sauermann®

USER MANUAL

Si-CD3

GAS LEAK DETECTOR

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CE

1 - Instrument description

The Si-CD3 gas leak detector is perfect for quickly and easily detecting even the slightest leaks of various combustible gases (methane, propane, isobutane, LPG and other hydrocarbons).

A **Detection probe**

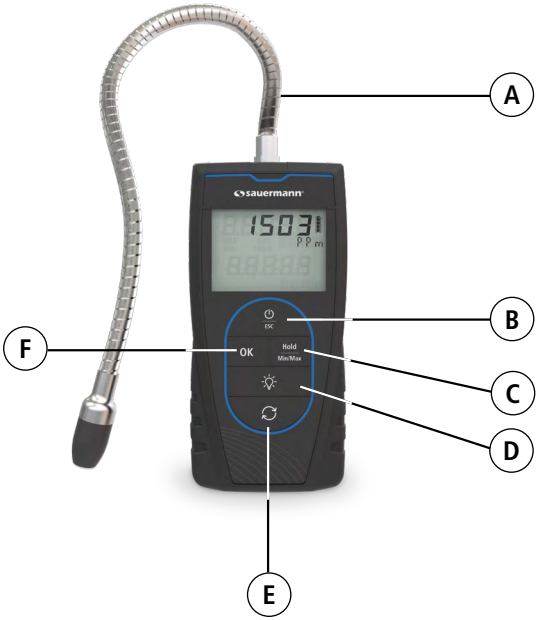
B **On-off/Esc button**

C **Hold/min/max button**

D **Backlight button**

E **Select button**

F **OK button**



2 - Safety and environment

About this document
Please read this document and familiarize yourself with the product before putting it to use. Keep this document on hand so that you can refer to it when necessary. Pass this documentation on to any subsequent users of the product.

Avoid personal injury/damage to equipment

- This device has been developed to detect most of combustible gases and for an indoor use. Please always use the device in accordance with its intended use and within parameters described in the technical features in order not to compromise the protection ensured by the device.
- Only the accessories provided with the device or available as an option must be used.
- Never store the product together with solvents, acids or other aggressive substances.
- Only carry out maintenance and repair work that is described in the documentation. Follow the detailed steps when doing so. Use only original spare parts from Sauermann.
- If the device falls or in case of similar inconveniences, or if an irregular malfunction appears, please do not use the device and bring it back to your distributor to ensure your own safety.
- The device must not be used in ATEX zones according to applicable standards.
- The device does not contain any internal part repairable by the user. Do not open the instrument.
- This device can pose a risk for wearers of pacemakers. Respect a distance of at least 10 cm (4") between the device and the wearer.
- Observe safety distances to products that can be damaged by the magnetic field (e.g. monitors, computers, credit cards).

Exclusions and restrictions of liability

The application operation is under the exclusive customer or user entity responsibility, who acknowledges using this system at his/her own risks. The customer or user entity explicitly exclude Sauermann, and every other company through which the it could have been sold of any kind of responsibility or warranty regarding any direct, indirect, accidental, consecutive or non-consecutive damage that could have been subjected, for some or all, by partial or total non-respect, voluntary or involuntary, of recommendations, conditions and prerequisites indicated hereafter.

Symbols used

For your safety and in order to avoid any damage of the device, please follow the procedure described in this user manual and read carefully the notes preceded by the following symbol:

The following symbol will also be used in this user manual, please read carefully the information notes indicated after this symbol:

Warning: possibility of electric shock

Protecting the environment

Send back the device at the end of it's life cycle to a waste collection center for electrical and electronic components (according to local regulations), or send it back to your distributor to ensure the device is properly disposed with respect to the environment.

3 - Standard

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and the receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Changes or modifications not expressly approved by Sauermann could voice the user's authority to operate the equipment.

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions:

1. This device may not cause interference, and
2. This device must accept any interference received, including interference that may cause undesired operation.

4 - Technical specifications

Accuracy[1]	Measurement range in CH_4	Resolution
20% of full scale	From 0 to 10 000 ppm From 0 to 1% vol 0 to 20% LEL	1 ppm 0.001% vol 0.001% LEL

5 - General features

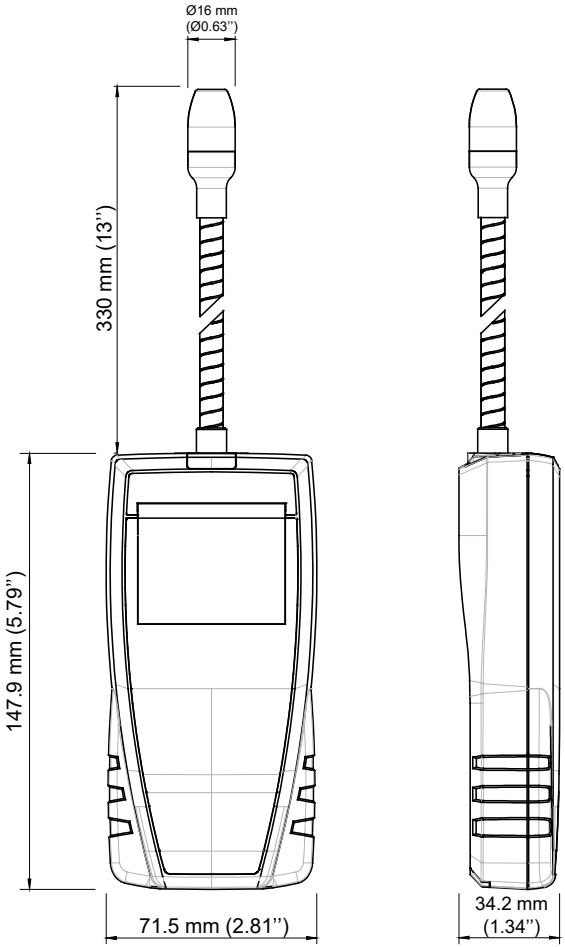
Measurement units	ppm, %vol, %LEL
Measuring element	Semiconductor sensor
Display	4 lines, LCD technology. Dimensions 50 x 36 mm 2 lines of 5 digits with 7 segments (value) 2 lines of 5 digits with 16 segments (unit)
Probe	Flexible, 300 mm
Housing	ABS, protection IP54
Keypad	5 keys
European directives	2014/30/EU EMC; 2014/35/EU Low Voltage; RoHS 2011/65/EU (EU)2015/863; 2012/19/EU WEEE
Power supply	4 batteries AAA LR03 1.5 V
Battery life*	20 hours
Ambience	Neutral gas
Conditions of use (°C, %RH, m)	From 0 to +50 °C. In non condensing conditions. From 0 to 2000 m.
Storage temperature**	From -20 to +80 °C
Auto power-off	Adjustable from 0 to 120 min
Weight	295 g (10.4 oz)

[1]All the accuracies indicated in this technical datasheet were stated in laboratory conditions, and can be guaranteed for measurements carried out in the same conditions, or carried out with calibration compensation.

*Battery life given at 20°C (68°F) with alkaline batteries.

**If the instrument is stored outside the operating temperature (for example in a van, a warehouse, etc.), please wait for 10 minutes in its operating temperature before starting and using it.

6 - Dimensions



7 - Accessories

Name	Reference
Magnetic protective housing	CQ15

8 - Operating instructions

Insert the batteries

- Remove the batteries compartment cover at the back of the device.
- Put the 4 alkaline AAA LR03 1.5V batteries supplied with the instrument.
- Carefully respect the polarity.
- Put back the battery compartment.

Perform a measurement

- Place the device in the required location to detect possible gas leak.
- Press the ON/OFF key.
- The device displays its name **"Si-CD3"**.
- When it turns on, the device emits a beep then performs a pre-heating phase. This phase lasts 60 seconds. The count of this pre-heating time displays on screen.
- During the normal functioning, in the absence of gas leak, the device emits a regular beep*.
- Otherwise, if the device detects the presence of gas, the repetition frequency of the beep will increase as the detected concentration increases*.

Adjust the alarm

This function allows to activate an alarm. When the device detects a leak, it emits a beep whose frequency is increasingly fast as and when the concentration increases and gets closer to defined alarm threshold. The beep becomes continuous when the device reaches and exceeds this threshold. This threshold is between 1000 and 10 000 ppm.

- The device is on and displays the measurement.
- Press **"Select"** until **"AL 1"** blinks on screen.
- Press OK.
- A succession of 5 zeros displays and the first zero blinks.
- Press **"Select"** to select the first digit value: 0, 1 or Off.
- If 1 is selected, the maximum threshold (10 000 ppm) is reached. Press OK until **"AL 1"** blinks on screen.
- If Off is selected, the alarm is deactivated. Press OK to validate, **"AL 1"** blinks on screen.
- If 0 is selected, the following digit blinks. Press **"Select"** to select its value, then press OK. The following digit blinks, perform the same procedure. Press OK when the last digit value is selected, **"AL 1"** blinks on screen.
- Press **"On/Off/Esc"** to return to the measurement display.

Select the unit

The device is on and displays the measurements.

- Press **"Select"**.
- **"UNIT"** blinks on screen.
- Press OK.

*The alarm must be activated so that the device emits beeps (see **"Adjust the alarm"** chapter for the alarm activation).

- The unit currently used blinks on screen.
- Press **"Select"** until the desired unit appears: ppm, %VOL, %LEL.
- Press OK to validate the unit selection.
- **"UNIT"** blinks on screen.
- Press **"On/Off/Esc"** to return to the measurement display.

Hold the measurement
The device is on and displays the measurements.
- Press once on **"Hold/min/max".**
- **"Hold"** appears on screen and the measurement is frozen.
- Press **"On/Off/Esc"** to exit the hold function.
- The device backs to the measurement display.

Display Min/Max values
- Once the measurement is frozen:
- Press **"Hold/min/max"**.
- The device displays the maximum value measured since the last questioning at the top of the screen and the minimum value measured since the last questioning at the bottom of the screen.
- Press **"On/Off/Esc"** to return to the measurement display.

Activate/deactivate the Backlight
- With the device turned on.
- Press **"Backlight"** button to activate or deactivate the backlight.

Activate/deactivate and set the Auto shut-off
- The device is on and displays the measurement.
- Press **"Select"** until **"AUTO OFF"** blinks on screen.
- Press OK.
- The time before the device auto shut-off blinks at the bottom of the screen.
- Press **"Select"** until the required time before auto shut-off appears: 15, 30, 45, 60, 75, 90, 105, 120 minutes or OFF.
- Press OK to validate.
- **"AUTO OFF"** blinks on screen.
- Press **"On/Off/Esc"** to return to the measurement.

Activate or deactivate the keys beep

- The device is on and displays the measurement.
- Press **"Select"** until "**BEEP"** blinks on screen.
- Press OK.
- **"OFF"** or **"ON"** blinks on screen.
- Press "**Select"** to activate the keys beep **"ON"** or deactivate it **"OFF"**.
- Press OK to validate.
- **"BEEP"** blinks on screen.
- Press **"On/Off/Esc"** to return to the measurement.

9 - Maintenance

Change batteries

- With the device turned off.
- Remove the batteries compartment cover at the back of the device.
- Remove used batteries and insert new batteries (4 alkaline batteries AAA LR03 1.5 V) respecting the polarity.
- Put back the battery compartment.

Clean the instrument

- Clean the housing with a damp cloth (soap suds) if it gets dirty.
- Do not use aggressive cleaning agents or solvents.

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BE CAREFUL! Material damages can happen, so please apply the precautionary measures indicated.

Once returned, required waste collection will be assured in the respect of the environment in accordance to guidelines relating to WEEE.