



## Product application description

Product name:	Living presence sensor (switch function) - Strong electric version
Product model:	ISE101A-5
Date:	2022-3-28

## I 、 Product characteristics



- 1) In vivo detection algorithm, movement, micromovement, breathing mixed detection, to achieve true presence sensing;
- 2) Remote control design, users can configure the induction parameters according to the needs ;
- 3) Support embedded independent ;
- 4) 3-year warranty (free replacement within 1 year for non-human damage).

## II 、 Specification parameter

input	Operating voltage	110V-265V AC
	frequency	50/60Hz
	Standby power consumption	< 1.0 W.
	Lightning strikes and waves	L N 4KV between the two phases
exportation	Working mode	ON/OFF
	Load type	Resistive, capacitive, LED load
	Load power	Resistive load: 800W Capacitive load: 400w, LED load: 400w
	Load surge current	110V-10A 220V-5A relay
Induction parameter	Operating frequency	5.8GHz, AIoT millimeter wave.
	Transmitting power	0.5mW Max.
	Delay setting (Hold time)	5S-30Min
	Detection range	100% / 75% / 50% / 25%
	Light and dark Settings (Daylight)	5lux-150lux /Disable
	Detection range (radius)	Moving sensing distance: 1-10m Fretting detection distance: 1-5m Breath detection distance: 1-3m
	Recommended installation height	2.5-4m, 3m recommended
	Detection Angle	120 °
environment	Ambient temperature/humidity	25 °C... + 50 °C
	Store temperature/humidity	- 40 °C... + 80 °C
Certification standard	Safety Regulation (LVD) standard	EN60669-2-1
	Electromagnetic Compatibility (EMC) standards	EN300440; EN301489-1
	Environmental protection requirement	Meet RoHS requirements
	Compliance certification	CE RED

other	Input/output (terminal/lead)	Shrapnel lifting terminal block 0.75mm <sup>2</sup> -1.5mm <sup>2</sup>
	Class of protection	IP20
	Product category	Second class electrical apparatus
	Installation requirements	Built-in independent installation
	Opening size	Ø 65 - Ø 75
	Packing requirement	White box + Flat card + Outer box (K=A)
	Net weight	150g
	Life span	3 year Warranty @Ta 230V full load
Note: 1. If no specification parameter is set to N/A, 2. Describe test conditions		

### III、Feature

Signal detection description: Detect people walking, body movement, head up, turn and other small movements in normal work and life, as well as breathing signals, and realize the detection of human existence in sleep state.



Large mobile signal trigger



Small motion signal maintenance



Sedentary breathing signal maintained

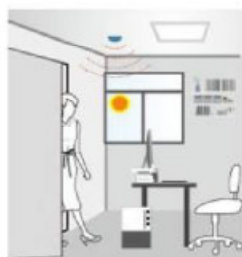


Sleep state signal maintenance

\* Mobile signal: large movement of the body, used for induction triggering

\* Micromotion signal: sensor real-time detection, indicator light on

\* Respiratory signal: In the absence of micromotion signal, the sensor continuously detects the respiratory signal, and the indicator light is on



■ When there is plenty of natural light, the lights remain off even if there is a human body moving.



■ When the natural light is insufficient, the human body movement signal is detected, and the light is automatically turned on.



■ By detecting normal body movements in human life, the light stays on.

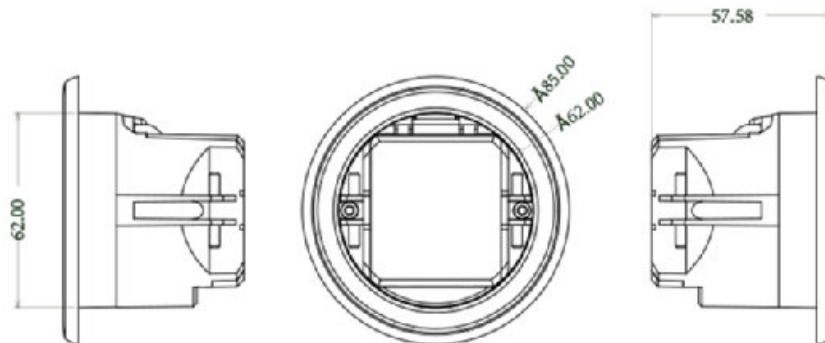


■ The light stays on while the person is asleep

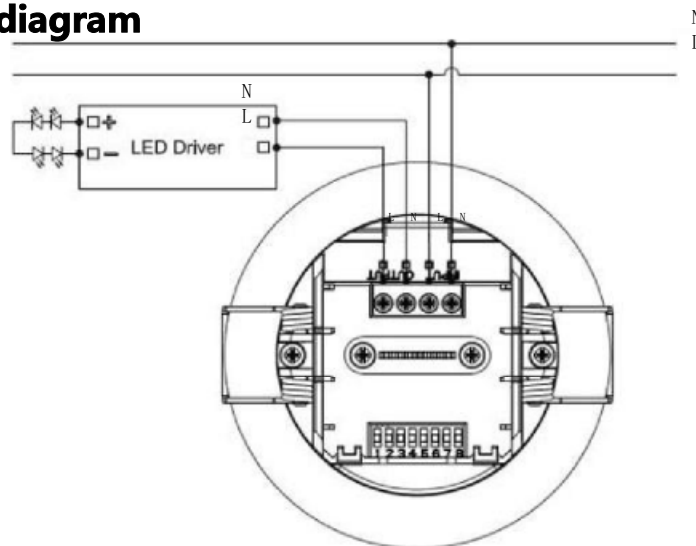


■ When people leave, waiting time, the lights automatically turn off.

#### IV、 Dimensional drawing (unit: mm)

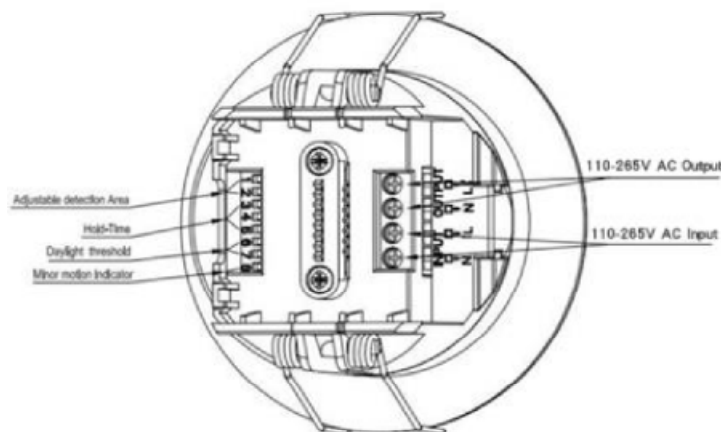


#### V、 Wiring diagram

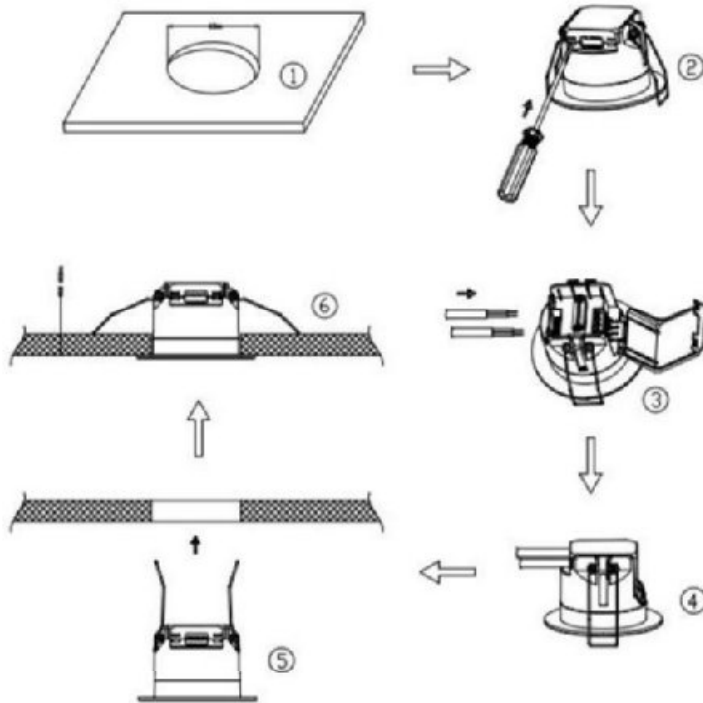


Note: When this product is connected with multiple loads, it is necessary to refer to the surge value, total load and the induction range to be covered.

#### VI、 Functional diagram

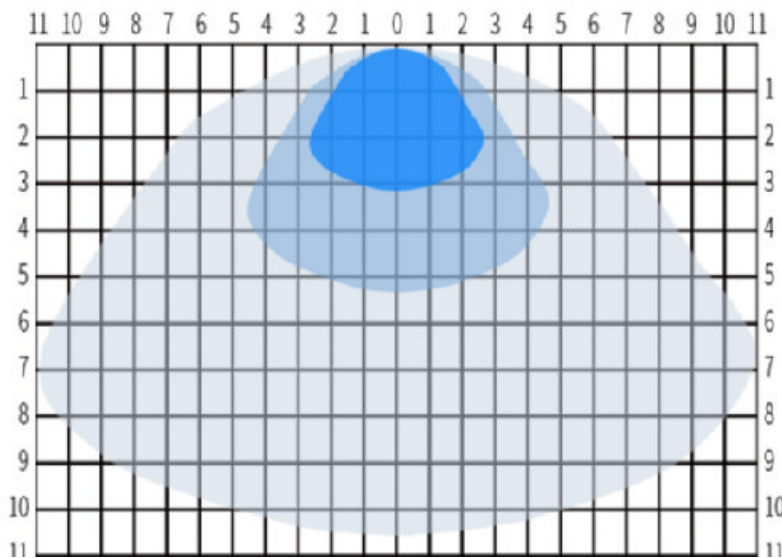


## VII、Installation diagram

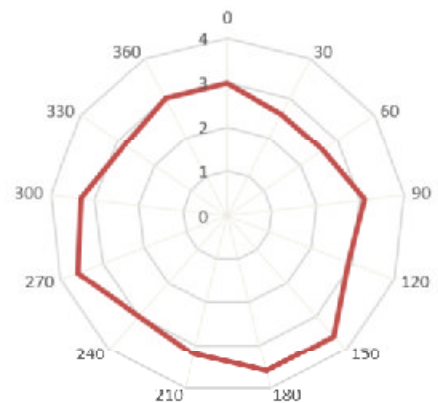


1. Smallpox opening  $\phi 65-70\text{mm}$
2. Carefully pry open the button of the swivel cover and open it to maximum
3. Wiring (note that input and output cannot be reversed)
4. Install the cable tie locking screw and cover the rotating protective cover
5. Bend the spring clamp backwards to push the pre-opened hole in the ceiling
6. Ensure smooth and reliable installation

## VIII、Detection range



Breath detection azimuth chart



Note: The dark color is the high sensitivity respiratory heartbeat detection area, and the light color is the low sensitivity large motion detection area.

## IX、Function DIP switch Settings

### 1)Detection Area

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

Note: Range 100% about 10 m, 75% about 5 m, 50% about 4 m, 25% about 3 m

### 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 use the presence sensor function (breath detection), the sensor delay must be set to 5 seconds or more

### 3) Daylight Sensor

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

Note: When set to Disable, regardless of whether the light is sufficient, as long as the object movement is detected, the sensor will turn on the light.

#### 4) Relay The relay is normally on/normally off

	8	
I	ON	Normal close
II	-	Normal ly open

Note: Factory Settings are normally on

## X、Remote setting:

Remote panel Settings	key	Function description
<p>Infrared remote control</p>		Press the ON/OFF key to switch the load indicator into manual on/off mode. Press RESET or Auto mode to exit the manual mode. This function does not have power failure memory function after power failure to restore the induction mode
		Press RESET to return to the current DIP switch Settings.
		Press "Sensor motion" to switch from manual mode to sensing mode (function return to the last setting)
		N/A
		N/A
		DIM+:Calibration threshold
		DIM-:Restore the default threshold
		N/A
		N/A
		HS:Turn on the indicator LS:Off indicator light
		Luminous value Light sensing value can be set: 5Lux/15Lux/30Lux/50Lux/100Lux/150Lux/ Disable
		Delay Time You can set the delay time :5S/30S/1min/3min/5min/10min/20min/30min
		Sensitivity setting range: 25%/50%/75%/100% The higher the sensitivity value, the higher the sensitivity
		Detection range You can set the detection range:25%/50%/75%/100%

1. By default, the remote control is in DIP switch state. After setting the remote control, the remote control is invalid.
2. After the remote control is restarted, the last remote control setting parameters are automatically obtained. If the remote control is not set, the DIP switch status is displayed.
3. Press the calibration button for 10 seconds to start the calibration. The calibration time is about 12 seconds.
4. The calibrator should leave the detection area within 10 seconds and ensure that there is no moving object, otherwise there will be no breathing detected after calibration, and multiple calibration is required.

All technical information is subject to actual performance, product model, parameters are subject to change without prior notice, the company reserves the right to final interpretation  
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## XI、Initialize

When the sensor is powered on for the first time, it enters the self-test mode, completes the self-test for 1 second and enters the normal working state. During the initialization, it does not detect the external mobile induction signal, nor receives the remote control signal.

## XII、Factory Setting

Sensing distance: 25% Sensing sensitivity: 100% Delay: 30M Light threshold: Disable  
Indicator control: Open

## XIII 、Precautions for use

1. The sensor should be installed by a professional electrician. Please power off before installation, wiring and changing the dip switch Settings
2. The sensor should be far away from substances with large media density such as metal plate and glass to avoid causing false trigger.
3. Avoid using objects that vibrate for a long time around the sensor, shaking fans, etc. The vibration signal will be regarded as a mobile signal to trigger the sensor.
4. Non-human objects in continuous motion, such as animals, curtains that continue to swing, and large green plants facing the outlet should be avoided in the sensing area
5. The product is set by remote control each time the setting is successful, the indicator light flashes three times quickly, indicating that the setting is successful.
6. It is recommended to turn off the indicator during normal use.
7. Applied to open office places with many people, the induction time can be selected 30s, and the independent office needs to use 1min and more than 3min.
8. The microwave sensor has a certain penetration ability to the building wall, and the microwave penetrating outside the wall may cause false positives when it acts on moving objects outside the fortified area. In order to avoid false triggering, attention should be paid to selecting the installation position and the appropriate induction range during installation, such as:
  - A. When applied in A room with an area of about 5 square meters or smaller, the sensing distance should be set to 25% and the sensitivity should be 100%
  - B. When applied in a room with an area of about 10 square meters, the induction distance should be set to 50% and the sensitivity should be 100%
  - C. When applied in a room with an area of about 30 square meters, the induction distance should be set to 75% and the sensitivity should be 100%
  - D. When applied in a room with an area of about 100 square meters or larger, the sensing distance should be set to 100% and the sensitivity to 100%

Infrared remote  
control APP download



User guide





## FCC Warning:

Any Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

**Note:** This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. Operation is subject to the following two conditions:

- (1) This device may not cause harmful interference, and
- (2) this device must accept any interference received, including interference that may cause undesired operation.

These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20cm between the radiator & your body.