



# User Manual

PCE-PHM 12 pH meter



User manuals in various languages (français, italiano, español, português, nederlands, türk, polski, русский, 中文) can be found by using our product search on: [www.pce-instruments.com](http://www.pce-instruments.com)

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## 1 Safety notes

Please read this manual carefully and completely before you use the device for the first time. The device may only be used by qualified personnel and repaired by PCE Instruments personnel. Damage or injuries caused by non-observance of the manual are excluded from our liability and not covered by our warranty.

- The device must only be used as described in this instruction manual. If used otherwise, this can cause dangerous situations for the user and damage to the meter.
- The instrument may only be used if the environmental conditions (temperature, relative humidity, ...) are within the ranges stated in the technical specifications. Do not expose the device to extreme temperatures, direct sunlight, extreme humidity or moisture.
- Do not expose the device to shocks or strong vibrations.
- The case should only be opened by qualified PCE Instruments personnel.
- Never use the instrument when your hands are wet.
- You must not make any technical changes to the device.
- The appliance should only be cleaned with a damp cloth. Use only pH-neutral cleaner, no abrasives or solvents.
- The device must only be used with accessories from PCE Instruments or equivalent.
- Before each use, inspect the case for visible damage. If any damage is visible, do not use the device.
- Do not use the instrument in explosive atmospheres.
- The measurement range as stated in the specifications must not be exceeded under any circumstances.
- Non-observance of the safety notes can cause damage to the device and injuries to the user.
- Switch off the device while it is not in use.
- Do not exhaust the maximum measurement range.
- Do not use the meter if it is no longer working properly.
- Do not use the meter in wet or damp environments.

We do not assume liability for printing errors or any other mistakes in this manual.

We expressly point to our general guarantee terms which can be found in our general terms of business.

If you have any questions please contact PCE Instruments. The contact details can be found at the end of this manual.



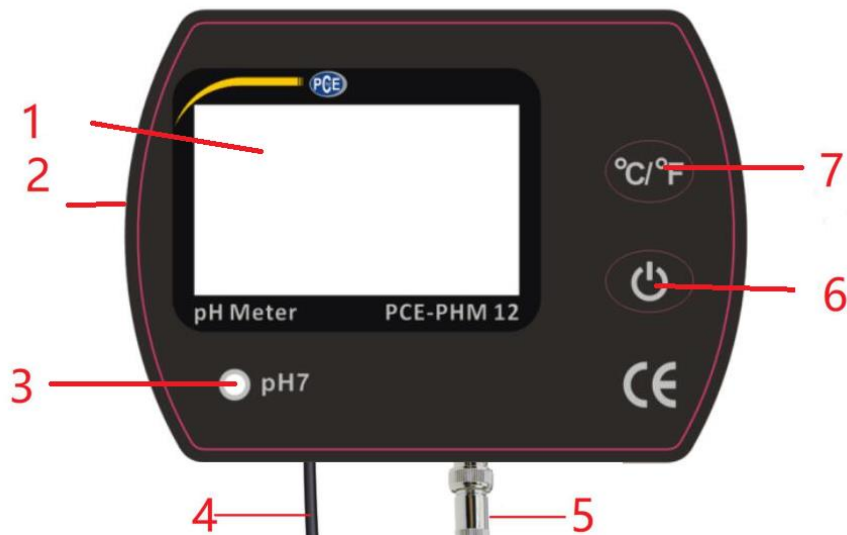
## 2 Delivery contents

- 1 x pH Meter PCE-PHM 12
- 1 x pH electrode
- 1 x screwdriver
- 1 x suction cup
- 1 x velcro fastener®
- 1 x universal mounting bracket
- 1 x power supply 6 VDC 100 mA
- 4 x 1.5 V LR44 AG13 battery
- 1 x user manual

## 3 Specifications

Measurement range pH	0.00 ... 14.00 pH
Accuracy pH	±0.1 pH
Resolution pH	0.01 pH
Measurement range temperature	0 ... 55 °C
Temperature accuracy	0.1 °C
Temperature resolution	±1 °C
Temperature compensation	0 ... 50 °C
Power supply	6 VDC (batteries or mains adaptor)
Battery	4 x 1.5 V LR44 AG13
Mains adaptor	Primary: 230 ... 240 VAC, 50 Hz, 19 mA Secondary: 6 VDC, 100 mA
Environmental conditions	0 ... 50°C, <95 % RH.
Dimensions	75 x 55 x 25 mm
Weight	75 g

## 4 Device description



1. LC display
2. Mains adaptor connection
3. Calibration screw for pH 7
4. Temperature electrode
5. BNC connector for pH electrodes
6. °C/°F key
7. Power key

## 5 Measurement

To make a measurement, first remove the protective cap from the electrode.

Then clean the electrode with a pH neutral liquid. Dry the electrode with a dry cloth after cleaning. Now switch on the measuring instrument with the power key (lower key). Now immerse the electrode and the temperature probe into your test liquid. After the temperature display and the pH display have stabilized, you can read the measured value.

When you have finished your measurement, first remove the measuring instrument from your sample.

Now switch off the measuring instrument with the power key (lower key) and clean the electrode before you put the protective cap back on.

## 6 Changing the temperature unit

To change the temperature unit, press the °C/°F key. This allows you to select the temperature unit degrees Celsius or degrees Fahrenheit.



## 7 Adjustment

To make an adjustment to the meter, immerse the measuring electrode into a pH 7 solution. Wait until the measured value has stabilized. Now set the displayed measured value to pH 7 using the calibration screw and the screwdriver supplied. The calibration screw is located below the display. Then check the measurement against other references, for example pH 4 and pH 10. To ensure a correct measurement result, carry out an adjustment at regular intervals.

**Note:** Calibration and storage fluids can be purchased separately from us.

## 8 Inserting the batteries

To insert the batteries, first open the battery compartment on the back. Now insert the batteries. Make sure the polarity is correct when inserting them. The markings on the batteries and in the battery compartment may help.

## 9 Contact

If you have any questions, suggestions or technical problems, please do not hesitate to contact us. You will find the relevant contact information at the end of this user manual.

## 10 Disposal

For the disposal of batteries in the EU, the 2006/66/EC 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.



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