Nitric oxide CiTiceL® Specification



7NT Compact CiTiceL

Performance Characteristics

Nominal Range | 0-100ppm Maximum Overload | 1500ppm

Expected Operating Life Three years in air

Output Signal $0.55 \pm 0.11 \,\mu\text{A/ppm}$

Resolution 0.5ppm

Temperature Range $-20^{\circ}\text{C to } +50^{\circ}\text{C}$

Pressure Range Atmospheric ± 10%

Pressure Coefficient 0.016% signal/mBar

 T_{90} Response Time ≤ 15 seconds

Relative Humidity Range 15 to 90% non-condensing

Typical Baseline Range 0 to +3ppm equivalent

(pure air)

Maximum Zero Shift | 9ppm equivalent

 $(+20^{\circ}\text{C to } +40^{\circ}\text{C})$

Long Term Output Drift <2% signal loss/month

Recommended Load

Resistor

Bias Voltage +300mV

 10Ω

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

Weight | 17g.

Position Sensitivity | None

Storage Life | Six months in CTL container

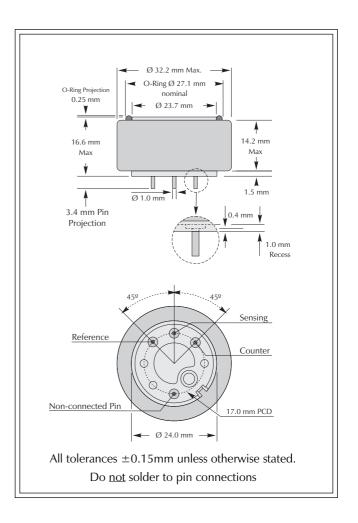
Recommended Storage Temperature

Storage 0-20°C

Warranty Period 12 months from date of

despatch

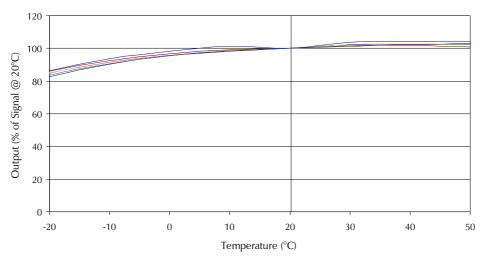
Doc. Ref.: 7NT.p65 Issue 4.4 May 10, 2000



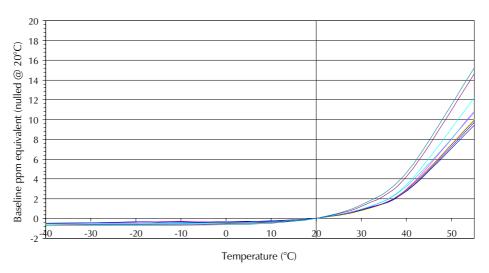
IMPORTANT NOTE: Connection should be made via PCB sockets only. Soldering to the pins will render your warranty void.



7NT Nitric oxide CiTiceL - Output vs Temperature



7NT Nitric oxide CiTiceL - Baseline vs Temperature



Cross-sensitivity Data

CiTiceLs may exhibit a response to certain gases in a sample other than the target gas. 7NT 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.	<u>7NT</u>	Gas	Conc.	7NT
Carbon monoxide:	300ppm	0ppm	Chlorine:	1ppm	0ppm
Hydrogen sulphide:	15ppm	≈5ppm	Hydrogen:	100ppm	0ppm
Sulphur dioxide:	5ppm	0ppm	Hydrogen cyanide:	10ppm	0ppm
Nitrogen dioxide:	5ppm	<1.5ppm	Hydrogen chloride:	5ppm	<1ppm
Nitrous oxide:	100ppm	0ppm	Ethylene:	100ppm	0ppm
	For deta	ils of other possible o	cross-interfering gases contact City Tec	chnology.	• •

Ordering Information:

Also available with bias board - 7BNT

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.