Chlorine Dioxide

SensoriC ClO2 3E 1

Rev. 09/2006

SensoriC Sensors are designed and manufactured in
Justus-von-Liebig-Str. 22, D- 53121 Bonn, Germany
Tel.: ++49 (0) 228 52 66 40 - Fax: ++49 (0) 228 5266439

SensoriC ClO2 3E 1

FEATURES

Amperometric 3-electrode sensor
Long life time
High reliability
High resolution
No cross interference to H_2S

TYPICAL APPLICATIONS

Pulp & Paper Industry, Water treatment plants, Disinfection
Portable and fixed point monitoring of TLV levels

PART NUMBER INFORMATION

MINI	2731-031-30009
SENSORIC CLASSIC	2731-031-30069
CTL 4 series adaptation	2731-031-30049
CTL 7 series adaptation	2731-031-30079

Rev. 09/2006

SensoriC Sensors are designed and manufactured in
Justus-von-Liebig-Str. 22, D- 53121 Bonn, Germany
Tel.: ++49 (0) 228 52 66 40 - Fax: ++49 (0) 228 5266439

SensoriC ClO2 3E 1

TECHNICAL SPECIFICATIONS

Measuring Range	0–1 ppm
Sensitivity Range	500 nA/ ppm ± 100 nA/ ppm
Zero Current at 20°C	< ± 10 nA
Resolution at 20°C	< 0.02 ppm
Bias Potential	0 mV
Linearity	< 10% full scale
Response Time at 20°C	
t50	< 20 s calculated from 2 min. exposure time
t90	< 120 s calculated from 2 min. exposure time
Long Term Sensitivity Drift	< 5% per 6 months
Operation Conditions	
Temperature Range	-20°C to + 40°C
Humidity Range	15-95% r.H., non-condensing
Effect of Humidity	no effect
Sensor Life Expectancy	> 24 months
Warranty	12 months

Rev. 09/2006

SensoriC Sensors are designed and manufactured in
Justus-von-Liebig-Str. 22, D- 53121 Bonn, Germany
Tel: ++49 (0) 228 52 66 40 - Fax: ++49 (0) 228 5266439

SensoriC ClO2 3E 1

RELATIVE OUTPUT vs. TEMPERATURE:

Due to the nature of the gas the temperature dependence of the sensor as a function of the environmental temperature conditions is strongly related to the experimental conditions, such as relative humidity.

SensoriC is currently revising this set of data.

Based on the current experience with the unfiltered ClO2 sensor (ClO2 3E 1 O) the temperature dependence

a) on the zero reading is < 0.08 ppm
b) on the sensitivity is < 20% of the sensitivity at 20°C

within the specified temperature range.

Please contact our Technical Support Department (tech@sensoric.de) for further details.

SensoriC Sensors are designed and manufactured in
Justus-von-Liebig-Str. 22, D- 53121 Bonn, Germany
Tel.: ++49 (0) 228 52 66 40 - Fax: ++49 (0) 228 5266439

ClO2 3E 1

CROSS SENSITIVITIES AT 20°C

Gas	Concentration	Reading [ppm]
Alcohols	1000 ppm	0
Arsine	0.2 ppm	-0.01
Carbon Dioxide	5000 ppm	0
Carbon Monoxide	100 ppm	0
Chlorine	1 ppm	0.3 ± 0.1
Chlorine Trifluoride	1 ppm	1 (theor.)
Hydrocarbons	% range	0
Hydrogen	3000 ppm	0
Hydrogen Cyanide	20 ppm	-0.9
Hydrogen Sulfide	20 ppm	0[1)]
Nitrogen	100 %	0
Nitronge Dioxide	10 ppm	3.7

1) Short gas exposure in minute range; filter capacity: > 15 ppm/h.

Notes:
1. Interference factors may differ from sensor to sensor and with life time. It is not advisable to calibrate with interference gases.
2. This table does not claim to be complete. The sensor might also be sensitive to other gases.

SensoriC Sensors are designed and manufactured in
Justus-von-Liebig-Str. 22, D- 53121 Bonn, Germany
Tel: ++49 (0) 228 52 66 40 Fax: ++49 (0) 228 5266439