Premium Line
NT-H2S-PL100
Electrochemical Hydrogen Sulfide Sensor

Description

The NT-H2S-PL100 is a new Premium Line electrochemical gas sensor with 3 electrodes for the detection of Hydrogen Sulfide in a variety of gas detection applications. Exhibiting high performance with excellent selectivity, this compact sensor (20.4 mm diameter) is suitable both for portable and fixed gas detection instruments.

The porous electrode technology enables accurate gas detection with high sensitivity. The mechanical design of the sensor gives optimum gas diffusion characteristics, and the hermetically sealed enclosure prevents costly electrolyte leakage.

Technical Specifications

Detectable Gas: Hydrogen Sulfide
Detection Range: 0 – 100 ppm
Maximum Overload: 500 ppm
Output Signal: 700± 150 nA/ppm
Resolution: 0.1 ppm
Repeatability: ± 2 %
Typical Baseline Range: -0.1 ppm to +0.4 ppm
Typical Response Time (t90): < 30 sec
Baseline Shift: (- 20 ~ 40 degree C) < 0.5 ppm
Long Term Output Drift: < 2%/month
Expected Life Time: >2 years
Weight: Approximately 4.5 g

Operating conditions

Operating Temperature: -40°C to + 50°C
Operating Humidity: 15 to 90 % RH
Operating Pressure Range: 1atm± 10 %
Recommended Load Resistor: 10 Ohm
Bias Voltage: Not required
Position Sensitivity: None
Recommended Storage Temp.: 0-20°C
Storage Life: Less than 6 months

Performance data conditions: 20°C, 50%RH and 1013mBar
Typical cross sensitivities

<table>
<thead>
<tr>
<th>Gas</th>
<th>Test Gas Concentration (ppm)</th>
<th>Typical Hydrogen Sulfide Concentration Equivalent (ppm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hydrogen Sulfide</td>
<td>10</td>
<td>10</td>
</tr>
<tr>
<td>Carbon Monoxide</td>
<td>300</td>
<td>&lt;2</td>
</tr>
<tr>
<td>Carbon Dioxide</td>
<td>5000</td>
<td>0</td>
</tr>
<tr>
<td>Hydrogen</td>
<td>1000</td>
<td>&lt;2</td>
</tr>
<tr>
<td>Sulphur Dioxide</td>
<td>5</td>
<td>0.5</td>
</tr>
<tr>
<td>Nitric Oxide</td>
<td>30</td>
<td>0.3</td>
</tr>
<tr>
<td>Nitrogen Dioxide</td>
<td>5</td>
<td>-1</td>
</tr>
<tr>
<td>Ammonia</td>
<td>100</td>
<td>0</td>
</tr>
<tr>
<td>Ethanol</td>
<td>1000</td>
<td>&lt;2</td>
</tr>
</tbody>
</table>

**Dimensions**

**Temperature Dependency**

- The NT-H2S-PL100 sensor is of high quality and reliability.
- It has an excellent selectivity.
- Low sensitivity to CO, H₂, SO₂ and Ethanol.
- The sensor has an excellent mechanical durability. As a result, the sensors can maintain a long stability without the breaking down of wires or electrolyte leakage.

_N.E.T. has a policy of continuous development and improvement of its products. As such the specification for the device outlined in the data sheet may be changed without notice._