

## Nitrogen Dioxide CiTiceL<sup>®</sup> Specification



# T3ND CiTiceL<sup>®</sup>

### Performance Characteristics

<b>Sensor Type Used</b>	3ND
<b>Expected Operating Life</b>	Two years in air
<b>Resolution</b>	0.1ppm
<b>Temperature Range</b>	-20°C to +50°C
<b>Pressure Range</b>	Atmospheric ± 10%
<b>Pressure Coefficient</b>	No data
<b>T<sub>90</sub> Response Time</b>	<35 seconds
<b>Relative Humidity Range</b>	15 to 90% non-condensing
<b>Maximum Zero Shift (+20°C to +40°C)</b>	0.2ppm equivalent
<b>Long Term Output Drift</b>	<2% signal loss/month
<b>Repeatability</b>	2% of signal
<b>Output Linearity</b>	Linear

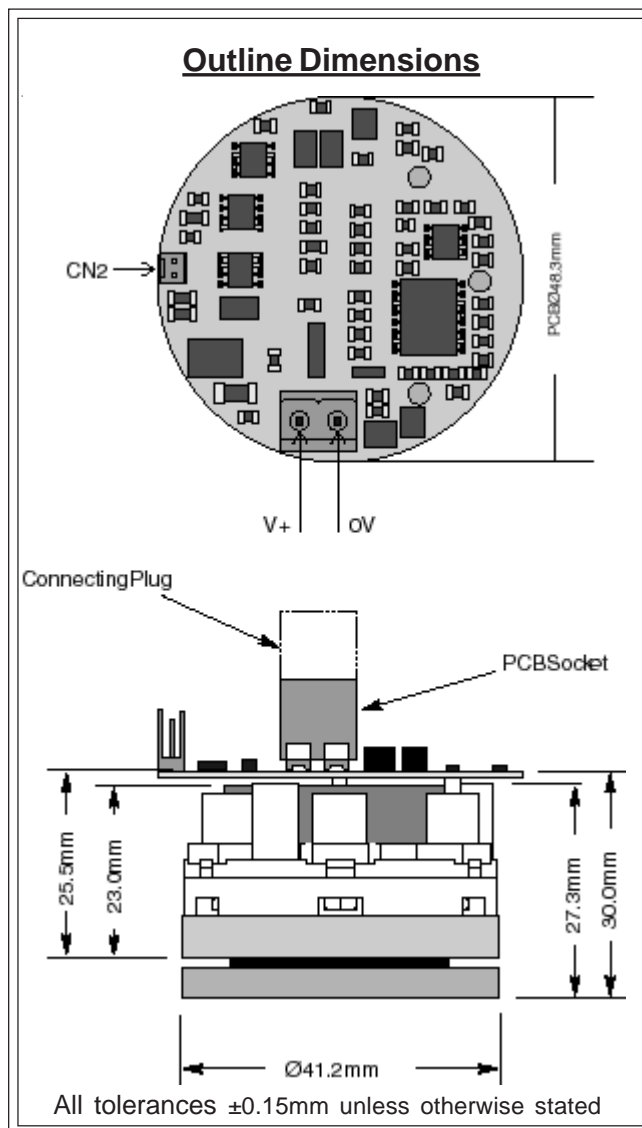
N.B. All performance data is based on conditions at 20°C, 50%RH, and 1013mBar

### Electrical Properties

<b>Output</b>	4-20mA d.c.
<b>Operating Voltage</b>	10 to 35V d.c. single-ended
<b>Calibration</b>	Via built-in span and zero potentiometers
<b>Output Impedance</b>	4MΩ

### Physical Characteristics

<b>Weight</b>	58g (incl. mounting accessory)
<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



### Ranges Available

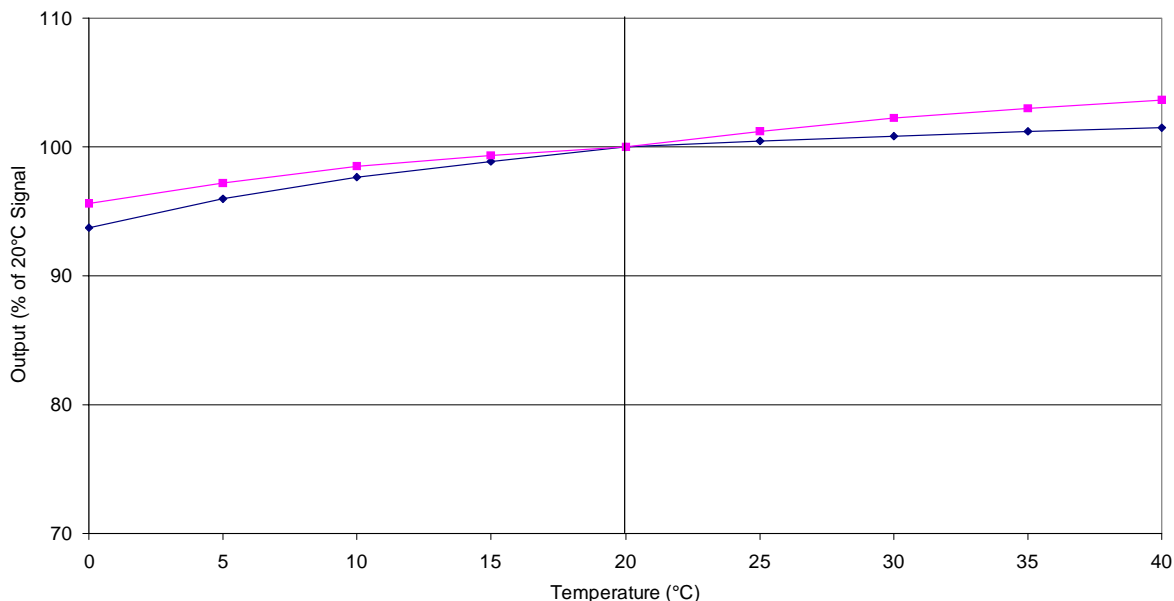
T3NDCiTiceL 4-20mA Transmitters are available with the following precalibrated range, and can be recalibrated to an intermediate range:

Range	Order Code
0-300ppm .....	TG2H-1A

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**3ND Nitrogen Dioxide - Output vs Temperature**



### Cross-sensitivity Data

CiTiceLs may exhibit a response to certain gases in a sample other than the target gas. The table below shows the typical response of 3ND CiTiceLs to a number of common cross-interfering gases. The figures are expressed as a percentage of the primary sensitivity (i.e. nitrogen dioxide = 100%).

<u>Gas</u>	<u>Response</u>	<u>Gas</u>	<u>Response</u>
Carbon monoxide:	<1%	Hydrogen:	< -1%
Hydrogen sulphide:	-40<x<0%	Hydrogen chloride:	< -1%
Sulphur dioxide:	-4<x<0%	Ethylene:	n/d
Nitric oxide:	< 1%		

\*\* For details of other possible cross-interfering gases contact City Technology.\*\*

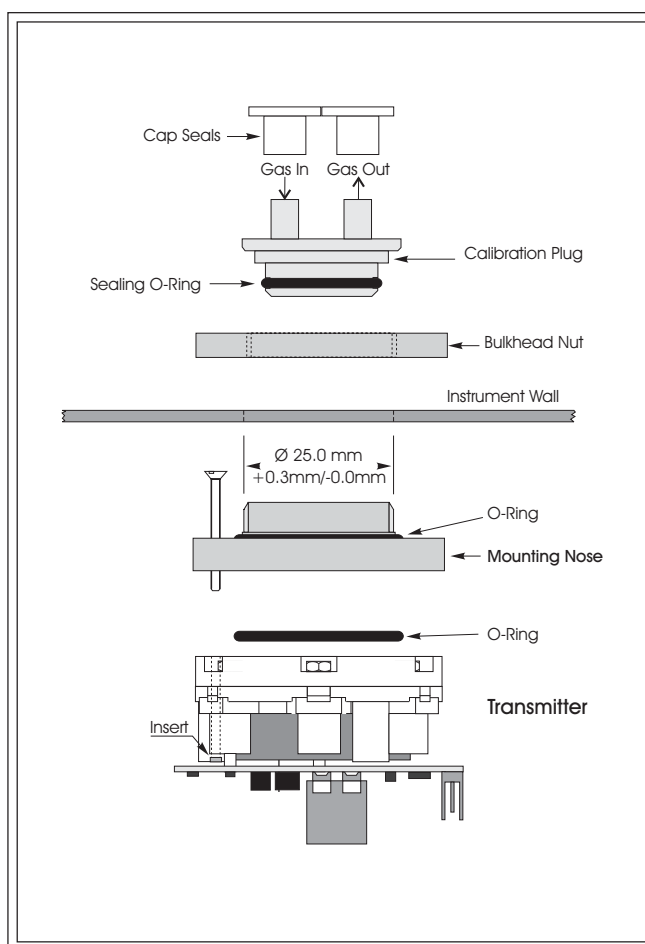
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### Mounting

A diffusion mounting assembly, the "nose" adaptor, is supplied with CiTiceL transmitters for convenient mounting in a wide range of weatherproof housings. The nose adaptor requires a 25mm diameter hole in the outside wall of the housing to allow installation. The assembly is shown below.

The Mounting Nose also features a plug for easy zeroing and exposure to gas during calibration. A bonded membrane and mesh is included to prevent the ingress of dirt and dust particles to the CiTiceL.



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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.