



C-9602LW Conventional Gas Detector



Installation and Operation Manual

Issue 1.03 July 2012

ERP:30303867

CONTENTS

I	Description	1
II	Specification	1
III	Structure.....	2
IV	Mounting and Wiring.....	3
V	Application	6
VI	Troubleshooting.....	7
VII	Maintenance.....	8
VIII	Cautions.....	8
IX	Warranty Limited	9

I Description

C-9602LW Conventional Gas Detector is wall-mounted, designed to check and monitor the gas of leakage in such applications as houses, hotels and apartments.

II Specification

1. Operating Voltage: 187VAC~253VAC

2. Power Consumption:

Standby State ≤ 3.0 W

Alarm State ≤ 5.0 W

3. Output capacity and control mode:

Voltage contact: For 12VDC one-way pulse solenoid, whose driving capability is 1000 μ F capacitance discharge.

Volt-free contact: Volt-free normally open contact, its capacity is 220V/1A used for controlling connected devices.

4. Alarm Density:

Natural Gas: 3000×10^{-6} (6%LEL)

Liquefied Petroleum Gas: 2000×10^{-6} (10%LEL)

Coal Gas: 400×10^{-6} (1%LEL)

5. Indicator:

Power LED: Green, flashes in warm-up state and then constantly lights.

Alarm/Fault LED: Dual color. It's red when alarming, and yellow in fault.

6. Buzzer: It sounds twice every second when alarming, and once every three seconds in fault.

7. Self Test: Pressing *Self-Test*, the LEDs will flash in turn and the buzzer will sound three times.

8. Life of Sensor: 5 years

9. Operating Environment:

Temperature: $-10^{\circ}\text{C} \sim +50^{\circ}\text{C}$

Relative Humidity $\leq 95\%$, non condensing

10. Dimension: $121\text{mm} \times 87\text{mm} \times 47\text{mm}$

11. Ingress Protection Rating: IP30

12. Material and Color of Enclosure:

ABS, ivory white

13. Weight: 320g

14. Mounting Hole Distance: 15mm

III Structure

Appearance of the detector is shown in Fig.1.

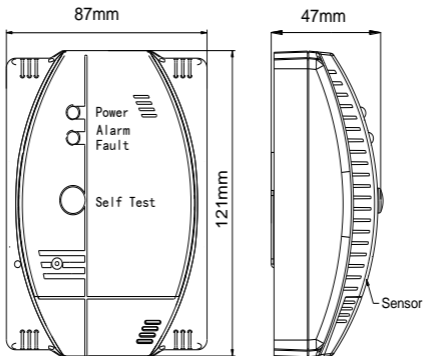


Fig. 1

IV Mounting and Wiring

1. Position of Mounting

The detector is wall-mounted. Mounting position (Fig. 2) depends on where the gas stove is.

There are still some principles to follow.

- The detector and the gas stove should be placed in the same room.
- The detector detecting natural gas or coal gas should be mounted above 50cm from the resources or the gas stove (Natural gas or coal gas is light so it is gathered overhead in the room). The detector detecting liquefied

petroleum gas should be mounted within 30cm to the floor.

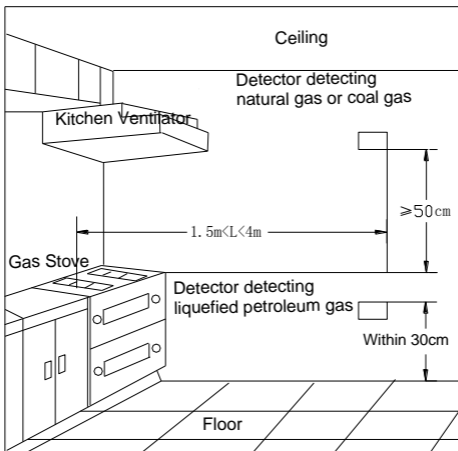


Fig. 2

➤ The detector should be within 1.5m ~4m to the gas resource or the gas stove.

To correctly use the detector and avoid any possible fault, please do not mount the detector at following locations:

- Where affected by exhaust, steam or oil smoke from the stove.**
- Where near strong airflow, such as**

- air-inlets, fans, doors, etc.
 - c. Where near bathroom or places with a lot of vapor.
 - d. Rooms for boiling water and places where power is cut at night.
 - e. Where temperature is below -10°C or over 50°C or outdoors.
 - f. Where explosion-proof measures are required.
 - g. Where the detector is partitioned with the gas devices.
2. Terminals are shown in Fig. 3.



Fig. 3

K1, K2: Volt-free normally open contact, it is closed when alarming.

V+, V-: Connects with pipe solenoid or mechanical hand. When alarming for 3s~7s, there is a forward 12V pulse voltage between V+ and V-.

3. Mounting

Mounting of C-9602LW is shown in Fig. 4.

- a. Fix the bracket on the wall.
- b. Align the groove in back of the detector to the hook, press it down to fix.

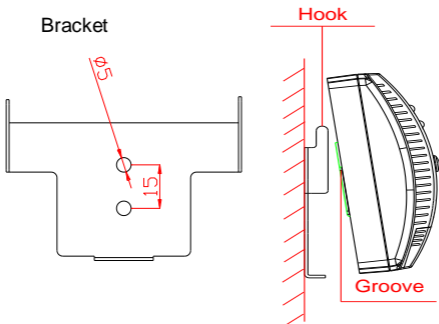


Fig. 4

4. Wiring

0.5mm² or above Fire-resistant copper core cable for V+ and V-.

1.0mm² or above Fire-resistant copper core cable for K1 and K2.

V Application

1. Applying power supply to the detector after wiring and checking, the green LED flashes 3~6 minutes for warm-up, and then it will light constantly for normal monitoring.

2. Alarming: When the monitored gas density is over its preset value, the detector gives quick intermittent "Tick" sound with red LED quick flashing and K1 and K2 are closed.

After alarming for 3s ~ 7s, the detector will output a forward pulse current to close solenoid. When the gas density goes below the preset value, the detector will automatically stop audio and visual signal and K1, K2 will be self-opened. If, at this time, the solenoid has been closed, it will be kept closed, and you will have to pull it open manually.

3. Fire Alarm Treatment

When the detector alarms, please immediately open the windows for ventilation Put out any fire; do not make new fires; Avoid switching on or off any electric appliance, find out the reason of leaking and call professional engineers.

VI Troubleshooting

No.	Fault	Reason	Solution
1.	Alarms after power-up	Hasn't been powered for a long time or first time powered up.	It will resume normal after a period.
2.	Solenoid cannot be switched off	Polarity of the solenoid is reversed.	Wire correctly.

VII Maintenance

1. Avoid using much hair tonic, pesticide, paint, alcohol, diluents etc near the detector, to avoid affecting normal monitoring of the sensor.
2. In case of fault, never remove or open the detector by yourselves. Inform our company or our local office for repair.

VIII Cautions

1. Each type of the detector can only detect the kind of gas nominated on its label.
2. Don't install the detector at locations with high temperature (near stoves) or too much oil smoke (near kitchen ventilator); Keep environment around the detector clean.
3. The detector can only control JJ or FCR series solenoid coming with the detector. If other models are to be used, please consult us.
4. The detector should be tested every half year.
5. Coal gas detector mustn't test by a lighter but hydrogen in a bag. The distance from the outlet to the detector should be more than 10cm.
6. Liquefied petroleum gas and natural gas

detector can be tested by a lighter. Put the lighter near the sensor (over 10cm) press its switch to turn it on and then blow off the flame. The detector should alarm in about 10 seconds.

7. The detector will normally be a bit hot in operation.

8. Never cut down the power of the detector.

9. After having been stored without power, the detector will not work normally until it is powered for a period.

IX Warranty Limited

GST warrants that the product will be free from defects in design, materials and workmanship during the warranty period. This warranty shall not apply to any product that is found to have been improperly installed or used in any way not in accordance with the instructions supplied with the product. Anybody, including the agents, distributors or employees, is not in the position to amend the contents of this warranty. Please contact your local distributor for products not covered by this warranty.



Gulf Security Technology Co., Ltd.

No. 80, Changjiang East Road, QETDZ, Qinhuangdao, Hebei,
P. R. China 066004

Tel: +86 (0) 335 8502434

Fax: +86 (0) 335 8502532

service.gst@fs.utc.com

www.gst.com.cn