# USER MANUAL

## GAS LEAK DETECTOR

PCE-GD 5

ENGLISH




User manuals in various languages (français, italiano, español, português, nederlands, türk, polski) can be found via our product search on:
www.pce-instruments.com

## INTRODUCTION

Thank you for choosing our gas leakage detector. This manual is applicable to the PCE-GD 5 for detecting flammable gas. Please keep this manual properly and operate in accordance with the instructions in it.

**Detect the types of gases:** Combustible gases: natural gas, methane, liquefied gas, hydrogen, smoke, etc

**Application field:** The device can be used for the detection of flammable gas leakage.

## NOTES

**Situations that must be avoided**
Exposure to vapors of volatile silicon compounds - The sensor should be kept away from exposure to silicone adhesives, hair spray, silicone rubber, putty or other places where volatile silicone compounds exist. If the surface of the sensor is adsorbed with silicon compound vapor, the sensitive material of the sensor will be wrapped by silicon dioxide formed by the decomposition of the silicon compound, which inhibits the sensitivity of the sensor and cannot be restored.

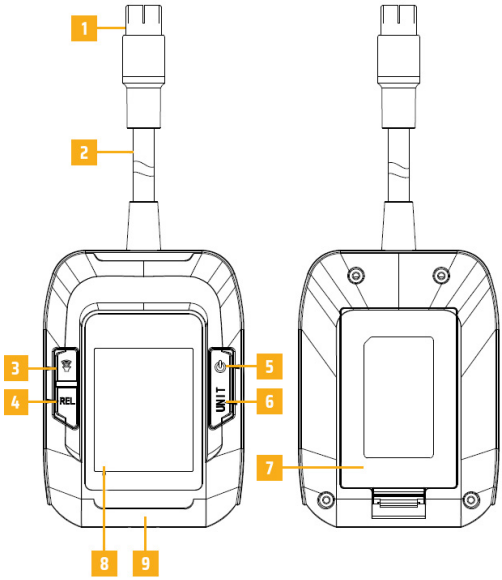
- Highly corrosive environment - When sensors are exposed to high concentrations of corrosive gases (such as H2S, SOX, Cl2, HCl, etc.), it not only causes corrosion or damage to the heating material and sensor leads, but also leads to irreversible deterioration of the performance of the sensitive material.
- Contamination by alkali, alkali metal salts and halogens - When sensors are contaminated by alkali metals, especially salt water sprays, or exposed to halogens such as Freon, their performance will also deteriorate.
- Contact with water - Splashing water or being immersed in water can cause a decrease in the sensor's sensitive characteristics.
- Freezing - Water freezing on the surface of the sensor's sensitive material will cause the sensitive layer to crack and lose its sensitive characteristics.

**Situations that should be avoided as much as possible**

- Condensate water - Under indoor usage conditions, slight condensation water will have a slight impact on the performance of the sensor. However, if water condenses on the surface of the sensitive layer and remains there for a period of time, the sensor's characteristics will decline.
- In a high-concentration gas environment - Whether the sensor is powered on or not, long-term exposure to high-concentration gas will affect the sensor's characteristics. If lighter gas is directly sprayed onto the sensor, it will cause great damage to the sensor.
- Long-term Storage - When sensors are stored for a long time without power supply, their resistance will undergo reversible drift, which is related to the storage environment. The sensor should be stored in a sealed bag free of volatile silicon compounds. Sensors that have been stored for a long time need to be powered on for a longer period before use to stabilize them.
- Long-term exposure to extreme environments - Whether the sensor is powered on or not, if it is exposed to extreme conditions for a long time, such as high humidity, high temperature or high pollution, its performance will be severely affected.
- Vibration - Frequent and excessive vibration can cause the internal leads of the sensor to resonate and break. Such vibrations can be generated during transportation by using pneumatic screwdrivers and the like.
- Impact - If the sensor is subjected to a strong impact or drop, it will cause its lead to break.

## INSTRUMENT INTRODUCTION

1 - Probe
2 - Metal hose
3 - Switch on/off the sound keys
4 - Reset key
5 - Power on/off key
6 - Switch the ambient temperature unit key
7 - Battery cover
8 - 1.8 inch color screen
9 - Type-C power supply interface (If it is necessary to monitor the gas leakage in the environment for a long time, the instrument can be powered through the TYPE-C interface for use)



## TECHNICAL PARAMETERS

| | |
|---|---|
| Preheating time | 10 seconds |
| Response time | <10 seconds |
| Sampling method | Diffusion type |
| Working voltage | DC (4.5V) 3AAA dry battery |
| Running time | >2 h |
| Applicable temperature range | 0°C ... 40°C |
| Applicable humidity range | <90%RH (without condensation) |
| Storage temperature | -20°C ... 60°C |
| Metal hose size | General-purpose hose, approximately 280mm in length |
| The effective service life of the probe sensor is recommended to be 3 years, and it should be tested once every six months. | |

## INSTRUMENT OPERATION

**Install the battery**
Open the battery cover and install the battery according to the battery compartment markings.

**Power on/off**
Short press the power key to power on and long press the power key to power off.

**Measurement**
After turning on the machine, wait for the instrument to preheat for 10 seconds before entering the test interface. At this time, the battery level, sound, ambient temperature and humidity information will be displayed at the top of the screen. The main display area may show red, yellow and green ICONS accompanied by a buzzer sound. This indicates that the instrument has detected the relevant gas. As the concentration of the gas sensed by the sensor in the probe increases, the instrument rises from the green scale to the yellow scale and then to the red scale, and the buzzer sound changes from slow to rapid.
Press the power key to turn the buzzer sound on or off
Press the reset key to clear the gas scale display and proceed to the next measurement.

**Product testing**
A lighter can be used to release a small amount of gas at a distance of about 5cm from the probe's air hole without igniting it to detect the alarm of the detector.

## EMERGENCY HANDLING

When detecting leaked gas in the ambient air:

- Please immediately close the relevant valves and pipelines.
- Open the doors and Windows immediately to allow the indoor air to circulate.
- Extinguish all fire sources and avoid using any items that may produce sparks (such as lighters, matches, etc.).
- Avoid turning on and off all kinds of electrical appliances.
- Notify the relevant departments and professionals to handle the matter.

## DAILY MAINTENANCE

After long-term use of the instrument, if the vent hole of the probe is blocked by dust, dirt, etc., it will affect the gas detection sensitivity. Please clean it in time. Be careful not to let the cleaning solution enter the interior of the machine.

**Warning!** Please follow the instructions in this manual. Our company will not be held responsible for any consequences resulting from failure to operate in accordance with this manual!
The final interpretation right of this manual belongs to our company.

## DISPOSAL

For the disposal of batteries in the EU, the (EU) 2023/1542 directive of the European Parliament applies. Due to the contained pollutants, batteries must not be disposed of as household waste. They must be given to collection points designed for that purpose. In order to comply with the EU directive 2012/19/EU we take our devices back. We either re-use them or give them to a recycling company which disposes of the devices in line with law. For countries outside the EU, batteries and devices should be disposed of in accordance with your local waste regulations. If you have any questions, please contact PCE Instruments.

## PCE INSTRUMENTS CONTACT INFORMATION


**Germany**
PCE Deutschland GmbH
Im Langel 26
D-59872 Meschede
Deutschland
Tel.: +49 (0) 2903 976 99 0
Fax: +49 (0) 2903 976 99 29
info@pce-instruments.com
www.pce-instruments.com/deutsch

**France**
PCE Instruments France EURL
2, rue Georges Kuhnmunch
67250 Soultz-sous-Forêts
France
Tel.: +33 (0) 972 35 37 17
Fax.: +33 (0) 972 35 37 18
info@pce-france.fr
www.pce-instruments.com/french

**Spain**
PCE Ibérica S.L.
Calle Mula, 8
02500 Tobarra (Albacete)
España
Tel. : +34 967 543 548
info@pce-iberica.es
www.pce-instruments.com/espanol

**United Kingdom**
PCE Instruments UK Ltd
Trafford House
Chester Rd, Old Trafford
Manchester M32 0RS
United Kingdom
Tel: +44 (0) 161 464902 0
Fax: +44 (0) 161 464902 9
info@pce-instruments.co.uk
www.pce-instruments.com/english

**Italy**
PCE Italia s.r.l.
Via Pesciatina 878 / B-Interno 6
55010 Loc. Gragnano
Capannori (Lucca)
Italia
Telefono: +39 0583 975 114
Fax: +39 0583 974 824
info@pce-italia.it
www.pce-instruments.com/italiano

**Turkey**
PCE Teknik Cihazları Ltd.Şti.
Halkalı Merkez Mah.
Pehlivan Sok. No.6/C
34303 Küçükçekmece - İstanbul
Türkiye
Tel: 0212 471 11 47
Faks: 0212 705 53 93
info@pce-cihazlari.com.tr
www.pce-instruments.com/turkish

**The Netherlands**
PCE Brookhuis B.V.
Twentepoort West 17
7609 RD Almelo
Nederland
Telefoon: +31 (0)53 737 01 92
info@pcebenelux.nl
www.pce-instruments.com/dutch

**United States of America**
PCE Americas Inc.
1201 Jupiter Park Drive, Suite 8
Jupiter / Palm Beach
33458 FL
USA
Tel: +1 (561) 320-9162
Fax: +1 (561) 320-9176
info@pce-americas.com
www.pce-instruments.com/us

**Denmark**
PCE Instruments Denmark ApS
Birk Centerpark 40
7400 Herning
Denmark
Tel.: +45 70 30 53 08
kontakt@pce-instruments.com
www.pce-instruments.com/dansk


Subject to change without notice