SGX SENSORTECH
An Amphenol Company

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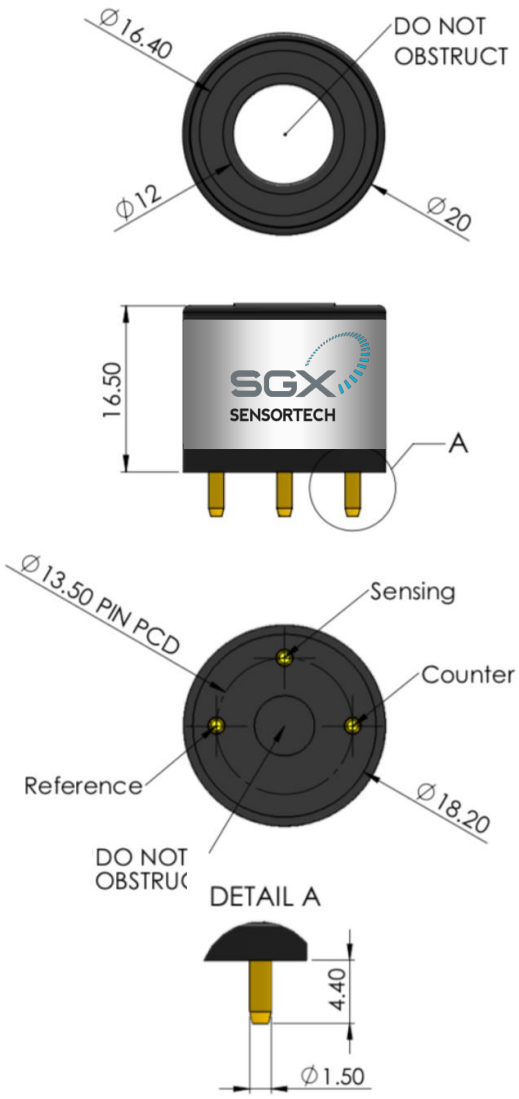
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SGX-4OX-ROHS Datasheet

Industrial Lead Free Oxygen Sensor

OUTLINE

All dimensions are in mm
All tolerances are ±0.15mm



PERFORMANCE

Output signal	0.1 ± 0.03 mA in air
Zero Current (Offset)	<0.5% 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	S = K $\log_e$ (1/1-C)
Repeatability	< ±2% SO_2 equivalent
Warm up time	Note 1
Electrical Bias Voltage	-600 ± 10mV

OPERATING CONDITIONS

Temperature Range	-40°C to +60°C
Pressure Range	800 to 1200 mbar
Operating Humidity Range	15% to 90% RH (continuous) 0% to 99% RH(short term)

LIFETIME

Long Term Output Drift	< 5% over operating life
Recommended Storage Temp	0°C to 20°C
Expected Operating Life	> 60 months in air

INTRINSIC SAFETY DATA

Max current in normal operation (pure O_2)	0.01 mA
Max o/c Voltage (10 to 100% O_2)	0.9 V
Max s/c Current (10 to 100% O_2)	0.5 A

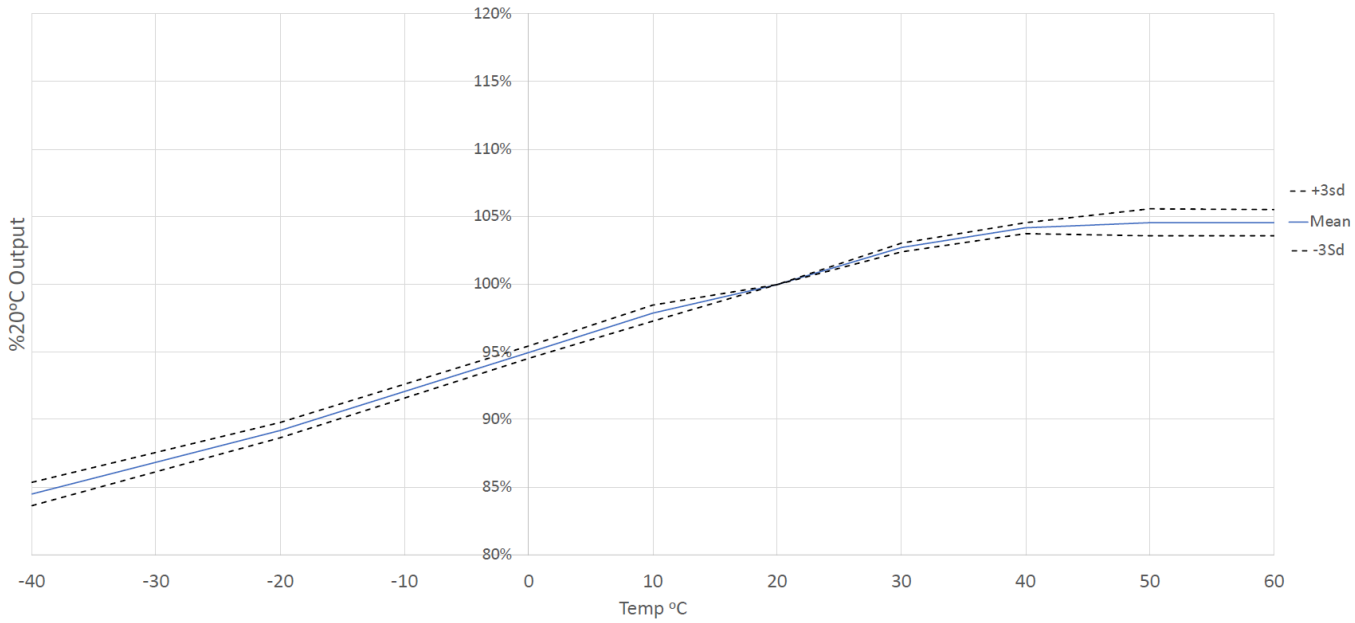
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Output vs Temp



IMPORTANT NOTES

1) When bias is not applied to the sensor, it will become saturated with oxygen gas which is consumed when the bias is reapplied. This results in a settling time which can be as long as 15 minutes. During this time, the sensor may not meet all of the performance parameters provided in this datasheet.
2) In order to function correctly, the rear of the sensor must not be blocked and adequate venting must be available when the sensor isfitted to an analyser or detector.
3) Do not glue or solder to the connector pins as this may damage the sensor and thereby invalidate the warranty, please use PCB sockets.
4) Details on recommended connector pins can be found in the Frequently Asked Questions within the Gas Sensor section of the SGX website.
5) All performance specifications are based upon the following environmental conditions: 20°C, 50% relative humidity, 101kPa.
6) The device is designed to be RoHS compliant.
7) 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.
8) When using sensors on printed circuit boards (PCB's), degreasing agents should be used prior to the sensor being fitted.

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.

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Soldered Electrochemical O2 Gas Sensor Breakout (Qwiic)

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