SPECIFICATION

Product Name: Microwave motion sensor

Model No.: MC601V

Issue Date: December 22, 2019

CUSTOMER APPROVED

1. Features

- Input voltage 120/277V AC, 50-60Hz
- 2-step or 3 step dimming with 1-10V dimmable led driver
- Designed with Syn interface,a group of sensors can be controlled synchronously

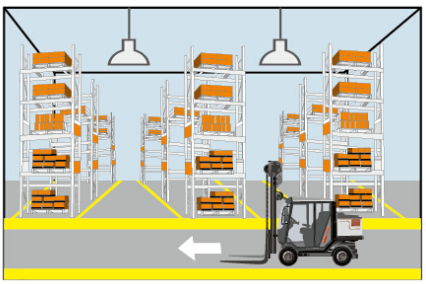
2. Parameters

Input	Operating voltage	108-305V AC 50Hz/60Hz
	DC input voltage	N/A
	Rated voltage	120-277V AC 50Hz/60Hz
	No-load power	N/A
	Stand-by power	≤1.0W
	Surge test	N—L: 1kV
Output	Working mode	ON/OFF 1-10V dimming
	Type of load	Inductive or resistive
	Load capacity	AC 120V 400W, AC220V-240V 800W, AC 277V 1000W
	Current of load	N/A
	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）
	Syn control	0/5V
	High low voltage control	N/A
	PWM control	N/A
Sensor parameters	Operating frequency	5.8 GHz ±75 MHz，ISM band
	Transmitting power	0.5mW Max.
	Hold time	5s/30s/90s/3min/20min/+∞
	Stand-by dim Level	10%/20%/30%/50%
	Stand-by Period	0S/5S/5min/10min/30min/1h/+∞
	Detection Area	10%/50%/75%/100%/
	Daylight Sensor	2 lux/5Lux /10Lux 25Lux /50Lux /100Lux /Disable
	Detection Pattern	Refer to detection pattern
	Mounting height	Suggest:3-10m support 12m Max.

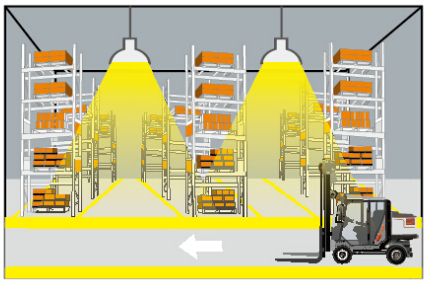
	Detecting Angle	150°(wall mounting) 360°(ceiling mounting)
Wireless module	Operating Frequency	N/A
	Transmitting power	N/A
	Transmitting distance	N/A
	Modulation mode	N/A
	Number of coding	N/A
Operating envrionment	Operating Temperature	-30℃~60℃
	Storage Temperature/humidity	-40℃~80℃
Certificate Standards	Safety standards	EN61058-1,EN61058-1-2,UL60730
	EMC standards	EN55015,EN61547,EN6100,EN301489,EN300440
	Environmental Requirement	Compliant to RoHS
	Certificate	CE, RED, cULus
Others	Wiring	Press-in terminals wire diamter：0.75-1.5mm^2
	IP Rating	IP20
	Protection Class	Class II
	Installation	Built-in
	Installation imension	93.5*50*30mm
	Package	Bubble bag+ Clapboard+ Carton(K=A)
	Net weight	75g
	Life time	50000h @ Ta 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

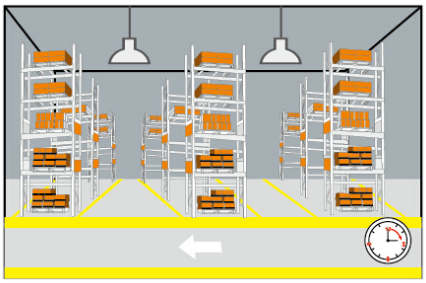
1. On-off function（Stand-by Period “0s”）



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

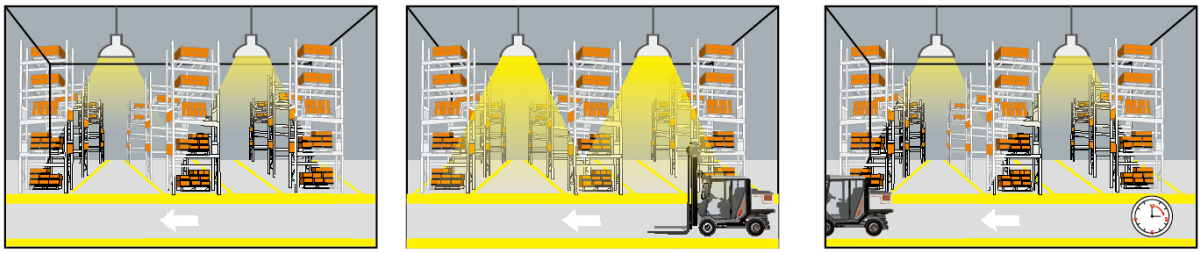


2 With insufficient ambient light, the sensor switches on the light when motion is detected.



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 “+∞”）

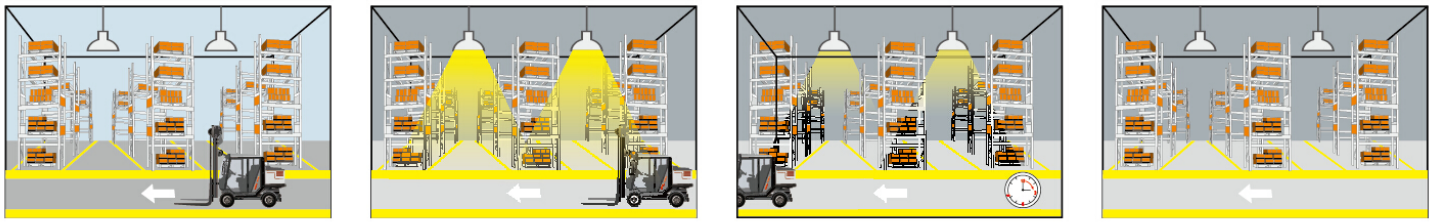


1 If there is no motion detected, the light will be remained at a low light level all the time.

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

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 “5s/5min/10min/30min/1h”）



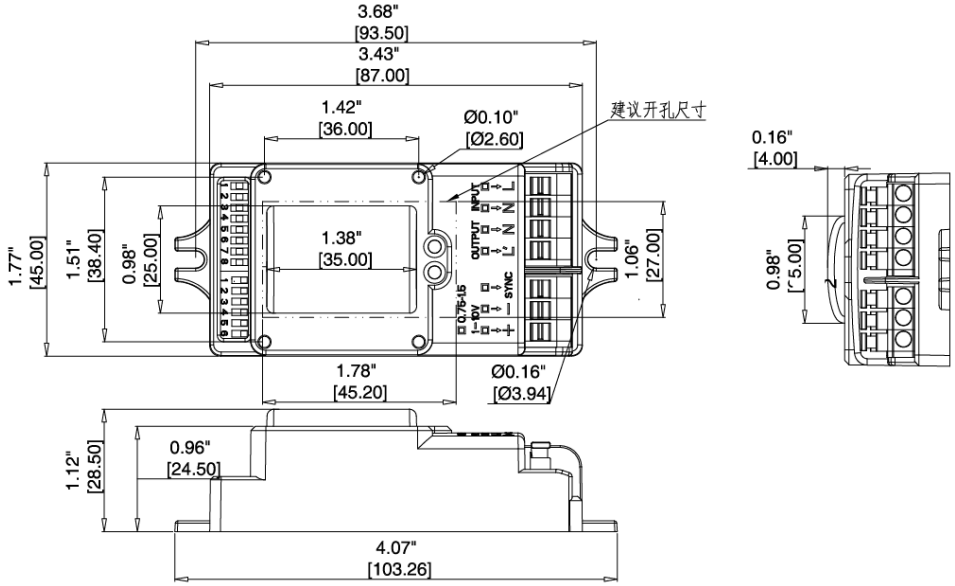
1 With sufficient ambient light, the light will not be switched on even if with motion signal.

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

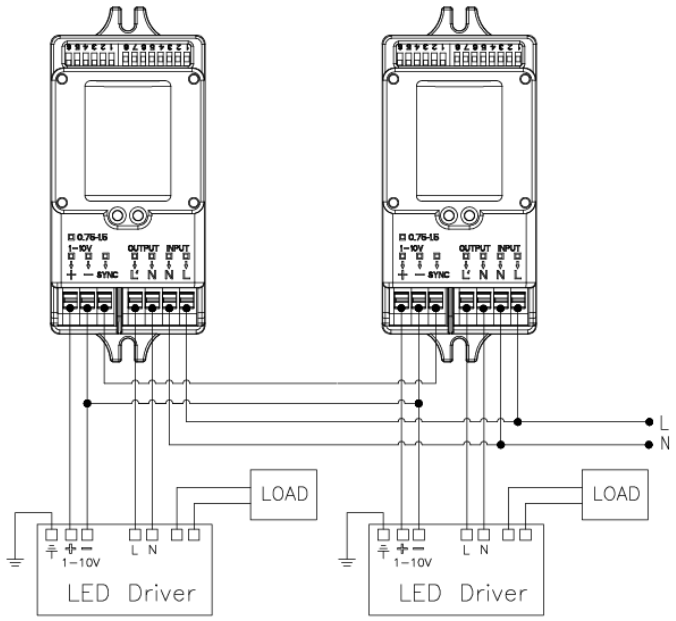
3 After elapse of hold time, the sensor dims the light at a low light level if no new motion is detected.

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

4.Dimension (mm)

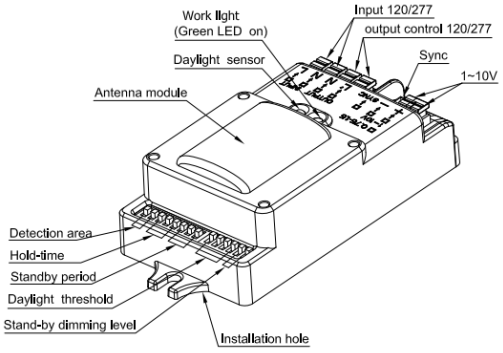


5. Wiring



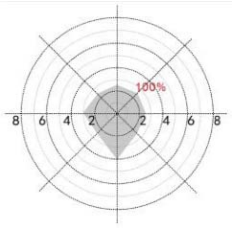
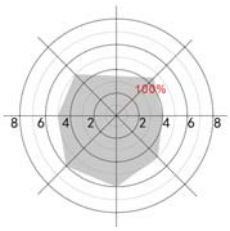
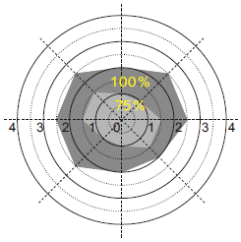
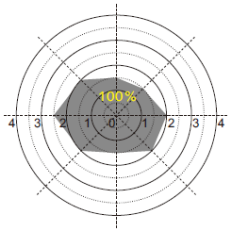
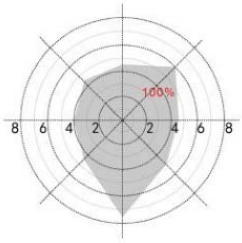
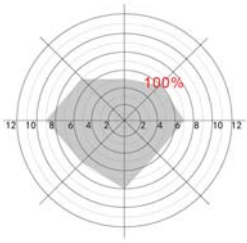
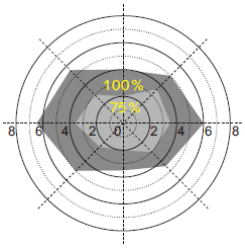
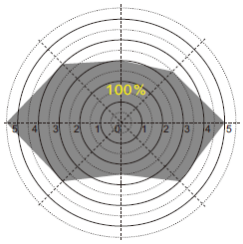
*The sensor is designed for connect one load only. Connect more than one loads may damage the sensor.

6. Structure



7. Detection pattern

1）Ceiling mounting

Height：3m Sensitivity：100%	Height：6m Sensitivity：100%	Height：9m Sensitivity：100%/75%	Height：12m Sensitivity：100%
			
Fast moving (Speed：1m/s)	Fast moving (Speed 1m/s)	Fast moving (Speed 1m/s)	Fast 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)

8. Dip switch settings

Detection Area

	1	2	
I	ON	ON	100%
II	ON	-	75%
	-	ON	50%
	-	-	10%

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	-	-	-	+∞

Stand-by Period

	6	7	8	
Ⅰ	ON	ON	ON	0S
Ⅱ	-	ON	ON	5S
Ⅲ	ON	-	ON	5min
Ⅳ	-	-	ON	10min
Ⅴ	ON	ON	-	30min
Ⅵ	-	ON	-	1h
Ⅶ	-	-	-	+∞

Daylight Sensor

	3	4	5	6	
Ⅰ	-	-	ON	ON	2Lux
Ⅱ	-	-	-	ON	5Lux
Ⅲ	-	ON	ON	-	10Lux
Ⅳ	-	-	ON	-	25lux
Ⅴ	-	ON	-	-	50lux
Ⅵ	ON	-	-	-	100lux
Ⅶ	-	-	-	-	Disable

Stand-by DIM Level

	1	2	Brightness%
Ⅰ	ON	ON	50%
Ⅱ	-	ON	30%
Ⅲ	ON	-	20%
Ⅳ	-	-	10%

10. Initialization

1/ On/Off function /3-step dimming 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. 2/ 2-step dimming function: After power on, the sensor automatically turns on light at 100% brightness. After 10sec, it dims the light to a low light level (set by stand-by dim level). During the initialization, the sensor is not able

11.Factory setting

Detection area: 100%, Hold time: 5s, Stand-by Period: 5s, Stand-by dim level: 10%, Daylight Sensor: Disable

12.Application notice

1, The sensor should be installed by a qualified electrician. And ensure that the electricity supply is switched off before installing or servicing the product.

2, Installation inside a glass or plastic housing will result in a reduction of detection sensitivity. Expect a reduction of approximately 20% for every 3mm of thickness.

3, Detection area will be affected by speed of motion, height of installation and volume of moving object.

4, Daylight sensor was tested on sunny environment with no lampshad

5, Sensors settings may need to be adjusted to match installation site, please follow below instructions or contact manufacturer.

6,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.

7, The distance between any two sensors should be at least 3m to avoid interference with each other.

8, 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.

9, 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.

10, Make sure there are no fans or other vibrating objects in installation area. The movements will trigger sensor as well.