Hydrogen Sulphide CiTiceL® Specification



7HH CiTiceL®

Performance Characteristics

Nominal Range	0-50ppm	
Maximum Overload	500ppm	
Expected Operating Life	Two years 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	Nodata	
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	Notrequired	
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	24 months from date of despatch (This amounts to a variation of condition 6 of our standard terms and conditions

which otherwise apply)



All tolerances ±0.15mm unless otherwise stated. Do <u>not</u> solder to pin connections

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

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7HH Hydrogen sulphide CiTiceL - Output vs Temperature





7HH Hydrogen sulphide CiTiceL - Baseline vs Temperature



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.	<u>7HH</u>	Gas	Conc.	<u>7HH</u>
Carbon monoxide:	300ppm	≤1.5ppm	Hydrogen:	10,000ppm	<5ppm
Sulphur dioxide:	5ppm	<1ppm	Hydrogen cyanide:	10ppm	-1.4ppm≤x\$≤-0.1ppm
Nitric oxide:	35ppm	<2ppm	Hydrogen chloride:	5ppm	0ppm
Ethylene:	100ppm	0ppm	Nitrogen dioxide:	5ppm	-1 ppm $\leq x$ \$ ≤ 0 ppm
Chlorine:	1ppm	≈ - 0.2ppm	**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.

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