EDC132

Product description

- Supports PWM and I/O output, highly scalable
- Size: 22*20mm
- Hanging height within 3m, sensing range has two gears near and far
- Remote control adjustable (10V PWM)
- Mainly used in domestic medium and high-end products

Electric performance

Operation frequency :	5.8GHz±75MHz
Input voltage :	12V
Output High level :	0-10V
Output low level :	< 0.5 V
3dB beam angle:	97°（XZ plane） 99°（YZ plane）
Maximum input current:	19.5±2mA
Detection range:	2-6m（Adjustable）
Hold time :	Remote control adjustment
Operating temperature :	-20... + 85℃
Storage temperature :	-20... + 105℃

Remarks: 1. The test distance range is based on the indoor environment test with the module hanging height of 3M. The tester is 170cm tall, weighs 65-75kg, and the walking speed is 1m / s. The installation in different scenes may change the range, and the actual test shall prevail.

2. Due to the spectral characteristics of photosensitive devices, the threshold is tested under the condition of natural light in the evening;

3.The delay time can be customized according to customer requirements, and the delay tolerance is ± 10%.

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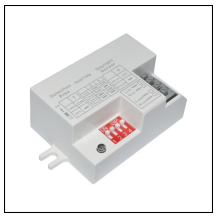
Typical application


down light


Wide plate lamp

Cast light


T tube


Microwave switch

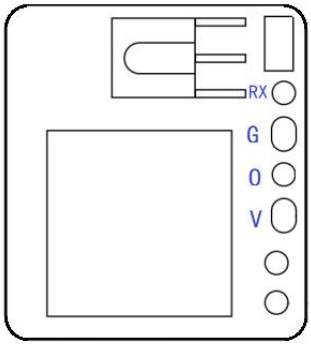

ceiling lamp


86 inductive switch


Ceiling lamp

* These are typical application, which can expand more products

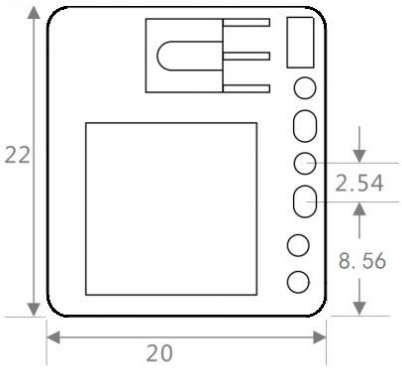
Pin definition

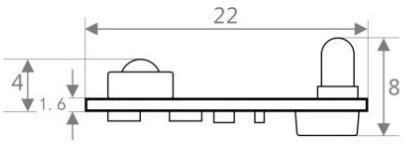


EDC132 Pin Definition

Pin	Description
Rx	Serial port receiving / Io reservation
GND	land
OUT	Output signal / serial port TX
VCC	power supply

Dimension drawing





EDC136 (row needle welding hole: round hole 0.9mm / ellipse 1.6 * 0.7mm) unit: (mm)

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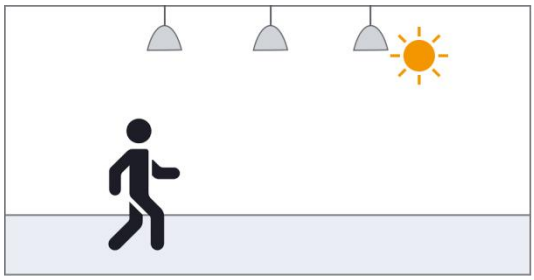
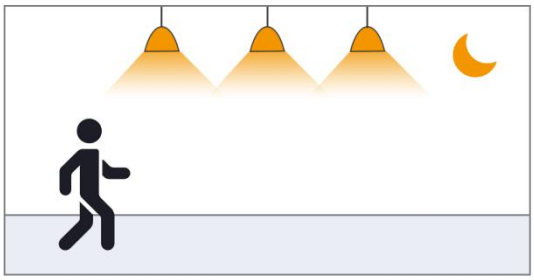
Function description

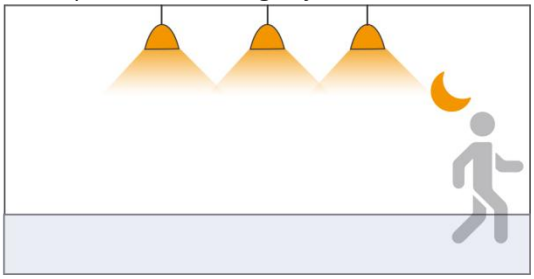
The photosensitive function opens



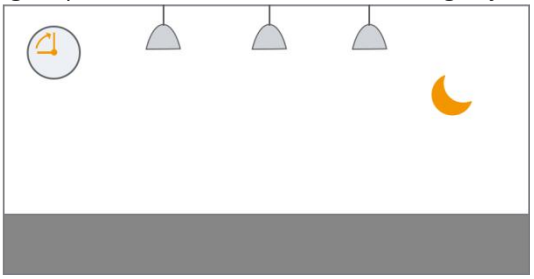
When the external ambient light is bright enough, the light will not automatically light up even if a moving object is detected



When the ambient light is lower than the preset photosensitive threshold, the light will automatically light up when the sensor detects a moving object

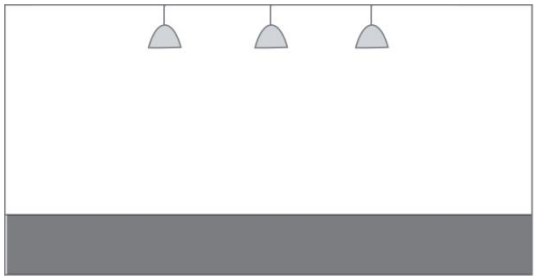


After the moving object leaves, when the sensor cannot detect the moving object, it will enter the delay time and keep the light on

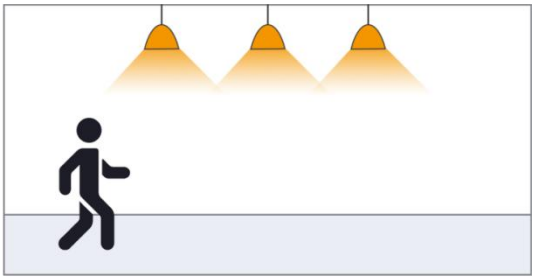


After the preset delay time, the light will go out automatically

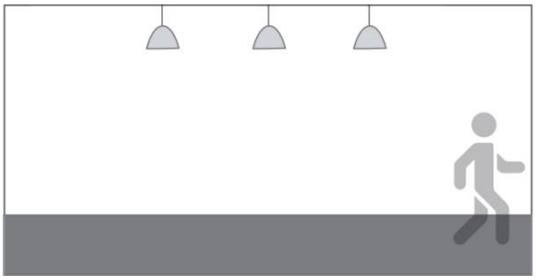
The photosensitive function is closed



If no moving object is detected, the lamp goes out



When the sensor detects a moving object, the light will automatically turn on 100% brightness and enter the set delay time



After the delay time, when the sensor cannot detect the moving object, the lamp goes out

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Product labels

Packaging information

Plastic: ☑absorption packaging ☐ bubble bag package ☐ PE bag packaging

Remote control instructions

Key	Function	Memory
Rest	Reset mode: 30s delay lock 2s, photosensitive effective, the farthest gear, standby brightness 30	YES
Test	Quick test mode: press the button, delay 2s, the furthest gear, photosensitive invalid, standby brightness 0% off all	NO
Light off	Long off mode: press this key, it becomes standby brightness (0%-90% duty cycle, depending on the setting), only press other mode keys (reset, fast test) will exit this mode, press parameter setting key will not exit this mode. Standby brightness parameter key can be set,	YES

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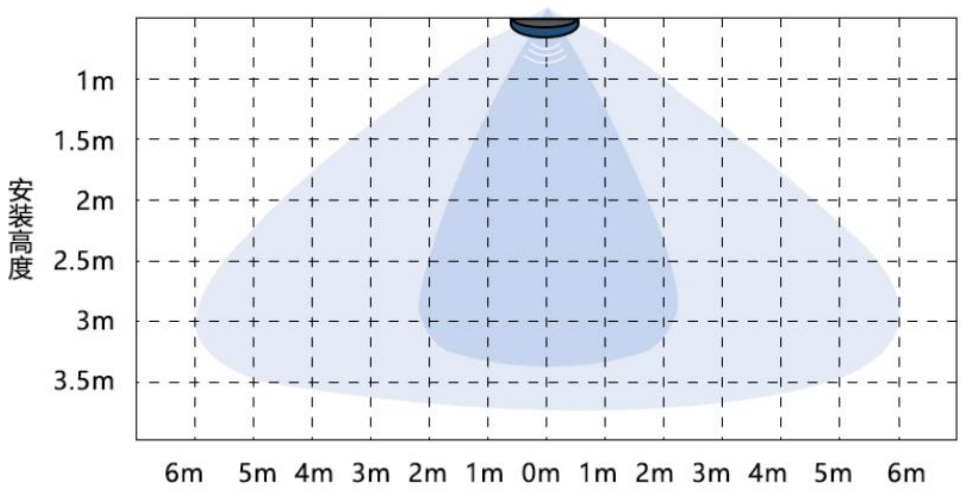
	the rest of the parameter keys can not be set	
Sensor on	null	
Sensor off	null	
Dimming level 90%	Maximum standby brightness, 90	YES
+	Standby brightness brightens, increases by 10% per step, can be set as high as 90%.	YES
-	Standby brightness dims, decreases by 10% in each step, can be set as low as 0	YES
Dimming level 0%	Minimum standby brightness, 0%	YES
Disable	Turn off photosensitive function, photosensitive invalid	YES
ON	Turn on photosensitive function, photosensitive effective	YES
Range far	Long Distance Sensing Range	YES
Range near	Proximity Sensing Range	YES
Hold time 5s	Trigger Delay, 5s Delay	YES
Hold time 30s	Trigger Delay, 30s Delay	YES
Hold time 1min	Trigger Delay, 1min Delay	YES
Hold time 3min	Trigger delay, 3min delay	YES
Power 100%	null	
+	null	
-	null	
Power 10%	null	

Detection range (The distance can be adjusted according to the actual application)

Detection sensitivity gear: 50% 100%

Ceiling installation diagram



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Application note

1. During product installation, the module is required to keep a certain height from the metal plane. It is recommended that the module should be controlled at 5-12mm from the metal plane and should not be close to or touch the metal plane, otherwise the product may not work normally!

2. The product has good penetration effect on plastic and wood. At the same time, avoid metal shielding in front of the antenna, which will reflect microwave and affect the actual induction effect;

3. The glass or ceramic in front of the antenna will bring reflection and penetration attenuation of electromagnetic wave and reduce the sensing distance of the sensor, and the attenuation will be more serious with the increase of thickness;

4. Please use the power supply with small ripple, especially the low-frequency ripple, which is easy to interfere with the work of the sensor, resulting in false alarm of the sensor. Recommended power supply output capacitance 470 UF; It is suggested that the power ripple should be within 100mV, and the effect is better when the ripple reaches 50mV;

5. The signal output of the sensor has weak load current capacity, and may not be able to directly drive the back-end equipment.

6. When multiple sensors are applied in the field, the recommended product installation spacing is greater than 1.5m. The installation distance is too close, which may cause individual cycle false alarms;

7. The antenna surface shall be protected from high current circuit coverage. The electromagnetic field generated by the circuit loop will interfere with the normal radiation of the antenna, resulting in false alarm or changing the induction range;

8. If microwave sensor and wireless communication module (Nb, Bluetooth, WiFi, 2.4G module) coexist, the installation spacing between IOT module antenna and microwave module antenna shall be enlarger and more. At the same time, try to shield or not receive the trigger signal of the microwave module during the communication of the Internet of things module; Microwave sensors or products with built-in microwave sensors will be interfered by wireless routers. It is recommended to keep a distance of more than 1m from routers, wireless hotspots and other high-power wireless communication equipment during installation;

9. The light sensor threshold is the test value under the conditions of sunny environment, no shadow and diffuse reflection of ambient light. The wavelength of light sensing detection light covers 400nm ~ 1100nm (including visible light, LED lamp and infrared light band). The illuminance value detected by light sensor may be different in different periods and different weather conditions;

10. The antenna surface of the microwave sensor shall avoid facing the AC driving power supply, and shall be far away from the rectifier bridge, transformer, switch MOSFET and other high-power devices of the driving power supply as far as possible, so as to avoid the power frequency signal interfering with the microwave module and

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causing false alarm;

11. In the practical application environment, the electromagnetic wave emitted by microwave sensor, the different reflectivity of obstacles will lead to different induction range, which is a normal phenomenon;

12. Product specifications and parameters may be upgraded without prior notice.

Product naming rules

ED	Frequency section	Product categories	Product subdivision	Product Number	Properties	Time delay	Serial number
ED	C	1	3	2	-		
	☐S 3GHz	☑1 Microwave sensor module	☐0 Ultra-low-power series	0-9，A-Z	☑A VOG (by default)	☐Y Has light sensor	
	☐F 6GHz	☐2. Microwave radar switch	☐1 Flagship series		☐B VGO	☑N no light sensor	
	☑C 5.8GHz	☐3 Radar antenna	☐2 Short-distance series			☐P programmable	
	☐Q 24GHz	☐4 MCU	☑3 Adjustable series				
	☐V 60GHz	☐5 Microwave power supply	☐4 External antenna series				
	☐W 77GHz	☐6 IC	☐5 General Series				
	☐X 10.5GHz	☐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

Version	Time	description	Note
V1.0	2023-06-15	First Edition	
V1.1	2023-10-13	Changing Output Voltage and Remote Control Function	

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