GS-133-24 gas leak detector

The GS-133-24 serves for the indication of flammable gas leaks. The gas sensor detects flammable gases (Natural Gas, Propane, Butane, etc) at two levels of concentration – i.e. different output reactions.

The main GS-133-24 features are: high reliability and sensitivity, compact size and long stability & lifetime.

Installation

Only a professional installer should install the detector
(Recommended in compliance with EN 50244).

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 underneath) or directly on the ceiling and on a place expected to have gas leakages. For gases heavier than air (propane, butane, etc.) install it close to the floor or at the lowest place in the room.

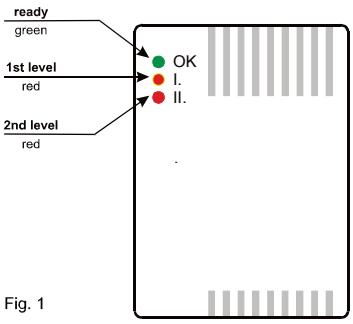

Fig. 1

The detector should not be installed near obstacles which prevent normal air circulation, or in places where there is a low level of oxygen and also places where the detectors could be influenced by smells (for example: kitchen). Conversely, avoid detector installation at places where there is very string air circulation or drafts. All of this could negatively influence the measuring accuracy.

Memory

The memory function is disabled as a factory default (when the concentration of the gas drops down to normal, the GS-133-24 will stop the alarm signal).

Connect the MEM jumper to select the memory function. Then the alarm indication, if triggered, will not stop unless the GS-133-24 power supply is terminated for a while.

Output relay function

There is a dry relay contact available on the GS-133-24 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. The output relay reacts depending on the REL jumper setting.

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

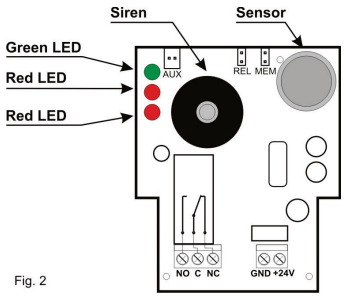

Fig. 2

Power

24 V DC power has to be connected to the +24 V and GND terminals. When installation is finished perform a last check, close the detector cover and power it up.

Function

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

If the gas concentration reaches the 1st level, short beeps sound and the Red I LED lights.

If the gas concentration reaches the 2nd level, long beeps sound and the Red II LED lights.

LED indicators		
Green	OFF Flashes ON	The detector is off Warming up Ready for gas detection
Red I.	ON	1st level of gas detected
Red II.	ON	2nd level of gas detected
Red II. **Green**	Alternating flashes	Sensor failure (service required)

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 at 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*

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. Spread the gas to the top edge of the grid of the detecting chamber (for 2-3 sec maximum) and wait. 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.

Technical specifications:

Sensitivity:

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

	Iso-butane
Level 1	*23±3% LEL (0.30% vol. conc.)*
Level 2	*40±3% LEL (0.50% 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., calibrated by iso-butane*

Power supply	*24 V DC ± 20 %*
Power consumption	*standby: 50 mA*
	when relay is activated: 100 mA
Buzzer sound level	*94 dB / 0.3 m*
Relay output	*optional for 1st or 2nd level, max. 230 V AC / 5 A*
Output load	*switching contact maximum 230 V / 5 A*
Operational temperature range	*-10°C to +40 °C*
Relative humidity	*25 to 75 %*
Storing temperature	*-20 °C to +50 °C*
Warm up time	*approximately 90 s*
Response time	*max. 20 s*
Detection method	*hot platinum filament*
IP covering according to EN 60 529	*IP 30*
Device lifetime	*min. 5 years*
Working environment, designed for operating in normal air pressure	*86 to 106 kPA*
Complies with	*EN 50194-1, EN 60079-29-1, EN 50130-4, EN 55022*

For non-hazardous areas. Zone 2 according to EN 60079-10-1.
Certified by VVUÚ corp., certification body # 3076, FTZÚ a.s., certification body # 3051

JABLOTRON ALARMS a.s. hereby declares that the GS-133(-24) is in a compliance with the relevant Union harmonisation legislation: Directives No: 2014/30/EU, 2011/65/EU. The original of the conformity assessment can be found at www.jablotron.com - Section Downloads.

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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