

WATERPROOF MULTIFUNCTION METER CX-401 FOR FIELD AND LAB USE

- This small-size meter includes all functions of pH meters, conductivity meters and oxygen meters of the 401 series.
- CX-401 measures: pH, redox potential (mV), conductivity, salinity, TDS, dissolved oxygen in % of saturation or in mg/l, atmospheric pressure and temperature.
- The meter may be used for the field measurements as well as during accurate laboratory work.
- The meter is equipped with an easy-to-read backlight LCD display with brightness control.
- All functions are distinctive by very high accuracy and repeatability.
- Unification of the operating procedures in all measuring functions makes working trouble-free.
- Low weight and small size make working in the field easier.
- Waterproof housing (IP-66) enables working in difficult conditions.



In the pH measurement function:

- The pH and conductivity measurement circuits are isolated one from another.
- Depending on the kind of applied electrode it may be used for clean water, sewage, soil measurements 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.
- 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.
- Precise Redox potential measurement (accuracy 0.1mV).

In the conductivity measurement function:

- Full measuring range enables measurements in ultra pure water as well as in very salty solutions.
- 6 sub-ranges switched automatically.
- Works with conductivity cells equipped with platinum electrodes.
- Calibration by entering the constant K in range $0.010 \div 19.999 \text{ cm}^{-1}$ or in buffer solution.
- Possibility to store constants K of 3 cells which cover whole measuring range.
- Wide range of α coefficient $0 \div 10 \% / ^\circ\text{C}$ chosen depending on the measured solution.
- Possibility of changing the reference temperature.
- Automatic calculation of conductivity into salinity in NaCl or KCl on the basis of the actual characteristics instead of a constant coefficient, what greatly increases accuracy.
- Possibility of defining the TDS with entering the TDS coefficient in range $0.2 \div 1.0$.
- Cable resistance compensation in the meter's software.
- Possibility to measure electric admittance of tree seedlings – checking the vitality of seedlings after purchasing a special sensor.

In the dissolved oxygen measurement function:

- Atmospheric pressure measurement with automatic calculation of its influence on dissolved oxygen measurement value.
- Automatic transfer of the salinity measured in the conductivity mode to the oxygen measurement mode with calculation of its influence on the oxygen content value.
- Easy in use and maintenance galvanic oxygen sensor.
- 1 or 2 point oxygen sensor calibration.
- Wide measuring range enables measurements in lakes with blooming vegetation.

Other features:

- Automatic or manual temperature compensation.
- Internal clock with date.
- Collecting up to 4000 results in the internal datalogger with temperature, time and date, also taking series of measurements possible.
- Non-volatile memory of the stored results and calibration data
- Powered by rechargeable batteries 2 x AA (1.5V), with internal charging by power adapter.
- Connecting with a PC by RS-232 or USB output using an adapter (optional).
- The meter meets the GLP requirements.
- 24 months of warranty for the meter.
- The meter was awarded with a golden medal on International Fair EUROLAB.

Function	pH	mV	Conductivity, Salinity	O ₂ (mg/l)	O ₂ (%)	Temperature
Range	-2.000 ÷ 16.000 pH	±1999.9 mV	0 ÷ 1999.9 mS/cm 0 ÷ 200 g/l KCl 0 ÷ 250 g/l NaCl	0 ÷ 60 mg/l	0 ÷ 600%	-50.0 ÷ 199.9 °C
Accuracy (± 1 digit)	±0.002 pH	±0.1 mV	±0.1% >20 mS/cm: ±0,25%	±0.1 mg/l	±1%	±0.1 °C*
Temp. Compensation	-5 ÷ 110 °C	-	-5 ÷ 70 °C	0 ÷ 40 °C	0 ÷ 40 °C	-
Input impedance	$10^{12}\Omega$	$10^{12}\Omega$	-	-	-	-
Atm. Pressure range	800 ÷ 1100 hPa					
Dimension (mm)	L=149 W=82 H=22					

* Accuracy of the meter. The total error is dependent on the kind of applied probe.