4HYT CiTiceL®

Performance Characteristics

- **Nominal Range**: 0-1000 ppm
- **Maximum Overload**: 2000 ppm
- **Expected Operating Life**: Two years in air
- **Output Signal Resolution**: 2 ppm
- **Temperature Range**: -20°C to +50°C
- **Pressure Range**: Atmospheric ± 10%
- **T<sub>90</sub> Response Time**: <90 seconds
- **Relative Humidity Range**: 15 to 90% non-condensing
- **Typical Baseline Range (pure air)**: 0 to -30 ppm equivalent
- **Maximum Zero Shift (+20°C to +40°C)**: -20 ppm equivalent
- **Long Term Output Drift**: <2% signal loss/month
- **Recommended Load Resistor**: 10 Ω
- **Bias Voltage**: Not required
- **Repeatability**: 2% of signal

N.B. All performance data is based on conditions at 20°C, 50%RH, and 1013 mBar

Physical Characteristics

- **Output Linearity**: Linear
- **Weight**: 5 g (approx.)
- **Position Sensitivity**: None
- **Storage Life**: Six months in CTL container
- **Recommended Storage Temperature**: 0-20°C
- **Warranty Period**: 12 months from date of despatch

IMPORTANT NOTE: Connection should be made via PCB sockets only. Soldering to the pins will seriously damage your sensor.
Cross-sensitivity Data

CiTiceLs may exhibit a response to certain gases in a sample other than the target gas. 4HYT CiTiceLs have been tested with a number of commonly cross-interfering gases and the results are given below. The table shows the typical response to be expected from a sensor when exposed to a given test gas concentration (relevant to safety, e.g. TLV levels).

<table>
<thead>
<tr>
<th>Gas</th>
<th>Conc.</th>
<th>4HYT</th>
<th>Gas</th>
<th>Conc.</th>
<th>4HYT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Carbon monoxide</td>
<td>300ppm</td>
<td>≤60ppm</td>
<td>Chlorine</td>
<td>1ppm</td>
<td>0ppm</td>
</tr>
<tr>
<td>Hydrogen sulphide</td>
<td>15ppm</td>
<td>&lt;3ppm</td>
<td>Hydrogen cyanide</td>
<td>10ppm</td>
<td>≈3ppm</td>
</tr>
<tr>
<td>Sulphur dioxide</td>
<td>5ppm</td>
<td>0ppm</td>
<td>Hydrogen chloride</td>
<td>5ppm</td>
<td>0ppm</td>
</tr>
<tr>
<td>Nitric oxide</td>
<td>35ppm</td>
<td>≈10ppm</td>
<td>Ethylene</td>
<td>100ppm</td>
<td>≈80ppm</td>
</tr>
<tr>
<td>Nitrogen dioxide</td>
<td>5ppm</td>
<td>0ppm</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**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.

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Performance characteristics on this data sheet outline the performance of newly supplied sensors. Output signal can drift below the lower limit over time.