

# 5.8GHz Human Motion Sensor EDC286 Specification



smart home

Smart Lighting

Smart Business

Healthcare and recreation

EDC286



Product Features

- Digital filtering algorithms with high immunity to interference
- Small size, inline stand-alone installation (opening Φ45mm)
- 12-24V DC input, dry contact output
- Support ambient light recognition

Electrical Parameters

Input voltage	12-24V DC
Operating current	75mA (max) @12V DC 40mA(max)@24V DC
communication method	Normally open/closed dry contact
Standby power consumption	≤0.5W@24V DC
Dry contact loads	40V / 1.5A max

Output Parameters

Transmitting frequency	5.8GHz±75MHz
Transmit power	1dBm

Functional Parameters

Motion Sensing Radius <sup>①</sup>	4.5m(Adjustable)
Hanging height	3m
Delay time	5s/30s/1min/3min/5min/10min/20min/30min (Remote control adjustable)
photosensitivity threshold	5lux/15lux/30lux/50lux/100lux/150lux /disable(Remote control adjustable)

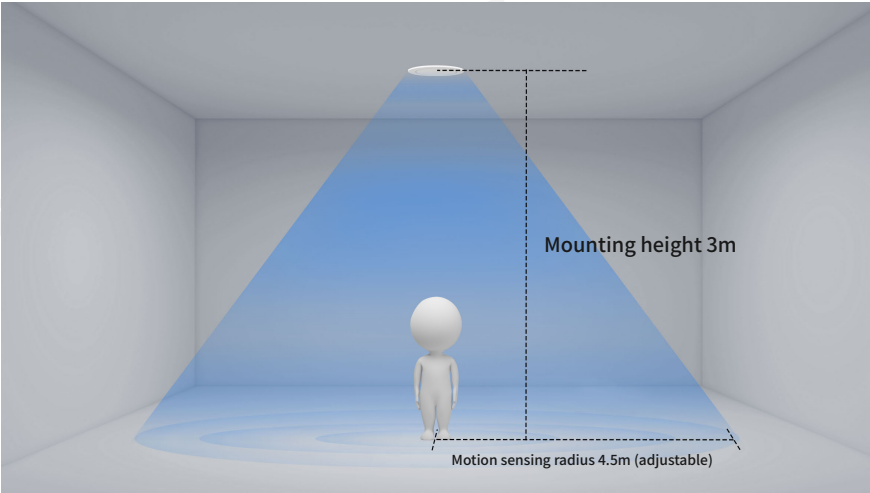
Environment & Lifespan

Operating temperature	-30~+60℃
Storage temperature	-35~+85℃

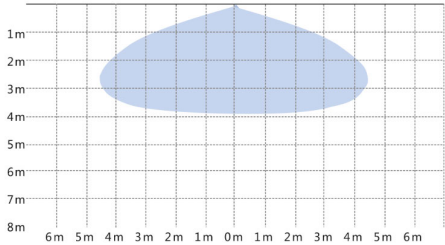
Notes:

- ① The test distance range is based on an indoor installation environment with the sensor mounted at a height of 3m. The tester is 170cm tall, weighs 65-75kg, and walks at a speed of 1m/s. The range may vary depending on the installation scenario; actual testing is subject to change.
- ② Due to the spectral characteristics of photosensors, illumination values are tested under natural light conditions.

Detection Schematic

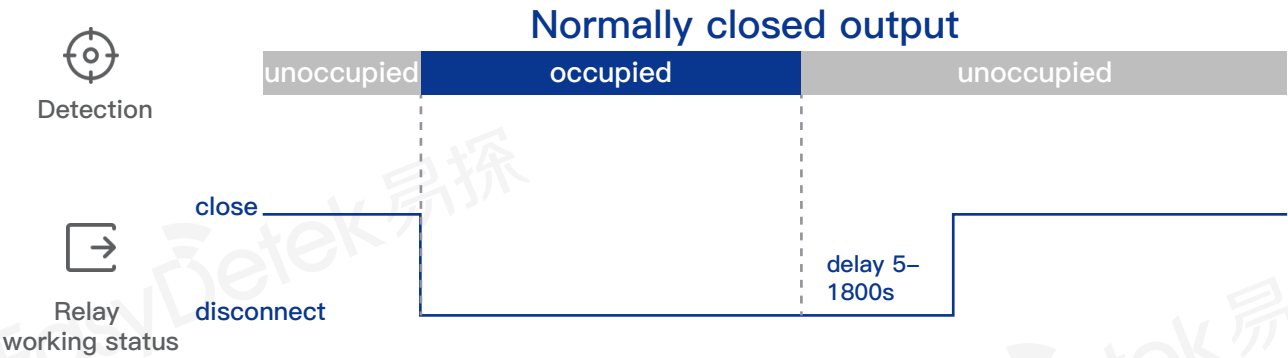
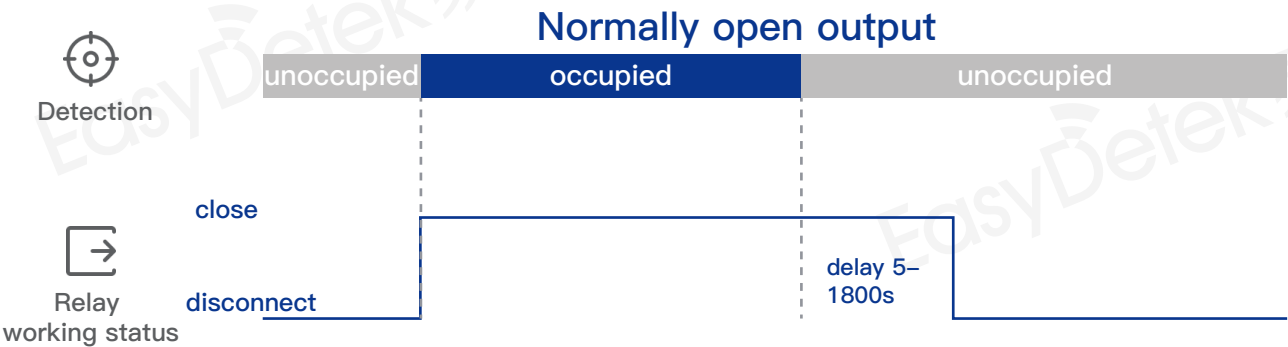


Radar Sensing Schematic



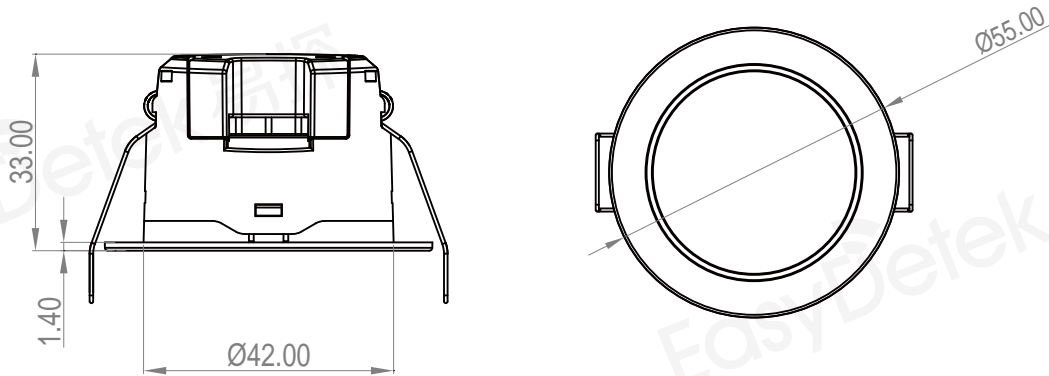
Motion sensing radius 4.5m (adjustable)

Output Description



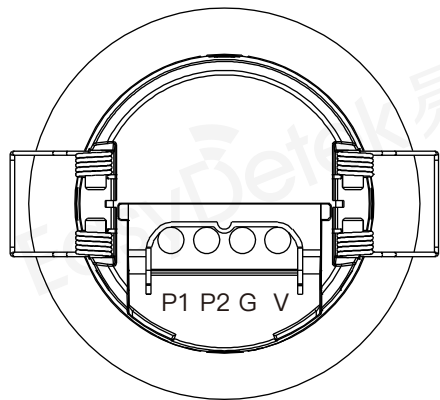
Product Dimension Drawing

unit: (mm)



EDC286 Dimensional tolerance: ±0.2mm

Pin Description

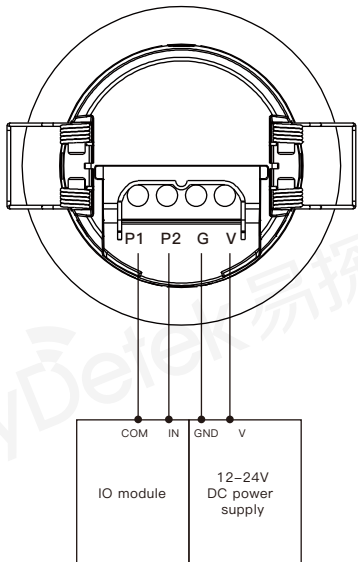
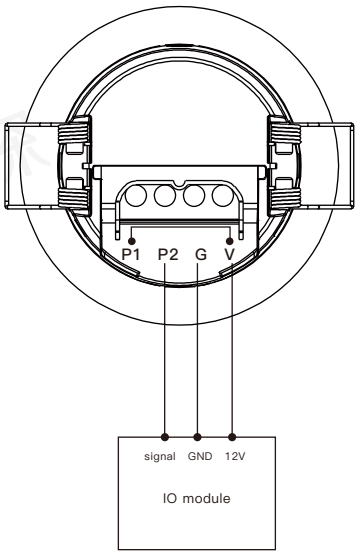
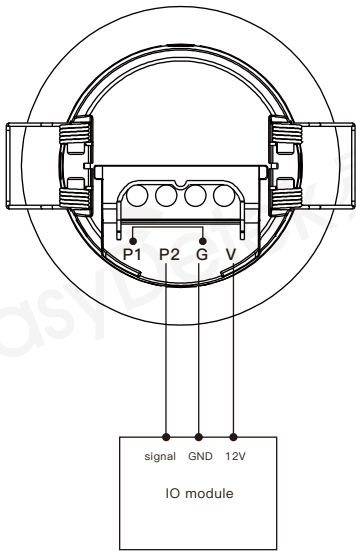


Pin	Description
P1	Dry contact (non-polarized)
P2	
G	GND
V	DC 12-24V powered

Wiring Diagram

three-wire common cathode    three-wire common anode

four-wire system



## Timing diagram

1. Initialization: In the default normally open dry contact mode, when the device is powered on, the LED indicator will illuminate steadily for 5 seconds, the dry contact will close, and after initialization, the LED indicator will turn off and the dry contact will open.

In the normally closed dry contact mode, when the device is powered on, the LED indicator will illuminate steadily for 5 seconds, the dry contact will open, and after initialization, the LED indicator will turn off and the dry contact will close.

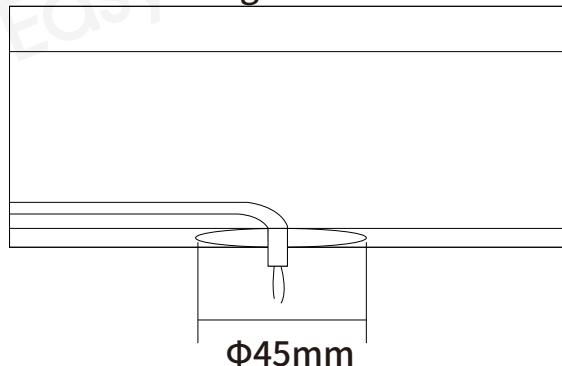
2. Operating Output Mode: Dry contact output: Selectable between normally open and normally closed. The default is normally open, and can be switched using the remote control buttons QS1 (normally open) or QS3 (normally closed).

3. Indicator Status: If a target is detected, the LED indicator will flash slowly once. If a target is continuously detected, it will flash once every 5 seconds.

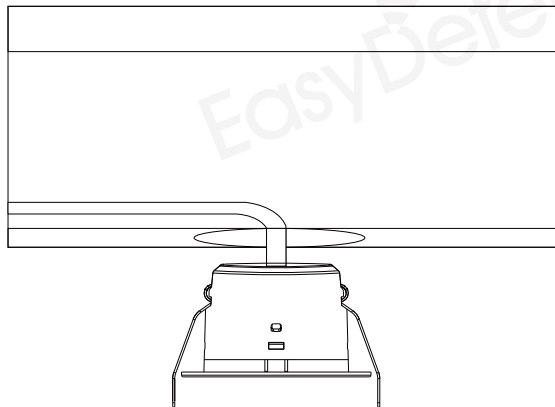
Note: If multiple targets are detected within 5 seconds, the indicator will only flash once.

## Installation Diagram

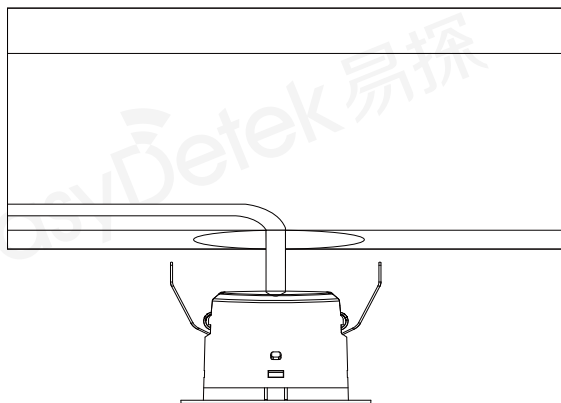
### 1、Punching holes in the ceiling and reserving wires



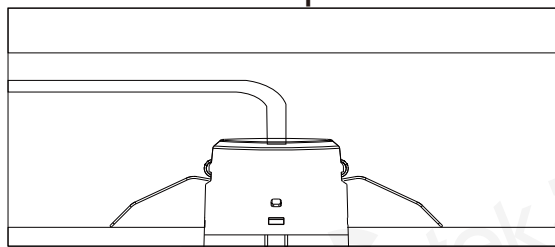
### 2、Device and wire connections



### 3、Adjustment of mounting clips



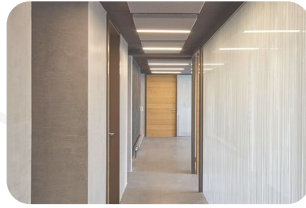
### 4、Embedded fixing, installation complete



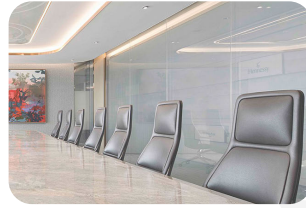
## Application scenario



smart home



smart lighting



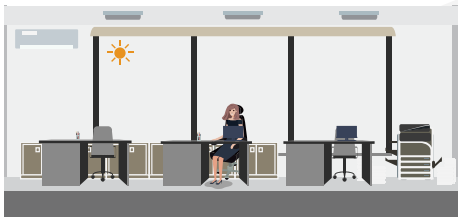
Smart business



medical care  
and recreation

## Functional Description

### Illumination function on



When the ambient light is sufficient, the light will not automatically turn on even if the sensor detects movement.

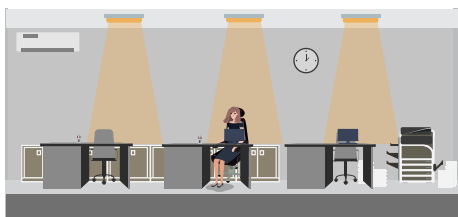


When the ambient light is insufficient, the sensor detects movement and the light automatically turns on.



When the moving object leaves, the light automatically turns off after a preset delay.

### Illumination function off



When the sensor detects a moving object, the light automatically turns on and the delay time is set.



After the delay time, if the sensor detects no moving object, the light will turn off.

Product Naming Law

ED	Frequency Band	Product Categories	Product Subdivision	Product Number	Delay Time	Serial number
ED	C	2	8	6	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			

History Revision Record

Versions	Time	Description	Note
V2.0	2025-02-21	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.