

MINI-PIR-REL

Embedded Infrared Motion Sensor

Product Manual (Dry Contact Version)

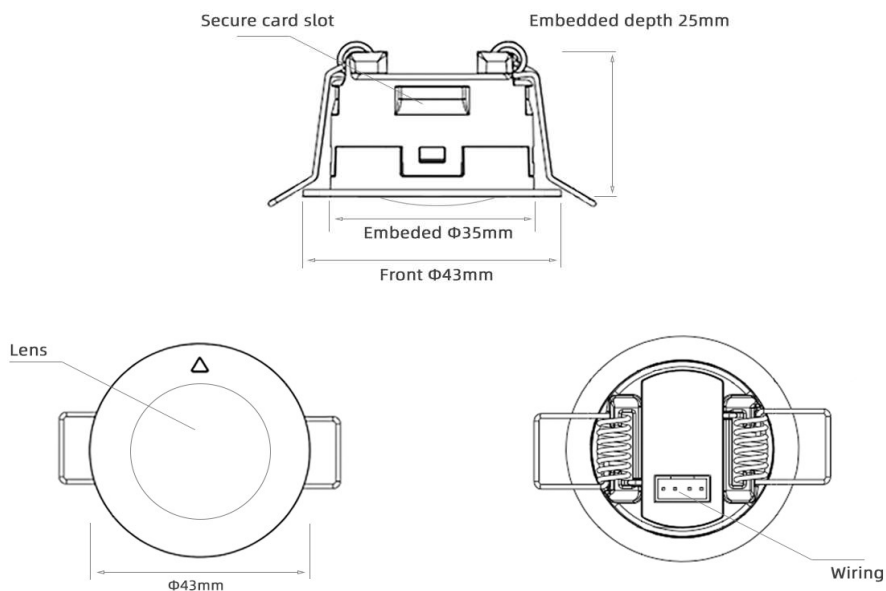
Installation Manual

CREATROL

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Appearance

The front diameter of the product is 43mm, the depth is 25mm, 35mm hole-cut. Ceiling mounted, 86 panels wall mounted,surface mounted, surface-mounted bracket,embedded installation.



Default parameters

No.	Function	Default value
1	Delay	1 second
2	Illumination	Close
6	Dry contact output mode	Normally Open
4	Indicator Light	On

Detection Principle

The infrared motion sensor utilizes a Fresnel spherical lens and pyroelectric infrared sensing for dense coverage that detects human radiation motion,built-in digital illumination chip for accurate illumination value output.

Applications •

Home

Bathroom | Entrance hall/walkway/staircase | Bedroom | Cloakroom

Accurately detect the movement of the human body, turn on the light when people come, and turn off the light automatically when they leave.

Control light according to that change of environmental illumination.

office

Office | Meeting Room | Shared Office Space

When people enter the area, the light is on, and when people leave, the light is automatically turned off.

Save energy consumption and improve human efficiency.

Hotel

Lobby | Aisle/Stair | Foyer/Entrance

When people enter the area, the light is on, the equipment is turned on, and when people leave, the light is automatically turned off.

Save energy consumption and improve human efficiency.

Elderly Care

Rooms | Toilets | Walkways/Stairs

Accurately detect the movement of the human body, light is on when the person enters the area, and the light automatically turned off when the person leaves.

Save energy efficiency and improve human efficiency.

Smart security

Residential Community | Office Park | Building

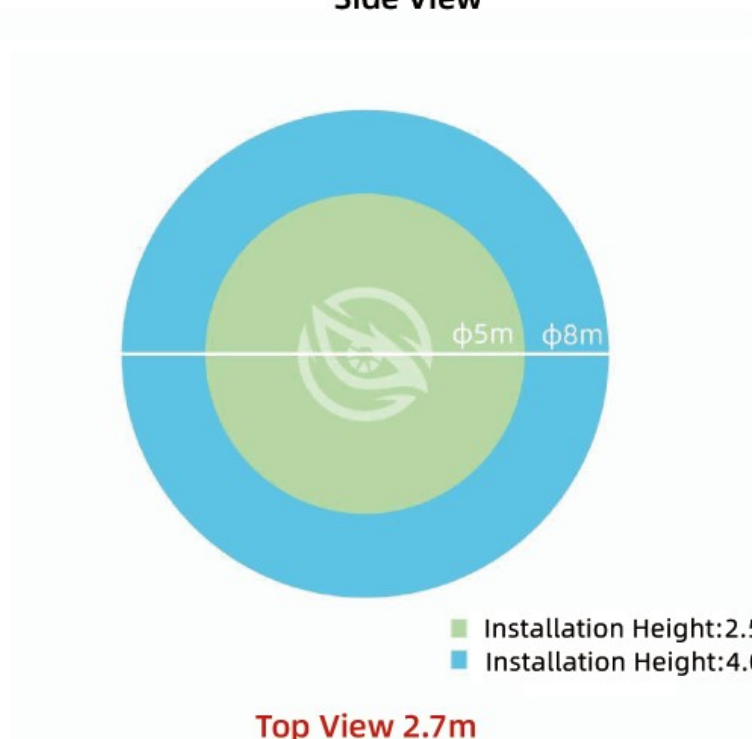
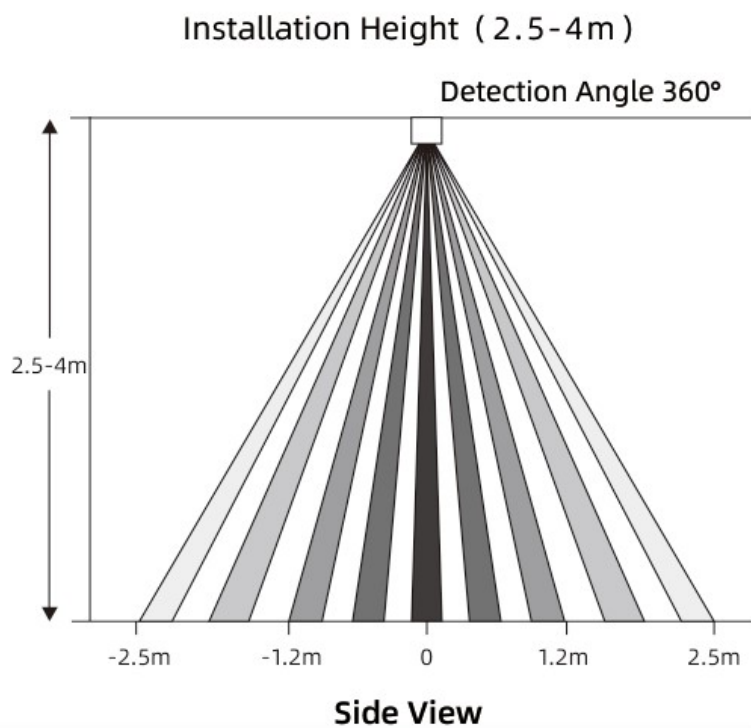
All-weather work, accurate detection,

Linkage alarm system to deter intruders

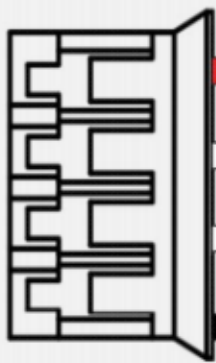
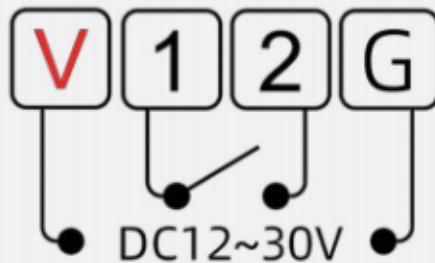
Specifications

Detection Mode		Pyroelectric IR
Mounting Height		2.0 ~ 4.0m
Detection Angle		360°
Detection Range		When the installation height is 2.5m Motion detection ≤ ϕ 5.0m
Illumination Sensing		0 ~ 32000 Lux (Precision $\pm$ 1%)
Product Size		43mm*25mm
Hole Size		ϕ 35mm
Product Weight		18g
Operating Voltage		DC12~30V(Standby power < 0.5W)
Work Temperature		Temperature -20 ~ 45 °C Humidity < 95%
Dry Contact Output	Delay Time	1 ~ 3600 seconds
	Relay Load	≤36V(AC/DC), ≤100mA
	Output Type	Solid state relay 1 set, support normally open/normally closed/normally open
LED indicator		① Flash for 3 seconds after receiving the configuration command ② It is always on when someone is detected, and the brightness of the indicator light is automatically adjusted with the ambient illumination. ③ The off mode can be set (it will not be on when someone is detected)

Detection Range



Wiring

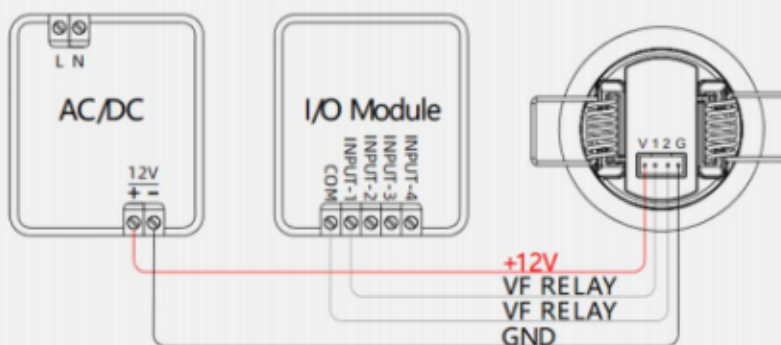


V-Red: The power supply input is positive VCC

1-White: Passive dry contact output

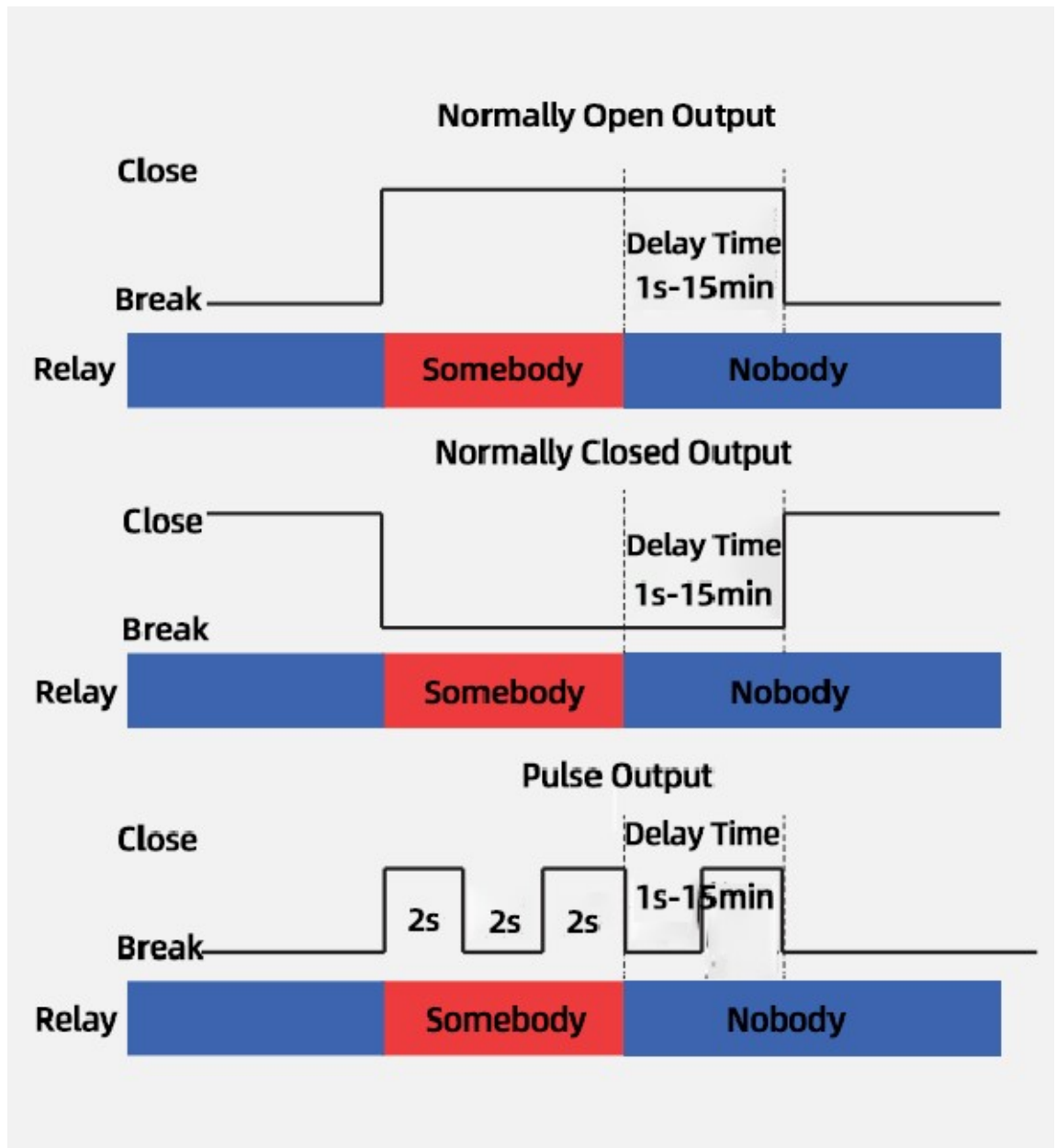
2-White: Passive dry contact output

G-Black: The power supply input is negative GND



Set up •

Schematic diagram of dry contact output is as follows:



Set up •

Use any set-top box remote controller at your hand to set and query of sensor parameters, including delay time, illumination threshold, sensitivity, detection distance, etc.



Set up

Use only the number keys 1-9 * # to set and query parameters as follows:



1. Set the parameters and press the following buttons in turn



Start setting: the indicator light flashes.

Set successfully: the indicator light quickly flashes for 1 second.

Error: the indicator light keeps on for 3 seconds.

2. Query parameters and input them by remote controller in turn



Start query: the indicator light flashes

Query result: the number of times the indicator light flashes indicates the query result.

For example, query the set illuminance value you set, press * 2 # , and the indicator light replies:

Flash 3 times (number 3)

On for 2 seconds (digit 0)

Flash 7 times (number 7)

Off or Breathing Light (Exit)

Indicates 307 Lux

Set up

Function code and parameter comparison table

1. Comparison table of common parameter settings

Function Code		Parameter value
1	Time Delay (1-3600s) Set/Query	0-9999
2	Illumination Threshold (0-32000 Lux) Set/Query	

Setting example:

Set the delay time for 60 seconds and input * 1 # 60 #

Query the set delay time and input * 1 # #

Set illumination threshold 70 Lux, enter * 2 # 70 #

Query the set illumination threshold, enter * 2 # #

2. Comparison table of more function parameter settings

Function Code		Parameter value
5	Real-time illumination value query	/
7	Dry contact mode setting/query	1: Normally open 2: Normally closed 3: Normally open pulse 4: Normally closed pulse
9	①LED Indicator ②Factory Reset	1.Indicator On 2.Indicator Off 9.Factory Reset

Set up •

Setting example:

Query the real-time illuminance value,press * 5 # , and the number of flashes of the indicator light represents the query result.

For example, if the measured real-time illuminance value is 50 Lux, the indicator light will reply.

Flash 5 times (number 5)

On for 2 seconds (digit 0)

Off or Breathing Light (Exit)

Set the working mode of dry contact to normally closed mode, input * 7 # 2 #

Set the working mode of dry contact to normally open pulse, input * 7 # 3 #

Set the working mode of dry contact to normally closed pulse, input * 7 # 4 #

Query the protocol mode and input * 7 # #

Set indicator on,press * 9 # 1 #

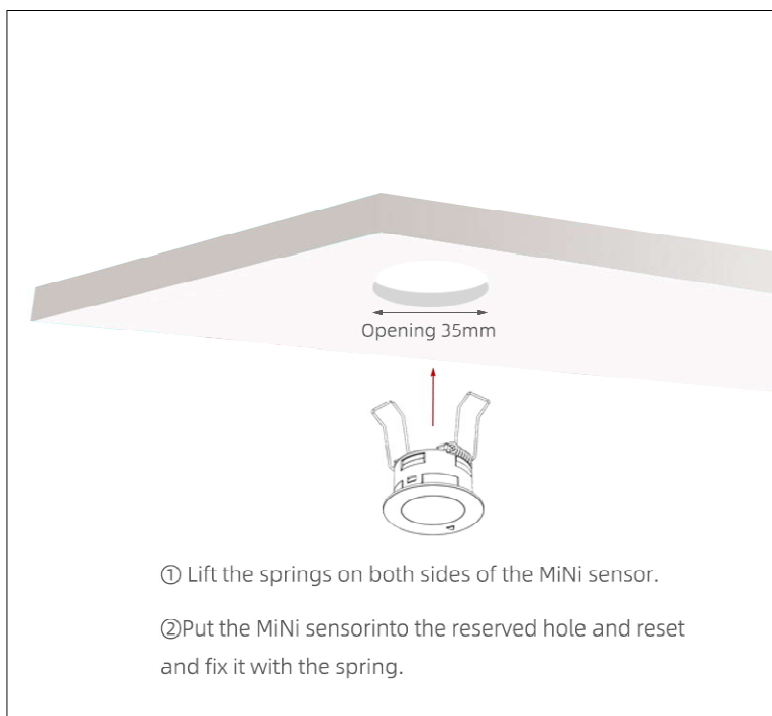
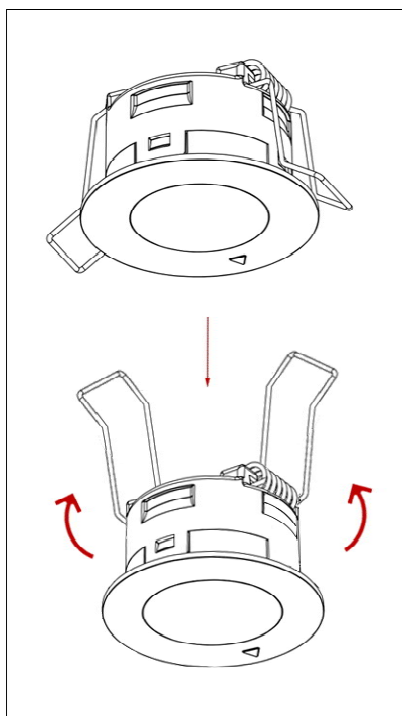
Set indicator light off, press * 9 # 2 #

Factory reset, press * 9 # 9 #

Installation

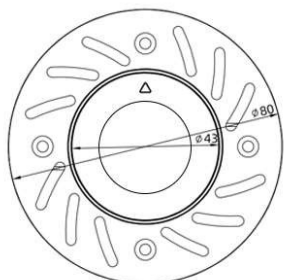


OPERATION STEPS FOR CEILING INSTALLATION

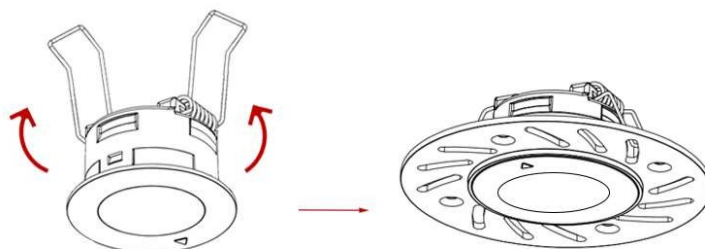


Installation

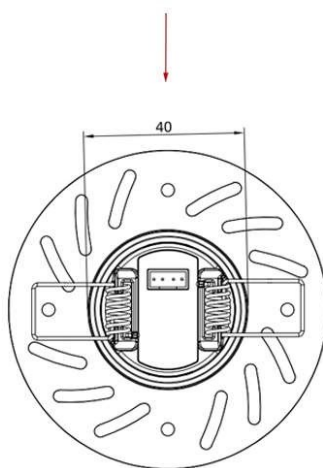
OPERATION STEPS FOR EMBEDDED INSTALLATION



① Prepare MiNi embedded parts, which shall be installed on the ceiling. Install the accessories at the hole position in advance, and open the hole for 40mm.

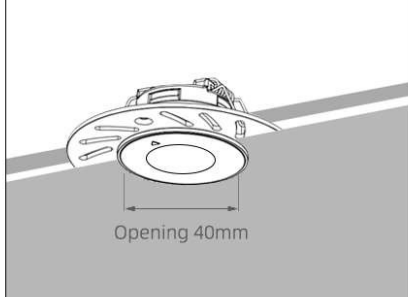


② Lift the spring of MiNi sensor, passing through embedded parts in the ceiling.

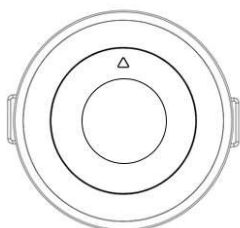


③ spring reset and fixation

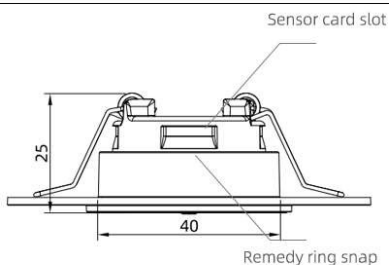
④ Complete frameless installation



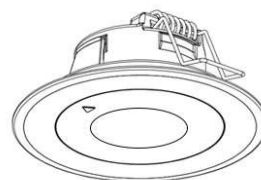
NOTE: IF THE RESERVED OPENING FOR CEILING INSTALLATION IS TOO LARGE, THE REPAIR RING CAN BE USED FOR INSTALLATION. COMBINE THE CLAMPING GROOVE ON THE SIDE OF MINI SENSOR WITH THE BUCKLE OF THE REPAIR RING TO CONFIRM THAT IT IS STABLE AND WILL NOT FALL OFF, AND THEN CONTINUE TO INSTALL AND FIX IT ON THE CEILING NORMALLY.



MiNi repair ring



Install the repair ring on the sensor



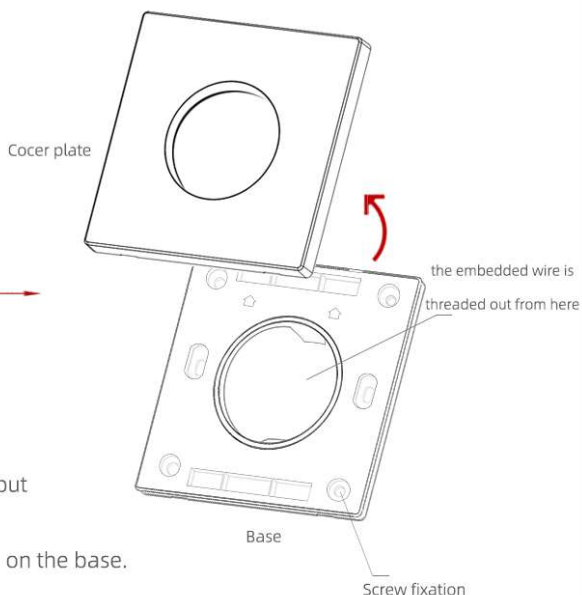
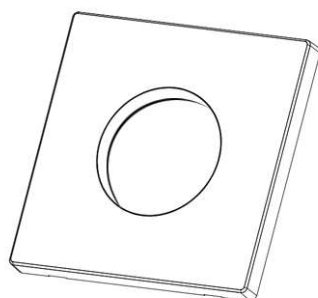
Proceed with the installation

Installation

WALL MOUNTING

① Prepare the MiNi wall mount 86 box mounting kit and disassemble it into a cover plate and a base plate.

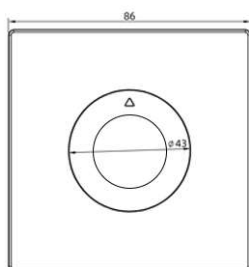
② Fix the base at the opening position with screws, and thread the embedded wire out of the hole.



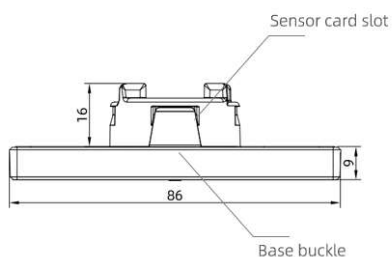
③ Connect the embedded wire with the MiNi sensor, then put the sensor into the base vertically, and fix it with the clamping groove on the side of the sensor and the buckle on the base.

④ Close the cover plate to complete the installation of MiNi wall

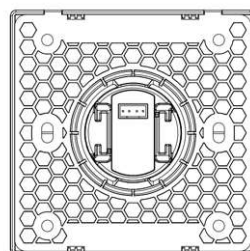
NOTE: DURING INSTALLATION, IF THE SENSOR IS PUT INTO THE BASE AND THERE IS NO CLICK SNAP SOUND, IT IS NECESSARY TO CONFIRM WHETHER THE SENSOR HAS BEEN FIXED. IF NOT, THE SENSOR CAN BE SLIGHTLY TURNED TO COMPLETELY FIX THE CLAMPING GROOVE AND THE BUCKLE. SO AS NOT TO AFFECT THE DETECTION EFFECT



Back of wall mounting



Wall mounted side



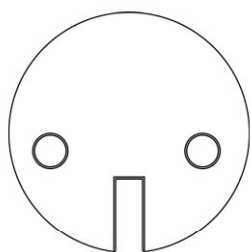
Back of wall mounting

Installation

SURFACE MOUNTING

/EXTERNAL MOUNTING

① MAGNETIC FIXATION

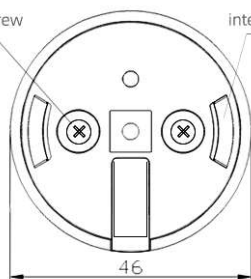


① Prepare a MiNi exposed magnetic patch
Fix it at the installation point, and pull out
the embedded wire from the gap

Magnetic suction nail

fixed by screw

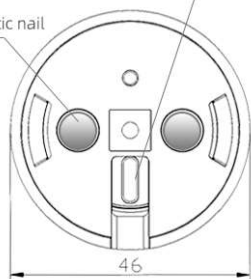
internal snap



Front

wiring hole position

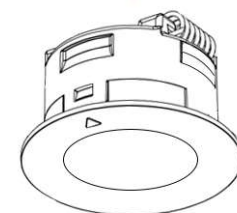
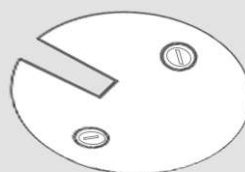
Back magnetic nail



Back

② Align the notch with the patch
and pull out the embedded wire
Use the magnetic nail on the back of the MiNi
surface mount kit to attach it to the patch

④ Finishing open installation/ external installation

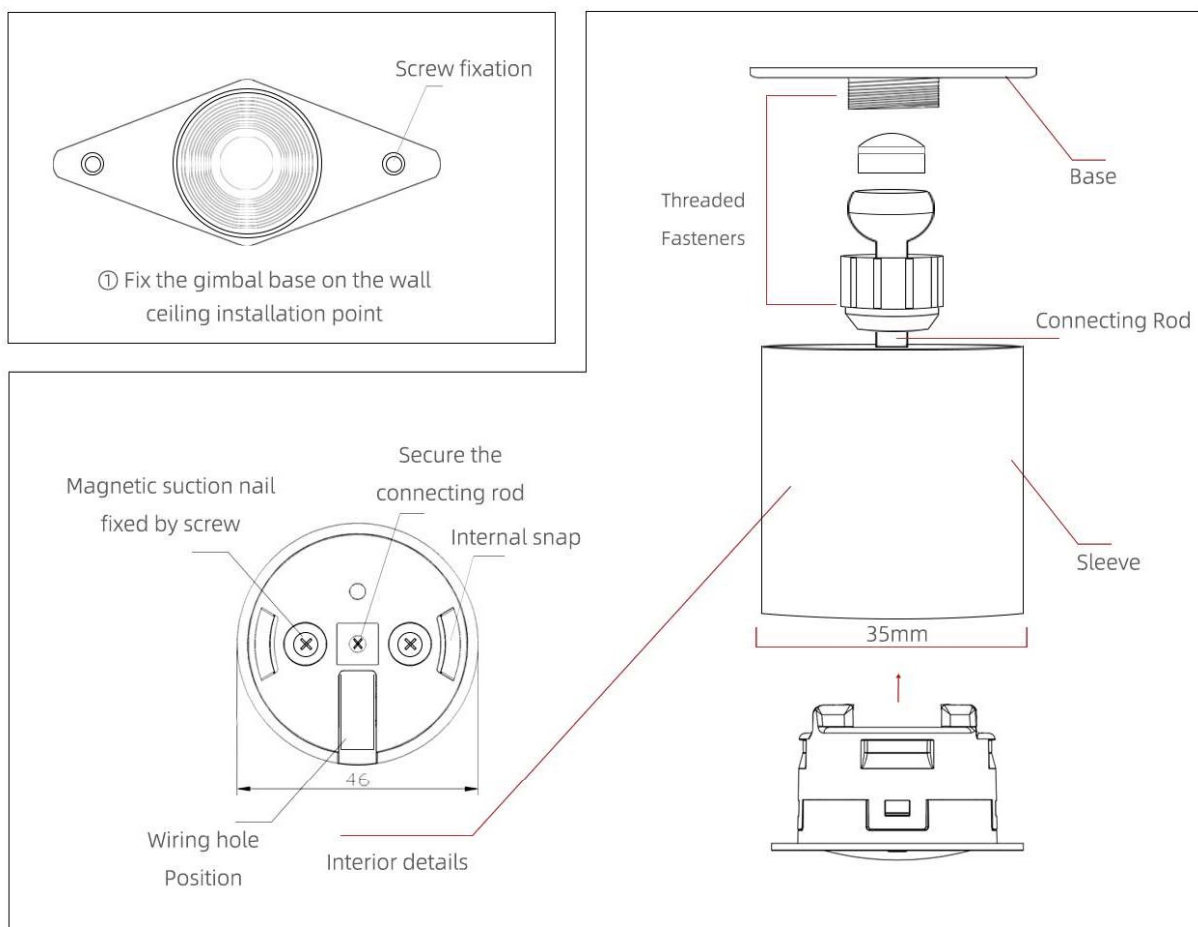


③ connect that embedded wire with the MiNi sensor,
The sensor is vertically placed in the base and fixed by
the clamping groove on the side of the sensor
and the buckle on the base.

Installation

SURFACE MOUNTING /EXTERNAL MOUNTING

② INSTALLATION OF GIMBAL



- ② Thread the buried wire out of the wiring hole on the back of the accessory and connect it to the MiNi sensor
- ③ Put the MiNi sensor vertically into the opening of the accessory, and fix it with the card slot on the side of the sensor and the buckle inside the accessory. If it is not fastened, slightly rotate the sensor to connect the card slot with the buckle to ensure that the sensor is more stable.
- ④ Finally, tighten the threaded fasteners of the accessories to complete the installation, and adjust the direction



Installation •

Installation instructions

Installation environment requirements

To ensure the correct operation and accuracy of this product, please install it according to the following environmental requirements. Operating in an unsuitable environment, the test results may be disturbed:

Dynamic distractors: Please avoid non-human objects that move continuously in the sensing area, such as animals, curtains that swing continuously, large green plants facing the draught, etc.

Static interferent: Directly facing the hot and cold vents and hot and cold sources may cause false alarm of the sensor.

Installation position: avoid facing the glass doors and windows, which can avoid the interference of strong light and the interference caused by the complex environment outside the doors and windows.

Packaging and installation

1. When using sharp tools to open the packing box, pay attention to safety and avoid scratching the product or itself.
2. After unpacking, check whether the quantity of products and accessories is complete in time.
3. To avoid suffocation of infants or children, the packaging should be destroyed immediately after disassembly or kept out of the reach of children.
4. Do not discard the packaging at will, and handle it properly according to the regulations of the local sanitation department.

Electrical safety

1. Make sure the power supply is disconnected before connecting the wires.
2. Conduct wiring operation in strict accordance with the wiring diagram.
3. Handle carefully during installation to avoid collision with circuit board components and prevent equipment from falling or shell deformation and damage.
4. All line voltage and main cables must use cables certified by the state or professional testing institutions.

5. Appropriate short circuit and overload protection must be provided on the distribution cabinet, and ensure that the voltage does not exceed the voltage specified in the product instructions.

Mounting distance and stability

Ensure that the installation position of the sensor is firm and stable, and avoid shaking the equipment itself, which may affect the accuracy of the test results.

Product Specifications and Changes

Product design specifications are subject to change without notice. The physical product may vary slightly from the illustration.

Disclaimer

Strictly follow the provided installation instructions. The Company is not responsible for any issues caused by incorrect installation. Make sure all steps and environmental conditions are properly followed to guarantee the best performance and accuracy of the equipment. If you encounter any issues during installation, please contact us promptly for assistance.

Maintenance

Clean the outside of the detector

Periodically: when the external lens surface of the detector stained or blocked.

Material used: Soft cloth-Scrub with clean water without any chemical agent.

● Attention!

Do not use chlorinated or abrasive products or alcohol to remove particularly visible dirt.

1. Clean the upper cover of the body with a cloth dipped in water.

2. Wipe with dry cloth after cleaning.

Disposal and scrapping

● Important!

Do not discard scrap parts or any other product materials in the environment.

Seek the assistance of recycling waste companies.

Fault Treatment

Fault	Cause	Solution
The LED indicator is not on	Incorrect supply voltage (Disconnected, low voltage)	Check the power supply and voltage according to the specification sheet.
	The led light is set to off	Set the LED light to on
No one is in the detection area, but the indicator light is also on.	There are moving objects in the area (swinging curtains, rotating fans. etc)	Remove the moving objects or change the position of the sensor.
	The person does not leave the detection zone completely	The person leaves the detection area, and wait for the time delay ends.
	Detection distance is too large	Adjust the detection distance by according to the settings table
	The wiring is wrong	Please connect the wires in the correct way.
LED indicator light is on, but no signal output	The person does not leave the detection zone completely	The person leaves the detection area, and wait for the time delay ends.

Warranty

Warranty period

The equipment is guaranteed for 2 years from the date of original purchase.

Maintenance mode

During the warranty period, the equipment shall be replaced free of charge for non-man-made faults.

The replacement unit is covered for the remainder of the original 2-year warranty period.

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