4H/LM CiTiceL®

(High sensitivity version)

Performance Characteristics

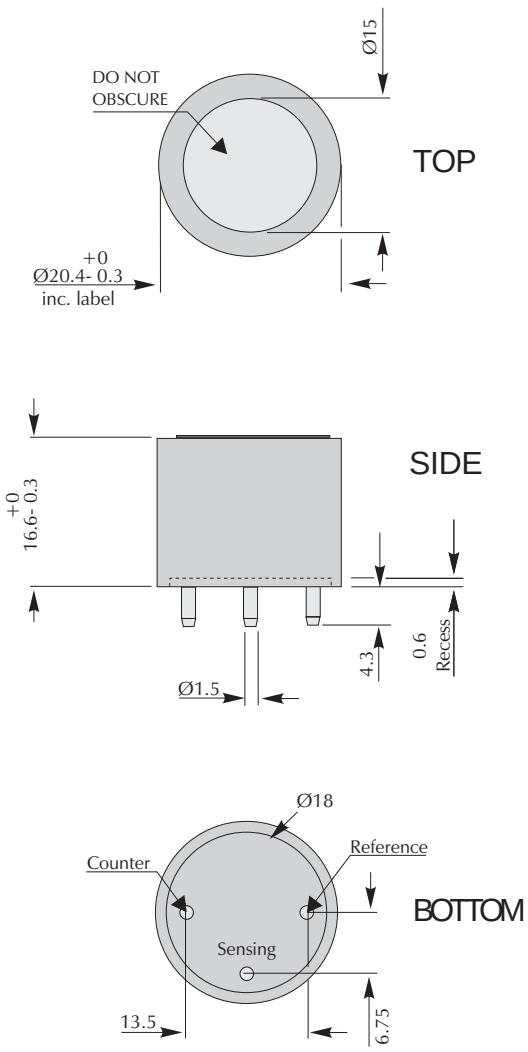
Nominal Range	0-100ppm
Maximum Overload	500ppm
Expected Operating Life	Two years in air
Output Signal	1.20 ± 0.25 µA/ppm
Resolution	0.1ppm
Temperature Range	-40°C to +50°C
Pressure Range	Atmospheric ± 10%
T_{90} Response Time	≤30 seconds
Relative Humidity Range	15 to 90% non-condensing
Typical Baseline Range (pure air)	-0.02 to +0.2ppm 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	<2% of signal
Output Linearity	Linear

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

Physical Characteristics

Weight	5g (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

Outline Dimensions



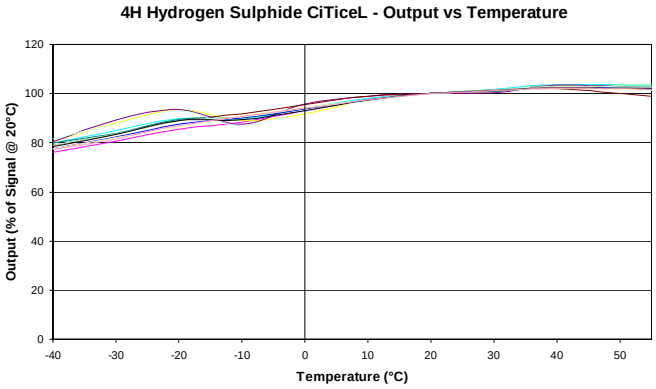
All dimensions in mm
All tolerances ±0.15mm unless othewise stated

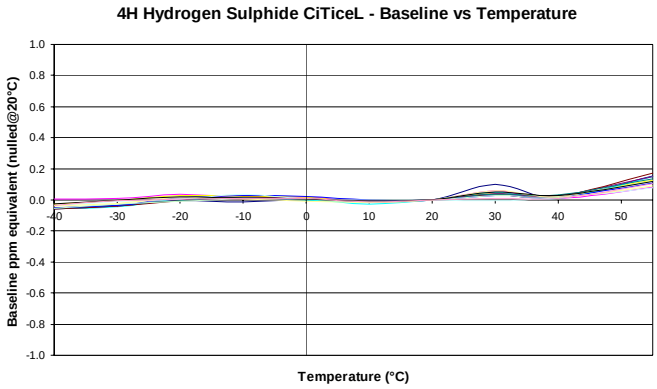
IMPORTANT NOTE: Connection should be made via PCB sockets only. Soldering to the pins will seriously damage your sensor.

Testing: 4H/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





Cross-sensitivity Data

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

Gas	Conc.	4H/LM	Gas	Conc.	4H/LM
Carbon monoxide:	300ppm	≤6ppm	**Hydrogen:**	10000ppm	≤5ppm
Sulphur dioxide:	5ppm	≈0.5ppm	**Nitrogen dioxide:**	5ppm	-1ppm
Nitric oxide:	35ppm	<0.4ppm			

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

Methanol Sensitivity

The 4H/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 4H/LM when exposed to methanol is significantly more complex, and can not be specified as above for carbon monoxide. The 4H/LM CiTiceL is the result of an extensive development project, which has achieved, for this application, a significant performance advantage over standard 4H CiTiceLs.

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

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