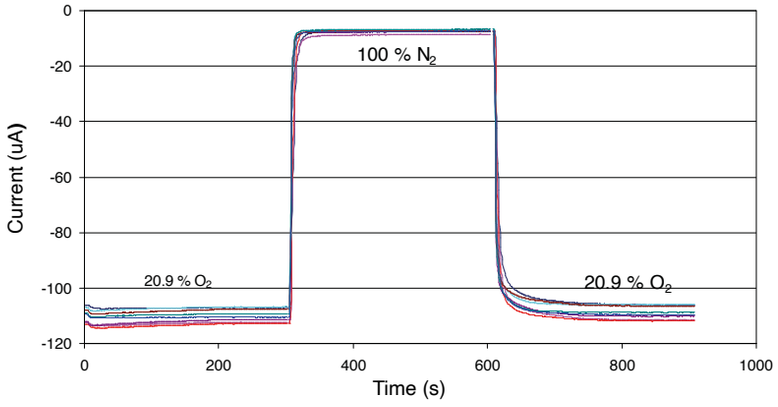
LFO2-A4 Oxygen sensor – Lead-free 3-electrode

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

Dimensions are in millimetres (± 0.15 mm).

Performance	Output	µA @ 20.9% O_2	80 to 130
	Response time	t90 (s) from 20.9% to 0% O_2	< 17
	Linearity	% O_2 deviation @ 10% O_2	< 0.10
Lifetime	Sensitivity @ -20°C	% (output @ -20°C/output @ 20°C)	80 to 90
	Sensitivity @ 50°C	% (output @ 50°C/output @ 20°C)	105 to 115
	Output drift	% change in output @ 3 months	< 1
	Warranty	Months	12
	Operating life	Months until 85% original output of 20.9% O_2	> 60
Key Specifications	Temperature range	°C	-30 to 50
	Pressure range	kPa	80 to 120
	Humidity range	% rh continuous (0 to 99 %rh short term)	5 to 95
	Storage period	Months @ 3 to 20°C (store in sealed pot, open circuit)	6
	Bias voltage	mV	-600
	Diameter	mm (including label)	20.0
	Height	mm (including foam ring)	17.4
	Weight	g	< 6

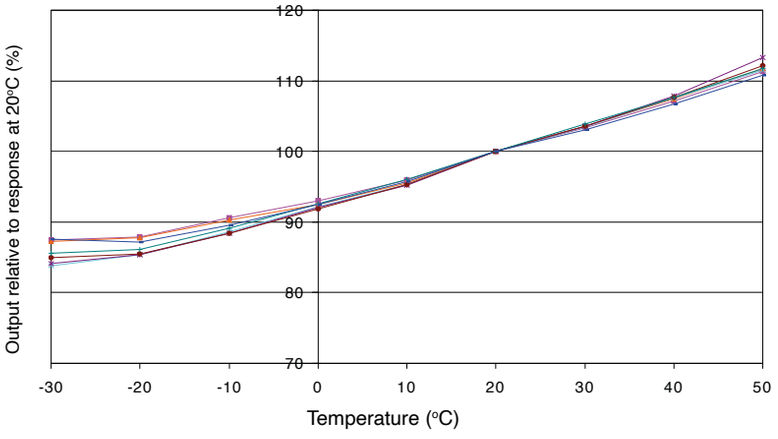
Figure 1 Response to 20.9% Oxygen



Sensor response is fast and repeatable, returning rapidly to the baseline.

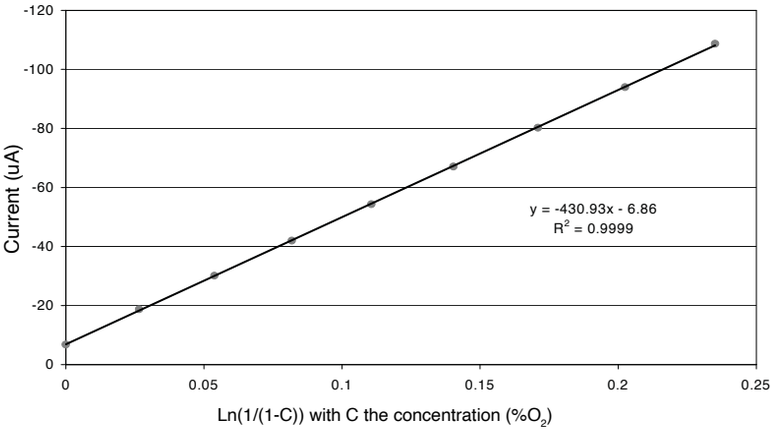
The sensor must be biased at -600mV continuously if instant response is required when swiching on the gas detector.

Figure 2 Sensitivity Temperature Dependence



The very repeatable and nearly linear sensitivity temperature dependence allows for simple correction in software.

Figure 3 Linearity to 20.9% Oxygen



Although the signal is nearly linear up to 30% O_2, theory is proven to be accurate by fitting the output with the function K*Ln(1/(1-C)).