# SGX

SENSORTECH

An Amphenol Company
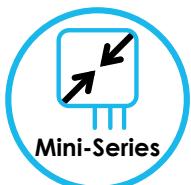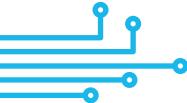
Mini-Series

SGX-H2S-Mini
Hydrogen Sulphide sensor

Datasheet

The Mini-series Electrochemical sensors from SGX Sensortech, with a housing dimension of just 8.3x14.4mm offer the smallest package available. A 75% reduction vs the popular SGX-4-series sensors. It gives customers the opportunity to reduce the size of instrument packages. The sensors offer fast response & recovery, high stability and have a 3-pin configuration (Counter, Reference and Working electrodes).

Quality, Safety, Responsibility

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PERFORMANCE

Nominal Range	0 - 200
Maximum Overload	500
Output signal	170 ± 55 nA / ppm
Typical Baseline Range (pure air)	± 0.5 ppm
Response Time (T90)	< 20 s
Linearity (0-200ppm) **Linearity** (200-500ppm)	±2% ±5%
Repeatability	< ±5% (measured value)
Recommended Load Resistor	10 ohms
Resolution (Electronics dependent)	< 0.5 ppm typical

Features

- High stability
- Fast response and recovery
- Robust environmental stability
- Low cross-sensitivity to methanol
- Low-profile package

Key Applications

- Industrial Safety
- Industrial General

OPERATING CONDITIONS

Temperature Range (Continuous) **Temperature Range** (Intermittent)	-40°C to +50°C Up to 60°C
Pressure Range	800 to 1200 mbar
Operating Humidity Range (non-condensing)	15% to 90% RH

LIFETIME

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

INTRINSIC SAFETY DATA

Max. at 500 ppm	0.3 mA
Max. O/C Voltage	1.3 V
Max. S/C Current	<1.0 A

DO NOT OBSTRUCT — ⌀14.40

8.30

2.54 2.54

4

DO NOT OBSTRUCT — ⌀0.64

2.50

Counter

Reference
Working
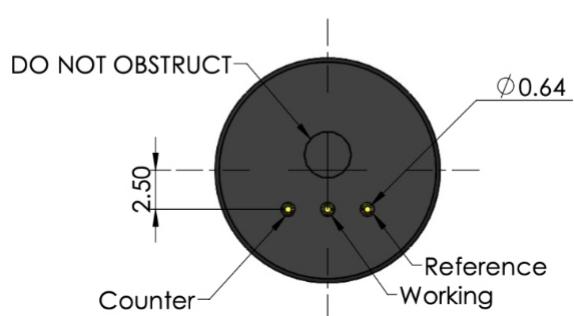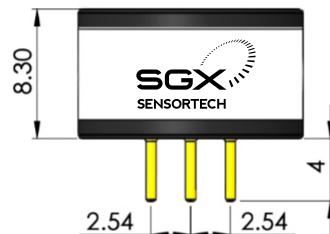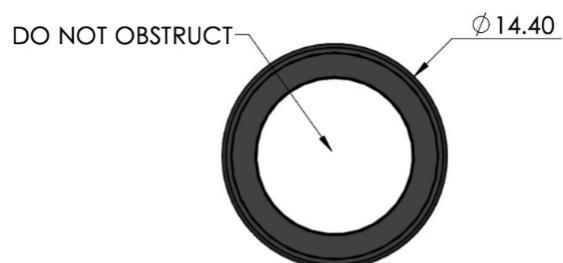
Product Dimensions
All dimensions in mm
All tolerances ±0.15 mm

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CROSS SENSITIVITY

Gas	Test Concentration	Sensor Reading
Carbon Monoxide	200 ppm	0 ppm
Sulphur dioxide	20 ppm	<3 ppm
Hydrogen	100 ppm	0 ppm
Nitric Oxide	50 ppm	<0.5 ppm
Nitrogen Dioxide	20 ppm	-5 ppm
Ammonia	50 ppm	0 ppm
Chlorine	15 ppm	0 ppm
Ethylene	100 ppm	0 ppm
Acetylene	100 ppm	0 ppm

TEMPERATURE DATA

SGX-H2S-Mini
%20°C Output vs Temperature°C
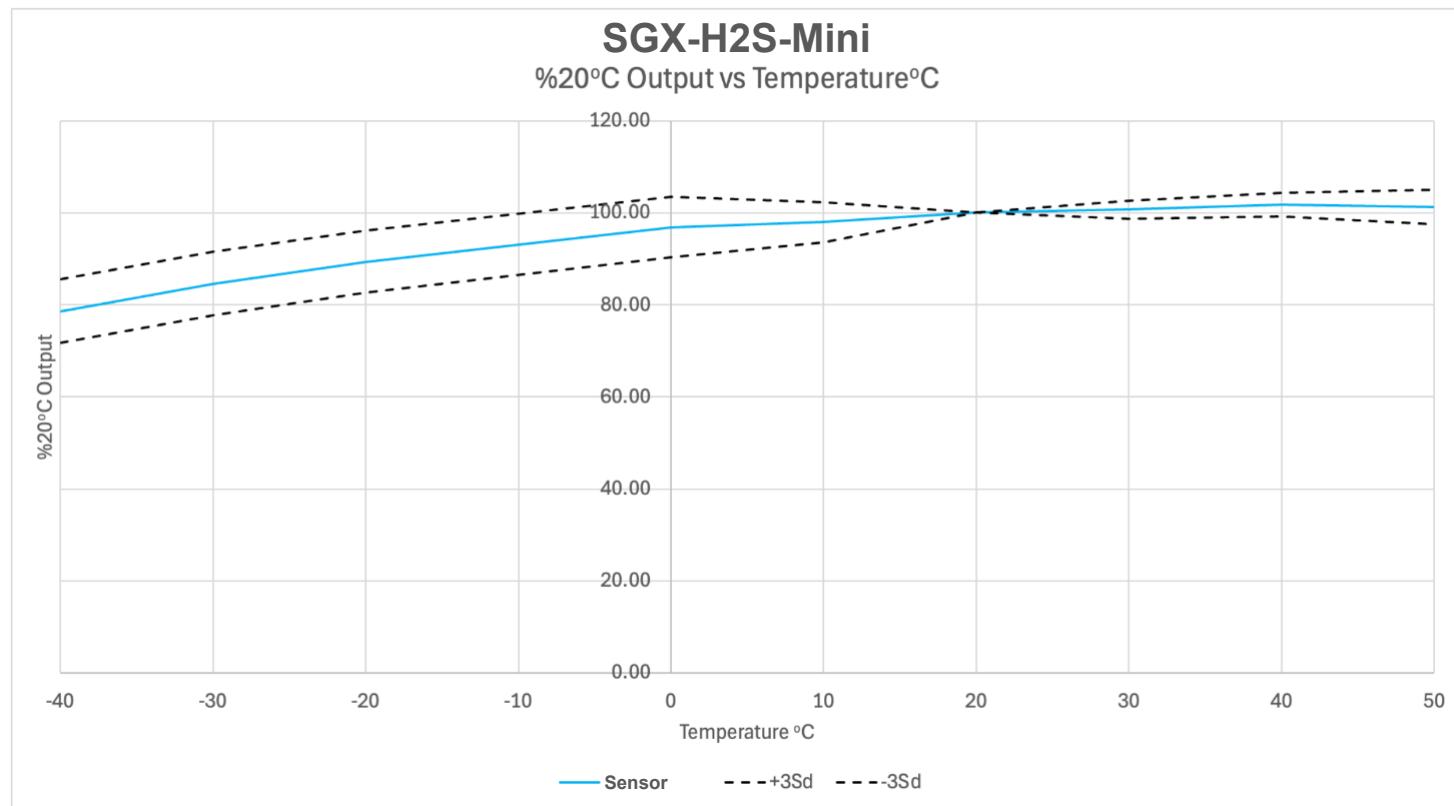
Poisoning:

SGX Sensortech sensors are built to work well in tough and demanding environments. However, avoid exposing them to high levels of solvent vapors — during storage, installation, or use. If you're mounting the sensor on a printed circuit board (PCB), clean the board with a degreasing agent before installation.

Important:

Do not glue or solder anything directly to the pins of SGX Sensortech sensors. Doing so will void the warranty. Always use proper PCB sockets for connection.