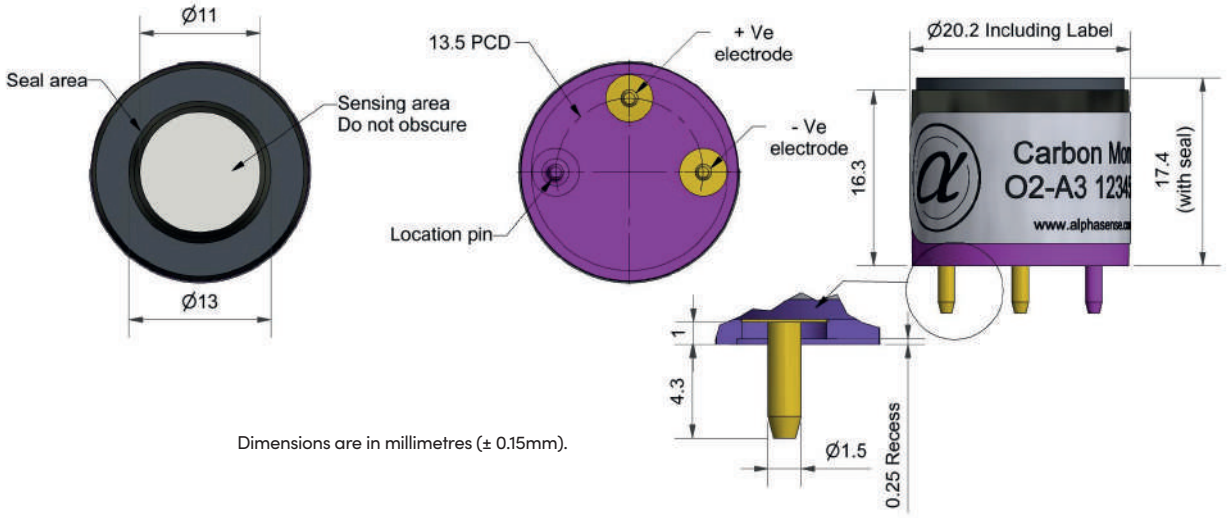
ЗАКАЗАТЬ: O2-A3 сенсор кислорода 0-20,9 % об.

O2-A3 Oxygen Sensor

The O2-A3 Oxygen sensor is a vital component in safety monitoring, both in portable and fixed monitors. With its patented no-leak design, the O2-A3 offers uncompromised reliability and accuracy for your instruments. The O2-A3 Oxygen sensor boasts a lifespan of 3 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-A3 Oxygen Sensor (3-year life span)



Dimensions are in millimetres (± 0.15mm).

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

Performance	Output	µA @ 22°C, 20.9% O_2	55 to 85
	Response time	t90 (s) from 20.9% to 0% O_2 (47W load resistor)	< 13
		Typical mean response time	**8**
	Zero current	µA @ 99.99% N_2, 22°C	< 2.5
Lifetime	Output drift	% change in output @ 3 months	< 2
	Operating life	Months until 85% original output in 20.9% O_2	> 36
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
	Height	mm (including foam ring)	17.4
	Weight	g	< 16

Figure 1 Temperature Dependence in Air

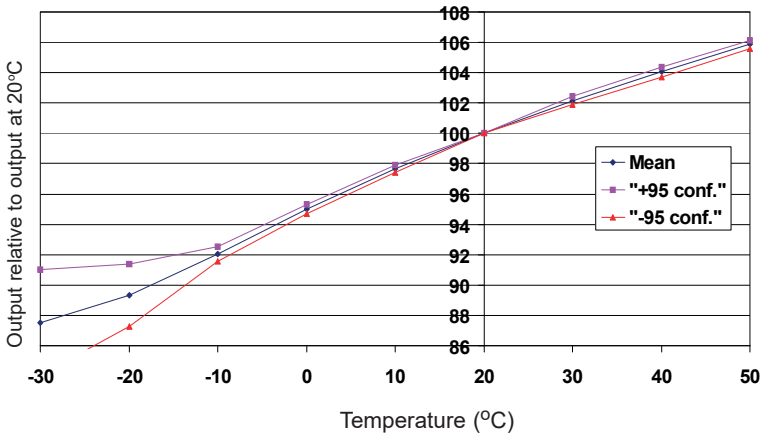


Figure 1 shows the variation of output caused by changes in temperature in 20.9% oxygen. The mean and ±95% confidence intervals are shown.

All capillary oxygen sensors show a change in signal with temperature. The repeatable 95% confidence intervals for the O2-A3 are shown.

Figure 2 Pressure Step Performance

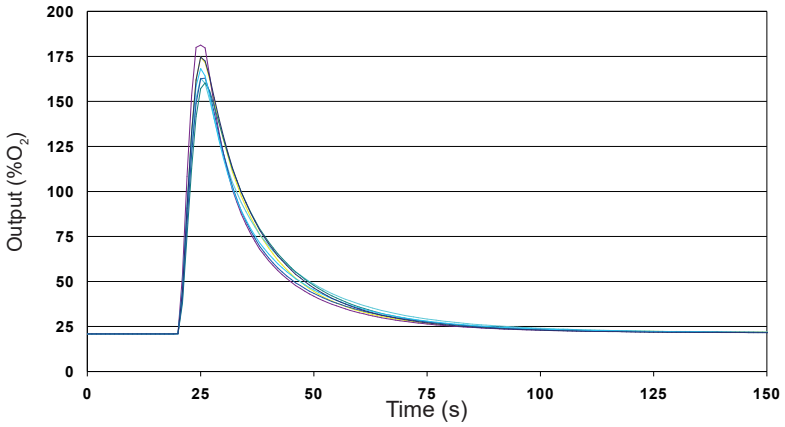
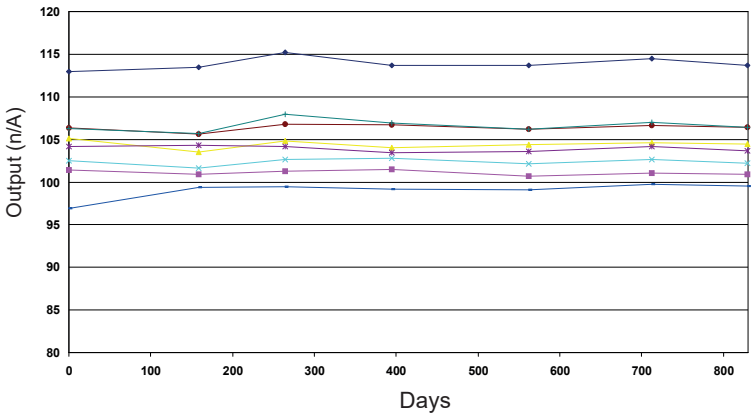


Figure 2 shows how a 25kPa pressure step change causes a signal transient that decays reproducibly. Negative pressure changes cause a negative transient.

The small shift in final output is less than 10% of the pressure change, so 10kPa pressure step shifts output by less than 1% (<0.2% oxygen).

Figure 3 Long Term Stability



Mass flow Oxygen sensors show excellent long-term stability. Regular calibration is not necessary so long as temperature compensation is correct.

At the end of the product's life, do not dispose of any electronic sensor, component or instrument in the domestic waste, but contact the instrument manufacturer, Alphasense or its distributor for disposal instructions. NOTE: all sensors are tested at ambient environmental conditions 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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