

Smart Combustible Gas Sensor

**CT-SMZB2003-HM**

Smart Combustible Gas Sensor

Introduction

This Smart Combustible Gas Sensor adopts extra low power consumption ZigBee wireless module. Used for detecting combustible gas leakage and preventing danger caused by gas leakage. ZigBee repeater, extend wireless transmission distance. Detector adopts high stability semi-conductor gas sensor, with high stability, small sensitivity drift and many other features. Detector alarms white gas densities in air exceed alarm level. It is applicable for kitchen or possible gas leaking indoor area.

Technical Information

- Compatible with any ZigBee network controller
- Easy to install, without any wiring

- Sensitivity and small size

Specifications

- Radio protocol: ZigBee (IEEE 802.15.4)
- Operating voltage: AC100V ~ 240V
- Average consumption: < 1.5W
- Sound level: 75dB/m
- Alarm density: 6%LEL \pm 3%LEL(natural gas)
- Networking way: ZigBee Ad-Hoc Network
- RF range: \leq 70m (open area)
- Working Temperature: -10 $^{\circ}$ C~+50 $^{\circ}$ C
- Working humidity: \leq 95%RH
- Dimension: 79 \times 68 \times 31mm(no including plug)

Operation

As shown in figure 1, there is a Reset button (which is used to carry out inclusion, exclusion or reset), a Testing button and a network status indicator LED on the surface of the Smart Combustible Gas Sensor, and the functions are introduced as follows:

- Networking Button (Reset Button)
 - (1) If the Smart Combustible Gas Sensor has not been included into the network, short press the Reset button to enter the network inclusion condition, at this time the network status indicator LED flash (3 times/second). If the network inclusion success, the network status

indicator LED will long on for 2 seconds and then go out. If the network inclusion failure, the network status indicator LED will go out.

(2) If the Smart Combustible Gas Sensor has been included into the network, and want to include into the new network, you must reset the device. Please long press the Reset button for 10 seconds, LED will flash slowly for 2 seconds.

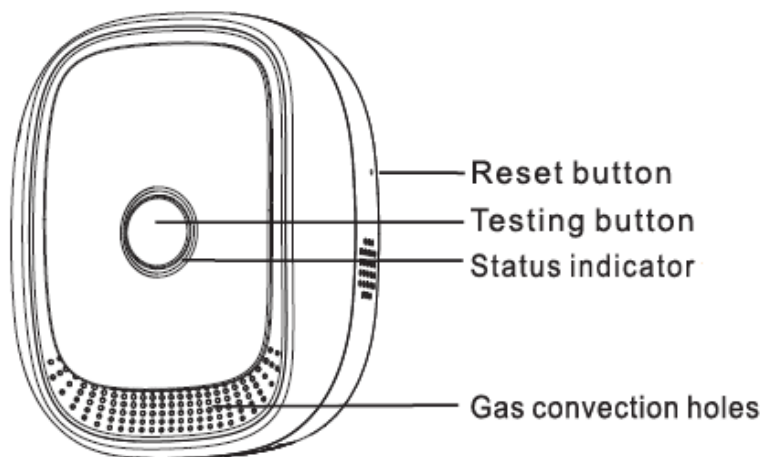


Fig.1

- **Testing Button**

Test button of this detector is used for testing whether LED indicator and buzzer can work properly. When press test button, detector's red LED and yellow LED flashing alternately, buzzer alarming.

- **Network Indicator**

State	Color	Light	Alarm sound
Power	●	Normally on	No
Alarm	●	Flashing	di"alarm
Malfunction	●	Normally on	long buzzing

ZIGBEE NETWORK INCLUSION

1) Insert the gas detector into socket.

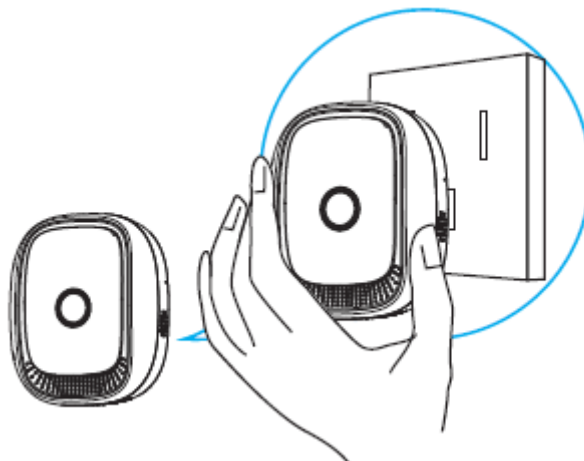


Fig.2

- 2) While power on detector, power indicator on green and buzzer “beep” once, circuit enter warm-up state, then red LED and yellow LED alternately flashing, will stop flashing after 3 minutes means detector has entered normal work status. Please do not test gas when detector warming up.

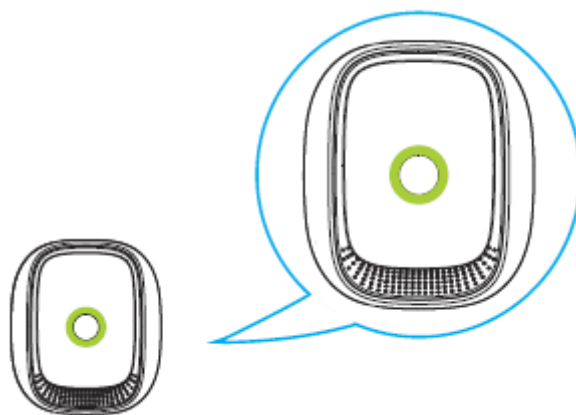


Fig.3

- 3) Keep pressing the Reset button for 2 seconds until see green LED blinking fast (Refer to the above steps).



Fig.4

- 4) Choose "FBee" to enter the Network Inclusion mode on the APP, then click "✓".



- 5) When prompt a message "Request Access Success", please go to the device list interface, and refresh the device list, the device will be displayed.

Installation Instructions

After the Smart Combustible Gas Sensor completing the network inclusion, it will enter the detection state. Once the Smart Combustible Gas Sensor detects gas leakage, and gas concentration reaches the alarm threshold, it will send alarm signal, which can alert you and your family timely. In addition, if the users do the SMS alarm or Email alarm configuration. When the alarm is triggered, mobile terminal will receive alarm information, you can clicks the alarm information to view the detailed information.

In order to ensure the detection effect, this product should be placed in a good permeability area, do not install it at positions of rain and snow.

Smart Combustible Gas Sensor Installation

Before installation, please confirm the detecting gas density, heavier or lighter than air. If detecting gas is heavier than air: LPG., etc, install at 0.3~1m height from floor, semi-diameter to gas source less than 1.5m. If detecting gas is lighter than air: natural gas, manufactured gas, marsh gas., etc, install at 0.3~1m height from ceiling, semi-diameter to gas source less than 1.5m. (Refer to figure 5)

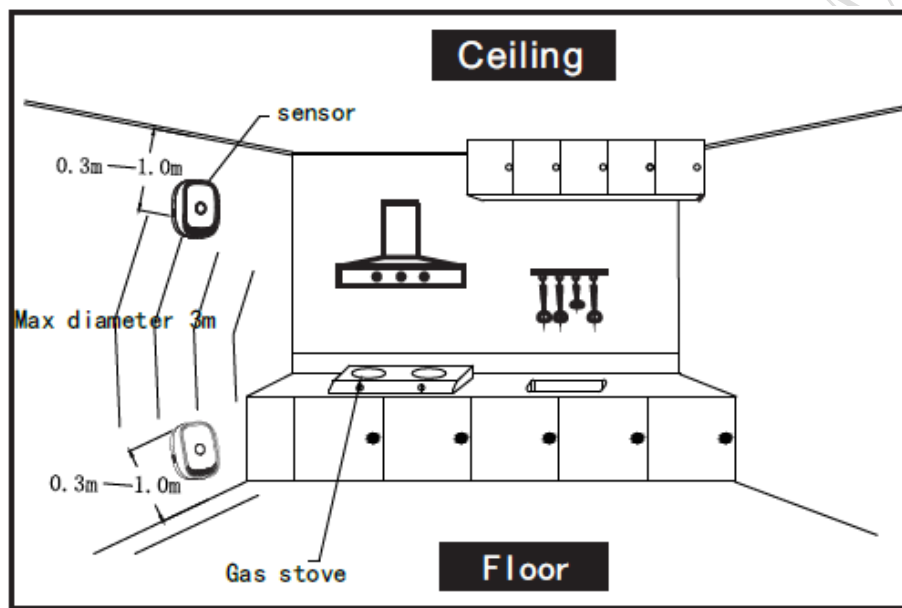


Fig.5

Safety Notice

- This device is a wireless communication product; please do not place the device to work in the metal container, in case the signal is blocked.
- The working temperature is -10°C to +50°C.
- Shell surface has a slight fever while working is a normal phenomenon.
- Please dismantle detector while decorating house.
- Avoid spraying aerosol around sensor.

- Oil adhesion on gas convection window may affect the sensitivity of gas detector after long time using, suggest users to clear gas convection window with brush mixing little detergent every 3 months (or based on specific oil pollution level). Don't let detergent enter detector's body. Please retest after clean.
- Semi-conductor of gas detector supports 5year lifespan, please replace detectors timely.
- Please do not use lighter to test detectors in case of any damage to gas sensor.
- For your safety, in addition to use detector properly, please be vigilant and enhance safety prevention awareness in daily life.