

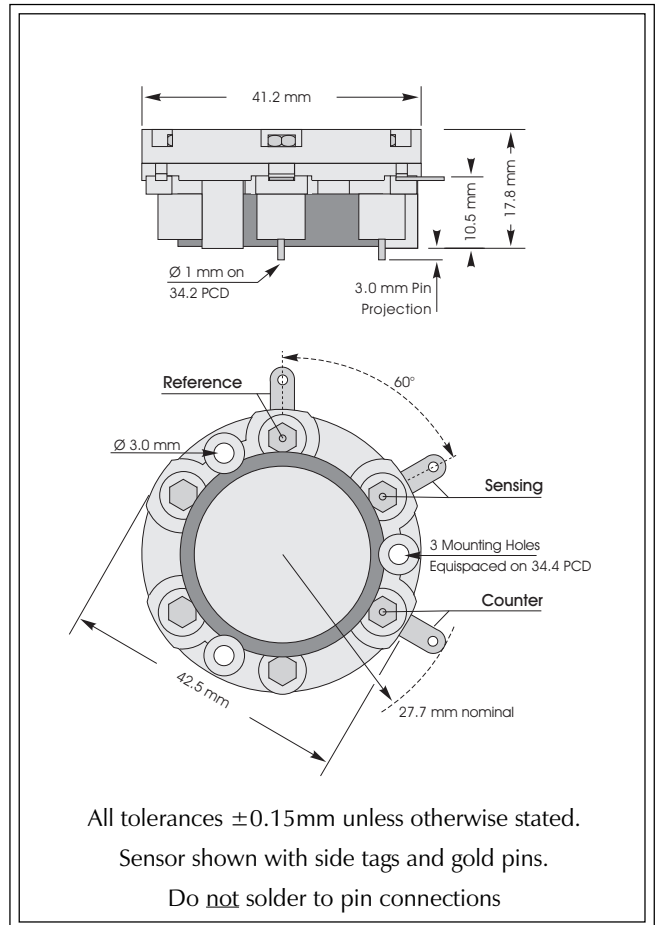


Hydrogen sulphide CiTiceL[®] Specification

3HH 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	No data
T₉₀ 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

Physical Characteristics

Weight	22g
Position Sensitivity	None
Storage Life	Six months in CTL container
Recommended Storage Temperature	0-20°C
Warranty Period	12 months from date of despatch

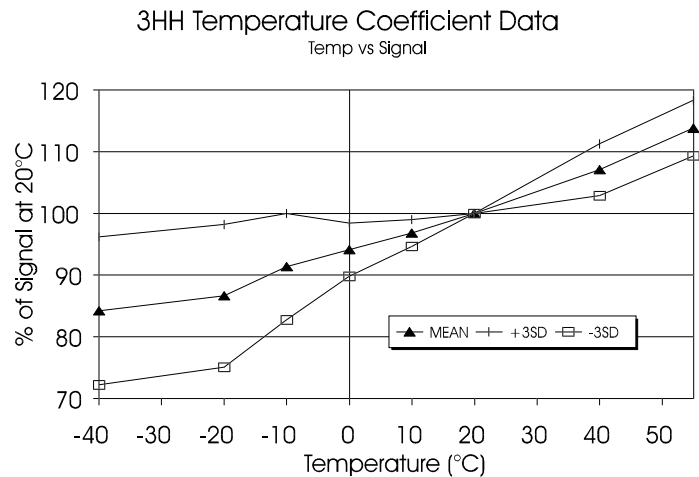
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Temperature Dependence

The output of a CiTiceL can vary with temperature. The graph here shows the variation in output with temperature for 3HH CiTiceLs based on a sample of about 16 sensors. The results are shown in the graph as a mean for the batch, and expressed as a percentage of the signal at 20°C.

From a statistical viewpoint, for a sample of this size, the range in values observed for all sensors of this type will fall within a range three times the standard deviation above or below the mean. Assuming therefore this sample is typical, then the temperature behaviour of all 3HH CiTiceLs will fall in the band +3SD to -3SD.



Cross-sensitivity Data

CiTiceLs may exhibit a response to certain gases in a sample other than the target gas. 3HH 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.	3HH	Gas	Conc.	3HH
Carbon monoxide:	300ppm	≤6ppm	Hydrogen:	10,000ppm	<5ppm
Sulphur dioxide:	5ppm	<1ppm	Hydrogen cyanide:	10ppm	0ppm
Nitric oxide:	35ppm	<2ppm	Hydrogen chloride:	5ppm	0ppm
Nitrogen dioxide:	5ppm	-1.5ppm ≤ x ≤ 0ppm	Ethylene:	100ppm	0ppm
Chlorine:	1ppm	≈-0.2ppm	**For details of other possible cross-interfering gases contact City Technology.**		

Ordering Information

The 3HH Hydrogen Sulphide CiTiceL is available with side tags, gold-plated PCB pins, or both PCB pins and side tags. To ensure the appropriate option is supplied care must be taken to provide the correct code when ordering.

Type 3HH:- With side tag and PCB pin connections - **3HH**
 With side tag connection - **3HH(S)**
 With gold-plated PCB pin connection - **3HH(G)**

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