## Midas® SENSOR CARTRIDGE SPECIFICATIONS

### Sulphur Dioxide (SO₂)

**MIDAS-S-SO₂, MIDAS-E-SO₂**

<table>
<thead>
<tr>
<th>Gas Measured</th>
<th>Sulphur Dioxide (SO₂)</th>
</tr>
</thead>
<tbody>
<tr>
<td>CARTRIDGE PART NUMBER</td>
<td>MIDAS-S-SO₂ 1 year standard warranty</td>
</tr>
<tr>
<td>SENSOR TECHNOLOGY</td>
<td>3 electrode electrochemical cell</td>
</tr>
<tr>
<td>MEASURING RANGE (PPM)</td>
<td>SO₂: 0 – 8ppm</td>
</tr>
<tr>
<td>MINIMUM ALARM 1 SET POINT</td>
<td>1.00ppm</td>
</tr>
<tr>
<td>REPEATABILITY</td>
<td>± 2% of measured value</td>
</tr>
<tr>
<td>LINEARITY</td>
<td>± 10% of measured value</td>
</tr>
<tr>
<td>RESPONSE TIME T&lt;sub&gt;95&lt;/sub&gt;</td>
<td>&lt; 5 seconds</td>
</tr>
<tr>
<td>SENSOR CARTRIDGE LIFE EXPECTANCY</td>
<td>≥ 24 months under typical application conditions</td>
</tr>
</tbody>
</table>

### Operating Temperature

- **Effect of Temperature**:
  - Zero Sensitivity:
    - 0°C to +60°C (32°F to 140°F)
    - ± 0.005ppm / °C (0°C to 20°C)
    - ± 0.05ppm / °C (20°C to 40°C)
    - ± 0.5% of measured value / °C

### Operating Humidity (Continuous)

- **Effect of Humidity**:
  - Zero Sensitivity:
    - 15 – 90% rH
  - No effect
  - ± 1% of measured value / % rH

### Operating Pressure

- **Effect of Pressure**:
  - No effect in typical application

### Long Term Drift

- **Effect of Position**:
  - No effect in typical application

### Calibration Gas

- **Effect of Calibration Gas**:
  - Sulphur Dioxide (SO₂)

### Challenge Gas (Bump Test)

- **Effect of Challenge Gas**:
  - Sulphur Dioxide (SO₂)

### Warm Up Time

- **Warm Up Time**:
  - < 10 minutes

### Storage Temperature

- **Storage Temperature**:
  - ±5°C to +45°C (+41°F to +113°F)

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### Cross Sensitivities

Each Midas® sensor is potentially cross sensitive to other gases and this may cause a gas reading when exposed to other gases than those originally designated. The table below presents typical readings that will be observed when a new sensor cartridge is exposed to the cross sensitive gas (or a mixture of gases containing the cross sensitive species).

<table>
<thead>
<tr>
<th>GAS / VAPOR</th>
<th>CHEMICAL FORMULA</th>
<th>CONCENTRATION APPLIED (PPM)</th>
<th>READING (PPM HF)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Carbon Monoxide</td>
<td>CO</td>
<td>300 ppm</td>
<td>&lt; 3</td>
</tr>
<tr>
<td>Hydrogen Sulphide</td>
<td>H₂S</td>
<td>15</td>
<td>0</td>
</tr>
<tr>
<td>Nitric Oxide</td>
<td>NO</td>
<td>35</td>
<td>0</td>
</tr>
<tr>
<td>Nitrogen Dioxide</td>
<td>NO₂</td>
<td>5</td>
<td>-5</td>
</tr>
</tbody>
</table>

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The sensor data listed is based on ideal test environment; observed performance may vary based on the actual monitoring system and the sampling conditions employed.

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Please Note:

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