

JTY-GF-TX3190C-F

Standalone Photoelectric Smoke Detector
Installation and Operation Manual



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Product Safety

To prevent severe injury and loss of life or property, read the instruction carefully before installing the detector to ensure proper and safe operation of the system.



European Union directive

2012/19/EU (WEEE directive): Products marked with this symbol cannot be disposed of as unsorted municipal waste in the European Union. For proper recycling, return this product to your local supplier upon the purchase of equivalent new equipment, or dispose of it at designated collection points.

For more information please visit the website at www.recyclethis.info

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1. Overview

JTY-GF-TX3190C-F Standalone Photoelectric Smoke Detector (hereinafter referred to as the alarm) can detect the large amount of smoke produced during a fire and promptly issue an alarm signal. The alarm uses an excellent microcontroller (MCU) to complete the compensation for changes in external environmental parameters and fire alarm judgment through the fixed program inside the MCU. It is equipped with an internal FosLink wireless communication component, which is stable and reliable, allowing it to connect to a wireless gateway and is widely used for fire safety monitoring in residential homes and "nine small venues." The alarm has an internal buzzer that emits a strong sound after an alarm is triggered, and it also features an infrared remote mute function.

2. Characteristic

- Two-way, dual-wavelength scattering technology, low false alarm rate
- Fully integrated chip design, strong anti-interference capability
- It has automatic compensation function
- Support infrared remote control silence
- Use FosLink wireless network, strong signal penetration
- Low power consumption and long service life

3. Technical Parameter

- Working voltage: DC3.0V (1 CR17450 lithium battery)
- working current:

Monitor current: $\leq 40\mu\text{A}$

Alarm current: $\leq 100\text{mA}$

- Alarm sound: greater than 80dB (3m in front, A-weighted)
- Wireless communication frequency: 470~510MHz
- Wireless transmission power: $\leq 17\text{dBm}$
- Maximum communication distance: open 300m
- Protected area:

60 m²~ 100 m², the specific parameters shall be based on the "Design Code for Automatic Fire Alarm System" (GB 50116-2013)

- Alarm status indication:
 - Normal monitoring status: the green light flashes once every 75s, and the buzzer does not sound
 - Alarm status: the red light flashes quickly and the buzzer makes an alarm sound
 - fault condition

Under voltage fault: the yellow light flashes about every 50s, and the buzzer makes a brief sound

Dust accumulation fault: the yellow light flashes twice every 50s, and the buzzer makes two beeps

Sensor failure: the yellow light flashes three times every 50s, and the buzzer makes three beeps

- Usage environment: temperature-10°C~+55°C, relative humidity≤95%RH, no condensation

Shell material and color: plastic pearl white

- Weight: approximately 138g (including battery)
- Shape size: $\Phi 100\text{mm} \times \text{H}51\text{mm}$ (including base)
- Installation hole spacing: 60mm
- Implementation standard: GB 20517-2006 Independent smoke fire detection and alarm

4. Structure Characteristics And Working Principle

1. The size of the alarm is shown in Figure 1 (unit: mm)

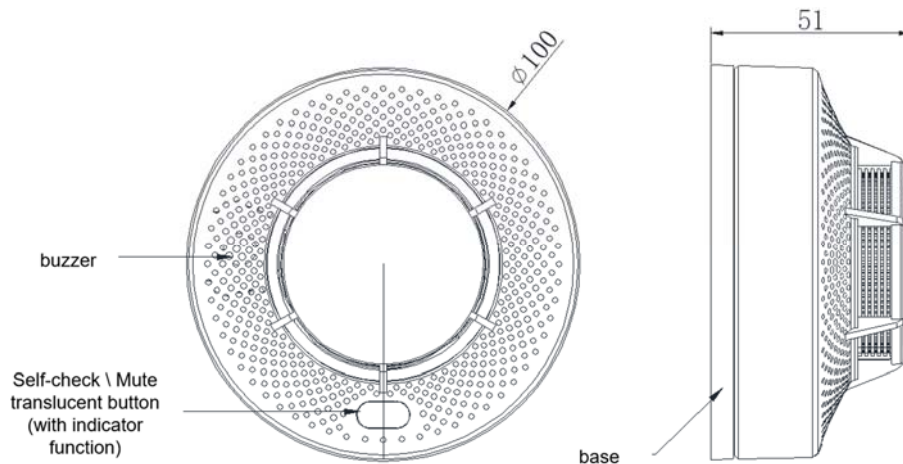


Figure 1 Schematic diagram of the alarm

2. Diagram of alarm base size, as shown in Figure 2 (unit: mm)

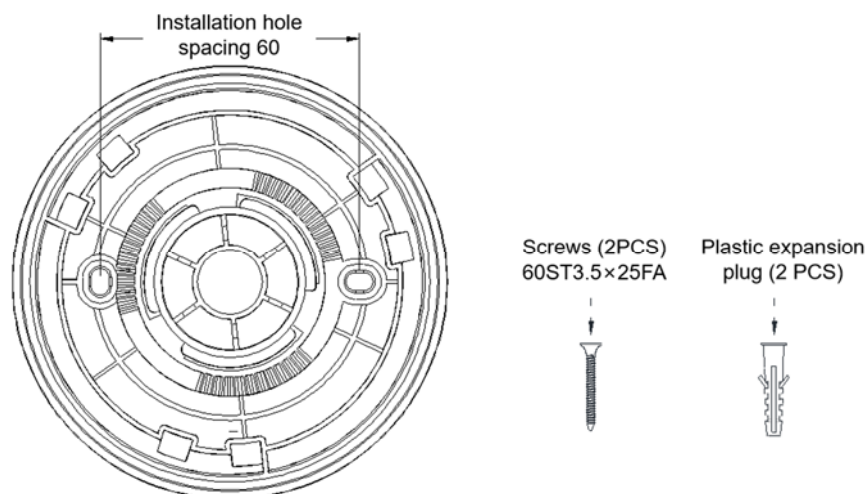


Figure 2 Screw dimensions of the alarm base and fixing accessories

3. operational principle

This product mainly uses infrared and blue light dual-wavelength smoke sensors to detect smoke when the smoke concentration reaches the alarm condition the product will trigger an alarm and simultaneously output an alarm sound through a buzzer the indicator light will flash rapidly with the alarm sound informing people of the fire situation in a timely manner Furthermore through FosLink wireless communication the alarm wireless gateway uploads the alarm information to the controller or cloud platform achieving the alarm function.

5. installation instructions

1. Suitable location: To get the fastest detection speed, the installation position of the alarm is very important, the best position should be on the roof.

① When installed on the roof: the edge of the alarm should be no less than 50cm from any wall.

② When installed on the wall: the alarm should be no less than 10cm from the top and no more than 30.5cm.

③ When installed on a sloping or human-shaped roof, the alarm should be kept at a certain distance from the roof. When the slope is less than 30 degrees, the distance should be 20cm, and when the slope is greater than 30 degrees, the distance should be 30cm~50cm.

④ For the smoke produced by the burning, the role of the stairs is similar to that of the chimney, so the stairs should be equipped with alarms.

⑤ Alarms should be installed in two areas with good air circulation, such as living room and bedroom. At least one alarm should be installed in each area.

⑥ The installation position of the alarm can be referred to Figure 3, please determine the best installation position according to the actual situation.

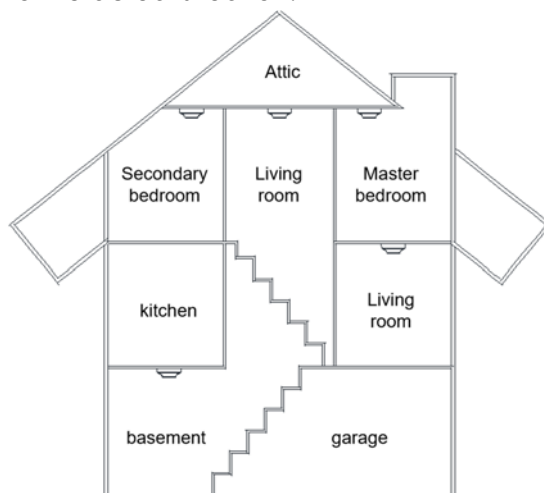


Figure 3 Schematic diagram of alarm installation position

2. Avoid the installation location

- ① Areas with temperatures below -10°C , above 55°C or relative humidity $>95\%$ RH.
- ② Dust and insect areas. Dust and insects entering the alarm may cause false alarms.
- ③ Where air reflux is not smooth. In case of fire, smoke and other combustion products cannot enter the air reflux smoothly in time and effectively.
- ④ Do not install alarms in places where flammable smoke particles are produced, such as garages, kitchens, water heaters and heating.
- ⑤ The alarm should not be installed near the air conditioner or fan outlet or suction port, because the smoke concentration near the air conditioner or fan outlet cannot effectively reflect the overall smoke concentration in the room; it should not be installed near the fluorescent lamp, and there should be more than 1m distance.

3. Alarm installation

As shown in Figure 4, fix the alarm at the bottom of the roof with screws, with the installation holes spaced as shown in Figure 2. Attach the alarm to the base slot, ensuring that the alarm fits perfectly into the base, then rotate it clockwise until it is securely locked in place

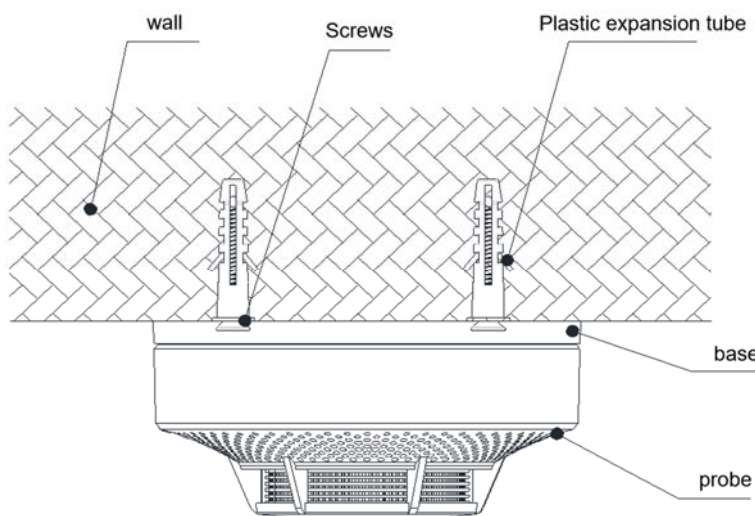


Figure 4 Alarm installation diagram

6. Usage and operation

1. Add the alarm to the gateway by scanning the alarm ID with a scanning device or manually entering the ID.
2. The gateway first enters the listening registration mode, the alarm is loaded with a battery, the alarm flashes once, and after waiting for 10 seconds, the alarm automatically enters the FosLink network connection state, the alarm emits two "beeps", and the alarm remains on for 8 seconds indicating successful networking, the gateway can also refer to the alarm information.

3. Alarm Function: When the smoke concentration around the alarm reaches a certain level, the alarm indicator light flashes rapidly and the buzzer emits an alarm sound. When the smoke concentration drops below a certain threshold, the alarm can automatically reset. (This function can be configured in advance, meaning it defaults to being resettable, but can also be set not to reset through configuration)
4. Normal monitoring status, short press the "Self-Check/Silence" button for self-check, during self-check the alarm emits audio-visual indication signals, fire alarm status, short press the "Self-Check/Silence" button to silence or use infrared remote control (supporting televisions with infrared function, set-top boxes, mobile phones, etc.) to silence, when using, align the infrared transmitter directly with the alarm silence button, pressing any button will silence the alarm.
5. It has a battery voltage detection function. When the battery voltage is lower than a certain voltage, the alarm will give a short "drop" sound and light indication, that is, the battery under voltage fault, please replace the new battery in time.

7. Common faults and troubleshooting

question	processing method
The alarm will flash a yellow light for 50 seconds, accompanied by a "drip" alarm sound	The alarm battery needs to be replaced
The alarm will flash the yellow light twice and sound two "drip" alarms at 50s	The alarm maze needs to be cleaned

8. matters need attention

1. Do not install in high temperature, high smoke, high water vapor places (such as kitchen, bathroom, etc.), and keep the environment around the alarm clean;
2. Test the alarm regularly;
3. When decorating and whitewashing the house, please be sure to remove the alarm to avoid dust pollution;
4. In the harsh environment of high temperature, high humidity and frequent false alarm, the battery life will be shortened;
5. If the alarm fails, do not dismantle the alarm for maintenance, contact the maintenance personnel to deal with it;
6. The alarm should be installed in a place where the FosLink network coverage is good to avoid communication failure between the alarm and the gateway;
7. The alarm cannot be screwed into the base without a battery

9. Battery safety precautions

1. It is strictly prohibited to charge, discharge, squeeze, or burn batteries
2. It is strictly prohibited to use batteries with serious injuries or deformations
3. Do not use or heat the battery outside the permitted temperature range
4. Users are strictly prohibited from disassembling batteries on their own
5. Do not weld directly on the battery surface
6. When replacing the battery, use the original battery or the battery of the same specifications; otherwise, the battery may catch fire or explode

10. Please contact us

Thank you for choosing JTY-GF-TX3190C-F independent smoke fire detection and alarm, please keep in touch with us, we will do our best to provide you with timely and high quality service!