Ammonia

Sensoric NH3 3E 100 SE
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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
Sensoric NH3 3E 100 SE

TECHNICAL SPECIFICATIONS

Measuring Range 0–100 ppm
Sensitivity Range 130 nA/ppm ± 30 nA/ppm
Zero Current at 20°C < ± 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.

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.

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
OUTPUT vs. TEMPERATURE:

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ZERO READING vs. TEMPERATURE:

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Cross Sensitivities at 20°C

<table>
<thead>
<tr>
<th>Gas</th>
<th>Concentration</th>
<th>Reading [ppm]</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alcohols</td>
<td>1000 ppm</td>
<td>0</td>
</tr>
<tr>
<td>Carbon Dioxide</td>
<td>5000 ppm</td>
<td>0</td>
</tr>
<tr>
<td>Carbon Monoxide</td>
<td>100 ppm</td>
<td>0</td>
</tr>
<tr>
<td>Hydrocarbons</td>
<td>% range</td>
<td>0</td>
</tr>
<tr>
<td>Hydrogen</td>
<td>10000 ppm</td>
<td>0</td>
</tr>
<tr>
<td>Hydrogen Sulfide</td>
<td>20 ppm</td>
<td>2</td>
</tr>
</tbody>
</table>

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.
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.