

## Ammonia CiTiceL<sup>®</sup> Specification



# 7NH CiTiceL<sup>®</sup>

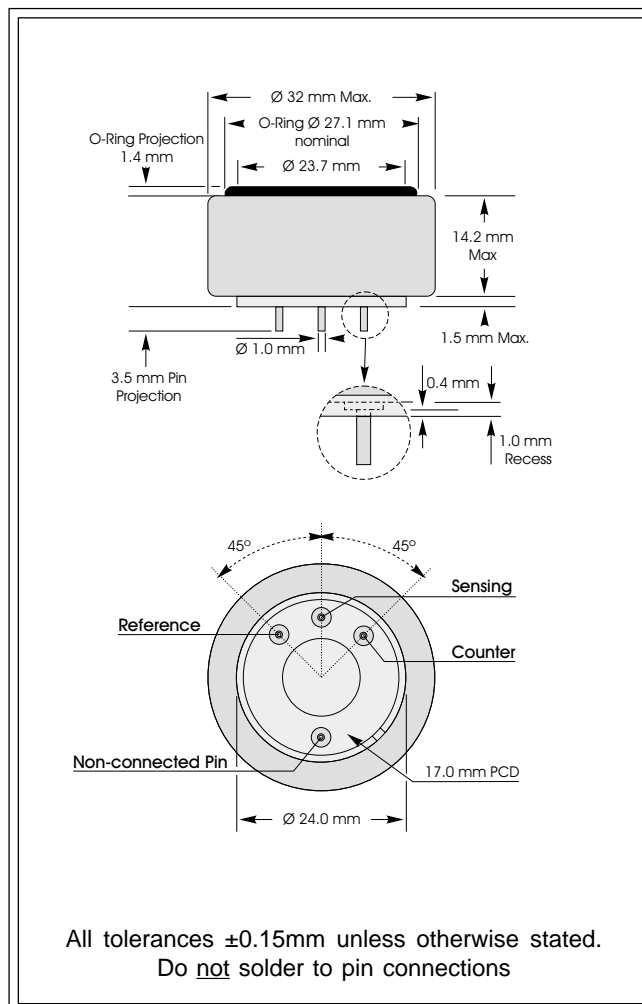
For fixed point gas detection

### Performance Characteristics

<b>Nominal Range</b>	0-200ppm
<b>Maximum Overload</b>	500ppm
<b>Expected Operating Life</b>	Two years
<b>Output Signal</b>	0.12 ± 0.04 μA/ppm
<b>Resolution</b>	1ppm
<b>Temperature Range</b>	-40°C to +50°C
<b>Pressure Range</b>	Atmospheric ± 10%
<b>Pressure Coefficient</b>	No data
<b>T<sub>90</sub> Response Time</b>	<90 seconds (typically 60s.)
<b>Relative Humidity Range*</b>	15 to 90% non-condensing
<b>Typical Baseline Range (pure air)</b>	0 to +10ppm equivalent
<b>Maximum Zero Shift (+20°C to +40°C)</b>	10ppm equivalent
<b>Long Term Output Drift</b>	<2% signal loss/month
<b>Recommended Load Resistor</b>	10 Ω
<b>Bias Voltage</b>	+300mV
<b>Repeatability</b>	10% of signal
<b>Output Linearity</b>	Linear

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

\* If there are sudden changes in ambient humidity, there may be a transient signal of as much as +3ppm/-3ppm for an increase/decrease of 10% RH respectively. This should decrease within 5 minutes.



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

### Physical Characteristics

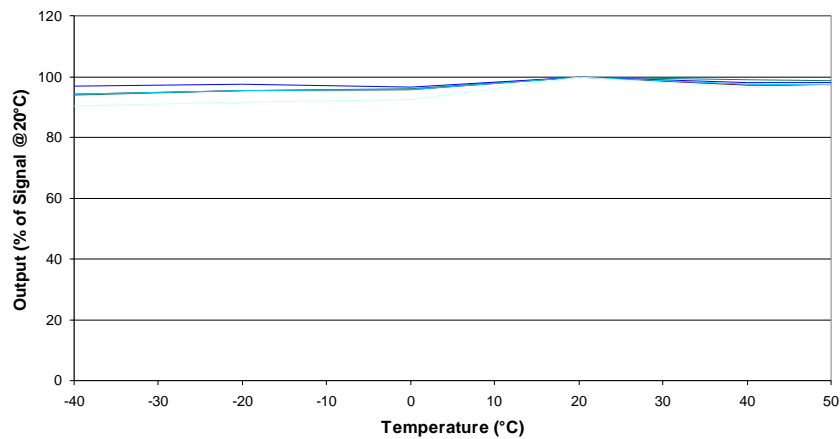
<b>Weight</b>	12g
<b>Position Sensitivity</b>	None
<b>Storage Life</b>	Six months in CTL container
<b>Recommended Storage Temperature</b>	0-20°C
<b>Warranty Period</b>	12 months from date of despatch

**Ordering Information:**  
Also available with bias board - 7BNH

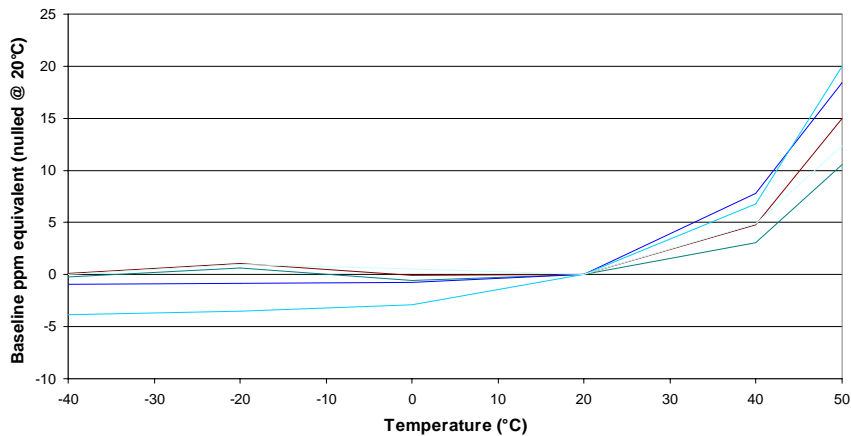
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7NH Ammonia CiTiceL- Output vs Temperature



7NH Ammonia CiTiceL - Baseline vs Temperature



## Cross-sensitivity Data

CiTiceLs may exhibit a response to certain gases in a sample other than the target gas. 7NH 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.	7NH	Gas	Conc.	7NH
Carbon monoxide:	300ppm	≈ 8ppm	Chlorine:	1ppm	≈ -1ppm
Hydrogen sulphide:	15ppm	≈ 30ppm	Hydrogen:	200ppm	≈ 4ppm
Sulphur dioxide:	5ppm	≈ -0.5ppm	Hydrogen cyanide:	10ppm	0ppm
Nitric oxide:	35ppm	≈ 6ppm	Hydrogen chloride:	5ppm	≈ -3ppm
Nitrogen dioxide:	5ppm	≈ -1ppm	Ethylene:	100ppm	0ppm
Carbon Dioxide	10%	≈ -15ppm			

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

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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.