

# GAS LEAK DETECTOR GS-133

The GS-133 detects all mixtures of air and combustible gas (Natural Gas, Methane, Propane, Butane, Acetylene, GPL, Hydrogen, etc). 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.

## Specification

|                    |  |
|--------------------|--|
| power supply       | 12 V DC $\pm$ 20%  |
| power consumption  | 100 mA<br>(150mA when relay is activated)                          |
| detection method   | hot wire type  |
| buzzer sound level | 94dB/0.3m  |
| relay output       | optional for 1 <sup>st</sup> or 2 <sup>nd</sup> level, max.250V/5A |
| alarm memory       | selectable   |
| response time      | less then 10 s   |
| external signaling | AUX connector  |

Sensitivity :

|                       | Methan                | ISO-butan                   |
|-----------------------|-----------------------|-----------------------------|
| 1 <sup>st</sup> level | 10% LEL (0,5% methan) | 12,5% LEL (0,22% ISO-butan) |
| 2 <sup>nd</sup> level | 20% LEL (1,0% methan) | 25% LEL (0,45% ISO-butan)   |

## Installation

Fix the detector on the wall. For gases lighter than air (natural gas, city gas etc.) install it close to the ceiling, for heavier gases (propane, butane, etc.) install it close to the floor. The detector should not be located close to any obstacles protecting natural air circulation.

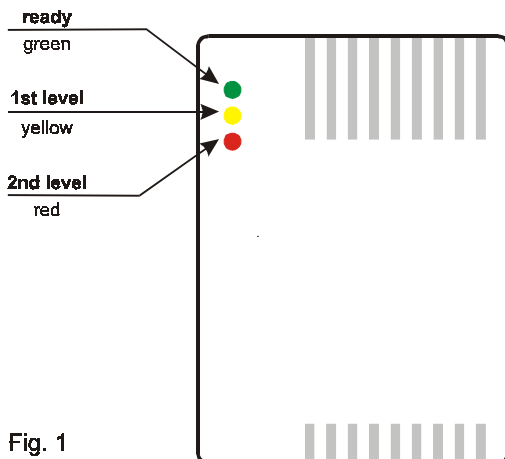


Fig. 1

## 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 stop, 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.

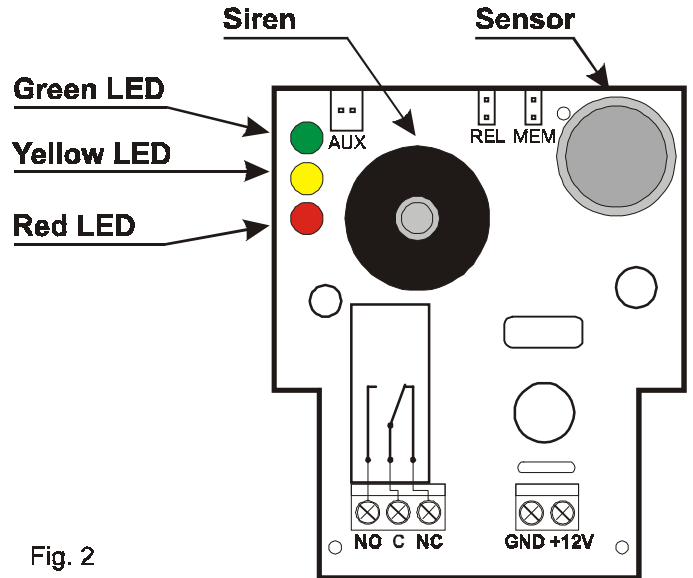


Fig. 2

## Function

After switching the power on the green LED will flash for 60sec. (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 the yellow LED will go off.

If the gas concentration reaches the 2<sup>nd</sup> level, long beeps will sound and the red LED 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<br>warming up<br>ready for gas alarm |
| <b>Yellow</b>  | <ul style="list-style-type: none"> <li>• ON</li> </ul>                                   | 1 <sup>st</sup> level of the gas concentration           |
| <b>Red</b>     | <ul style="list-style-type: none"> <li>• ON</li> </ul>                                   | 2 <sup>nd</sup> level of the gas concentration           |

**Warning - In the case of a gas alarm don't operate any switch, open windows, stop the gas leakage or call a fire company!**

## Memory

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

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

## External buzzer

You can connect an additional buzzer (model BUZ-12 or BZ-14) to the AUX connector. The external sounder works the same way as the built-in one.

## Testing

Use a gas cigarette lighter (no flame) to test the gas detector reaction. The detector will react after 15 seconds.



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