

5.8GHz Human Motion Sensor EDC287 Specification



EDC287



Product Features

- **5.8G Microwave Human Motion Sensor**
- **Supports inline stand-alone installation (opening $\phi 55\text{mm}$)**
- **Support ambient light recognition**
- **Supports dialling code configuration of sensor parameters**
- **Embedded multiple digital filtering algorithms for higher immunity**
- **Comply with the new ERP standard, standby power consumption $<0.5\text{W}$**

Electrical Parameters

Input voltage	AC 90-260V 50/60Hz
Operating current	$\leq 12\text{mA}$ @220V AC
Output voltage	TUYA ON/OFF
Power consumption	$< 400\text{W}$

Functional Parameters

Motion Sensing Radius ^①	4-6m
Hanging height	$\leq 3\text{m}$
Delay time	5s, 1min, 5min, 10min
illumination ^②	10lux, 30lux, 50lux, disable

Output Parameters

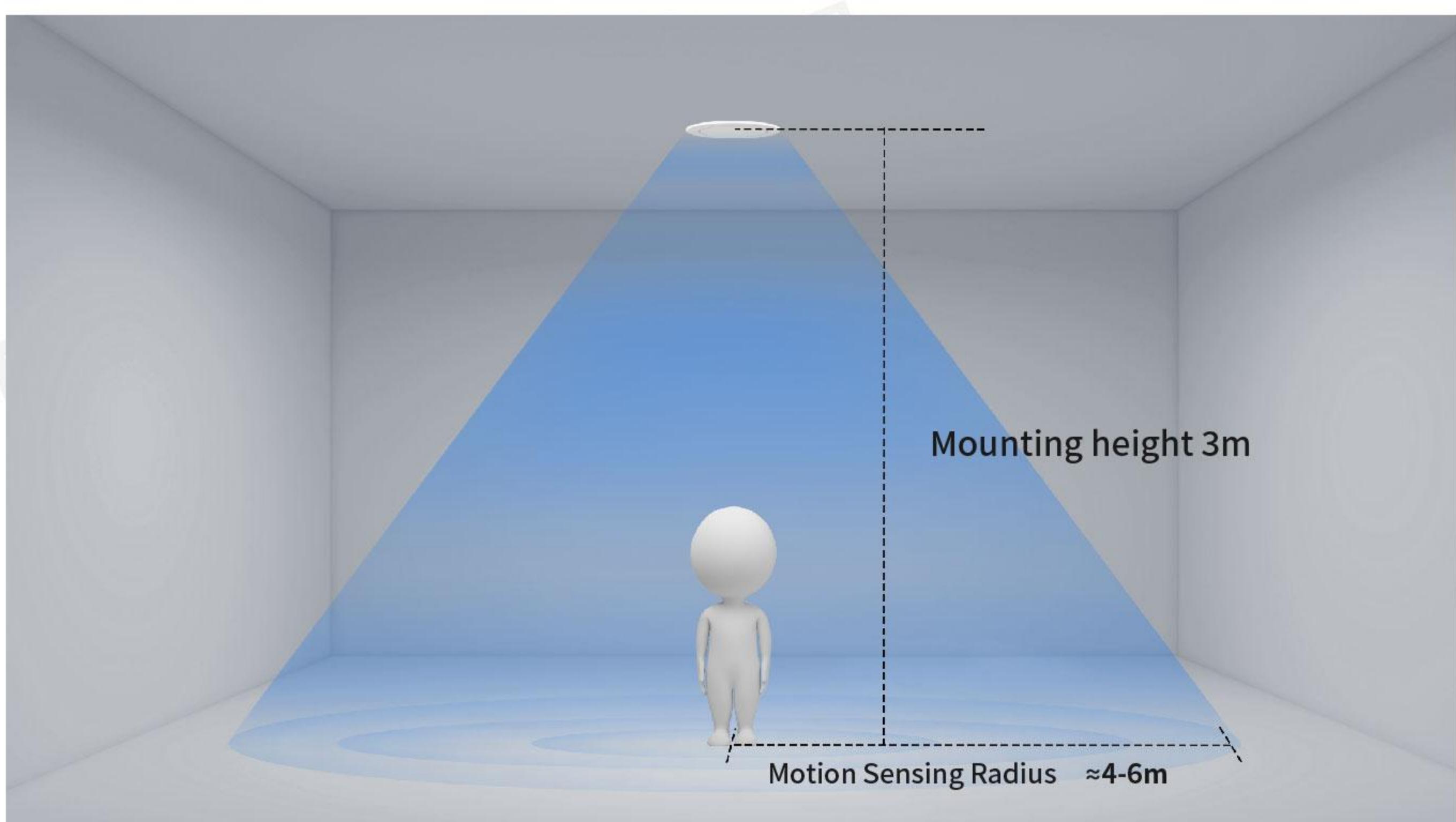
Center frequency	5.8GHz $\pm 75\text{MHz}$
3dB beam angle	90° (XZ plane) 90°(YZ plane)

Environment & Lifespan

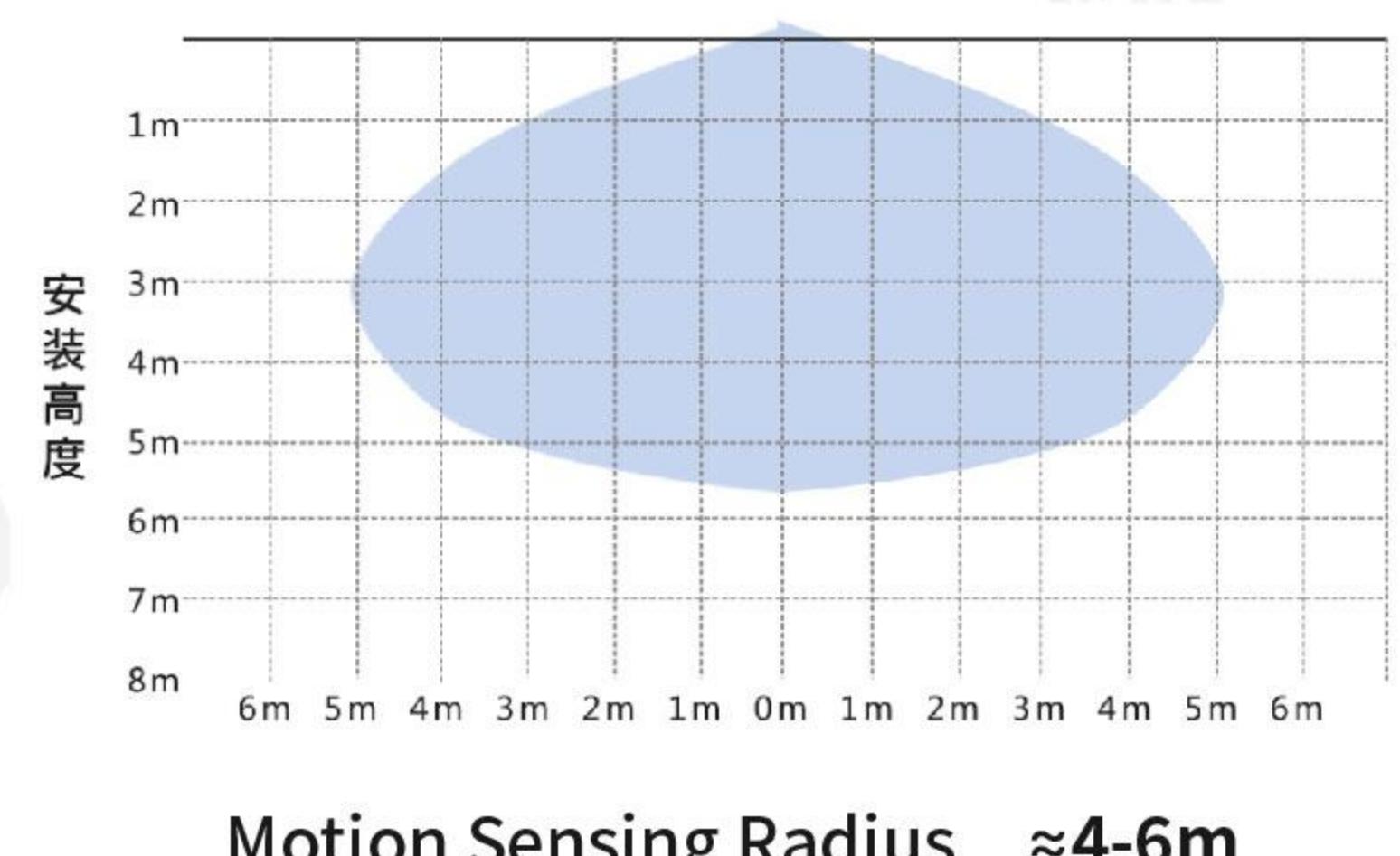
Operating temperature	-20~+60°C
Storage temperature	-20~+85°C

- 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



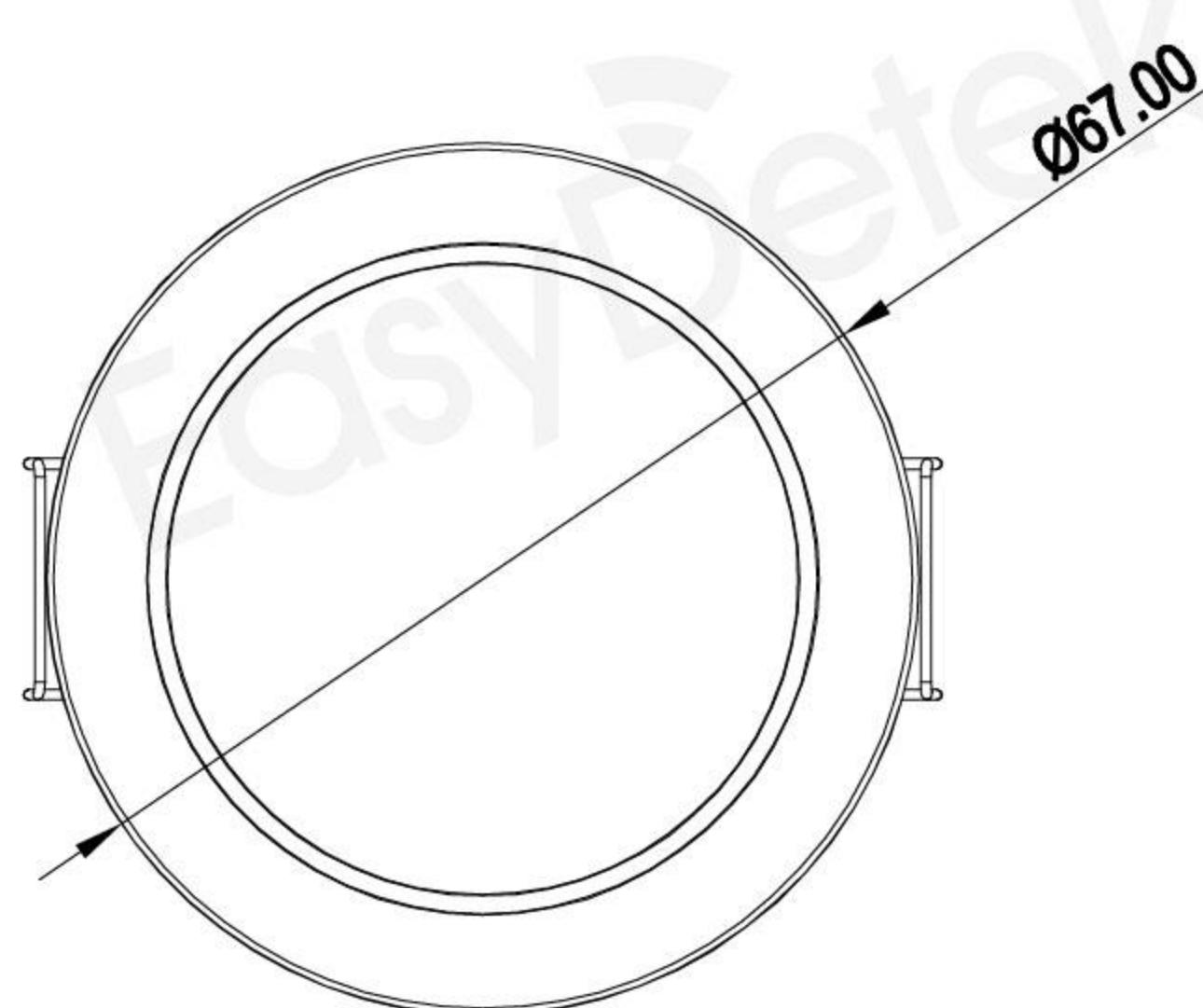
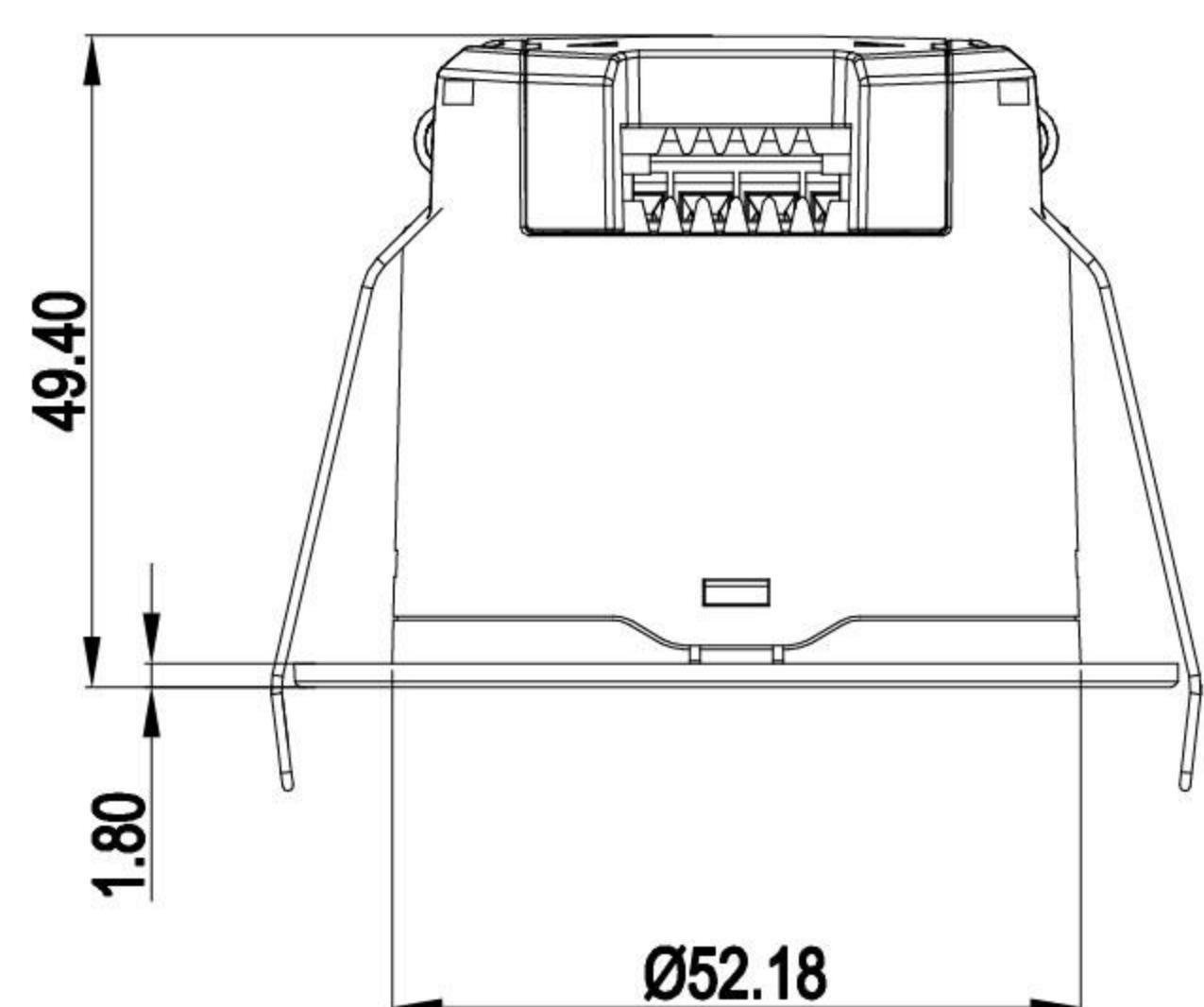
Radar Sensing Schematic



Motion Sensing Radius ≈4-6m

Product Dimension Drawing

Unit: (mm)



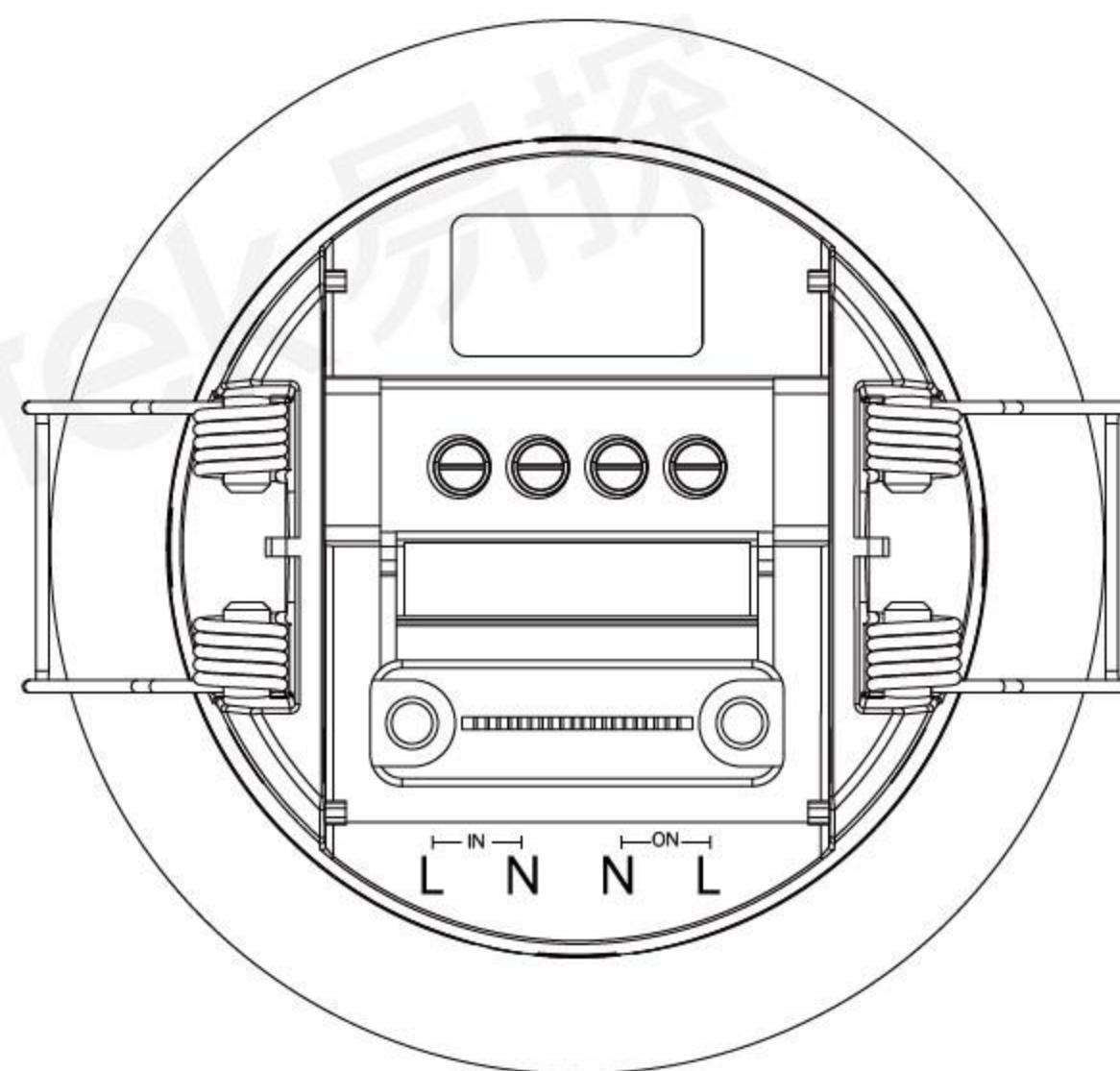
EDQ253 Dimensional tolerance: ± 0.2

Indicator Status

1. Initialization: the power-on relay is closed for 5s, the relay is disconnected at the end of initialisation, and the radar is blocked for 2s.
2. Operating mode: If detect a person, the relay closes, the connected load lamps and lanterns light up, no one movement will start to calculate the delay time, if detect a person again, the delay time will be postponed. If no one is detected, the relay will be disconnected at the end of the delay.

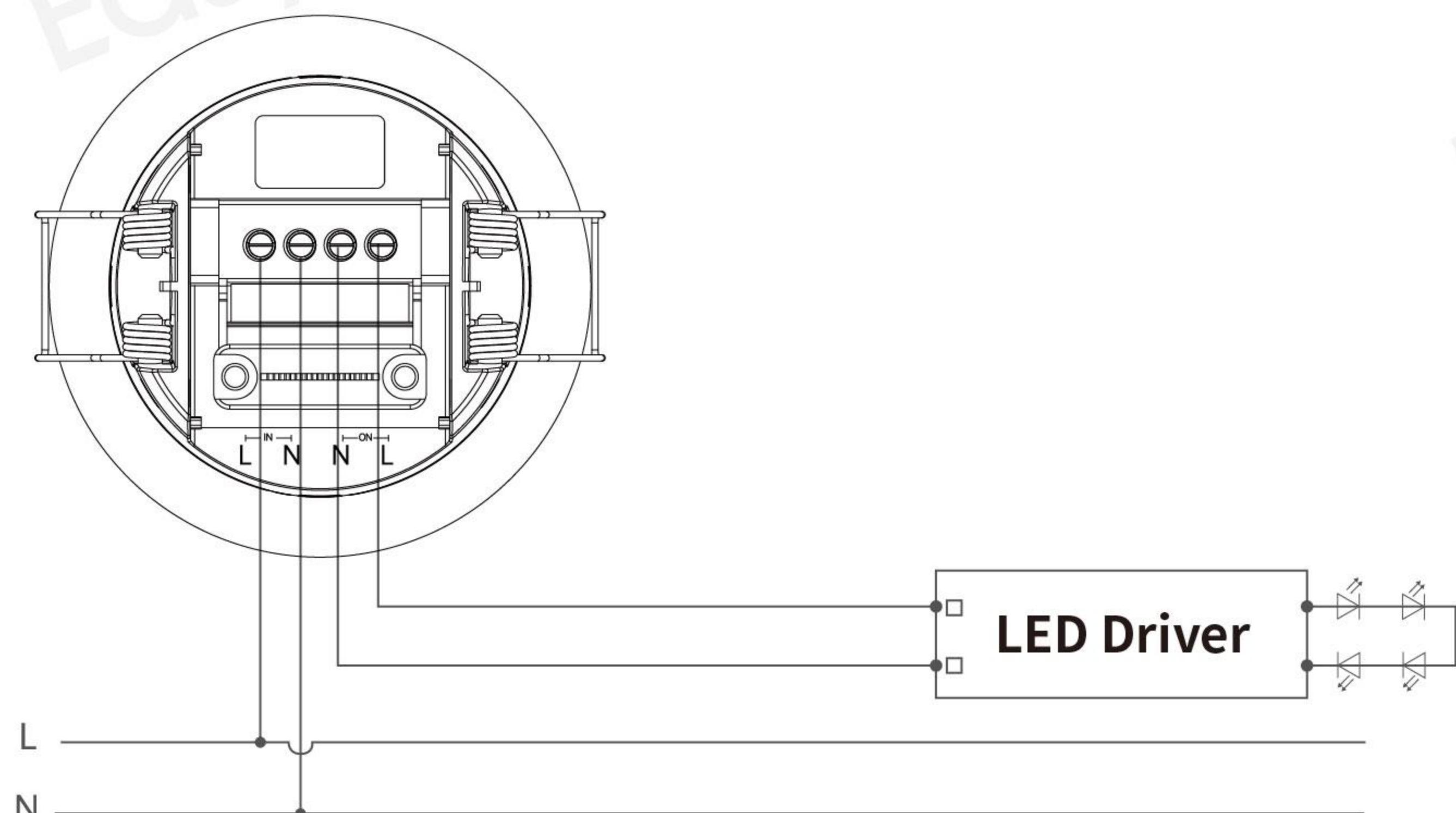
Note: The device has no indicator light, the judgement of the state is only based on whether the relay is working properly.

Pin and Key Description



Pin	Description
L	INPUT
N	INPUT
N	OUTPUT
L	OUTPUT

Wiring Diagram / Dialling Instructions



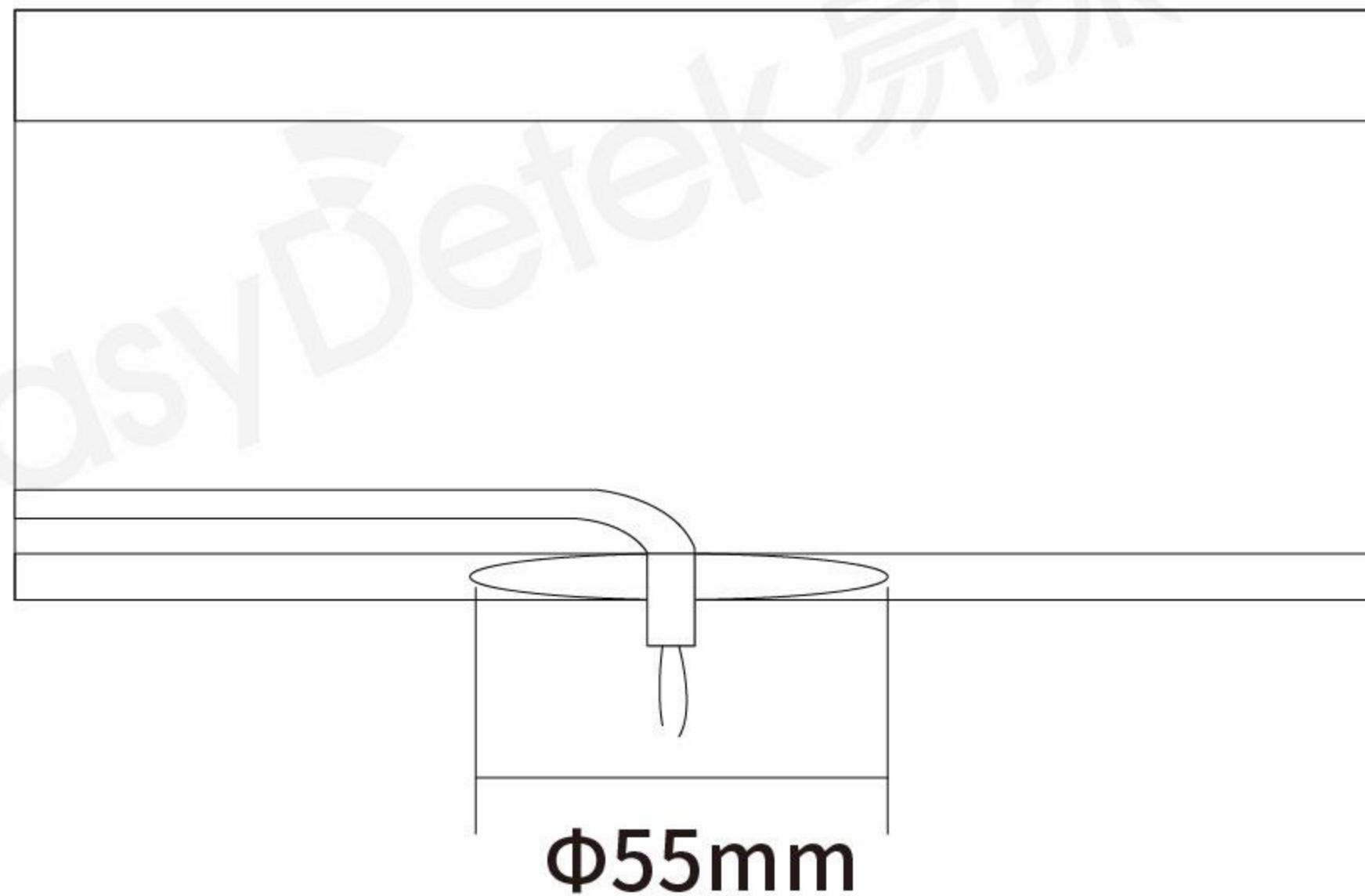
delay time	1	2	Sensing range	3	4	Photosensitive	5	6
10M	ON	ON	25%	ON	ON	50lux	ON	ON
5M	ON	OFF	50%	ON	OFF	30lux	ON	OFF
1M	OFF	ON	75%	OFF	ON	10lux	OFF	ON
5S	OFF	OFF	100%	OFF	OFF	close	OFF	OFF

Remarks:

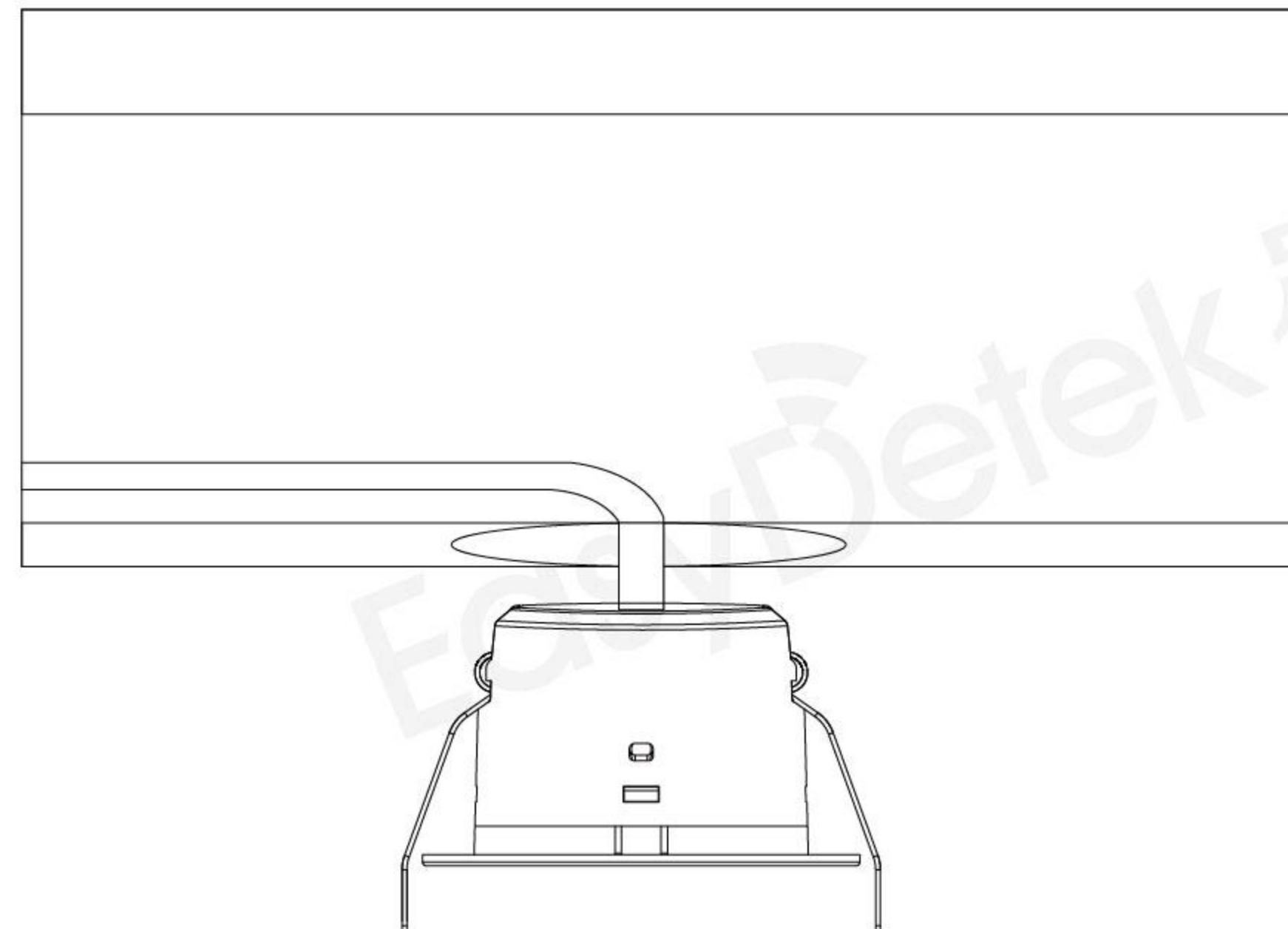
1. If you change the setting of the dial code after initialisation on power up, you will hear the relay action once within 1 second, which means the setting is successful; if you change the setting of the dial code in the case of power failure, it will be updated to the latest setting automatically after power up.
2. The default parameters are: delay time 5s - sensing range 100% - photosensitive invalid

Installation Diagram

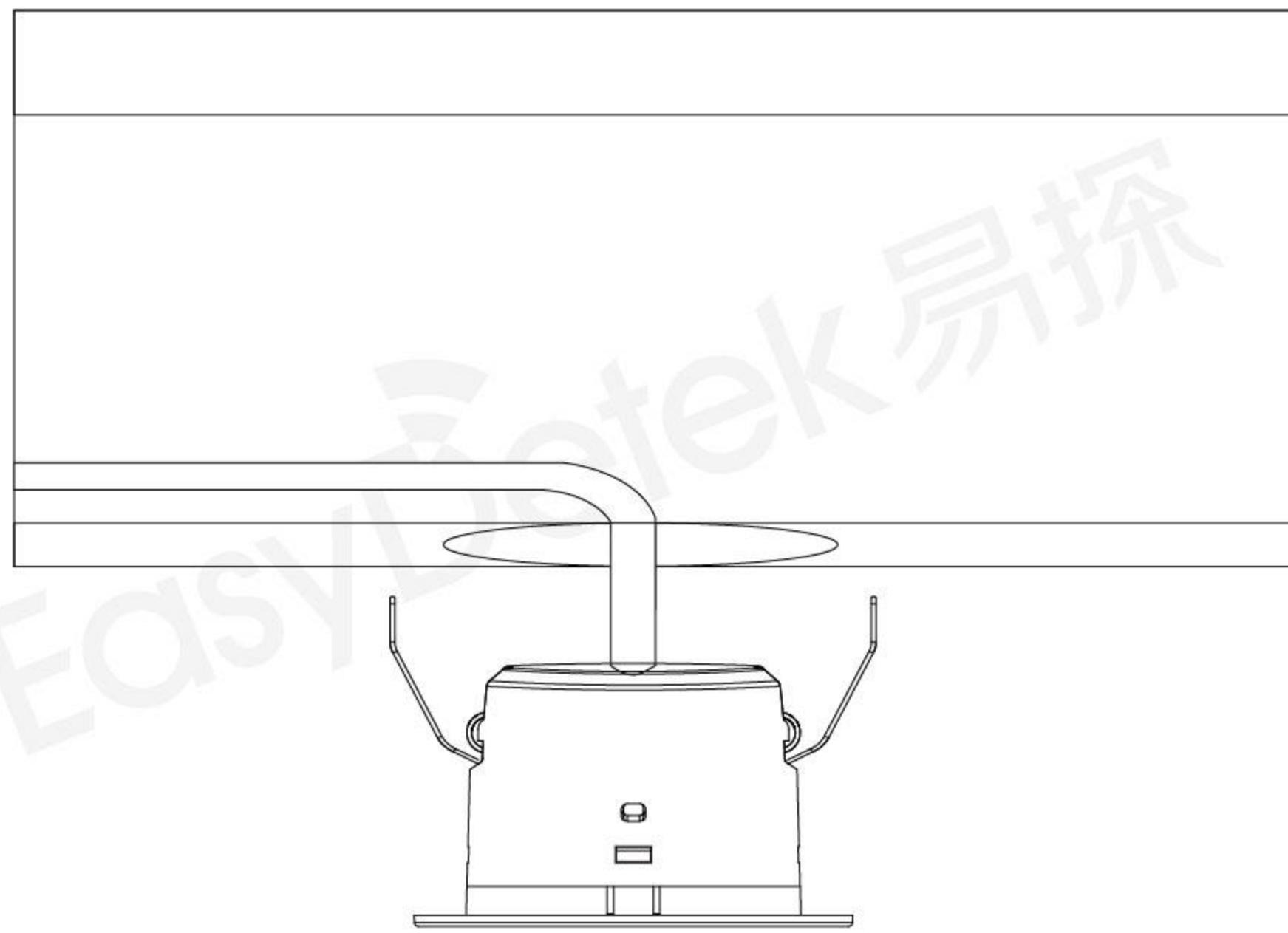
1. Punching holes in the ceiling and reserving wires



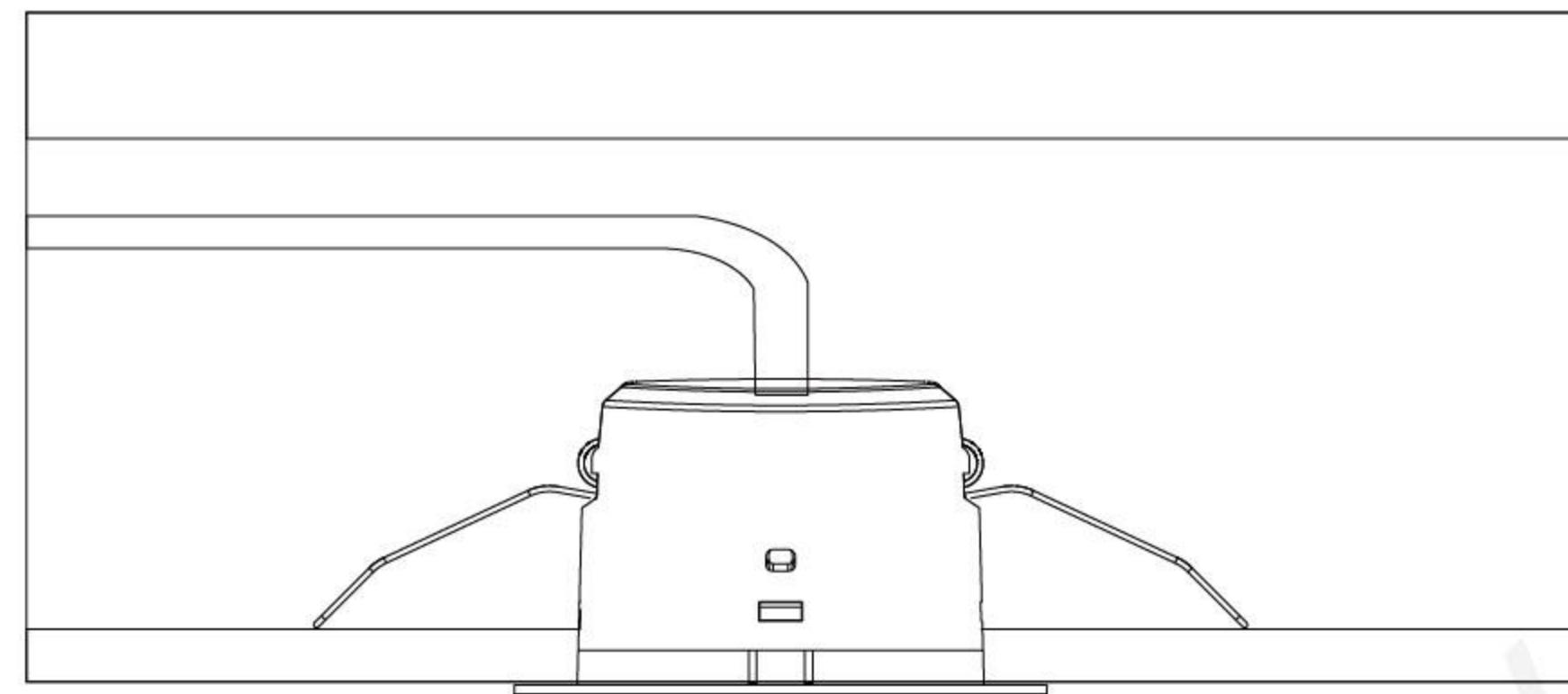
2. Equipment and wire connection



3. Adjust the mounting clips



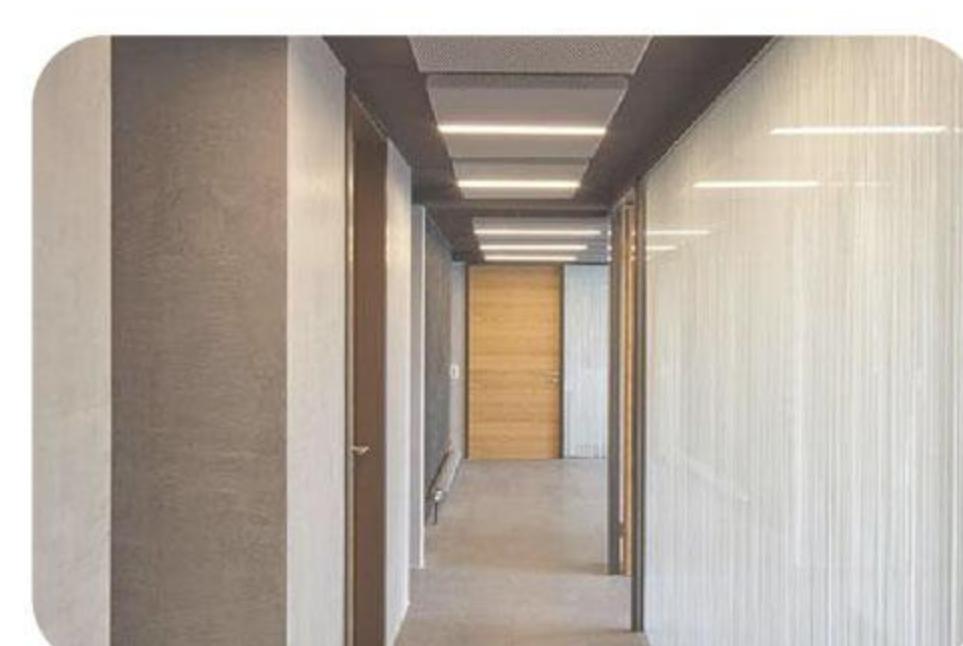
4. embedded fixed, installation is complete



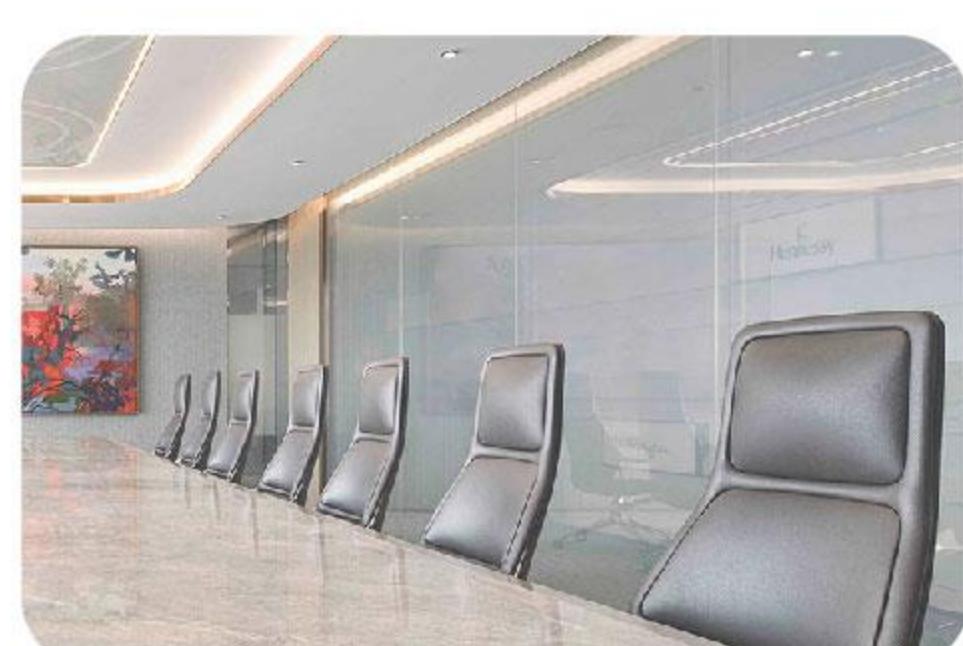
Application Scenarios



smart home



smart light



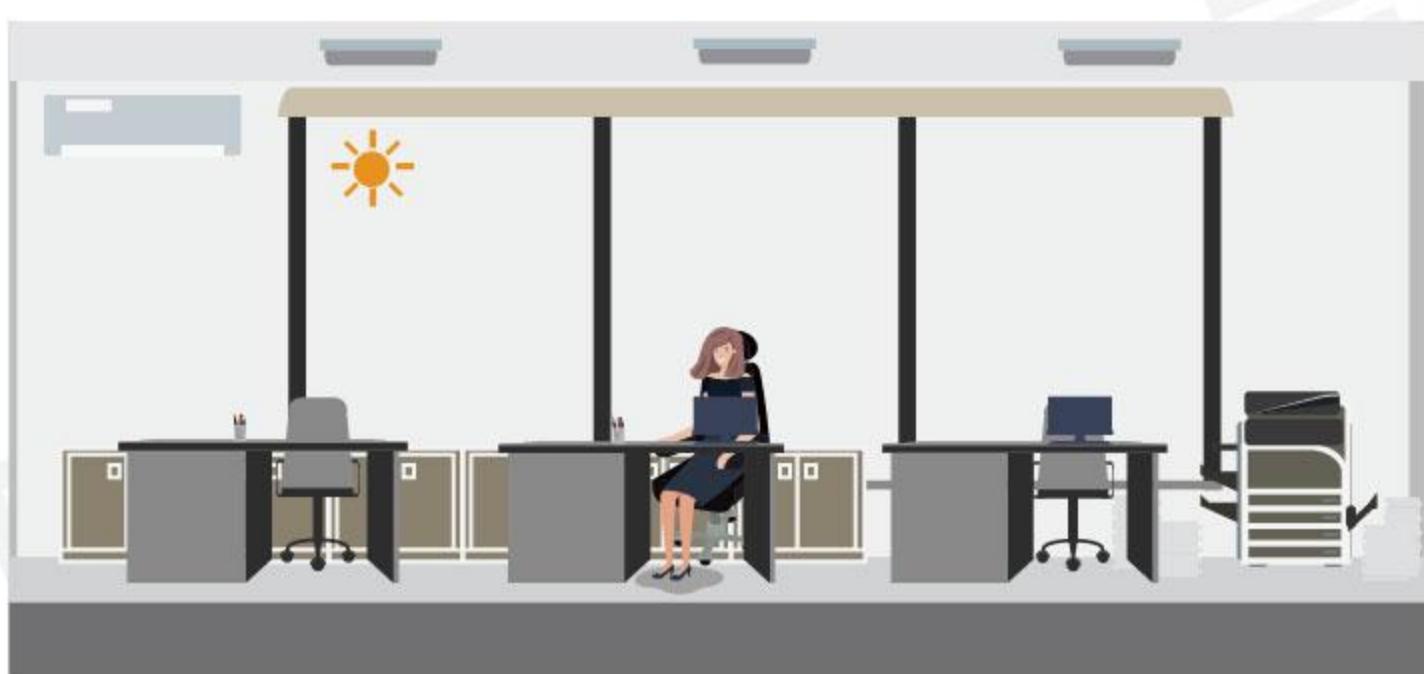
Smart Business



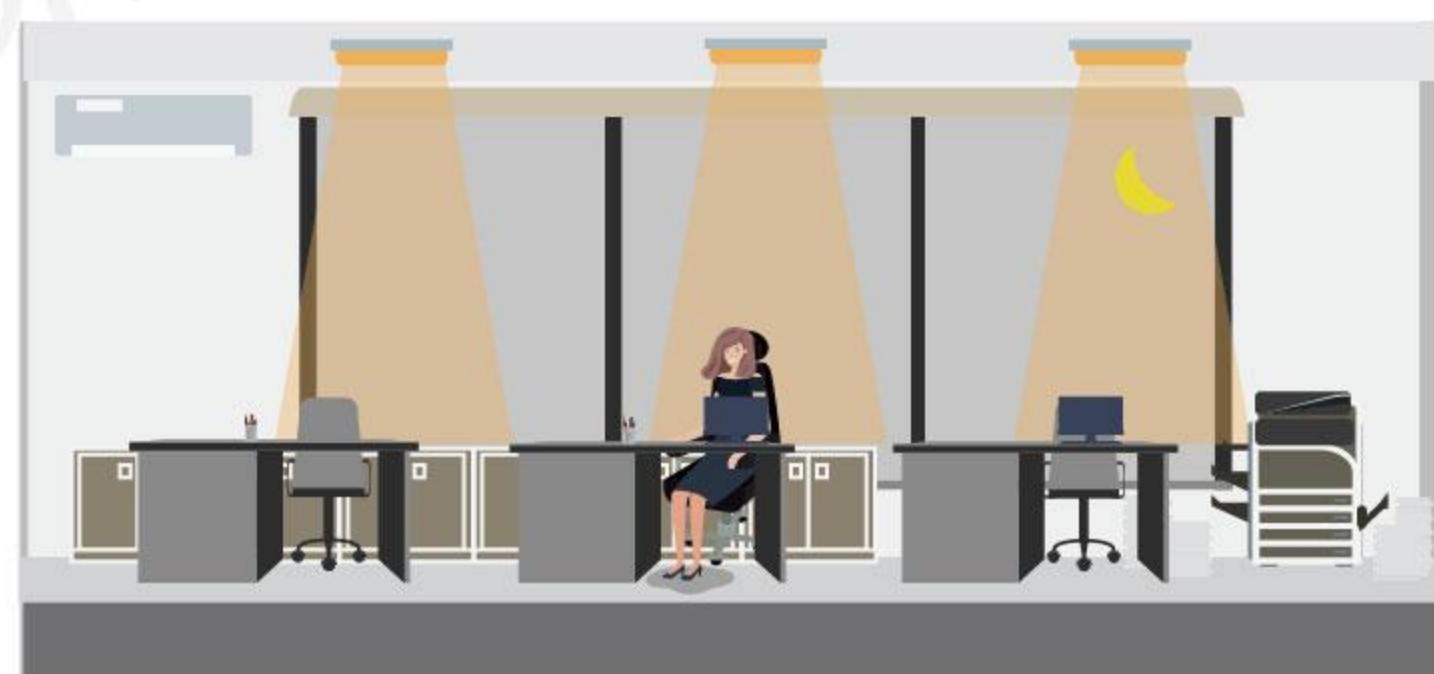
Healthcare and recreation

Functional Description

Illumination function on



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

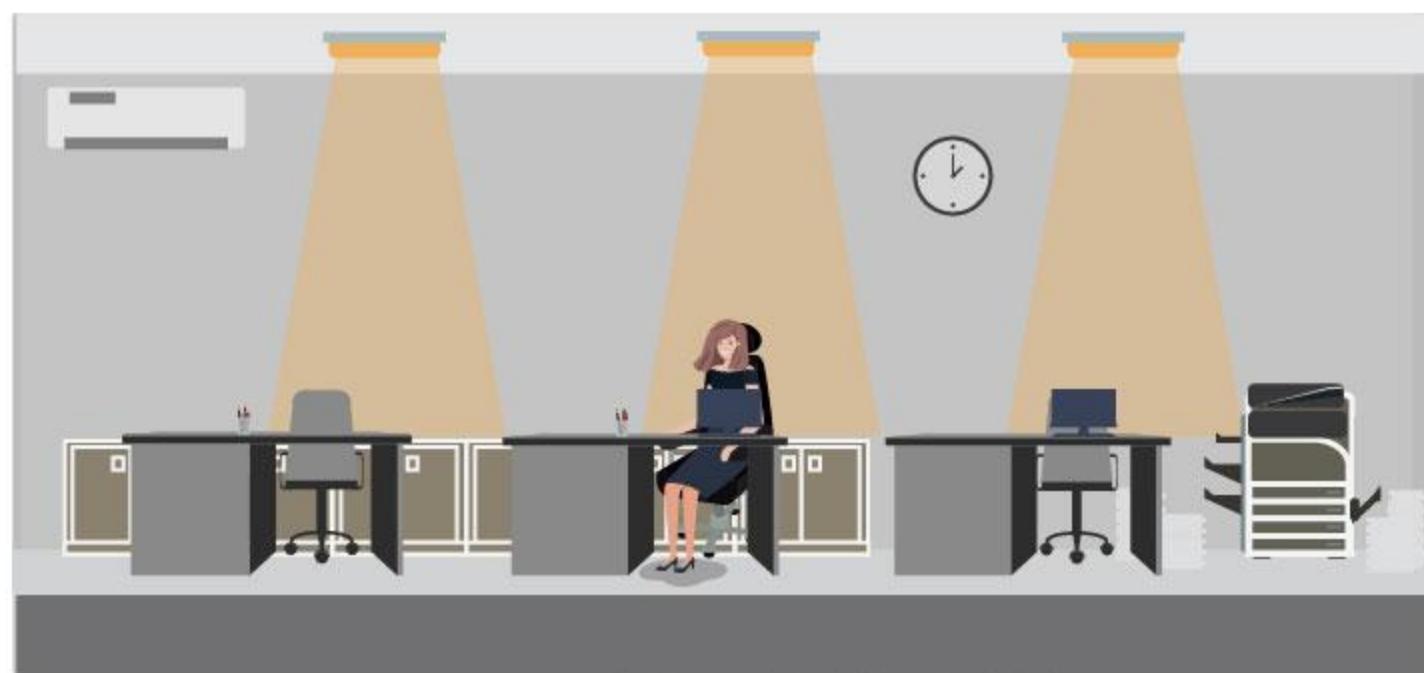


When the ambient light is insufficient, the sensor detects moving objects and the light automatically lights up.



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

Illumination 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 Law

ED	Frequency Band	Product Categories	Product Subdivision	Product Number	Delay Time	Serial number
ED	Q	2	8	7	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			

Configuration Version Description

【Material Number】:

【Hardware】:

【Software】:

History Revision Record

Versions	Time	Description	Note
V1.0	2024-08-15	first edition	-

Precautions

- 1, the product should be installed with the exhaust fan, air conditioning vents to maintain a distance of more than 50CM, exhaust fans, air conditioning vents, such equipment work, the vibration generated by the sensor will detect the formation of false triggers. Installation also needs to avoid outside people or objects caused by vibration activities in the region.
- 2, the product has a certain degree of penetration of thin wood, glass material, the installation of the distribution point should take into account these two factors. At the same time to avoid large areas of metal in front of the sensor, so as not to cause false triggers.
- 3, the sensor detection range, the decorative surface has a large area of glass and smooth tiles, electromagnetic wave reflection will be strengthened, it is recommended that according to the size of the space to reduce the appropriate induction range.
- 4, a number of sensors in the same site application, recommended product installation spacing greater than 2.5 m, the installation distance is too close to the individual sensor cycle may trigger false alarms.
- 5, the sensor emits electromagnetic waves in the actual application environment, the reflectivity of the obstacles are different, bringing different sensing range, which is a normal phenomenon, for example, in the corridor and the wide room, the sensing distance will have a slight difference.
- 6, Easy to explore technology is committed to providing customers with high quality and better experience of the radar sensor. Product version updates and iterations without notice.