

## Ammonia

### Sensoric NH3 3E 100 SE

# Product Data Sheet

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### FEATURES

Amperometric 3 electrode sensor cell  
Very stable zero reading  
Very selective  
Highly sensitive  
Hydrous electrolyte

### TYPICAL APPLICATIONS

TLV-monitoring, leakage detection  
portable & fixed point applications  
Food & Refrigeration Industry, General Industry, Semiconductor Industry

### PART NUMBER INFORMATION

MINI	1845-932-30009
SENSORIC CLASSIC	1845-932-30069
CTL 4 series adaptation	1845-932-30049
CTL 7 series adaptation	1845-932-30079

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### TECHNICAL SPECIFICATIONS

Measuring Range	0–100 ppm
Sensitivity Range	130 nA/ppm $\pm$ 30 nA/ppm
Zero Current at 20 °C	< $\pm$ 100 nA
Resolution at 20 °C	< 1 ppm
Bias Potential	0 mV
Linearity	< 10% full scale
Response Time at 20 °C	
t50	< 20 s calculated from 5 min. exposure time
t90	< 60 s calculated from 5 min. exposure time
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	
Sensor Life Expectancy	> 24 months in air*
Warranty	12 months

Note:

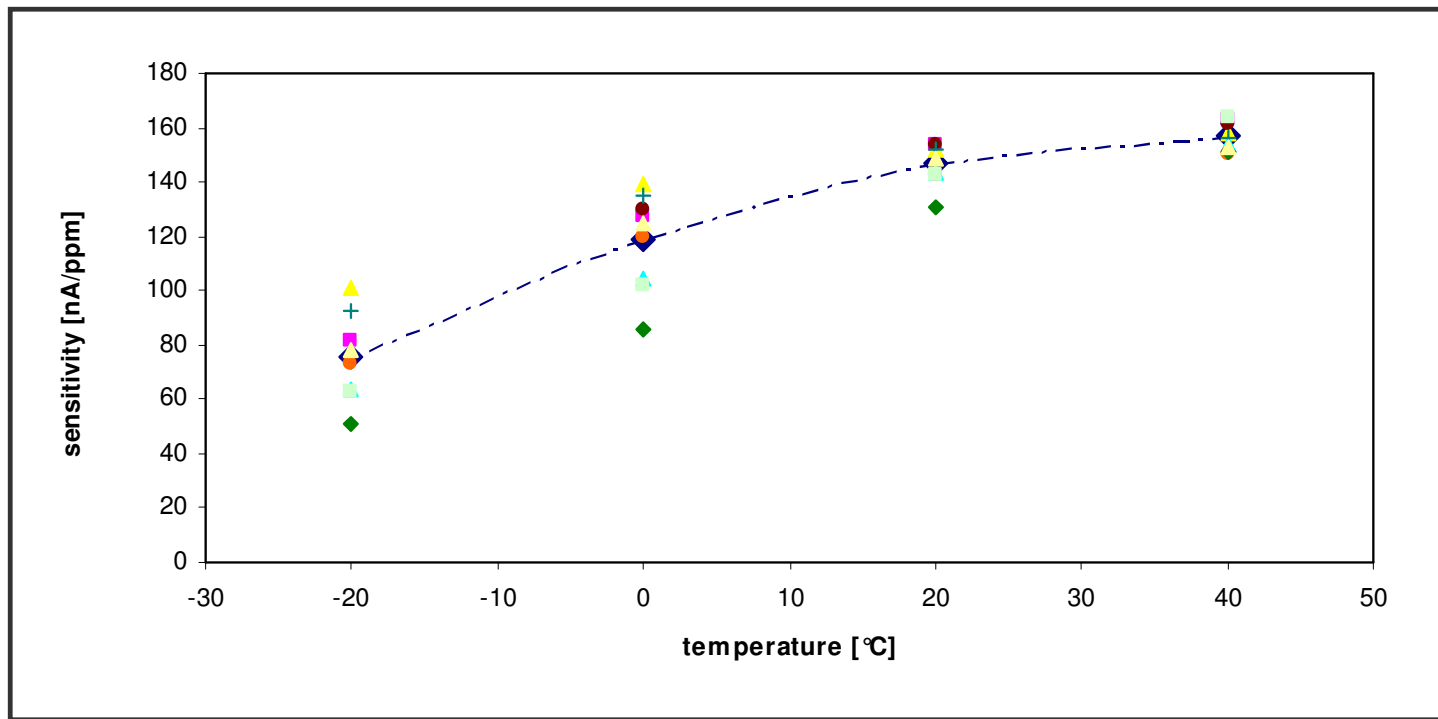
\* Background concentrations of ammonia might shorten life time of sensor .

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### OUTPUT vs. TEMPERATURE:



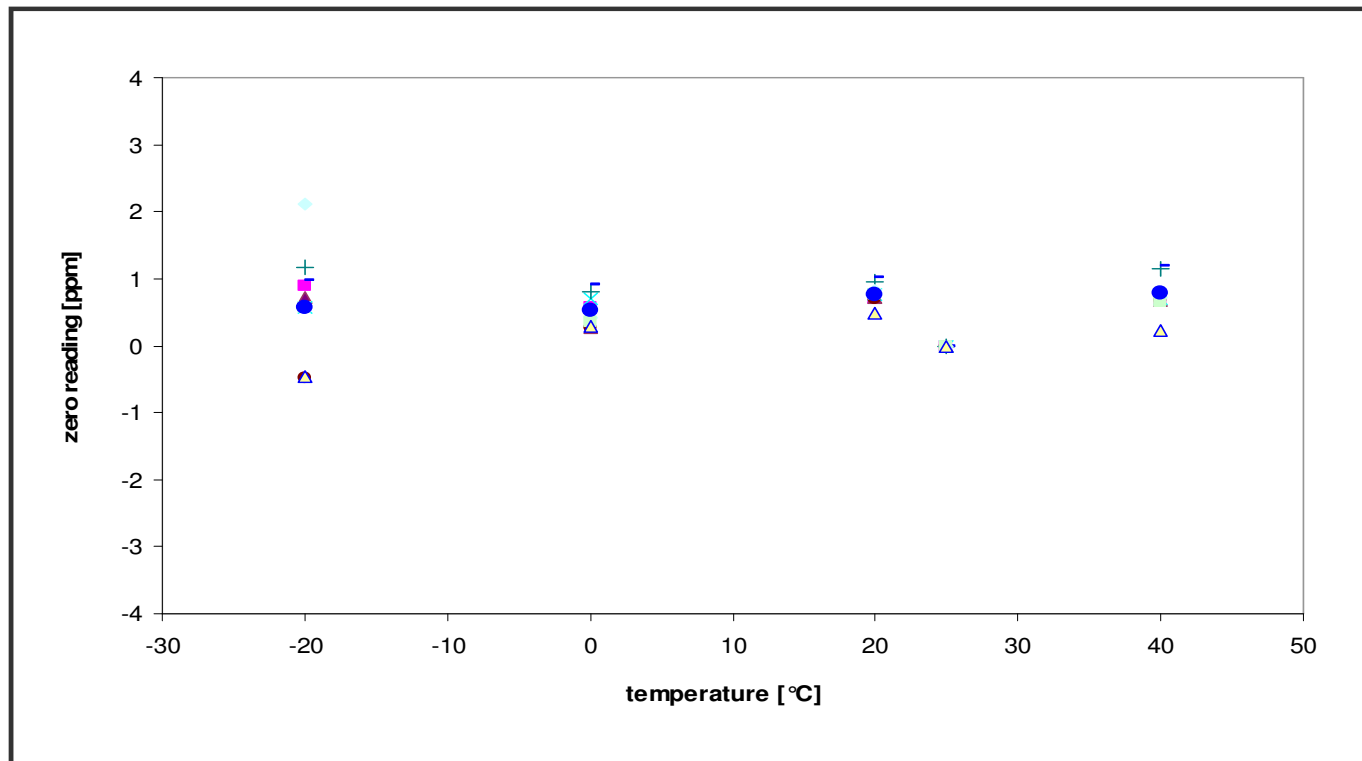
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### ZERO READING vs. TEMPERATURE:



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### Cross Sensitivities at 20°C

Gas	Concentration	Reading [ppm]
Alcohols	1000 ppm	0
Carbon Dioxide	5000 ppm	0 <sup>1</sup>
Carbon Monoxide	100 ppm	0
Hydrocarbons	% range	0
Hydrogen	10000 ppm	0
Hydrogen Sulfide	20 ppm	2 <sup>2</sup>

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

2) Short gas exposure in minute range.

#### 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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## 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](http://www.citytech.com) under the heading 'Support' -> 'Application Notes' -> 'Sensoric'

Product Safety Data Sheets (PSDS) can be obtained at [www.citytech.com](http://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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