

# Hydrogen Sulphide CiTiceL<sup>®</sup> Specification



## 7H CiTiceL<sup>®</sup>

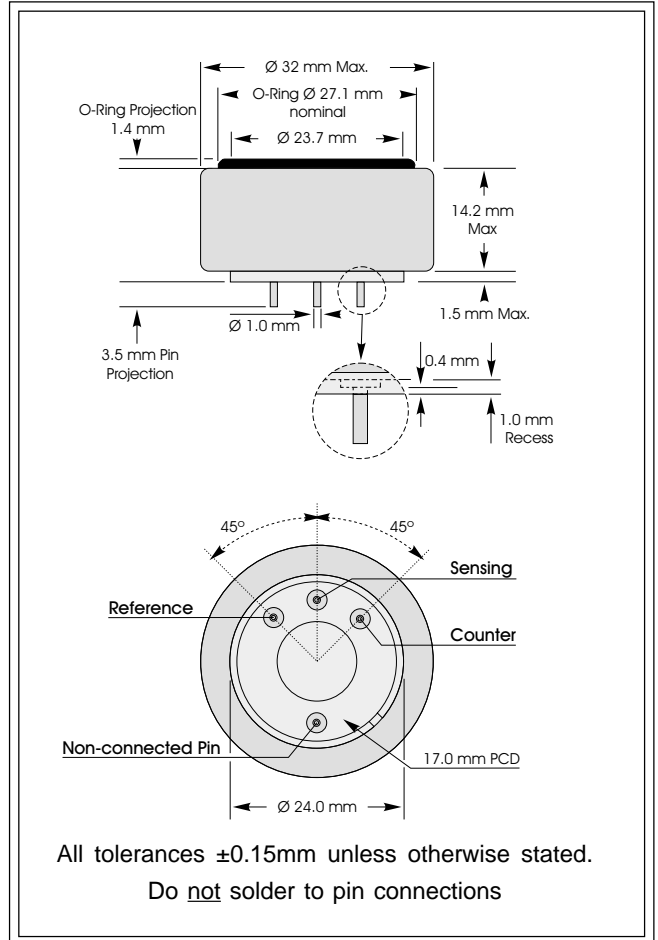
### Performance Characteristics

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

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

### Physical Characteristics

<b>Colour of Top</b>	Dark Blue
<b>Weight</b>	12g
<b>Position Sensitivity</b>	None
<b>Storage Life</b>	Six months in CTL container
<b>Recommended Storage Temperature</b>	0-20°C
<b>Warranty Period</b>	24 months from date of despatch (This amounts to a variation of condition 6 of our standard terms and conditions which otherwise apply)



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

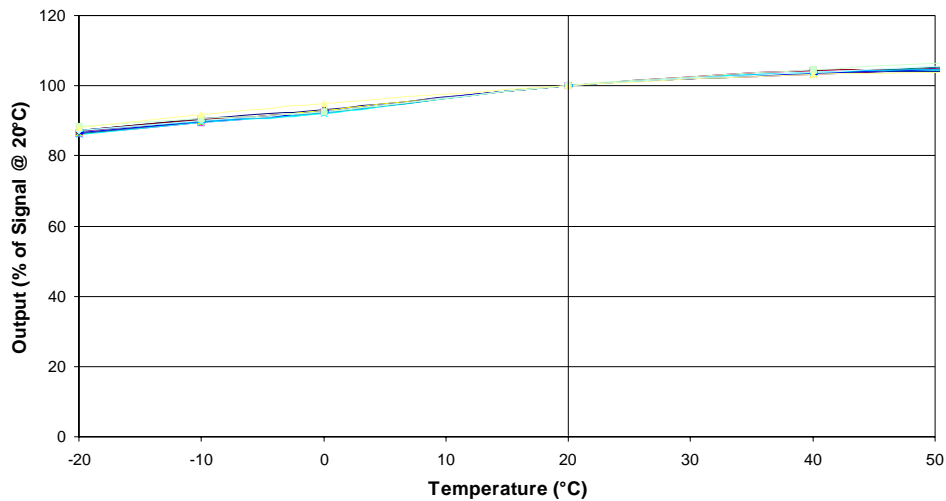


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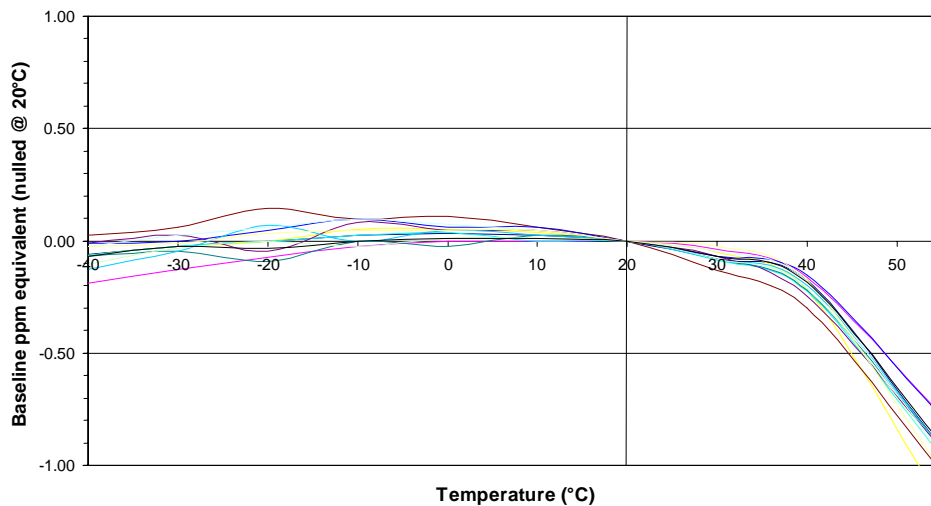
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## 7H Hydrogen sulphide CiTiceL - Output vs Temperature



## 7H 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. 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	Gas	Conc.	7H
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.