SPECIFICATION

Product Name:	LIFEBEING sensor
Model No.:	MSA025 RC
Issue Date:	2020-09-01

Attention

1. Keep out reach of children.
2. This product is suitable for indoor use only.
3. Ensure that the product is installed in a relatively dry and ventilated environment.
4. Please read the relevant contents of this manual carefully before using the product.
5. The product shall be installed by a professional electrician. Please disconnect the power before installation, wiring or changing the setting of by DIP switch.
6. Before the product is powered on, please confirm that the input voltage range meets the requirements of the manual.

Shenzhen Merrytek Technology Co.,Ltd
Add: No.17th Building, Dianda Guyuan Industrial Park, Mashantou, Matian, Guangming District, Shenzhen, China, 518106
Tel: +86 (0)755-2305 7253   Fax: +86 (0)755-2786 3012   Website: www.merrytek.com
All technical information is subject to the physical performance, Merrick reserves the right to final interpretation
page 1 of 8

1. Feature

1) 5.8G microwave lifebeing sensor and daylight sensor are built into MSA016S RC.

2) MSA025S RC can clearly detect moving, slight moving and breathing signals and truely realize lifebeing detection.

3) Parameters can be set by DIP switches or remote control.

4) Patented low impedance antenna design; Effectively resisting to 5G, WiFi, Bluetooth, etc.

5) Five years warranty.

2. Parameters

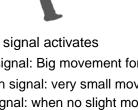|		
Input	Rated voltage	120V-277V AC, 50/60Hz
	Stand-by power	<1W (220V input)
	Lightning surge	1KV (between L and N)
Output	Working mode	ON/OFF
	Load type	Inductive, Resistive, or LED load
	Load power	Inductive load: 1000W Resistive load: 800w, LED load: 800w
	Load surge current	17A relay 50A (tested at 50% Ipeak with a width of 500us @ 230Vac and cold starting up full-load)
Sensitivity	Operating frequency	5.8 GHz ±75 MHz, ISM wave.
	Transmitting power	0.5mW Max.
	Hold time	5S~30Min
	Detection	100%/75%/50%/25%
	Daylight	5lux~150lux/Disable (setting by remote control)(diffuse sate)
	Detection radius	Movement: 3-4m Slight motion: 3-4m Breathing: 2-3m
	Mounting height	2.5-4m
	Detecting angle	150°
Environment	Working temperature/humidity	0℃…+50℃
	Storage temperature/humidity	-40℃…+80℃

Shenzhen Merrytek Technology Co.,Ltd

Add: No.17th Building, Dianda Guyuan Industrial Park, Mashantou, Matian, Guangming District, Shenzhen, China, 518106
Tel: +86 (0)755-2305 7253   Fax: +86 (0)755-2786 3012   Website: www.merrytek.com
All technical information is subject to the physical performance, Merrick reserves the right to final interpretation
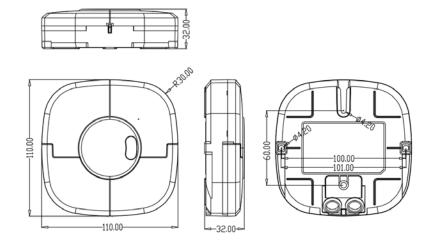page 2 of 8

Certificate Standards	Safety standards（LVD)	EN61058-1, EN61058-1-2
	EMC standards	EN300440; EN301489-1; EN55015; EN61547; EN62479
	Environmental requirement	Compliant to RoHS
	Certificate	CE, RED
Others	Wiring method	port diameter: $1.5mm^2$-$4mm^2$
	IP Rating	IP20
	Protection class	Class II
	Installation	Ceiling installation
	Installation size	110*110*32mm
	Package	White box, clapboard and carton(K=A)
	Lifetime	5 years warranty@Ta 230V full load

Note: 1. N/A″ means not available.   2. Describing testing condition

3. Function

Instructions of signal detection: the sensor detects human walking, slight motion(such as body movement, turn up head and others minor movements) and breathing to realize the detection of human existence in non-sleep state.

Movement signal activates   Slight motion & breathing maintains

* Movement signal: Big movement for sensor triggering

* Slight motion signal: very small movement even only body motion can be collected , the indicator flashes once.

* Breathing signal: when no slight motion signal, only breathing signal can be collected, the indicator flashes for 3 times by detecting 3 effective breathing signals.
* Choose "close condition" when normal using.

■ When the ambient light is sufficient, the light will not turn on even if the moving signal is detected.

■ When the ambient light is insufficient, a moving signal is detected and the light will turn on automatically.

■ People's normal working life in the body gentle very minor motion maintains the light on.

■ It keeps the light on even if the person is stationary for a long time, because it is maintained by breathing detection.

■ When people level, the light will automatically turn off after the hold time.

All technical information is subject to the physical performance, Merrick reserves the right to final interpretation
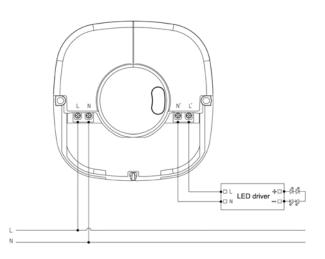
4. Dimension (mm)

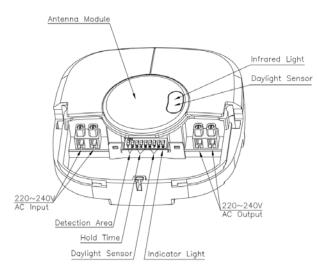# 5. Wiring

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

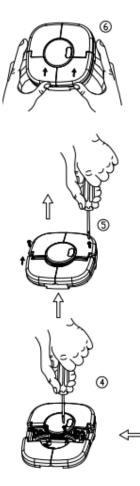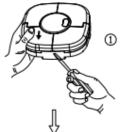# 6. Structure

7. Installation Instruction

1. Open the corresponding position of the wiring cover by a screw.

2. Use tools to cut off the thin wall of the lower shell and use it as the outlet.

3. Slide off the connection cover to the appropriate position, and the connection box can set parameters.

4. Complete wiring and setting, and fix the wire pressing device on the lower shell with screws to ensure reliable and orderly wiring.

5. Use 4mm screws to fix the product on the required mounting surface.

6. After making sure, slide the wiring cover on the assembly by hand.

8. Detection Area

吸顶安装
3m

呼吸检测区域
半径：3m

微动检测区域半径：4m

移动检测区域半径：4m

9. DIP Switch Setting

1) Detection Area

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

2）Hold Time

	3	4	5	
I	ON	ON	ON	5S
II	ON	-	ON	30S
III	ON	ON	-	1min
IV	ON	-	-	3min
V	-	ON	ON	5min
VI	-	-	ON	10min
VII	-	ON	-	20min
VIII	-	-	-	30min

Note: It's necessary to set the hold time to 30sec or more than 30sec if you want to realize breathing detecting.

3) Daylight Sensor

	6	7	8	
I	ON	ON	ON	5Lux
II	-	ON	ON	30Lux
III	ON	-	ON	50Lux
IV	-	-	ON	100Lux
V	ON	ON	-	150Lux

Shenzhen Merrytek Technology Co.,Ltd
Add: No.17th Building, Dianda Guyuan Industrial Park, Mashantou, Matian, Guangming District, Shenzhen, China, 518106
Tel: +86 (0)755-2305 7253   Fax: +86 (0)755-2786 3012   Website: www.merrytek.com
All technical information is subject to the physical performance, Merrick reserves the right to final interpretation
page 6 of 8

VI	-	-	-	Disable

*If daylight sensor is disable, the light will be on when movement is detected even if the lux level is enough or not.

4) Indicator light

	9	
I	ON	open
II	-	close

10. Remote Control

Panel settings	Button	Function Description
	ON/OFF	Press "ON/OFF" button. When the load lamp enters the mode normal or off, press "RESET" button and "Auto mode" button to exit the mode normal on or off. No memory for ON-OFF setting after power off. Sensor mode will auto recover after restart power supply.
	Reset	Press "reset "button to return all settings back to current DIP settings.
	Sensor motion	Press the "Sensor motion" button. Switch from on/off mode to inductive mode (function return subject to the last setting)
	DIM Test	N/A
	Override DH	N/A
	DIM+ DIM- DH Mode	N/A
	QS1 QS2 QS3	N/A
	TEST 2S	N/A
	HS LS	HS: Turn ON indicator light LS : Turn OFF indicator light
	☾☀	Light sensor Setting: 5Lux/15Lux/30Lux/50Lux/100Lux/150Lux/ Disable
	⊙	N/A
	⊙	Hold time Setting : 5S/30S/1min/3min/5min/10min/20min/30min
	50% 10%	N/A
	.)))	Detection area Setting : 25%/50%/75%/100%
	5m 10m 15m	Remote Distance Toggling the button can set the distance of remote control controlling sensor

11. Initialization

The light will turn on 100% brightness in the initial energizing sensor, and turn off after 60s.During

initialization, no external motion sensing signal will be detected.

12. Factory Setting

Detection Area:100%   Hold Time:1min   Daylight Sensor：Disable   Indicator light：open

13. Application Notice

1.The sensor should be installed by a professional electrician. Please disconnect power before installing,

wiring or setting DIP switches.

2. Put the sensor as far as possible from large areas of metal plate, glass and other materials with high

medium density to avoid triggering by mistake.

3. Avoid using objects that have been vibrating for a long time around the sensor, such as shaking fans,

etc. The vibration signal will be regarded as the motion signal to trigger the sensor.

4. It implies that the setting is successful when indicator quickly flashes three times after using remote

control to set the parameters of sensor.

5. During initialization, sensing function is disable and parameters can not be changed by remote

control.

6. Suggesting to close indicator when daily using.

7. Suitable for open office with many people, and the hold time can be set to 30s. In a dependent office,

the hold time should be set to 1min or more than 3min.

8. Microwave can penetrate building wall. It will trigger sensor when microwave that penetrates wall

detects moving signals out of preset detection area. To avoid triggering, choose proper installation place

and detection area when installing, such as:

A. Set detection area to 25% when using in a room of two meters or less by two.

B. Set detection area to 50% when using in a room of three meters by two.

C. Set detection area to 100% when using in a room of four meters by two.

D. Set detection area to 100% when using in a room of five meters or more by two.

Shenzhen Merrytek Technology Co.,Ltd
Add: No.17th Building, Dianda Guyuan Industrial Park, Mashantou, Matian, Guangming District, Shenzhen, China, 518106
Tel: +86 (0)755-2305 7253   Fax: +86 (0)755-2786 3012   Website: www.merrytek.com
All technical information is subject to the physical performance, Merrick reserves the right to final interpretation
page 8 of 8