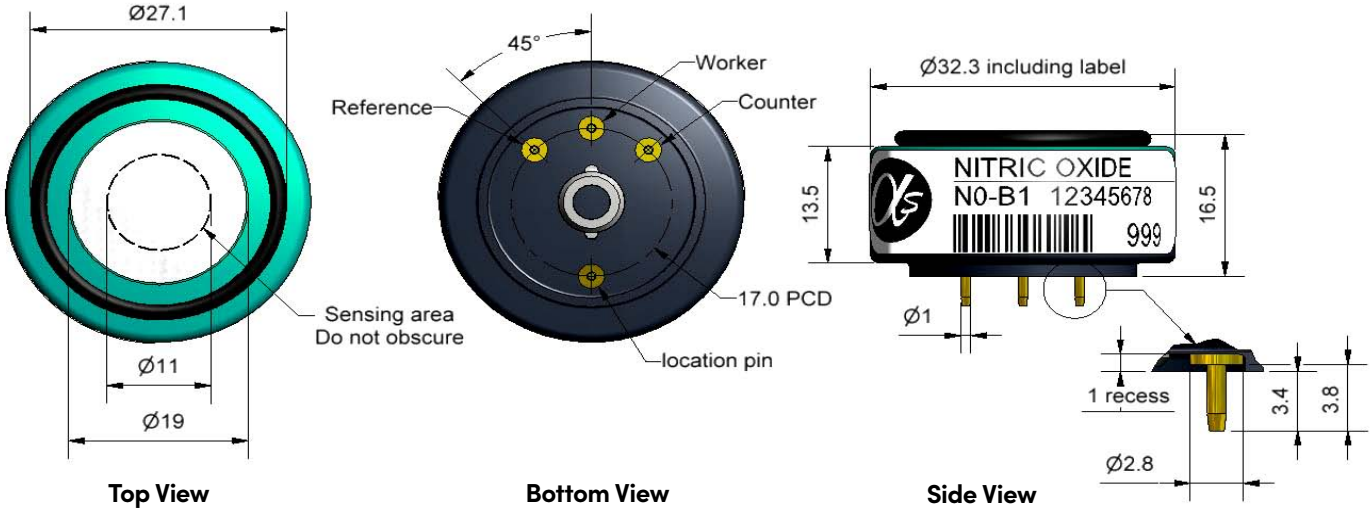
NO-B1 Nitric Oxide Sensor



Top View **Bottom View** **Side View**

Dimensions are in millimetres (± 0.1 mm).

Performance	Sensitivity	nA/ppm in 50ppm NO		400 to 620
	Response time	t90 (s) from zero to 50ppm NO		< 30
	Zero current	ppm equivalent in zero air		0 to +4
	Resolution	RMS noise (ppm equivalent)		< 0.15
	Range	ppm NO limit of performance warranty		250
	Linearity	ppm error at full scale, linear at zero and 50ppm NO		-20 to -25
	Overgas limit	maximum ppm for stable response to gas pulse		1,200
Lifetime	Zero drift	ppm equivalent change/year in lab air		< 0.3
	Sensitivity drift	% change/year in lab air, monthly test		< 5
	Operating life	months until 80% original signal (24-month warranted)		> 24
Environmental	Sensitivity @ -20°C	% (output @ -20°C/output @ 20°C) @ 50ppm NO		89 to 98
	Sensitivity @ 50°C	% (output @ 50°C/output @ 20°C) @ 50ppm NO		97 to 104
	Zero @ -20°C	ppm equivalent change from 20°C		< 0 to -2
	Zero @ 50°C	ppm equivalent change from 20°C		< 6 to 20
Cross Sensitivity	H_2S sensitivity	% measured gas @ 20ppm	H_2S	< 60
	NO_2 sensitivity	% measured gas @ 10ppm	NO_2	< 5
	Cl_2 sensitivity	% measured gas @ 10ppm	Cl_2	< 5
	SO_2 sensitivity	% measured gas @ 20ppm	SO_2	< 4
	H_2 sensitivity	% measured gas @ 400ppm	H_2	< 0.1
	CO sensitivity	% measured gas @ 400ppm	CO	< 0.1
	NH_3 sensitivity	% measured gas @ 20ppm	NH_3	< 0.1
	CO_2 sensitivity	% measured gas @ 5% volume	CO_2	< 0.1
Key Specifications	Bias voltage	mV (working electrode potential is above ground)		+300
	Temperature range	°C		-30 to 50
	Pressure range	kPa		80 to 120
	Humidity range	% rh continuous		15 to 90
	Storage period	months @ 3 to 20°C (stored in sealed pot)		6
	Load resistor	Ω (recommended)		10 to 47
	Weight	g		< 13

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For further information on the performance of this sensor, on other sensors in the range or any other subject, please contact Alphasense Ltd. or visit our website at "www.alphasense.com".

Figure 1 Sensitivity Temperature Dependence

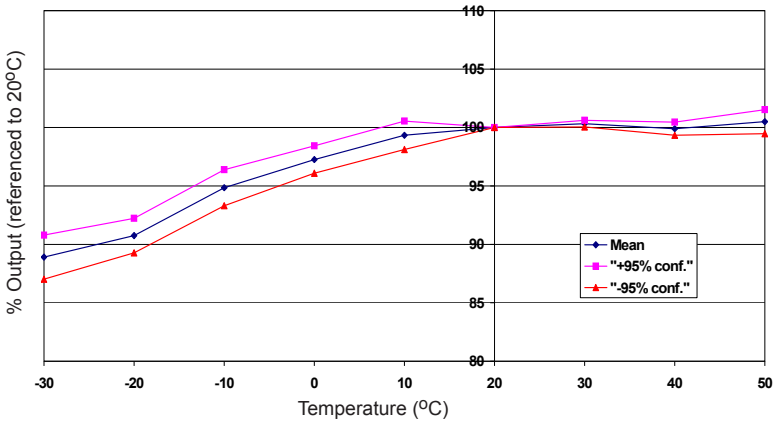


Figure 1 shows the variation in sensitivity caused by changes in temperature.

This data is taken from a typical batch of sensors. The mean and ±95% confidence intervals are shown.

Figure 2 Zero Temperature Dependence

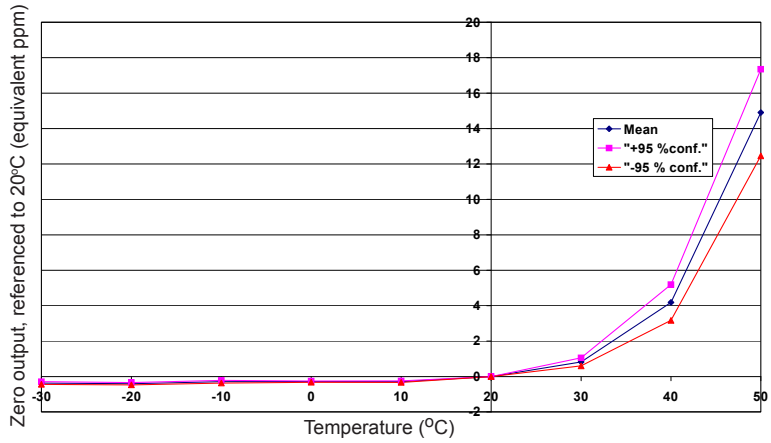
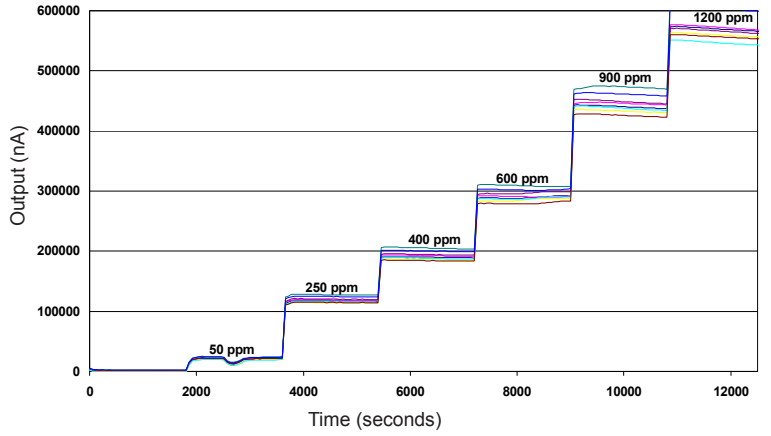


Figure 2 shows the variation in zero output caused by changes in temperature, expressed as ppm gas equivalent, referenced to zero at 20°C.

This data is taken from a typical batch of sensors. The mean and ±95% confidence intervals are shown.

Figure 3 NO-B1 Response to 1,200ppm NO



The NO-B1 responds rapidly to gas concentrations up to 1,200ppm NO.

This data is taken from a typical batch of sensors.

At the end of the product's life, do not dispose of any electronic sensor, component or instrument in the domestic waste, but contact the instrument manufacturer, Alphasense or its distributor for disposal instructions. NOTE: all sensors are tested at ambient environmental conditions unless otherwise stated. As applications of use are outside our control, the information provided is given without legal responsibility. Customers should test under their own conditions, to ensure that the sensors are suitable for their own requirements.

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