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

EasyDetek易探

EDC13A Specification

5.8GHz Adjustable Series Lighting Components

Product Features

- **Dial code integrated design, sensing distance, delay time, second-order brightness, photosensitive adjustable**
- **Long module design, easy to install without blocking the light**
- **The far gear hangs high 6m, sensing radius 3-6m, the near gear hangs high 3m, sensing radius 4~7m**

Electrical Parameters

Input voltage	7-12V
Operating current	23±2mA
Output voltage	5V±0.2V
Output signal	PWM

Functional Parameters

Near-gear movement ① sensing radius	4-7m@Hanging height 3m
Remote Motion ① Sensing Radius	3-6m@Hanging height 6m
Hanging height	3/6m
Delay time	10min max
Stand-by DIM Level	10%/30%
Stand-by Period	600s/∞

Output Parameters

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

Environment & Lifespan

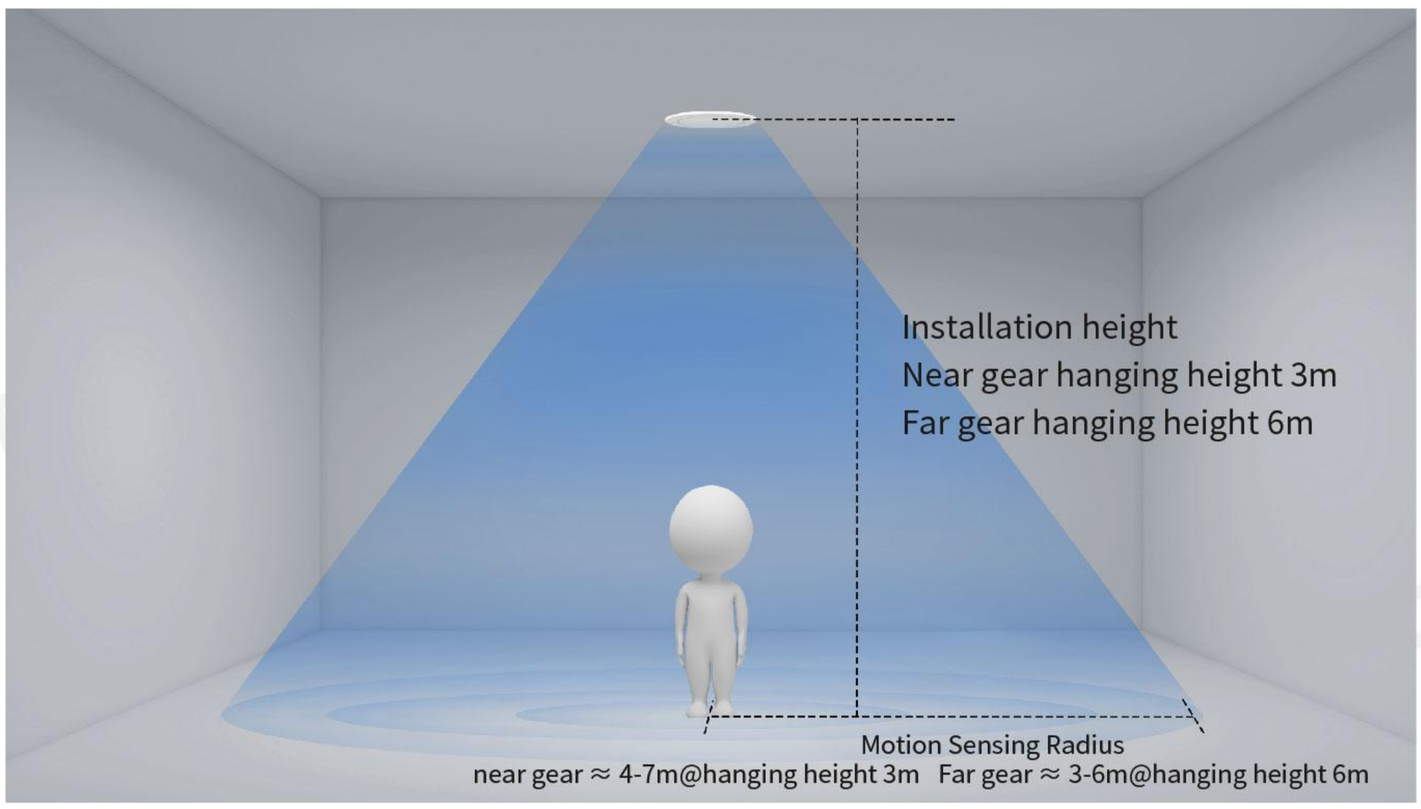
Operating temperature	-20~+85°C
Storage temperature	-20~+105°C

Note:

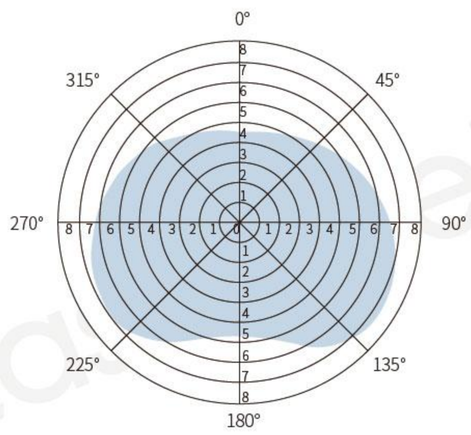
① 1.The testing distance range is based on a sensor hanging at a height of 3m and indoor installation environment testing. The tester is 170cm tall, weighs 65-75kg, and walks at a speed of 1m/s.Installation in different scenarios may cause range changes, subject to actual testing

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

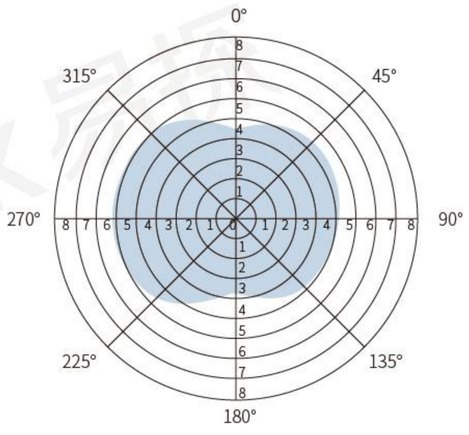
Detection Schematic



Radar Sensing Schematic



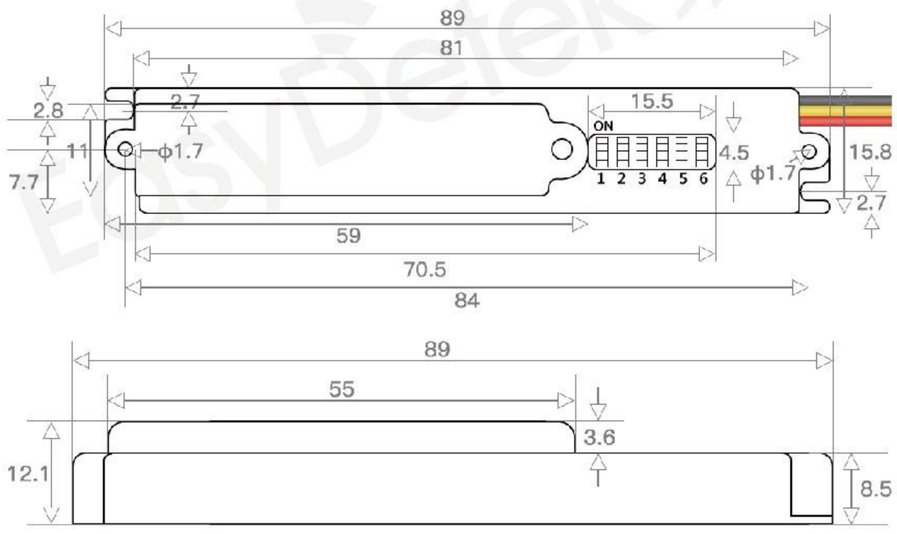
near gear ≈ 4-7m@hanging height 3m



Far gear ≈ 3-6m@hanging height 6m

Dimension Drawing / Pinout

尺寸单位:mm

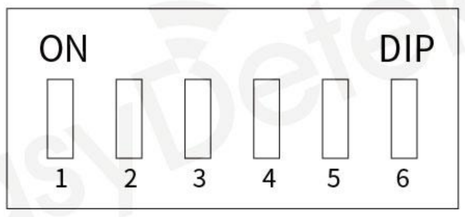


EDC13A 尺寸公差:±0.2

Pin Description

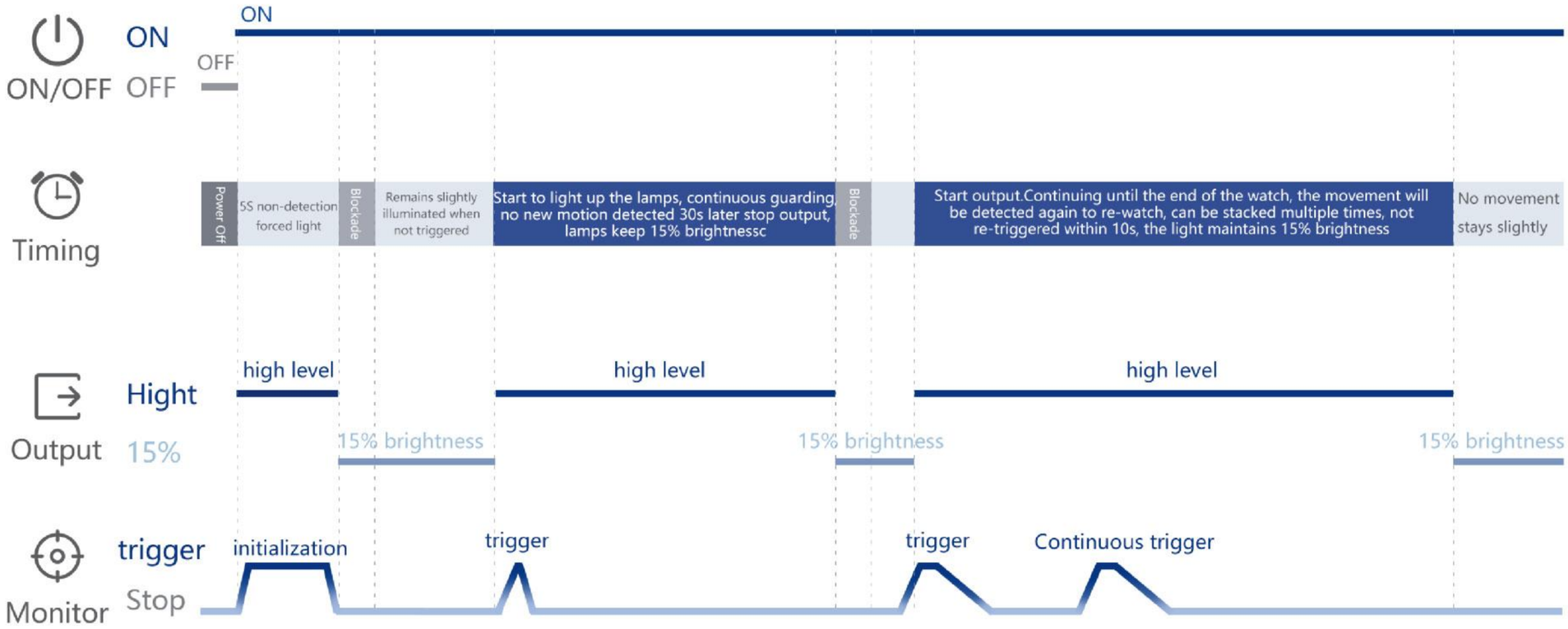
Pin	Description
V (VIN)	7~12V power supply
O (Output)	Output Signal
G (GND)	Ground

Dial Switch Instructions



Detection Area		Hold Time		Daylight		Stand-by DIM Level		Stand-by Period	
1	gear level	2	3	gear level	4	gear level	5	gear level	6	gear level
ON	100%	ON	ON	5s	ON	30-50LUX	ON	10%	ON	∞
OFF	50%	ON	OFF	90s	OFF	Disable	OFF	30%	OFF	600s
		OFF	ON	300s						
		OFF	OFF	600s						

Timing Diagram

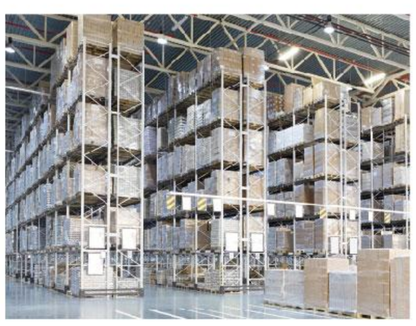


This is an example of the product dialing code table: 1-ON 2-ON 3-ON 4-ON 5-ON 6-ON

Application Scenarios/Products

corridors

elevator shaft



storeroom

underground parking

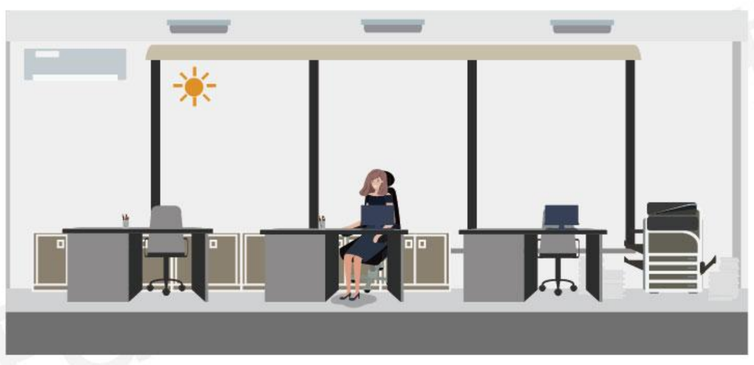
chandelier

panel light

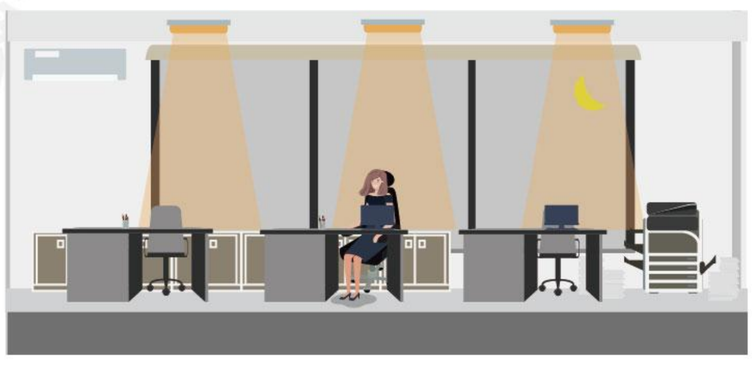
Ceiling lamp

Tri-proof light

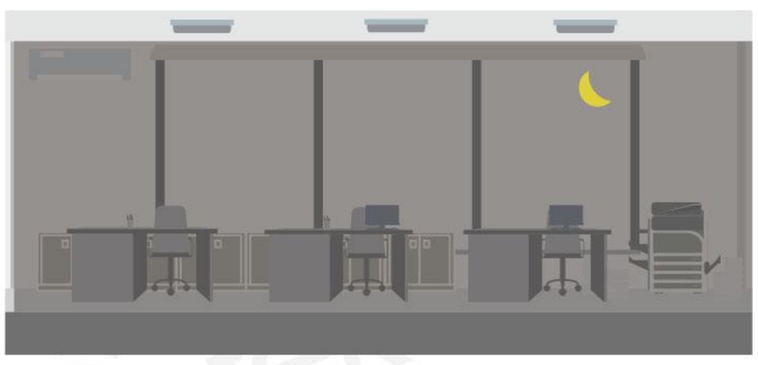
Functional Description



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	A	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】: EDC13A-Y-01

【Hardware】:

【Software】:

History Revision Record

Versions	Time	Description	Note
V1.0	2024-07-11	First Edition	-
V1.1	2024-07-26	Add radar sensing schematic, update product features, application scenarios	-

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 cannot 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 the individual sensors may occasionally 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 communications equipment to maintain a distance of 1m or more.

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

8, the antenna surface of the microwave sensor should avoid facing the drive power supply, while trying to stay away from the drive 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.