

**Ammonia**

**.....NH3 3E 5000 SE**

# Product Data Sheet

## NH3 3E 5000 SE

### FEATURES

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

### TYPICAL APPLICATIONS

Portable & fixed point applications  
Monitoring of IDLH levels, General Industry, Chemical Industry, Food & Refrigeration Industry  
No background concentrations of ammonia \*

Note:

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

### PART NUMBER INFORMATION

MINI	1858-932-30009
4 series adaptation	1858-932-30049
7 series adaptation	1858-932-30079

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### TECHNICAL SPECIFICATIONS

Measuring Range	0–5000 ppm
Sensitivity Range	4 nA/ppm ± 2 nA/ppm
Zero Current at 20 °C	<± 100 nA, typically 40 nA
Resolution at 20 °C	<50 ppm, typically 20 ppm
Bias Potential	0 mV
Linearity	<10% full scale
Response Time at 20 °C	
t50	< 30 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 during abrupt changes of r.H.
Sensor Life Expectancy	> 24 months in air*
Warranty	12 months

Note:

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

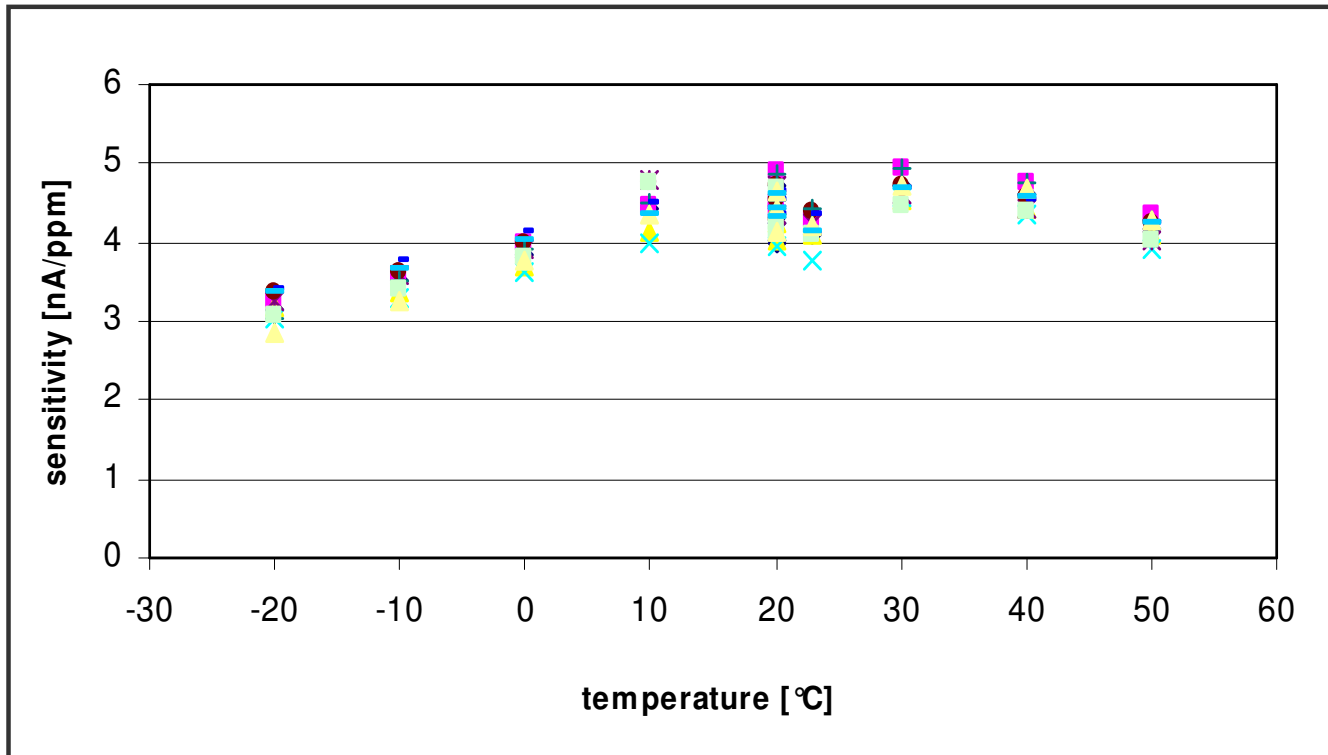
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### OUTPUT vs. TEMPERATURE:

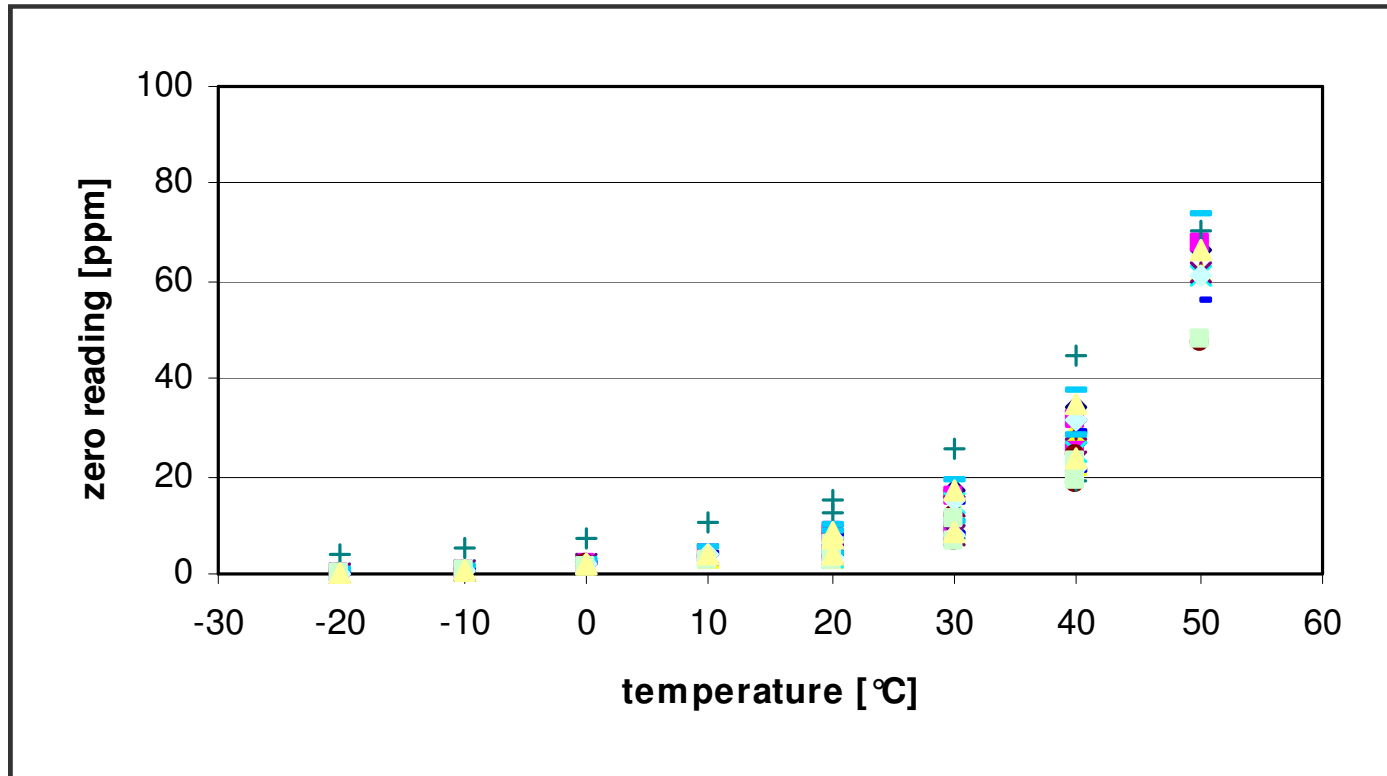


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### ZERO READING vs. TEMPERATURE:



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### CROSS SENSITIVITIES AT 20 °C

Gas	Concentration	Reading [ppm]
Alcohols	1000 ppm	0
Carbon Monoxide	100 ppm	0
Chlorine	5 ppm	0
Nitrogen Dioxide	10 ppm	0
Sulfur Dioxide	20 ppm	expected / no data
Hydrogen	3000 ppm	0
Hydrogen Sulfide	20 ppm	yes / no data

#### 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 jeopardise the safety of people and property.

## Attention

Use of this range of sensors requires complete understanding of the instructions. Before using please carefully read 'Application Notes'

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

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