深圳市易探科技有限公司
Shenzhen EasyDetek Technology Co.,Ltd

EasyDetek易探

24GHz Human Presence Sensor

EDQ252 Specification

EasyDetek Technology, Human Habitation Detection Radar

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EDQ252

Product Features

- AC 90-260V 50/60Hz power input
- 16A relay ON/OFF output
- Small size, supporting embedded independent installation (with a hole diameter of 55mm)
- Adopting human detection technology, supporting motion, micro motion and presence detection
- 24G strong anti-interference antenna can effectively resist various wireless signal interferences such as WiFi and Bluetooth

Electrical Parameters

Input voltage	AC 90-260V 50/60Hz
Operating current	⩽13mA @220V AC
Communication mode	Relay ON/OFF
Standby power	0.5W @220V AC
Relay load	capacitive load 400w (multilight scene＜300w) capacitive load 800w

Functional Parameters

Motion sensing radius①	5.5m max
Presence sensing radius①	4.5m max
Hanging height	3m
Delay time	10s-30min(adjustable),default 30s
Illuminance value②	10、30、50、100、150LUX、disable

Output Parameters

Center frequency	24-24.25GHz
EIRP	5dBm

Environment & Lifespan

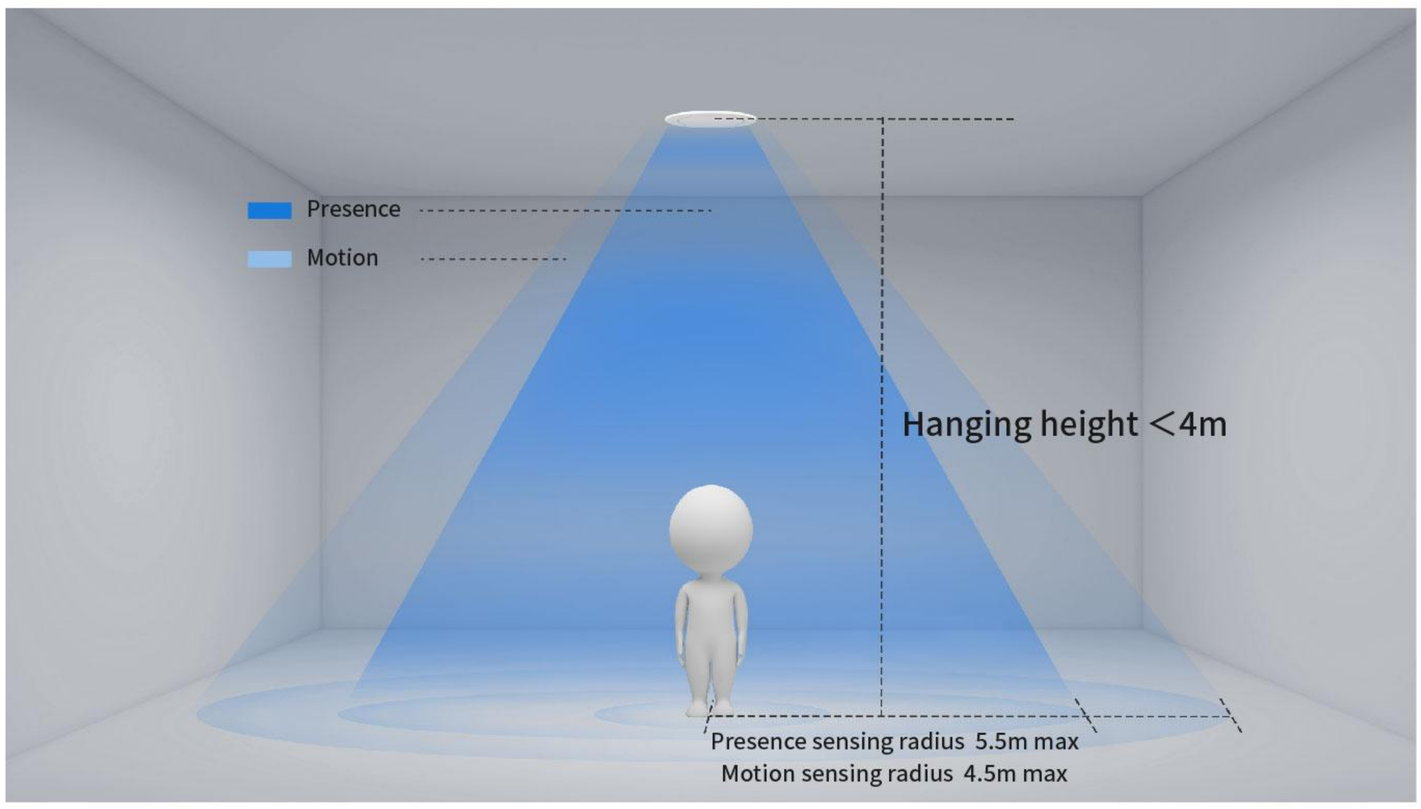
Operating temperature	-30~+60°C
Storage temperature	-35~+85°C

Note：

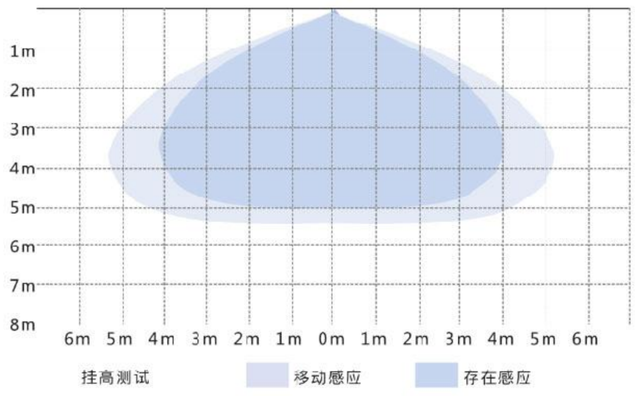
① The testing distance range is based on a sensor hanging at a height of 3m and indoor installation environment testing. The tester is 170cm tall, weighs 65-75kg, and walks at a speed of 1m/s.Installation in different scenarios may cause range changes, subject to actual testing

② Due to the spectral characteristics of photosensitive devices, the illuminance value is uniformly tested under natural light conditions.

Detection Schematic Diagram



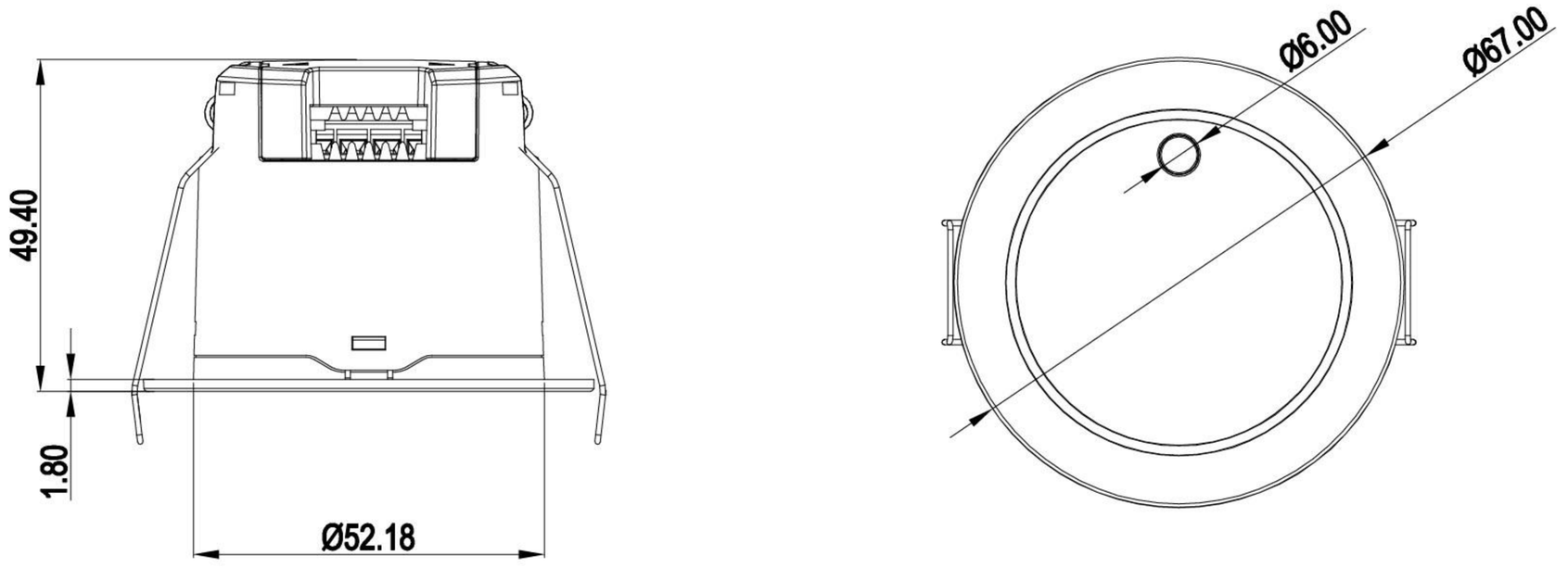
Radar induction schematic diagram



Presence sensing radius 5.5m max
Motion sensing radius 4.5m max

Product Dimension Diagram

Unit: (mm)



EDQ252 Dimensional tolerance：±0.2

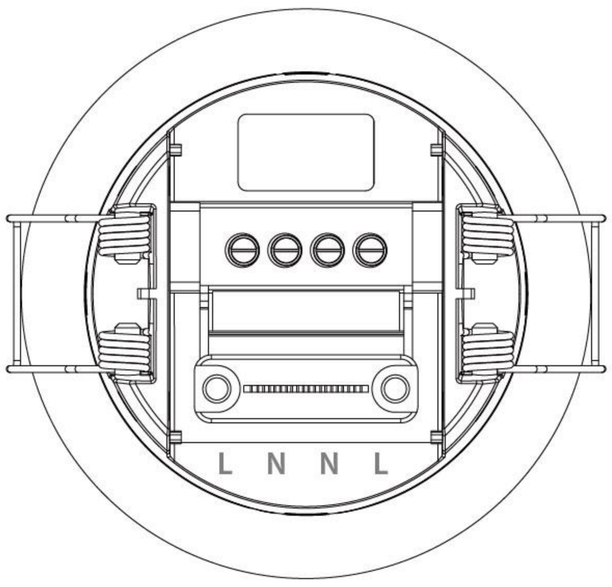
Indication Status

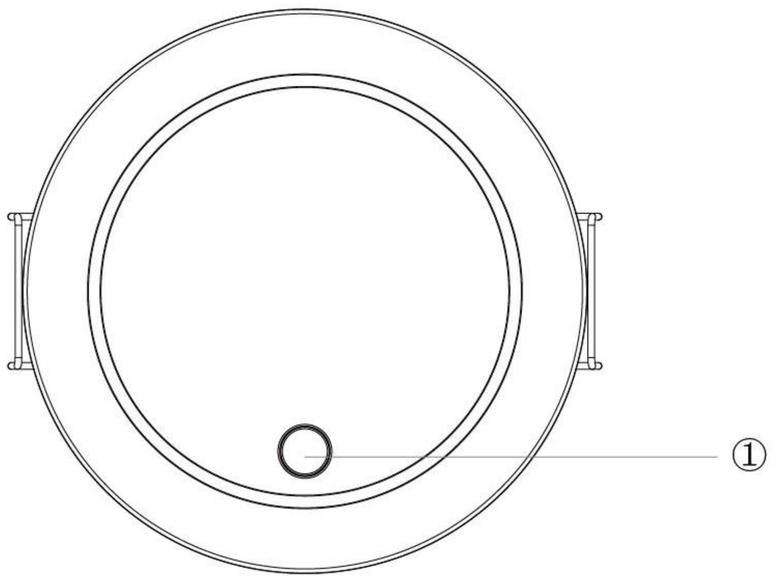
1.Power on initialization: The LED indicator light is on, the relay is engaged, and it lasts for 5 seconds; After the end, the LED indicator light will turn off, the relay will disconnect, and the sensor will enter the unmanned locking status for 2 seconds; After the locking is completed, it enters the normal sensing status.

2. Operating mode: When the sensor enters from unmanned to manned, the relay will close and the LED indicator light will flash once every 5 seconds. After unmanned and the delay ends, the relay will disconnect and the indicator light will stop flashing.

Note: When the motion is triggered multiple times within 5 seconds, the indicator light will only flash once

Pin and Button Description



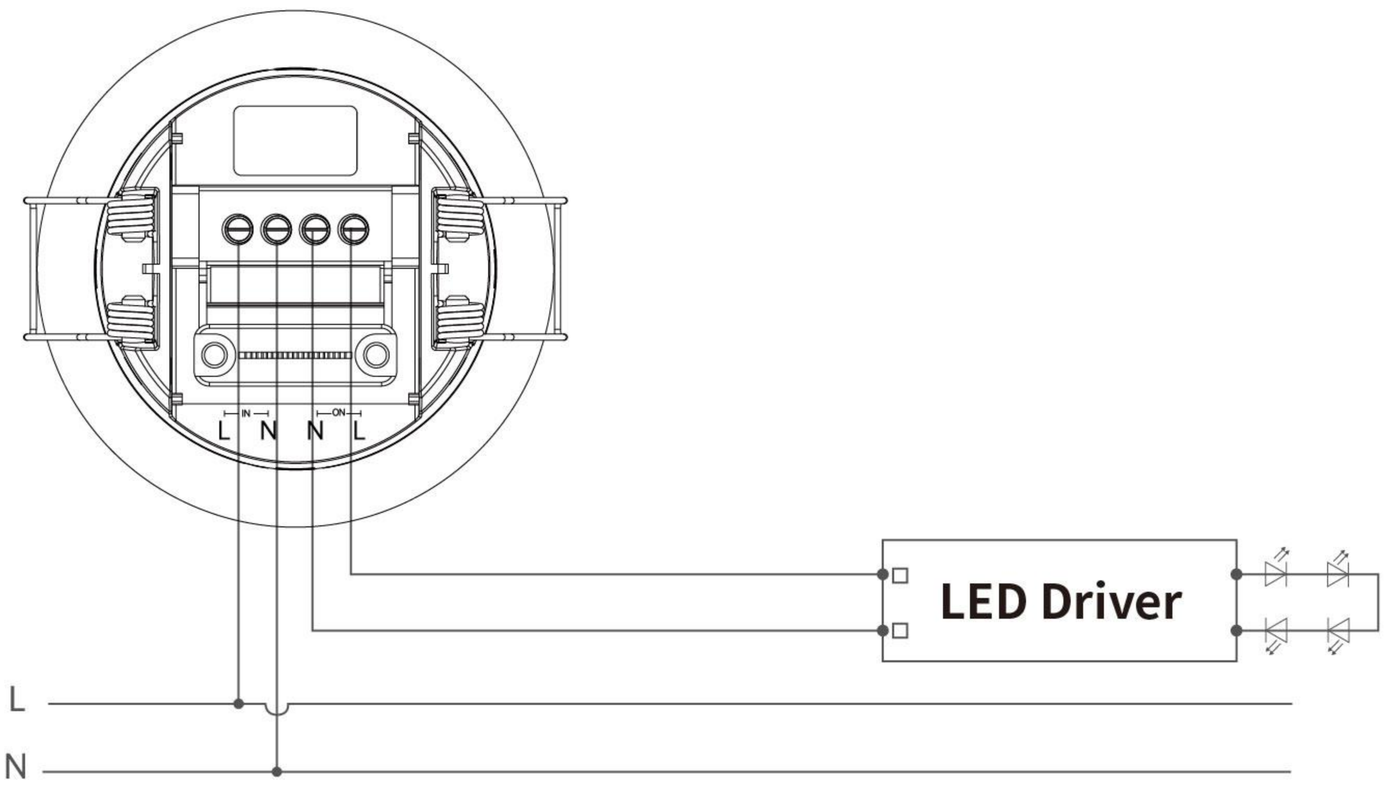


Pin	Description
L	L line INPUT
N	N line INPUT
N	N line OUTPUT
L	L line OUTPUT
button①	reset button

Button 1: Click the button 3 times to change the delay to 10 seconds.

Pressing and holding the button for about 3 seconds until the green indicator light stays on, then restoring the sensor to its factory settings.

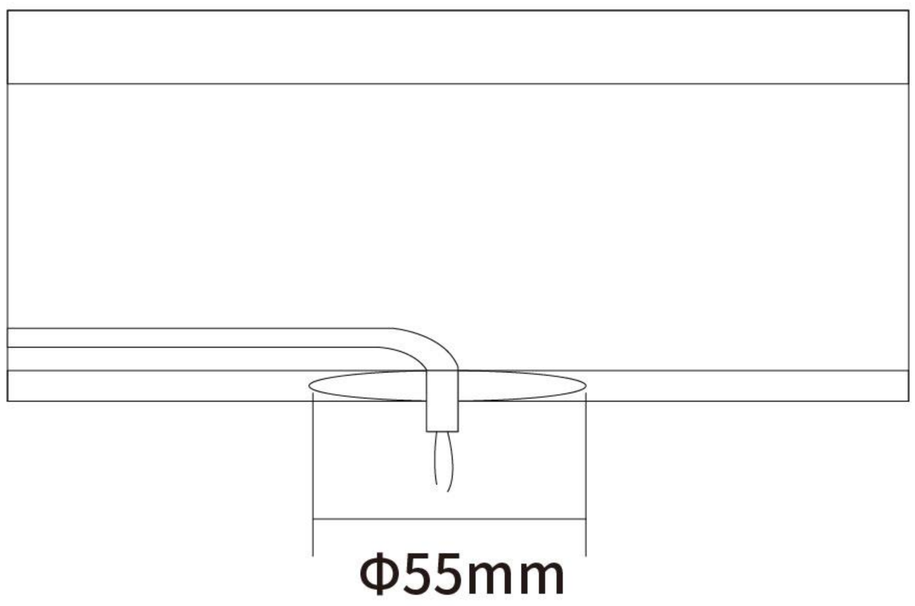
Wiring Diagram / Dialing Instructions



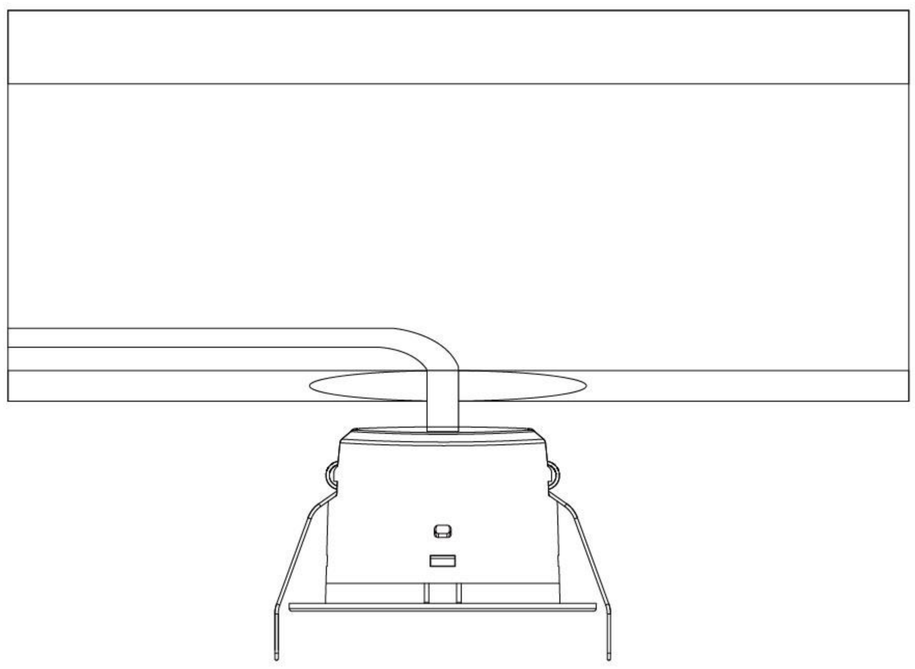
Delay time	1	2	Sensing range	3	4	light-sensitive	5	6
10min	ON	ON	25%	ON	ON	50lux	ON	ON
5min	ON	OFF	50%	ON	OFF	30lux	ON	OFF
1min	OFF	ON	75%	OFF	ON	10lux	OFF	ON
30s	OFF	OFF	100%	OFF	OFF	disable	OFF	OFF

Installation Diagram

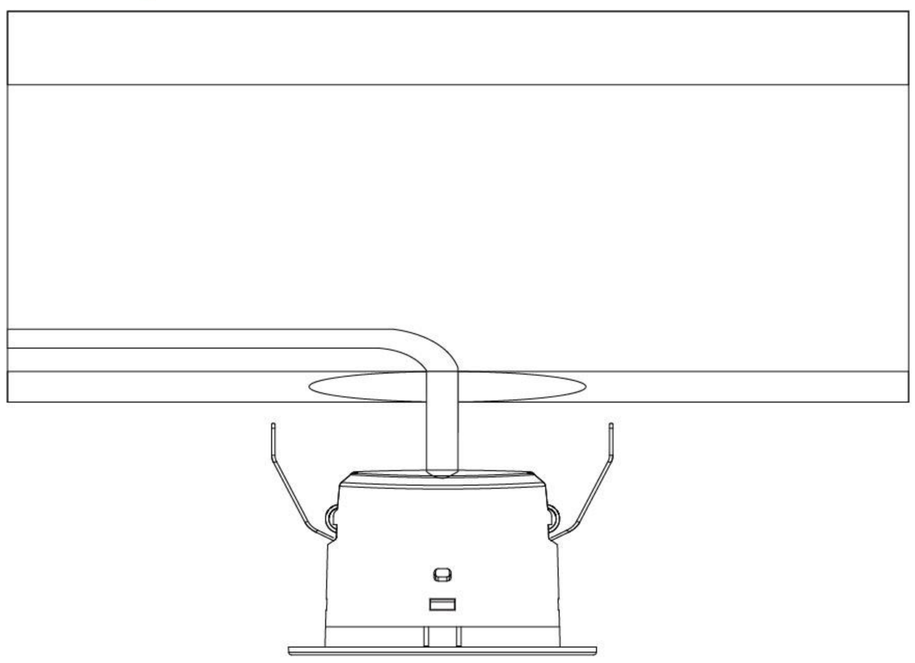
1、Ceiling perforation, reserved wires



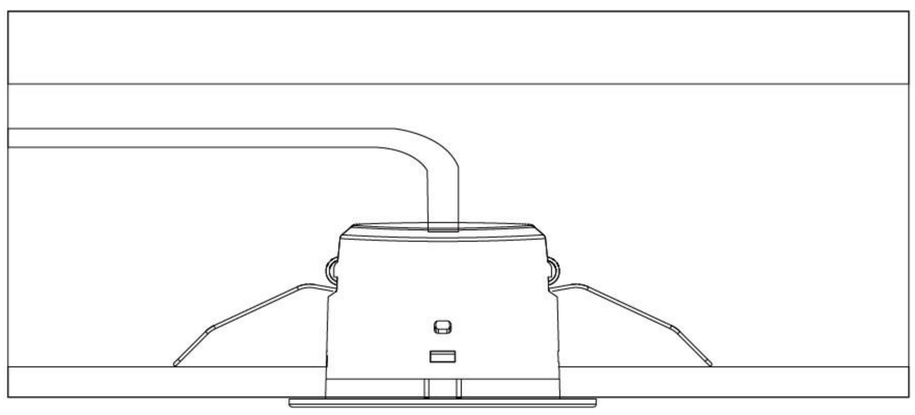
2、Equipment and wire connection



3、Adjust the installation buckle



4、Embedded and fixed, installation completed



Application Scenarios

Smart home

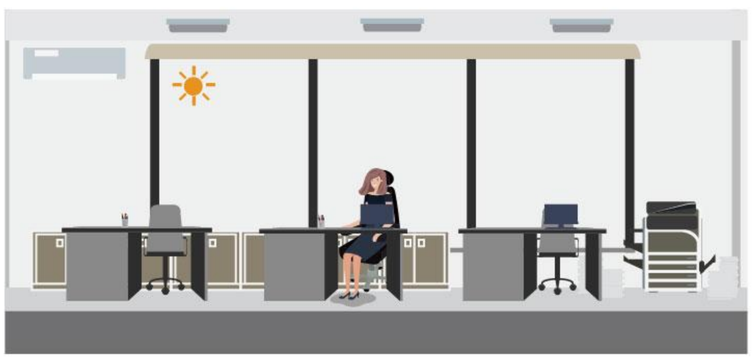
Smart light

Smart business

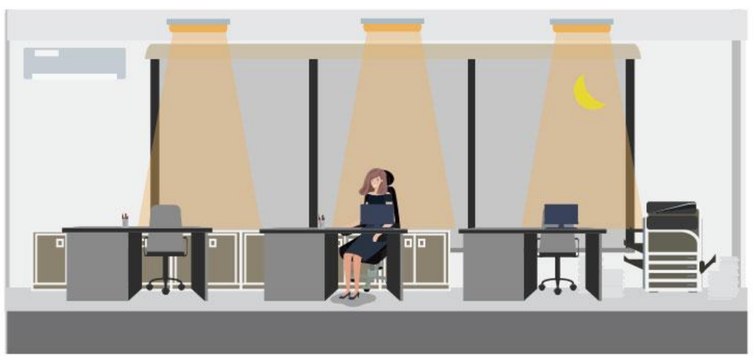
Medical and health care

Function Description

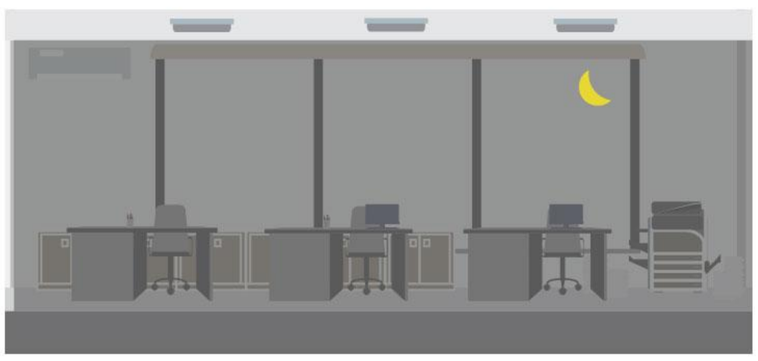
Illuminance Function On



When the ambient light is sufficient, the sensor detects moving objects and the light will not automatically turn on.

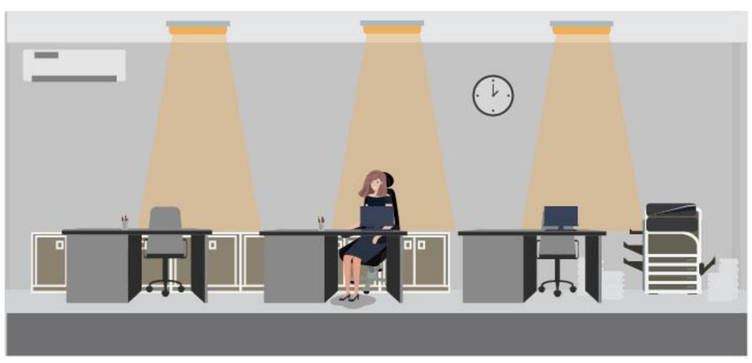


When the ambient light is insufficient, the sensor detects moving objects and the light automatically lights up.



The moving object leaves, and after a preset delay, the light will automatically turn off.

Illuminance Function Off



When the sensor detects a moving object, the light automatically lights up and enters the set delay time.

After the delay time, if the sensor cannot detect the moving object, the light fixture will turn off.

Product Naming Rules

ED	Frequency Band	Product Categories	Product Subdivision	Product Number	Delay Time	Serial number
ED	Q	2	5	2	Y	
EasyDetek	C 5.8GHz	1 Microwave sensor module	0 Ultra-low-power series	0-9, A-Z	Y Has light sensor	
	X 10.5GHz	2. Microwave radar switch	1 Flagship series		N no light sensor	
	Q 24GHz	3 Radar antenna	2 Short-distance series		P programmable	
	V 60GHz	4 MCU	3 Adjustable series			
	W 77GHz	5 Microwave power supply	4 External antenna series			
		6 IC	5 General Series			
		7 Other	6 To be defined			
		8 Networking	7 To be defined			
			8 Basic series			
			9 High altitude series			

Historical Revision Records

Versions	Time	Descripcion	Note
V2.0	2024-11-21	Software and hardware version updates	-

Precautions

1、When installing the product, it should be kept at a distance of more than 50cm from the exhaust fan and air conditioning outlet. The vibration generated by the exhaust fan and air conditioning outlet during operation can cause false triggering of sensor detection. During installation, it is also necessary to avoid areas where external people or objects can cause vibrations.

2、The product has certain penetrability to thinner wooden boards and glass materials, and these two factors should be considered when installing the fabric points. At the same time, avoiding large areas of metal in front of the sensor to prevent accidental triggering.

3、When there is a large area of glass and smooth tiles on the decorative surface within the detection range of the sensor, electromagnetic wave reflection will be strengthened. It is recommended to adjust the sensing range appropriately according to the size of the space.

4、When multiple sensors are applied in the same site, it is recommended that the installation distance of the product be greater than 2.5 meters. Installing too close may cause periodic false alarms for individual sensors.

5、The electromagnetic waves emitted by sensors have different reflectivity of obstacles in practical application environments, resulting in different sensing ranges. This is a normal phenomenon, for example, in corridors and wide rooms, the sensing distance may vary slightly.

6、EasyDetek Technology Co., Ltd is committed to providing customers with high-quality and better experience radar sensors. Product version updates and iterations will not be notified separately.