

pH / conductivity meter CPC-661

CPC-661 belongs to the newest generation of measuring equipment. It is distinguished by a large a 5" colour graphic touch screen.

The meter can be used for accurate measurements of pH, mV, Redox potential (ORP), conductivity, salinity, TDS, resistivity and temperature.

This pH/conductivity meter enables simultaneous measurements displaying and storing of 3 functions (pH, conductivity and temperature).



In the pH and mV measurement function:

- Depending on the kind of applied electrode it may be used for clean water, sewage, soil, pastes, meat, cheese and other measurements.
- Calibration of the pH electrode in 1 ÷ 3 points with possibility of choosing the buffers value in a given range.
- Range of the entered calibration points:
 - 1 point 0.000 ÷ 6.000 pH,
 - 2 point 6.800 ÷ 7.100 pH,
 - 3 point 8.000 ÷ 14.000 pH.
- Automatic detection of buffer solutions and standard solutions entered in the meters memory.
- Automatic correction of the pH standard solution value along with the temperature changes for NIST standards, what eliminates the necessity of the standard solution temperature adjustment.

- The NIST standard solutions entered in the meters memory are phthalate, phosphate and borax or bicarbonate (chosen when the meter is ordered). The solutions in 20 °C have following values: 4.001 pH, 6.881 pH, 9.225 pH or 10.064 pH.
- Possibility of storing characteristics of 3 pH electrodes enables their quick replacement – very useful when using different types of electrodes specific for different types of samples.
- Automatic control of the electrode's condition.



- Possibility of viewing the electrode's parameters (buffer and slope).
- Precise redox potential measurement (accuracy 0.1mV).
- The pH and conductivity measurement circuits are isolated, so there is no interference during simultaneous measurements
- Automatic or manual temperature compensation.

In the conductivity measurement function:

- Wide measuring range enables measurements in ultra pure water as well as in high conductivity solutions.
- 6 sub-ranges switched automatically.
- The first sub range 0 to 20 µS/cm enables measurements of pure water with resolution up to the 3rd decimal place.
- In case of measurements of natural water with conductivity from 60 µS/cm to 1 mS/cm the meter enables using non-linear temperature compensation. The parameters of this type of water are determined in the norm EN27888:1999 and concern surface water, deep water and well water. This function lowers the measurement error.
- The measurement accuracy of the ultra pure water with temperature compensation was increased by automatic adjustment of the temperature α coefficient depending on the temperature and kind of trace contaminations.

- The reference temperature may be chosen between 25°C and 20°C.
- Calibration by entering the constant K in range 0.010 ÷ 20.000 cm⁻¹ or in standard solutions in 1 to 3 points.
- Wide range of α coefficient 0 ÷ 10 % / °C chosen depending on the measured solution.
- Possibility to store constants K of 3 cells which cover whole measuring range.
- Automatic calculation of conductivity into salinity in NaCl or KCl on the basis of the real characteristics instead of a constant coefficient, what greatly increases the accuracy.
- Possibility of defining the TDS with entering the TDS coefficient in range 0.2 ÷ 1.0.
- Resistivity measurement function.
- Memory of 3 conductivity cells constant K values enables fast replacing in case of measurements in different ranges.

Other features:

- Internal clock with date.
- Collecting up to 500 data sets in the internal data-logger with temperature, time and date, single collecting and taking series of measurements of all measured functions.
- Non-volatile memory of the stored results and calibration data
- HOLD function to freeze the actual measurements results on the screen.
- Stabilised reading signalisation.
- Storing the calibration validity date and signalling it to the user.
- Possibility of choosing the language of the displayed information : English, German, French, Italian, Spanish, Portuguese.
- Possibility of connecting with a PC by a USB connector
- Software for data transmission and collection delivered in set.
- Up to 10 last Calibration Reports transfer to a PC for printout.
- Powered with 5V/1000mA USB power adapter.
- The meter meets the GLP requirements.
- 24 months of warranty for the meter.

TECHNICAL DATA

Technical data of the pH function

Function:	pH	Redox / mV	Temperature
Range	-6.000 ÷ 20.000 pH	±2000.0 mV	-50.0 ÷ 200.0°C
Resolution	0.001 pH or 0.01 pH	0.1 / 1 mV	0.1 °C
Accuracy (± 1 digit)	±0.005 pH*	±0.1 mV*	±0.1 °C**
Temperature compensation	-5 ÷ 110 °C	-	-
Input impedance	>10 ¹² Ω	>10 ¹² Ω	-

Technical data of the conductivity function

Function	Conductivity	Salinity	Resistivity	Temperature
Range	0 ÷ 1000.0 mS/cm	KCl 0 ÷ 239 g/l, NaCl 0 ÷ 296 g/l	0.500 Ωcm ÷ 200 MΩcm	-50.0 ÷ 200.0 °C
Accuracy (± 1 digit)	to 19.999 mS/cm ±0.20%, from 20.00 mS/cm ±0.35%*	±2 %*	±2 % of measured value	±0.1 °C**
Temperature compensation	-5 ÷ 70 °C	-5 ÷ 70 °C	-5 ÷ 70 °C	-
α coefficient	0.00 ÷ 10.00 %/°C	0.00 ÷ 10.00 %/°C	0.00 ÷ 10.00 %/°C	-
constant K	0.010 ÷ 19.999 cm ⁻¹			-

* Accuracy of the meter.

** Accuracy of the meter, total accuracy is a sum of meter and temperature sensor accuracy.
In the range 0 ÷ 100 °C the maximal acceptable error of the used temperature sensor with Pt-1000S ±0.27 °C.

Other data

Power	Adapter 5 V / 1000 mA USB
Size (mm)	175 x 140 x 52 mm
weight	420 g