Hydrogen Sulphide CiTiceL® Specification

4HS/LM CiTiceL®

(Standard version)



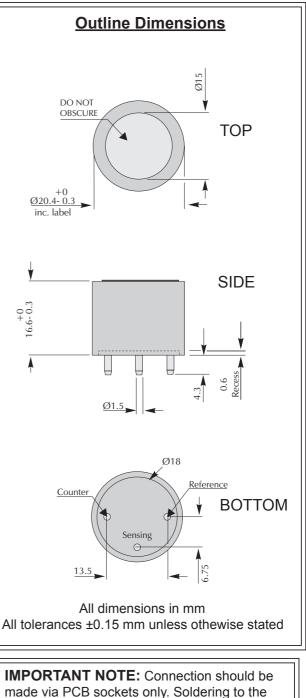
Performance Characteristics

Nominal Range	0-100 ppm				
Maximum Overload	500 ppm				
Expected Operating Life	Two years in air				
Output Signal	0.70 ± 0.15 μA/ppm				
Resolution	0.1 ppm				
Temperature Range	-40°C to +50°C				
Pressure Range	Atmospheric ± 10%				
Pressure Coefficient	No data				
T ₉₀ Response Time	≤30 seconds				
Relative Humidity Range	15 to 90% non-condensing				
Typical Baseline Range (pure air)	-0.1 to +0.4 ppm equivalent				
Maximum Zero Shift (+20°C to +40°C)	<0.2 ppm equivalent				
Long Term Output Drift	<2% signal loss/month				
Recommended Load Resistor	10 Ω				
Bias Voltage	Not required				
Repeatability	<2% of signal				
Output Linearity	Linear				

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

Physical Characteristics

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



Testing: 4HS/LM Hydrogen Sulphide CiTiceLs should be tested monthly to confirm sensitivity and response time are adequate.

pins will seriously damage your sensor.

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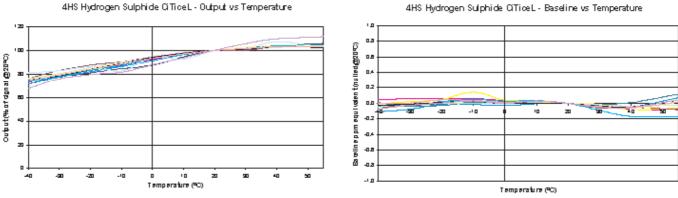
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21st February 2011

City Technology Ltd, City Technology Centre, Walton Rd, Portsmouth PO6 1SZ, UK Tel:+44 23 9232 5511, Fax:+44 23 9238 6611, www.citytech.com

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Cross-sensitivity Data

CiTiceLs may exhibit a response to certain gases in a sample other than the target gas. 4HS/LM 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).

0ppm ≤2ppm	Hydrogen:	10000ppm	≤10ppm
ppm ≈1ppm 5ppm <0.7ppm	Nitrogen dioxide:	5ppm	≈-1ppm
5p	pm <0.7ppm	pm <0.7ppm	

Methanol Sensitivity

The 4HS/LM CiTiceL is designed for use in applications where methanol might be present. Whilst cross sensitivity reactions on CiTiceLs are normally readily defined, the behavior of the 4HS/LM when exposed to methanol is significantly more complex, and can not be specified as above for carbon monoxide. The 4HS/LM CiTiceL is the result of an extensive development project, which has achieved, for this application, a significant performance advantage over standard 4HS CiTiceLs.

For more detailed information about the response to methanol please contact Technical Support at City Technology.

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.

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