

SGX-CO-H2S-LP Datasheet

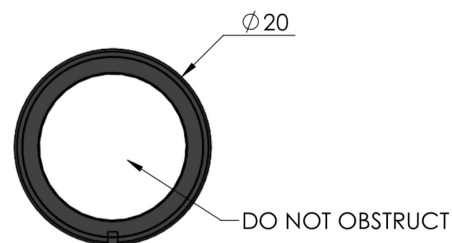
The SGX-CO-H2S-LP is a compact dual toxic sensor, well-suited for use in multi-gas portable gas detectors.

Performance Characteristics

	CO Channel	H2S Channel
Output signal	25-50nA/ppm	200-400nA/ppm
Typical Baseline Range (pure air)	±3 ppm CO equivalent	± 1 ppm H ₂ S equivalent
Filter Capacity	> 15,000 ppm hours	-
T90 Response Time	< 30 seconds	< 30 seconds
Measurement Range	0 - 1000 ppm	0 - 100 ppm
Maximum Overload	2000 ppm	400 ppm
Linearity	Linear	Linear
Repeatability	< ±3% CO equivalent	< ±2% H ₂ S equivalent
Recommended Load Resistor	10 ohms	10 ohms
Resolution (Electronics dependent)	±1 ppm CO typical	±0.5 ppm H ₂ S typical

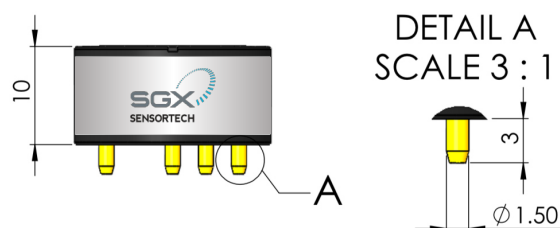
Operating Conditions

Temperature Range Continuous	-30°C to +50°C
Pressure Range	800 to 1200 mbar
Operating Humidity Range	15% to 90% RH



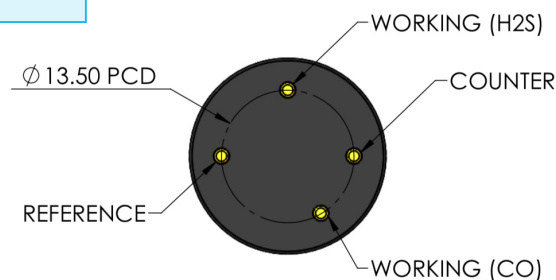
Lifetime Details

Long Term Output Drift	< 10% per annum
Recommended Storage Temp	0°C to 20°C
Expected Operating Life	> 24 months in air



Intrinsic Safety Data

Maximum at 2000 ppm	0.3 mA
Maximum o/c Voltage	1.3 V
Maximum s/c Current	<1.0 A



ALL TOLERANCES UNLESS STATED: ±0.15mm

Cross - Sensitivity Data

GAS	CONC.	CO Channel	H ₂ S Channel
Hydrogen Sulphide	25 ppm	< 5 ppm	25 ppm
Sulphur dioxide	5 ppm	0 ppm	< 1 ppm
Hydrogen	100 ppm	<30 ppm	< 0.05 ppm
Nitric Oxide	35 ppm	< 0.1ppm	< 1 ppm
Carbon Monoxide	300 ppm	300 ppm	< 6 ppm
Nitrogen Dioxide	5 ppm	< 0.1 ppm	0 ppm
Chlorine	15 ppm	0 ppm	0 ppm

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 $\pm 30\%$ 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.