

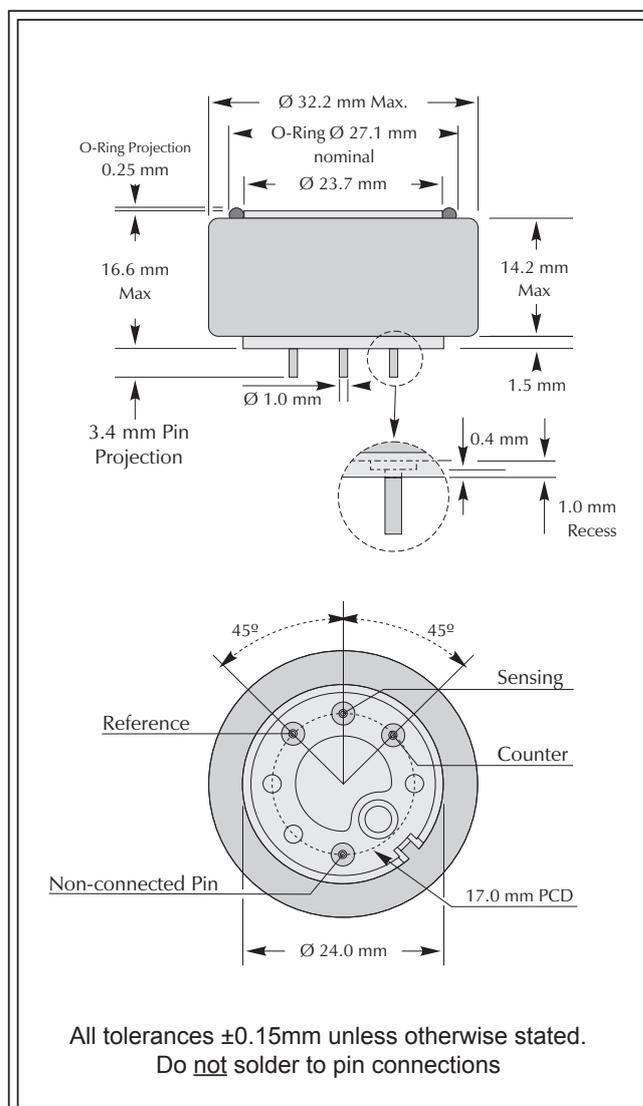
Nitrogen Dioxide CiTiceL[®] Specification7NDH CiTiceL[®]**Performance Characteristics**

Nominal Range	0-20 ppm
Maximum Overload	200 ppm
Expected Operating Life	Two years in air
Output Signal	1.40 ± 0.30 µA/ppm
Resolution	0.1 ppm
Temperature Range	-20°C to +50°C
Pressure Range	Atmospheric ± 10%
Pressure Coefficient	No data
T₉₀ Response Time	T ₉₀ < 40 seconds
Relative Humidity Range	15 to 90% non-condensing
Typical Baseline Range (pure air)	-0.1 to 0.1 ppm equivalent
Maximum Zero Shift (+20°C to +40°C)	0.2 ppm equivalent
Long Term Output Drift	<2% signal loss/month
Recommended Load Resistor	33 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 1013 mBar

Physical Characteristics

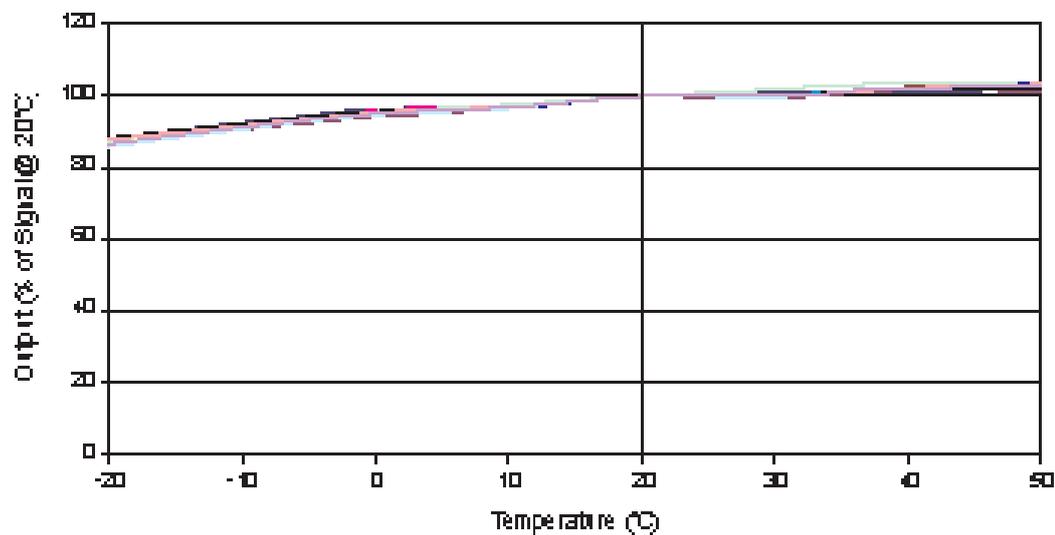
Weight	17 g
Position Sensitivity	None
Storage Life	Six months in CTL container
Recommended Storage Temperature	0-20°C
Warranty Period	12 months from date of despatch



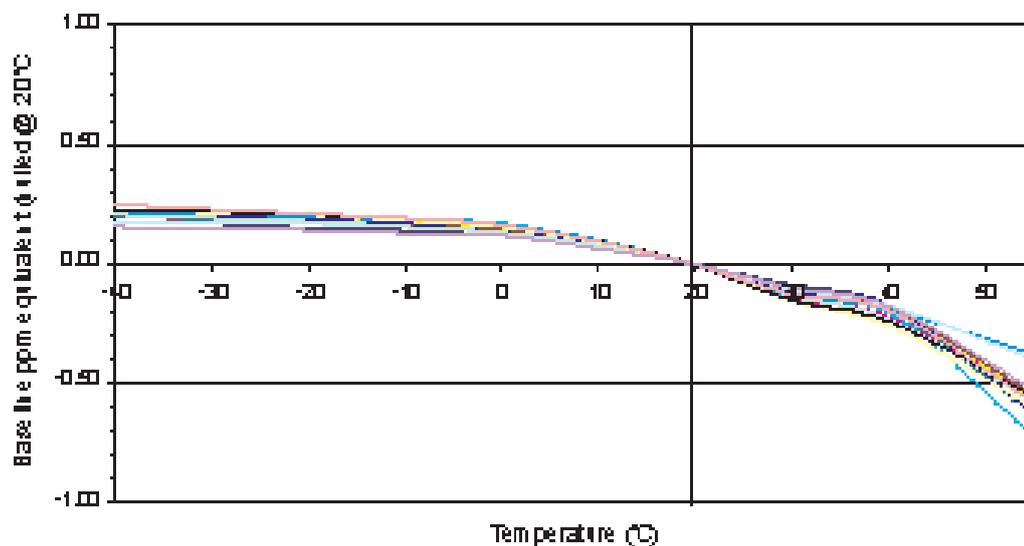
IMPORTANT NOTE: Connection should be made via PCB sockets only. Soldering to the pins will render your warranty void.

Nitrogen Dioxide CiTiceL[®] Specification

7NDH Nitrogen dioxide CiTiceL- Output vs Temperature



7NDH Nitrogen dioxide CiTiceL- Baseline vs Temperature



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Cross-sensitivity Data

CiTiceLs may exhibit a response to certain gases in a sample other than the target gas. 7NDH 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.	7NDH	Gas	Conc.	7NDH
Carbon monoxide:	300ppm	0ppm	Hydrogen:	100ppm	0ppm
Hydrogen sulphide:	15ppm	$-1.5 \leq x \leq 0$ ppm	Hydrogen cyanide:	10ppm	0ppm
Sulphur dioxide:	5ppm	$-0.05 \leq x \leq 0$ ppm	Hydrogen chloride:	5ppm	0ppm
Nitric oxide:	35ppm	0ppm	Ethylene:	100ppm	0ppm
Chlorine:	1ppm	≈ 1 ppm	**For details of other possible cross-interfering gases contact City Technology.**		

SAFETY NOTE

This sensor is designed to be used in safety critical applications. To ensure that the sensor and/or instrument in which it is used, are operating properly, it is a requirement that the function of the device is confirmed by exposure to target gas (bump check) before each use of the sensor and/or instrument. Failure to carry out such tests may jeopardize the safety of people and property.

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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.