

SGX-4OX-EL Datasheet

Industrial Oxygen Sensor
 Extended Life (3years)

PERFORMANCE

Output signal	0.07 ± 0.02 mA
Zero Current (offset)	<0.6% vol. O ₂ (typically <0.3% vol. O ₂)
T90 Response Time	< 10 seconds (typically <5sec)
Measurement Range	0 – 25 % O ₂
Maximum Overload	30% O ₂
Linearity	Linear
Recommended Load Resistor	100 ohms

OPERATING CONDITIONS

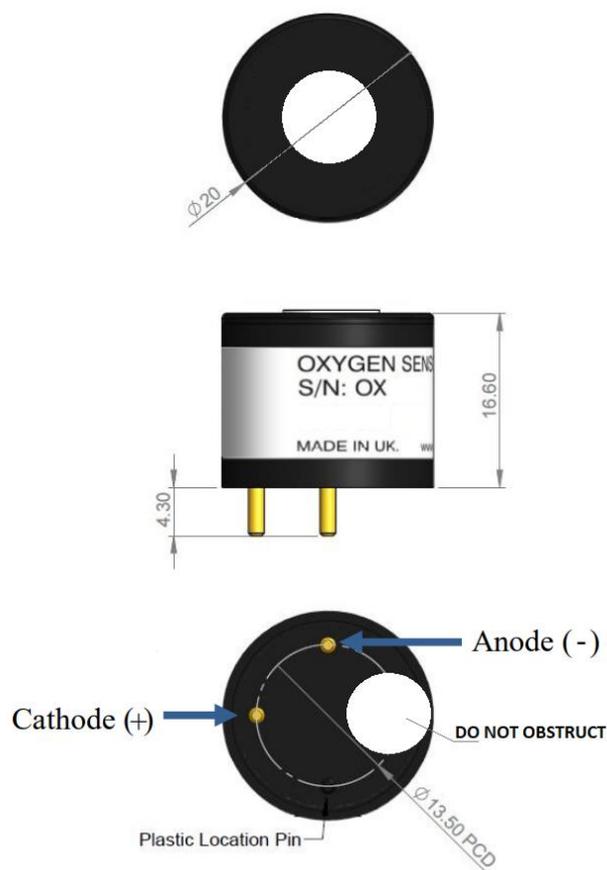
Temperature Range	-30°C to +50°C
Pressure Range	800 to 1200 mbar
Operating Humidity Range	5% to 95% RH

LIFETIME

Long Term Output Drift	< 5% per annum
Recommended Storage Temp	0°C to 20°C
Expected Operating Life	> 36 months in air

OUTLINE

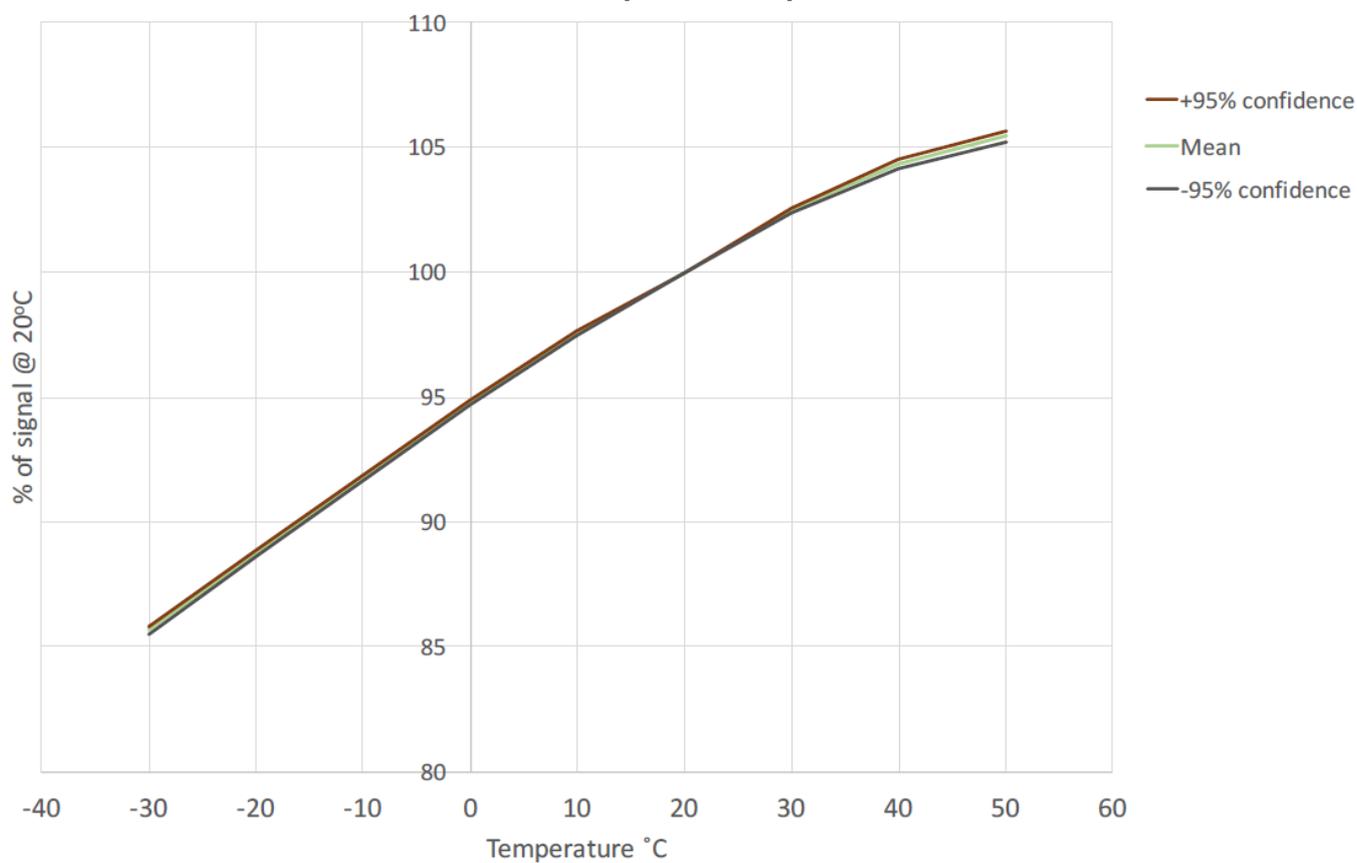
All dimensions are in mm
 All tolerances are ±0.15mm



INTRINSIC SAFETY DATA

Max current in normal operation (pure O ₂)	0.01 A
Max o/c Voltage (10 – 100% O ₂)	0.9 V
Max s/c Current (10 – 100% O ₂)	0.5 A

Output vs Temp



IMPORTANT NOTES

- 1) Do not glue or solder to the connector pins as this may damage the sensor and thereby invalidate the warranty, please use PSB sockets.
- 2) Details on recommended connector pins can be found in the Frequently Asked Questions within the Gas Sensor section of the SGX website.
- 3) All performance specifications are based upon the following environmental conditions: 20°C, 50% relative humidity, 101kPa.
- 4) Poisoning - sensors are designed to operate in a wide range of harsh environments and conditions. However, it is important that exposure to high concentrations of solvent vapours is avoided, both during storage, fitting into instrument and operation.
- 5) When using sensors on printed circuit boards (PCB's), degreasing agents should be used prior to the sensor being fitted.
- 6) Acid gases such as CO₂ and SO₂ will be absorbed by the electrolyte and tend to increase the flux of oxygen to the electrode. This gives an enhanced oxygen signal of approximately 0.3% of signal per 1% CO₂.

Warning:

By the nature of the technology used, any electrochemical gas sensor offered by SGX Europe Sp. z o.o. can potentially fail to meet specification without warning. SGX Europe Sp. z o.o. makes every effort to ensure the reliability of our products of this type, where life safety is a performance requirement of the product, we recommend that all sensors and instruments using these sensors are checked for response to gas before use. SGX Europe Sp. z o.o reserves the right to make product changes without notice. No liability is accepted for any consequential losses, injury or damage resulting from the use of this document or from any omissions or errors herein. The data is given for guidance only. It does not constitute a specification or an offer for sale. The products are always subject to a program of improvement and testing which may result in some changes in the characteristics quoted. As the products may be used by the client in circumstances beyond the knowledge and control of SGX Europe Sp. z o.o, we cannot give any warranty as to the relevance of these particulars to an application. It is the clients' responsibility to carry out the necessary tests to determine the usefulness of the products and to ensure their safety of operation in a particular application. Performance characteristics on this data sheet outline the performance of newly supplied sensors. Output signal can drift below the lower limit over.