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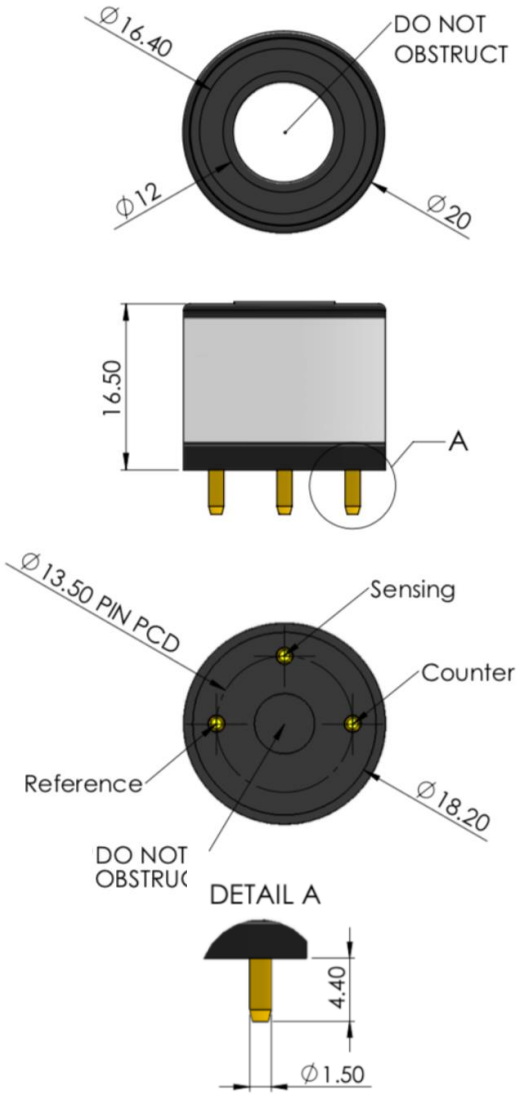
SGX-4OX-ROHS Datasheet

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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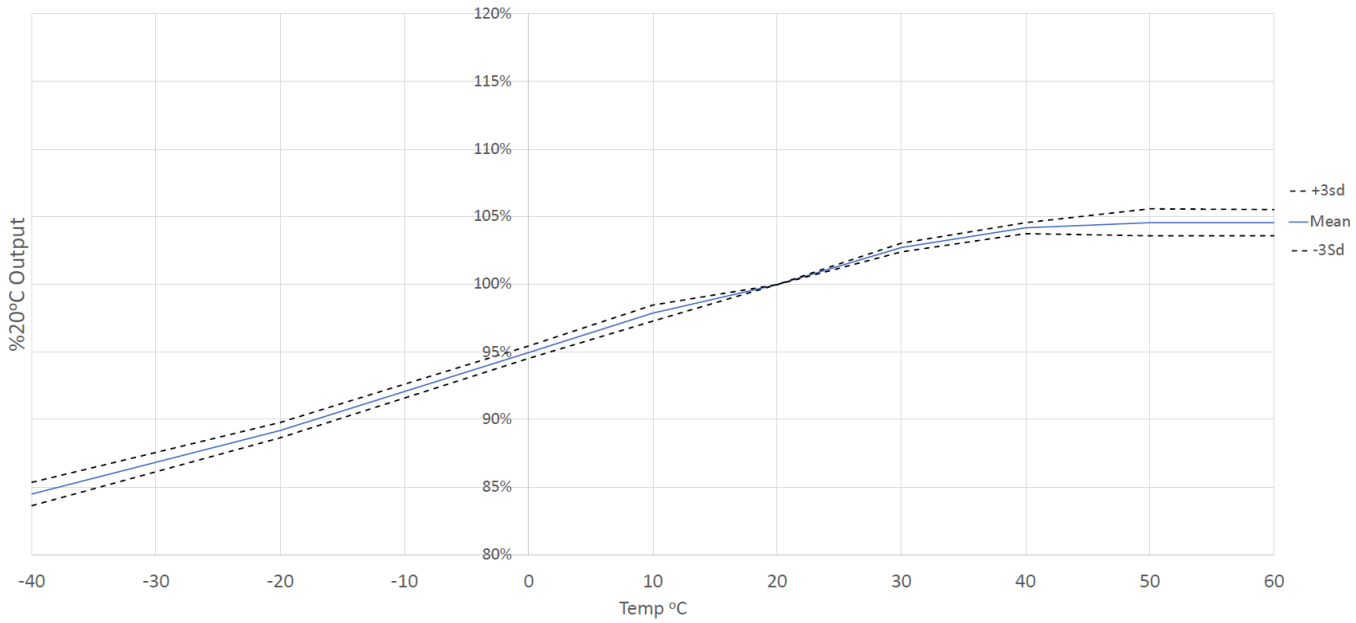
Output vs Temp



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.