Hydrogen Sensor

Sensoric H2 3E 1%
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FEATURES

Amperometric 3 electrode sensor cell
Fast response
Good long term stability

TYPICAL APPLICATIONS

Ambient monitoring
Very sensitive leak detection

PART NUMBER INFORMATION

MINI 0361-034-30009
SENSORIC CLASSIC 0361-034-30069
CTL 4 series adaptation 0361-034-30049
CTL 7 series adaptation 0361-034-30079

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TECHNICAL SPECIFICATIONS

- Measuring Range: 0–10000 ppm
- Sensitivity Range: 10 nA/ppm ± 5 nA/ppm
- Zero Current at 20 °C: < ± 250 nA
- Resolution at 20 °C: < 20 ppm
- Bias Potential: 0 V
- Linearity: < 5% full scale

- Response Time at 20 °C:
  - t50: < 40 s calculated from 2 min. exposure time
  - t90: < 70 s calculated from 2 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

- Sensor Life Expectancy: > 24 months
- Warranty: 18 months

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OUTPUT vs. TEMPERATURE:

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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

www.citytech.com
### CROSS SENSITIVITIES AT 20°C

<table>
<thead>
<tr>
<th>Gas</th>
<th>Concentration</th>
<th>Reading [ppm]</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ammonia</td>
<td>100 ppm</td>
<td>0</td>
</tr>
<tr>
<td>Arsine</td>
<td>0.2 ppm</td>
<td>0</td>
</tr>
<tr>
<td>Carbon Dioxide</td>
<td>1000 ppm</td>
<td>0</td>
</tr>
<tr>
<td>Carbon Monoxide</td>
<td>100 ppm</td>
<td>60</td>
</tr>
<tr>
<td>Chlorine</td>
<td>1 ppm</td>
<td>0</td>
</tr>
<tr>
<td>Ethylene</td>
<td>500 ppm</td>
<td>yes; n/d</td>
</tr>
<tr>
<td>Hydrogen Cyanide</td>
<td>20 ppm</td>
<td>0</td>
</tr>
<tr>
<td>Hydrogen Sulfide</td>
<td>20 ppm</td>
<td>0(^1)</td>
</tr>
<tr>
<td>Isopropanol</td>
<td>1100 ppm</td>
<td>yes; n/d</td>
</tr>
<tr>
<td>Methane</td>
<td>1 %</td>
<td>0</td>
</tr>
<tr>
<td>Nitrogen Dioxide</td>
<td>10 ppm</td>
<td>-40</td>
</tr>
<tr>
<td>Ozone</td>
<td>0.25 ppm</td>
<td>0</td>
</tr>
<tr>
<td>Sulfur Dioxide</td>
<td>5 ppm</td>
<td>0</td>
</tr>
</tbody>
</table>

\(^1\) With inboard filter; to remove TLV levels of interfering gases; continuous high level exposure may reduce the efficiency of the filter material.

Notes:
1. Interference factors may differ from sensor to sensor and with life time. It is not adviseable 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 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.

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