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SGX-7H2S Datasheet

Industrial Hydrogen Sulfide Sensor

Application : Fixed Gas Detectors

PERFORMANCE

Typical Baseline Range….<±0.5 ppm H2S equivalent
Measurement Range ……..……. 0 – 50 ppm
Output Signal ……..…… 1700 ± 400 nA / ppm
Linearity ……..…….. Linear
Repeatability …… …..< ±1% H2S equivalent
Response time, t90 ……..…….. <40 s
Maximum Overload ……..…… 500 ppm
Long-term output drift ……..…… <5% per annum
Recommended Load Resistor ……..……... 10 ohms
Warranty ……..……. 2 year
Resolution (Electronics dependent) ……. < 0.1 ppm typical

OPERATING CONDITIONS

Temperature Range …….. ..…….. -30 to +50°C
Operating Humidity....15 – 90% RH (non-condensing)
Pressure range ……..…800 mbar to 1200 mbar
Recommended Storage Temperature.....0°C to 20°C
Expected Operating Life …..……. <2 years (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

CROSS–SENSITIVITY DATA

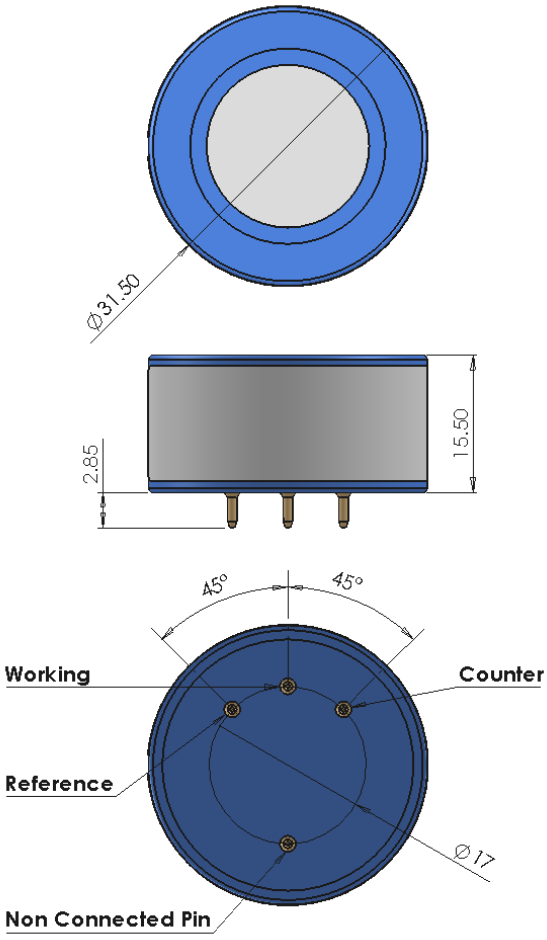
GAS	CONC.	SGX-7H2S
Carbon Monoxide	300 ppm	<3 ppm
Sulfur Dioxide	5 ppm	<1 ppm
Nitrogen Dioxide	5 ppm	<±0.5 ppm
Nitric Oxide	50 ppm	<1 ppm
Hydrogen	100 ppm	<1 ppm
Chlorine	1 ppm	0 ppm
Ethylene	100 ppm	0 ppm
Carbon Dioxide	5000 ppm	0 ppm

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

This device is designed to be RoHS compliant.

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.

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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 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.

TEMPERATURE PERFORMANCE (Typical)