Ozone

SensoriC O3 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
Long life time
High reliability
High resolution
Fast response time
Fixed organic gel electrolyte

TYPICAL APPLICATIONS

Environmental monitoring
Indoor Air Quality, water treatment plants

PART NUMBER INFORMATION

MINI	1531-031-30009
SENSORIC CLASSIC	1531-031-30069
CTL 4 series adaptation	1531-031-30049
CTL 7 series adaptation	1531-031-30079

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TECHNICAL SPECIFICATIONS

Measuring Range	0–1 ppm
Sensitivity Range	1000 - 2000 nA/ppm (negative signal)
Zero Current at 20°C	< ± 20 nA
Resolution at 20°C	< 0.02 ppm
Bias Potential	0 mV
Linearity	< 10% full scale
Response Time at 20°C	
t50	< 15 s calculated from 3 min. exposure time[1)]
t90	< 60 s calculated from 3 min. exposure time[1)]
Long Term Sensitivity Drift	< 10% per 6 months [2)]
Operation Conditions	
Temperature Range	-20°C to +40°C
Humidity Range	15–90% r.H., non–condensing
Effect of Humidity	abrupt changes will cause a short term drift
Sensor Life Expectancy	> 18 months
Warranty	12 months

1) At approx. 30 ccm/ min. (tolerance range to t_{90} : 30 to 60 sec.; depend on air velocity; minimum gas flow 5 l/h)

2) At 20°C and 30-50% r.H.; Sensitivity might increase over life time depending on application; high air flow conditions might effect life time.

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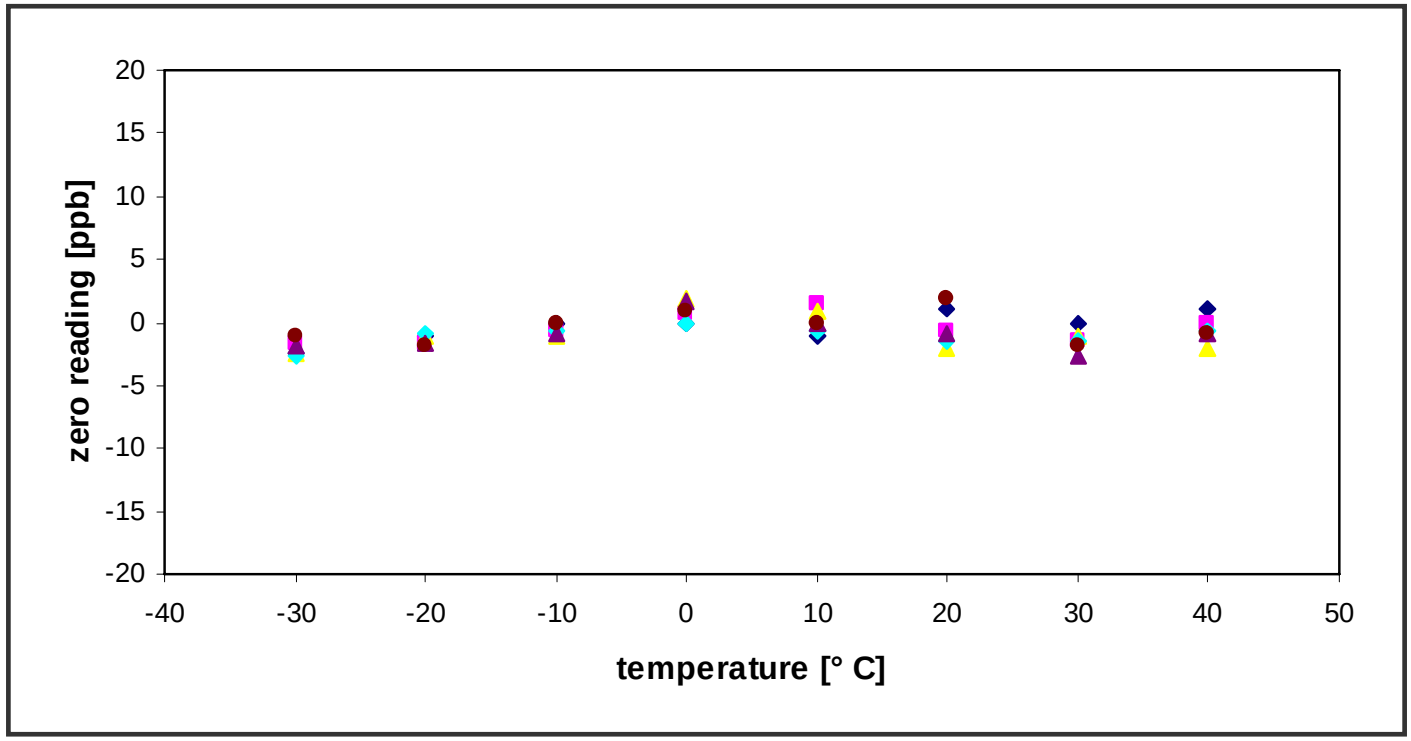
Temperature dependence on zero reading:



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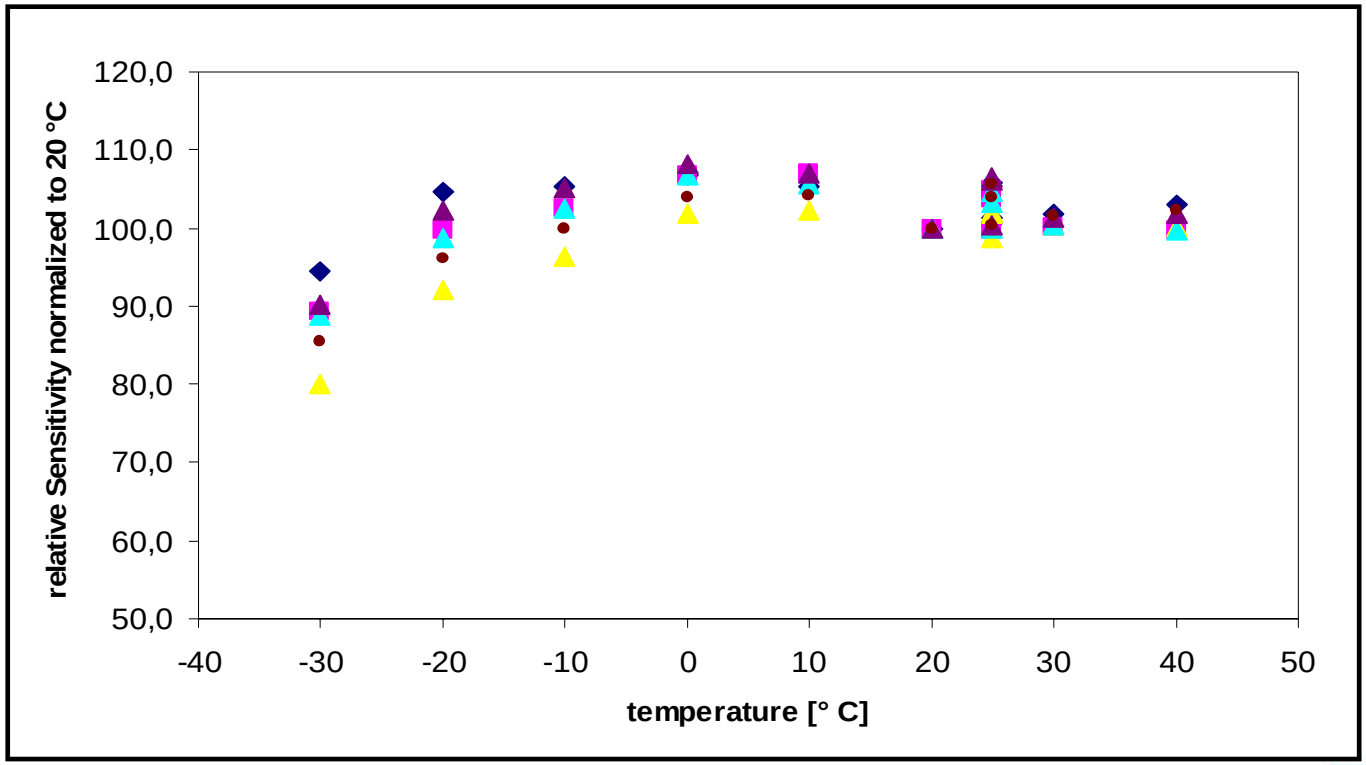
RELATIVE OUTPUT vs. TEMPERATURE: (normalized to the output at 20 °C)



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CROSS SENSITIVITIES AT 20°C

Gas	Concentration	Reading [ppm]
Bromine, Iodine		yes; n/d
Carbon Dioxide	5000 ppm	0
Carbon Monoxide	100 ppm	0
Chlorine	1 ppm	1.2
Chlorine Dioxide	1 ppm	1.5
Hydrazine	3 ppm	-3
Hydrogen	3000 ppm	0
Hydrogen Sulfide	20 ppm	-1.6 [1)]
Nitrogen	100 %	0
Nitrogen Dioxide	10 ppm	6

1) Continuous exposure at ppm level over more than 30 min. might blind the sensor.

Notes:
1. Interference factors may differ from sensor to sensor and with life time. It is not adviseable 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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