SPECIFICATION SHEET for AMMONIA SENSOR with FAST RESPONSE TYPE NH3/C5-1000

PERFORMANCE CHARACTERISTICS

Nominal Range 0 – 1000 ppm
Maximum Overload 2000 ppm
Expected Operation Life 2 years in air
Output Signal 25 ± 8 nA/ppm
Resolution 4 ppm
Temperature Range - 10 °C to 40 °C
Pressure Range Atmospheric
Pressure Coefficient No data
T90 Response Time < 35 sec
Relative Humidity Range 15 % to 90 % R.H. non-condensing
Baseline 0 ppm ± 16 ppm
Maximum Zero Shift (+20°C to +40°C) -32 ppm
Typical Long Term Output Drift < 5% per 6 months
Recommended Load Resistor 10 Ohm
Bias Voltage Not allowed
Repeatability < 3 % of signal
Output Linearity < 5 % full scale
Humidity Effect < 16 ppm

CROSS-SENSITIVITY DATA

<table>
<thead>
<tr>
<th>Interfering Gas</th>
<th>Concentration</th>
<th>Reading</th>
</tr>
</thead>
<tbody>
<tr>
<td>CO</td>
<td>300 ppm</td>
<td>0 ppm</td>
</tr>
<tr>
<td>H₂</td>
<td>200 ppm</td>
<td>0 ppm</td>
</tr>
<tr>
<td>SO₂ 3)</td>
<td>20 ppm</td>
<td>-7 ppm</td>
</tr>
<tr>
<td>H₂S 3)</td>
<td>20 ppm</td>
<td>7 ppm</td>
</tr>
<tr>
<td>NO 3)</td>
<td>20 ppm</td>
<td>-1 ppm</td>
</tr>
<tr>
<td>NO₂ 3)</td>
<td>20 ppm</td>
<td>-20 ppm</td>
</tr>
<tr>
<td>Cl₂</td>
<td>20 ppm</td>
<td>-55 ppm</td>
</tr>
<tr>
<td>CO₂</td>
<td>2 %</td>
<td>0 ppm</td>
</tr>
</tbody>
</table>

1) no data for deviations
2) abrupt changes in rel. humidity causes a short term transient signal

3) Long term exposures and high concentrations may affect the performance characteristics

PHYSICAL CHARACTERISTICS

Weight ~ 13 g
Position Sensitivity None
Storage Life Six months in container
Recommended Storage Temperature 5 °C – 20 °C
Warranty Period 12 months from date of dispatch

APPLICATIONS

Leak Detection
Safety and Environmental Control

Performance data conditions:
20 °C, 50% RH and 1013 mbar
TEMPERATURE DEPENDENCE
The output of an electrochemical sensor varies with temperature. The graphs below show the variation in output with temperature for this type of sensor. The results are shown in the graphs as a mean for a batch of sensors, along with confidence intervals corresponding to ±3 times the standard deviation. The sensitivity dependence is expressed as a percentage of the signal at 20 °C. The shift in baseline is shown in ppm referenced to 20 °C.

Sensitivity Temperature Dependence

Baseline Temperature Dependence

The data contained in this document is for guidance only. Membrapor AG accepts no liability for any consequential losses, injury or damage resulting from the use of this document or the information contained within it. The data is given for guidance only. Customers should test under their own conditions, to ensure that the sensors are suitable for their own requirements.