

Wallace & Tiernan® Analyzers/Controllers OZ7 membrane sensor for ozone measurement

General

The Wallace & Tiernan® ozone 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 a membrane-type sensor probe that can be mounted in a variety of flow cells. It is suitable for typical ozone water applications, ranging from simple measuring/monitoring tasks to complex control processes for treating potable water, process water, pool water and waste water. The standard measuring range is 0.2 to 10 mg/l.

Typical applications

- Measurement and control in industrial and municipal water treatment
- Process measurement, final inspection and testing, neutralization plants
- Monitoring of potable water, well water, pool water as well as other clean water applications where an ozone residual measurement is required

Features

The ozone measurement sensor consists of a membrane-covered potentiostatic 2-electrode system with a gold working electrode and a silver-silver halogenide reference electrode. It includes an integral temperature sensor for temperature compensation between +5 and 45 °C (41 and 113 °F). Zero point calibration is not necessary. The sensor is supplied with a 0.9 m (3.0 ft.) screened coaxial cable. Extension cables up to 50 m (164 ft.) in length are available as optional accessories. 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.

Benefits:

- Continuous, on-line measurement of ozone without sensitivity to chlorine, bromine or hydrogen peroxide
- Ozone analysis is not affected by sample water pH variations
- Integrated temperature compensation
- Economical, reagent free analysis
- Low operating and maintenance costs
- Intuitive programming for user-friendly operation



VariaSens™ flow module with membrane sensor and MFC electronic module






Product Sheet

Water Technologies

SIEMENS

	Sensor OZ7
Measuring principle	Membrane-covered 2-electrode potentiostatic system
Measuring parameter	Ozone O ₃
Electrolyte	Diluted potassium halide solution
Reference electrode	Silver/silver halide/potassium halide solution
Water quality	All types of water, potable, industrial, process and salt water
External dimensions	ø 25 mm (1 "), length 175 mm (6.9 ")
Models	Non-pressurized or pressurized up to max. 1 bar
Measuring range	0.02 to 10 ppm
Response time (T ₉₀)	< 50 s
Temperature range Measuring water	+5 to 45 °C (41 to 113 °F), temp. compensation
Influence of the pH value	No signal influence up to the ozone stability limit
Conductivity	> 1 µS/cm to max. 40 mS/cm

Electronics	Sensor Card for MFC and SFC
Measurement input	For membrane sensor OZ7, pre-calibrated
Input data	-7 to 1000 µA
Measuring accuracy/drift	Linearity < 0.1 % FS/max. 0.2 %/10 K
Measuring cable	Customized cable-plug combo

Flow Module	View	Slots Non-pressurized	Slots Pressurized	Technical Data
DEPOLOX® 5 flow-through adapter with integrated, open sensor for oxidation and disinfection chemicals and compatible with additional measurements of the MFC/SFC series		 1 x membrane sensor		Sample water flow: Controlled to 33 l/h (0.15 US gpm) with max. 4 bar (58 psi) inlet pressure* Integrated multi-sensor with flow monitor and compatible with temperature sensor max. sample water temperature: +50 °C (122 °F)
VariaSens™ Flow-through adapter in combination with membrane sensors and additional measurements of the MFC/SFC series		 2 x membrane sensor	 2 x membrane sensor, up to 1 bar back pressure	Sample water flow: Controlled to 33 l/h (0.15 US gpm) with max. 4 bar (58 psi) inlet pressure* Integrated multi-sensor with flow monitor and compatible with temperature sensor max. sample water temperature: +50 °C (122 °F)

● 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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WT.050.585.008.IE.PS.0708
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