

# Gas leak detector GS-133

The GS-130 detector is used to indicate leaking of combustible gases (natural gas, methane, propane, butane, hydrogen). The detector detects two levels of gas concentration - different output reactions.

The main GS-133 features are: high reliability and sensitivity, compact size and long stability & lifetime.

## Installation



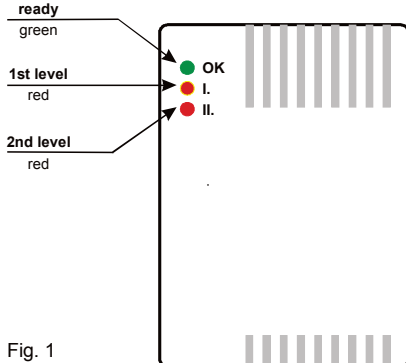
**A professional installer should install the detector**

The detector is intended for installation for *non-explosive areas* – e.g. flats, domestic premises, commercial areas or gas boiler houses.

Selection, installation and use we recommend to realize in compliance with EN 50244 and EN 60079-29-2.

Fix the detector on the wall. For gases lighter than air (natural gas, city gas etc.) install it close to the ceiling (max 15 cm under it) or directly on the ceiling and on the place expected to have gas leakage. For gases heavier than air (propane, butane, etc.) install it close to the floor or on the lowest place of the room. The detector should not be located close to any obstacles preventing natural air circulation.

Fig. 1



## Output relay function

There is a dry relay contact available on the GS-133 output terminals:

- C** - common contact
- NO** - normally open contact
- NC** - normally closed contact

This relay output can be used for an automatic gas valve closer, alarm system triggering or for other warning systems.

If the **REL jumper** is open, the relay will be triggered after the 1<sup>st</sup> level of gas concentration is detected. If the REL jumper is closed, the relay will be triggered after the 2<sup>nd</sup> level of gas concentration is detected.

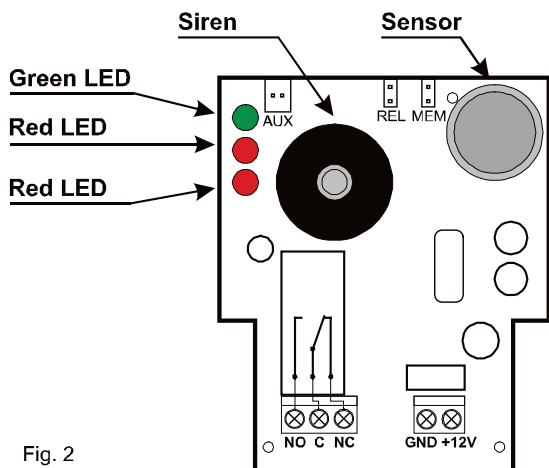


Fig. 2

## Function

After switching the power on the green LED will flash for 60 sec. (the detector warms up). When the green indicator lights permanently the detector is ready.

If the gas concentration reaches the 1<sup>st</sup> level, short beeps will sound and red LED I will go off.

If the gas concentration reaches the 2<sup>nd</sup> level, long beeps will sound and red LED II will go off.

The output relay reacts depending on the REL jumper setting.

## LED indicators

<b>Green</b>	<ul style="list-style-type: none"> <li>• OFF</li> <li>• Flashes</li> <li>• ON</li> </ul>	The detector is off Warming up Ready for gas alarm
<b>Red I.</b>	<ul style="list-style-type: none"> <li>• ON</li> </ul>	1 <sup>st</sup> level of the gas concentration
<b>Red II.</b>	<ul style="list-style-type: none"> <li>• ON</li> </ul>	2 <sup>nd</sup> level of the gas concentration
<b>Red II. Green</b>	<ul style="list-style-type: none"> <li>• Alternating flashes</li> </ul>	Error in the sensor

**Warning - in the case of a gas alarm stay calm and act as follows: - do not operate any switches**

**- do not use any kind of phone in the location of the gas leakage**

**- open any windows**

**- stop the gas leakage if possible or leave the place and call the gas supply company**

## Memory

The memory function is disabled by factory default (when the concentration of the gas drops down to normal, the GS-133 will stop the alarm signal).

Close the MEM jumper to select the memory function. Then the alarm indication, if triggered, will not stop unless the GS-133 power supply is terminated for a while.

## Maintenance and testing

Keep the detector clean, it is important that its grids should not be blocked with dust.

Use a gas cigarette lighter without the flame lit, to test the gas detector's reaction. The detector will react within 15 seconds.

**Professional recalibration of the detector should be done at least once a year. Contact your distributor for more details.**

## Specification:

Sensitivity:

	Methane	Propane
<b>Level 1</b>	10±3 % LEL (0.44 % vol. conc.)	18±3 % LEL (0.30 % vol. conc.)
<b>Level 2</b>	18±3 % LEL (0.80 % vol. conc.)	30±3 % LEL (0.50 % vol. conc.)

	Iso-butane	Hydrogene
<b>Level 1</b>	23±3 % LEL (0.30 % vol. conc.)	9±3 % LEL (0,36 % vol. conc.)
<b>Level 2</b>	40±3 % LEL (0.50 % vol. conc.)	16±3 % LEL (0,66 % vol. conc.)

LEL = Lower Explosive Limit (100 %) according to EN 60079-20-1:for **methane** 4,4 % vol. conc., for **prophane** 1,7 % vol. conc., for **iso-buthane** 1,3 % vol. conc., for **hydrogene** 4,1 % vol. conc., calibrated by iso-butane

Power supply 12 V DC ± 20 %  
Power consumption 100 mA  
(150 mA when relay is activated)

Detection method hot platinum filament

Buzzer sound level 94 dB / 0.3 m

Relay output optional for 1st or 2nd level, max. 230 V AC / 5 A

Alarm memory selectable

Response time 20 s

Warm up time approximately 90 s

Working environment indoor use, -10 to +40°C, IP30

Working humidity max 80 %

Designed to operate at normal atmospheric pressure 86 to 106 kPa

Equipment according to EN 50194-1 type A

Complies with EN 60079-29-1, EN 50130-4, EN 55022, EN 60950-1

For non-explosive areas

Certified by VVUÚ corp., certificated body No. 3076



Complies with the essential requirements of: LVD Directive 2006/95/EC, EMC Directive 2004/108/EC concerning electromagnetic compatibility and 2011/65/EU RoHS, when used for its intended purpose. The original of the conformity assessment can be found at [www.jablotron.com](http://www.jablotron.com), Technical Support section.



Note: Although this product does not contain any harmful materials we suggest you return the product to the dealer or directly to the producer after use.

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