



## SGX-4H2S

### Industrial Hydrogen Sulfide Sensor

(Application : Portable Gas Detectors)

#### PERFORMANCE

Range	0 – 100 ppm
Output Signal	700 ± 250nA/ppm
Zero Shift (-40°C to +50°C)	< ±2 ppm equivalent
Linearity	Linear
Response time (T <sub>90</sub> )	<30 s
Maximum Overload	500 ppm
Long-term output drift	<15% per annum
Recommended Load Resistor	10 ohms
Warranty	2 years
Bias	No Bias

#### OPERATING CONDITIONS

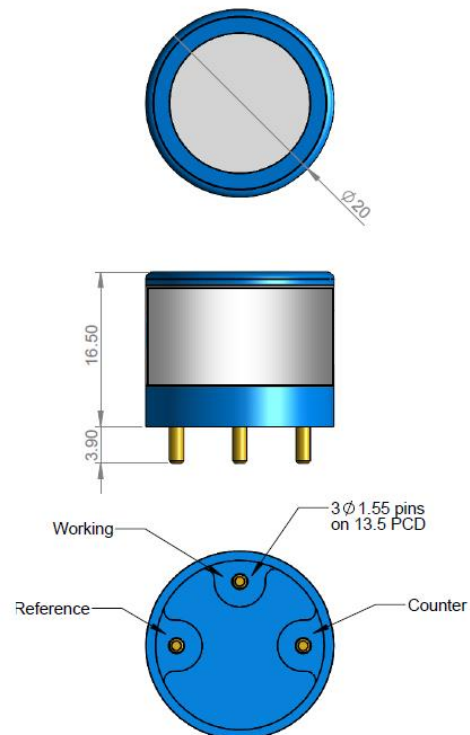
Temperature Range	-30°C to +50°C
Operating Humidity	15 – 90% RH (non-condensing)
Pressure range	800 to 1200 mbar
Operating Circuit	See Application Note 2
Recommended Storage Temperature	0°C to 20°C
Storage life	6 months in original packing (0 – 25°C)

#### INTRINSIC SAFETY DATA

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

#### PRODUCT DIMENSIONS

All dimensions in mm  
All tolerances ±0.15 mm  
Pin Diameter = 1.50mm



#### IMPORTANT NOTES

- All performance is based on conditions at 20°C, 50% RH and 1 atm, using SGX recommended circuitry.
- Sensor performance is temperature dependant. Please see graph on page 2.
- Do not solder to the connector pins as this may damage the sensor and thereby invalidate the warranty.
- Details on recommended connector pins can be found in the Frequently Asked Questions within the Gas Sensor section of the SGX website.
- This device is designed to be RoHS compliant.

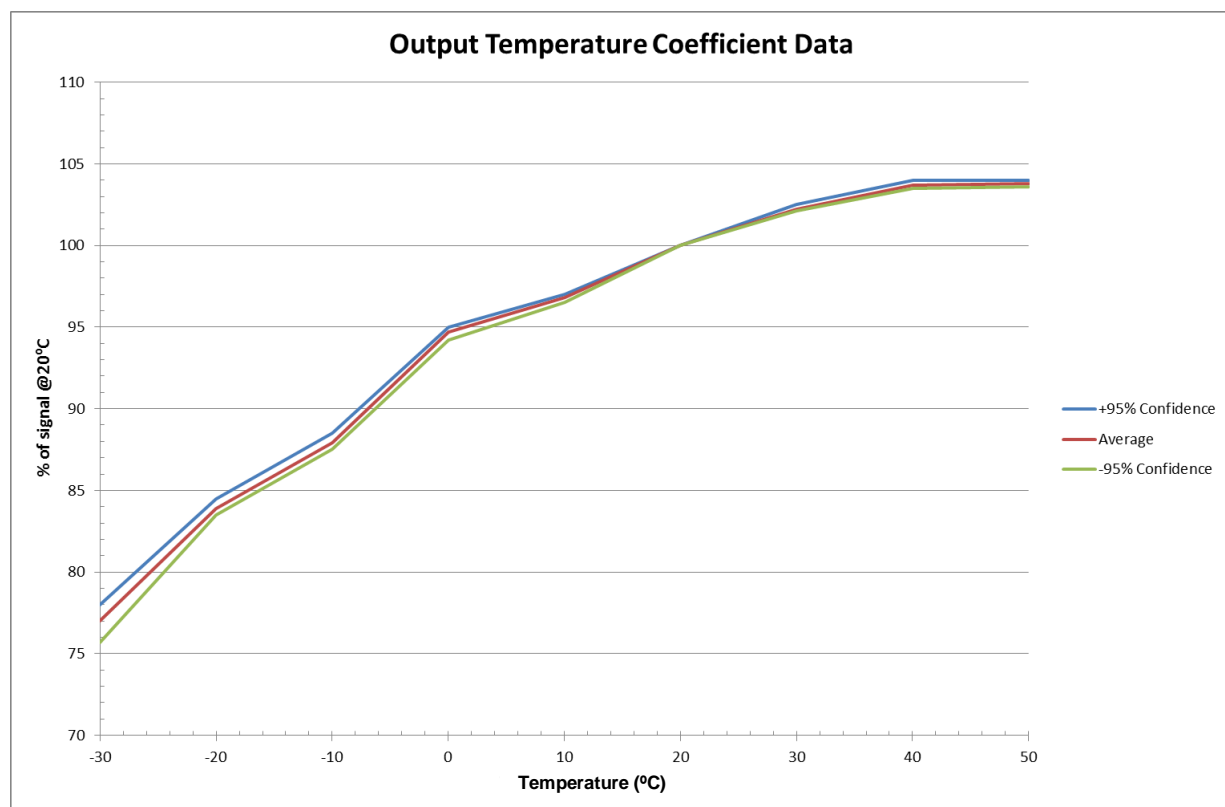
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## CROSS-SENSITIVITY DATA

Gas	Test Concentration (ppm)	Displayed Readings as H2S (ppm)
Carbon Monoxide (CO)	100 ppm	<2 ppm
Sulfur Dioxide (SO <sub>2</sub> )	20 ppm	0 ppm
Nitrogen Dioxide (NO <sub>2</sub> )	5 ppm	<0.5 ppm
Nitric Oxide (NO)	50 ppm	<0.5 ppm
Ammonia (NH <sub>3</sub> )	50 ppm	0 ppm
Chlorine (Cl <sub>2</sub> )	15 ppm	0 ppm
Ethylene (C <sub>2</sub> H <sub>4</sub> )	100 ppm	0 ppm
Carbon Dioxide (CO <sub>2</sub> )	5000 ppm	0 ppm

**Note:** This table is for reference only. Calibration should be carried out with the actual gas at a known concentration.



## POISONING

SGX 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 instruments and operation. When using sensors on printed circuit boards (PCB's), degreasing agents should be used prior to the sensor being fitted.

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