

## pH / ION METER CPI-601

**CPI-601** measures: pH, redox (mV), ion concentration and temperature. The meter enables simultaneous measurement and displaying of ion selective reading for the chosen ion, pH (or mV) and temperature reading. The results are displayed on 7" graphic colour touch screen.

### Characteristic features:

- Programming of the parameters is very easy.
- Unification of operating procedures for all functions makes working easier.
- "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.



### In the pH measuring mode:

- pH electrode calibration in 1 to 5 points.
- Automatic detection of pH buffers and standards, their value may be set by the user.
- Automatic correction of the stored pH standard value influenced by the temperature change (compliant with NIST), what eliminates the necessity of the temperature adjustment.
- Storing of 3 pH electrodes' characteristics enables replacing them quickly.
- Automatic control of the electrode's condition.
- Enables readout of the pH electrode parameters – buffer and slope.
- Depending on the used pH electrode, measurements in pure water, sewage, pastes, etc. are possible.

- The measuring circuits of pH and ion connectors are isolated what enables accurate and error free simultaneous measurements in the same vessel.

#### **In the Ion measuring mode:**

- Enables ion concentration measurements of monovalent, bivalent, negative and positive ions.
- The measuring range of the meter enables co-operation with all ion selective electrodes (ISE) chosen depending on the measured Ion, equipped with BNC connector.
- Molar weight and valence of measured ion is automatically introduced.
- Possibility to choose the unit among pX, g/l, M/l, ppm.
- Automatic conversion of units – e.g. M/l to mg/l.
- Possibility of entering freely chosen standard solution value.
- The meter has separate BNC connectors for the pH electrode and Ion elective electrode and bannana connector for the reference electrode.

#### **In the redox potential measuring mode:**

- Precise redox potential measurement (accuracy 0.1 mV).
- Possibility of mV measurement with use of pH or ion connector.
- Possibility of the mV measurement relatively to the entered or measured reference (Vref) value.

#### **In the temperature measuring mode:**

- Choice of the unit: °C, °F, K.
- Introducing the number of the selected temperature sensor group what increases accuracy.

#### **Other features:**

- Automatic or manual temperature compensation.
- Internal clock with date.
- Datalogger for 2000 data sets of all currently chosen functions.
- Storing of measurement's results with time and date, taken as single or in series with set time interval.
- The results and calibration data are stored in non-volatile memory.
- Possibility of screen brightness control depending on the external conditions.
- Storing of the next calibration date set by the user.
- USB output to connect with a PC.
- Possibility to choose language: English or German.

The standard set includes: **CT2S-121** temperature sensor with **Pt-1000S** resistor and **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 and maintained the electrode may be efficient for several years.

Ion selective electrodes (ISE) should be purchased separately.



## TECHNICAL DATA

Function	pH	Redox / mV	Temperature
Range	-2.000 ÷ 16.000 pH	± 2000.0 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**
Temp. compensation	-5 , 110 °C	-	-
Input impedance	10 <sup>12</sup> W	10 <sup>12</sup> W	-
Power supply	9 V / 500 mA power adapter		
Weight	520 g		
Dimensions (mm)	L= 188.5 W= 133 H= 58 in the highest place		

\*The accuracy of the meter only.

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In the range 0 ÷ 100 °C the acceptable error of the probe with Pt-1000S resistor: ±0,27 °C.

## Ion selective measurements

Function	Ion (M/l)	Ion (g/l)	Ion (ppm)	Ion (pX)
Range	0 ÷ 100	0 ÷ 1 000	0 ÷ 1 000 000	-2.000 ÷ 16.000 pX
Resolution	0.01 / 0.1	0.01 / 0.1	0.01 / 0.1	0.001 / 0.01
Accuracy (± 1 digit)	± 0.25 %*	± 0.25 %*	± 0.25 %*	± 0.002 pX*
Temperature compensation	-5 ÷ 110 °C	-5 ÷ 110 °C	-5 ÷ 110 °C	-5 ÷ 110 °C

\*The accuracy of the meter only.

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