

24GHz Human Motion Sensor

EDQ25L-KNX Specification



EDQ25L-KNX



Product Features

- Dual millimeter wave radar sensing
- Can cover 4*40m long corridors
- KNX bus communication, supports 4-channel outputs
- Dual radars can be selected to control different output channels
- Sensing distance support 10 adjustable steps
- Flexible installation, supports open hole, 86 bottom box and magnetic mounting

Electrical Parameters

Input voltage	DC 12-30V
communication method	KNX
Power Consumption	<2W @24V

Functional Parameters

Motion Sensing Radius ^①	Long side: 18-20m Short side: 2-4m
Hanging height	Regular 3m
Delay time	10-65535s
Illumination value ^②	3-65535lux

Output Parameters

Transmission frequency	24-24.25GHz
3dB beam angle	42° (xz plane) 66° (yz plane)

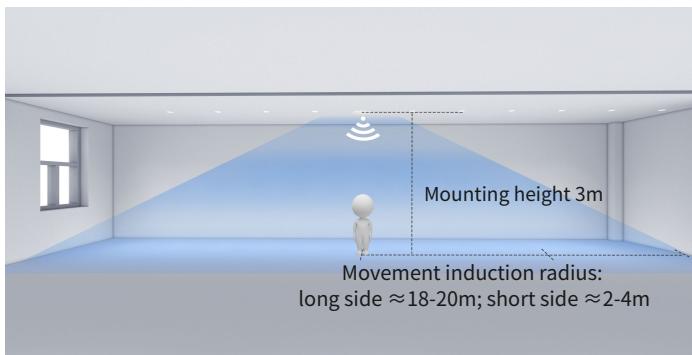
Environment&Lifespan

Operating temperature	-20~+60°C
Storage temperature	-20~+80°C

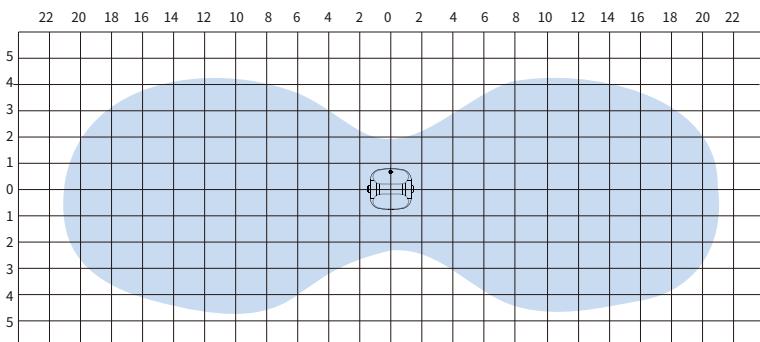
Notes:

- 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



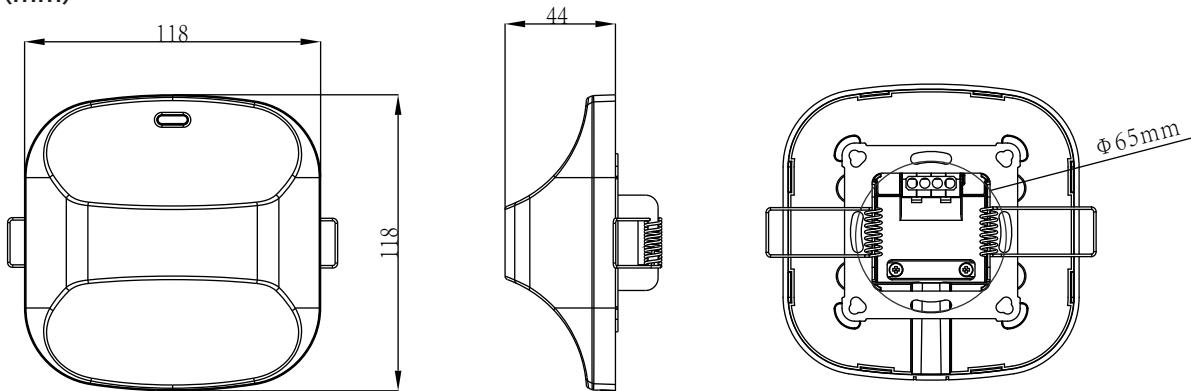
Radar Sensing Schematic



Movement induction radius: long side ≈18-20m; short side ≈2-4m

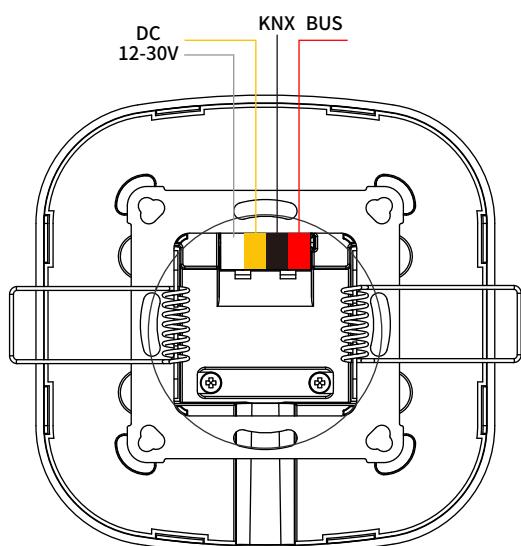
Product Dimension Drawing

Unit: (mm)

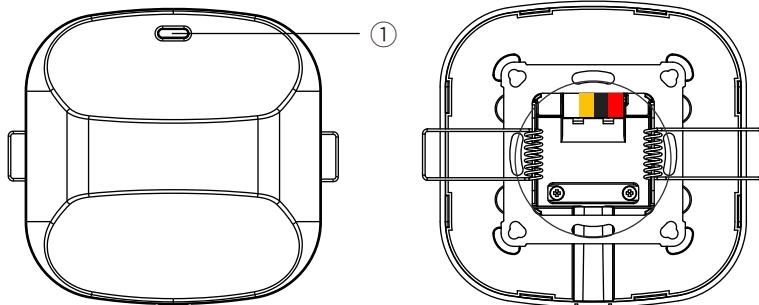


EDQ25L Dimensional tolerance: $\pm 0.2\text{mm}$

Wiring diagram



Pin and Key Description



Pin	Description
Red	KNX +
Black	KNX -
Yellow	Auxiliary power supply +
White	Auxiliary power supply -
Illumination sensor and programming all-in-one keypad	LED flashing green: indicates that the radar has detected a manned state LED red is always on: the device is in programming mode

Status of an instruction

EDQ25L_KNX Model Indicator Light Status Description:

1. Red Indicator Light:

① Programming Mode: Short press the button, the indicator light will remain on. Short press the button again to cancel programming, and the red indicator light will go off.

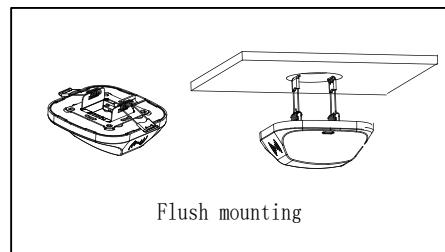
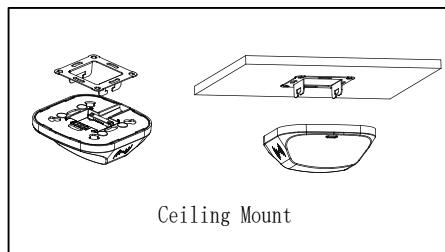
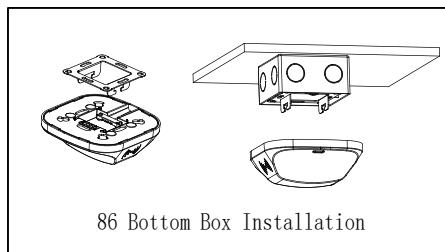
② Normal Operation: Flashes once every 2 seconds when a person is detected.

2. Green Indicator Light:

Initialization: Flashes for 5 seconds, then turns off upon completion. It then locks for 2 seconds to enter radar sensing mode.

Normal Operation: Flashes once when a person is detected, and flashes once every 5 seconds while a person is continuously detected.

Installation Diagram



Application Scenarios



Office long corridor



Hotel long corridor



Garage Lane



Terminal

Function Description

Illumination function on



When there is sufficient ambient light and the sensor detects a moving object, the light will not come on automatically.



When the ambient light is not sufficient, the sensor detects a moving object and the light comes on automatically.



The light goes out automatically after the preset delay time has elapsed when the moving object leaves.

Illumination function off



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



After the delay time has elapsed when the sensor does not detect a moving object, the luminaire goes out.

Product Naming Rules

ED	Frequency Band	Product Categories	Product Subdivision	Product Number	Delay Time	Serial number
ED	C	2	5	L		
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

【Hardware】:

【Software】:

Historical Revision Records

Versions	Time	Description	Note
V1.0	2025-02-12	first edition	-
			-

Precautions

1. When installing the product, keep it at least 50 cm away from exhaust fans and air conditioner vents. The vibrations generated by these devices can cause false triggering of the sensor. It should also be installed away from areas subject to vibration caused by human or object activity.
2. The product has some penetration into thin wood and glass; these factors should be considered during installation. Also, avoid large areas of metal in front of the sensor to prevent false triggering.
3. If large areas of glass or smooth tiles are present within the sensor's detection range, electromagnetic wave reflection will be increased. It is recommended to reduce the sensing range appropriately based on the size of the space.
4. When multiple sensors are used in the same location, it is recommended that they be installed at least 2.5 m apart. Installing them too close together may cause individual sensors to periodically trigger false alarms.
5. In actual use, the electromagnetic waves emitted by the sensor vary in their reflectivity against obstacles, resulting in varying sensing ranges. This is normal. For example, the sensing range may vary slightly in corridors and spacious rooms.
6. Easydetek Technology is committed to providing customers with high-quality radar sensors that offer a superior experience. Product version updates and iterations may be made without prior notice.