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

EasyDetek易探

EDC139 Specification

5.8GHz Adjustable Series Lighting Components

Product Features

- Self-developed high-performance antenna with high stability
- Mounting: Snap-on fixed mounting
- Supports 5V/10V output voltage
- With infrared receiver, support remote control adjustment
- Compatible with both internal and external dialing forms

Electrical Parameters

Input voltage	7-12V@output 5V / 12V@output 10V
Operating current	22±2mA@5V /24±2mA@10V
Output voltage	5V/10V±0.25V
Output signal	PWM

Functional Parameters

Proximity Motion ① Sensing Radius	2-5m
Remote Motion ① Sensing Radius	4-8m
Hanging height	3m
Delay time	Max 10min
second-order brightness	0%/20%
Second order brightness delay time	15min/∞

output Parameters

Center frequency	5.8GHz±75MHz
3dB beam angle	97°(XZ plane) 99°(YZ plane)

Environment & Lifespan

Operating temperature	-20~+85°C
Storage temperature	-20~+105°C

Remarks:

① The test distance range is based on the sensor hanging height of 3m, indoor installation environment test, the test person is 170cm tall, weight 65-75kg, walking speed 1m/s.Different scenes may cause changes in the range of installation, subject to actual testing.

② Due to the spectral characteristics of the photosensitive device, the threshold is uniformly tested under natural light conditions.

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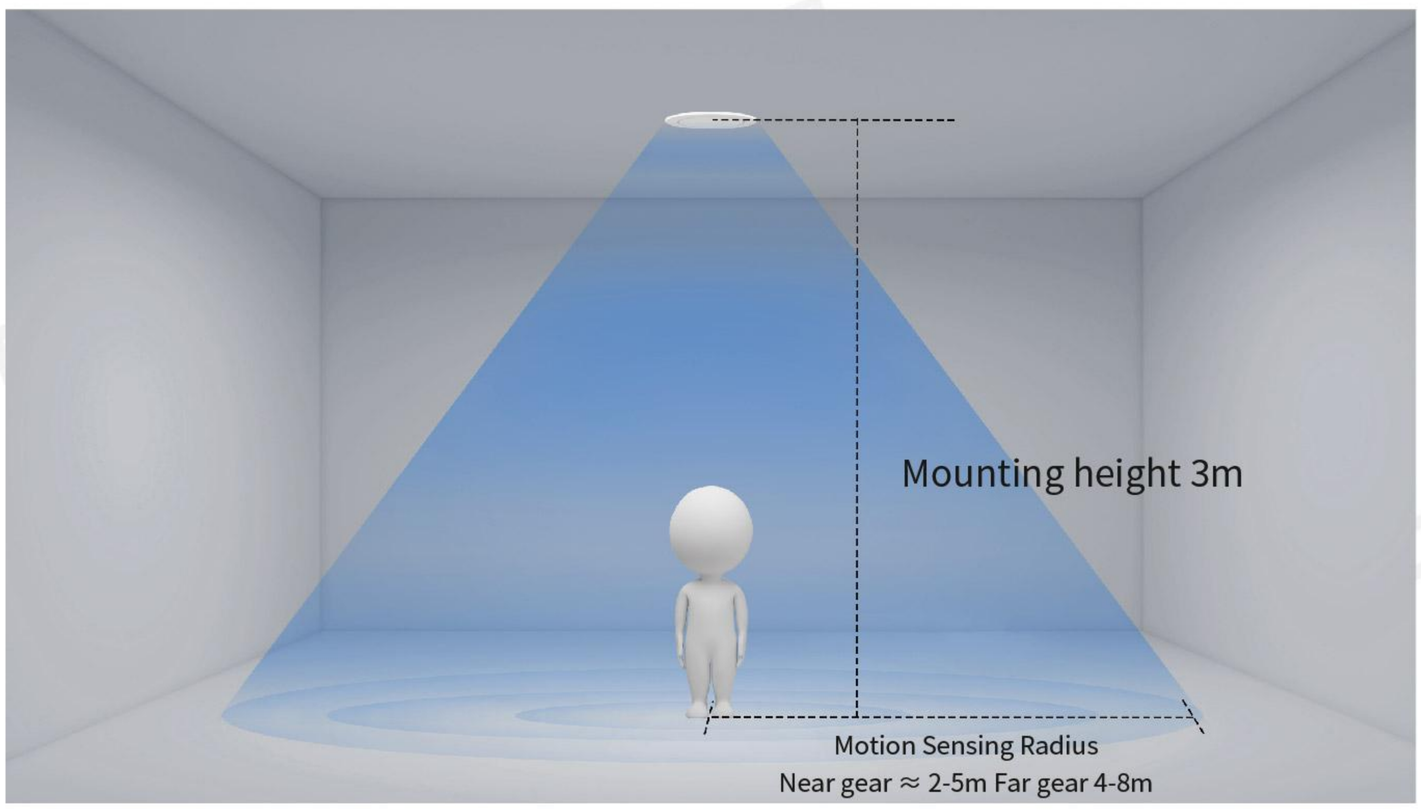
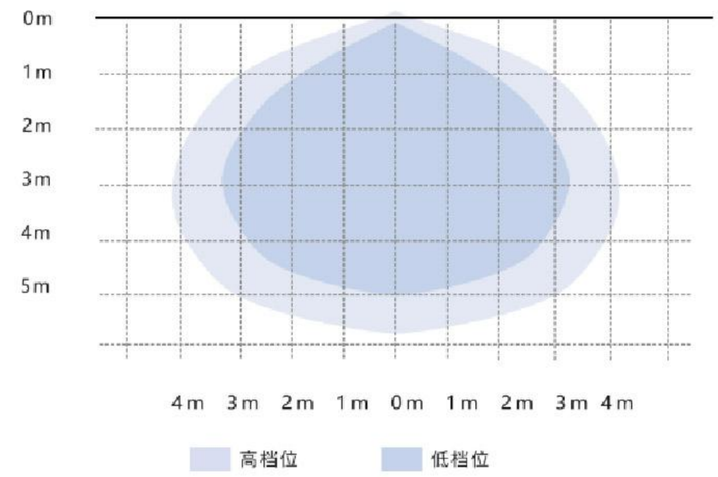
Detection Schematic



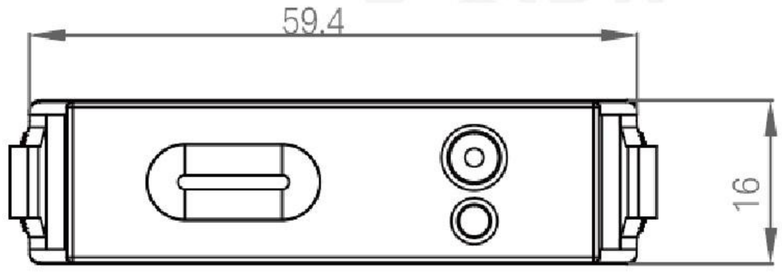
Radar Sensing Schematic

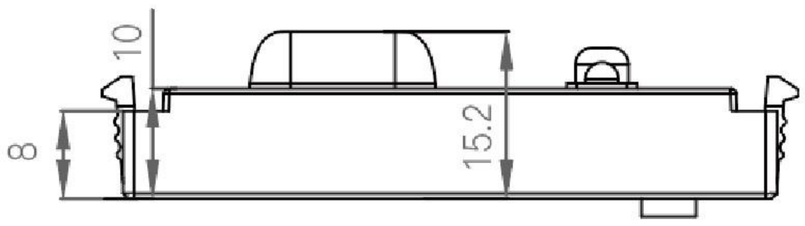


Motion Sensing Radius
Close gear ≈2-5m Far gear ≈4-8m

Dimension Drawing / Pinout

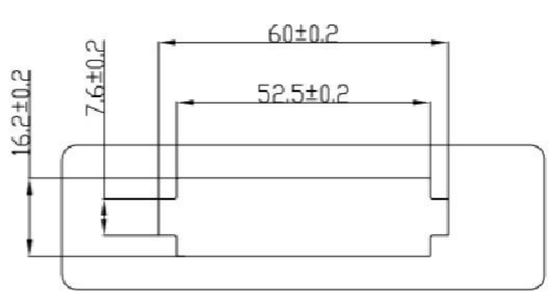
Dimensions：mm



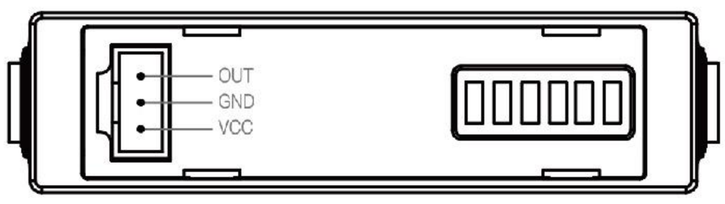


EDC139 Dimensional tolerance: ±0.2

Mounting hole size

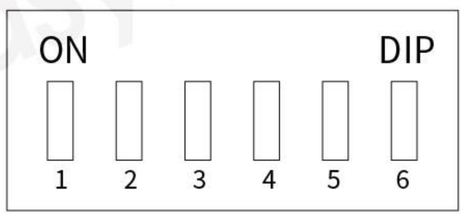


Pin Description



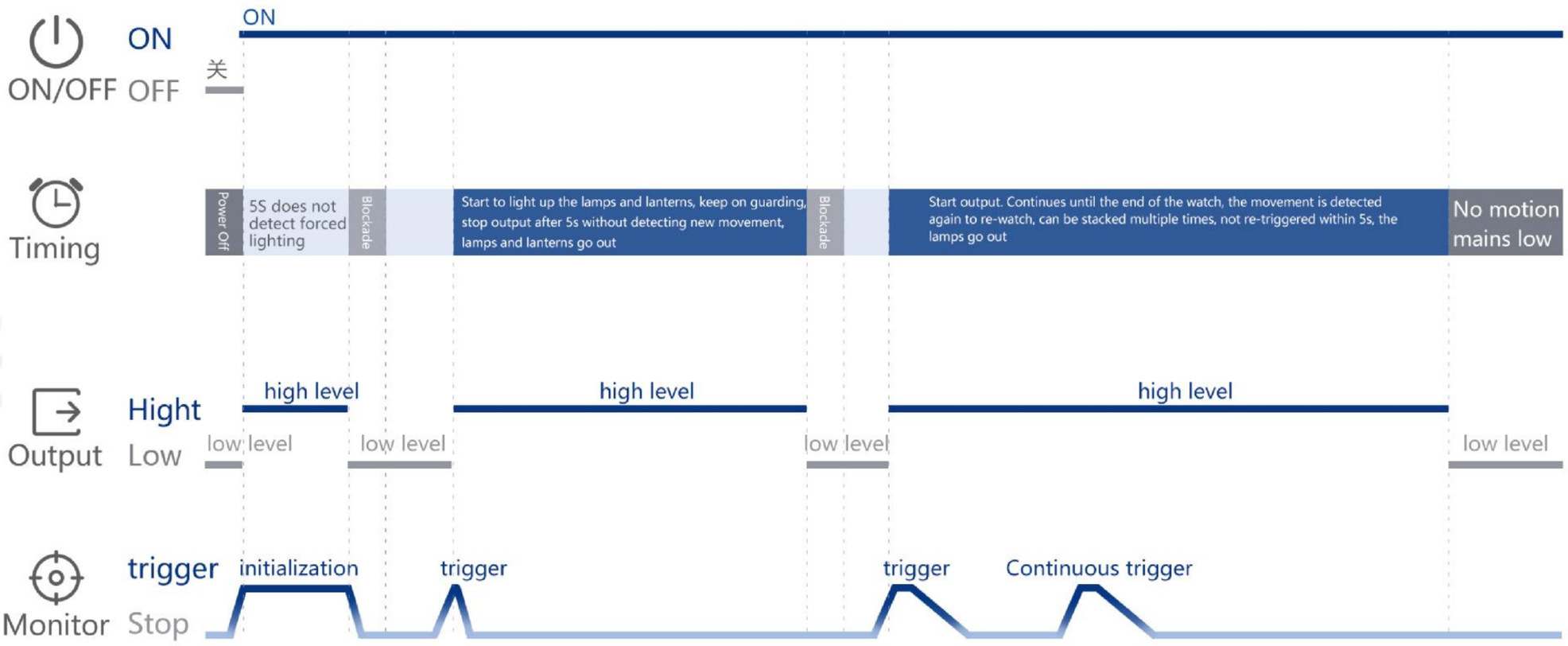
VCC: Power supply GND: Ground OUT: Output signal

Product Dialing Chart



rada		Delay time			photosensitivity threshold		Second order brightness		Second order brightness delay	
1	gear level	2	3	gear level	4	gear level	5	gear level	6	gear level
OFF	100%	OFF	OFF	5s	OFF	Disable	OFF	0%	OFF	∞
ON	50%	OFF	ON	60s	ON	30LUX	ON	20%	ON	15min
		ON	OFF	3min						
		ON	ON	10min						

Timing Diagram



This timing chart is based on the product dialing code table: 1-OFF 2-OFF 3-OFF 4-OFF 5-OFF 6-OFF, for example.

Application Scenarios/Products

corridors

elevator shaft

flight of stairs

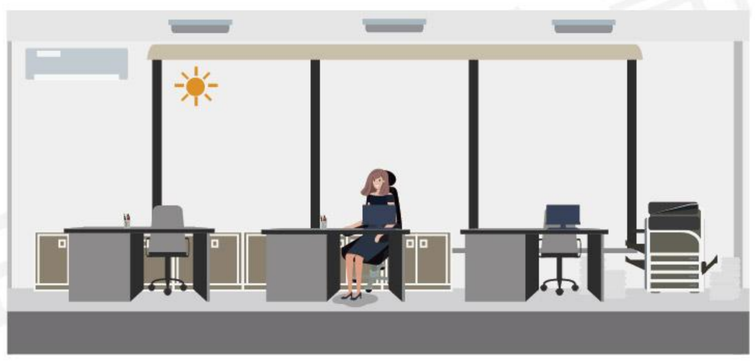
chandelier

panel light

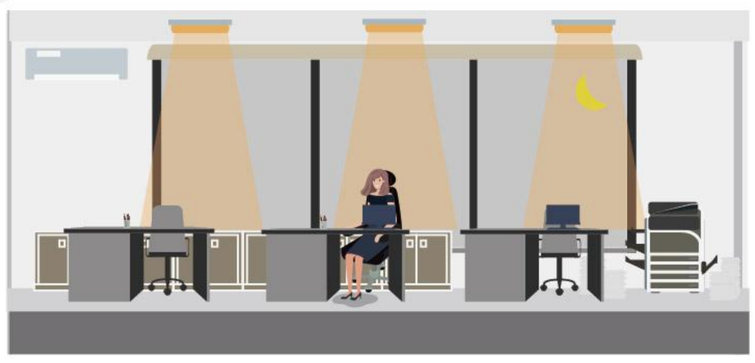
ceiling lamp

three-proof light

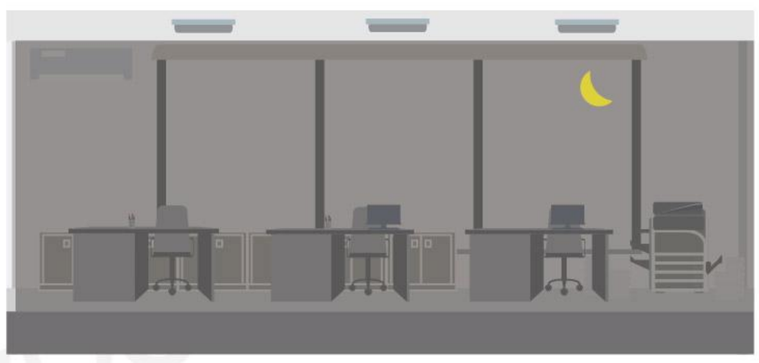
功能说明



After initialization is complete, when the ambient light is sufficient, 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 moving object leaves.
After the preset delay time has elapsed, the light goes out automatically.

Product Naming Law

ED	Frequency Band	Product Categories	Product Subdivision	Product Number	Delay Time	Serial number
ED	C	1	3	9	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

【Hardware】:

【Software】:

历史修订记录

Versions	Time	Description	Note
V1.0	2024-07-11	First Edition	-
			-

Precautions

1、When the product is installed, it is recommended that the antenna plate keep a distance of 5-12mm from the metal plane, and can not be close to or touch the metal plane.

2、Products on plastic, wood material penetration effect is better. It is recommended not to install metal, glass, ceramic in front of the antenna, so as not to affect the actual induction effect.

3, power supply, please use a small ripple power supply, to avoid interference with the sensor and false alarms, it is recommended that the power supply ripple is guaranteed to be within 50mV-100mV.

4, more than one radar sensor in the same site application, recommended product installation distance greater than 2m, the installation distance is too close to individual sensors may occasion-ally false alarms.

5, the antenna radiation surface to avoid high current circuit coverage, so as not to interfere with the normal radiation antenna, resulting in false alarms or change the induction range.

6, such as microwave sensors and wireless communication modules (NB, Bluetooth, WIFI, 2.4G module) coexisting applications, should be spaced apart. Recommended installation and routers, wireless hotspots and other high-power wireless communication equipment to maintain a distance of 1m or more.

7, the light-sensitive threshold is in a sunny environment, no shadows, ambient light diffuse reflection conditions of the test value.

8, microwave sensor antenna surface should avoid facing the drive power supply, while trying to drive away from the power supply rectifier bridge, transformer, switching tubes and other high-power devices, so as not to trigger false alarms.

9, Eprobe is committed to providing customers with high quality and better experience of radar sensors. Product version updates and iterations without notice.