SGX SENSORTECH
An Amphenol Company

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SGX-4H2S-300 Datasheet

SGX-4H2S-300 is a premium industrial hydrogen sulphide sensor from SGX Sensortech, designed to deliver fast, accurate, and stable H_2S detection across an extended 0-300 ppm measurement range. With a strong 460 ± 140 nA/ppm output signal, rapid <30 s T90 response, and excellent linearity, it ensures highly reliable performance in both portable and fixed gas detection systems. The sensor features outstanding environmental robustness, low baseline drift, and very low cross-sensitivity - especially to methanol making it ideal for demanding industrial environments. Operating from -30°C to +50°C and optimized for long-term stability, the SGX-4H2S-300 provides a dependable, high-performance solution for applications requiring elevated sensitivity, durability, and measurement confidence.

PERFORMANCE

Output signal	460± 140 nA / ppm
Typical Baseline Range (pure air)	±200 nA
T90 Response Time	<30 s
Measurement Range	0 - 300 ppm
Maximum Overload	500 ppm
Linearity	0-300ppm <2% 300-500ppm <10%
Repeatability	< ±2% H2S equivalent
Recommended Load Resistor	10 ohms
Resolution	< 0.1 ppm typical



OPERATING CONDITIONS

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

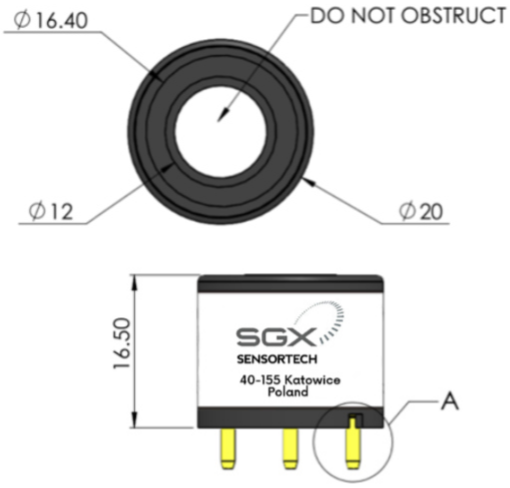
LIFETIME

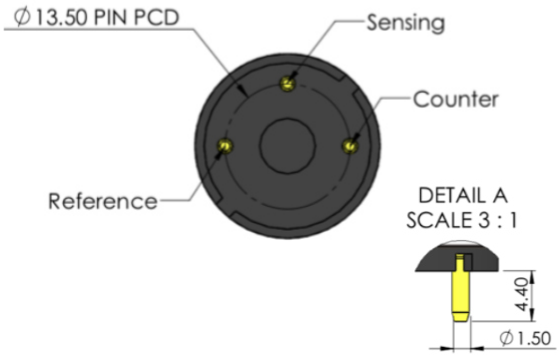
Long Term Output Drift	< 10% per annum
Recommended Storage Temp	0°C to 20°C
Expected Operating Life	> 24 months in air

Important Note: All performance data is measured under standard conditions: 20°C, 50% relative humidity (RH), and 1 atmosphere pressure, using SGX Sensortech recommended circuitry. Sensor performance may vary with temperature. For performance data at temperatures other than 20°C, please contact SGX Sensortech for detailed information.

OUTLINE

All dimensions are in mm
All tolerances are ±0.15mm





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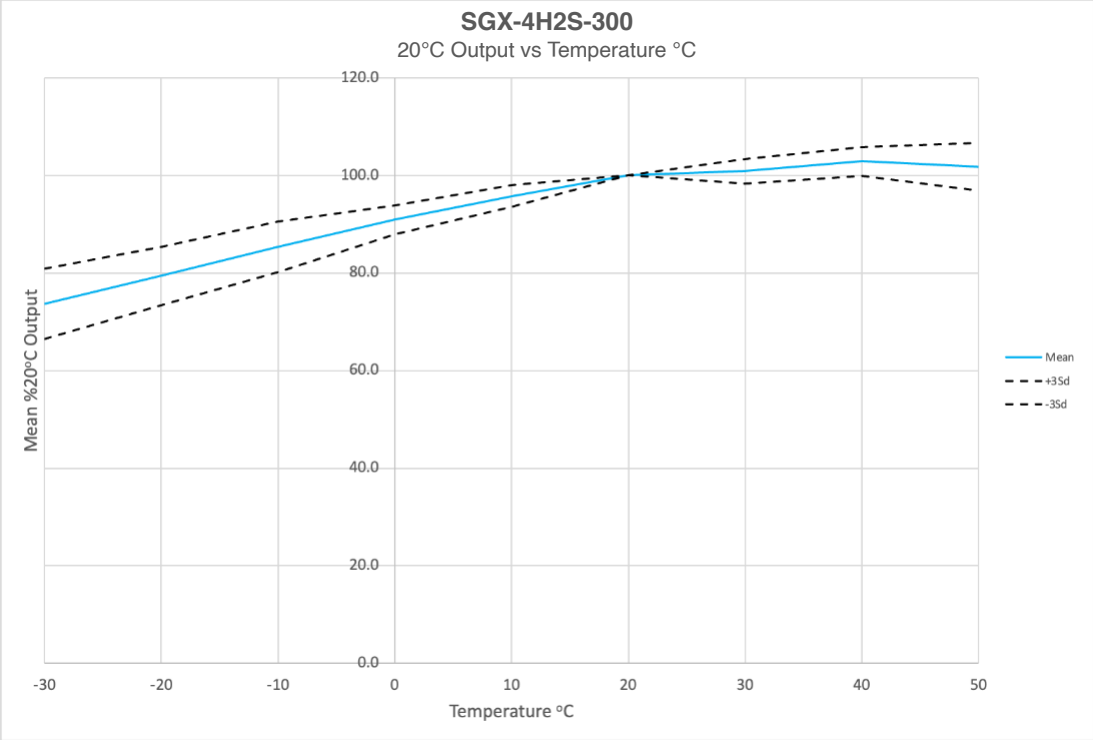
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CROSS SENSITIVITY

Gas	Test Concentration	Sensor Reading
Carbon Monoxide	200 ppm	±0.2 ppm
Sulphur Dioxide	20 ppm	<2 ppm
Nitrogen Dioxide	20 ppm	~-5 ppm
Nitric Oxide	50 ppm	<0.5 ppm
Ammonia	50 ppm	0 ppm
Hydrogen	100 ppm	0 ppm



INTRINSIC SAFETY DATA

Maximum at 500 ppm	<0.5 mA
Maximum o/c Voltage	1.3 V
Maximum o/c Current	< 1.0 A

DISCLAIMER:
SGX Europe Sp. z o.o. reserves the right to change design features and specifications without prior notification. We do not accept any legal responsibility for customer applications of our sensors. SGX Europe Sp. z o.o. accepts no liability for any consequential losses, injury or damage resulting from the use of this document, the information contained within or from any omissions or errors herein. This document does not constitute an offer for sale and the data contained is for guidance only and may not be taken as warranty. Any use of the given data must be assessed and determined by the user thereof to be in accordance with federal, state and local laws and regulations. All specifications outlined are subject to change without notice.
SGX Europe Sp. z o.o. 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 to be avoided, both during storage, fitting into instruments and operation. When using sensors on printed circuit boards (PCBs), degreasing agents should be used prior to the sensor being fitted. SGX Europe Sp. z o.o. makes every effort to ensure the reliability of its products. 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.

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