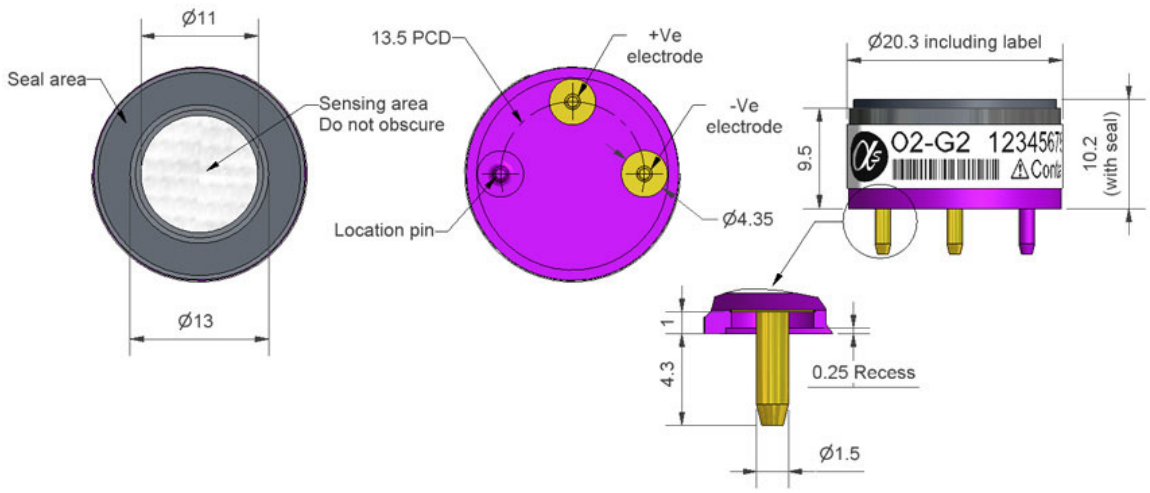
O2-G2 Oxygen Sensor

Technical Specification

Figure 1 O2-G2 Schematic Diagram



All dimensions in millimetres (± 0.1mm)

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

Table 1 O2-G2 Specification

PERFORMANCE	Output	µA @ 22°C, 20.9% O_2	30 to 42
	Response time	t90 (s) from 20.9% to 0% O_2 (47Ω)	< 15
	Zero current	µA @ 99.999% N_2, 22°C	< 2
	Pressure sensitivity	(% change of output)/(% change of pressure) @ 20kPa	< 0.1
LIFETIME	Output drift	% change in output @ 3 months	< 2
	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 in output / % CO_2 @ 5% CO_2	< 0.1
KEY SPECIFICATIONS	Temperature range	°C	-30 to 55
	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)	6
	Load resistor	Ω (recommended)	47 to 100
	Weight	g	< 7

NOTE: all sensors are tested at ambient environmental conditions, with 47 ohm load resistor, 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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O2-G2 Performance Data

Technical Specification

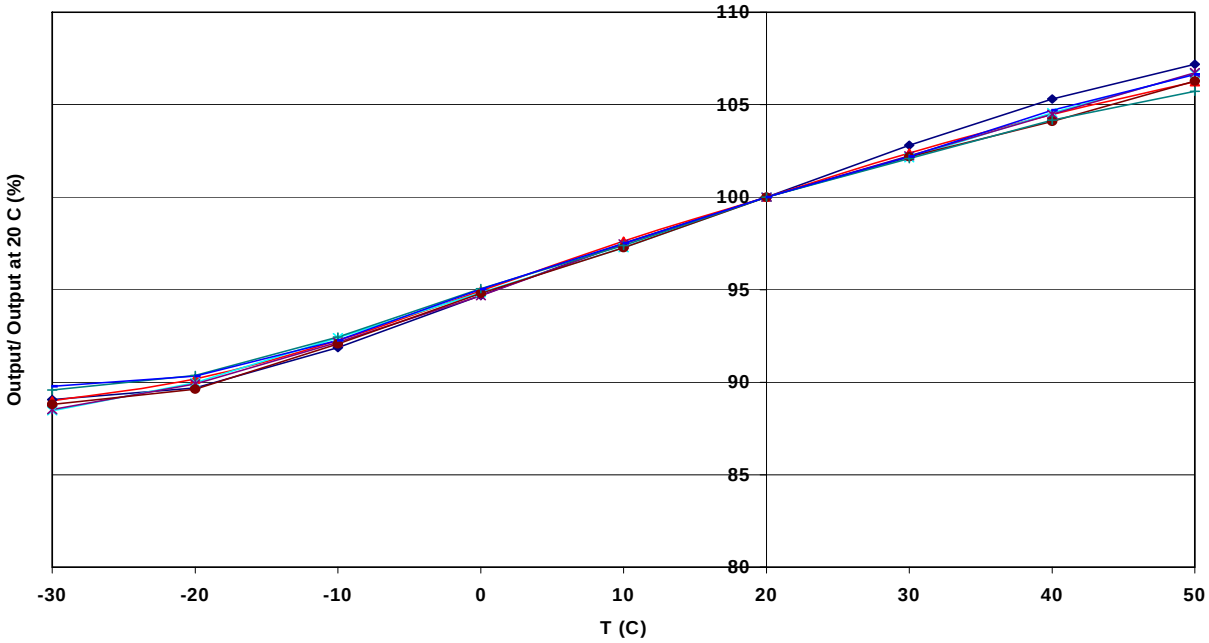

Figure 2 Temperature Performance

This graph shows the variation in sensitivity caused by changes in temperature.

All capillary oxygen sensors will show some variation in signal output with temperature and the typical response of an O2-G2 is shown.

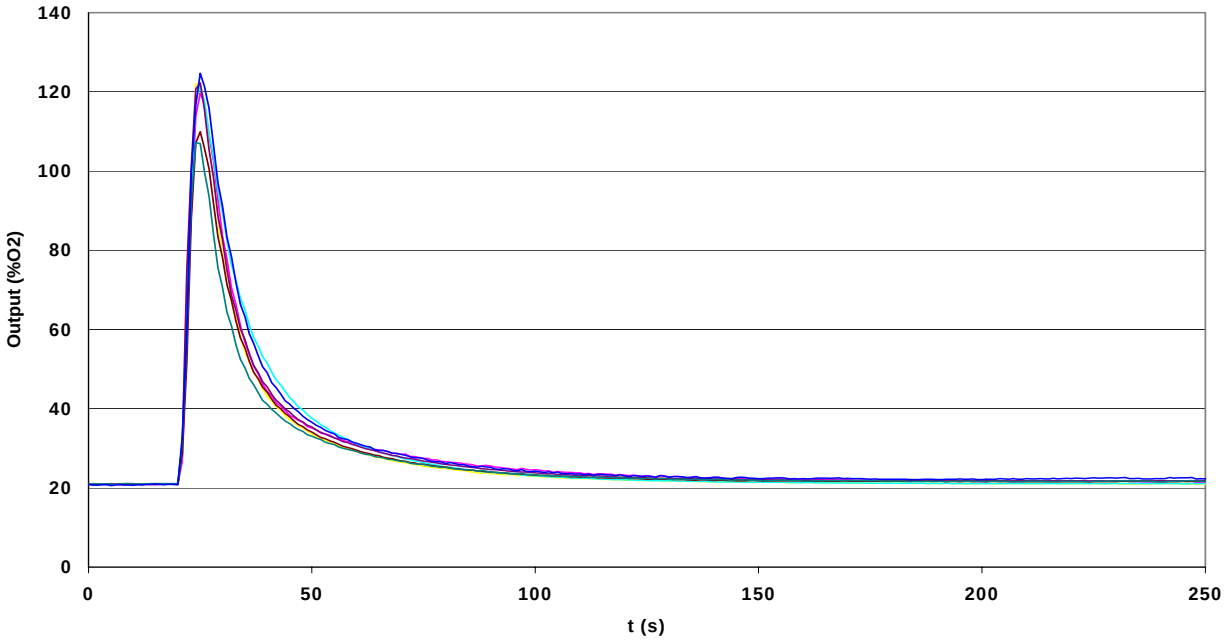

Figure 3 Pressure Step Performance

Step changes in pressure can cause a temporary signal transient. Positive pressure gives a output signal increase whilst negative pressure causes the output signal to decrease.

Typical transient response for an O2-G2 sensor exposed to a 10kPa pressure pulse is shown.

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