7HYE CiTiceL®

CITY TECHNOLOGY

Performance Characteristics

Nominal Range	0-10 000ppm
Maximum Overload	20 000ppm
Expected Operating Life	Two years in air
Output Signal	0.003 ± 0.001 µA/ppm
Resolution	10ppm
Temperature Range	-20°C to +50°C
Pressure Range	Atmospheric ± 10%
Pressure Coefficient	0.006 % signal/mBar
T_{90} Response Time	<110 seconds
Relative Humidity Range	15 to 90% non-condensing
Typical Baseline Range (pure air)	+25 to -150ppm equivalent
Maximum Zero Shift (+20°C to +40°C)	-150ppm equivalent
Long Term Output Drift	<2% signal loss/month
Recommended Load Resistor	10 Ω
Bias Voltage	Not required
Repeatability	2% of signal
Output Linearity	Linear

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

Physical Characteristics

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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

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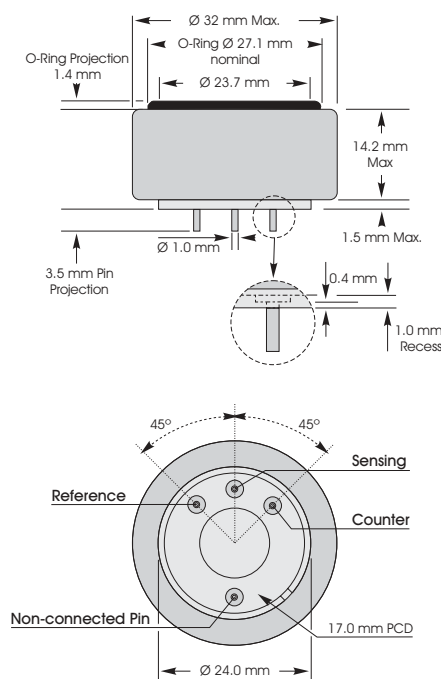
All tolerances ±0.15mm unless otherwise stated.
Do not solder to pin connections

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

Hydrogen CiTiceL® 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.

7HYE Hydrogen CiTiceLs - Output vs Temperature
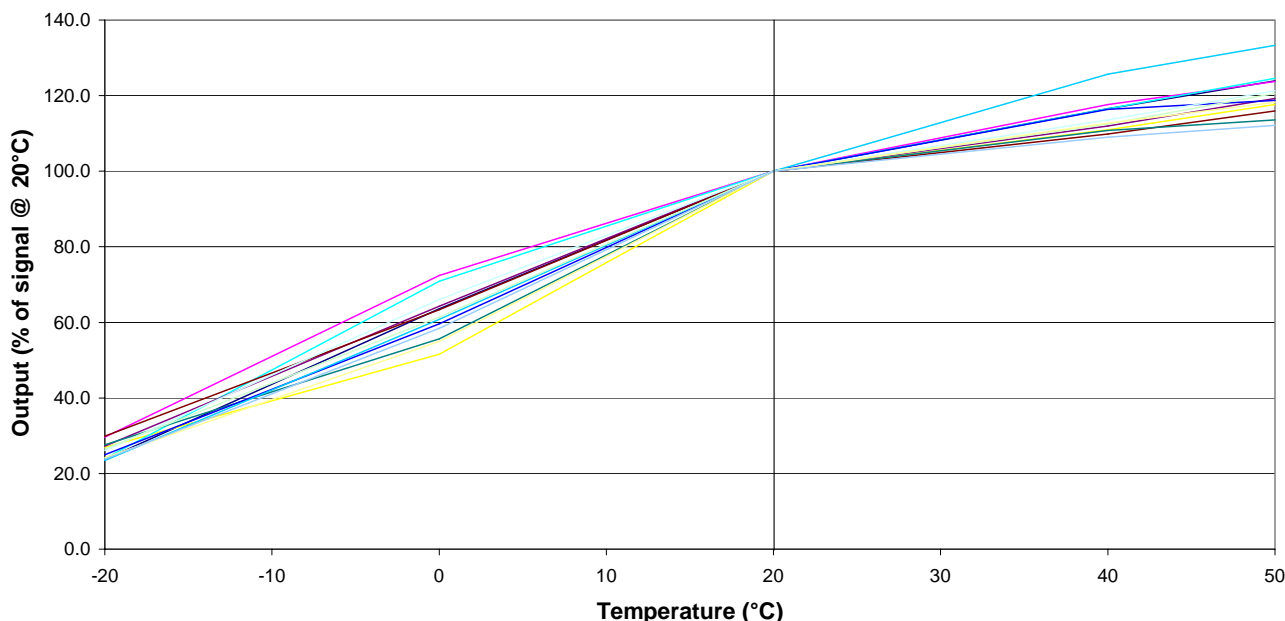
Cross-sensitivity Data

CiTiceLs may exhibit a response to certain gases in a sample other than the target gas. 7HYE 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.	7HYE	Gas	Conc.	7HYE
Carbon monoxide:	300ppm	<120ppm	Chlorine:	1ppm	0ppm
Hydrogen sulphide:	15ppm	≈10ppm	Hydrogen cyanide:	10ppm	≈10ppm
Sulphur dioxide:	5ppm	0ppm	Hydrogen chloride:	5ppm	0ppm
Nitric oxide:	35ppm	<10ppm	Ethylene:	100ppm	≈40ppm
Nitrogen dioxide:	5ppm	0ppm	**For details of other possible cross-interfering gases contact City Technology.**		