

## WATERPROOF pH-METER CP-461

**CP-461** pH -meter belongs to the newest generation of meters. It is distinguished by a large 3,2" colour graphic touch screen.

### Characteristic features:

- The meter is designed for highly accurate measurements of: pH, redox potential and temperature.
- It may be used for the field measurements as well as during accurate laboratory work.
- Low weight and small size make working in the field easier.
- Waterproof housing (IP-66) enables working in difficult conditions.
- "HOLD" function to freeze the result on the display.
- Signalisation of the result stabilisation with the "READY" symbol and a sound.
- Possibility of sending a calibration report to a PC - up to 10 last calibrations.
- Depending on the kind of applied electrode it may be used for clean water, sewage, soil, pastes, paints, cheese, milk, meat, etc.



- Calibration of the pH electrode in 1 ÷ 5 points.
- Automatic detection of buffer solutions, their values may be set by the user.
- Automatic correction of the pH sample solution value changes along with the temperature changes for NIST standards, what eliminates the necessity to adjust the temperature.
- Automatic or manual temperature compensation.
- Possibility of storing characteristics of 3 pH electrodes enables their quick replacing - very useful feature during field work.
- Automatic control of the electrode's condition.
- Easy readout of the electrode's parameters (buffer and slope).

- Precise redox potential measurement (accuracy 0.1mV).
- Possibility of mV measurement in relation to the set or measured reference potential (Vref).
- Memory of 3 different temperature sensors parameters.
- It is possible to enter the group of selective temperature sensor what increases the measurement accuracy.

#### Other features:

- Internal clock with date.
- Collecting up to 2000 data sets in the internal datalogger with temperature, time and date, single collecting and also taking series of measurements possible.
- Non-volatile memory of the stored results and calibration data.
- Storing the next calibration date.
- Possibility of choosing the language: Polish , English or German.
- Possibility of connecting with a PC by a micro USB output.
- Powered by rechargeable batteries or power adapter with USB - micro USB cable.
- The rechargeable batteries are charged internally.
- Continuous work time without charging up to 18 hours depending on the chosen brightness of the screen.
- The meter meets the GLP requirements.

The standard set includes **CT2S-121** temperature sensor with **Pt-1000S** resistor with **EPS-1** pH electrode for measurements in clear water, which should not be used in other types of liquid. Measurements in liquid with sediment should be made with use of **IJ44A** pH electrode, which enables measurements in various samples of both pure and contaminated liquids and semi-solids. Its unusual construction ("intermediate junction") protects the real junction (diaphragma) of the electrode against clogging, ensures stable measurements in these types of liquids or semi-liquid mass, in which other electrodes stop working quickly. When properly handled, the electrode's lifetime is longer than the standard electrodes.

#### TECHNICAL DATA

| Function:                | pH   | Redox / mV         | Temperature     |
|--------------------------|--|--------------------|-----------------|
| Range:                   | -2.000 ÷ 16.000 pH   | ± 2000 mV          | -50.0 ÷ 200.0°C |
| Resolution               | 0.001 pH or 0.01 pH  | 0.1 mV             | 0.1 °C          |
| Accuracy ( 1 digit)      | ± 0.002 pH*  | ± 0.1 mV*          | ± 0.1 °C**      |
| Temperature compensation | -5 , 110 °C  | -                  | -               |
| Input impedance          | 10 <sup>12</sup> W   | 10 <sup>12</sup> W | -               |
| Power supply             | 2 x 1.2 V AA rechargeable batteries, 5 V / 1000 mA micro USB power adapter |                    |                 |
| Weight                   | 250 g  |                    |                 |
| Dimensions (mm)          | L=149 W=82 H=22  |                    |                 |

\*The accuracy of the meter only.

\*\*The accuracy of the meter only. The total error includes the meters and probe's accuracy.  
In the range 0 ÷ 100 °C the acceptable error of the probe with Pt-1000S resistor: ±0,27 °C.

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