OZONE GAS SENSOR IN COMPACT HOUSING

SPECIFICATION SHEET

O3/C-5

Ozone Gas Sensor in Compact Housing

MEASUREMENT

Operation Principle: 3-Electrode Electrochemical
Nominal Range: 0 – 5 ppm
Maximum Overload: 50 ppm
Inboard Filter: –
Output Signal: -1500 ± 500 nA/ppm
Resolution (Electronics dependent): < 0.02 ppm
T90 Response Time: < 60 sec
Typical Baseline Range (pure air, 20°C): < 0.1 ppm
Maximum Zero Shift (+20°C to +40°C): 0.1 ppm
Repeatability: < 5 % of signal
Output Linearity: Linear
Gain: –

ELECTRICAL

Rec. Load Resistor: 10 Ohm
Bias (V_Sens-V_Ref): not recommended
Conformity to RoHS directive: RoHS Compliance

ENVIRONMENTAL

Relative Humidity Range: 15 % to 90 % R.H. non-condensing
Temperature Range: -20 °C to 50 °C
Pressure Range: Atmospheric ± 10%
Pressure Coefficient: N.D.
Humidity Effect: none

LIFETIME

Expected Operation Life: 2 years in air
Expected Long Term Output: N.D.
Drift in air: –
Filter Life: 6 months in container
Storage Life: 5 °C – 20 °C
Rec. Storage Temperature: –
Warranty Period: 12 months from date of dispatch

Performance data conditions: 20 °C, 50% RH, 1013 mbar

CROSS-SENSITIVITY DATA

The table below does not claim to be complete. Interfering gases should not be used for calibration.

<table>
<thead>
<tr>
<th>Interfering Gas</th>
<th>Conc. ppm</th>
<th>Reading ppm</th>
</tr>
</thead>
<tbody>
<tr>
<td>NO₂</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>SO₂</td>
<td>5</td>
<td>0</td>
</tr>
<tr>
<td>CO</td>
<td>100</td>
<td>0</td>
</tr>
<tr>
<td>H₂</td>
<td>100</td>
<td>0</td>
</tr>
<tr>
<td>C₂H₄</td>
<td>100</td>
<td>0</td>
</tr>
<tr>
<td>Cl₂</td>
<td>5</td>
<td>4</td>
</tr>
<tr>
<td>NO</td>
<td>50</td>
<td>0</td>
</tr>
<tr>
<td>CH₂O</td>
<td>7</td>
<td>0</td>
</tr>
<tr>
<td>HCl</td>
<td>20</td>
<td>0</td>
</tr>
<tr>
<td>NH₃</td>
<td>80</td>
<td>0</td>
</tr>
<tr>
<td>H₂S</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

1) NO readily forms NO₂ in the presence of O₂
TEMPERATURE DEPENDENCE

Figure 2: The shift in baseline shown in ppm referenced to 20 °C and a relative humidity of 50%.

Figure 3: The shift in baseline expressed as percentage of the measurement range referenced to 20 °C and a R.H. of 50%.

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