INSTRUCTION

Product Name: LifeBeing sensor

Model No.:   MSA021D RC (5.0)

Issue Date: July 5, 2021

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 LifeBeing detected technology, which can detect movement, slight motion and breathing signal.

2) 12/24Vdc input, and dry contact output.

3) Built-in daylight sensor for energy saving.

4) Support flush mounting installation.

5) All parameters can be set via DIP switch & remote control.

6) Low impedance antenna for environmental adaptation

7) 5 years warranty.

2. Parameters

Input	Rated voltage	12V-24V DC±0.5V
	Stand-by power	0.5W
Output	Working Mode	dry contact, normal open
	Load Capacity	Resistive (36V DC ,50mA Max)
Sensor parameters	Operating frequency	5.8 GHz ±75 MHz, ISM band.
	Transmitting power	0.3mW Max.
	Hold time	5S/30S/1Min/3Min/5Min/10Min/20Min/30Min
	Detection Area	100%/75%/50%/25%
	Daylight Sensor	5lux/25lux/50lux/Disable
	Detection range (radius)	Movement: 3-4m (Speed: 0.3m/s) Slight motion: 3-4m Breathing: 2-3m
	Mounting height	2.5-4m
	Detecting Angle	120°
Operating environment	Operating Temperature	-25℃…+50℃ /Humidity:85% (Non condensing)
	Storage Temperature/humidity	-40℃…+80℃ /Humidity:85% (Non condensing)
Certificate Standards	LVD standards	EN61058-1, EN61058-1-2
	EMC standards	EN300440; EN301489-1; EN55015; EN61547; EN62479
	Environmental Requirement	Compliant to RoHS
	Certificate	CE RED
Others	Wiring	Screw terminal, diameter: 0.75-1.5mm^2
	IP Rating	IP20
	Protection Class	Class II
	Installation	Flush mounted
	Cut size	Ø65-Ø75mm
	Net Weight	84.9g
	Life time	5 years warranty@Ta

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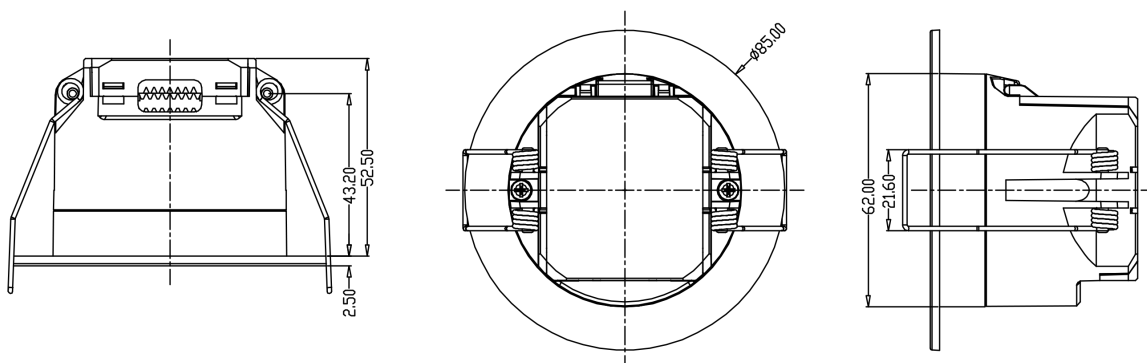
Movement signal active   Slight motion& Breathing signal maintain
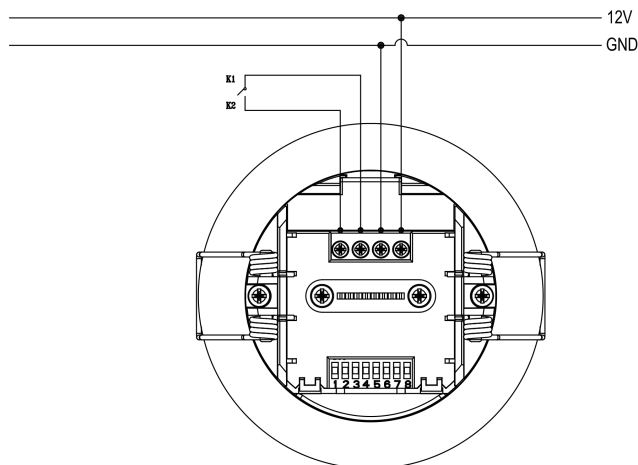
* **Movement signal**：Big movement for sensor triggering
* **Slight motion signal**：very small movement even only body motion can be collected , the indicator flashes once.
* **Breathing signal**：when no slight motion signal, only breathing signal can be collected ,the indicator flashes for 3 times by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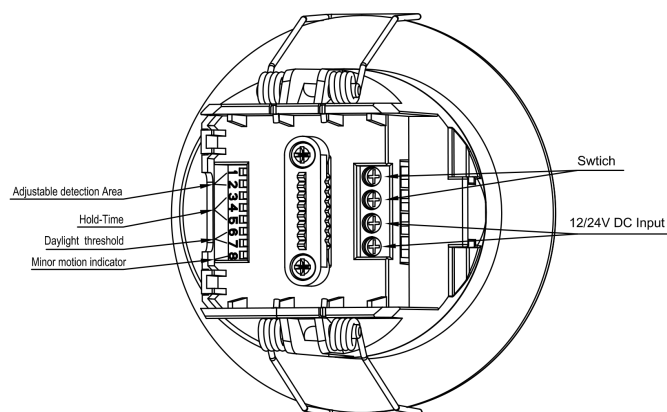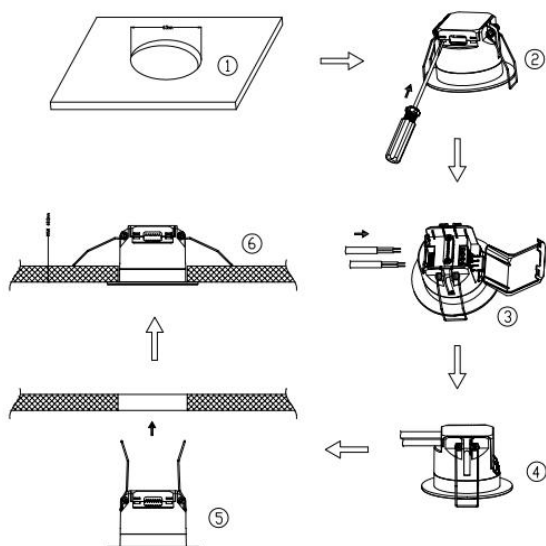
4. Dimension (mm)

5. Wiring

6. Structure

Adjustable detection Area
Hold-Time
Daylight threshold
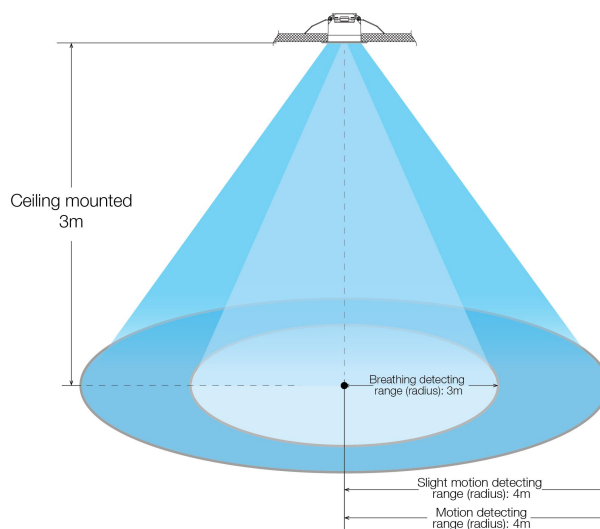Minor motion indicator

Swtich

12/24V DC Input

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

Ceiling mounted 3m

Breathing detecting range (radius): 3m

Slight motion detecting range (radius): 4m

Motion detecting range (radius): 4m

9. Dip switch settings

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：To achieve breathing detecting, pls set the hold time 30s+. 5s is for sensor testing only.
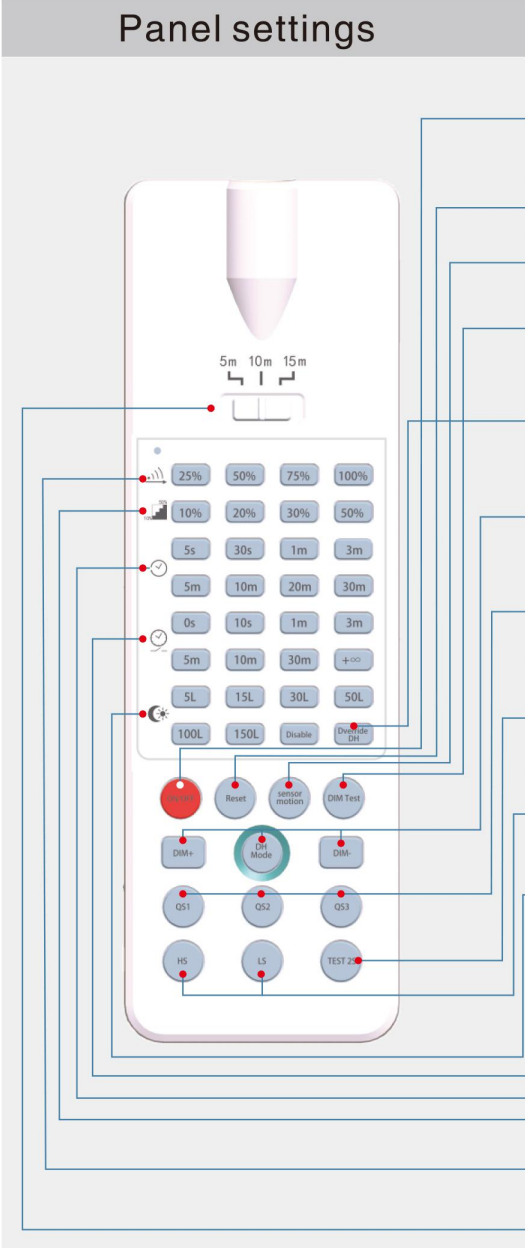
3) Daylight Sensor

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

4) 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 20 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: Open   Detection Area: 100%   Hold Time: 30S   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) Each time the product is set by remote control, the indicator light flashes 3 times quickly, which means the setting is successful.

5) During the initialization period, the sensing function is not activated, and the sensing parameters cannot be set remotely.

6) It is recommended to turn off the indicator light during normal use.

7) Used in an open office with a large number of people, 30s Hold time is OK, but in the independent office the Hold time needs to be 1min or more than 3min.

8) The microwave sensor has the ability to penetrate the wall of the building, and the microwave penetrating outside the wall may cause false triggering when it detects moving objects outside. In order to avoid false triggering, please don't install the sensor close to glass door/window, plaster wall and wood wall. And, select appropriate detection area during installation, for example:

    A. When the product is used in a room of 2m *2m or smaller, the detection area should be set to 25%(use the remote control),

    B. When used in a room of about 3m *3m, the detection area should be set to 50%;

    C. When applied in a room of about 4m *4m, the detection area should be set to 75%(use the remote control);

    D. When used in a room of about 5m *5m or bigger, the detection area should be set to 100%;

Note: the suitable detection range of the actual application needs to be based on the actual environment. The sensitivity selection of the above application scenarios is only for reference.