

Chlorine Dioxide

Sensoric ClO₂ 3E 1 O (unfiltered)



Product Data Sheet

Sensoric ClO₂ 3E 1 O

FEATURES

Amperometric 3 electrode sensor cell
Low susceptibility to abrupt changes of humidity
Interference to Chlorine
High selectivity
0 voltage biased operation

TYPICAL APPLICATIONS

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

PART NUMBER INFORMATION

MINI	2731-331-30009
SENSORIC CLASSIC	2731-331-30069
CTL 4 series adaptation	2731-331-30049
CTL 7 series adaptation	2731-331-30079

Note:

It is recommended to cross calibrate with 1 –5 ppm chlorine

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TECHNICAL SPECIFICATIONS

Measuring Range	0–1 ppm
Sensitivity Range	600 nA/ppm ± 200 nA/ppm (negative signal)
Zero Current at 20 °C	< ± 15 nA
Resolution at 20 °C	< 0.03 ppm
Bias Potential	0 mV
Linearity	< 10% full scale
Response Time at 20 °C	
t ₅₀	< 20 s calculated from 4 min. exposure time
t ₉₀	< 120 s (typically < 60 s), calculated from 4 min. exposure
Long Term Sensitivity Drift	<10% 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	> 24 months in air
Warranty	12 months

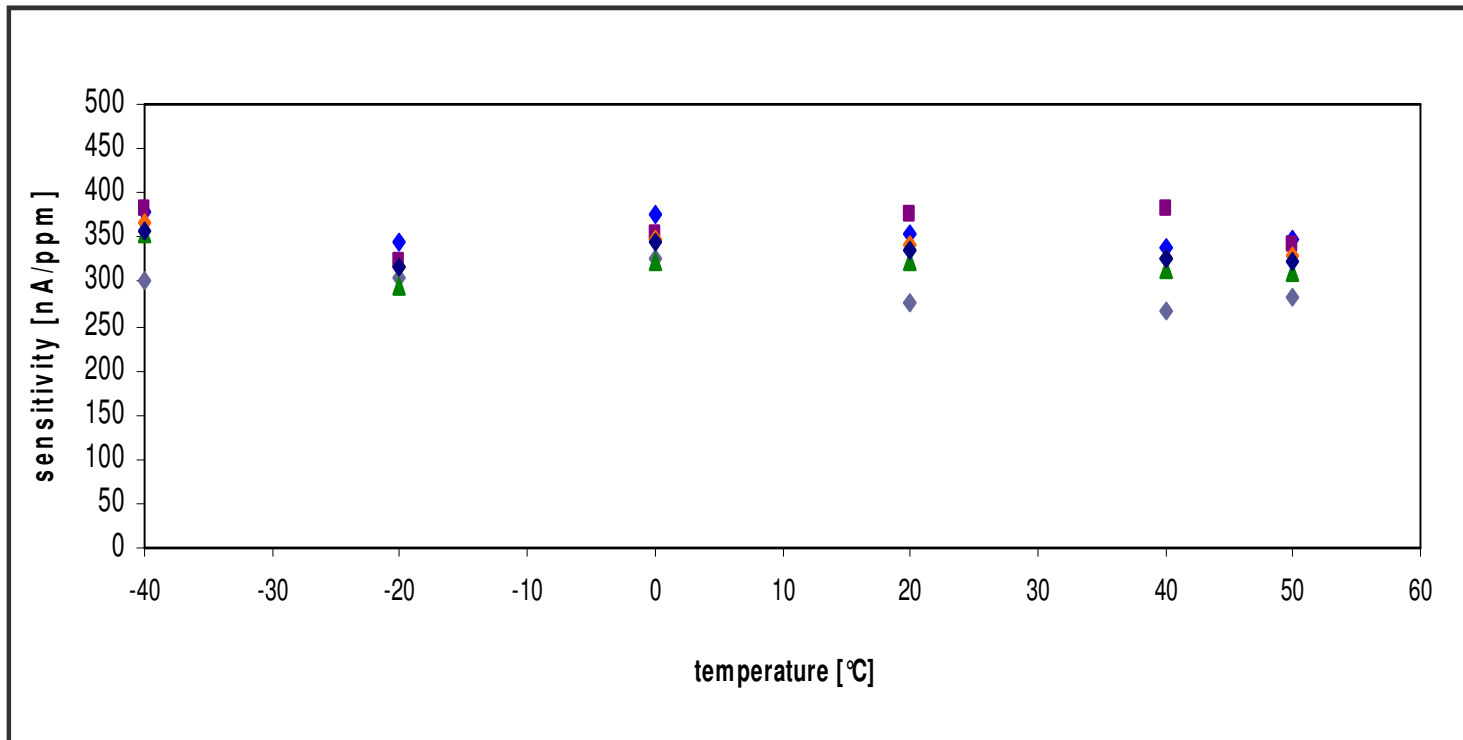
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Product Data Sheet

Sensoric ClO2 3E 1 O

OUTPUT vs. TEMPERATURE:
(calibration has been done using 1 ppm Cl2 instead of ClO2)



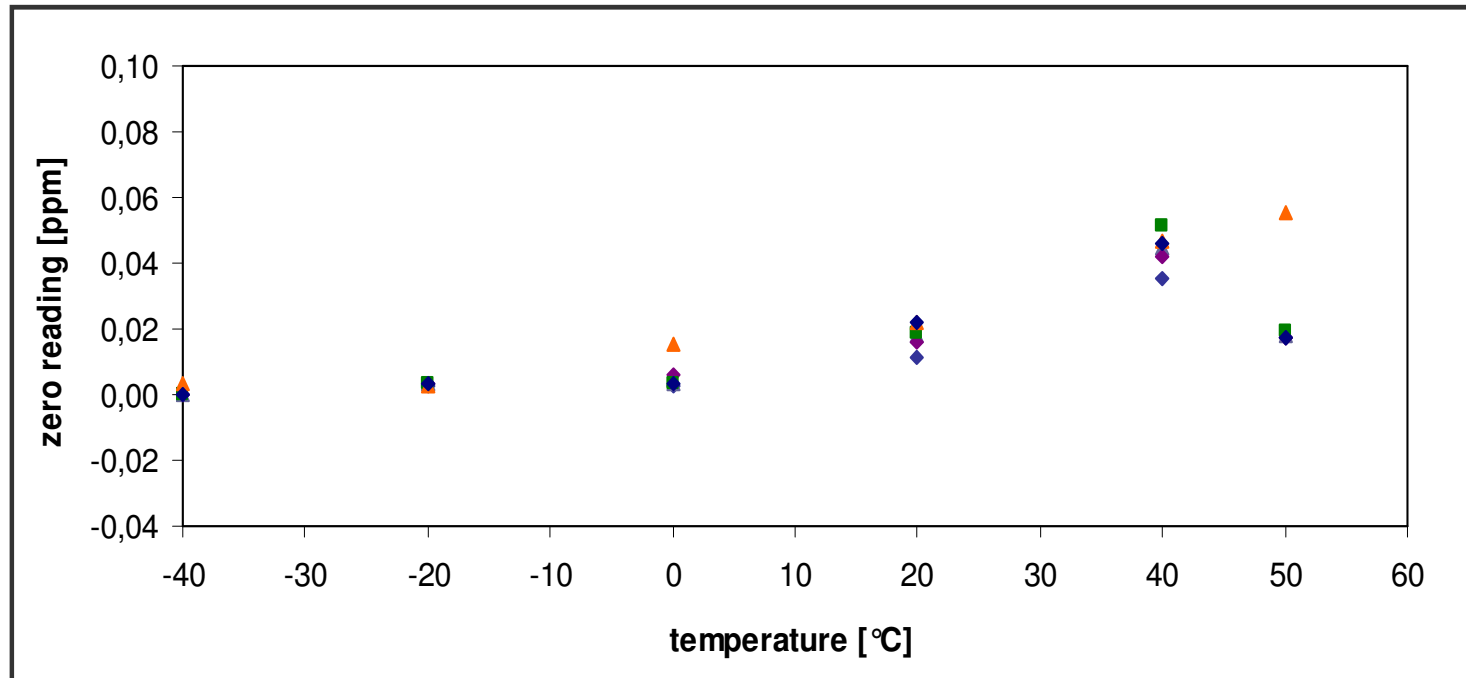
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Sensoric ClO2 3E 1 O

ZERO READING vs. TEMPERATURE:
(calibration has been done using 1 ppm Cl2 instead of ClO2)



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CROSS SENSITIVITIES AT 20 °C

Gas	Concentration	Reading [ppm]
Alcohols	1000 ppm	0
Carbon Monoxide	100 ppm	0
Chlorine	1 ppm	0.6
Ozone	0.25 ppm	0.7
Hydrogen	3000 ppm	0
Hydrogen Sulfide	20 ppm	-5

Notes:

1. Interference factors may differ from sensor to sensor and with life time.
2. This table does not claim to be complete. The sensor might also be sensitive to other gases.
3. It is recommended to use 1 – 5 ppm Cl₂ for cross calibration.

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Safety Note

This sensor is designed to be used in safety critical applications. To ensure that the sensor and/or instrument in which it is used, are operating properly, it is a requirement that the function of the device is confirmed by exposure to target gas (bump check) before each use of the sensor and/or instrument. Failure to carry out such tests may jeopardize the safety of people and property.

Attention

Use of the Sensoric range sensors requires complete understanding of the instructions. Before using Sensoric range sensors please carefully read 'Application Notes' which can be found at www.citytech.com under the heading 'Support' -> 'Application Notes' -> 'Sensoric'

Product Safety Data Sheets (PSDS) can be obtained at www.citytech.com under the heading 'Support' -> 'Product Safety Datasheets'

For further assistance on sensor selection and use, please contact a member of the Technical Sales team.

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