

Self-contained photoelectric smoke and fire detection alarm

Independent photoelectric smoke and fire detectors (hereinafter as detector for short) are produced by infrared photoelectric sensors with special structure design, reliable MCU and SMT chip processing technology. This product adopts digital intelligent program analysis technology, with high sensitivity, It is stable and reliable, low power consumption, and easy to install. It is used for the detection and discovery of smoke concentration in the early stage of fire. When the smoke is detected and reaches the alarm concentration, the local beep alarm will be sent as soon as possible, so that rescue measures can be taken as soon as possible to avoid or reduce losses as much as possible. It is widely used in families, schools, nursing homes, hotels, computer rooms, factories and other places. An example of product appearance is shown in Figure 1.

◎ Working Principle

The detector adopts a photoelectric sensor with a special structure design combined with a reliable MCU, which can effectively detect the smoldering stage in the early stage of the fire or the generated smoke. When smoke enters the detector, the light source is scattered, and the light receiving element senses the light intensity. The received light intensity has a certain linear relationship with the smoke concentration. The detector continuously collects, analyzes and judges the field parameters. When confirming the field data When the smoke intensity of the detector reaches the predetermined threshold, the red LED indicator light of the detector flashes, and the buzzer sounds at the same time to indicate that an alarm has occurred. When the smoke in the working environment of the detector disappears, the detector automatically returns to the normal working state.

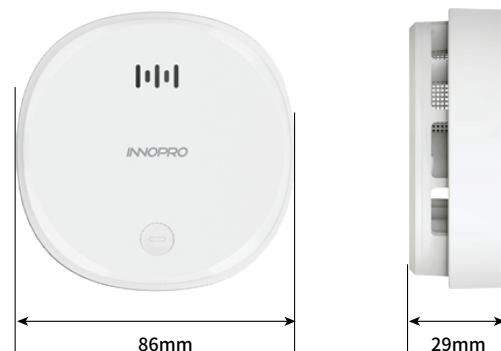


figure 1

◎ Technical parameter

Product Model: ED802 Series
Product number: PB0802BZ00/01/02/XX
Product size: 86mm*86mm*29mm
Working voltage: DC 3V
Working current: Standby current $\leq 5\mu\text{A}$; Alarm current $\leq 25\text{mA}$
Transmission distance: $\leq 130\text{m}$ (open visual distance)
Communication Method: Zigbee
Monitoring range: 60m^2
LED light indication: Alarm indication
Alarm mode: On-site/network alarm
Alarm volume: $\geq 80\text{dB}$ (3 meters in front)
Installation method: Ceiling
Battery type: Lithium battery CR123A 1400mAh
Working temperature: $-10\text{ }^{\circ}\text{C} \sim 55\text{ }^{\circ}\text{C}$
Working humidity: $\leq 95\%$ (non-condensing)

figure 2



◎ Dimensions (figure 2)

◎ Installation Notes

1. Installation environment:

For general places, when the height of the detector is less than 6m, the protection area is 60m^2 . The detector should be mounted on the ceiling.

2. Installation method:

- Drill two mounting holes 50mm apart on the ceiling, and fix the base of the detector with expansion plugs and self-tapping screws; as shown in Figure 3.
- Rotate the detector counterclockwise, remove the base, put the 3V battery into the battery compartment of the detector according to the direction of the battery button and press it tightly. Note: If the direction of the battery is reversed, the detector will not work properly and may damage the detector. If the battery has been installed at the factory, just remove the battery cover.
- Short press the button, the indicator light of the detector will light up and generate an alarm sound, indicating that the detector is working normally. If it is not normal, you should check whether the battery is installed correctly or the voltage is too low (below 2.7V). After the detector is tested, rotate the detector clockwise to install it on the bracket and snap it into place.

◎ Routine maintenance

- In the process of use, if you encounter a malfunction, please contact the supplier as soon as possible, and do not disassemble and repair it without permission to avoid accidents.
- If the detector will not be used for a long time, the detector must be removed, and the battery must be taken out, put into a packing box, and stored in a ventilated and dry place.

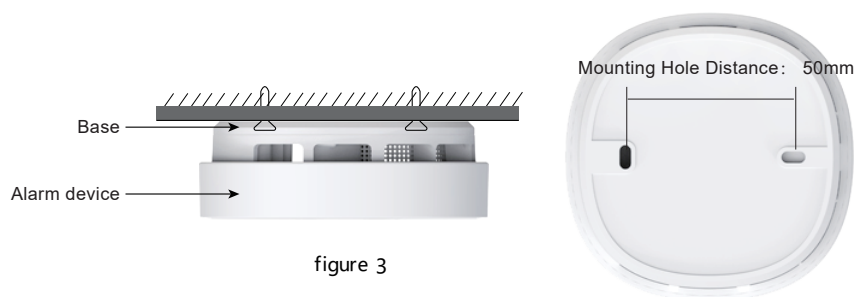


figure 3

● Operation Instruction

1. Basic function operation:

Self-inspection function	The detector should be self-inspected regularly. When the button is pressed for a short time, the red indicator light will flash and an alarm will sound.
Working status	The red indicator light flashes periodically every 40 seconds, and the smoke concentration in the surrounding environment is automatically detected every 5 seconds.
Alarm function	When the smoke concentration reaches the alarm value, the red indicator light of the detector starts to flash and the buzzer sounds.
Fault display	When the battery power of the detector is low, the orange indicator flashes once every 40 seconds, indicating that the battery is low voltage. When the detector warns of undervoltage, the battery should be replaced in time, otherwise, it will affect the normal operation of the detector.
Silencing function	When alarming, press the button, the detector will enter the muting state, the buzzer will stop ringing, but the red indicator light flashes quickly, indicating that there is still an alarm. If the alarm condition is not lifted, the detector will automatically exit the silencer state after the silencer state is maintained for about 80 seconds, the red indicator light will continue to flash rapidly and the buzzer will sound again; If the alarm condition is lifted, the red indicator light will be off and enter the normal monitoring state.
Test operation	Short press the button, the detector emits a loud "di~di~" alarm tone, and the red indicator light flashes 4 times quickly, then the test is successful. Short press the button, if it does not match the above phenomenon, the test fails.
Anti-dismantle function	Anti-dismantle trigger: the buzzer "di~di~" sound and the red indicator light flashes twice, push the anti-dismantle alarm information; Tamper Release: The red indicator flashes 2 times to transmit tamper release information.

Reminder: The silencer function is a temporary measure taken when a guest needs to smoke or perform other operations that may trigger the detector alarm.

2. Network function operation:

Wireless function	Pairing: open the APP, select the Zigbee gateway, click to add a sub-device, press and hold the button for 5 seconds, the green indicator light flashes continuously to enter the pairing mode, the device resets, and automatically sends a network access request to the Zigbee gateway, after the Zigbee gateway confirms, the green indicator light is off, the network access is completed, and the APP prompts the device to be added successfully. The longest configuration time is 2 minutes. If it times out, it will automatically exit the pairing mode.
Status of the indicator	Self-checking status: After the power is turned on, the green indicator light flashes quickly, and goes out after 10 seconds, the self-checking is successful, and the detector enters the monitoring working state.
	Low voltage alarm: When the battery of the detector is low, the orange indicator light flashes once every 40 seconds.

● Troubleshooting

Malfunction phenomenon	Cause Analysis	Remedy
False alarm	There is large dust or water vapor in the room.	Turn on the power again after the dust or water vapor is eliminated; or use a vacuum cleaner to clean the labyrinth/replace with a new labyrinth (external black plastic part)
The red indicator flashes 5 times every 60 seconds	The battery voltage is too low.	Replace the same type of battery.
Test or detector does not alarm	Circuit failure.	Contact your local dealer.

● Transport storage

- 1. Transport and store according to the regulations of GB 20517-2006.
- 2. The original packaging and seal of the manufacturer must be kept intact during transportation and storage, and the product must not be severely impacted.
- 3. The ambient temperature should avoid drastic changes.
- 4. The height of packing and stacking shall not exceed 6 layers, and the stacking height of a single piece shall not exceed 5 layers after unpacking.

● Open box check

Material	Packing Boxes	Packing Box	Base	Instruction Manual	Certificate of Conformity
Quantity	72 boxes/box	1 detector/box	1 piece/box	1 set/box	1 sheet/box

● Manufacturer

Company name: INNOPRO TECHNOLOGY CO.,LTD
Company address: No. 33, Dahe Industrial Zone, Guancheng Community, Guanhu Street, Longhua District, Shenzhen,P.R,China

FCC Warning Statement

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment. This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- - Reorient or relocate the receiving antenna.
- - Increase the separation between the equipment and receiver.
- - Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- - Consult the dealer or an experienced radio/TV technician for help.

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

RF Exposure Statement

To maintain compliance with FCC's RF Exposure guidelines, This equipment should be installed and operated with minimum distance of 20cm the radiator your body. This device and its antenna(s) must not be co-located or operation in conjunction with any other antenna or transmitter.