

## SGX-7H2S

### Industrial Hydrogen Sulfide Sensor

(Application : Fixed Gas Detectors)

#### PERFORMANCE

Range	0 – 50 ppm
Output Signal	1700 ± 400 nA/ppm
Typical Baseline Range (pure air)	<±0.5 ppm H <sub>2</sub> S equivalent
Linearity	Linear
Response time (T <sub>90</sub> )	<40 s
Maximum Overload	500 ppm
Long-Term Output Drift	<20% per annum
Recommended Load Resistor	10 ohms
Repeatability	<±1% H <sub>2</sub> S equivalent
Resolution	< 0.1 ppm typical
Warranty	1 year
Bias	No Bias

#### OPERATING CONDITIONS

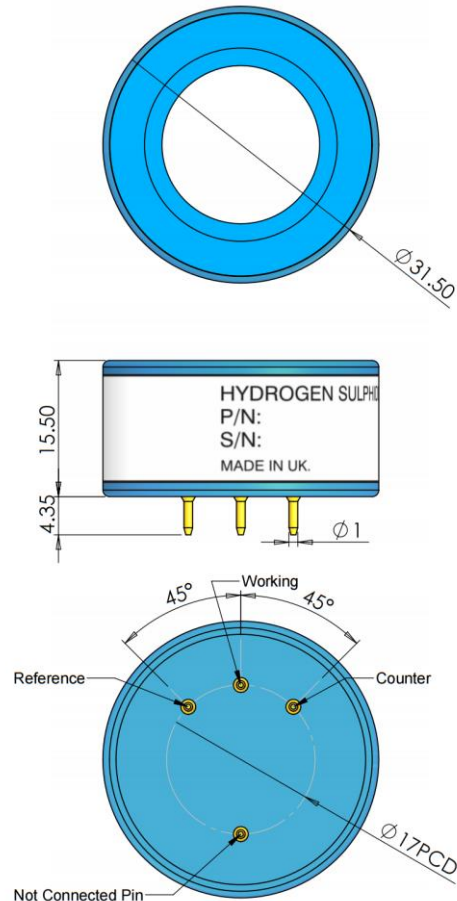
Temperature Range	-40°C to +50°C
Operating Humidity	15 – 90% RH (non-Condensing)
Pressure range	800 to 1200 mbar
Operating Circuit	See Application Note 2
Recommended Storage Temperature	0°C to 20°C
Expected Operating Life	> 24 Months in Air

#### INTRINSIC SAFETY DATA

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

#### PRODUCT DIMENSIONS

All dimensions in mm  
 All tolerances ±0.15 mm



#### IMPORTANT NOTES

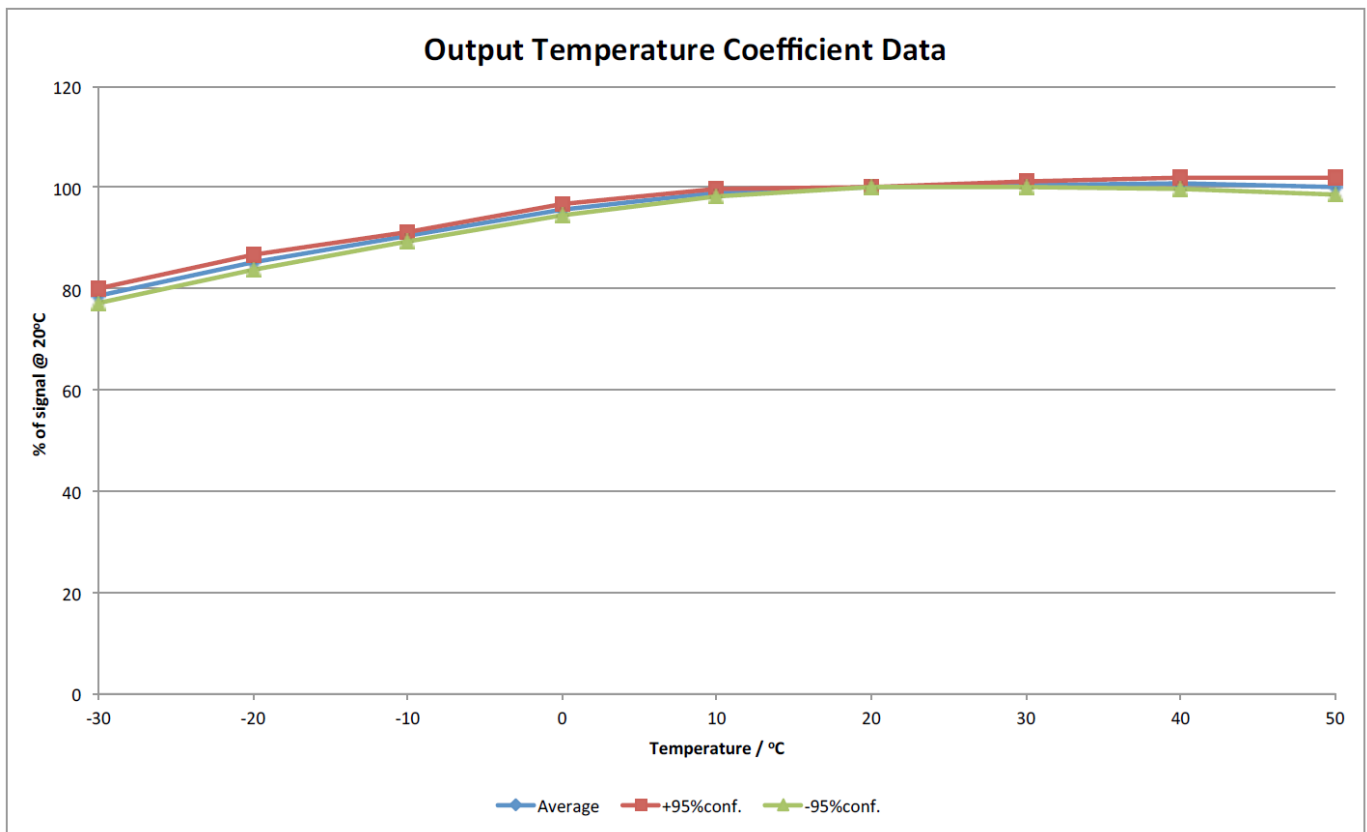
- All performance is based on conditions at 20°C, 50% RH and 1 atm, using SGX recommended circuitry.
- Sensor performance is temperature dependant; please contact SGX for temperature performance other than 20°C.
- Do not solder to the connector pins as this may damage the sensor and thereby invalidate 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.

## CROSS-SENSITIVITY DATA

GAS	CONCENTRATION	SGX-7H2S
Carbon Monoxide	300 ppm	<3 ppm
Sulfur Dioxide	5 ppm	<1 ppm
Nitrogen Dioxide	5 ppm	<±0.5 ppm
Nitric Oxide	50 ppm	<1 ppm
Hydrogen	500 ppm	<1 ppm
Chlorine	1 ppm	0 ppm
Ethylene	100 ppm	0 ppm
Carbon Dioxide	5000 ppm	0 ppm

Note: This table is for reference only and are typical values. Cross Sensitivities may not be linear and should not be scaled. Calibration should be carried out with the actual gas at a known concentration.

## TEMPERATURE



## 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 instrument and operation. When using sensors on printed circuit boards (PCBs), degreasing agents should be used prior to the sensor being fitted.