MS08 H_2O_2
Amperometry

Portable and laboratory measuring instrument

Multiparameter system

Check for the presence of hydrogen peroxide

Hydrogen peroxide finds many applications in various fields such as medicine and the food industry which use it for disinfection and sterilization, but also in the manufacture of cosmetics, the paper industry and in particular in the treatment of the water. H_2O_2 removes organic pollutants. However, it is also involved in corrosion phenomena and the generation of oxidizing species that are very aggressive for the body. Controlling the dissolved H_2O_2 concentration is an important parameter for adapting water treatment, especially for the oxidation of H_2S.

The precise and reliable in situ determination of the concentrations of this dissolved gas is possible with the MS08-H_2O_2 for online or portable measurements. The micro H_2O_2 sensor allows rapid measurement with very high resolution. The multi-parameter MS08 system collects raw H_2O_2 information and performs compensation calculations based on the temperature of the medium.

Applications

- Monitoring and protection of wastewater networks
- Control of H_2O_2 injections
- Industrial process management
- Protection of personnel before intervention

Advantages

- Measurement without direct sampling in the medium
- No interference with turbidity or water color
- Automatic temperature compensation
- Versatile - portable / laboratory and stationary measurements
- Direct display of measurement data
- Data extraction to computer by USB

Online / portable measurement

The MS08 box is designed for portable measurements (approx. 12 hrs battery life) and can also be connected to a 220VAC mains socket for continuous measurements.

The dissolved H_2O_2 passes through the gas permeable silicone membrane. It diffuses to the working electrode where an electrochemical oxidation reaction takes place. The current generated, proportional to the concentration of hydrogen peroxide, is measured by the probe.

This current from 0 to 400 pico-amperes is then converted and exploited by the MS08 box, the measurement data are compensated using the temperature measurement.

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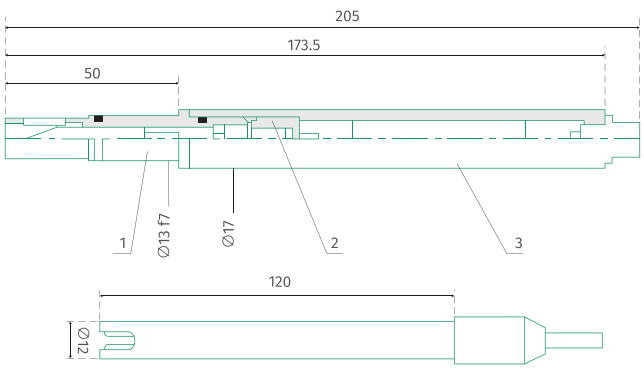
Technical specifications

Measuring principle		Amperometric measurement
Technology		Micro membrane sensor with redox catalyst
Temperature compensation		Automatic Pt100, Pt1000
Electrical polarization time		Automatic from 5 to 15 minutes maximum wait at start-up
Measuring ranges	Type I	0,02...10 %H_2O_2
	Type S	Other ranges on request
Response time		T 90% < 2 secondes
Measuring principle		1% of the measured value
H_2O_2 consumption		Negligible
Working pH range		from 0 to 11 pH
Probe body materials		H_2O_2 probe - titanium / temperature probe - plastic
Dimensions (d x L)		H_2O_2 probe - 17 mm x 205 mm / temperature-pH probe - 12 mm x 120 mm
MS08 power supply		6 Mignon type batteries / 220 VAC with charger supplied
Interface	Digital	Data display on the integrated screen - H_2O_2 / T ° / residual current / pH (option)
		RS-232 / USB (option)
	Analog	4 ... 20 mA on request
Data acquisition		On computer, software not supplied, downloadable free of charge type «HYPERTERMINAL»
Transmission / frequency		ASCII string / 2 seconds
Operation		Conversion by software for access to Lotus 1-2-3 or Excel type calculation software
Service life of the micro H_2O_2 sensor		6 months in portable use, 10 months continuously (depends on stress due to variations in H_2O_2)
Interference on measurement		No interference in salt water up to 40 g / l salt
		No interference in the presence of: carbon dioxide, oxygen, methane, hydrogen, ammonia, carbon monoxide, organic solvents (maximum 20% vol.), Acetic acid, sulphide dimethyl, HCN and solid compounds
Maintenance		Cleaning the measuring membrane with distilled water after each use
Temperature of the medium / sample		0 ... + 30 ° C (40 ° C possible with a specific calibration on request)
Ambient temperature		0 ... + 40 °C
Storage temperature		0 ... + 40 °C



Combined pH-T