Hydrogen Cyanide

Sensoric HCN 3E 30 F
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FEATURES

Amperometric 3 electrode sensor cell
Very stable zero reading
Very selective
Highly sensitive
Fixed organic gel electrolyte

TYPICAL APPLICATIONS

TLV-monitoring, leakage detection
portable & fixed point applications
Gold mining

PART NUMBER INFORMATION

MINI 1639-231-30009
SENSORIC CLASSIC 1639-231-30069
CTL 4 series adaptation 1639-231-30049
CTL 7 series adaptation 1639-231-30079

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**TECHNICAL SPECIFICATIONS**

- **Measuring Range**: 0 – 30 ppm
- **Sensitivity Range**: 60 nA/ ppm ± 15 nA/ ppm
- **Zero Current at 20 °C**: < ± 15 nA
- **Resolution at 20 °C**: < 0.2 ppm
- **Bias Potential**: 0 mV
- **Linearity**: < 5% full scale

- **Response Time at 20 °C**:
  - t50: < 25 s calculated from 2 min. exposure time
  - t90: < 50 s calculated from 2 min. exposure time

- **Long Term Sensitivity Drift**: < 5% per month

- **Operation Conditions**
  - **Temperature Range**: -40 °C to +40 °C
  - **Humidity Range**: 15–95% r.H., non-condensing

- **Effect of Humidity**: no effects

- **Sensor Life Expectancy**: > 18 months
- **Warranty**: 12 months

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1) 0 – 100 ppm during short gas exposure in minute range.

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OUTPUT vs. TEMPERATURE:

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ZERO READING vs. TEMPERATURE:

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Sensoric Sensors are designed and manufactured in Justus-von-Liebig-Str. 22, D-53121 Bonn, Germany
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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>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>Nitric Oxide</td>
<td>100 ppm</td>
<td>-5</td>
</tr>
<tr>
<td>Nitrogen Dioxide</td>
<td>10 ppm</td>
<td>-7</td>
</tr>
<tr>
<td>Hydrogen Sulfide</td>
<td>20 ppm</td>
<td>0</td>
</tr>
</tbody>
</table>

1) Short gas exposure in minute range; after filter saturation: approx. 40 ppm reading.

**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.