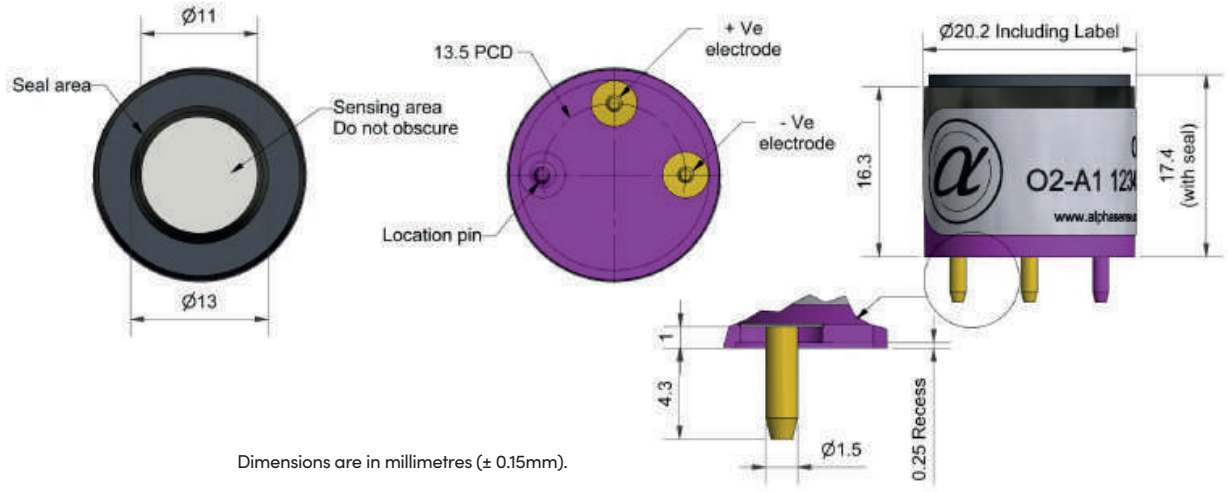
ЗАКАЗАТЬ: O2-A1 Alphasense сенсор кислорода 0-20,9 % об.



# O2-A1 Oxygen Sensor

The O2-A1 Oxygen sensor is a vital component in safety monitoring playing a crucial role in portable and fixed monitors. With its patented no-leak design, the O2-A1 offers uncompromised reliability and accuracy for your instruments. The O2-A1 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-A1 Oxygen Sensor (1-year life span)




Dimensions are in millimetres (± 0.15mm).

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

| | | | |
|---|---|---|---|
| **Performance** | Output | µA 20.9% $O_2$ | 190 to 240 |
| | 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 in 20.9% $O_2$ | > 12 |
| **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 |

### Figure 1 Temperature Dependence in Air

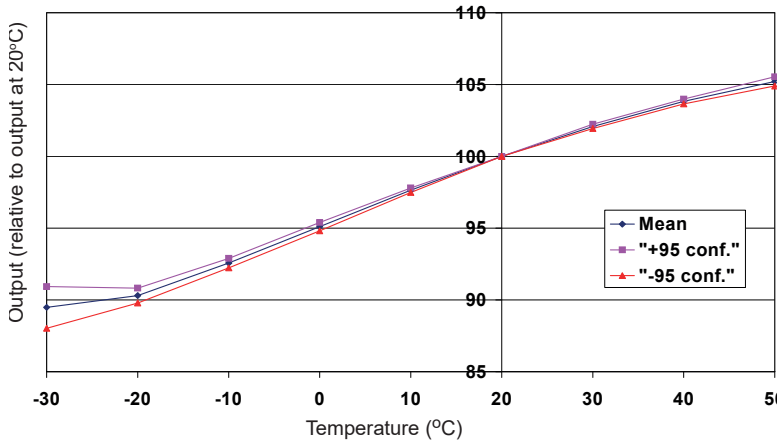
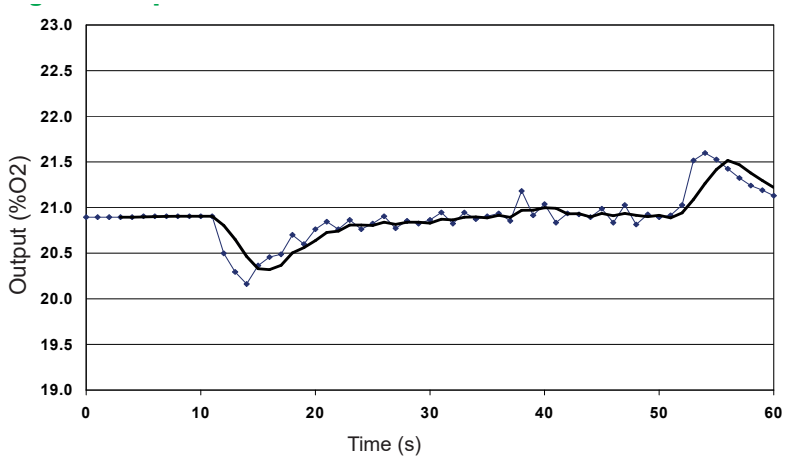



Figure 1 shows the variation of sensor output in clean air due to temperature changes.

This data is taken form a typical batch of sensors.

The mean and ± 95% confidence intervals are shown.

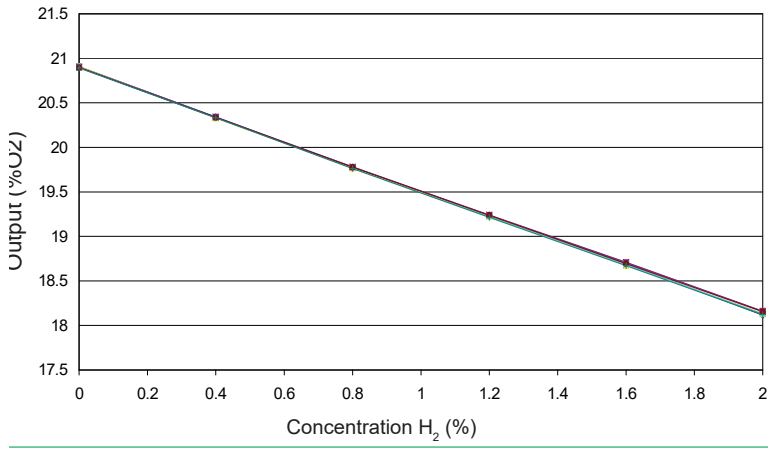
### Figure 2 Pressure Step Performance




Many gas detectors use either pumps or hand aspirators to sample gases remotely. Pressure transients caused by pumping can set gas detectors into alarm.

Alphasense oxygen sensors are 100% tested for pressure transients.

### Figure 3 Long Term Stability




Hydrogen reduces the oxygen sensor output by 6.5%.

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.

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.(©ALPHASENSE LTD) Doc. Ref. O2-A1/JUN24

***ЗАКАЗАТЬ: O2-A1 Alphasense сенсор кислорода 0-20,9 % об.***