

Household gas detector

GS913- v. 6

To protect your family



The elegance and the prestige, that have always made **BEINAT S.r.l** stand out from its competitors, together with the concept of home fitness comes the household gas detector **GS913** detects through the **Semiconductor**, the presence of explosive gas such as: **LPG**.

Gas detection

The detector is tested and calibrated to **10% of L.E.L.**

Through the built-in relay, the **GS913** can activate: solenoid valves, sirens, and any other device alarm

A series of technical features make this gas detector extremely versatile, reliable, accurate, and safe. through an internal jumper it is possible to select the relay impulse functioning, to connect manual reset solenoid valves, or the continuous functioning, to activate class "A" solenoid valves and sirens.

The relay, free of voltage, allows installation of multiple detectors on a single solenoid valve ensuring control of multiple dangerous environments.

The detector is complete with a special **circuit that controls the semiconductor sensor's efficiency level**, and signals any possible fault.

These technical features make the detector ideal for the safety of civil environments according to EUROPEAN STANDARD.



Important: Assembly / maintenance of the appliance must be carried out by qualified personnel and in accordance with applicable laws and regulations.


The manufacturer assumes no responsibility for the use of products that have to comply with particular environmental and / or installation standards.



Important note

Before connecting the equipment, it is recommended that you read the instruction manual carefully and keep it for future reference. It is also recommended to perform the electrical connections correctly as per enclosed drawings, observing the instructions and the Standards.

N.B. Refer to the documentation in all cases where the symbol is on the side

 <p>Installation and user guide</p>	<p>CONFORMITY</p> <p>EN 50194 CEI 216-3 EN 50270</p>
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Precautions

CHECK the integrity of the probe after having removed it from the box.

Check that the data written on the box correspond to the type of gas used.

When doing the electrical connections, follow the drawing closely.

Any use of the detector for purposes other than the intended one is considered improper, and as a result of which **BEINAT S.r.l.** therefore disclaims any responsibility for possible damages caused to people, animals or objects.

INSTALLATION

When performing the installation, please remind that if you pierce the **GS913** container, it will lose its properties and its conformity to REGULATIONS.

TERMS and EXPECTATIONS: The installation of the **GS913** detector, its ordinary and extraordinary maintenance, and its out of service removal at the end of the functional life guaranteed by the manufacturer, must be carried out by **authorized and/or specialized personnel**.

Do not allow it to become wet.

The detector can be seriously damaged when immersed in water. Remember that the probe has an IP30 protection degree.

Do not drop it.

Heavy knocks or falls during transportation or installation can damage the appliance.

Avoid abrupt temperature fluctuations.

Sudden temperature variations can cause condensation and the probe could work poorly.

Cleaning

Never clean the device with chemical products. If necessary, wash with a moist cloth.

Absolutely avoid using any cloth dipped in thinners, alcohol and chemical detergents.

Technical Specifications

Power supply	12VDC +/- 10%
Power consumption	1W @ 12V
Range of relay contact switching	10A 250V resistive - 5A 30Vdc resistive
Explosive gas sensor	Semiconductor
Types of gas detected	LPG Gas
Explosion Alarm Threshold	At 10% of L.E.L.
Explosive gas detector alarm threshold	Immediate
Sensor's faults detected by Fault Circuit	Interruption, short circuit, or wear
Audible and visual signal alarm by	LED diode and buzzer
Test Phase Duration	60 seconds
Functioning Temperature	-10 +40°C
Functioning Humidity	0÷90% RH non condensed
External degree of protection	IP30
Mounting	External wall mount
Body material	ABS self-extinguishing
Dimensions	110x50x35
Electromagnetic Compatibility "CE Reference Norms "	EN 50270

The installation of the **GS913** detector, its ordinary and extraordinary maintenance, and its out of service removal at the end of the functional life guaranteed by the manufacturer, must be carried out by authorized and/or specialized personnel.

The **SEMICONDUCTOR** technology sensor duration is **guaranteed for 6 years** (in clean air).

The detector's functioning temperature ranges from -10°C to + 40°C.

WARNING!

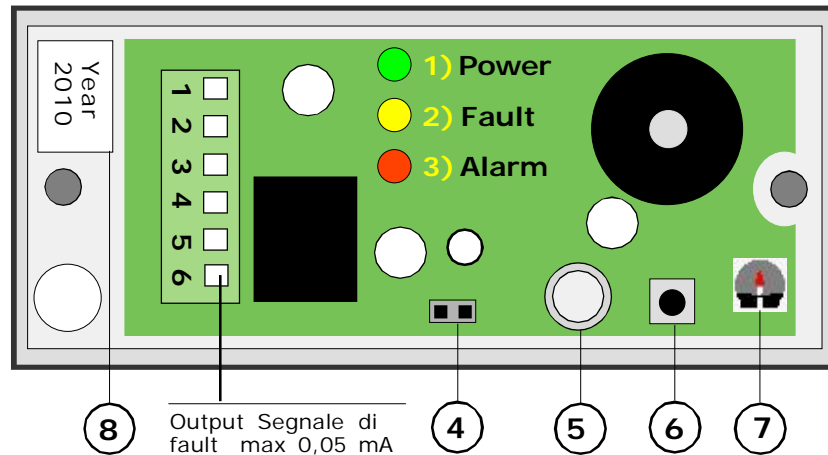
The SEMICONDUCTOR probe does not tolerate a gas detection exceeding 100% of L.E.L., with consequent natural death of the sensor.

Each immediate puff of gas that exceeds 100% of L.E.L. takes away months of life from the sensor.

The detector must be tested by simulating the presence of gas by issuing it from a pre-calibrated testing aerosol.

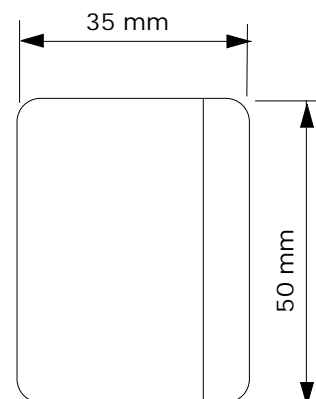
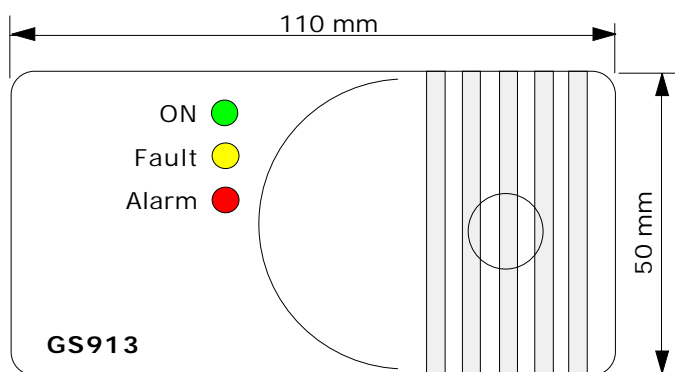
A common cigarette lighter near the sensor does not guarantee excellent functioning.

Components and commands



- 1) MAINS connected indication LED (ON).
- 2) FAULT indication LED. If this LED turns on, it means that the gas detection semiconductor sensor is not working efficiently and must be replaced by an authorized service center.
- 3) ALARM indication LED. This LED turns on when room gas concentration exceeds the danger level.
- 4) Jumper to select the relay functioning mode. By closing the two poles, the relay will be set to impulse functioning. That is, when the alarm is triggered, the relay will close the C and NA contacts for about 90 seconds, and then will reopen them. This is needed to prevent damaging some types of manual reset solenoid valve coils. By opening the two poles, the relay will be set to continuous functioning.
- 5) Semiconductor sensor for Methane or LPG explosive gas detection.
- 6) TEST button. This button is used to simulate a gas leak, after installation.
- 7) Trimmer of setting. It must be touched only from technical competent
- 8) Identification label, registration number and manufacturing year, located under the ABS small dome.

Dimensions

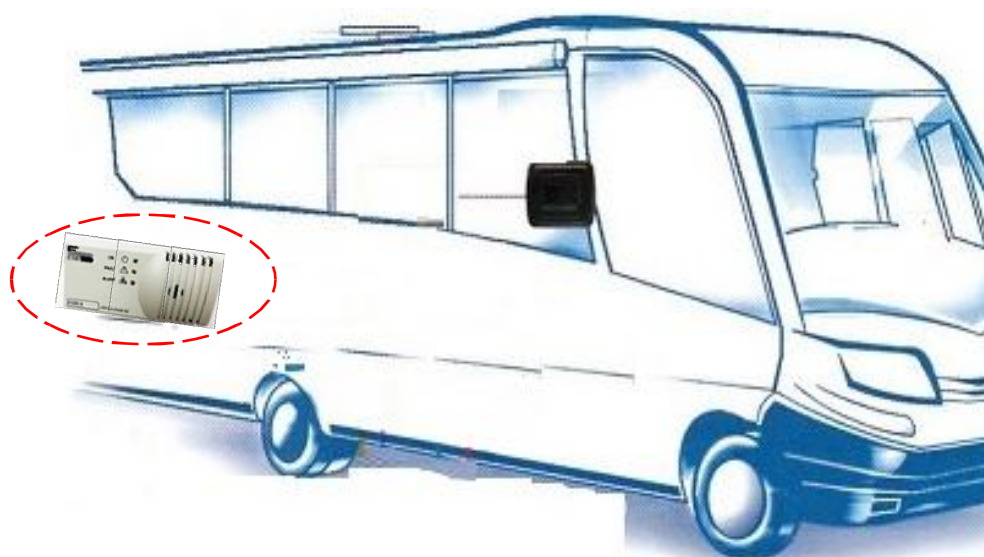


Installation measures and positioning

The position of the detector is a crucial factor for its correct functioning during gas detection. In order to obtain the maximum results from a device and minimize the probability of false alarms, it is recommended to follow this scheme and keep in mind the following general regulations.

The detector must be located at different heights, according to the type of gas. These heights are:

- **30 cm** from the lowest point of the floor in order to detect **heavy gases, LPG, etc.**
- **30 cm** from the highest point of the ceiling in order to detect **light gases, Methane, etc.**
- The detector **should not be placed** near the appliances to be controlled (boilers, burners, industrial kitchens, etc.) but on the opposite wall.
- The detector **should not be** affected by smoke, vapour, etc. as they could distort its measurement. It should be located away from sources of heat, ventilators or fans.



Turn on and testing

Furthermore, the correct electrical connections according to the enclosed drawings, complying with instructions and Regulations in force, and the use of the safety fuse, are recommended. Indeed, the most essential factor for the proper functioning of the **GS913** is its correct installation. By following the instructions in this paragraph high precision can be obtained together with the absence of false alarms.

- 1) Once the device has been turned on, the **MAINS** LED lights up, and the **GS913** is ready for detection after 60 seconds.
- 2) Press the **button** near the detection capsule to simulate the presence of gas.
- 3) The **ALARM** LED lights up, and the relay shifts its functioning mode after one second. After the alarm, the LED will turn off, the buzzer will stop, and the connected appliances will be turned off.
- 4) To complete the general test, issue gas from a pre-calibrated aerosol within 20% of L.E.L. Testing using a common cigarette lighter could damage the sensor.



- If the device does not start up.

Check that the 12V dc power is correctly connected.

- If the fault LED lights up.

If the YELLOW LED is remains ON, check the detection capsule status. It is probably faulty and has to be replaced. Call an authorized technician.

- If the detector is repeatedly issuing an alarm.

Check that there are no gas leaks.

If the alarm signal and the FAULT indicator light turn on together, proceed as in the previous paragraph.

- If the detector is issuing an alarm and does not shut off the devices connected to it.

Check that the wiring is correct and that the jumper that carries power to the relay has been set properly. **All relays are free from electrical power.** Check the drawing of the connections.

WARNING! Actions to be taken in case of alarm

Gas

- 1) Put out all free flames.
- 2) Close the main gas tap or the LPG cylinder tap.
- 3) Do not turn any lights on or off; do not turn on any electrical device or appliance.
- 4) Open windows and doors in order to increase ventilation.

If the alarm stops, its cause must be found and the relevant consequent measures taken.

If the alarm continues and the cause of gas presence cannot be found or removed, abandon the building and call the emergency services when outside (fire department, distributors, etc.)

IMPORTANT: The operation test should not be carried out with the gas tap as this does not guarantee a sufficient concentration to activate the general alarm.

Warning !!

If you have the following symptoms: vomiting, sleepiness, or else, go to the closest first aid station and inform the operators that you could have been poisoned by **Carbon Monoxide, or by an excess or deficiency of oxygen**



The installation of the detector does not exempt from ...

... The compliance with all regulations concerning the characteristics, installation and use of gas appliances. The ventilation of the spaces and the elimination of combustion products are described in the UNI norms according to ART. 3 LAW 1083 / 71 and relevant legal provisions.

WARNING.

Before connecting to the mains power, ensure the voltage is correct. Carefully follow the instructions and the connections according to Regulations in force, keeping in mind that the signal cables should be laid separate from the power cables.

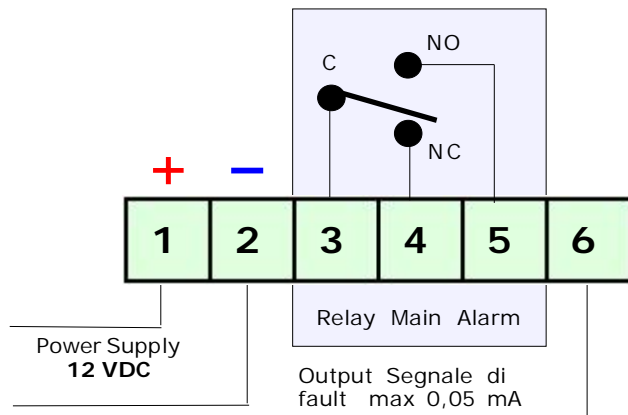
Connection Scheme of GS913 Detector

WARNING!

The relay is voltage free.
Contact capacity 5A@24 VDC SELV

Jumper for Relay working Mode

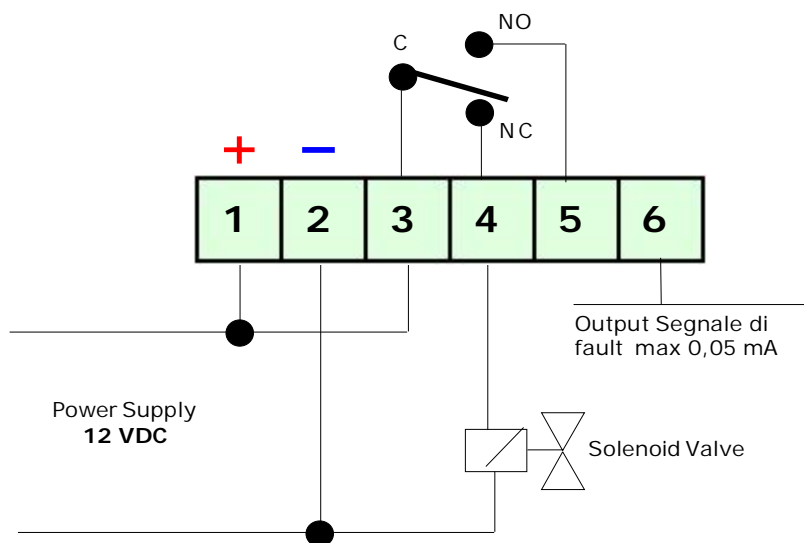
- 1) With the Jumper opened the relay works in continuous Mode.
- 2) With the Jumper closed the relay works in pulsed Mode. The pulse duration is 5 seconds



One detector with 12V normally closed valve

WARNING!

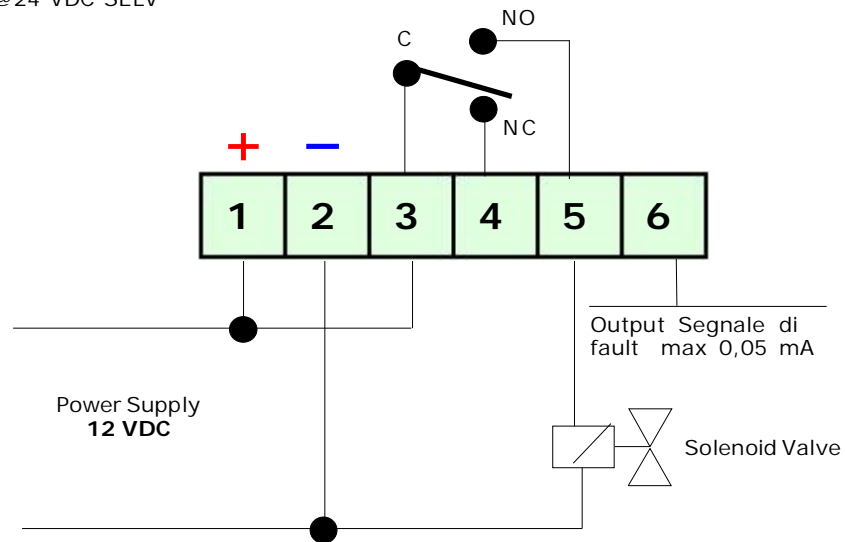
The relay is voltage free.
Contact capacity 5A@24 VDC SELV



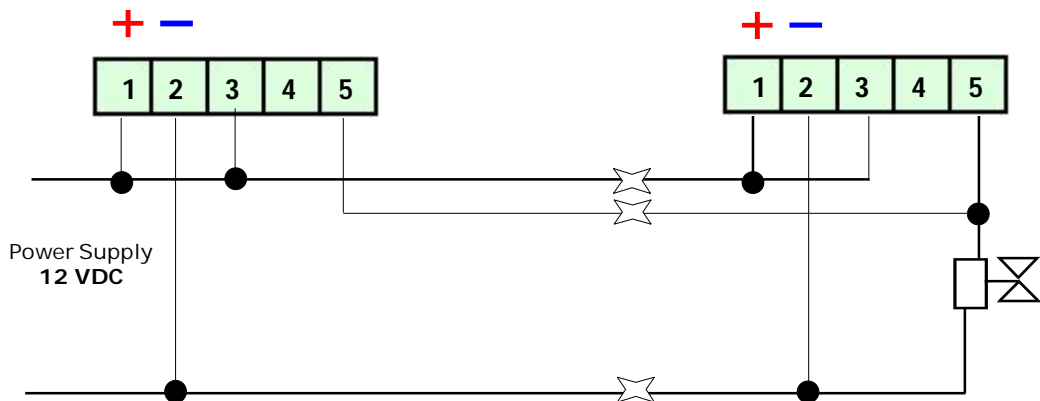
One o detector with 12V normally open valve

WARNING!

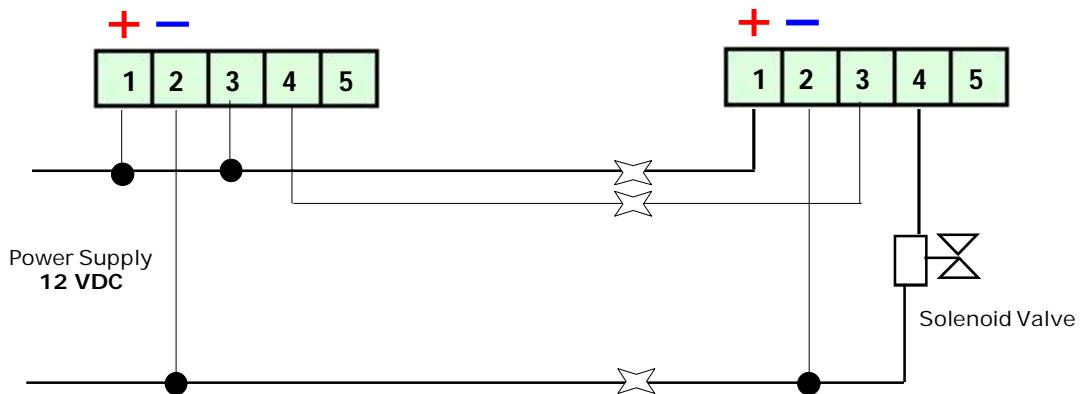
The relay is voltage free.
Contact capacity 5A@24 VDC SELV



One or more detectors with 12V normally open valve



One or more detectors with 12VDC normally closed valve



INSURANCE. This device is insured by the SOCIETÀ REALE MUTUA for the PRODUCT'S GENERAL LIABILITY up to a maximum of 1,500,000.00 EURO against damages caused by the device in case of failures in functioning.

WARRANTY. The warranty term is 3 years from manufacturing date, in agreement with the following conditions. The components acknowledged as faulty will be replaced free of charge, excluding the replacement of plastic or aluminium cases, bags, packing, batteries and technical reports.

The device must arrive free of shipment charges to **BEINAT S.r.l.**

Defects caused by unauthorized personnel tampering, incorrect installation and negligence resulting from phenomena outside normal functioning shall be excluded from the warranty.

BEINAT S.r.l. is not liable for possible damage, direct or indirect, to people, animals, or things; from product faults and from its enforced suspension of use.



DISPOSAL OF OLD ELECTRICAL & ELECTRONIC EQUIPMENT.

This symbol on the product or its packaging indicates that this product shall not be treated as household waste. Instead, it shall be handed over to the applicable collection point for the recycling of electrical and electronic equipment, such as for example:

- sales points, in case you buy a new and similar product
- local collection points (waste collection center, local recycling center, etc...).

By ensuring this product is disposed of correctly, you will help prevent potential negative consequence for the environment and human health, which could otherwise be caused by inappropriate waste handing of this product. The recycling of materials will help to conserve natural resources. For more detailed information about recycling of this product, please contact your local city office, your household waste disposal service or the shop where you purchased the product.

Attention: in some countries of the European Union, the product is not included in the field of application of the National Law that applies the European Directive 2002/96/EC and therefore these countries have no obligation to carry out a separate collection at the "end of life" of the product.



GS913 GAS DETECTOR

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In agreement with our continuous development policy, we reserve the right to modify our products without notice.

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