Ammonia

Sensoric NH3 3E 1000 SE

Rev. 11/2011

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
Low susceptibility to abrupt changes of humidity
No CO2 interference
High selectivity
0 voltage biased operation

TYPICAL APPLICATIONS

Portable & fixed point applications
Food industry, Semiconductor industry, Chemical Industry, General Industry

PART NUMBER INFORMATION

MINI	1854-932-30009
SENSORIC CLASSIC	1854-932-30069
CTL 4 series adaptation	1854-932-30049
CTL 7 series adaptation	1854-932-30079

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TECHNICAL SPECIFICATIONS

Measuring Range	0–1000 ppm
Sensitivity Range	8 nA/ppm ± 4 nA/ppm
Zero Current at 20°C	< ± 40 nA
Resolution at 20°C	< 12 ppm
Bias Potential	0 mV
Linearity	< 5% full scale
Response Time at 20°C	
t50	< 20 s calculated from 5 min. exposure time
t90	< 90 s calculated from 5 min. exposure time
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 on zero reading
Sensor Life Expectancy	> 24 months in air*
Warranty	12 months

Note:
* Background concentrations of ammonia might shorten life time of sensor .

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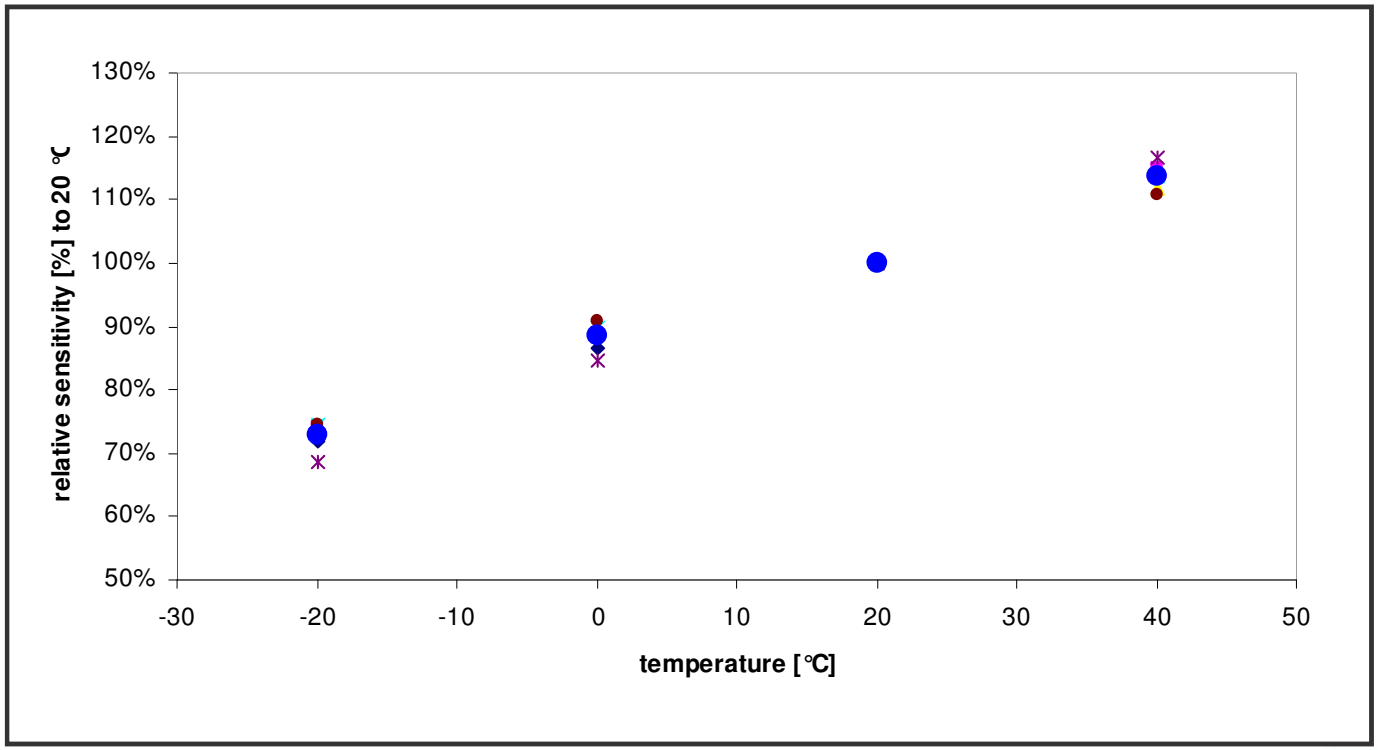
OUTPUT vs. TEMPERATURE:



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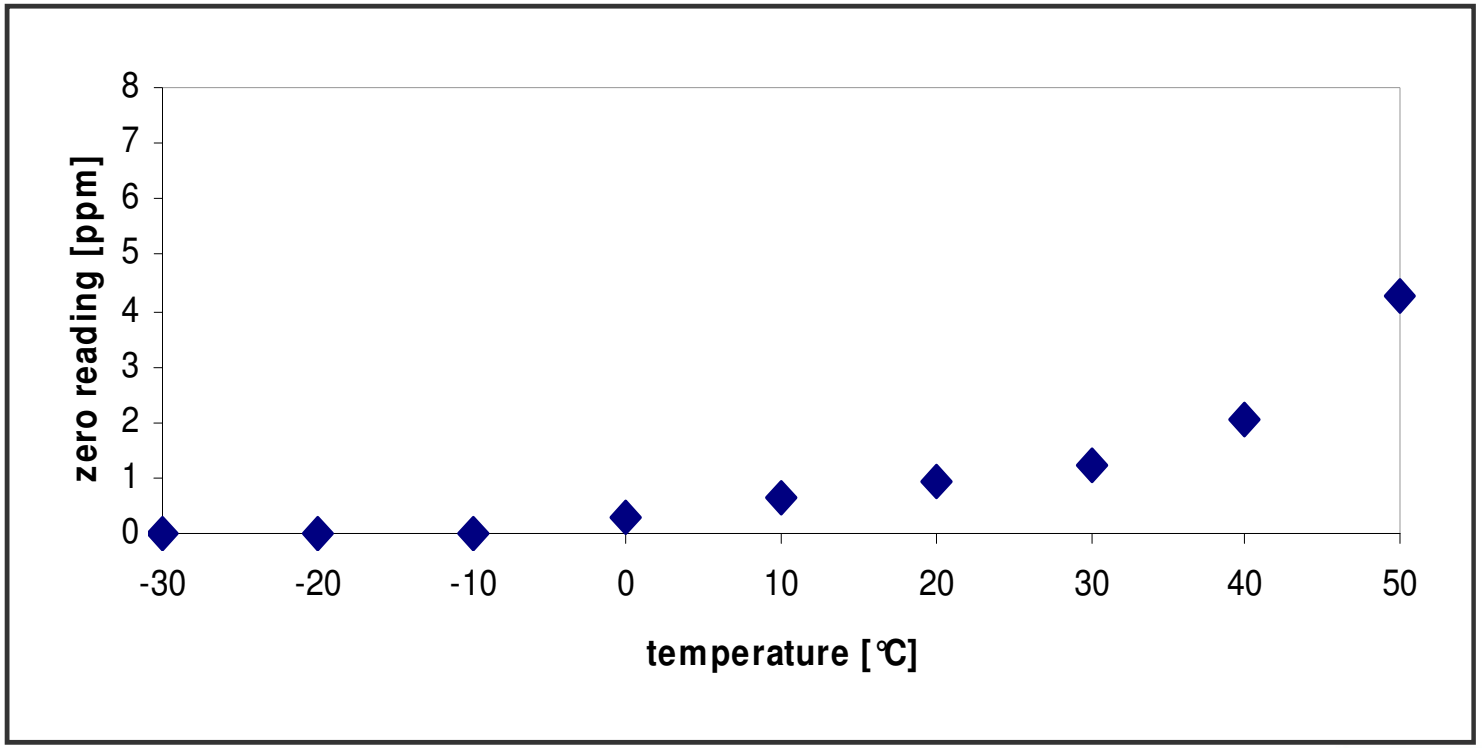
ZERO READING vs. TEMPERATURE:



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CROSS SENSITIVITIES AT 20 °C

Gas	Concentration	Reading [ppm]
Alcohols	1000 ppm	0
Carbon Monoxide	100 ppm	0
Carbon Dioxide	5000 ppm	0[1]
Chlorine	30 ppm	5
Nitric Oxide	100 ppm	0
Nitrogen Dioxide	10 ppm	6.5
Sulfur Dioxide	200 ppm	-20
Hydrogen	3000 ppm	0
Hydrogen Sulfide	200 ppm	120

1) At higher carbon dioxide concentration (approx. >5%) there can be a negative reading

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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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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