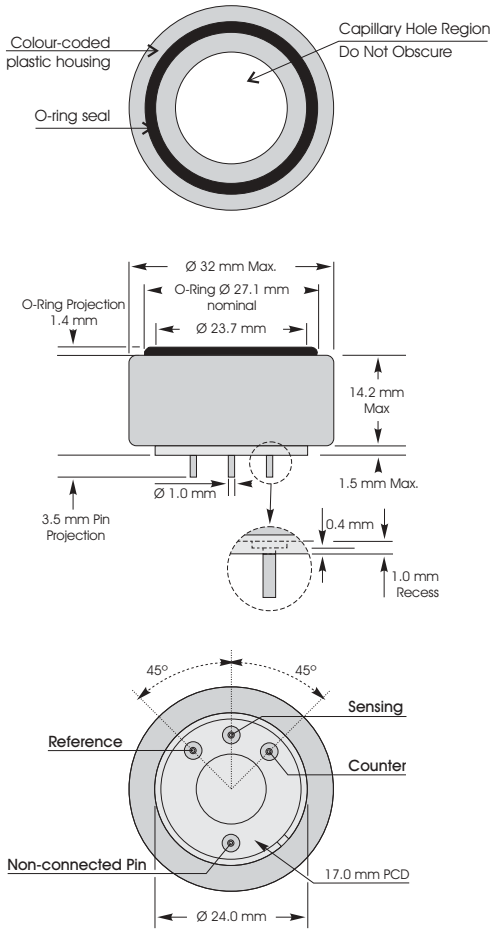
7HH/LM CiTiceL®

High output, ambient monitoring H_2S sensor with reduced methanol sensitivity

Performance Characteristics

Nominal Range	0-50ppm
Maximum Overload	500ppm
Expected Operating Life	One year in air
Output Signal	1.70 ± 0.30 µA/ppm
Resolution	0.1ppm
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)	-0.2 to +0.4ppm equivalent
Maximum Zero Shift (+20°C to +40°C)	0.1ppm equivalent
Long Term Output Drift	<2% signal loss/month
Recommended Load Resistor	10Ω
Bias Voltage	Not required
Repeatability	1% of signal
Output Linearity	Linear

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



All tolerances ±0.15mm unless otherwise stated.
Do not solder to pin connections

Physical Characteristics

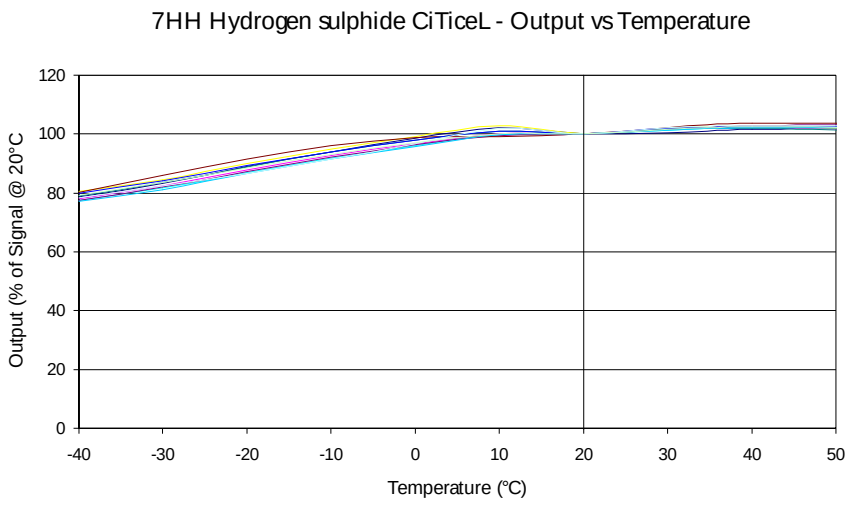
Colour of Top	Dark Blue
Weight	12g
Position Sensitivity	None
Storage Life	Six months in CTL container
Recommended Storage Temperature	0-20°C
Warranty Period	12 months from date of despatch

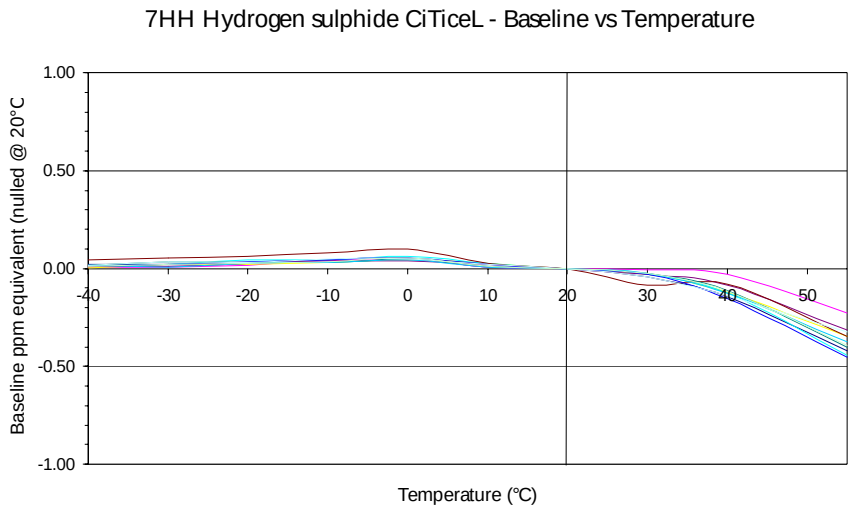
IMPORTANT NOTE: Connection should be made via PCB sockets only. Soldering to the pins will render your warranty void.

TESTING: 7HH/LM Hydrogen Sulphide CiTiceLs should be tested monthly to confirm sensitivity and response time are adequate.

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

Hydrogen Sulphide CiTiceL® Specification





Methanol Sensitivity

The 7HH/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 7HH/LM when exposed to methanol is significantly more complex, and can not be specified as below for carbon monoxide. The 7HH/LM CiTiceL is the result of an extensive development project, which has achieved, for this application, a significant performance advantage over standard 7HH CiTiceLs.

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

Cross-sensitivity Data

CiTiceLs may exhibit a response to certain gases in a sample other than the target gas. 7HH 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).

Gas	Conc.	7HH	Gas	Conc.	7HH
Carbon monoxide:	300ppm	≤1.5ppm	**Hydrogen:**	10,000ppm	<5ppm
Sulphur dioxide:	5ppm	<1ppm	**Hydrogen cyanide:**	10ppm	0ppm
Nitric oxide:	35ppm	<2ppm	**Hydrogen chloride:**	5ppm	0ppm
Nitrogen dioxide:	5ppm	-1ppm ≤ x$ ≤ 0ppm	**Ethylene:**	100ppm	0ppm
Chlorine:	1ppm	≈-0.2ppm			

For details of other possible cross-interfering gases contact City Technology.

Every effort has been made to ensure the accuracy of this document at the time of printing. In accordance with the company's policy of continued product improvement City Technology Limited reserves the right to make product changes without notice. No liability is accepted for any consequential losses, injury or damage resulting from the use of this document or from any omissions or errors herein. The data is given for guidance only. It does not constitute a specification or an offer for sale. The products are always subject to a programme of improvement and testing which may result in some changes in the characteristics quoted. As the products may be used by the client in circumstances beyond the knowledge and control of City Technology Limited, we cannot give any warranty as to the relevance of these particulars to an application. It is the clients' responsibility to carry out the necessary tests to determine the usefulness of the products and to ensure their safety of operation in a particular application.
Performance characteristics on this data sheet outline the performance of newly supplied sensors. Output signal can drift below the lower limit over time.

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