Tetrahydrothiophene

SensoriC THT 3E 50

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 THT 3E 50

FEATURES

Amperometric 3 electrode sensor cell
Fast response
High reliability
Good long term stability

TYPICAL APPLICATIONS

Monitoring of odorants in natural gas applications

PART NUMBER INFORMATION

SENSORIC CLASSIC	2345-034-11069
CTL 4 series adaptation	2345-034-14049
CTL 7 series adaptation	2345-034-17079

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TECHNICAL SPECIFICATIONS

Measuring Range	0–50 mg/m3
Sensitivity Range	140 nA/ mg/m3 ± 50 nA/ mg/m3
Zero Current at 20°C	< ± 200 nA
Resolution at 20°C	< 1.5 mg/m3
Bias Potential	+150 mV
Linearity	< 5% full scale
Response Time at 20°C	
t50	< 10 s calculated from 2 min. exposure time (at 33 Ohm)
t90	< 30 s calculated from 2 min. exposure time (at 33 Ohm)
Long Term Sensitivity Drift	< 10% per 6 months
Operation Conditions	
Temperature Range	-10°C to +40°C
Humidity Range	15–90% r.H., non–condensing
Effect of Humidity	no effect
Sensor Life Expectancy	> 18 months
Warranty	12 months

Note: 1 ppm = 3,66 mg/m3

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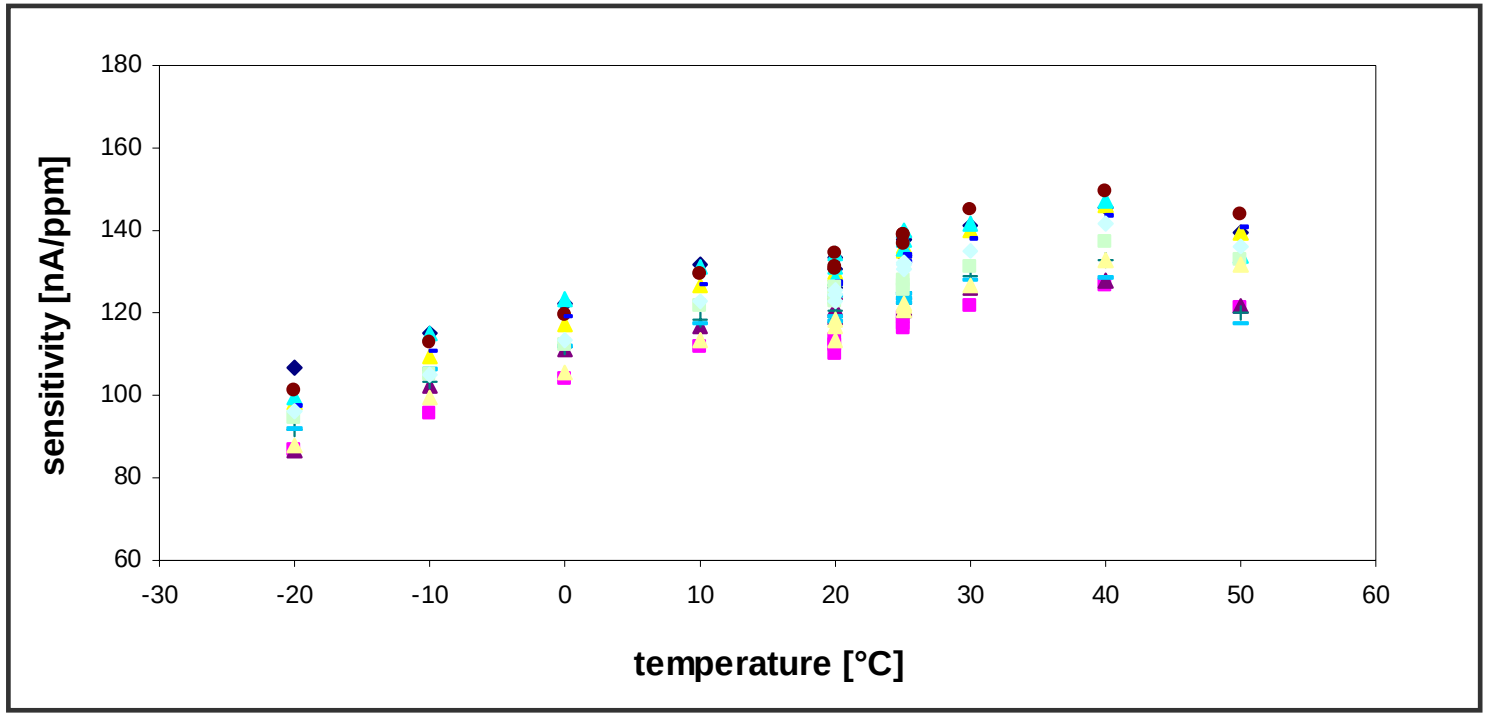
OUTPUT vs. TEMPERATURE:



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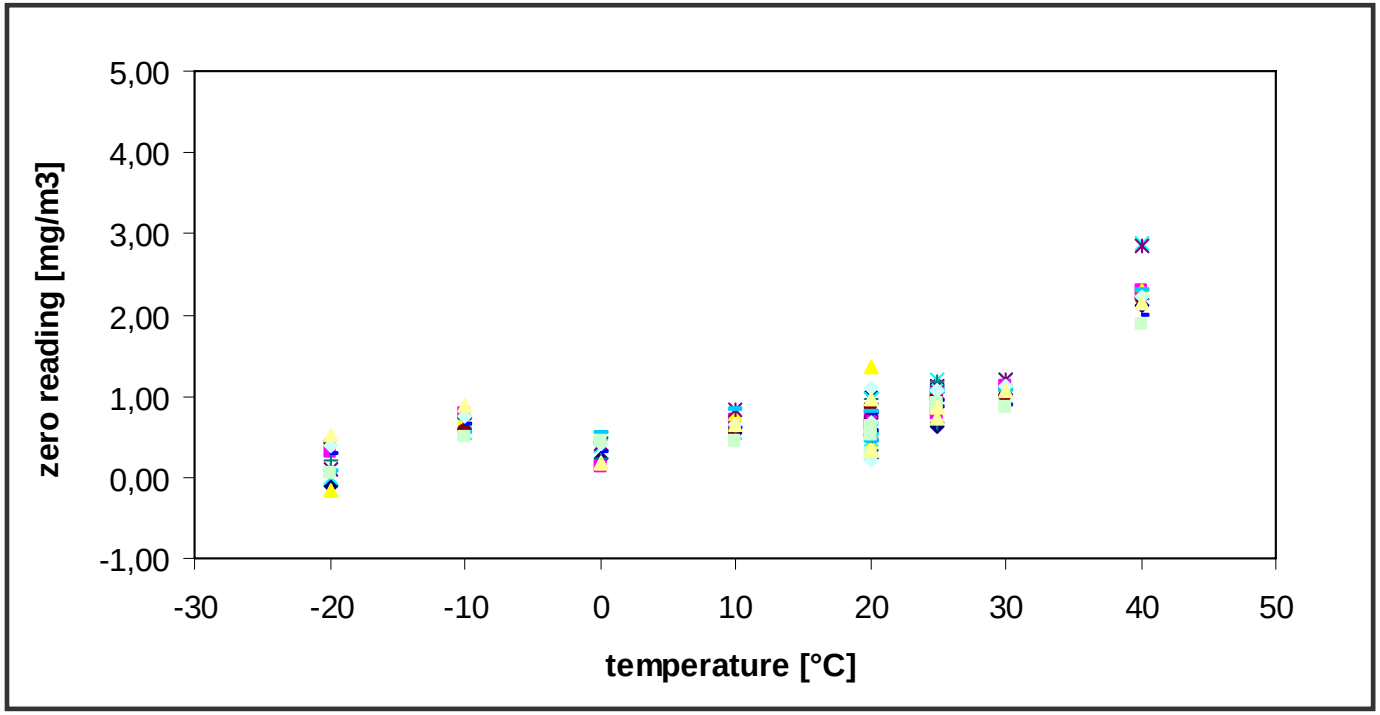
ZERO READING vs. TEMPERATURE:



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CROSS SENSITIVITIES AT 20°C

Gas	Concentration	Reading [mg/m3]
Carbon Dioxide	5000 ppm	0
Carbon Monoxide	100 ppm	2
Carbon Oxide Sulfide	1 %	10
Ethylene	1 %	yes; n/d
Hydrocarbons	% range	0
Hydrogen	1 %	0
Hydrogen Sulfide	20 ppm	0[1]
Isopropanol	200 ppm	400
Methane	100 %	0
Nitrogen	100 %	0
Tert.-Butylmercaptane	10 mg/m3	10

1) With inboard filter; to remove TLV levels of interfering gases; continuous high level exposure may reduce the efficiency of the filter material.

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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