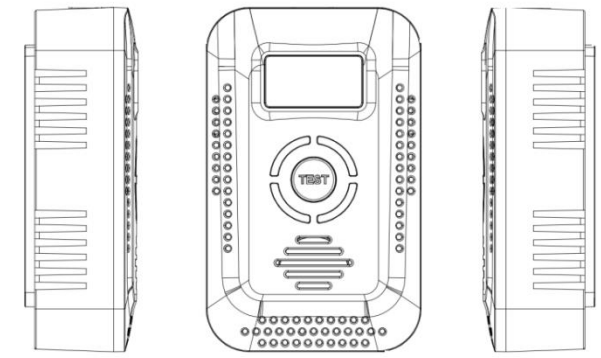
Combustible gas and carbon monoxide compound detector
Operating manual

I Product profile

The household combustible gas and carbon monoxide compound detector is the latest product independently developed by our company, which adopts high-quality semiconductor sensor, combines advanced electronic technology and sophisticated technology, and integrates advanced science and technology. This product has the advantages, such as stable operation and long service life, etc. It is a kind of high sensitivity concentration detection equipment for real-time detection of combustible gas and carbon monoxide leakage, and it is a necessary product for family safety precautions.

The detector adopts the acousto-optic alarm mode, and sends out acousto-optic prompts when alarming to remind you to take effective measures to avoid the occurrence of fire, explosion, poisoning and other malignant events, so as to protect your life and property safety.

II Detector diagram



III Technical parameters

1 External structure and dimension: 75 * 40 * 120mm
2 Operational power supply: AC90V～AC240V , backup power supply is rechargeable DC9V battery (optional).
3 Applicable gases: methane and carbon monoxide
4 Sampling method: natural diffusion
5 Sensors: semiconductor sensor and electrochemical sensor
6 Alarm setting value: methane 5LEL% ± 3 LEL
Carbon monoxide gas alarm values:
There is not alarm when the concentration is less than 50 PPM.
There is a alarm within 60-90 minutes when the concentration is 50 PPM to 99 PPM.
There is a alarm within 10-40 minutes when the concentration is 100 PPM to 299 PPM.
There is a alarm within 3 minutes when the concentration is more than or equal to 300 PPM.
7 Environmental conditions: the indoor temperature is - 10 ℃ - 55 ℃, and the relative humidity is less than or equal to 95% RH
8 Response time: less than 30 seconds
9 Recovery time: less than 30 seconds
10 Alarm mode: acousto-optic alarm
11 Alarm volume: more than or equal to 70dB (1 meter right ahead)
12 Service life: 3 years
13 Power consumption: less than 3W
14 Measuring ranges: methane is 0-20%LEL, and carbon monoxide is 0-999PPM.
15 Output contact: pulse DC12V or 12V manipulator signal, quantity: 1.

IV Operating instructions

1 After switching on 12V DC power supply, there is a voice broadcast: welcome to use voice gas and carbon monoxide compound detector for preheating. The red light and yellow light go out, and the green light is always on. The nixie tube counts down 180 seconds, and the detector enters the preheating state. After the countdown is over, the nixie tube displays 0P, and then enters the normal monitoring state.

2 Under the normal monitoring state, when the detector detects that the combustible gas concentration in the air reaches the alarm setting value, there is a voice broadcast: attention please, gas leakage. The detector sends out the acousto-optic alarm signal and outputs the pulse DC12V or 12V manipulator signal. The red light flashes rapidly and the nixie tube displays the concentration value. When the detector detects that the carbon monoxide concentration in the air reaches the alarm setting value, there is a voice broadcast: attention please, carbon monoxide gas leaking, please open the window and the door. The detector sends out the acousto-optic alarm signal and outputs the pulse DC12V or DC12V manipulator signal. The red light flashes rapidly and the nixie tube displays the concentration value. When the detector detects that the concentration of combustible gas or carbon monoxide in the air is lower than the alarm setting

value, the red indicator light goes out and the detector returns to normal monitoring state.

3 Under the normal monitoring state, press the test / self-checking button of the detector. If the yellow light and red light flash and the detector has normal function, there is a voice broadcast: Test is normal. If the detector malfunctions, there is a voice broadcast: Detector malfunctioned.

4 Under normal conditions, the detector can be checked once a month. If it is found that the detector does not give a alarm or is abnormal, please contact professional personnel to deal with it in time.

5 It is necessary to remove the dust and greasy dirt from the air inlet and air vent of the detector frequently.

6 When the detector malfunctions, the yellow indicator light is always on and the buzzer sounds. Please ask professional personnel or send it to our factory for maintenance.

7 When the accumulated working time of the detector reaches the service life of the gas sensor, the yellow indicator light will flash slowly to indicate.

V Installation location

The detector and combustible gas appliances should be located in the same room. If the detector is installed on the wall, its height should be higher than the height of any door and window, but it should be at least 150 mm away from the ceiling; if the detector is installed on the ceiling, it should be at least 300 mm away from any wall, The detector should be at least 1m to 3m away from the potential air source; if there is a barrier in the room, the detector should be located on the same side of the barrier as the potential air source; in the room with beveled ceiling, the detector should be located on the higher side of the room; the detector should be located very close to the area where residents often breathe.

The following locations are not suitable for installing the detector:

1 Do not install it in the bathroom and other places with large water vapor.

2 Do not install it in a place directly facing oil fumes of stoves.

3 Don't install it in a place where the power is often cut off.

4 Don't install it in a place shielded by curtains, etc.

5 Do not install it in a place near volatile organic solvents.

6 Do not install it in chimney, air vent, gas passage of ventilation pipe and well ventilated places.

7 Do not install it in a place where the temperature is less than - 10 ℃ or higher than 55 ℃.

8 Don't install it in a place that is easy to be collided, damaged or moved inadvertently.

VI Alarm handling method

When the detector detects that the combustible gas concentration in the surrounding environment reaches the alarm setting value, the detector will send out the acousto-optic alarm signal. When the gas concentration drops below the alarm setting value, the detector will automatically return to the normal monitoring state.

When the detector gives an alarm, the following operations should be performed:

1 Turn off gas appliances and gas supply system;

2 Open doors and windows for ventilation;

3 Do not turn on any electrical switch or light any open fire;

4 Do not cut off the power supply of the detector. When the gas concentration drops to the safe range, the detector will automatically return to the normal monitoring state;

5 Immediately go to places with fresh air or open doors and windows, count the number of people, and do not enter the room again until the emergency personnel arrive, the house is safe and well ventilated, and the detector returns to normal monitoring state.

6 Check the cause of leakage and ask professional personnel to repair it in time.

VII Precautions

1 Do not use a large number of substances with pungent odor near the detector, such as hairspray, insecticide, paint, adhesive, etc., in order to avoid false alarm.

2 Do not often use high concentration of detection gas to impact the sensor, in order to extend the service life of the sensor. Don't cut off the power supply of the detector at will. Do not disassemble the detector or try to repair it.

3 Don't cut off the power supply of the detector at will.

4 Do not disassemble the detector or try to repair it.