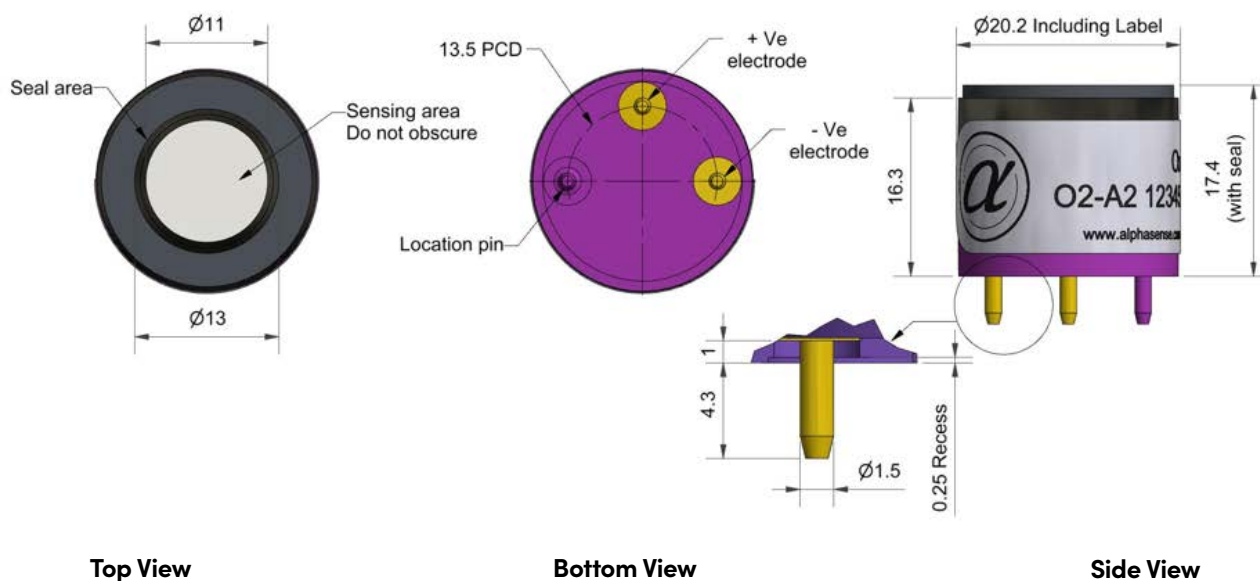


O2-A2 Oxygen Sensor



Dimensions are in millimetres (± 0.15 mm).

Performance	Output	μA @ 20.9% O_2	80 to 120
	Response time	t_{90} (s) from 20.9% to 0% O_2	< 15
	Zero current	μA in N_2	< 2.5
	Linearity	% O_2 deviation @ 10% O_2	0.6

Lifetime	Output drift	% change in output @ 3 months	< 1
	Operating life	Months until 85% original output in 20.9% O_2	> 24

Environmental	Humidity sensitivity	% O_2 change: 0% to 95% rh @ 40°C	< 0.7
	CO_2 sensitivity	%(change O_2 reading)/% CO_2 @ 5% CO_2	0.1
	Pressure sensitivity	(% change of output)/(% change of pressure) @ 20kPa	< 0.1

Key Specifications	Temperature range	$^{\circ}\text{C}$	-30 to 55
	Pressure range	kPa	80 to 120
	Humidity range	% rh non-condensing (0 to 99% rh short term)	5 to 95
	Storage period	Months @ 3 to 20°C (store in sealed pot, open circuit)	6
	Load resistor	Ω (recommended)	47 to 100
	Diameter	mm (including label)	20.0
	Height	mm (including foam ring)	17.4
Weight	g	< 16	

Figure 1 Output Temperature Dependence

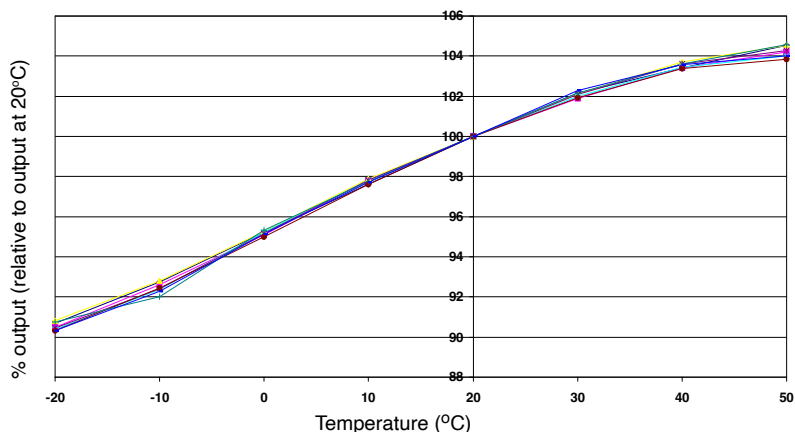
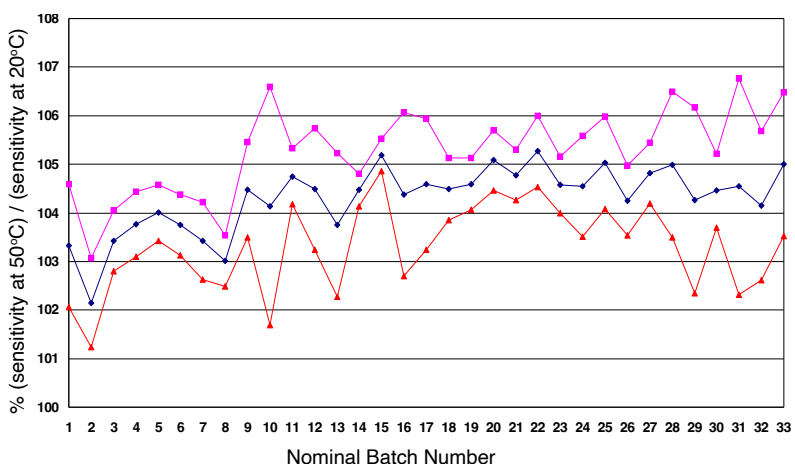


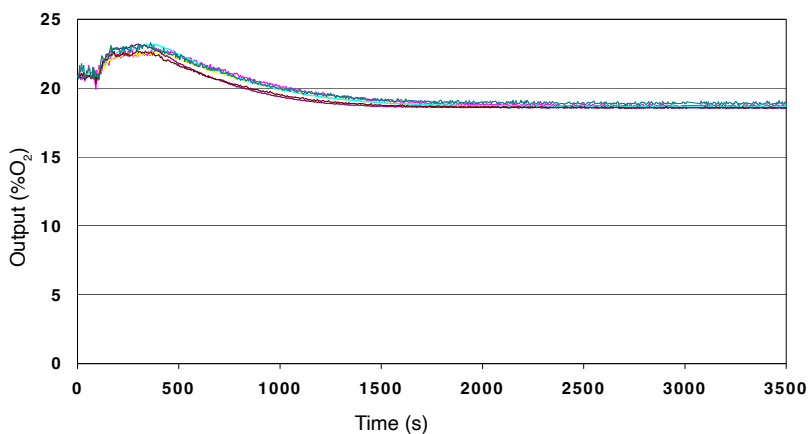
Figure 1 shows the variation in sensitivity caused by changes in temperature. Temperature dependence is very repeatable.

Figure 2 Sensitivity at 50°C



This plot of the mean and $\pm 95\%$ confidence intervals for 34 batches shows superior repeatability of the sensitivity dependence from batch to batch, giving confidence when setting temperature compensation in your gas detector.

Figure 3 Thermal Transient Performance



Sensors were thermally shocked from 20°C to -30°C. Consistent manufacture and good design ensure that there are no thermal spikes which can cause an alarm.