

Nitric oxide CiTiceL[®] Specification

3NF/F CiTiceL

Performance Characteristics

Nominal Range	0-1000ppm
Maximum Overload	5000ppm
Inboard Filter	To remove effect of SO ₂ in flue stream
Expected Operating Life	Three years in air
Output Signal	0.10 ± 0.02 μA/ppm
Resolution	1ppm
Operating Temperature Range *see Note1	-20°C to +40°C
Pressure Range	Atmospheric ± 10%
Pressure Coefficient	0.01% signal/mBar
T₉₀ Response Time	≤25 seconds
Relative Humidity Range	15 to 90% non-condensing
Typical Baseline Range (pure air)	0 to +12ppm equivalent
Maximum Zero Shift (+20°C to +40°C)	30ppm equivalent
Long Term Output Drift	<2% signal loss/month
Recommended Load Resistor	10 Ω
Bias Voltage	+300mV
Repeatability	2% of signal
Output Linearity	Linear

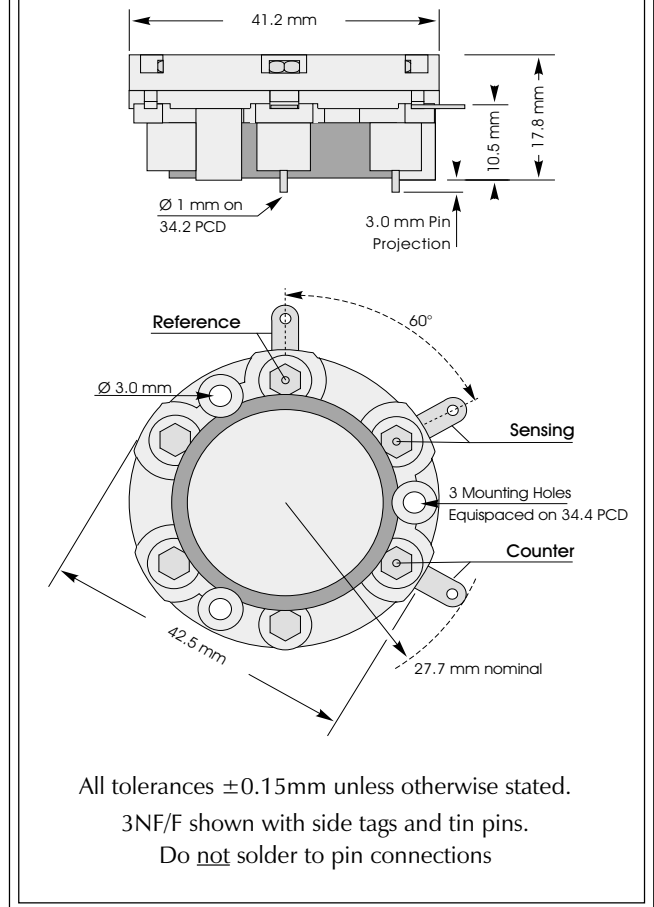
Note1: While not being used to measure NO the 3NF/F can withstand temperatures of up to +50°C

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

Physical Characteristics

Weight	22g
Position Sensitivity	None
Storage Life	Six months in CTL container
Recommended Storage Temperature	0-20°C
Warranty Period	12 months from date of despatch

Outline Dimensions

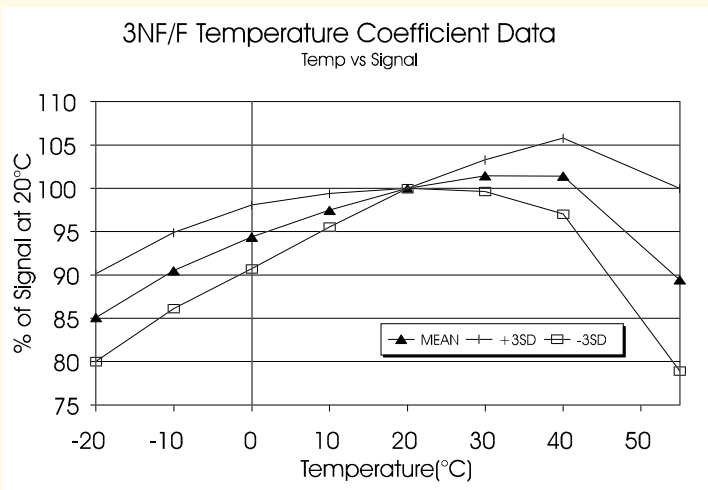




Temperature Dependence

The output of a CiTiceL can vary with temperature. The graph here shows the variation in output with temperature for 3NF/F CiTiceLs based on a sample of about 16 sensors. The results are shown in the graph as a mean for the batch, and expressed as a percentage of the signal at 20°C.

From a statistical viewpoint, for a sample of this size, the range in values observed for all sensors of this type will fall within a range three times the standard deviation above or below the mean. Assuming therefore this sample is typical, then the temperature behaviour of all 3NF/F CiTiceLs will fall in the band +3SD to -3SD.



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 3NF/F sensors to a number of common cross-interfering gases. The figures are expressed as a percentage of the primary sensitivity (i.e. nitric oxide = 100%).

Gas	Response	Gas	Response
Carbon monoxide:	0	Hydrogen:	0
Hydrogen sulphide:	0	Hydrogen chloride:	<5
Sulphur dioxide:	0	Ethylene:	0
Nitrogen dioxide:	<10	** For details of other possible cross-interfering gases contact City Technology.**	

Ordering Information

The 3NF/F Nitric Oxide 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.

Type 3NF/F:- With side tag and PCB pin connections - **3NF/F**
 With side tag connection - **3NF/F(S)**
 With gold-plated PCB pin connection - **3NF/F(G)**

Also available with bias board - 3BNF/F

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