SGX SENSORTECH

An Amphenol Company



4-Series



SGX-4O3-5

Ozone sensor

Datasheet

The SGX-4O3-5 is a compact, high-accuracy electrochemical ozone sensor designed for both portable and stationary gas detection systems. With a fast T90 response time under 60 seconds and a wide detection range of 0–5 ppm, it ensures reliable performance in demanding industrial environments. Built for durability, this sensor offers long-term stability, low cross-sensitivity, and a 24-month operational life expectancy.

Quality, Safety, Responsibility

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PERFORMANCE

Nominal Range	0 - 5 ppm
Maximum Overload	20 ppm
Output signal	1175 ± 375 nA / ppm
Typical Baseline Range (pure air)	± 0.25 ppm O_3 equivalent
Response Time (T90)	< 60 s
Linearity	Linear
Repeatability	< ±2% O_3 equivalent
Recommended Load Resistor	10 ohms
Resolution (Electronics dependent)	< 0.1 ppm typical

OPERATING CONDITIONS

Temperature Range	-20°C to +50°C
Pressure Range	800 to 1200 mbar
Operating Humidity Range (non-condensing)	15% to 90% RH

LIFETIME

Long Time Output Drift	< 20% per annum
Storage Temp	0°C to 20°C
Expected Operating Life	> 24 months in air

INTRINSIC SAFETY DATA

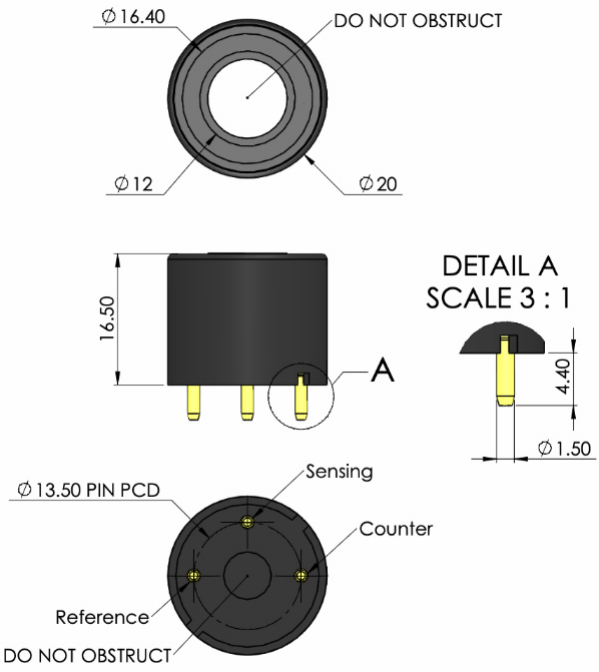
Max. at 2000 ppm	0.3 mA
Max. O/C Voltage	1.3 V
Max. S/C Current	<1.0 A

Features

- Fast response time (<60 seconds)
- High stability and repeatability (<±2%)
- Low sensitivity to humidity changes
- Wide measurement range: 0–5 ppm O_3
- Compact and cost-effective design
- Excellent robustness in industrial conditions
- Low baseline drift (<20%/year)
- Long operating life (>24 months)

Key Applications

- Industrial ozone monitoring
- Portable ozone detectors
- Fixed air quality systems
- Environmental safety and compliance
- Laboratories and controlled environments



Product Dimensions
All dimensions in mm
All tolerances ±0.15 mm

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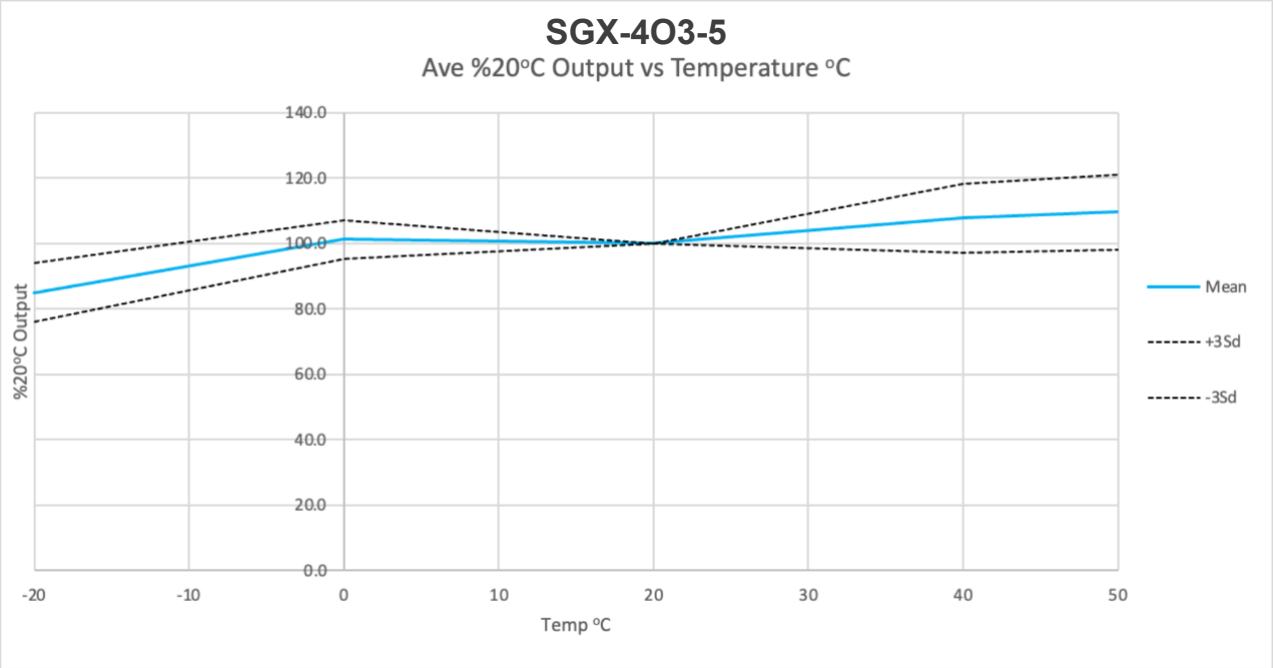
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CROSS SENSITIVITY

Gas	Test Concentration	Sensor Reading
Carbon Monoxide	200 ppm	< 0.5
Nitrogen Dioxide	2ppm	~ 1.4
Sulphur Dioxide	20 ppm	~ -12
Nitric Oxide	50 ppm	< -0.5
Carbon Dioxide	5000 ppm	0
Hydrogen Sulphide **	25 ppm	-35

** Following exposure to H2S, sensor will show a significantly lower response to O3. This is temporary and recovers after xxhrs

TEMPERATURE DATA



Poisoning

SGX Sensortech 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 (PCB's), degreasing agents should be used prior to the sensor being fitted.

Please note gluing or soldering direct to the pins of SGX Sensortech gas sensors will void warranty, please use PCB sockets when connecting our sensors.

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.
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