

# Photoelectric Dual Beam Detector

## User Manual\_DS07-SM04-1.4

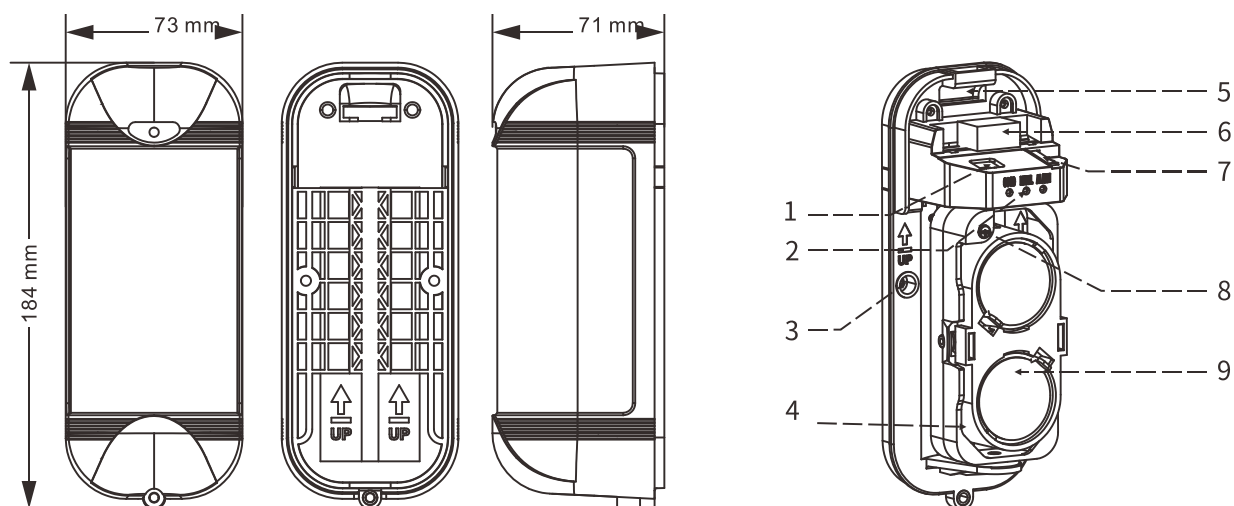
### 1、 Features

- Interruption time adjustable
- Digital filtering,high environment adaptability to eliminate false alarms
- CPU control transmitter and receiver to eliminate false alarms
- Wide voltage design of DC9~30V/AC9~20V
- NO/NC relay outputs
- Tamper alarm function(NC,alarm when cover was removed)
- 4 frequencies selectable for long distance and stacking installations

### 2、 Specification

- Model: AN-T60S、 AN-T100S  
AN-T60F、 AN-T100F (4 frequencies version)
- Detection distance:60m\100m selectable
- Power and voltage:DC9-30V/AC9-20V
- Current consumption: $\leq 70\text{mA}$  max
- Detection method:interruption of all beams
- Interruption  
time:50ms/100ms/300ms/700ms(adjustable)
- Alarm cycle: $\geq 1.5\text{s}$
- Alarm output:NO\NC selectable
- Tamper output:NC
- IP rating:IP65
- Operating temperature:-30°C~70°C
- Humidity: $\leq 95\%$
- Correction angle:Horizontal 180°( $\pm 90^\circ$ ).Vertical 20°( $\pm 10^\circ$ )
- Install location:Indoor\Outdoor,Wall\Pole
- Weight: $\approx 980\text{g}$
- Dimension:184mm\*73mm\*71mm
- Attachment:
  - AN-T U bracket:2pcs black ABS, 65\*30\*33.5mm
  - Pole mounting screw:4pcs,PM4\*30mm
  - AN-T foam: 68 \* 33 \* 6mm black, 38 degree EVA cotton

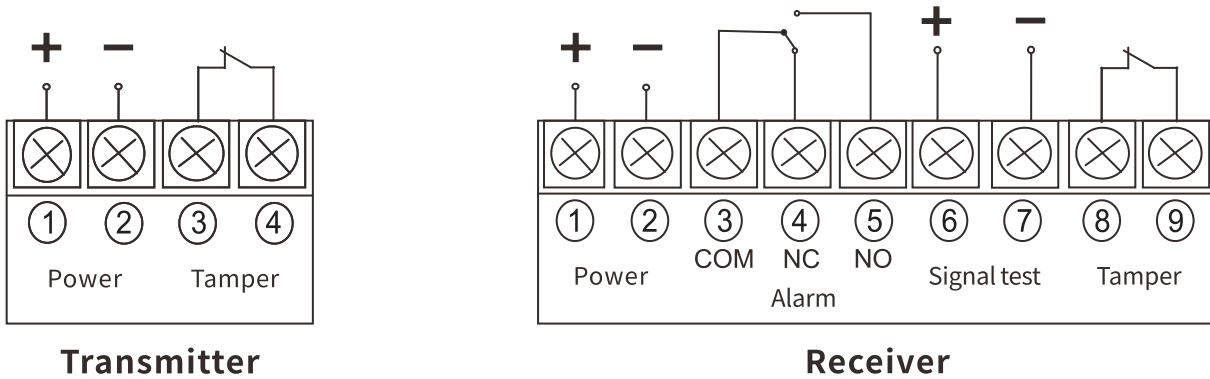
### 3.Part Description



Notes: No DIP switch for non 4 frequency version.

- |               |                                 |                    |
|---------------|---------------------------------|--------------------|
| 1)、DIP switch | 4)、Horizontal alignment bolster | 7)、Tamper switch   |
| 2)、Indicator  | 5)、Wire hole                    | 8)、Adjusting screw |
| 3)、Lock screw | 6)、Terminal                     | 9)、Lens            |

## 4. Connectors



### Transmitter

- Power :1 and 2 are power inputs, support DC9~30V/AC9~20V
- Tamper: 3 and 4 are tamper outputs

### Receiver

- Power :1 and 2 are power inputs, support DC9~30V/AC9~20V
- Alarm: 3、 4 and 5 are alarm signal outputs, NC\NO selectable
- Signal test: 6 and 7 are signal test terminals. Signal test is used to test alignment. during the test, the signal voltage is not less than 4.3 V. 6 is “+” ,and 7 is “-” ;
- Tamper: 8 and 9 are tamper outputs.

## 5. DIP Switch Explanations

(No DIP switch for non 4 frequency version)

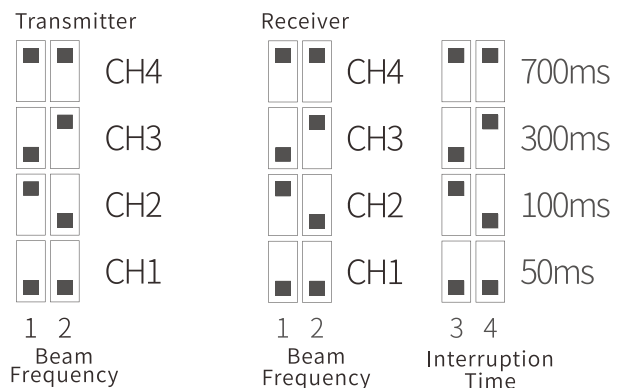
### Transmitter

DIP switches 1 & 2: Set beam frequency. TX and RX must be the same

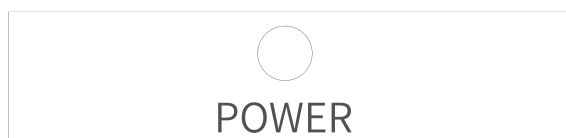
### Receiver

DIP switches 1 & 2: Set beam frequency. TX and RX must be the same

DIP Switches 3 & 4: Set interruption time. 50ms/100ms/300ms/700ms (adjustable)



## 6. Indicator



Receiver

Transmitter

Note: Both LEVEL and GOOD are indicators,GOOD means the signal is better than LEVEL.

- 6.1)、 LEVEL(Blue) indicator: it has 4 states: Off, slow flashing, fast flashing, and On. When the receiver don' t have signal, it goes off. When the receiver have signal, it slow flashing. The stronger the signal strength, the faster the LEVEL indicator flashes until it is constantly on.
- 6.2)、 GOOD(Green) indicator:it has 4 states: Off, slow flashing, fast flashing, and On. When the signal reaches a certain strength, the LEVEL(Blue) indicator goes off, and the GOOD indicator enters a slow flashing state. The stronger the signal strength is, the faster the GOOD indicator flashes, until the signal strength is optimal, then the GOOD indicator is constantly on.
- 6.3)、 POWER indicator:when power on, the indicator is on. (Note: After 30 minutes, the indicator will go off, which will not affect the operation of the transmitter. when the equipment is powered on again, the indicator will be on again.)
- 6.4)、 ALARM indicator: When the alarm is triggered, the ALARM red indicator is on; It turns off when there is no alarm. (Note: In normal working, the signal indicator will go off after about 30 minutes, which will not affect the receiver's operation. After the alarm, the indicator will be on again.).

## 7、 Alignment

- 7.1)、 Adjust transmitter and receiver to a same level.
- 7.2)、 Remove the cover.
- 7.3)、 Connect to power DC9~30V/AC9~20V
- 7.4)、 Firstly adjust the receiver face to transmitter. See the indicator state to align.
- 7.5)、 Adjust the angle by screws and the horizontal alignment bolster. meanwhile, the LEVEL indicator(blue) of the receiver changes from slow to fast flashing. it indicates that the optical alignment accuracy is well, until the indicator is constantly on.
- 7.6)、 Continue to adjust, the LEVEL indicator is off, the GOOD indicator changes from slow to fast flashing, until the green indicator is always on, which means the signal strength is the best.
- 7.7)、 At the same time, judge whether the detector is well aligned by measuring the voltage of the signal test terminals. After the signal is well aligned, can use a multimeter to measure the voltage of the signal test terminals of the receiver. The signal voltage is not less than 4.3 V. If the voltage is less than 4.3 V, it need to realign it.
- 7.8)、 Alarm test:When intruder enter the protection area, the ALARM red indicator of the receiver lights up and the relay acts; When the intruder leave the area, it goes off and the relay recovers.

## 8、 Installation

### 8.1)、 Wall mounting:

- 1)、 Loosen the screw and remove the cover
- 2)、 Punch two mounting holes on the target wall
- 3)、 Wire hole: remove the foam plug, pull wire through, leave about 10cm wire length for wiring, and then insert the foam plug into the original position;
- 4)、 Fix the body on bracket
- 5)、 Connecting wires to the terminals and align the detector

6)、 Review and reset the cover

### **8.2)、 Pole mounting:**

1)、 Break out the wire hole and pull out the wires.

2)、 Remove the cover

3)、 Wire hole: remove the foam plug, pull wire through, leave about 10cm wire length for wiring, and then insert the foam plug into the original position;

4)、 Fix the body on bracket

5)、 Connecting wires to the terminals and align the detector

6)、 Review and reset the cover

### **9、 Installation notes:**

- Do not install on an unsteady or moveable base;
- Do not install the unit where objects can block the beams like plants and laundry moving the wind;
- Prevent direct sunlight onto the Rx or Rx, which can cause damage to the detector;
- Avoid cross talk;
- Avoid exposing wiring.