Phosgene Sensor

SensoriC COCl2 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

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FEATURES

Amperometric 3 electrode sensor cell
Fixed organic electrolyte
High reliability

TYPICAL APPLICATIONS

Ambient monitoring of TLV levels
Chemical Industry, Homeland Security

PART NUMBER INFORMATION

SENSORIC CLASSIC	1731-031-11069
CTL 4 series adaptation	1731-031-14049
CTL 7 series adaptation	1731-031-17079

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TECHNICAL SPECIFICATIONS

Measuring Range	0–1 ppm
Sensitivity Range	650 nA/ppm ± 150 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	< 60 s calculated from 2 min. exposure time at 40% r.H.
t90	< 120 s calculated from 2 min. exposure time at 40% r.H.
Long Term Sensitivity Drift	< 5% per 6 months
Operation Conditions	
Temperature Range	-20°C to +40°C
Humidity Range	15–90% r.H., non–condensing
Effect of Humidity	no effect
Sensor Life Expectancy	> 12 months
Warranty	7 months

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OUTPUT & ZERO READING 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.

SensoriC is currently revising this set of data.

Based on the current experience with this sensor and comparable electrochemical systems the temperature dependence

a) on the zero reading is < 0.02 ppm
b) on the sensitivity is < 20% of the sensitivity at 20°C

within the specified temperature range.

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

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CROSS SENSITIVITIES AT 20°C

Gas	Concentration	Reading [ppm]
Ammonia	100 ppm	0
Arsine	0.2 ppm	0.18
Carbon Dioxide	5000 ppm	0
Carbon Monoxide	100 ppm	0
Chlorine	1 ppm	0.4
Chlorine Dioxide	1 ppm	-3
Hydrogen Chloride	10 ppm	25
Hydrogen Sulfide	20 ppm	yes; n/d (after filter break through)
Isopropanol	1100 ppm	0
Methane	1 %	0
Nitrogen Dioxide	10 ppm	-1
Ozone	0.25 ppm	0.03

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.

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