DEPOLOX® 5 BARE ELECTRODE FOR CL2, O3, CLO2 OR KMNO4

WALLACE & TIERNAN® ANALYZERS/CONTROLLERS

The DEPOLOX® 5 measurement module can be used with either the SFC electronic package for single point analysis and control or the versatile MFC electronic package for multiple measurements and control. It consists of a plug-in sensor card and flow cell with an integral, bare-electrode measurement configuration. Utilizing amperometric residual measurement technology, it is suitable for disinfection applications, ranging from simple measuring/monitoring tasks to complex control processes for treating potable water, process water, and pool water. For a pH corrected free chlorine measurement with a single SFC unit a SiDiSens module is available.

Typical applications

- Measurement and control tasks in potable water works
- Process water monitoring in all water-based industrial processes
- Cooling water monitoring

Features

The DEPOLOX® 5 flow cell consists of a 3-electrode system utilizing a bare-electrode design which provides a quick response time (90 % change < 20 sec.) with high accuracy (±2 % F.S.) when compared to membrane sensor technology. Hydrodynamic grit cleaning of the electrode surfaces maintains sensitivity to extend the intervals between calibrations. Zero point calibration is not necessary. A sample with a constant pH is required, however, the addition of a pH sensor can provide for compensated free chlorine measurement with the suitable electronic package. An integral multi-sensor provides a PT 1000 temperature measurement and monitors sample flow to provide a loss-of-flow alarm contact. The flow cell is supplied with a 1 m (3.3 ft.) screened coaxial cable. Up to three additional sensors can be fitted into the flow cell for measuring other water parameters.

Key Benefits

- Accurate measurement and high reproducibility
- Fast response time to meet fluctuating disinfection demands
- Rugged design and minimal maintenance due to hydrodynamic cell cleaning
- Economical, reagentless operation
- Proven operation in thousands of installations around the world
- Intuitive programming for user-friendly operation

Utilizing “plug and play” technology allows the SFC or MFC controller to automatically recognize the sensor card and provide the correct display information. An analog output (0/4 to 20 mA) is available along with user configurable alarm contacts.

DEPOLOX® 5 MEASURING CELL

Measuring system: Pot. 3-electrode system
Electrolyte: Potassium chloride solution, 3 mol
Measuring signal: max. 1000 µA
Measuring range (DEPOLOX 5) for SFC/MFC systems:
max. 50 mg/l with a typical measuring signal 20 µA per mg/l
Typical output signal: approx. 20 µA/mg/l free Cl_2
Resolution:
up to 500 µg/l: 1 µg/l; up to 5 mg/l: 0,01 mg/l; up to 50 mg/l: 0,1 mg/l; up to 200 mg/l: 1 mg/l

Response time: < 20 sec.
Conductivity: min. 200 µS/cm
Enclosure sensor connection:
IP 66, designed to meet NEMA 4X
Temperature compensation:
yes, with Pt 1000 (0 – 50 °C)
pH compensation: yes, in combination with SFC-pH (Cl^{++}) or pH sensor
pH range 5.0 – 8.5 according to HOCl curve
Cross-sensitivity:
other oxidation agent: copper based algaecide

Water quality:
pool, potable, industrial and process water; no use by presence of organic chlorine/stabilisation agents

DEPOLOX® 5 FLOW MODULE

Sample water connection:
PVC hose 6 x 3 mm or sample water connection PE hose 6 x 1 mm, thread connection 1/2

Flow rate: 33 l/h (0.15 US gpm), controlled
Sample water temperatur:e 0 -50 °C (32 – 122 °F)
Allowable sample water pressure: min. 0.2 - max. 4.0 bar (3 – 60 psi)
Back pressure: max. 1.5 bar (pressurized version)
Weight: approx. 1.5 kg (3.3 lbs)
Dimensions:
215 x 375 x 155 mm (8.4 x 14.8 x 6.1 '')

Note
integrated DEPOLOX 5 sensor, other sensors possible

Flow module	View	Slots, non-p.	Slots, pressurized	Technical data
DEPOLOX5 flow-through adapter with integrated, open sensor for oxidation and disinfection chemicals and compatible with additional measurements of the MFC/SFC series.		 5 slots	 4 slots, 1.5 bar (22 psi) back pressure	Sample water flow: controlled to 33 l/h with max. 4 bar inlet pressure * integrated multi-sensor with flow-monitor and compatible with temperature sensor max. sample water temperature +50 °C

MEMBRANE SENSOR PH/REDOX SENSOR SENSOR FOR FLUORIDE OR CONDUCTIVITY

*: SAMPLE WATER PRESSURES OF UP TO 40 BAR (580 PSI) CAN BE ADAPTED WITH SPECIAL EQUIPMENT.

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