Chlorine Dioxide

90SX20000

The digital chlorine dioxide sensor from the eCHEM sensors product range is an electrochemical sensor for measuring the chlorine dioxide concentration in water. The sensor can be used for almost all water qualities and treatment processes (e.g. bottle washing machine, CIP system, rinser). It can also be used in seawater.

Thanks to a special membrane system, the sensor is particularly resistant to chemicals and surfactants.

Advantages

- Surfactants are partially tolerated
- Abrasive particles are tolerated
- Higher temperatures are possible

Applications

- All types of water treatment

Technical specifications

Measurement technology		Membrane-covered, amperometric 2-electrode system	
Measuring principle		Amperometry	
Parameters		Chlorine dioxide	
Measuring range		0...2 mg/L, 0...20 mg/L	
Accuracy	**Measuring range 2 mg/L:**	at 0.4 mg/L < 1 %	at 1.6 mg/L < 1 %
	Measuring range 20 mg/L:	at 1.5 mg/L < 0.1 %	
Response time		T90: approx. 1 min	
Run-in time		For initial commissioning approx. 2 h	
Drift		approx. -1 % per month	

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Temperature compensation	Automatic, through integrated temperature sensor; temperature jumps must be avoided	
Housing material	Microporous hydrophilic membrane, PVC-U, stainless steel 1.4571	
Dimensions (Lx Ø)	~ 205 mm x 25 mm	~ 8.1" x 1"
Interface	RS-485, Modbus RTU	
Power supply	9 - 30 VDC, max. 56mA	
Connection	8pin M12 plug	
Maintenance interval	Check measuring signal: typically once a week Membrane cap change & electrolyte change: depending on the application	
System compatibility	Modbus RTU	
Warranty	1 year (EU&US: 2 years) on electronics; wearing parts are excluded from the warranty	
Process pressure: **Operation with retaining ring**	1 bar*	~14.5 psi*
Calibration method	Chlorine determination with DPD-1 method	

*No pressure surges and/or vibrations

Process temperature	0...+50 °C*	~ +32...+113 °F*
Flow rate	Approx. 15...30L/h in FLC-3, slight flow dependency is present	
pH range	pH 1 ... pH 12, reduced pH value dependency	
Conductivity	10 µS/cm...50 mS/cm (seawater)	
Cross influences	Cl_2 does not interfere; O_3: factor 25	

*no ice crystals in the sample water

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