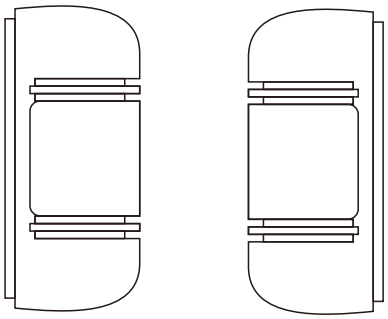
Active Dual-beams IR Sensors(100 meters)



Active Dual-beams IR Sensors(100 meters)

Active Dual-beams IR sensor is consist of transmitter and receiver. Receiver will receive the infrared beam sent from Transmitter. When transmitter infrared beam was cut-off or covered, receiver not able to receive infrared beam will cause alarming immediately.

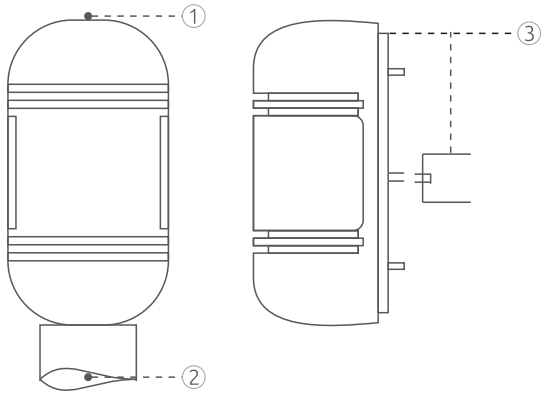
Feature

Concealment type of defense
Anti-tamper protection,Tamper-proof
Rainproof,dampproof,suitable for indoor or outdoor.
Easy installation

Specifications

Power supply:DC 10.5～24V
Standby current:≤ 160mA （transmitter）,≤70mA (receiver)
Response Time:50-700ms
Optical Axis Adjustable Angle(Horizontal):180°(±90°)
Optical Axis Adjustable Angle(Vertical):20°(±10°)
Temperature:- 25℃～+ 55℃
Measure for Moisture/Frost:Sit type cover
Dimensions(L x W x H):171*82*77mm

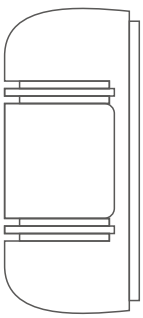
Dimensions



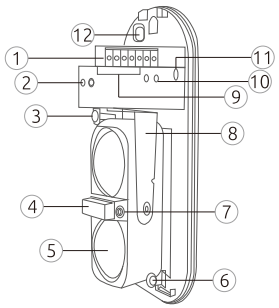
1.Mounting holes　　3.Subsidiary bracket
2.Outer diameter of the stent （38-50mm)

Parts Description-Exterior View

Cover



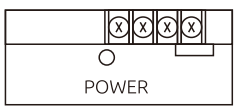
Parts description-Interior view



1.Connection terminal　　7.Viewfinder
2.Indication light　　8.Horizontal angle adjusting Screw
3.Vertical angle adjusting Screw　　9.Tamper switch
4.View lens　　10.Monitor Jack(Only for receiver)
5.Lens　　11.Obscuration Time(Only for receiver)
6.Screw Locking　　12.Wiring hole

Receiver

Indication light
Receiver
LEVEL (Red) Brightness varies,depending on incident level.
ALARM(RED) Alarming
GOOD (Green) Normal conditions,beam aligned.



Transmitter

Transmitter
POWER(Green) Power in normal
Testing Monitor Jack level (Please refer to the operation)
Obscuration Time Setup(Please refer to the operation)

Tamper switch:When system is in arm status. Once intruder attempts to open the cover,detector will send alarm signal.

Usage of active dual-beams IR infrared sensor

Before installation,sensors should be connected to control panel.

Connect detector to control panel

When the control panel is in enrolling state, power on the beam receiver and transmitter, then trigger the sensor to generate an alarm signal to the control panel, when the control panel beeps once, the sensor has been enrolled successfully. The detector is set in 24-Hour Zone as default.

Installation

1. Install the system with a clear line-of-sight between the Transmitter and Receiver. If installed outdoors, make sure trees, weeds,plants, etc. will not interfere with the beams.
2. Install the transmitter and receiver at the opposite site of entrance within the maximum range.
3. Place them at the same height, same surface with adapter cable at below.
4. Adjust the receiver case, turn the case left until buzzer beeps,mark the angle. Turn the case right until buzzer beeps, then mark the angle as well. The point between this two angle will be the right optical place.
5. To verify that the IR beams are not misaligned, block any beam of receiver by hands up and down, if the buzzer does not beep, the place is right. If the buzzer beeps, adjust horizontal angle of the receiver slightly, until buzzer does not beep.

In general, the time of blocking beams should be slightly less than the time needed for the intruder through the alert surface.

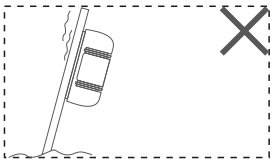
Testing

After completion of the installation,confirm correct operation by suitable walk tests.Refer to the following LED indications during the walk test.

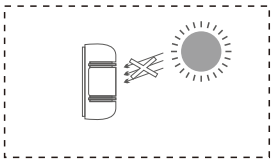
	Condition	Indication
Transmitter	Transmitting	Green LED is ON
Receiver	Watching	Alarm indicator is OFF
	Alarming	Alarm indicator is ON

Notice

1.Ensure the sensor's line of sight is free from any false alarm sources such as bushes,trees,etc.



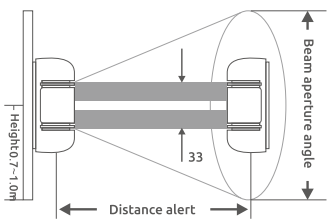
2.Ensure the sensors are mounted on a stable and firm footing.

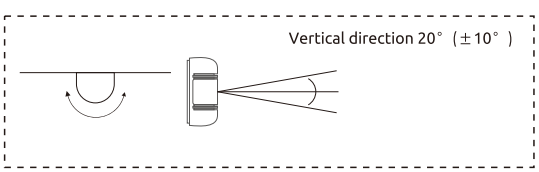


3. Ensure strong sunlight or car headlights do not shine directly on to the receiver.

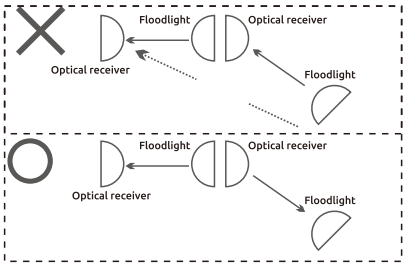
4. Height of installation and Protection distance.

The protection distance of IB-400 is within 100 meters.
The spread of beam is 3.0meters.





5. The adjust range of optical:The angle of reflection mirror is adjustable±90°horizontally and ±10°vertically,the unit can be installed in various directions.
Horizontally 180°（±90°）
Vertically 20°（±10°）



6.In case of jump phenomena as shown in the above sketch of long distance links,units are available with modified pulse frequencies on request.

Trouble Shooting

Symptom	Possible Cause	Remedy
Transmitter LED does not light.	Improper voltage supplied.	Check the wire power supply.
Receiver power LED does not light.	Improper voltage supplied.	Check the wire power supply.
Alarm LED does not light, even beams are blocked.	1.Infrared beam from transmitter is reflecting from another object and is being sent into the receiver. 2.Two beams are not blocked at the same time. 3.Shorter blocking that time set.	1.Remove reflecting object or change installation location and optical axis direction. 2.Check two beams to assure blocking at the same time. 3.Adjust blocking time to be longer.
Although Alarm LED lights when beams are blocked, alarm doesn't sound.	1.Broken or shorted alarm output wires. 2.Blown fuse on the signal circuit.	1.Check the wiring. 2.Repair as required.
Alarm LED on receiver always light.	1.Optical axis not aligned. 2.Blocking object between transmitter and receiver. 3.Dirty cover or reflecting mirror at transmitter and/or receiver.	1.Readjust the optical axis. 2.Remove the blocking objects. 3.Clean optics with soft cloth.
Intermittent Alarm.	1.Bad wiring connection. 2.Change of supply voltage. 3.Blocking objects blowing between transmitter and receiver. 4.Unstable sensor mounting. 5.Marginal optical axis alignment. 6.Birds or other large flying objects interrupting the beams	1.Check wiring connection. 2.Check for stabilized voltage. 3.Remove blocking objects or change installation location. 4.Stabilize mounting. 5.Readjust the optical axis. 6.Readjust blocking time or relocate installation.