



GAS LEAK ALARM: Model: GLA-XL
USER MANUAL: Version 2021-01 UK
EU languages: www.iSens.no

WARNING

Never use combustible gas concentration for testing!



Read the full version of the manual before using the product.
Check for updates and corrections on our website.
Save this user manual for later use.



Check our website for offers on exchange and change of batteries.
Do not throw the product into the household waste.
Deliver electronics products and plastic for recycling.

RoHS

The product is manufactured according to the RoHS directive.
The directive restricts using lead and hazardous substances.



The alarm is made of ABS
The packing is made of PVC

ABS PVC



This product is designed to comply with the EN50194 standard.
The standard describe all requirements and testing for this product.

Norwegian product made in Poland for iSens

1. WARRANTY

iSens only want satisfied customers. GLA is therefore delivered with a one year warranty from the date of purchase. GLA is designed to have the same lifetime as the energy source, but may also have a reduced lifetime, dependent on the external environment, use, alarms etc. A single alarm may completely drain the energy source. See technical data. This product is therefore a consumable item for one time use, and not an electric household apparatus with several years warranty.

The warranty applies only to material and malfunction related to the production, and only if the product has been used and maintained properly. The guarantee applies only if the product has not been opened, attempted to open or repaired. The guarantee does not apply in case of visible/measurable damages or empty batteries. When using the warranty, GLA must be delivered to the dealer in original packing together with the original receipt. iSens's responsibility is limited to repair the product. iSens may alternatively replace it with the same or newer model, or refund the original sales price.

iSens is not responsible to cover any damages or loss that may occur if GLA is not working. iSens is not responsible for any loss or damages to persons, material or otherwise resulting from gas leakage, fire and explosion. iSens responsibility is limited to the product's purchase value. GLA does by no means replace or meet recommended or required safety measures for gas leakage, fire and explosion in accordance with applicable laws and regulations. GLA is not approved as a mandatory fire/smoke alarm. GLA do not meet or replace any kind of insurance. Read also about automatic calibration in technical data. GLA only provides an additional voluntary contribution to increased security.

If the buyer disagrees with these warranty terms, GLA must be returned before use in original packing, immediately and at the latest within the return deadline, which is usually 14 days for e-commerce.

2. DESCRIPTION

GLA is based on a new Norwegian patent-protected technology. The technology enables the detection of several different types of gases with the same sensor. The sensor can therefore be tested in a unique and safe way with the use of breathing air (carbon dioxide). Self-testing is what creates the greatest security. The new technology has a self-cleaning effect that allows up to 3 times the lifetime of other alarms (optical and electrochemical). The electronics are designed to achieve ultra-low energy consumption. GLA will therefore be able to operate for 15 years without any battery change, power, adapters or chargers. This saves the environment and provides a safe warning even in the event of a power failure. GLA is ideal for home, cabin, camping and boat.

Gas leakage can come from gas installations, stove, heater and other apparatus. GLA will notify you of heavy fuel gases i.e. propane and butane. The gas can ignite when the concentration becomes greater than LEL (Lower Explosion Limit). GLA alerts you long before that happens, already at 10-15% of LEL. GLA cannot be used to detect light house gases i.e. raw natural gas and methane.

Exhaust and Smoke can come from engines, heaters and fire. GLA will notify about carbon dioxide CO₂ already at 5000ppm. This corresponds to about 25ppm toxic CO by dispersion of exhaust from a diesel engine or heater. Normally less CO from open fires. The threshold for Norwegian working conditions are 5000ppm CO₂ and 25ppm CO to avoid impaired performance and health problems. GLA will notify when this limit is exceeded. GLA is not officially approved as a smoke detector.

Air Quality is dependent on carbon dioxide CO₂ produced by humans, animals, plants, fire, light and heaters. GLA will alert if the limits for Norwegian working conditions for CO₂ are exceeded. GLA will also alert if foreign gases are present. This gives a good indication of the air quality and indoor environment.

Anesthetic gas has until recently been of the type chloroform and ether. Today, odorless gas is used by various types of fluranes. GLA is probably the only alarm on the market that alerts both old and newer types of anesthetic gas before impact.

3. SAFETY

The safety rules must be read before the product is installed and used.

It is recommended to use at least two GLA sensors for better operation reliability. More sensors give better coverage of places where gas can accumulate, and significant increased security against sensor malfunction and empty energy source.

Important factors for GLA to work normally:

- Front switch must be ON.
- Correct installation (undisturbed place, low).
- Cleaning, remove dust with a dry cloth or brush.
- Regular check of LED flashing (daily)
- Regular testing (weekly).
- Save energy (turn off alarm immediately when testing).

Important factors that can cause the GLA to function incorrectly:

- Front switch is OFF.
- Incorrect installation.
- Lack of supervision and testing.
- Coverage, dust.
- Direct sunlight or heat radiation.
- Rapid or large temperature differences or changes.
- Water, condensation and abnormal high humidity.
- Solvents or other abnormal gases, smoke and fog.
- Powerful electrical or magnetic disturbances.
- Strong acoustic noise, outside audible area.
- Mechanical impact (vibration, shaking, stroke, fall to the ground).
- Drain of energy source (false alarms and testing).

Information of False Alarm and use at low temperatures is available at Service on www.isens.no. Remember that odor from combustion gas, exhaust and smoke may be unpleasant high before the alarm level is reached. If GLA is not working normally, turn it off. Check the warranty. Never attempt to open the box or repair the product yourself. This causes a high risk of damage to the product.

4. USE

INSTALLATION

Installation should be done by a competent person. When installing it is important to consider the points under Safety and Technical Data. To achieve fast detection of gas, the location is important. It is important to choose a location where the gas collects and where there is minimal ventilation and air movement. Heavy fuel gas and anaesthetic gas will go down, but also spread out in the room. Exhaust cools quickly and also spreads quickly down to the floor. Avoid places near heat sources and openings. Normal placement is with the silicone legs on the floor in a corner or under a furniture, unaffected by foreign gas, sun and cold drafts. For hot exhaust and smoke, the sensor should be placed in a breathing zone or higher. Mounting with tape on the wall can cause a fall injury and a false alarm. Screw slots on the underside should be used. Contact us for questions. Remember that the alarm must sound good. Engine compartments are soundproofed. When GLA is turned on, the alarm can sometimes go for 5-10 seconds. This is quite normal. Then only the LED should blink approx. every 5 seconds.

TESTING

NEVER test gas sensors without EX approval with flammable gas concentration. Normal gas alarms are designed to alert long before the concentration becomes flammable. GLA has therefore, a smart built-in safe testing function. It is designed to respond to carbon dioxide contained in the air we breathe out. Put the sensor a small plastic bag. Breathe gently through the openings on one side to fill up the alarm and the bag, then close the bag. The alarm should not go before 1-2 LED flashes, preferably before 5-6 LED flashes, depending on how fast the bag is filled. Switch GLA off immediately and wait a few minutes until all gas has been vented before turning it on again. This gives a complete test of all features.

ALARM TIPS

Any situation may be different due to gas leakage, fire and explosion. Follow the national/local rules and practice. In addition, the following tips may be helpful.

- Stop leak. Close the main gas valve, set the gas tank outside.
- Lower the gas concentration. Open doors and windows.
- Extinguish fumes and flames from cigarettes, candles, oil lamps etc.
- Do not touch electrical appliances, telephone or power switches.
- Evacuate to a safe place until the gas has disappeared.

5. TECHNICAL DATA:

Materials:	ABS box and PVC packing
Outside dimensions:	110x80x30mm
Color:	White with black sides and front
Mounting:	Silicon legs (slots for screws)
Weight:	Ca 120g
Operation:	OFF-ON switch in front
Gas types:	LPG (propane), CO ₂ (CO indirect), Anesthetic
Detection limit:	10-15% of LEL (Lower Explosion Limit) Exhaust and smoke 5000ppm CO ₂ (ca 25ppm CO) Anesthetic old and new types ca 1000ppm
Detection time:	5 seconds interval. LED flashing indicator
Reaction time:	10 seconds (with logic check of error)
Alert mode:	Red LED light in front and Alarm
Alarm level:	>85dB at 1m (2,7kHz) pulsed 5sekunder on/off
Alarm time:	90 minutes total (full power source)
Error signal:	LED stops flashing, alarm sounds.
Sensor technique:	Acoustic
Testing:	Smart safe test function with CO ₂ (breathing air)
Temperatures:	Stable temperature, without rapid changes (5-35°C)
Storage:	Dry air, no condensation (-20°C to +40°C)
Energy source:	Lithium 3-6Vdc
Energy lifetime:	Up to 15 years (estimated from measurements)

GLA has a build-in auto calibration. If GLA has been exposed to a high gas concentration for a while, it should be placed without gas (outside) for a few days to reset it. If a gas leak is very small and last for a very long period of time, the automatic calibration could cause GLA to give alarm at a small concentration above the original calibration. Normally a very small gas leak will be handled by natural ventilation in the room. GLA is designed to alert in case of sudden accidents where the concentration of gas rises significantly in time, from zero.