

# Ammonia

## Sensoric NH3 3E 100



# Product Data Sheet

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### 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
SENSORIC CLASSIC	1845-031-30069
CTL 4 series adaptation	1845-031-30049
CTL 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

Sensoric 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 Sensoric 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.



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### TECHNICAL SPECIFICATIONS

Measuring Range		0–100 ppm	
Sensitivity Range		90 nA/ppm ± 40 nA/ppm	
Zero Current at 20 °C		<± 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	

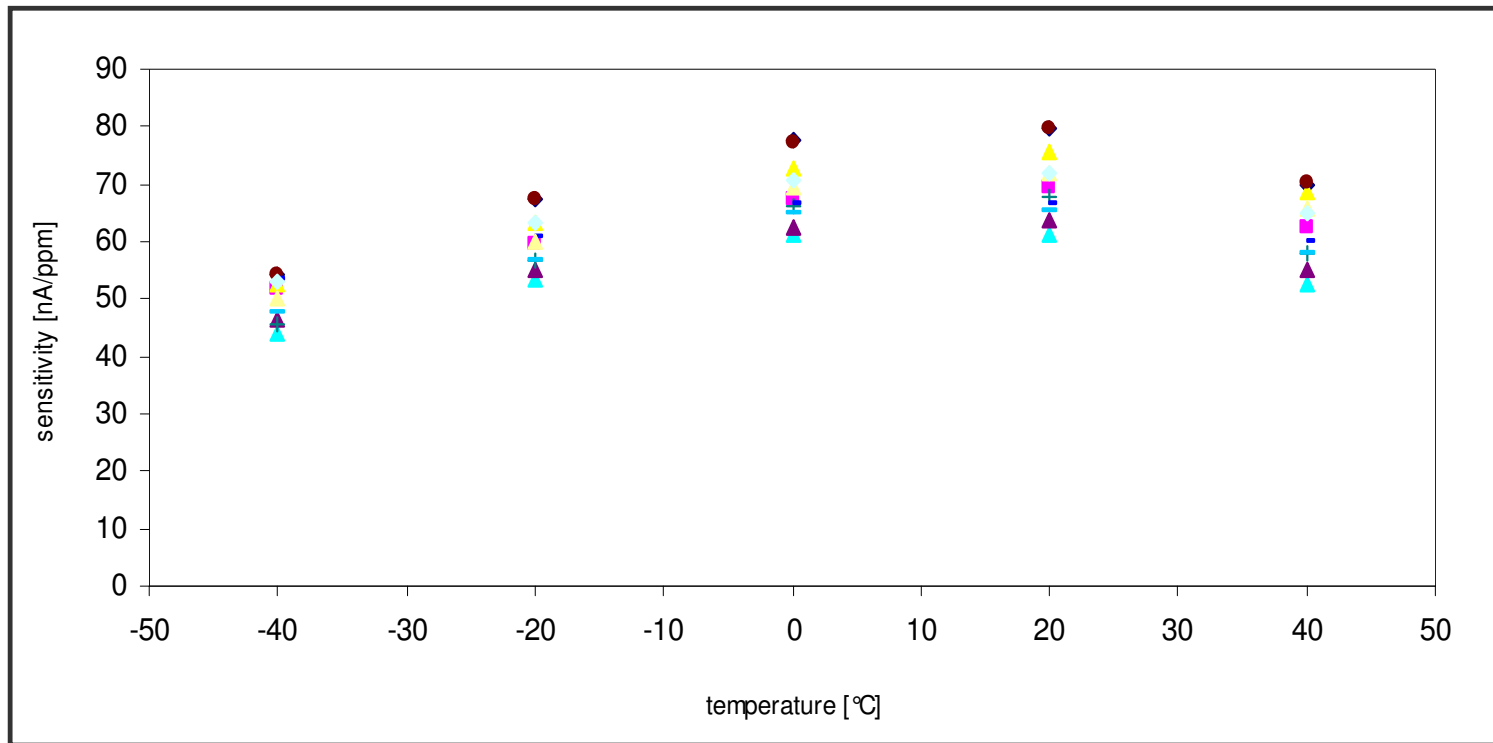
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### OUTPUT vs. TEMPERATURE:



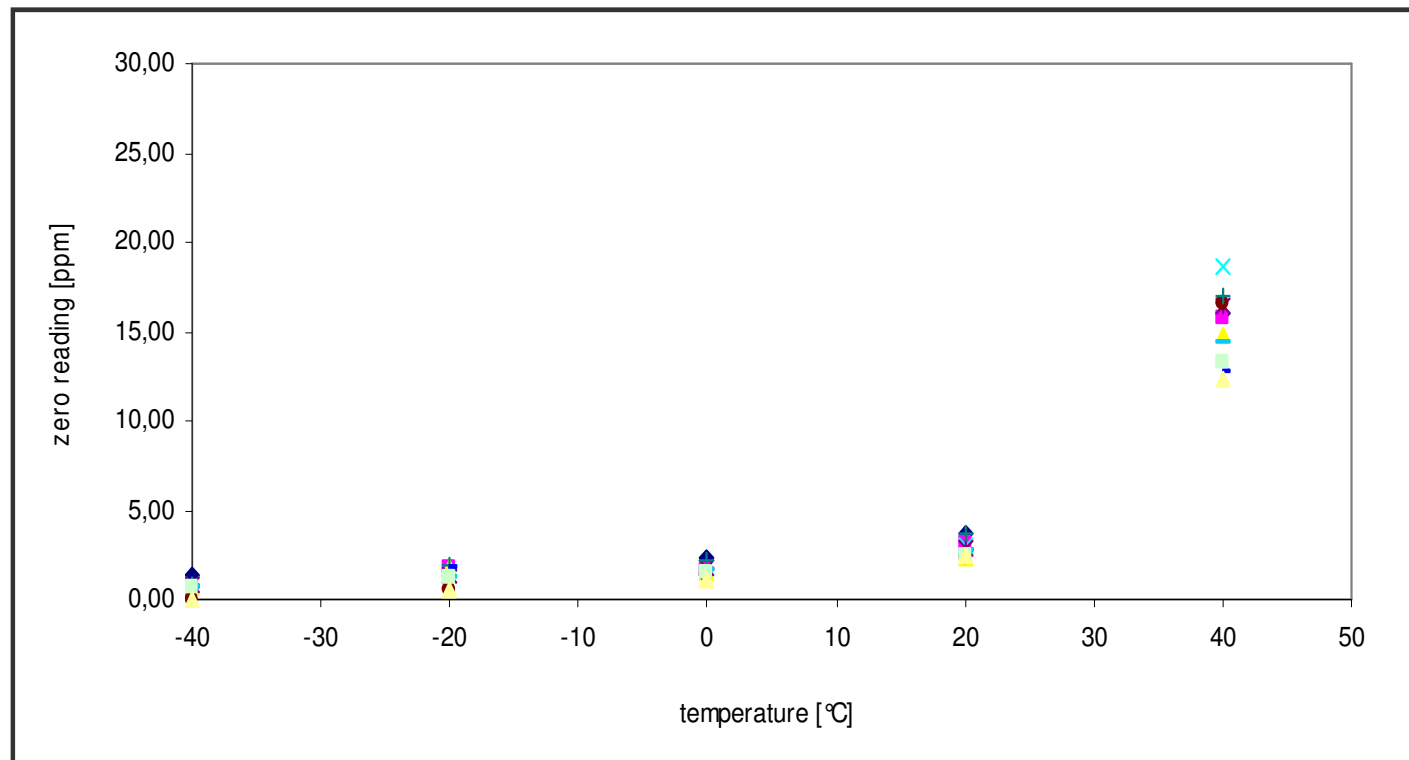
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### ZERO READING vs. TEMPERATURE:



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### CROSS SENSITIVITIES AT 20°C

Gas	Concentration	Reading [ppm]
Alcohols	1000 ppm	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

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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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