

Key Features & Benefits:

- Capable of continuous measurement
- 4th electrode for additional temperature stability

Technical Specifications

MEASUREMENT

Operating Principle	4-electrode electrochemical
Measurement Range	0-50 ppm NO ₂
Maximum Overload	200 ppm
Output Signal	0.5 ± 0.1 µA/ppm
Response Time (T ₉₀)	< 40 seconds
Typical Baseline Offset (clean air)	-0.75 to +0.75 ppm equivalent
Repeatability	2% of signal
Linearity	Linear

ELECTRICAL

Recommended Load Resistor	10 Ω
Bias Voltage	Not Required
Recommended Gain	0.8

MECHANICAL

Weight	16 g (nominal)
Housing Material	20% glass-filled polypropylene
Orientation	Any

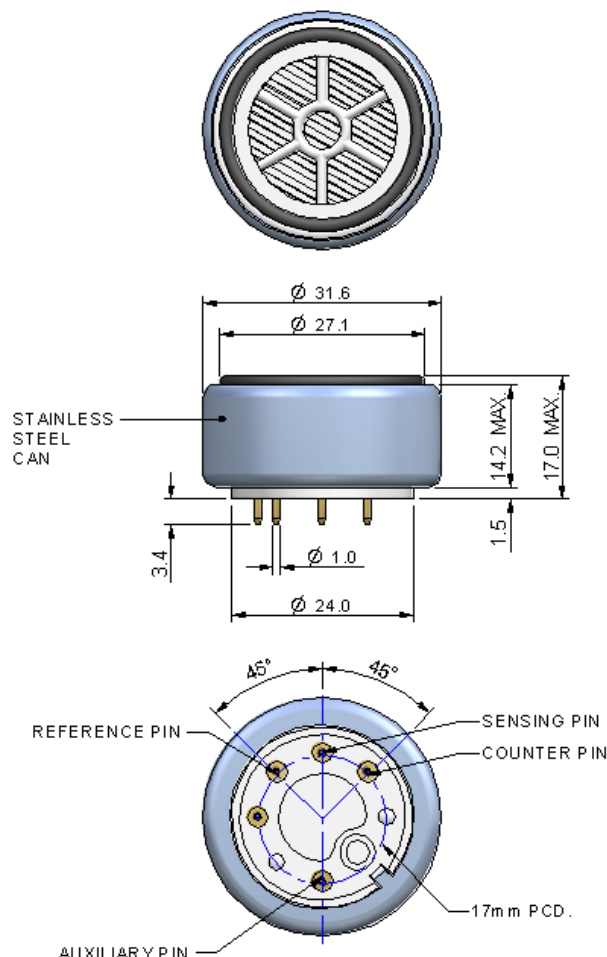
ENVIRONMENTAL

Typical Applications	Inhaled Nitric Oxide Therapy
Operating Temperature Range	-20°C to +50°C
Recommended Storage Temp	0°C to +20°C
Operating Pressure Range	800 - 1200 mBar
Differential Pressure Range	±100 mBar
Operating Humidity Range	15% to 90% RH non-condensing

LIFETIME

Typical Long Term Output Drift	2% signal loss/month
Expected Operating Life	1 year
Standard Warranty	12 months from date of despatch

Product Dimensions



All dimensions in mm
All tolerances ±0.15 mm
unless otherwise stated

IMPORTANT NOTE:

Connection should be made via recommended mating parts only. Soldering to the sensor will damage it and invalidate the warranty.

All performance data is based on measurements made with cylinder gases using a flow rate of 100 mls/min. Conditions at 20°C, 50% RH and 1013 mBar, using City Technology recommended circuitry. For sensor performance data under other conditions, contact City Technology.

Poisoning

CiTiceLs are designed for operation in a wide range of environments and harsh conditions, however it is important that exposure to high concentrations of solvent vapours is avoided, both during storage, fitting into instruments and operation.

When using sensors with printed circuit boards (PCBs), degreasing agents should be used before the sensor is fitted. Do not glue directly on or near the CiTiceL as the solvent may cause crazing of the plastic.

Cross Sensitivity Table

Whilst CiTiceLs are designed to be highly specific to the gas they are intended to measure, they will still respond to some degree to various gases. The table below is not exclusive and other gases not included in the table may still cause a sensor to react.

<u>Gas</u>	<u>Response</u>
Carbon Monoxide (CO)	None
Nitrous Oxide (N ₂ O)	None
Nitric Oxide (NO)	None
Desflurane	None
Isoflurane	None
Halothane	None

The cross-sensitivity values quoted are based on tests conducted on a small number of sensors. They are intended to indicate sensor response to gases other than the target gas. Sensors may behave differently with changes in ambient conditions and any batch may show significant variation from the values quoted.

N.B. Unaffected by operation in 100% oxygen

WARNING: By the nature of the technology used, any electrochemical or catalytic bead sensor can potentially fail to meet specification without warning. Although City Technology makes every effort to ensure the reliability of our products of this type, where life safety is a performance requirement of the product, and we recommend that all sensors and all instruments using these sensors are checked for response to gas before use.

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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.