



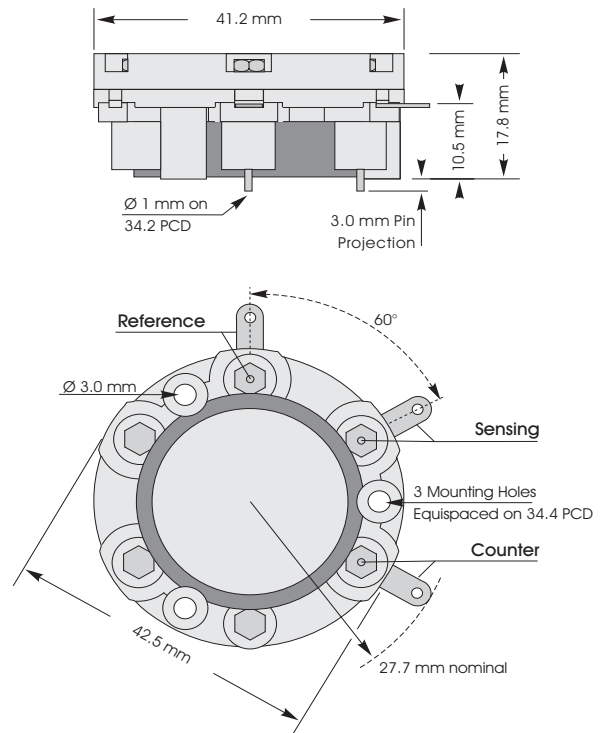
# 3ND CiTiceL<sup>®</sup>

## Performance Characteristics

<b>Nominal Range</b>	0-100ppm
<b>Maximum Overload</b>	1000ppm
<b>Expected Operating Life</b>	Two years in air
<b>Output Signal</b>	0.37 ± 0.07 µA/ppm
<b>Resolution at 20°C</b>	0.5ppm
<b>Temperature Range</b>	-20°C to +50°C
<b>Pressure Range</b>	Atmospheric ± 10%
<b>Pressure Coefficient</b>	0.037% signal/mBar
<b>T<sub>90</sub> Response Time</b>	<35 seconds
<b>Relative Humidity Range</b>	15 to 90% non-condensing
<b>Typical Baseline Range (pure air)</b>	0 to 0.2ppm equivalent
<b>Maximum Zero Shift (+20°C to +40°C)</b>	-1ppm equivalent
<b>Long Term Output Drift</b>	<2% signal loss/month
<b>Recommended Load Resistor</b>	33 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.  
 3ND shown with side tags and tin pins.  
 Do not solder to pin connections

## Physical Characteristics

<b>Weight</b>	22g
<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

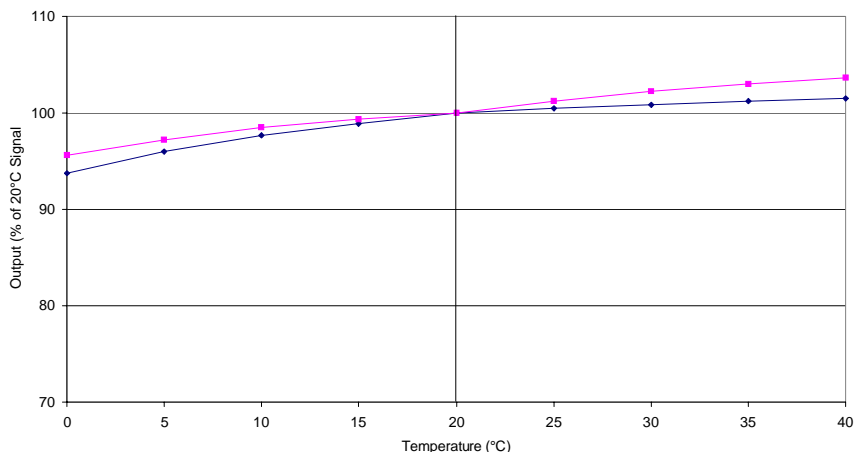


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# Nitrogen dioxide CiTiceL<sup>®</sup> Specification



**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.\*\*

n/d: No data, under investigation

## Ordering Information

The 3ND Nitrogen Dioxide CiTiceL is available with side tags, gold-plated PCB pins, or both PCB pins and side tags. To ensure the appropriate option is supplied care must be taken to provide the correct code when ordering.

<p><b>Type 3ND:-</b> With side tag and PCB pin connections - <b>3ND</b>                  With side tag connection - <b>3ND(S)</b>                  With gold-plated PCB pin connection - <b>3ND(G)</b></p>
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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.