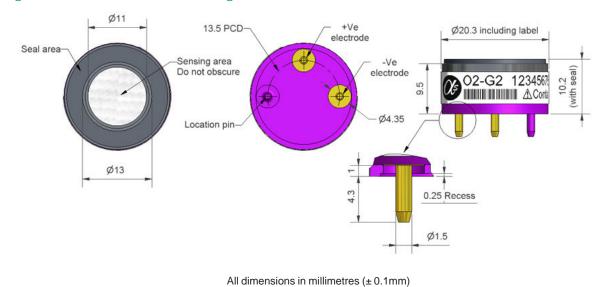


## **O2-G2 Oxygen Sensor**

## Figure 1 O2-G2 Schematic Diagram



**Bottom View** 

**Side View** 

Table 1 O2-G2 Specification

**Top View** 

PERFORMANCE	Output Response time Zero current Pressure sensitivity	$\mu$ A @ 22°C, 20.9% O <sub>2</sub> t90 (s) from 20.9% to 0% O <sub>2</sub> (47Ω) $\mu$ A @ 99.999% N <sub>2</sub> , 22°C (% change of output)/(% change of pressure) @ 20kPa	30 to 42 < 15 < 2 < 0.1
LIFETIME	Output drift Operating life	% change in output @ 3 months months until 85% original output in 20.9% O <sub>2</sub>	< 2 > 24
ENVIRONMENTA	L Humidity Sensitivity CO <sub>2</sub> sensitivity	% O <sub>2</sub> change: 0% to 95% rh @ 40°C % change in output / % CO <sub>2</sub> @ 5% CO <sub>2</sub>	< 0.7 < 0.1
KEY SPECIFICATIONS	Temperature range Pressure range Humidity range Storage period Load resistor Weight	$^{\circ}\text{C}$ kPa $^{\circ}\text{C}$ rh continuous (0 to 99% rh short term) months @ 3 to 20 $^{\circ}\text{C}$ (store in sealed pot) $\Omega$ (recommended)	-30 to 55 80 to 120 5 to 95 6 47 to 100 < 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.





## **O2-G2 Performance Data**

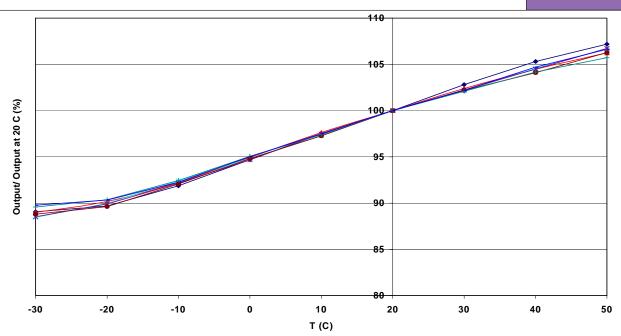


Figure 2 Temperature Performance

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.

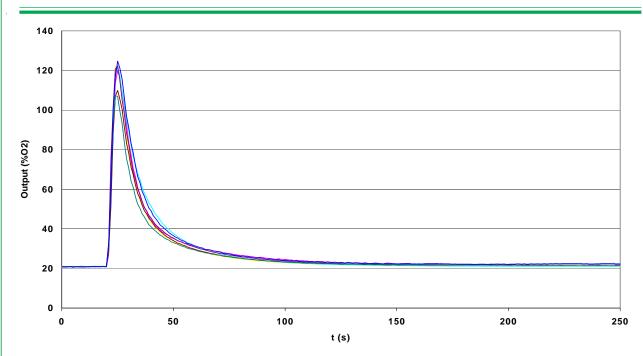


Figure 3 Pressure Step Performance

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".

In the interest of continued product improvement, we reserve the right to change design features and specifications without prior notification. The data contained in this document is for guidance only. Alphasense Ltd accepts no liability for any consequential losses, injury or damage resulting from the use of this document or the information contained within it (©ALPHASENSE LTD) Doc. Ref. TDS/O2G2/Issue 012