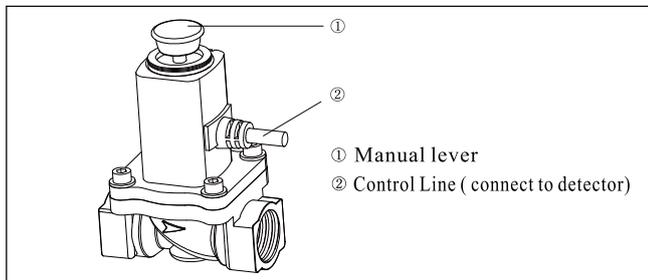
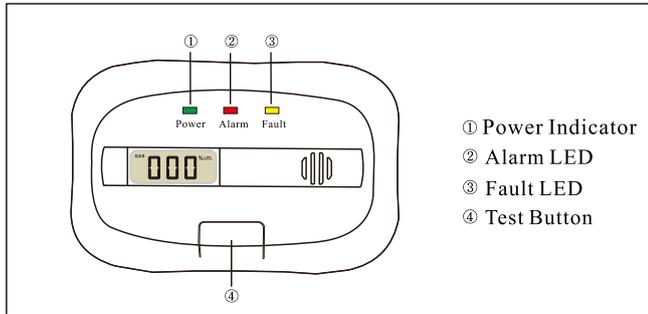


MANUAL FOR COMBUSTIBLE GAS DETECTOR

PRODUCT INTRODUCTION

This product is a high-stability combustible gas detector (hereinafter referred to as the detector) which is used to detecting the leak of combustible gas. The detector uses the most advanced semiconductor gas sensitive element, working steady. The detector adopt LED display alarm gas concentration, wide range input voltage AC 110~230V. Rechargeable 9V Ni-MH battery back up available.

PRODUCT SKETCH



Solenoid valve (optional)

MAIN FEATURES

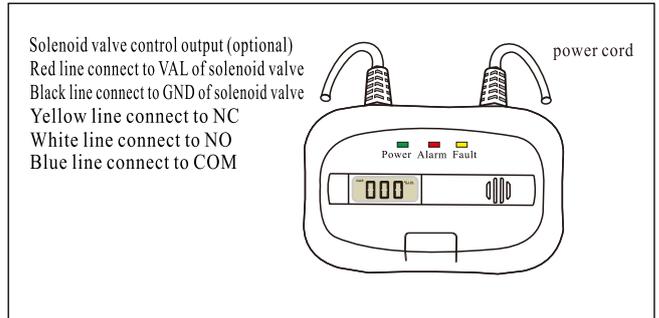
- LCD display alarm combustible gas concentration
- MCU processor
- High stability sensor design
- Fault auto detect, indicate and display
- Alarm auto reset
- SMT technology, high stability
- Wide range operate voltage AC110~230V
- Battery back up available
- Multi alarm output

TECHNICAL PARAMETERS

Operating voltage	AC110-230V, 50~60Hz, rechargeable 9V Ni-MH battery (optional)
Standby Wattage	≤0.5W
Alarm Wattage	≤1W
Warm-up time	About 180S
Alarm LEL	10%LEL
Sensor	Catalyst combustion sensor
LCD display	Display alarm concentration / detect gas Display input power / display combustible gas concentration ≥2%LEL
Indicate light	AC Input: Green light on Alarm: Red light flash Sensor fault: Yellow light on
Sound Level	≥85 dB/m
Environment temperature	-10℃ ~ +50℃
Environment Humidity	10%~90% (No congelation)
Product Size	138 * 90 * 40 mm
Install type	Wall mount or Plug in

CONNECTION GUIDE

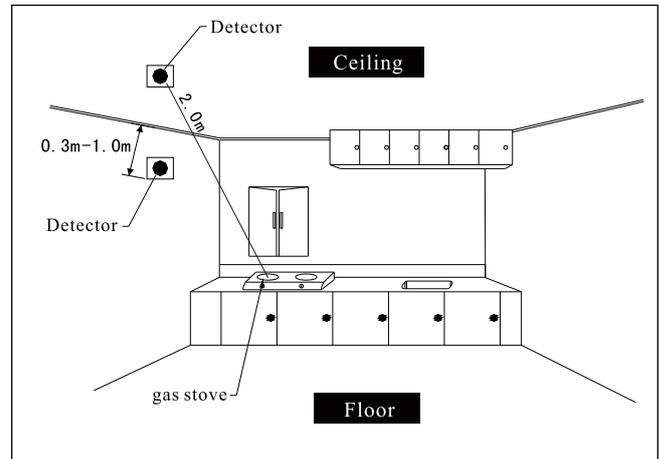
All wire connection should be in accordance with national and local laws, standards. Inappropriate wire connection would lead to alarm failure when gas leak.



(ALARM WIRE CONNECTION DIAGRAM)

INSTALLATION

1. The detector can be wall mounted or plug install. Choose appropriate position, normally, at the ceiling above the gas source, around 2m distance. (Detail figure below).



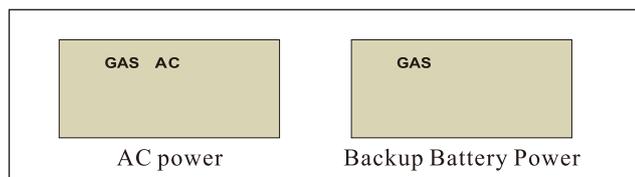
2. Install the fixture to the ceiling, detectors embedded in the mounting bracket. The detector can also plug to the socket on the wall.
3. when installing the sensor for home use, do not install in dirty, dusty or oily areas. Oil, dust, or household chemicals can contaminate sensor head, so that alarm can not working properly. Do not block the ventilation opening. The Detector will not be installed by curtains, furniture or other objects blocking the air flow in. Do not install in poorly ventilated places, such as the top of vaulted ceilings and the top of sharp roof, where gas can not be induced early to alarm. do not near strong wind from the the ceiling fan, do not install around windows and doors which through to the outdoors, fresh air vents or any nearby place. The rapid circulation of air from the fan or the outdoors will affect the sound level, the sensitivity of the detector.
4. All wire connection should be in accordance with national and local laws, standards. Inappropriate wire connection would lead to alarm failure when gas leak.

PRODUCT OPERATION

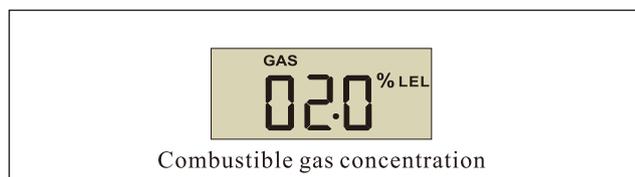
1. Connect to the power supply, circuit is getting into self-testing status, all LEDS flash once the buzzer give a sound "Di", the detector in warm up status, LCD display cyclically. After 3 min warm-up, LCD Backlit screen turn off, LCD display input power type and detecting gas type, means the detector in normal working status. If AC power input fail, the detector will run by backup battery. LCD display low power when battery power is low. Yellow led flash every 10s with sound "Di".

MANUAL FOR COMBUSTIBLE GAS DETECTOR

2. In normal work status, LCD display as below:



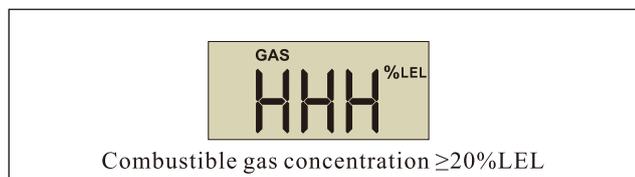
3. When combustible gas concentration reach 2%LEL, LCD display gas concentration:



4. The detector run sensor self-test during work status. If sensor fault, yellow light on with sound "di-di-di". LCD display as below.



5. When combustible gas concentration reach 20%LEL, LCD display as below.



BENCHMARK CALIBRATION

- The gas sensor is precision component. The benchmark may be affected by shaking or knocking. Benchmark calibration is necessary.
- Benchmark calibration steps
 - Dis-connect the power to detector (remove battery if have).
 - hold test button and connect power to detector.
 - Wait for more than 3 min.
 - press the test button 5 times within 2 second, red light flash, detector LCD display as below.
 - About 30 second later, sample collection of benchmark finished, detector turn into standby.
 - Dis-connect power to detector, then connect power, benchmark calibration finished.
- Attention to benchmark calibration**
 - The detector should be more than 24-hour aging test before benchmark calibration.
 - Benchmark calibration should be done in clean air.



EMERGENCY TREATMENT

The detector alarms while the combustible gas concentration in air exceed the alarm level. The relative treatments as bellow:

- Shut off the gas pipe valve immediately.
- Open windows to make indoor air flow rapidly.

- Put out all fire, do not use anything may cause fire. (Such as lighter, match, etc).
- Do not turn on/off electric equipment.
- Check the gas leaking. Notice relative departments and persons to handle. If detector's fault result false alarm, check the detector installed at appropriate position or not.

LED INFORMATION

Red light Flash	gas leak
Green light flash	warm up
Green light on	Normal work status
Yellow light on	Detector fault

BENCHMARK CALIBRATION

Status	Reason	Solution
Keep warming up (LED keep flash)	1. No electricity for long time	1. Power on 24-hours aging test
	2. Use gas test during warm up	2. Prohibit gas test during detector warm up
	3. Benchmark changed	3. Benchmark Calibration
Yellow light on, buzzer sound	Sensor fault	Contact retailer or distributor for repair
Can't shut off solenoid valve	Incorrect solenoid valve wire connection	Connect wire according to connection guide

NOTICE

- Avoid shaking and knocking in transportation, otherwise may cause detector fault.
- Wire connection correct and appropriate power source.
- Maintenance according to the guide periodically.
- Clean the dust on the detector's surface every month.
- Do NOT clean sensor with detergent or solvent. Chemical may cause sensor temporary or permanently damage.
- Avoid spray air freshener, hair spray, paint or other spray near the detector.
- Detector's life span is limited, should be tested by professional person every half year. Repair or replace the invalid detector.
- The detector can decrease accident, but can note avoid all accident for the risk of your safety, the user is advised to take all necessary precautions for his/her safety and the protection of his/her Property.