

µdox – multiparameter handheld instrument for pH, redox potential, dissolved oxygen, total hardness and acid capacity

µdox is characterized by its ease of use combined with the measurement quality of high-quality laboratory equipment. It offers accurate, fast and reliable measurements, also in trace level, directly on site - in the field or in production.

The multiparameter handheld measuring device determines relevant water values for the qualitative verification by means of its two sensors. These include pH, redox potential, total hardness, acid capacity and dissolved oxygen. The sensors transmit the measured signals to the handheld measuring unit for an optimal displaying of data. The total unit is particularly easy to handle.

Fast, accurate measurement

The dissolved oxygen measurement makes it possible to measure the saturation into the residual oxygen range within a few seconds. The pH measurement has a specially built pH/redox electrode, which makes precise measurements possible, especially in low-salt solutions.



Low measuring range

It is measured up to a residual oxygen content of up to 1 ppb, which allows an accurate measurement in very small concentrations. This allows, for example, the oxygen measurement of boiler feed water in power stations. The oxygen measurement considers the surrounding oxygen partial pressure as well as the temperature and salinity in solutions.

Determination of several parameters

In addition to measuring the dissolved oxygen, a second temperature compensated electrode is used to analyze pH and redox. Total hardness and acid capacity are measured by means of indicators.

Automatic sensor and pH buffer detection

The pre-calibrated and immediately usable sensors are independently recognized by the handheld measuring device. Standardized pH buffer recognizes the device automatically, too.

Menu-controlled simple device operation

The background-lit color LCD of the device allows the display of dynamic measurement deviations in text form. µdox has an uncomplicated self-explanatory user interface. This allows users of all levels of experience to operate intuitively.

Compact LAB-pocket measuring case

The measuring case is composed of a mini-laboratory for the analysis. This means that all measurements can also be accurately, quickly and reliably identified. The space-saving case ensures the safe storage of µdox and accessories during transport.

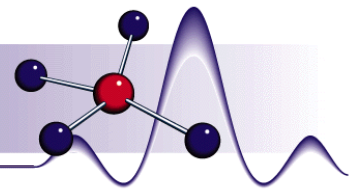


Water and dustproof

The handheld measuring device has a housing for robust work and has a waterproof construction, which corresponds to protection class IP67. Thus leads to best results even under difficult conditions.

Data storage

The determined data can be variably stored and visualized by measuring locations. There is the possibility of transferring data to the computer.



technical data:

pH-measurement (temperature compensated)

| | |
|-------------------|---|
| measurement range | pH 0,00 to 14,00 |
| resolution | pH 0,01 |
| accuracy | pH $\pm 0,02$ |
| calibration | of 5 standard buffer (pH 4,01; 6,86; 7,01; 9,18; 10,01) or one user-defined buffer |
| temperature range | +5°C to 50°C |

redox-measurement

| | |
|-------------------|----------------------------|
| measurement range | ± 1500 mV |
| accuracy | $\pm 1,0$ mV |
| calibration | automatically by pH buffer |
| temperature range | 5°C to 50°C |

oxygen (temperature, air pressure and salinity compensated)

| | |
|----------------------|---|
| response time (25°C) | t_{90} : 13 s ; t_{99} : 30 s |
| measurement range | 1 ppb to 20 ppm |
| resolution | 0,2 ppb to 500 ppb 0,01 ppm to 20 ppm |
| accuracy | ± 1 ppb to 0,5 ppm $\pm 0,1$ ppm to 20 ppm |
| calibration | two-point procedure 0% and 100% |
| temperature range | 5°C to 50°C |

total hardness

| | |
|-------------------|------------------------------------|
| measurement range | 0,5 °dH to 30 °dH |
| resolution | 0,1 °dH |
| accuracy | ± 5 % |
| measurement | one-point procedure with reactants |

acid capacity

| | |
|-------------------|--|
| measurement range | KS 8,2 (p value) 0...10 mval/l KS 4,3 (m value) 0...10 mval/l |
| resolution | 0,01 mval/l |
| accuracy | ± 5 % |
| calibration | one-point procedure with reactants |

other data

| | |
|-------------------|---|
| media temperature | +5°C...50 °C |
| media pressure | pressure-free |
| measurement units | selectable °dH; °fH; °eH; mval/l; ppm/ppb ; mmol/l; mg/l/µg/l |
| languages | selectable German, English, French, Spanish |
| data recording | max. 500 data records selectable for max. 8 measuring locations |
| PC connectivity | USB port to Windows-PC |
| battery mode | continuous use with / without backlight ca. 30 seconds |
| charge | by USB port with mit charge control |
| housing | IP 67 model 147 x 90 x 26 mm ; ca. 250 g |
| measuring kit | IP 67 model 400 x 285 x 200 mm ; ca. 1,5 kg |