

# **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.

#### **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 userfriendly 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

Typical output signal: approx. 20 µA/mg/l free Cl<sub>2</sub> Resolution:

up to  $500 \,\mu g/l$ :  $1 \,\mu g/l$ ; up to  $5 \,m g/l$ :  $0.01 \,m g/l$ ; 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<sup>++</sup>) or pH sensor

pH range 5.0 - 8.5 according to HOCI 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

- 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.

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



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