SGX SENSORTECH

An Amphenol Company

PS4-O3-5

Datasheet

Quality, Safety, Responsibility

SGX SENSORTECH
An Amphenol Company

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Technical Specifications

PS4-O3-5

Performance

Sensitivity	60 ±20 n A / ppm
Measurement Range	0 – 5 ppm
Zero Current	± 20 nA
Maximum Overload	10 ppm
Response Time	T50 < 20s, T90 < 60s
Repeatability	< 2%
Lower Detectable Limit (LDL)	≤ 0.05 ppm
Linear Range	5 ppm
Resolution (16Bit ADC)	<0.01ppm

Environmental Details

Temperature Range	-20°C to +40°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	> 2 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	220 Ω
Warm Up Time	< 60 s

Housing

Housing Material	PPO
Weight	< 6g

HANDLE WITH CARE

RoHS compliant

Features

- Zero bias
- Low noise
- No electrolyte leakage
- High sensitivity
- Excellent sensitivity at low temperatures
- Stable zero point

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.
- This device is designed to be RoHS compliant.

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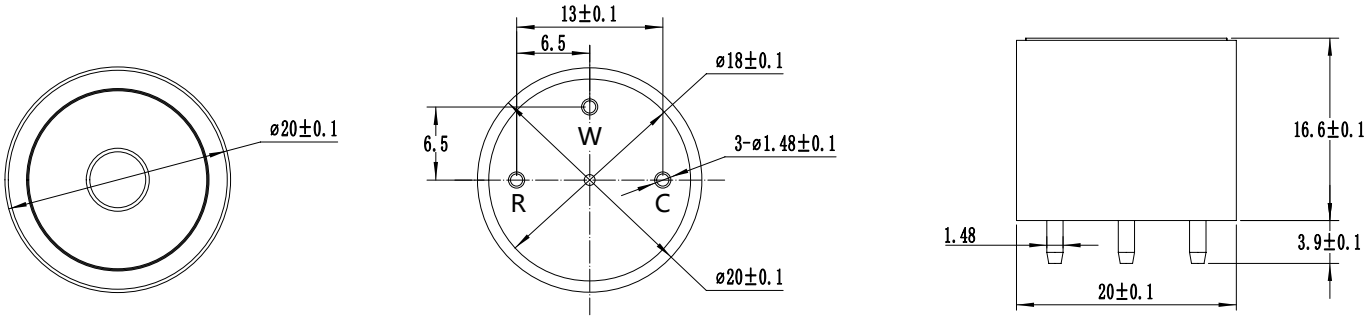
Dimensions



Cross Sensitivity

Gas	Formula	Test Concentration	Sensor Reading
Ammonia	NH_3	50ppm	0ppm
Carbon Dioxide	CO_2	1000ppm	0ppm
Carbon Monoxide	CO	300ppm	0ppm
Methane	CH_4	1%vol	0ppm
Hydrogen	H_2	3000ppm	0ppm
Hydrogen Cyanide	HCN	10ppm	0ppm
Isopropanol	C_3H_8O	1000ppm	n.e
Nitric Oxide	NO	35ppm	0ppm
Sulphur Dioxide	SO_2	5ppm	1ppm

Note:
1) The above interference factors may vary due to different sensors and service life, please refer to the actual test results.
2) This table is not complete for all cross gases, other gas please contact with us.

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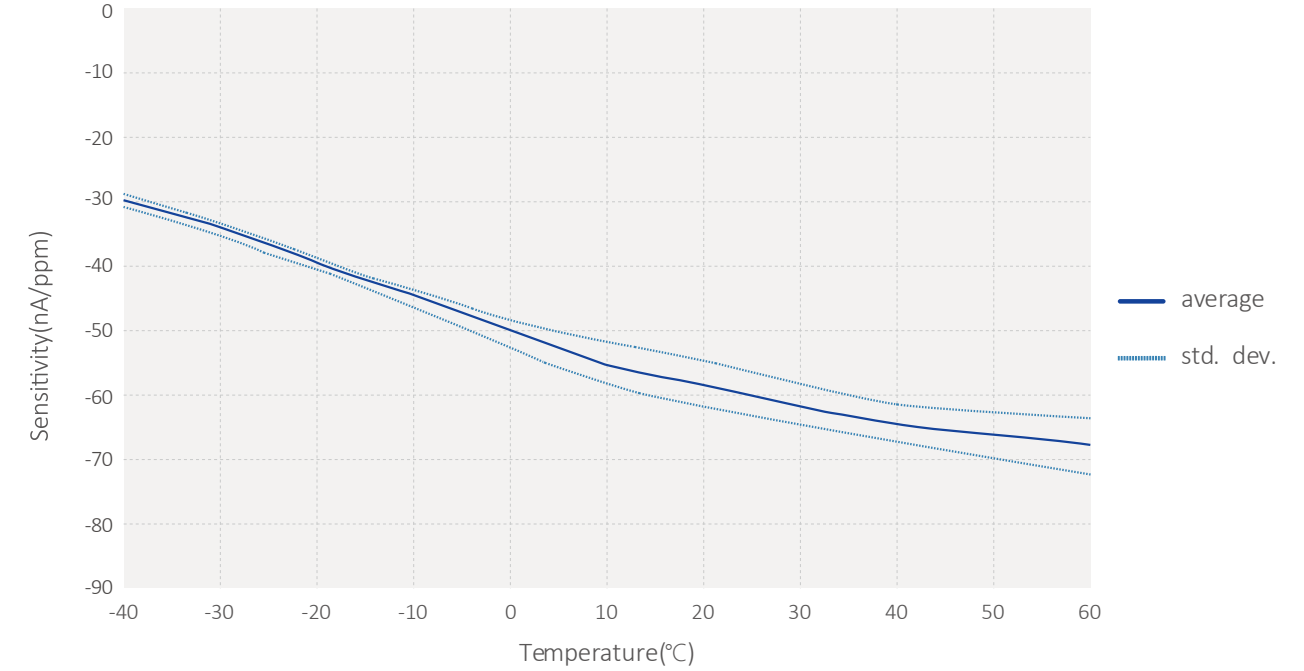
Temperature Curve



Disclaimer

SGX Europe Sp. z o.o. reserves the right to change design features and specifications without prior notification. We do not accept any legal responsibility for customer applications of our sensors. SGX Europe Sp. z o.o. accepts no liability for any consequential losses, injury or damage resulting from the use of this document, the information contained within or from any omissions or errors herein. This document does not constitute an offer for sale and the data contained is for guidance only and may not be taken as warranty. Any use of the given data must be assessed and determined by the user thereof to be in accordance with federal, state and local laws and regulations. All specifications outlined are subject to change without notice.

Warning

SGX Europe Sp. z o.o. 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 I avoid, both 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. By the nature of the technology used, any electrochemical gas sensor offered by SGX Europe Sp. z o.o. can potentially fail to meet specification without warning. SGX Europe Sp. z o.o. makes every effort to ensure the reliability of our products of this type, where life safety is a performance requirement of the product, we recommend that all sensors and instruments using these sensors are checked for response to gas before use. SGX Europe Sp. z o.o reserves the right to make product changes without notice. No liability is accepted for any consequential losses, injury or damage resulting from the use of this document or from any omissions or errors herein. The data is given for guidance only. It does not constitute a specification or an offer for sale. The products are always subject to a program of improvement and testing which may result in some changes in the characteristics quoted. As the products may be used by the client in circumstances beyond the knowledge and control of SGX Europe Sp. z o.o, we cannot give any warranty as to the relevance of these particulars to an application. It is the clients' responsibility to carry out the necessary tests to determine the usefulness of the products and to ensure their safety of operation in a particular application. Performance characteristics on this data sheet outline the performance of newly supplied sensors. Output signal can drift below the lower limit over.