



User Manual

PCE-PHM 14 Water Analysis 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

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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.

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 Features

- Multi-purpose pH meter
- Backlit display
- Auto calibration
- Compact and lightweight

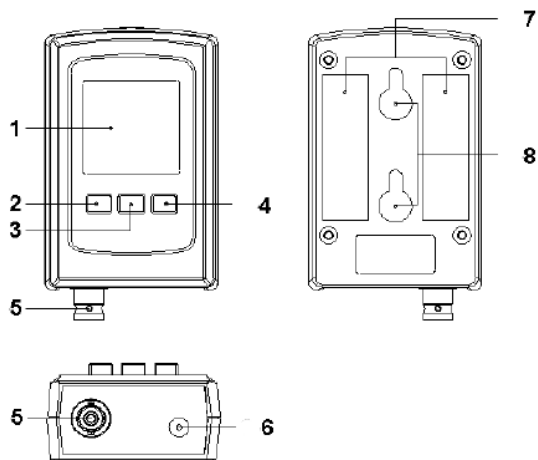
3 Applications

- Aquariums
- Drinks
- Fish hatcheries
- Food processing
- Photography
- Laboratory
- Quality control
- Schools
- Pools
- Water treatment

4 Specifications

Measuring range	0 ... 14 pH
Resolution	0.01 pH
Accuracy (at 23 °C ± 5 °C / after calibration)	0.07 pH at 5 ... 9 pH 0.1 pH at 4 .. 10 pH 0.2 pH at 1 ... 3,9 pH & 10,1 ... 13 pH
Input impedance	1012 Ohm
Sampling rate	approx. 1 second
Operating conditions	0 ... 50 °C / 32 ... 122 °F; < 80 % RH
Calibration	internally at pH7; pH 4 and pH 10
Power supply	externally 9 V
Current consumption	approx. 11 mA
Dimensions	89 x 57 x 31 mm / 3.5 x 2.2 x 1.2"
Weight	approx. 117 g / 4.1 oz
pH electrode connection	BNC

5 Front panel description



1. Display
2. CAL / ENTER key
3. ESC key
4. ▼ (Down) key
5. pH electrode BNC socket
6. DC 9 V input socket
7. Positioning aid for adhesive pads
8. Apertures for fixing

6 Calibration

Prerequisites for calibration

- Ideally, the electrode will produce 0 mV at pH 7.00
- The ideal ambient temperature is 25 °C

Required equipment for calibration

- pH Electrode
- 2 pH solutions (pH 7.00 and pH 4.00)



Calibration procedure pH 7

- 1) Rinse the electrode in distilled water completely.
- 2) Connect the pH electrode to the meter and immerse it into the relevant calibration solution.
- 3) Power on the instrument.
- 4) Press the "CAL" key. The desired calibration value pH 7 will appear.

The display will show:

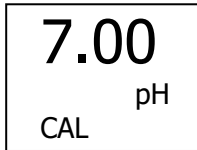


- 5) Press the "ENTER" key to confirm.

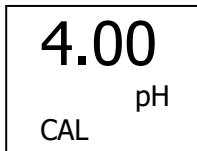
Calibration procedure pH 4

- 1) Rinse the electrode in distilled water completely.
- 2) Connect the pH electrode to the meter and immerse it into the relevant calibration solution.
- 3) Power on the instrument.
- 4) Press the "CAL" key. The desired calibration value pH 7 will appear.

The display will show:



- 5) Press the ▼ (Down) key until the desired calibration value appears:

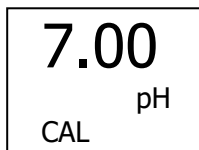


- 6) Press the "ENTER" key to confirm.

Calibration procedure pH 10

- 1) Rinse the electrode in distilled water completely.
- 2) Connect the pH electrode to the meter and immerse it into the relevant calibration solution.
- 3) Power on the instrument.
- 4) Press the "CAL" key. The desired calibration value pH 7 will appear.

The display will show:



- 5) Press the ▼ (Down) key until the desired calibration value appears:



- 6) Press the "ENTER" key to confirm.

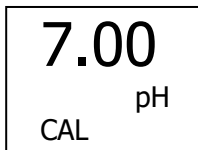
7 Important information on the calibration

- Before and after immersing the electrode into a pH solution, rinse it with distilled water.
- Calibrate each pH solution twice, if possible.
- It is recommended to calibrate in two steps: pH 7 first, followed by pH 4, then calibrate pH 7 again and then pH 10.
- If the calibration solution deviates by 2 pH, "ERR" will appear in the display.

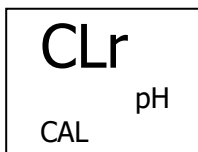
8 Clear calibration

- 1) Power on the instrument.
- 2) Press the "CAL" key.

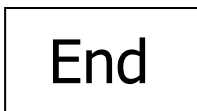
The following will be shown in the display:



3. Press the ▼ (Down) key until the following appears:



4. Press the "ENTER" key to confirm.
When the calibration has been cleared, the display will show:



9 Measuring procedure

- 1) Power on the instrument.
- 2) Immerse the electrode into the desired solution.
- 3) The instrument will display the measured pH value.
- 4) Rinse the electrode with distilled water.

10 Delivery contents

- 1 x pH Meter PCE-PHM 14
- 1 x pH electrode
- 2 x adhesive pads
- 1 x 9 V power adapter
- 1 x user manual

11 Warranty

You can read our warranty terms in our General Business Terms which you can find here: <https://www.pce-instruments.com/english/terms>.

12 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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