

Hydrogen Sulphide CiTiceL[®] Specification



7H/LM CiTiceL[®]

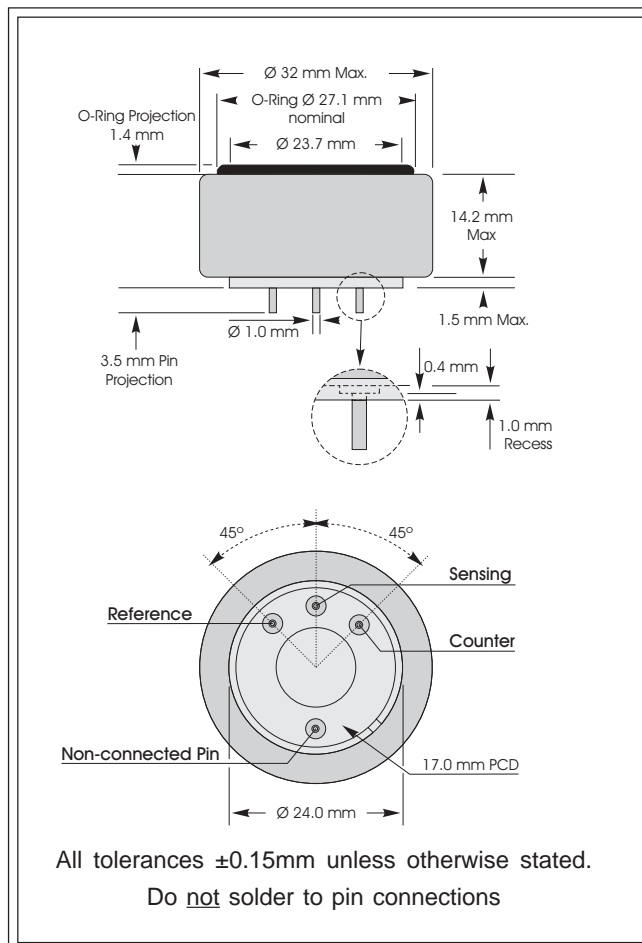
Performance Characteristics

Nominal Range	0-200ppm
Maximum Overload	1000ppm
Expected Operating Life	Two years in air
Output Signal	0.37 ± 0.07 µA/ppm
Resolution	0.25ppm
Temperature Range	-40°C to +50°C
Pressure Range	Atmospheric ± 10%
Pressure Coefficient	0.008 ± 0.002 %signal/mBar
T₉₀ Response Time	≤35 seconds
Relative Humidity Range	15 to 90% non-condensing
Typical Baseline Range (pure air)	-0.6 to +1.9ppm equivalent
Maximum Zero Shift (+20°C to +40°C)	2ppm equivalent
Long Term Output Drift	<2% signal loss/month
Recommended Load Resistor	10Ω
Bias Voltage	Not required (See Application Note #7)
Repeatability	1% of signal
Output Linearity	Linear

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

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



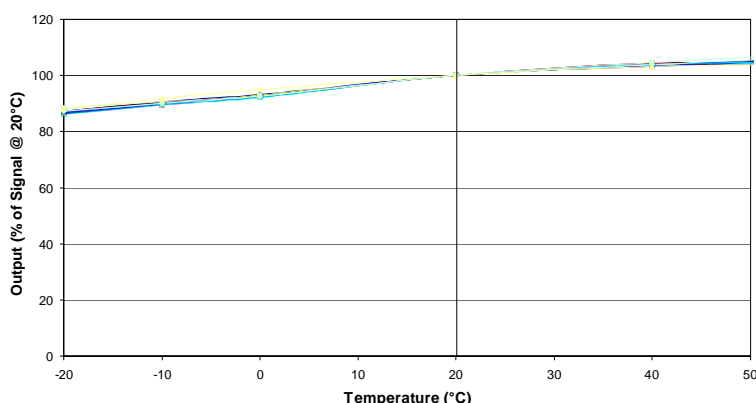
IMPORTANT NOTE: Connection should be made via PCB sockets only. Soldering to the pins will render your warranty void.

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

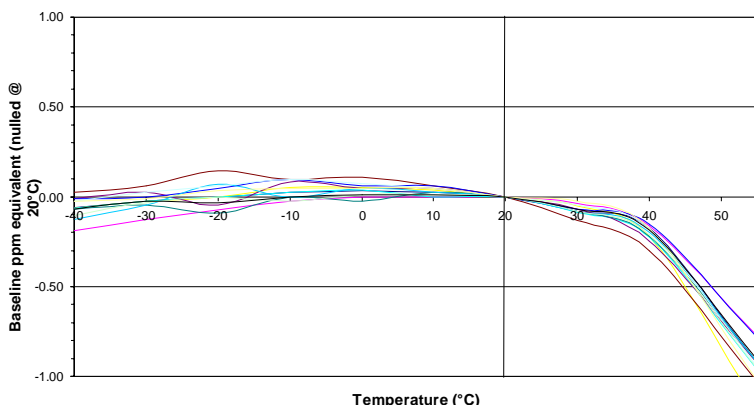
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7H/LM Hydrogen sulphide CiTiceL - Output vs Temperature



7H/LM Hydrogen sulphide CiTiceL - Baseline vs Temperature



Methanol Sensitivity

The 7H/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 7H/LM when exposed to methanol is significantly more complex, and can not be specified as above for carbon monoxide. The 7H/LM CiTiceL is the result of an extensive development project, which has achieved, for this application, a significant performance advantage over standard 7H 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. 7H 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.	7H/LM	Gas	Conc.	7H/LM
Carbon monoxide:	300ppm	≤6ppm	Hydrogen:	10,000ppm	<15ppm
Sulphur dioxide:	5ppm	<1ppm	Hydrogen cyanide:	10ppm	-1.4ppm ≤ x ≤ -0.5ppm
Nitric oxide:	35ppm	0ppm	Hydrogen chloride:	5ppm	0ppm
Nitrogen dioxide:	5ppm	≈-1ppm	Chlorine:	1ppm	-0.05ppm ≤ x ≤ +0.04ppm
Ethylene:	100ppm	0ppm	**For details of other possible cross-interfering gases contact City Technology.**		

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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.