

## 1. General

high-performance outdoor dual-tech detector. They consist of precision infrared detection module, Microwave module, radio transmission module, etc. The case is made of durable engineering plastic, indoors and outdoors are used for them.

### Features:

- A. Double detection by PIR and Microwave, with the help of ASIC analysis, the detector is highly accurate.
- B. Adopting patented full-scope precise temperature compensation, the detecting sensitivity is always stable and consistent within working temperature in spite of temperature changes. (sensitivity of common detector may decrease greatly in the temperature range of 32°C~40°C, or gives false alarm.)
- C. Immune to interference from strong ray, gale, birds, dogs and all kinds of atrocious weather etc.
- D. Usually to monitor big factory, oil field and outdoor warehouse, also for family bugs.

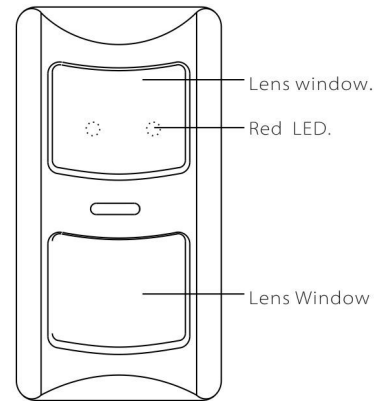


Fig 1 Overall look

## 2. Specifications

Power supply: 9~24V DC.

Current: standby: 45mA(normal relay output) or 10mA (electric relay output), on alarm: 15mA

Self-check: 30 seconds self-check upon electrification.

PIR ( see. Fig.2 )

Sensor: 3 quiet, dual-core sensor.

LED indication: red LED is on for 3 seconds when it detects human body movement.

Sensitivity: 4 degrees optional.

Detecting scope: 110°

Double detect angle: 6°~9°

Detect scope: 12mx12m

Temperature compensation: auto compensation within working temperature.

The parameter for alarm tamper

Alarm indication: red LED on for 3 seconds.

Alarm terminal: normally closed, contact capacity 100mA/30VDC.

Tamper switch: normally closed, open when disconnected( detector disassembled), contact capacity at 100mA /30V DC.

Product dimension:138x75x46mm

### Working conditions

Working temperature: -40°C to 60°C

Storage temperature: -45°C to 70°C

EMI protection: 30V/M

White light protection: 1,000,000 Lux

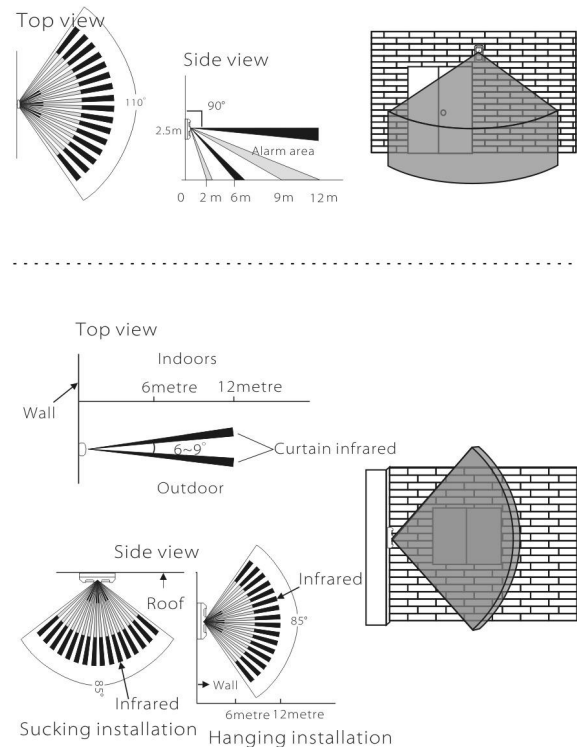


Fig 2 detection coverage diagram

### 3.Installation

#### 3.1 General Guidance

- A. The sensitivity of the detector is highest when the intruder's motion track is tangent to the coverage circle, the positioning and detecting angle of detector should be based on this feature.
- B. The sensitivity of the detector is highest when the intruder's motion track is vertical through curtain, the distance of the curtain detect or should be based on this feature.
- C. Do not install the detector along with high-voltage power cable.
- D. If the detector is installed in a high-temperature environment, to achieve the best effect, it is recommended to aim the detector at the part with lowest Temperature and brightness.
- E. When the detector is used in a place with strong interference, pulse counts shall be increased and sensitivity shall be reduced.
- F. The wall for mounting detector shall be firm, sturdy.

#### 3.2 Mounting

The detector should be fixed to the wall by screws, make sure the side with LED lights is upward. (there are knockout holes on the bottom cover for installation). Height of the detector shall be 2.0 to 2.5 meters from the floor. SKY-DLU versatile bracket can be adopted if the detecting angle needs to be adjusted (i.e.: left, right, up or down. Etc.)  
Note: A. Mounting height and angle may affect the detecting scope.

B. Connection cable should be trailed out from the bottom of the detector, and a seal ring should be added to prevent water.

#### 3.3 Working

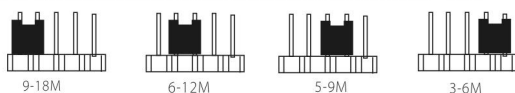
The detector starts working after self checkup for about 30 seconds.

#### 3.4 LED indication

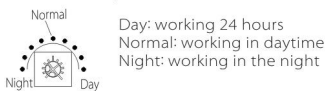
When detect the intruder, red LED is on 3 seconds, the detector alarm.

#### 3.5 Work mode (jumper) settings.

##### A. PIR detecting distance (sensitivity) jumper. (Default is 6~12m)



##### B. Detect mode adjuster



##### C. PIR pulse count jumper (default is 2)

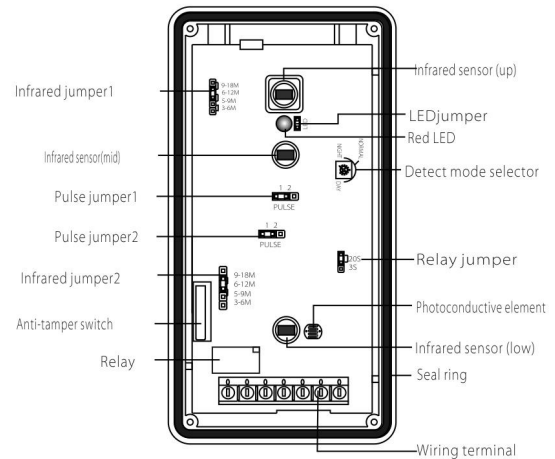


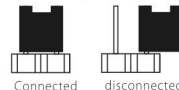
Fig 3 PCB layout

##### D. The relay jumper adjust



The default is 3S. When the jumper is 3S, after alarm, the time is 3 seconds; when the jumper is 20S, after alarm, the time is 20seconds.

##### E. LED Jumper



LED jumper connected: when alarm, red LEDs on.  
LED jumper disconnected: when alarm, red LEDs off..

#### 3.6 Wiring Method

Note: EOL terminal resistance should be connected by the requirement of the host.

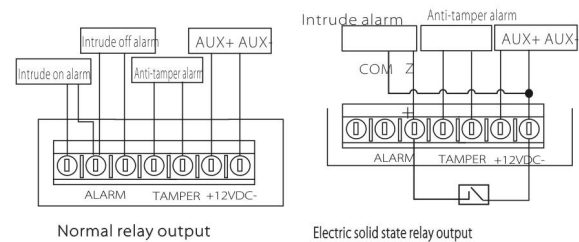


Fig. 4 Wiring

#### 3.7 Electric solid state relay output

When the distance from the detector to the host is far (as several hundred metres), need to use electric relay output to reduce the pressure of the line, the user may order the product of the electric solid state relay output <with e label>.

#### 3.8 walk test

- A. Set all the work mode to default.
- B. Let the simulating intruder move about in the coverage of microwave Every time intrusion is detected, red LED is on for 3 seconds.
- C. Find out the coverage scope and adjust it as per your need by adjusting the angle, position, or sensitivity jumper of the detector.

### 4. Notes

- A. Pay attention not to drop or heavily knock the detector to avoid damage.
- B. Please keep the lens window clear and clean.
- C. In places with strong interference, pulse count should be increased.
- D. After the test, remember to set all work mode to what you desired.
- E. Walk test should be carried out regularly.