

Product Data Sheet

Ammonia

NH₃ 3E 100

Product Data Sheet

NH3 3E 100

FEATURES

Amperometric 3 electrode sensor cell
Fixed organic gel electrolyte
No CO2 interference
0 volt bias operation

TYPICAL APPLICATIONS

TLV-monitoring, leakage detection
Fixed point applications in cold storages & refrigeration plants only
For other applications please use NH3 3E SE versions
No background concentrations of ammonia & alcohols*

PART NUMBER INFORMATION

MINI	1845-031-30009
4 series adaptation	1845-031-30049
7 series adaptation	1845-031-30079

Note:

- Background concentrations of ammonia and alcohols might shorten life time of sensor
- Exposure to high concentrations of alcohols can cause a high loss of sensor sensitivity

The manufacturer deems the data contained herein as factual, and the opinions expressed are those of qualified experts based on the results of tests conducted. The above data can not be used as a warranty provision or representation for which the manufacturer assumes legal responsibility. The data are offered solely for consideration, investigation and verification. Any use of this information is subject to federal, state and local laws and regulations.

Product Data Sheet

NH3 3E 100

TECHNICAL SPECIFICATIONS

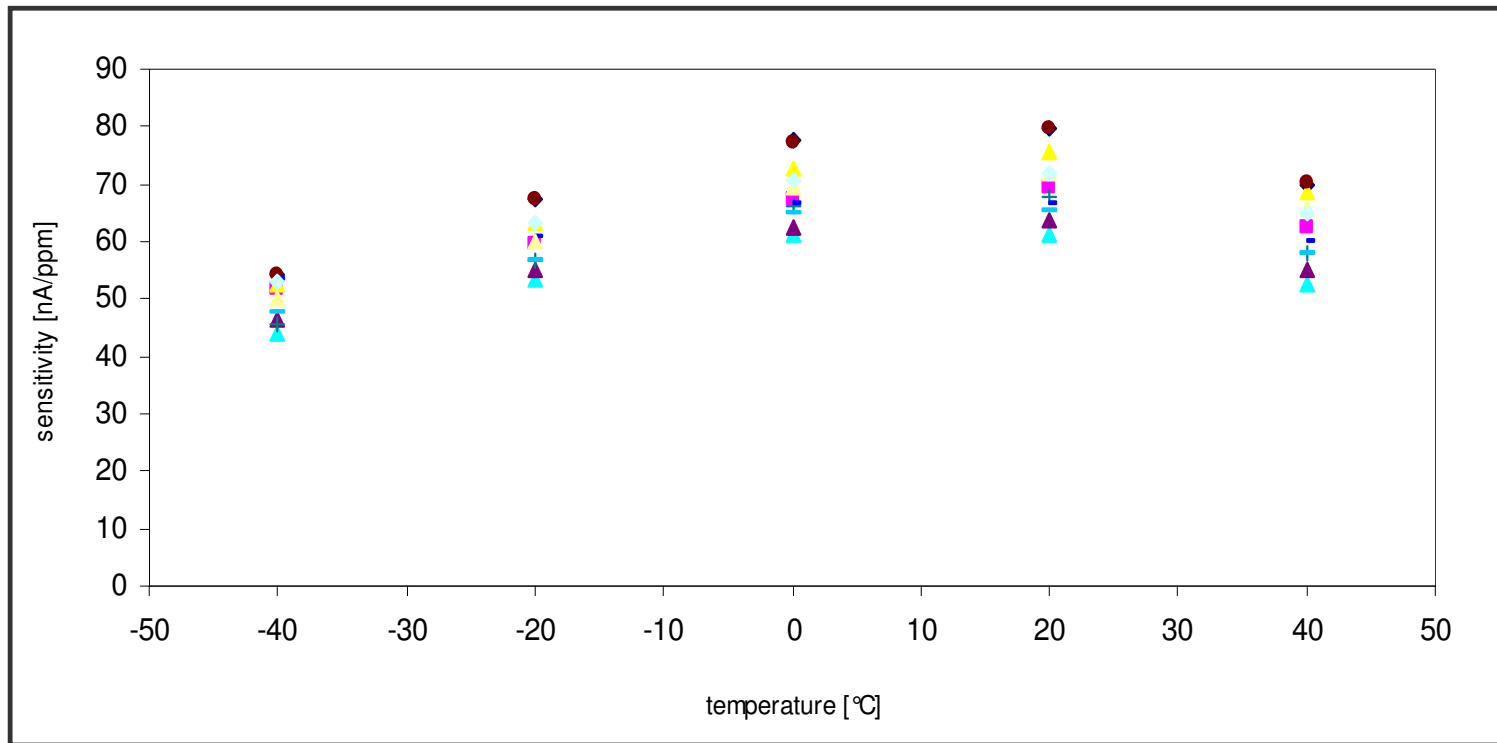
Measuring Range	0–100 ppm	
Sensitivity Range	90 nA/ppm \pm 40 nA/ppm	
Zero Current at 20 °C	< \pm 150 nA	
Resolution at 20 °C	<2 ppm	
Bias Potential	0 mV	
Linearity	<5% full scale	
Response Time at 20 °C		
t50	<20 s	calculated from 5 min. exposure time
t90	<120 s	calculated from 5 min. exposure time
Long Term Sensitivity Drift	<10% per 6 months	
Operation Conditions		
Temperature Range	-40 °C to +40 °C	
Humidity Range	15–90% r.H, non–condensing	
Effect of Humidity	an abrupt change of r.H. will cause a short term drift of zero reading	
Sensor Life Expectancy	> 18 months in air	
Warranty	12 months	

The manufacturer deems the data contained herein as factual, and the opinions expressed are those of qualified experts based on the results of tests conducted. The above data can not be used as a warranty provision or representation for which the manufacturer assumes legal responsibility. The data are offered solely for consideration, investigation and verification. Any use of this information is subject to federal, state and local laws and regulations.

Product Data Sheet

NH3 3E 100

OUTPUT vs. TEMPERATURE:

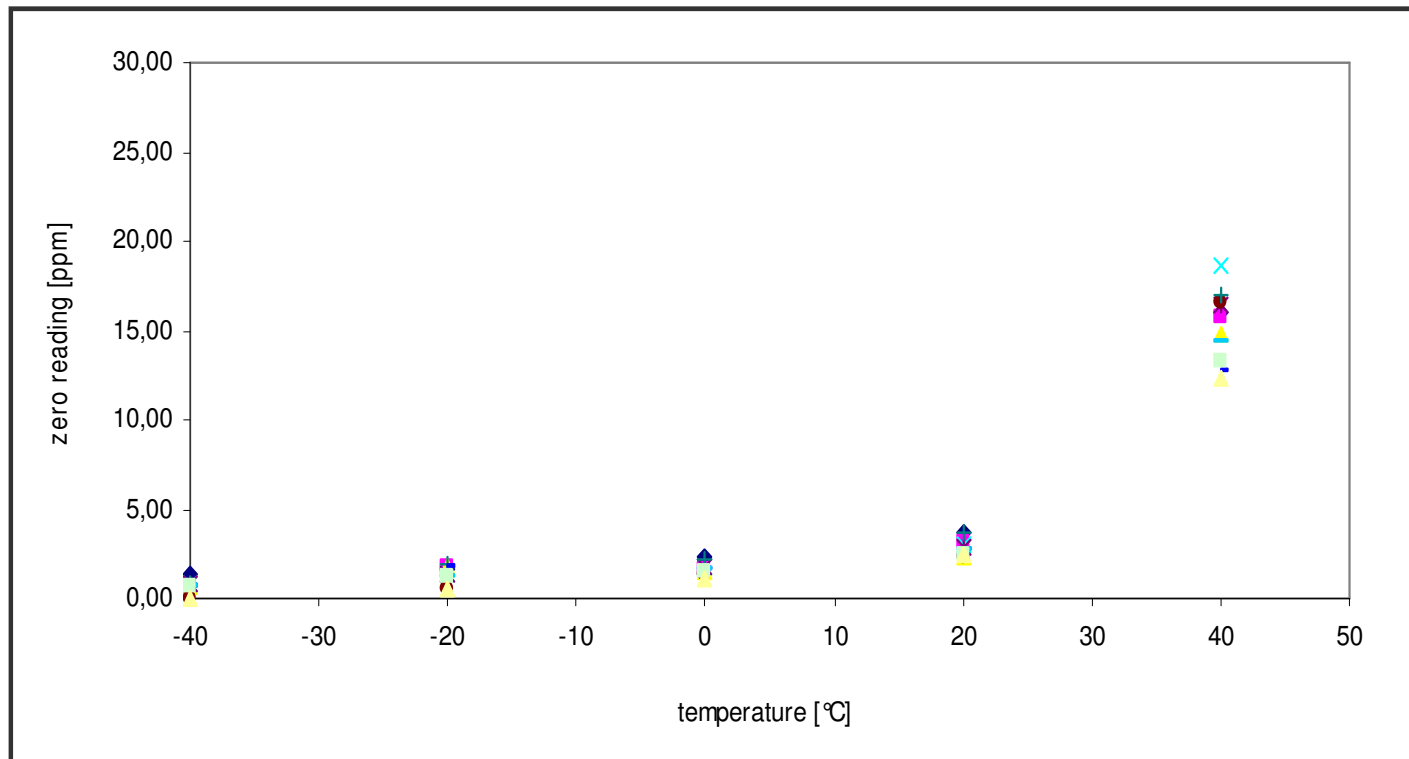


The manufacturer deems the data contained herein as factual, and the opinions expressed are those of qualified experts based on the results of tests conducted. The above data can not be used as a warranty provision or representation for which the manufacturer assumes legal responsibility. The data are offered solely for consideration, investigation and verification. Any use of this information is subject to federal, state and local laws and regulations.

Product Data Sheet

NH3 3E 100

ZERO READING vs. TEMPERATURE:



The manufacturer deems the data contained herein as factual, and the opinions expressed are those of qualified experts based on the results of tests conducted. The above data can not be used as a warranty provision or representation for which the manufacturer assumes legal responsibility. The data are offered solely for consideration, investigation and verification. Any use of this information is subject to federal, state and local laws and regulations.

Product Data Sheet

NH3 3E 100

CROSS SENSITIVITIES AT 20°C

Gas	Concentration	Reading [ppm]
Alcohols	1000 ppm	yes / n.d.
Carbon Monoxide	100 ppm	40
Chlorine	1 ppm	-6
Nitrogen Dioxide	10 ppm	-15
Sulfur Dioxide	20 ppm	yes / n.d.
Hydrogen	10000 ppm	1000
Hydrogen Sulfide	20 ppm	25

Notes:

1. Interference factors may differ from sensor to sensor and with life time. It is not advisable to calibrate with interference gases if not otherwise stated
2. This table does not claim to be complete. The sensor might also be sensitive to other gases

The manufacturer deems the data contained herein as factual, and the opinions expressed are those of qualified experts based on the results of tests conducted. The above data can not be used as a warranty provision or representation for which the manufacturer assumes legal responsibility. The data are offered solely for consideration, investigation and verification. Any use of this information is subject to federal, state and local laws and regulations.

Product Data Sheet

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 the sensors, please carefully read 'Application Notes'.

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

The manufacturer deems the data contained herein as factual, and the opinions expressed are those of qualified experts based on the results of tests conducted. The above data can not be used as a warranty provision or representation for which the manufacturer assumes legal responsibility. The data are offered solely for consideration, investigation and verification. Any use of this information is subject to federal, state and local laws and regulations.