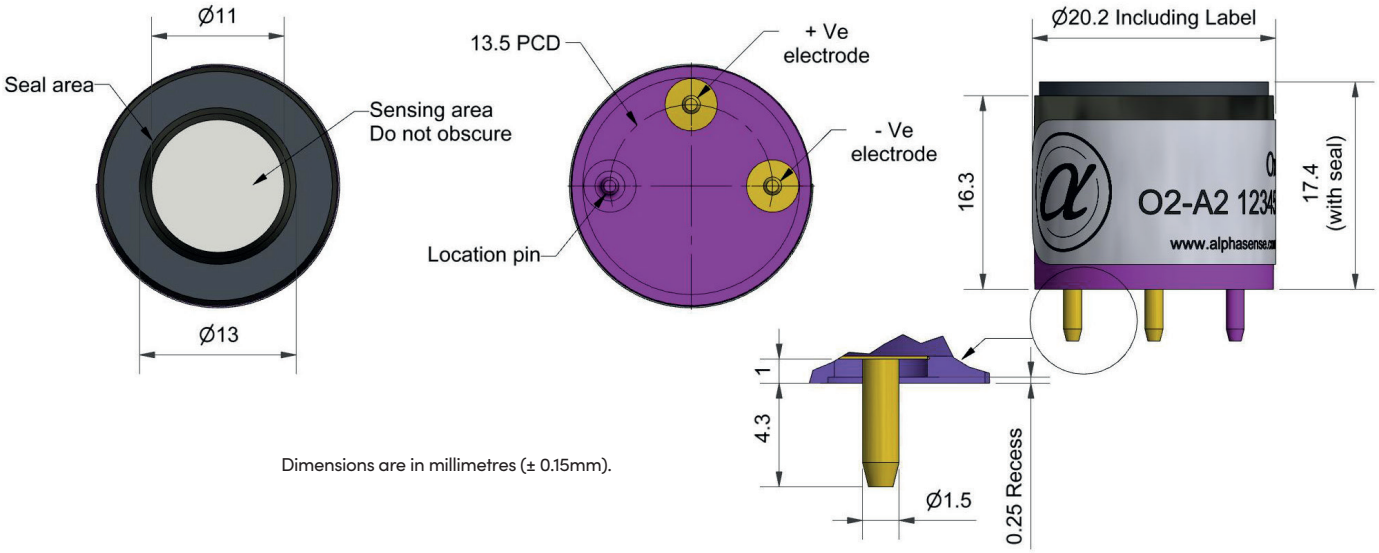
O2-A2 Oxygen Sensor

The O2-A2 Oxygen sensor is a vital component in safety monitoring, both in portable and fixed monitors. With its patented no-leak design, the O2-A2 offers uncompromised reliability and accuracy for your instruments. The O2-A2 Oxygen sensor boasts a lifespan of 2 years. Alphasense O2 sensors have been the sensor of choice for over 20 years, providing the most accurate and unmatched sensor performance in the market.

O2-A2 Oxygen Sensor (2-year life span)



Dimensions are in millimetres (± 0.15mm).

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

Performance	Output	µA @ 20.9% O_2	80 to 120
	Response time	t90 (s) from 20.9% to 0% O_2	< 13
		Typical mean response time	**8**
	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 of 20.9% O_2	> 24
Environmental	Humidity sensitivity	% O_2 change: 0% to 95% rh @ 40°C	< 0.7
	CO_2 sensitivity	% change in output / % CO_2 @ 5% CO_2	0.1
	Pressure sensitivity	(% change of output)/(% change of pressure) @ 20kPa	< 0.1
Key Specifications	Temperature range	°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 container)	6
	Load resistor	Ω (recommended)	47 to 100
	Diameter	mm (including label)	20.0
	Height	mm (including foam ring)	17.4
	Weight	g	< 16

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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 Output Temperature Dependence

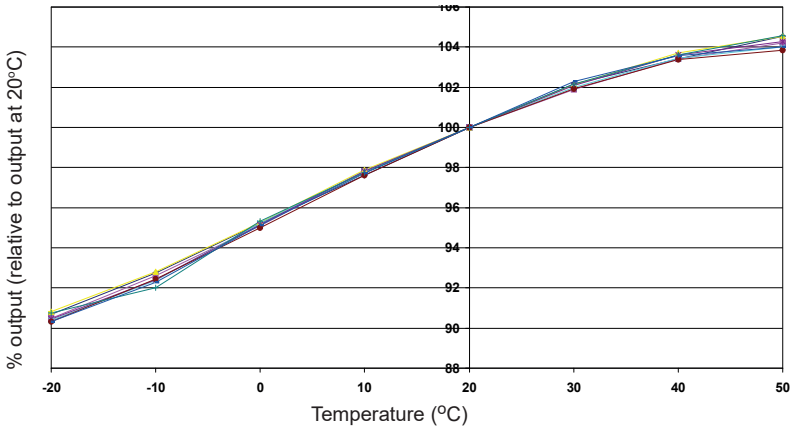
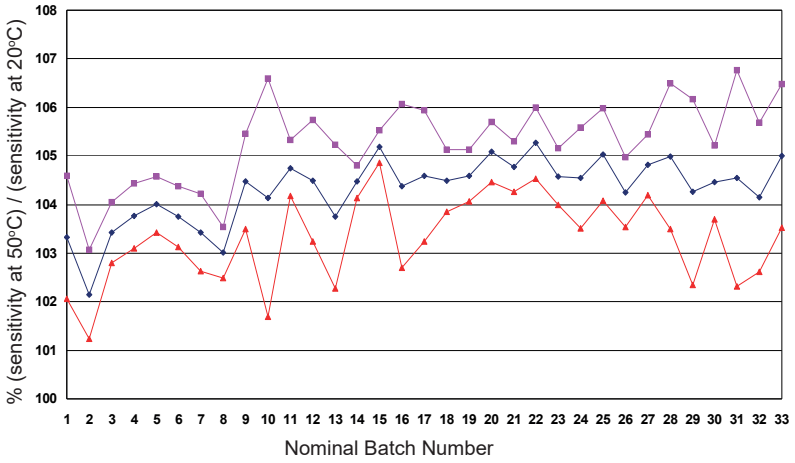


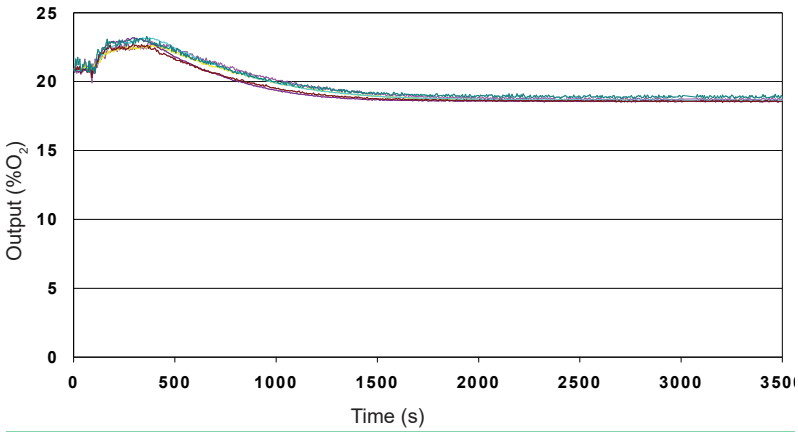
Figure 1 shows the variation in sensitivity caused by changes in temperature. Temperature dependence is very repeatable.

Figure 2 Sensitivity at 50°C



This plot of the mean and ±95% confidence intervals for 34 batches shows superior repeatability of the sensitivity dependence from batch to batch, giving confidence when setting temeprature 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.