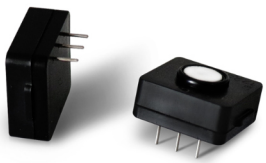
SGX SENSORTECH

An Amphenol Company



PS1-HCHO-5

PS4-HCHO-5

Formaldehyde sensor 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

SGX SENSORTECH
An Amphenol Company

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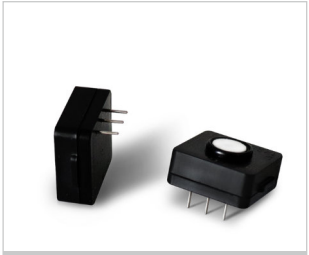
Technical Specifications



PS1-HCHO-5

PS4-HCHO-5

Performance

Sensitivity	35 ± 20 n A / ppm
Measurement Range	0 – 5 ppm
Zero Current	± 2 nA
Maximum Overload	100 ppm
Response Time	T50 < 20s, T90 < 120s
Repeatability	1% Lower
Lower Detectable Limit (LDL)	≤ 0.05 ppm
Linear Range	5 ppm
Resolution (16Bit ADC)	0.01ppm

Environmental Details

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

Lifetime Details

Long-Term Drift	< 1 %/month
Expected Lifetime	> 3 years in air
Zero Drift in Clean Air	< 0.2 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-HCHO-5 < 0.7g PS4-HCHO-5 < 6g

Features

- Small size
- Wide temperature range
- Fast response time
- No electrolyte leakage
- Low cost at large volumes
- Strong signal to noise
- Individually calibrated (including test report)

HANDLE WITH CARE

RoHS compliant 2002/95/EC

Key applications

- TLV Monitoring
- Indoor Air Aquality

Important Notes

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