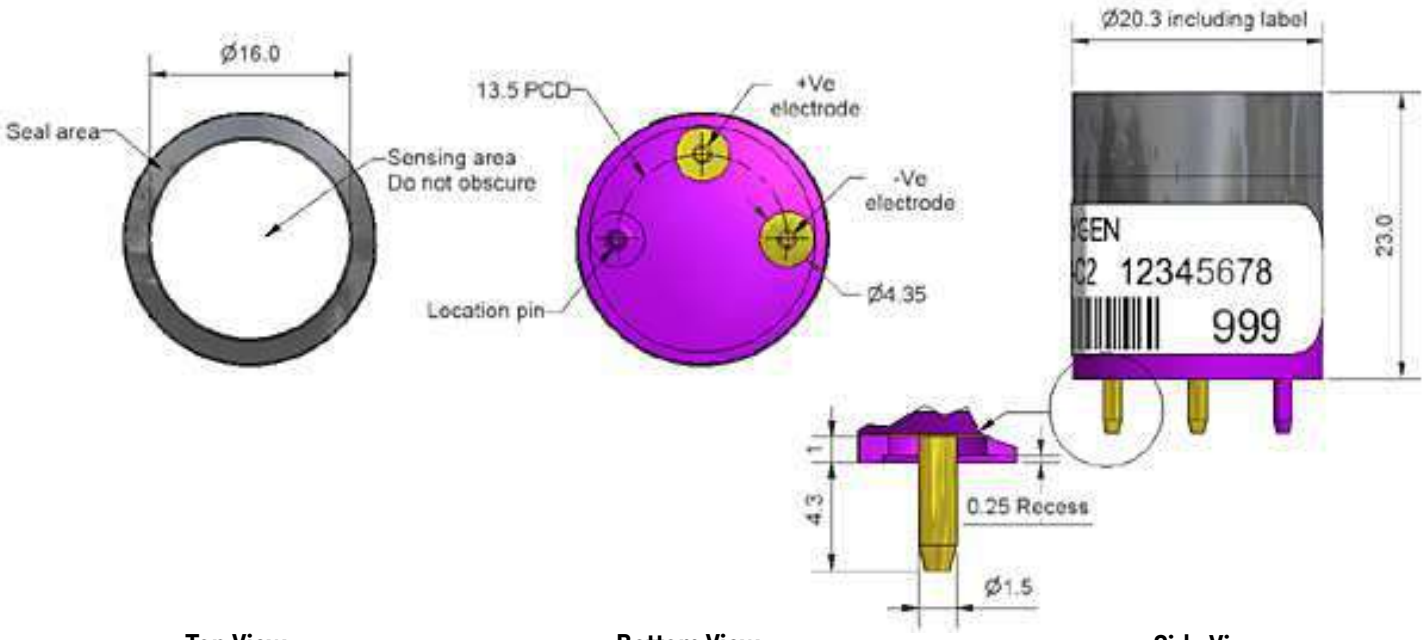
ЗАКАЗАТЬ: O2-C2 сенсор кислорода

O2-C2 Oxygen Sensor



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

Dimensions are in millimetres (± 0.15 mm).

Our (patent pending) O2-C2 includes protection from the rough environment of flue gases, necessary for long sensor lifetime.

Performance	Output	µA @ 20.9% O_2	80 to 120
	Response time	t90 (s) from 20.9% to 0% O_2	< 50
	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	°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
	Weight	g	< 18

Figure 1 Temperature Dependence in Air

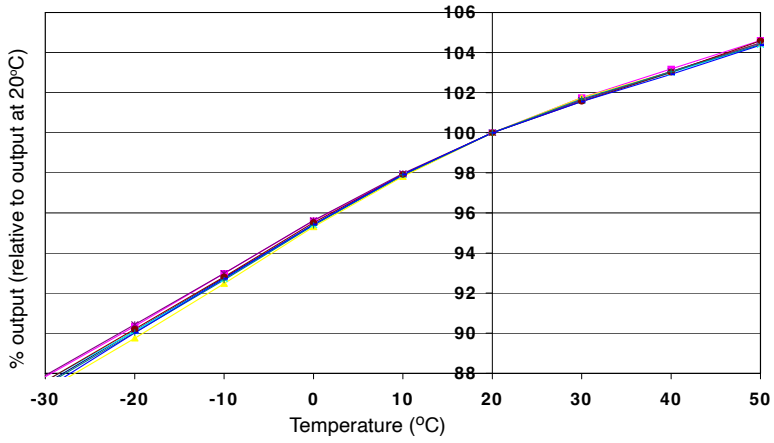
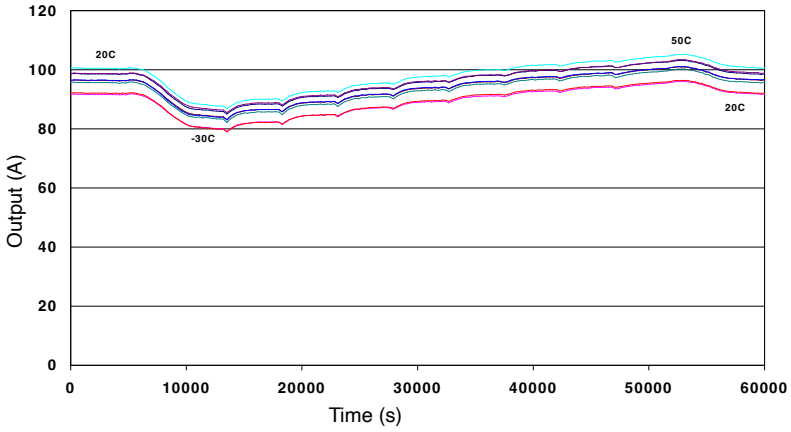


Figure 1 shows the very repeatable variation in sensitivity caused by change in temperature.

This data is taken from a typical batch of sensors.

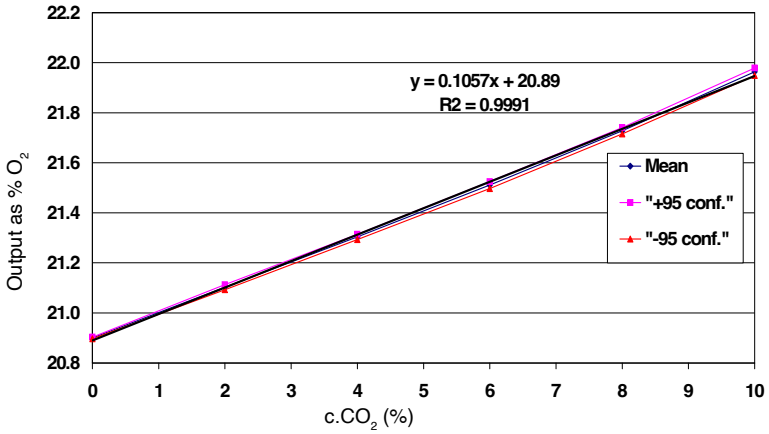
Figure 2 Thermal Transient Performance



This time trace follows eight sensors' progress as they are first cooled to -30°C, then thermally stepped to +50°C before finally returning to 20°C.

As the O2-C2 experiences rapid temperature changes. The lack of thermal transients avoids false alarms, even when cooled from +20°C to -30°C.

Figure 3 Carbon Dioxide Response



Carbon dioxide increases the diffusion rate of oxygen, increasing the apparent oxygen concentration.

When oxygen concentration is held constant, CO_2 increases the oxygen signal by 10.6% of the CO_2 concentration.

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, 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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