INSTRUCTION

Product Name: LifeBeing sensor

Model No.: MSA015S RC

Issue Date: July 13, 2020

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

1. Feature

1) Adopt Merrytek patented LifeBeing detected technology, which can detect movement, slight motion and breathing signal.
2) Built-in daylight sensor for energy saving.
3) Support flush mounting installation
4) All parameters can be set via DIP switch & remote control.
5) Low impedance antenna for environmental adaptation
6) 5 years warranty.

2. Parameters

Input	Operating voltage	108-305VAC 50/60Hz
	Rated voltage	120V-277VAC 50/60Hz
	Stand-by power	<1W
Output	Working Mode	ON/OFF function
	Type of Load	Inductive or Resistive
	Load Capacity	400W(Inductive) ; 800W(Resistive)
	Max. Surge Capacity	30A (50% I_{peak}, t_{width} =500uS, 230Vac full load, 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	100%/75%/50%/25%
	Daylight Sensor	5lux/30lux/50lux/100lux/150lux/Disable
	Detection range (radius)	Movement: 3-4m (Speed: 0.3m/s） Slight motion: 3-4m Breathing: 2-3m
	Mounting height	Recommend 2.5-4m
	Detecting Angle	150°(wall mount), 360°(ceiling mount）
Operating environment	Operating Temperature	-25℃…+50℃ /Humidity:85% (Non condensing)
	Storage Temperature/humidity	-35℃…+80℃ /Humidity:85% (Non condensing)
Certificate Standards	LVD standards	EN61058-1, EN61058-1-2
	EMC standards	EN55015, EN61547, EN61000-3-2, EN61000-3-3
	Environmental Requirement	Compliant to RoHS
	Certificate	CE
Others	Wiring	"L N ground" port diameter: 0.75-1.5mm^2
	IP Rating	IP20

	Protection Class	Class II
	Installation	Flush mounted
	Cut size	Ø65-Ø70mm
	Life time	5 years warranty@Ta 230V full load

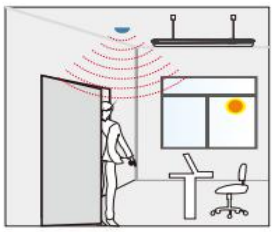
3. Function

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.

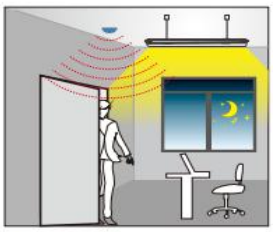
Movement signal active

Slight motion& Breathing signal maintain

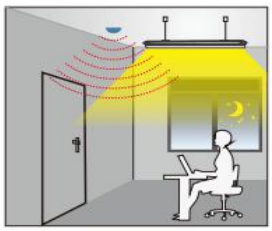
* Movement signal: Big movement for sensor triggering
* Slight motion signal: very small movement even only body motion can be collected , the indicator flashes once.
* Breathing signal: when no slight motion signal, only breathing signal can be collected, the indicator flashes for 3 times by detecting 3 effective breathing signals.



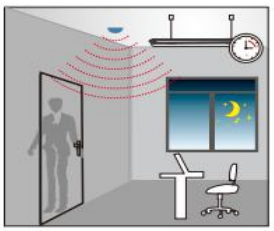
❶ When the ambient light is sufficient, the light will not turn on even if the moving signal is detected.



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

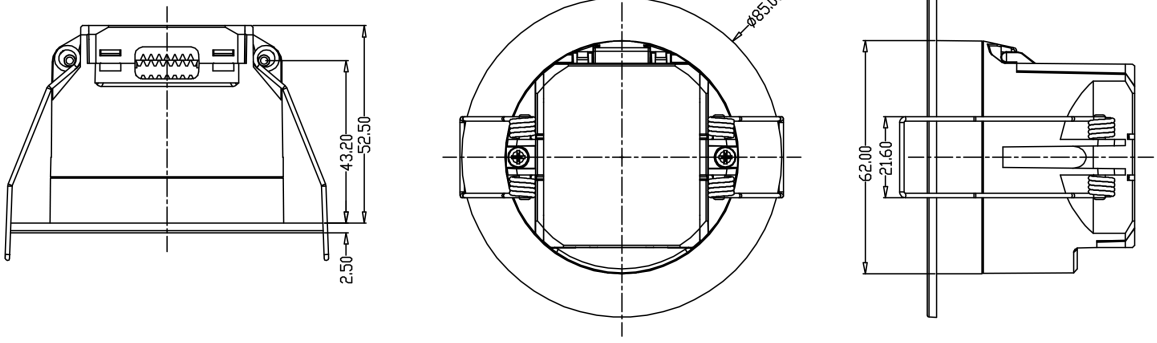


❸ The body, head and other small movements in normal work can be detected, and the light is always on.

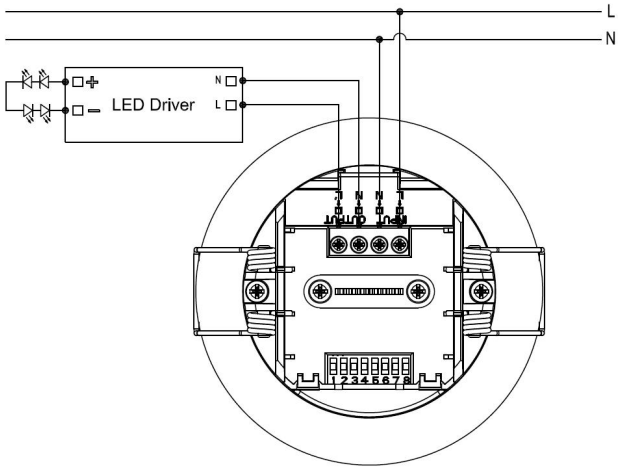


❹ When the sensor fails to detect movement and inching signal, the light will automatically turn off after the delay time.

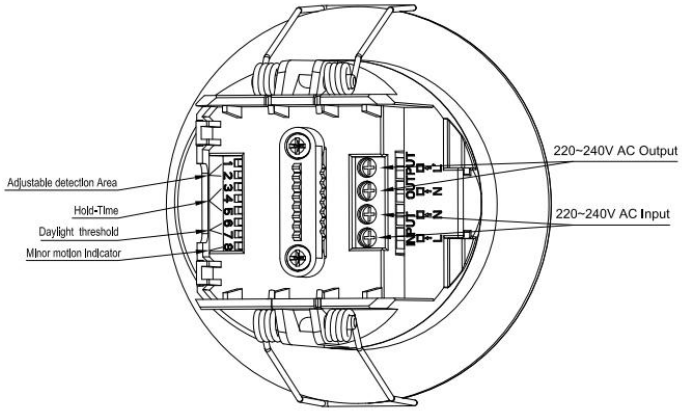
4. Dimension (mm)



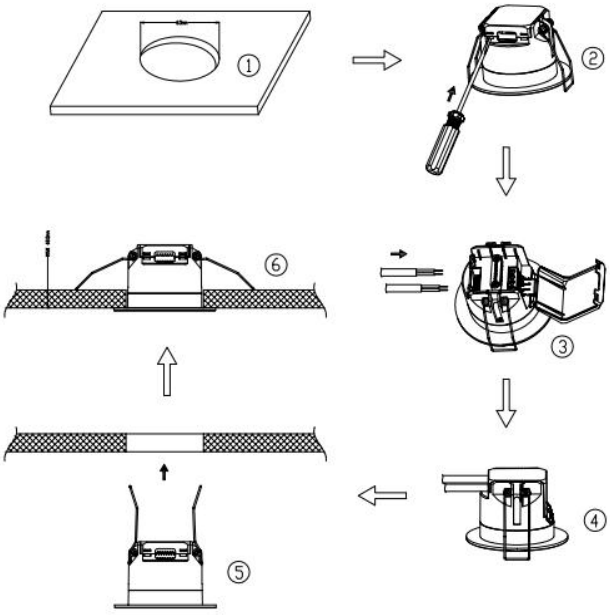
5. Wiring



6. Structure

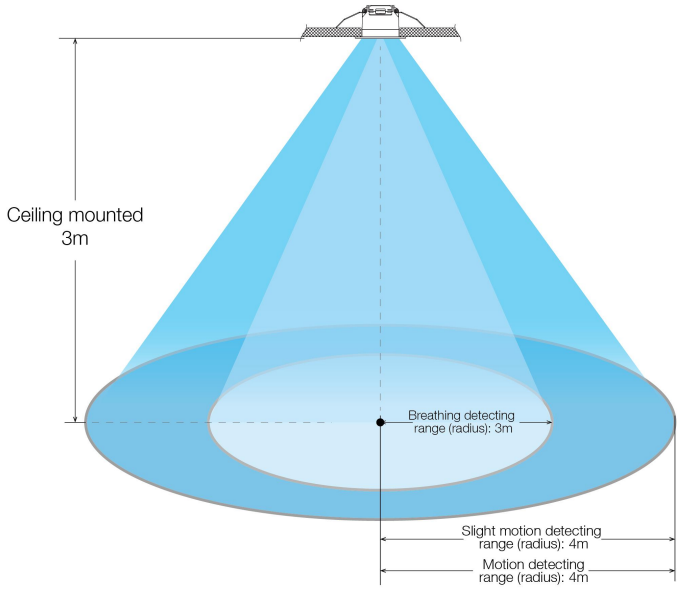


7. Installation Instruction



1. Cut a hole of 65-70mm on the ceiling
2. Open the button of the rotating protective cover to the maximum state
3. Wiring (input & output)
4. Install the screw of the line clasp and rotate the protective cover on the cover
5. Bend the spring clamp backward to push the pre-opened hole in the ceiling
6. Ensure smooth and reliable installation

8. Detection pattern



9. Dip switch settings

Detection Area

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

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

Daylight Sensor

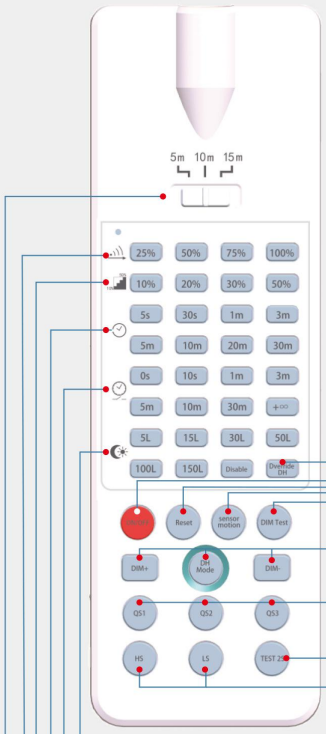
	6	7	
Ⅰ	ON	ON	5Lux
Ⅱ	ON	-	25Lux
Ⅲ	-	ON	50Lux
Ⅳ	-	-	Disable

Indicator light

	8	
Ⅰ	ON	open
Ⅱ	-	close

HS: the indicator light on LS: the indicator off.

10. Remote Settings

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 first power on ,sensor enter self-test mode, and the self-test will be completed after 60 seconds to enter the normal working state. During the initialization, the external motion signal will not be detected, remote control signal not be received.

12. Factory Settings

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

13. Application notice

1) The sensor should be installed by a professional electrician. Please disconnect the power before installing, wiring or changing the setting of the DIP switch

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) Avoid the detection window of the daylight sensor of the detector irradiated by an invalid light source, which will interfere with the measurement of ambient light.

5) The microwave sensor has a certain penetrating ability to the wall of the building, and the microwave penetrating to the outside of the wall may cause false alarm when it ACTS on the moving objects outside the fortified area.In order to avoid triggering by mistake, the installation position and appropriate induction range should be selected during installation

6) The data on detection pattern is typical value tested in factory,the detection range could be affected by moving speed, installation height, motion object and different environment.