

Product application description

Product name: :	Living presence sensor (switch function)- Graffiti wifi version
Product model:	ISE101T-5
Date:	2022-6-19

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 strike surge	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 , AloT mmWave.
	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	90°
environment	Ambient temperature/humidity	25 °C... + 50 °C
	Store temperature/humidity	- 40 °C... + 80 °C
Certification standard	Safety Regulation (LVD) standard	EN61058-1, EN61058-1-2
	Electromagnetic Compatibility(EMC) standards	EN300440; EN301489-1; EN55015;EN61547;EN62479
	Environmental protection requirement	Meet RoHS requirements
	Compliance certification	CE RED

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other	Input/output (terminal/lead)	Shrapnel lifting terminal block 0.75mm2-1.5mm2
	Class of protection	Embedded exposed parts; Overall protection level: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 Sleep state signal maintenance 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.



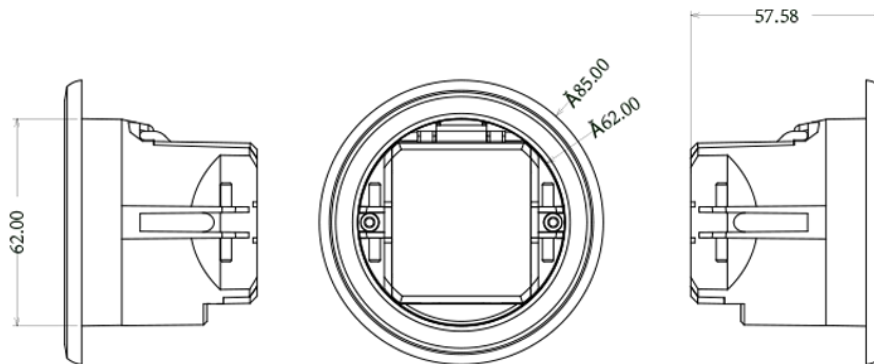
■ The light stays on while the person is asleep



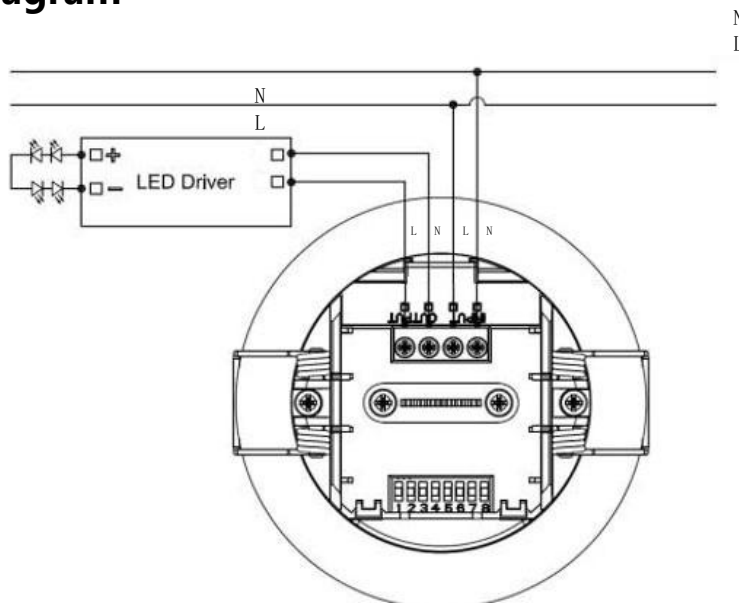
■ When people leave, waiting time, the lights automatically turn off.

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IV. Dimensional drawing (unit: mm)

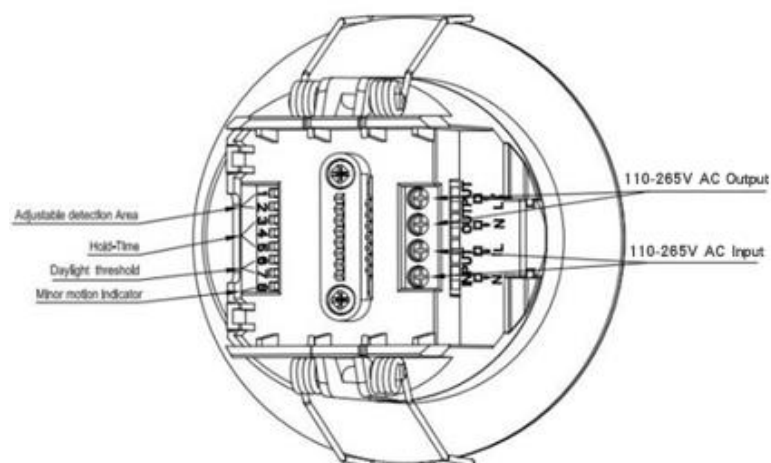


V. Wiring diagram



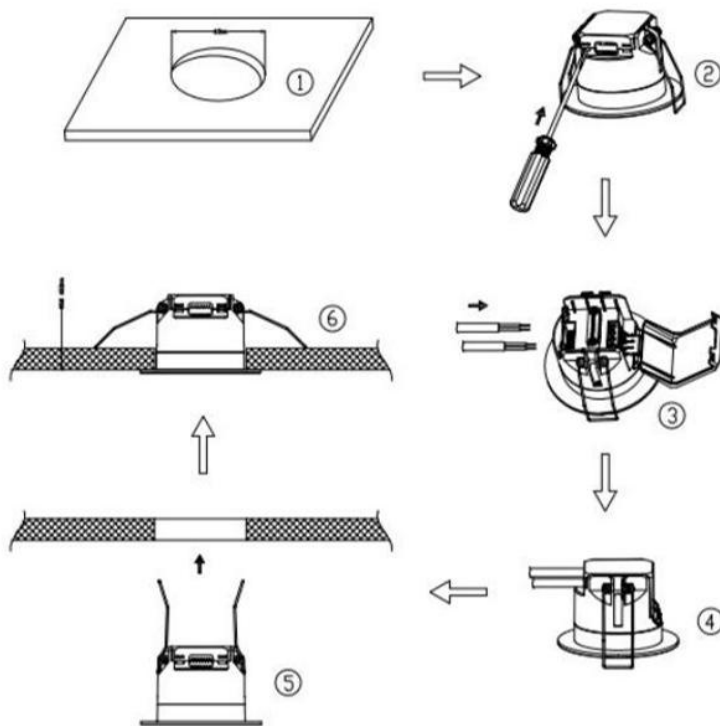
Note: When this product is connected with multiple loads, it is necessary to refer to the surge value, total load and the induction range to be covered.

VI. Functional diagram



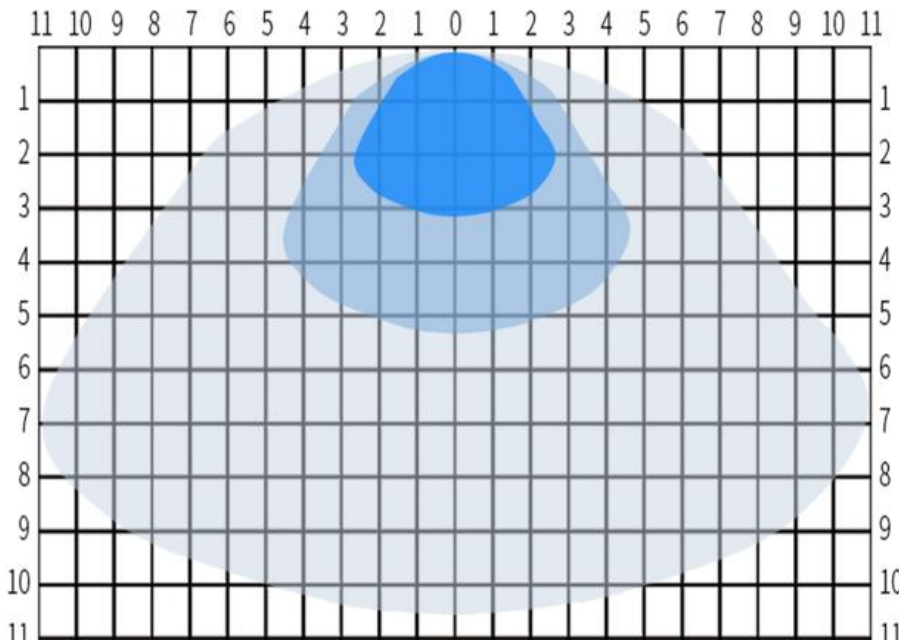
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VII. Installation Diagram

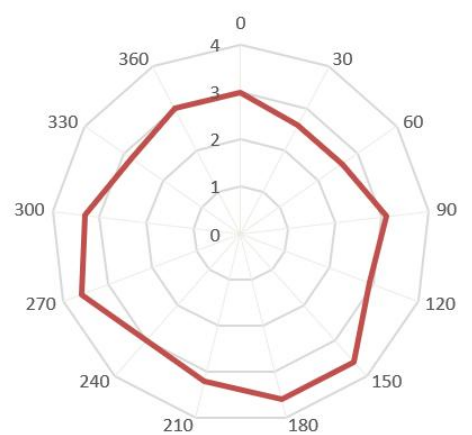


1. Small opening $\phi 65-70\text{mm}$
2. Carefully pry open the button of the swivel cover and open it to maximum
3. Wiring (note that input and output cannot be reversed)
4. Install the cable tie locking screw and cover the rotating protective cover
5. Bend the spring clamp backwards to push the pre-opened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

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IX.Tuya APP settings:

1. Tuya APP download: Search for "Tuya Smart" in major application markets to download and install
2. First use: power on the sensor, open the Tuya APP (need to open the mobile phone Bluetooth) to add the device, and connect to the same WiFi router as the mobile phone by default
3. Replace the WiFi router: long press the signal indication button, the indicator light flashes three times to enter the reconfiguration state, at this time you can add the device configuration network through the Tuya APP again

The screenshot displays the Tuya APP settings for device ISE101T-2A. The interface is divided into several sections:

- Top Section:** Shows the device name "ISE101T-2A" and a pencil icon for modification. Below this, a circular status indicator shows "环境状态" (Environmental Status) and "有人状态" (Someone Status).
- Bottom Section:** Displays various settings and controls:
 - 人数 (Number of People):** 1
 - 日志 (Log):** Icon for status recording.
 - 亮度 (Brightness):** 150Lux
 - 应用情景 (Application Scenario):** Selection buttons for 办公室 (Office), 卧室 (Bedroom), and 卫生间 (Bathroom).
 - 设备 (Device):** Toggle switch for turning the device on or off.
 - 指示灯 (Indicator Light):** Toggle switch for turning the sensor indicator on or off.
 - 距离 (Distance):** Adjustable in four steps: 1.25% (1.5m), 2.50% (3.0m), 3.75% (4.0m), and 100% (10m).
 - 灵敏度 (Sensitivity):** Adjustable in four steps.
 - 延时 (Delay):** Load delay time adjustable in 6 steps.
 - 光感 (Light Sensing):** The brightness sensing switch load is adjustable.

Arrows from the text on the right point to the corresponding UI elements in the screenshot:

- Modify the device name
- A. Someone has a number of 1 and no one has a number of 0
- B. Status Recording
- C. Ambient height (for reference only)
- Application scenario selection
- A. Turn off the device (load is not controlled by the sensor)
- B. Turn off/on the sensor indicator
- The sensing distance is adjustable in four steps
- 1.25% radius about 1.5m
- 2.50% radius about 3.0m
- 3.75% radius about 4.0m
- 4. 100% radius about 10m
- The detection sensitivity is adjustable in four steps
- Load delay time adjustable in 6 steps
- The brightness sensing switch load is adjustable

Note: The sensor returns to the last set parameter after the power restart

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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%

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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.