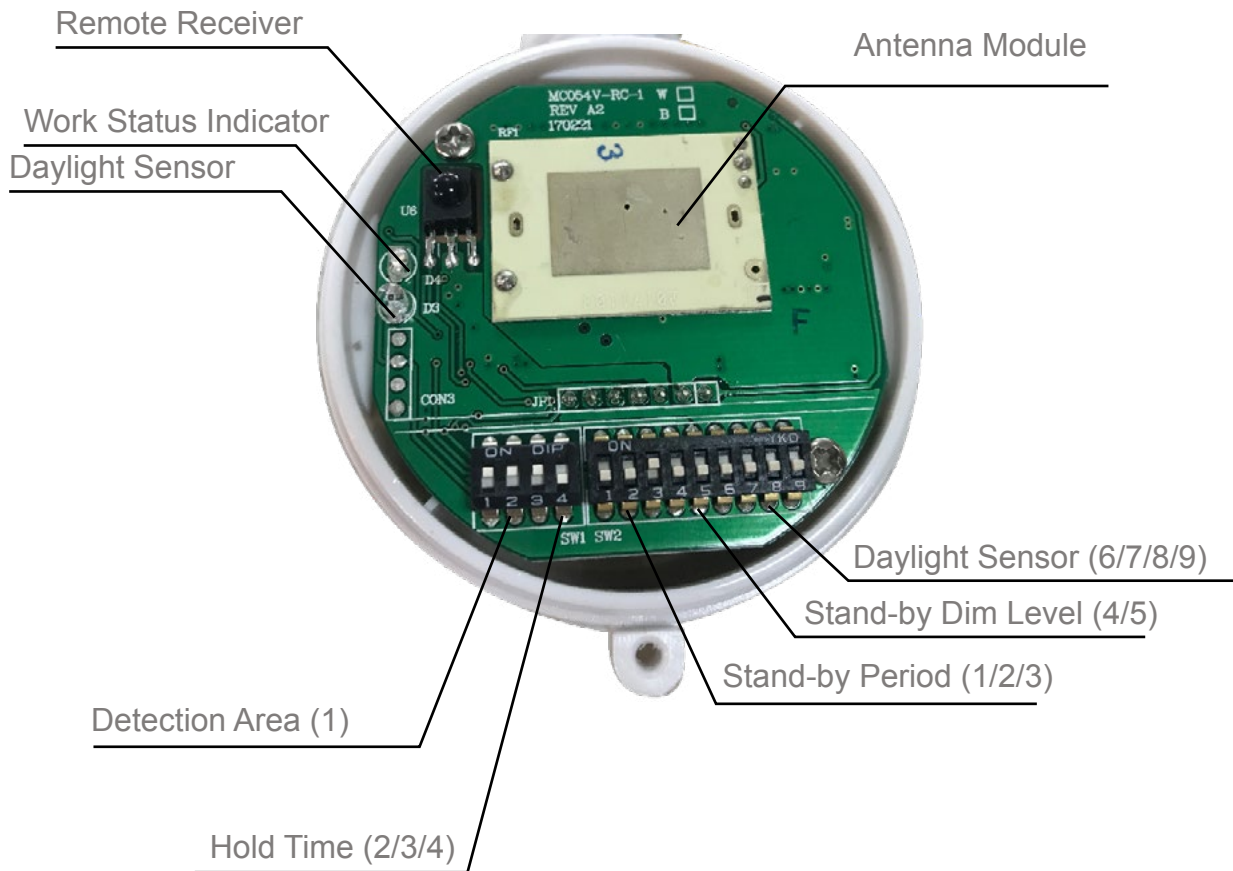


3 After elapse of hold time, the sensor dims the light at a low light level if no new motion is detected.



4 After elapse of standby period, the sensor switches off the light if no motion is detected in the detection zone.

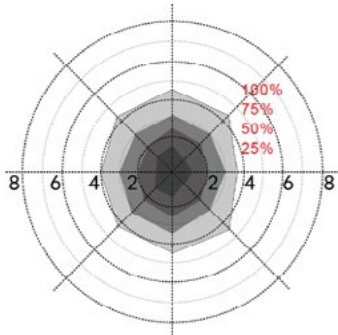
STRUCTURE



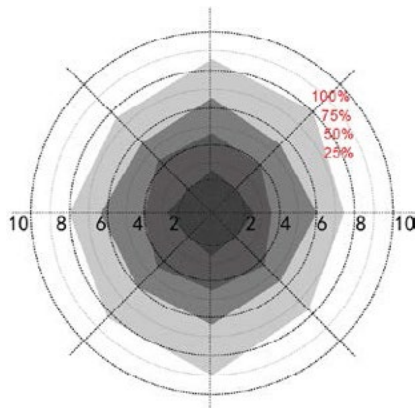
DETECTION PATTERN

Ceiling mounting

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



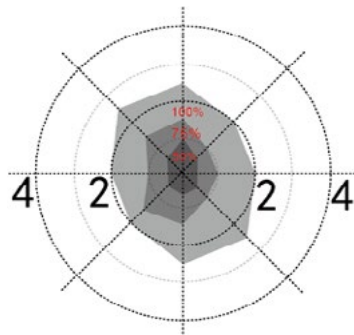
Normal moving (Speed: 1m/s)



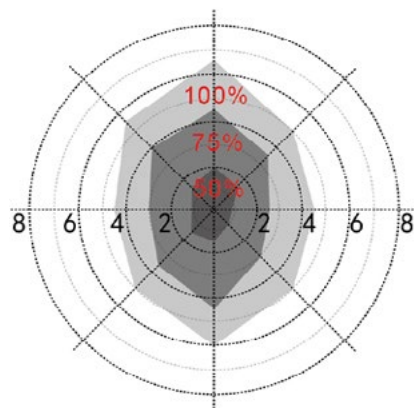
Slow moving (Speed 0.3m/s)

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

Ceiling mounted height: 10m(*)
Sensitivity: 100%/75%/50%

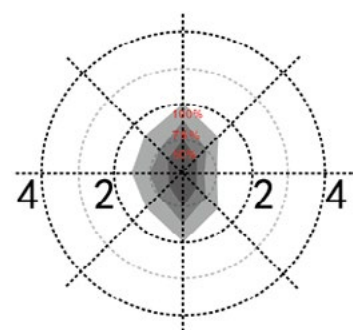


Normal moving (Speed: 1m/s)

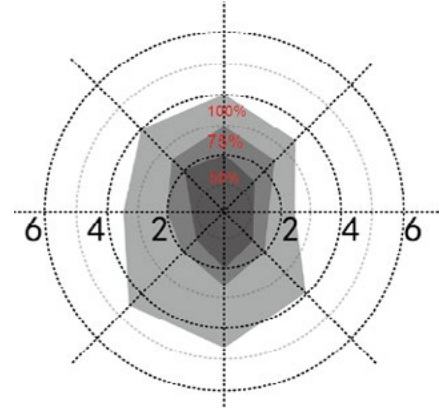


Slow moving (Speed: 0.3m/s)

Ceiling mounted height: 15m(*)
Sensitivity: 100%/75%/50%



Normal moving (Speed: 1m/s)



Slow moving (Speed: 0.3m/s)

REMOTE CONTROL (order separately)

Remote Control Setting	Button	Remarks																												
		Press the "ON/OFF" button, the light goes to constant on/off mode, sensor is disabled. Press "Reset" "Sensor motion" button to quit from this mode and the sensor starts to work.																												
		Press "Reset" button, all parameters are same as setting of factory settings.																												
		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)																												
		Press "DIM Test" button, the 1-10 V dimming works to test whether the 1-10Vdc dimming ports are connected properly. After 2s, it returns to the latest setting automatically.																												
		"Override DH" , and "DH Mode" DIM +, DIM- functions are not applicable for MC054V RC .																												
		<table border="1"> <thead> <tr> <th>Scene Option</th> <th>Detection Area</th> <th>Hold Time</th> <th>Stand-by period</th> <th>Stand-by dim level</th> <th>Daylight Sensor</th> <th>Sensitivity model</th> </tr> </thead> <tbody> <tr> <td>Q1</td> <td>100%</td> <td>5min</td> <td>10min</td> <td>10%</td> <td>30Lux</td> <td>Hi</td> </tr> <tr> <td>Q2</td> <td>100%</td> <td>10min</td> <td>30min</td> <td>10%</td> <td>Disable</td> <td>Hi</td> </tr> <tr> <td>Q3</td> <td>100%</td> <td>20min</td> <td>30min</td> <td>10%</td> <td>Disable</td> <td>Hi</td> </tr> </tbody> </table> <p>Note: Detection area / Hold time /Stand-by period /Stand-by dim level / Daylight sensor can be adjusted by pressing the corresponding button. The latest setting will stay valid.</p>	Scene Option	Detection Area	Hold Time	Stand-by period	Stand-by dim level	Daylight Sensor	Sensitivity model	Q1	100%	5min	10min	10%	30Lux	Hi	Q2	100%	10min	30min	10%	Disable	Hi	Q3	100%	20min	30min	10%	Disable	Hi
	Scene Option	Detection Area	Hold Time	Stand-by period	Stand-by dim level	Daylight Sensor	Sensitivity model																							
	Q1	100%	5min	10min	10%	30Lux	Hi																							
	Q2	100%	10min	30min	10%	Disable	Hi																							
	Q3	100%	20min	30min	10%	Disable	Hi																							
		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.																												
		NA																												
		Daylight Sensor Set up daylight threshold: 5Lux/15Lux/30Lux/50Lux/100Lux/150Lux/ Disable.																												
		Stand-by period Set up stand-by time: 0S/10S/1min/3min/5min/10min/30min/+∞																												
		Hold time Set up hold time: 5S/30S/1min/3min/5min/10min/20min/30min																												
	Stand-by dim level Set up stand-by dim level: 10%/20%/30%/50%																													
	Detection Area Set up detection area: 25%/50%/75%/100%																													
	Remote Distance Toggle button can set the remote distance of remote control and sensor.																													

MICROWAVE DIMMING SENSOR SETTING

By selecting the combination on the DIP switch, sensor data can be precisely set for each specific application.

ON		1	
I	ON		100%
II	-		50%

Detection area

Detection area can be reduced by selecting the combination on the DIP switches to fit precisely each application.


Factory Setting: 100%

ON		23		4	
I	ON	ON	ON	ON	5s
II	-	ON	ON	ON	30s
III	ON	-	ON	ON	1min
IV	-	-	ON	ON	3min
V	ON	ON	-	-	20min
VI	-	-	-	-	30min

Hold time

Refers to the time period the lamp remains at 100% illumination after no motion detected.


Factory Setting: 20min

ON ↑ 		12		3	
	I	ON	ON	ON	0s
	II	-O	NO	N1	min
	III	ON	-O	N3	min
	IV	--		ON	10min
	V	ON	ON	-3	0min
	VI	--		-	+∞

Stand-by period

Refers to the time period the lamp remains at a low light level before it completely switches off in the long absence of people. When set to Disable mode, the low light is maintained until motion is detected.


Factory Setting: 10min

ON ↑ 		45		Brightness%
	I	ON	ON	10%
	II	ON	-2	0%
	III	-O	N3	0%
	IV	-	-5	0%

Stand-by dimming level

The low light level you would like to have after the hold time in the long absence of people.

Factory Setting: 50%

ON ↑ 		6	789			
	I	ON	ON	ON	5Lux	
	II	-O	NO	NO	N	15Lux
	III	ON	-O	NO	N	30Lux
	IV	--		ON	ON	50Lux
	V	ON	ON	-O	N	100Lux
	VI	ON	ON	ON	-	150Lux
	VII		---			Disable*

Daylight sensor

The sensor can be set to only allow the lamp to illuminate below a defined ambient brightness threshold.

When set to Disable mode, the daylight sensor will switch on the lamp when motion is detected regardless of ambient light level.

200lux: twilight operation, 50lux, 30lux: darkness operation only.

Note that daylight sensor is active only when lamp totally switches off.

Factory Setting: Disable

APPLICATION NOTICE

1. The sensor is designed for indoor use only. Outdoor use for a long time may reduce the waterproof effects. The raining or wind blowing may trigger the microwave sensor even if without human motion when outdoor use.
2. The distance between any two sensors should be at least 3m to avoid interference with each other.
3. When the microwave sensor is installed in a metal lighting fixture or space with large reflector, for example a warehouse with metal roof, the microwave will be reflected and cause the lights permanently illuminated even if without motion signal. Please reduce the detection area (sensitivity) to solve the problems, or contact the microwave sensor manufacturer to provide technical support.
4. Make sure the sensor not close to or be blocked by high density material, such as metal, glass, concrete walls etc. The materials will reduce or block microwave and cause false trigger.
5. Make sure there are no fans or other vibrating objects in installation area. The movements will trigger sensor as well.