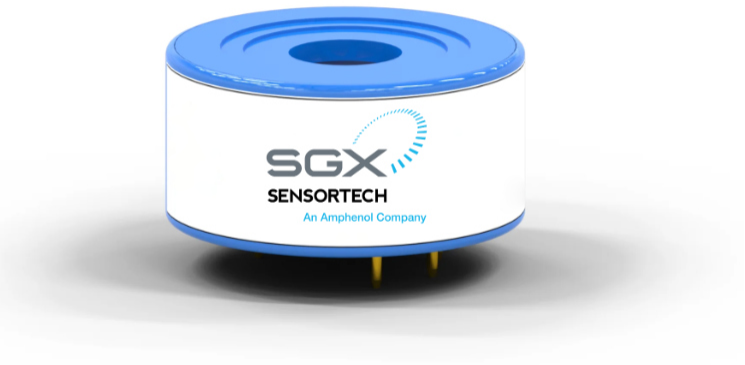
SGX SENSORTECH

An Amphenol Company



SGX-7O3-2

Ozone sensor

Datasheet

The SGX-7O3-2 ozone sensor from SGX Sensortech is a high-performance electrochemical sensor designed for industrial air quality monitoring. It delivers a linear output signal of 5 ± 2 µA/ppm across a 0–2 ppm range, with a rapid T90 response time of under 120 seconds. The sensor boasts excellent repeatability (<±2% O_3 equivalent), high stability, and a compact form factor, making it ideal for both portable and fixed applications. Designed for robust operation, it performs reliably in environments ranging from -20°C to +50°C and 15–90% RH. The SGX-7O3-2 is cost-effective, resistant to humidity fluctuations, and ensures dependable ozone detection over a 24-month operational lifespan.

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SGX Europe Sp. z o.o.
Konduktorska 42 St.,
40-155 Katowice,
Poland

T: +48 (0) 32 438 4778

E: sales.is@sgxsensortech.com
www.sgxsensortech.com

PERFORMANCE

Nominal Range	0 - 2 ppm
Maximum Overload	5 ppm
Output signal	5 ± 2 nA / ppm
Typical Baseline Range (pure air)	± 250 ppb O_3 equivalent
Response Time (T90)	< 120 s
Linearity	Linear
Repeatability	< ±2% O_3 equivalent
Recommended Load Resistor	33 ohms
Resolution (Electronics dependent)	< 0.1 ppm typical

Features

- High stability
- Fast response and recovery
- Robust environmental performance
- Low sensitivity to relative humidity changes

Key Applications

- Industrial Safety
- Industrial General
- Medical
- Air Quality

OPERATING CONDITIONS

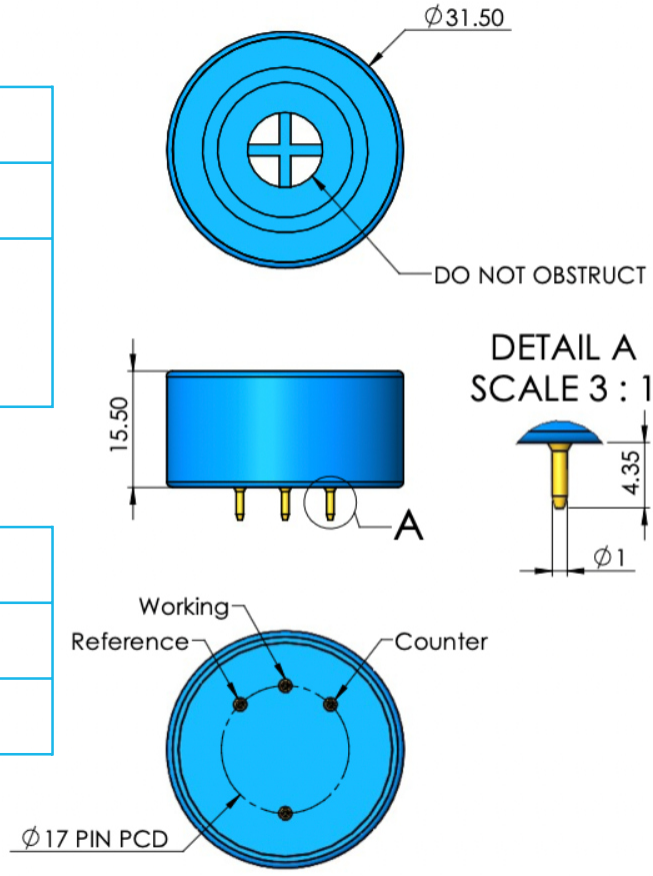
Temperature Range	-20°C to +50°C
Pressure Range	800 to 1200 mbar
Operating Humidity Range (non-condensing)	15% to 90% RH

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



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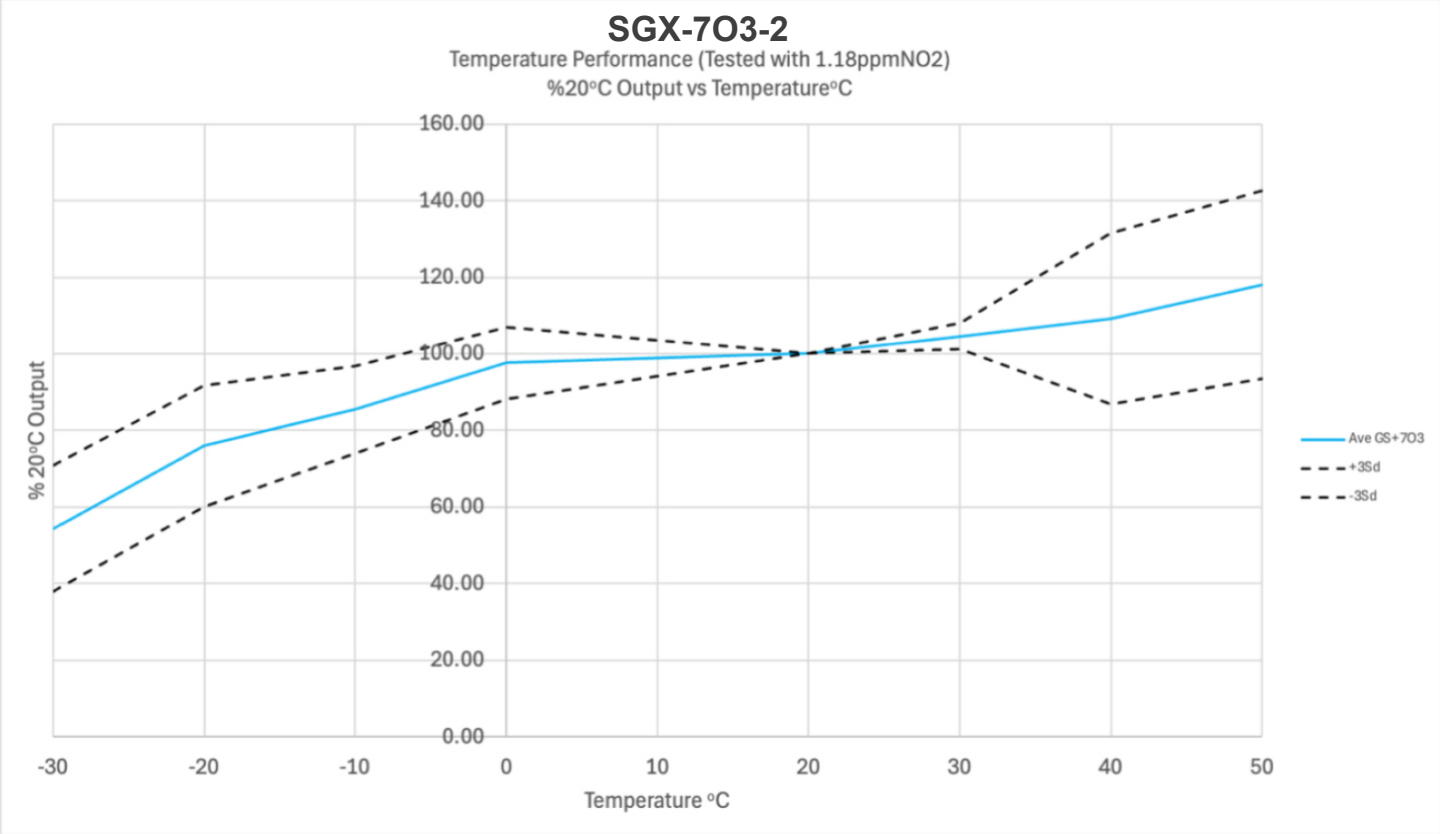
CROSS SENSITIVITY

Gas	Test Concentration	Sensor Reading
Carbon Monoxide	200 ppm	-0.1 ppm
Nitrogen Dioxide	2ppm	
Sulphur Dioxide	5 ppm	ppm
Nitric Oxide	50 ppm	ppm
Chlorine	6 ppm	~ 6ppm
Hydrogen Sulphide **	25 ppm	~ -30ppm

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

TEMPERATURE DATA



Note: the output of the SGX-7O3-2 sensor is of a negative polarity compared to CO or H2S for example.