Gas Detector (GDP 380 MK)

General Description

Independent gas detector with high stability adopting advanced semiconductor sensor and MCU processing technology with features of long life, convenient installation and high reliability. It is suitable for early warning of combustion gas explosion in houses, villas, hotels, shops, offices, …etc.
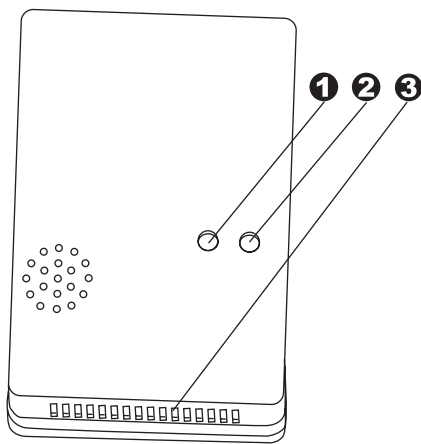
Technical Specifications/ Parameters:

- Input voltage   DC 12V AC 220V
- Static Current $\leq$ 170mA
- Alarm Current $\leq$180mA
- Alarm Sound   85dB
- Working Frequency   433MHz
- Range: $\leq$ 100m (Open Area)
- Alarm Level   10%LEL
- Warm up time   120s

PRODUCT INTRODUCTION

The product is wall mounted gas detector with high stability.(hereinafter called detector)， It is used for detecting leaking gas. Advanced semiconductor sensor is adopted to ensure high stability and long life. It is convenient for mounting. The product is suitable for the safety of residential house, villas, hotels, markets, boarding house etc.

PRODUCT PROFILE

❶ ALARM LED

❷ WORKING LED

❸ GAS CONVECTION HOLES

MAIN FEATURE

● HIGH RELIABILITY SENSOR

● AUTO RESET AFTER ALARM

● MCU PROCESSING ADOPTED

● AUTO DETECT SENSOR FAILURE

● INDUCED GAS- NATURAL GAS / LPG

● SMT DESIGN, HIGH STABILITY

TECHNICAL SPECIFICATION

Operating Voltage ：DC9-16V or AC 220V

Static Current ：90mA

　　　　　≤ 30mA(low power consumption type)

Alarm Current ：≤ 100mA

　　　　　≤ 40mA(low power consumption type)

Warm-up Time: about 120S

Alarm Level: 10%LEL

Alarm Indicator: red LED flashes

Sound Level: ≥ 85dB/m

Operating Temperature: -10 ℃ ～ +50 ℃

Environment Humidity: ≤ 95 ％ RH (no congelation)

Installation Mode：wall mounted

Alarm Output：relay output/sound & flash alarm
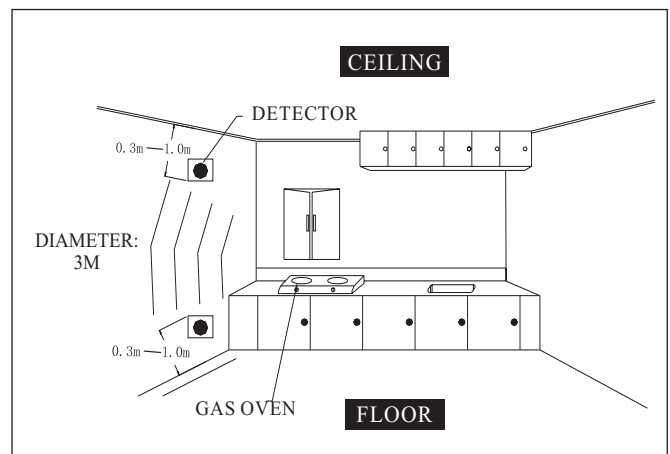
　　　　　RF 315MHz or 433MHz (wireless type)

Radio Distance：100m in open area (wireless type)

Outline Size ：110*70*40mm
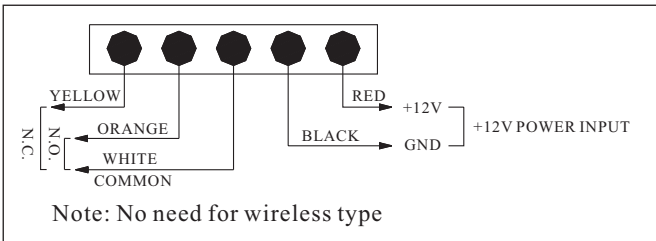
Execute Criterion ： GB15322.2-2003

INSTALLATION

1. Please confirm the induced gas is heavier than air, or lighter than air. The gas is heavier than air: LPG etc. The gas is lighter than air: natural gas, marsh gas and etc.

2. Choosing the suitable position to install the Detector according to the gas specific gravity. Detecting the gas heavier than air: Installation height from floor: 0.3-1.0m,Semi-diameter to gas source: <1.5m;Detecting the gas lighter than air: Installation height from ceiling: 0.3-1.0m ,Semi-diameter to gas source: <1.5m.

3. Fix the screw into the wall firmly, then hang the detector.

4. Avoid installing the detector close to the following sources of interference: direct air flow from vents, fans, doors, windows, sources of steam, oil vapor, etc.

5. All wires installation must accord with the National and Local effective laws and criteria. The wires must have the suitable size and colorful marks for avoiding connecting error. And unsuitable connection of wires will result in the alarm error while gas leaking happened.

TERMINAL BLOCK FIGURE

YELLOW   RED   +12V
N.C. N.O. ORANGE   BLACK   GND   +12V POWER INPUT
WHITE
COMMON

Note: No need for wireless type

OPERATING INSTRUCTION

The Gas Detector can be used independently, or with wired networks output functions.

1. Independently

(1) Choosing a suitable position to install the Detector according to the INSTALLATION.

(2) With DC 12V or AC 220V power supply, the green LED flashes once a second for about 2 minutes continuously, that runs the inside sensor (warm-up state). After doing that the green LED lights, that means the Detector comes into normal working state.

2. In wired network

(1) Choosing a suitable position to install the Detector according to the INSTALLATION. To connect the Detector with the controller, with the N.C. or N.O. contact optional accord with the controller system.

(2) With DC 12V or AC 220V power supply, the green LED flashes once a second for about 2 minutes continuously, that runs the inside sensor (warm-up state). After doing that the green LED lights, that means the Detector comes into normal working state.

3. While detecting the gas leaking, the red LED flashes, the Buzzer sends out the alarm sound "Di ⋯ Di", and output the network signal. The Detector will resume to the detecting state after the gas dispersed.

4. The buzzer long beeps and the red LED ON means the inside sensor failure. Please cut off the power, and contact the After Service Center.

5. If the Detector runs disorderly, cut the power off and rerun again. If still in wrong, please contact the After Service Center.

TEST

To test the installed detector while using independently or in network, you can give some gas around in distance of 5cm to the gas convection holes by using un-ignition lighter.

Testing frequently may result in reducing the sensitivity of the Detector. The alarm density of gas is set according with the criteria of GB15322.2-2005.The Detector will stop alarm and resume to the detecting state while the gas density reduced to lower than the alarm level. The alarm output switches can connect with the defense input switches of alarm system.

NORMAL MAINTENANCE

Suggestion: the user must brush and clean the gas convection holes with a little cleanser every three months, and must retest the Detector after cleaning for preventing the cleanser into the Detector.

EMERGENCY ALARM TREATMENT

The Detector alarms while the gas density in air exceed the alarm level. The relative treatments as below:

1. Shut down the tube valve right away.

2. Open the window and make the air flow rapidly.

3. Extinguish all fire sources and do not use anything can make fire, e.g. lighters, matches, etc.

4. Avoiding open or close the power all kinds of electric Equipment.

5. Check the reason of gas leaking, and notice the relative departments and professional persons in time.

LED INFORMATION

RED LED FLASH	GAS LEAKING
RED LED ON	SENSOR FAILURE
GREEN LED ON	NORMAL WORKING
GREEN LED FLASH	WARM-UP INSIDE SENSOR

NOTICE

1. The detector must be installed and connected correctly. It can not work if without the power supply orderly.

2. Please periodically maintenance according to the directions.

3. The detector must have a test every half a year.

4. For various reasons, including, but not limited to, changes in environmental conditions, electric or electronic disruptions and tampering, the Product may not perform as expected. The user is advised to take all necessary precautions for his/her safety and the protection of his/her property.