

EC4-2000-SO₂

Industrial Sulfur Dioxide Sensor

(Application : Portable Gas Detectors)

PERFORMANCE

Range	0 – 2000 ppm
Maximum Overload	4000 ppm
Sensitivity	12 to 28 nA/ppm SO ₂
Zero in Air at 20°C	< ± 0.4 µA
Zero Deviation (-20°C to +40°C)	0 – 4 ppm SO ₂ equivalent
Resolution	5 ppm SO ₂
Linearity	Linear across range
Response Time (T ₉₀)	< 60 s
Long-term Output Drift	< 2% signal / month
Warranty	1 year
Bias	No Bias

OPERATING CONDITIONS

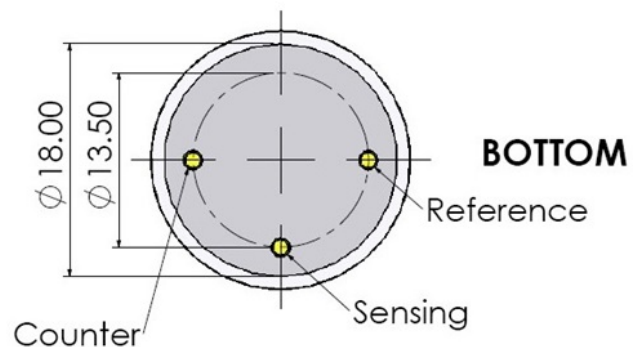
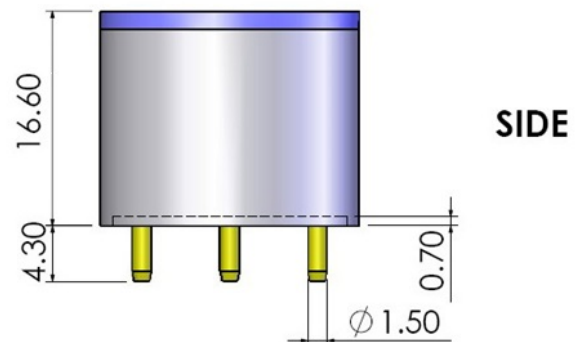
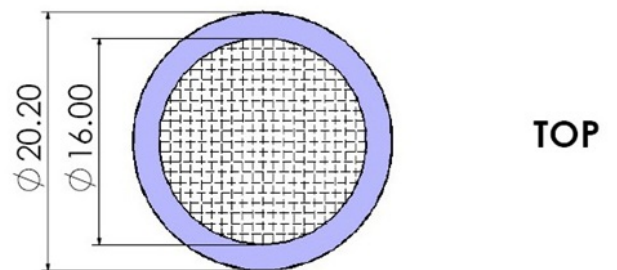
Temperature Range	-20°C to +50°C
Operating Humidity	15 – 90% RH (non-condensing)
Pressure range	90 – 110 kPa (nominal)
Operating Circuit	See Electrochemical Toxic Sensor Application Note
Recommended Storage Temperature	0°C to 20°C
Storage life	6 months in original packing
Expected Operating Life	2 years in air

PHYSICAL CHARACTERISTICS

Weight	5 g approx.
Orientation Sensitivity	None
Dimensions	See outline

OUTLINE

All Dimensions are in mm
 All tolerances are ±0.2mm



CROSS-SENSITIVITY DATA

Gas	Concentration Level (ppm)	Response as ppm SO ₂
Carbon Monoxide	300	<30
Hydrogen Sulfide	15	0
Nitric Oxide	35	21
Nitrogen Dioxide	5	<-5

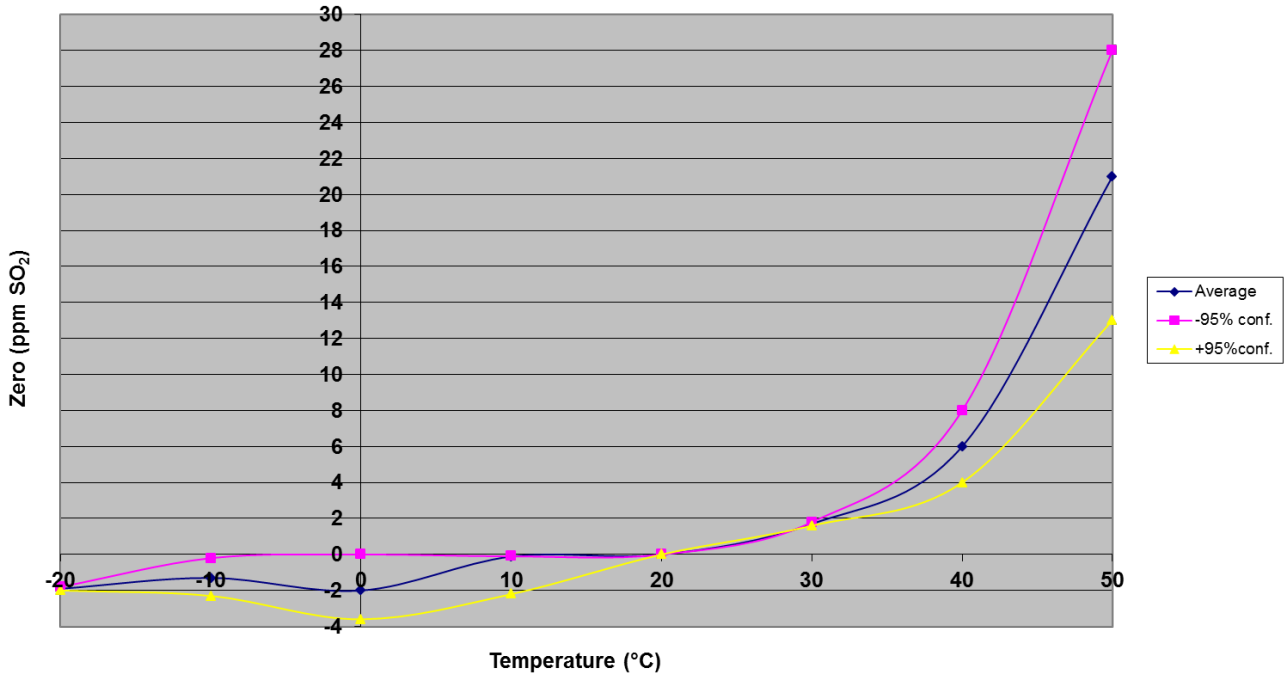
* See Important Notes

IMPORTANT NOTES

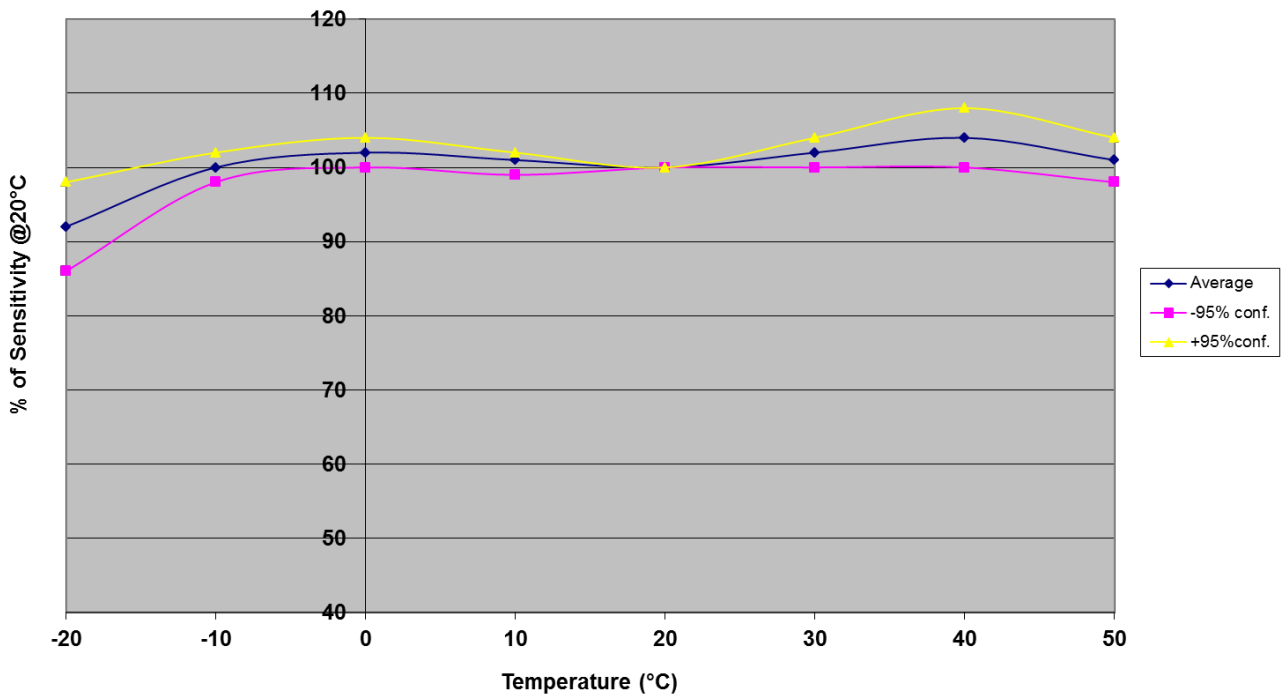
- 1.) Do not solder to the connector pins as this may damage the sensor and thereby invalidate the warranty.
- 2.) Details on recommended connector pins can be found in the Frequently Asked Questions within the Gas Sensor section of the SGX website.
- 3.) All performance specifications are based upon the following environmental conditions: 20°C, 50% relative humidity, 101kPa.
- 4.) Cross Sensitivity Data is for information only. Calibration is recommended with target gas as the accuracy of calibration and measurement cannot be ensured.
- 5.) The cross sensitivities are including but not limited to the gases stated in the table. It may respond to other gases.
- 6.) The cross sensitivities may fluctuate between $\pm 30\%$ and may differ from batch to batch or across sensor's life time.
- 7.) The device is designed to be RoHS compliant.

TEMPERATURE

EC4-2000-SO2 Graph of Zero vs Temperature



EC4-2000-SO2 Graph of Sensitivity vs Temperature



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