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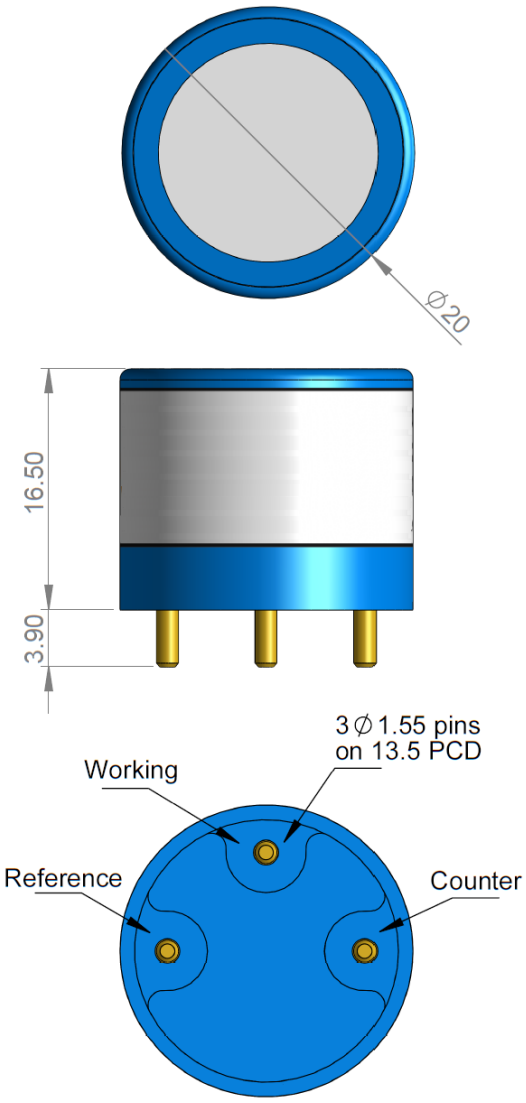
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SGX-4SO2 Datasheet

Industrial Sulphur Dioxide (SO_2) Sensor

OUTLINE

All dimensions are in mm
All tolerances are ±0.15mm



PERFORMANCE

Output signal	400 ± 100 nA / ppm
Typical Baseline Range (pure air)	±0.5ppm SO_2 equivalent
T90 Response Time	< 30 seconds
Measurement Range	0 - 20 ppm
Maximum Overload	100 ppm
Linearity	Linear (up to 20ppm) within ±5%
Repeatability	< ±2% SO_2 equivalent
Recommended Load Resistor	10 ohms
Resolution (Electronics dependent)	0.1 ppm typical
FIlter Capacity	1000ppm hours @ 25ppm H2S

OPERATING CONDITIONS

Temperature Range	-30°C to +50°C
Pressure Range	800 to 1200 mbar
Operating Humidity Range	15% to 90% RH (non-condensing)

LIFETIME

Long Term Output Drift	< 15% per annum
Recommended Storage Temp	0°C to 20°C
Expected Operating Life	> 24 months in air

INTRINSIC SAFETY DATA

Max at 150ppm	0.1 mA
Max o/c Voltage	0.75 V
Max s/c Current	<1.0 A

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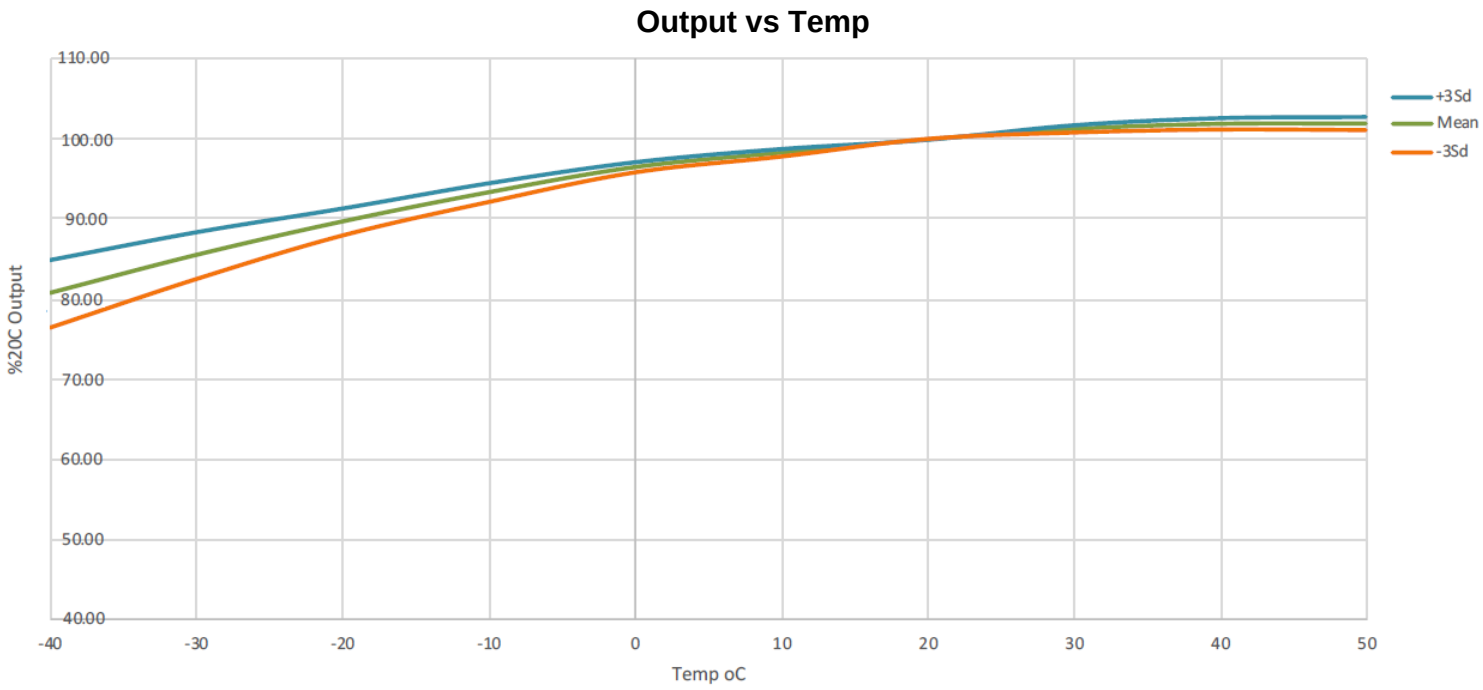
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CROSS – SENSITIVITY DATA

GAS	CONCENTRATION	SGX-4SO$_2$
Carbon Monoxide	300ppm	< 1ppm
Hydrogen Sulphide	25ppm	< 0.5ppm
Hydrogen	400ppm	< 1ppm
Nitric Oxide	50ppm	0-5ppm
Nitrogen Dioxide	20ppm	< -20ppm
Ethene	50ppm	<45ppm
Ammonia	20ppm	0ppm
Chlorine	15ppm	<1ppm
Hydrogen Cyanide	10ppm	<5ppm
Acetylene	10ppm	<30ppm

**** See Important Notes***



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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) Cross Sensitivity Data is for information only. Calibration is recommended with target gas as the accuracy of calibration and measurement cannot be ensured.
5) The cross sensitivities are including but not limited to the gases stated in the table. It may respond to other gases.
6) The cross sensitivities may fluctuate between ± 30% and may differ from batch to batch or across sensor's life time.
7) The device is designed to be RoHS compliant.
8) 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.
9) 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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