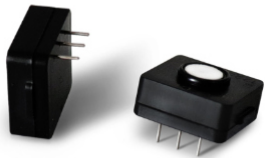




# SGX

## SENSORTECH

An Amphenol Company



**PS1-H2S-500**



**PS4-H2S-500**

# Hydrogen Sulfide sensors Datasheet

### SGX Solid Polymer Electrolyte Gas Sensors

The SGX series of PS1 and PS4 Electrochemical gas sensors are using a revolutionary 'Solid Polymer Electrolyte' technology that is based on the principle of catalytic reaction. The target gas to be measured generates a very small current, proportional to the gas concentration. Our technology offers a stable, high quality and cost-effective manufacturing process. The SGX solid polymer electrolyte gas sensors are available in a very small size, are highly sensitive, do not use power and have very low cross sensitivity from other gases.



*Quality, Safety, Responsibility*

# Technical Specifications

## Performance

Sensitivity	90 ± 20 nA / ppm
Measurement Range	0 – 500 ppm
Zero Current	± 20 nA
Maximum Overload	1000 ppm
Response Time	T50 < 10s, T90 < 30s
Repeatability	< 1%
Lower Detectable Limit (LDL)	≤ 2 ppm
Linear Range	500 ppm
Resolution (16Bit ADC)	0.1ppm

## Environmental Details

Temperature Range	-40°C to +55°C
Pressure Range	800 to 1200 hPA
Operating Humidity Range	15-95% RH
Storage Temperature	0 to 20°C

## Lifetime Details

Long-Term Drift	< 1 %/month
Expected Lifetime	> 3 years in air
Zero Drift in Clean Air	< 2 ppm
Storage conditions	0-20°C
Storage Life	12 months
Warranty	12 months

## Operation

Operating Principle	Amperometric, 3-electrode
Bias Voltage	0 mV
Recommended Load Resistor	100 Ω
Warm Up Time	< 60 s

## Housing

Housing Material	PPO
Weight	PS1-H2S-500 < 0.7g PS4-H2S-500 < 6g



## Features

- Small size
- Wide temperature range
- Fast response time
- No electrolyte leakage
- Extreme linear response up to high concentration
- Excellent sensitivity at low temperatures
- Low cost at large volumes
- Individually calibrated (including test report)



## Key applications

- Biogas Applications
- Water Treatment Plants
- Leak detection
- Portable & Fixed Point Applications



## Important Notes

- All performance is based on conditions at 20°C, 50% RH and 1 atm, flow rate > 150 qcm/min, 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.