



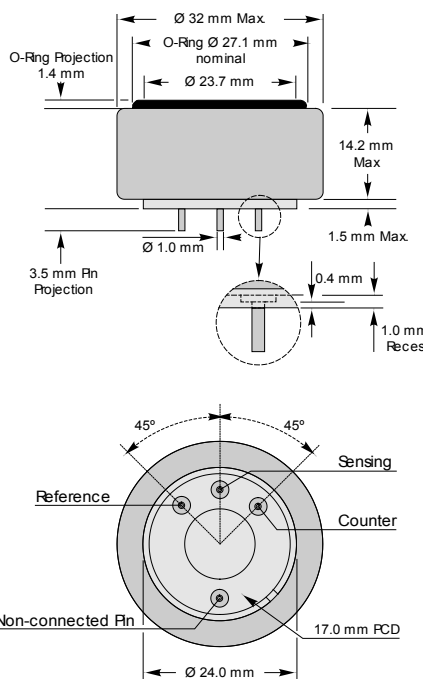
# 7HYT CiTiceL<sup>®</sup>

## Performance Characteristics

<b>Nominal Range</b>	0-1000ppm
<b>Maximum Overload</b>	2000ppm
<b>Expected Operating Life</b>	Two years in air
<b>Output Signal</b>	0.03 ± 0.01 µA/ppm
<b>Resolution</b>	2ppm
<b>Temperature Range</b>	-20°C to +50°C
<b>Pressure Range</b>	Atmospheric ± 10%
<b>Pressure Coefficient</b>	0.009 ± 0.003 % signal/mBar
<b>T<sub>90</sub> Response Time</b>	<50 seconds
<b>Relative Humidity Range</b>	15 to 90% non-condensing
<b>Typical Baseline Range (pure air)</b>	0 to -25ppm equivalent
<b>Maximum Zero Shift (+20°C to +40°C)</b>	-35ppm equivalent
<b>Long Term Output Drift</b>	<2% signal loss/month
<b>Recommended Load Resistor</b>	10 Ω
<b>Bias Voltage</b>	Not required
<b>Repeatability</b>	2% of signal
<b>Output Linearity</b>	Linear

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

## Outline Dimensions



All tolerances ±0.15mm unless otherwise stated.  
Do not solder to pin connections

## Physical Characteristics

<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>	12 months from date of despatch

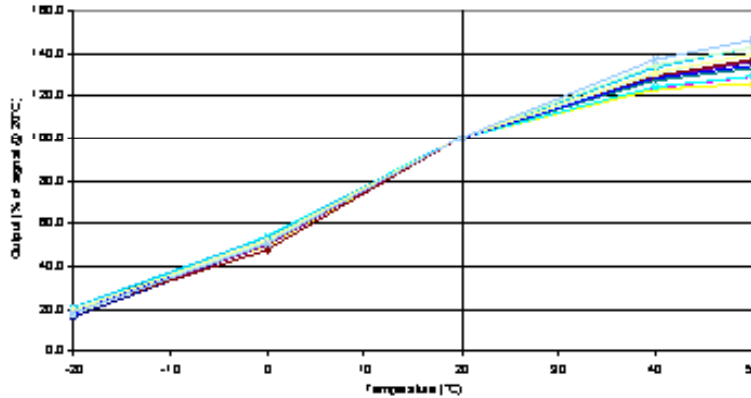
**IMPORTANT NOTE:** Connection should be made via PCB sockets only. Soldering to the pins will render your warranty void.

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

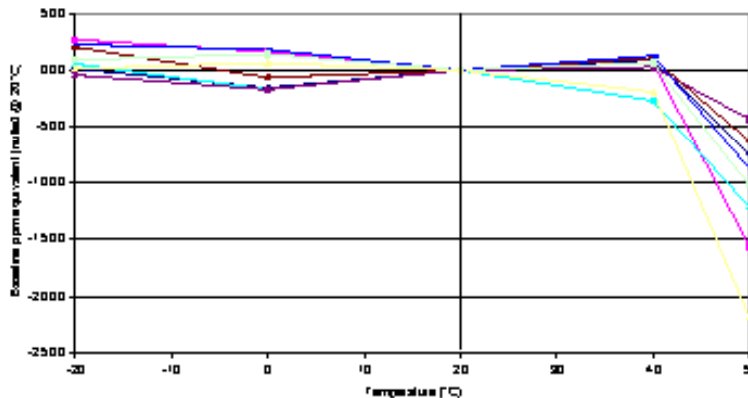


The data below has been measured via changing the temperature of the sensor and gas in an environmental chamber. When the sensor is held at room temperature and only the gas temperature changed the effect may be different.

7HYT Hydrogen CiTiceLs - Output vs Temperature



7HYT Hydrogen CiTiceL - Baseline vs Temperature



## Cross-sensitivity Data

CiTiceLs may exhibit a response to certain gases in a sample other than the target gas. 7HYT 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.	7HYT	Gas	Conc.	7HYT
<b>Carbon monoxide:</b>	300ppm	0<x\$<60ppm	<b>Chlorine:</b>	1ppm	0ppm
<b>Hydrogen sulphide:</b>	15ppm	<3ppm	<b>Hydrogen cyanide:</b>	10ppm	≈3ppm
<b>Sulphur dioxide:</b>	5ppm	0ppm	<b>Hydrogen chloride:</b>	5ppm	0ppm
<b>Nitric oxide:</b>	35ppm	≈10ppm	<b>Ethylene:</b>	100ppm	≈80ppm
<b>Nitrogen dioxide:</b>	5ppm	0ppm	**For details of other possible cross-interfering gases contact City Technology.**		

Every effort has been made to ensure the accuracy of this document at the time of printing. In accordance with the company's policy of continued product improvement City Technology Limited reserves the right to make product changes without notice. No liability is accepted for any consequential losses, injury or damage resulting from the use of this document or from any omissions or errors herein. The data is given for guidance only. It does not constitute a specification or an offer for sale. The products are always subject to a programme of improvement and testing which may result in some changes in the characteristics quoted. As the products may be used by the client in circumstances beyond the knowledge and control of City Technology Limited, we cannot give any warranty as to the relevance of these particulars to an application. It is the clients' responsibility to carry out the necessary tests to determine the usefulness of the products and to ensure their safety of operation in a particular application.

Performance characteristics on this data sheet outline the performance of newly supplied sensors. Output signal can drift below the lower limit over time.