

EC4-10-ETO Datasheet

Industrial Ethylene Oxide
Electrochemical Sensor
Application : Portable Gas Detectors

PERFORMANCE

Range..... 0 – 10 ppm
Sensitivity 1.9 ± 0.8 µA/ppm
Zero in air at 20 °C..... -0.2 to 2.5 µA
Baseline Drift 0 to 2 ppm equivalent
Resolution 0.1 ppm
Linearity Linear Across Range
Response Time ≤ 120 seconds
Long-term Output Drift < 2% signal/month
Warranty 2 Years

OPERATING CONDITIONS

Temperature Range -20°C to +50°C
Operating Humidity 15 - 90% RH (non-condensing)
Pressure Range 90 to 110 kPa
Bias Potential + 300 mV
Storage Life 6 months in original packaging
Storage Temperature 0°C to 20°C
Expected Operating Life 3 years
Operating Circuit see Electrochemical Toxic
Sensor Application Note

PHYSICAL CHARACTERISTICS

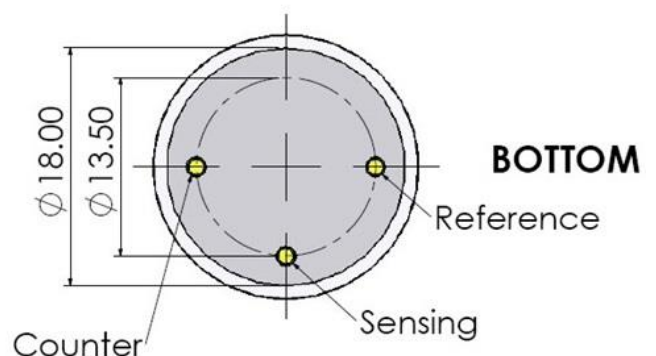
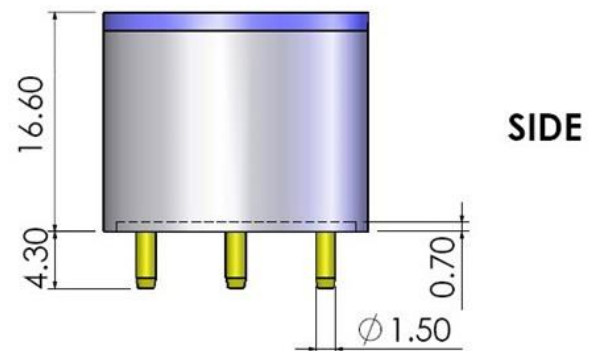
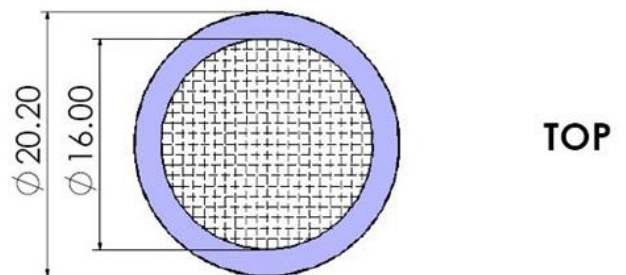
Weight 5 g
Orientation Sensitivity None
Dimensions See outline

CROSS-SENSITIVITY DATA

GAS	Range (ppm)	Correction Factor to ETO *
Ethylene Oxide	10	1.0
Carbon Monoxide	100	2.5
Ethanol	30	0.8
Methanol	10	0.3
Isopropanol	50	1.3
Formaldehyde	10	0.4
i-Butylene	30	0.9
Butadiene	10	0.3
Ethylene	30	0.7
Propene	30	0.8
Vinyl Chloride	30	1.3
Vinyl Acetate	30	0.5
Formic Acid	50	1.4
Acrylonitrile	100	2.5

* See Notes

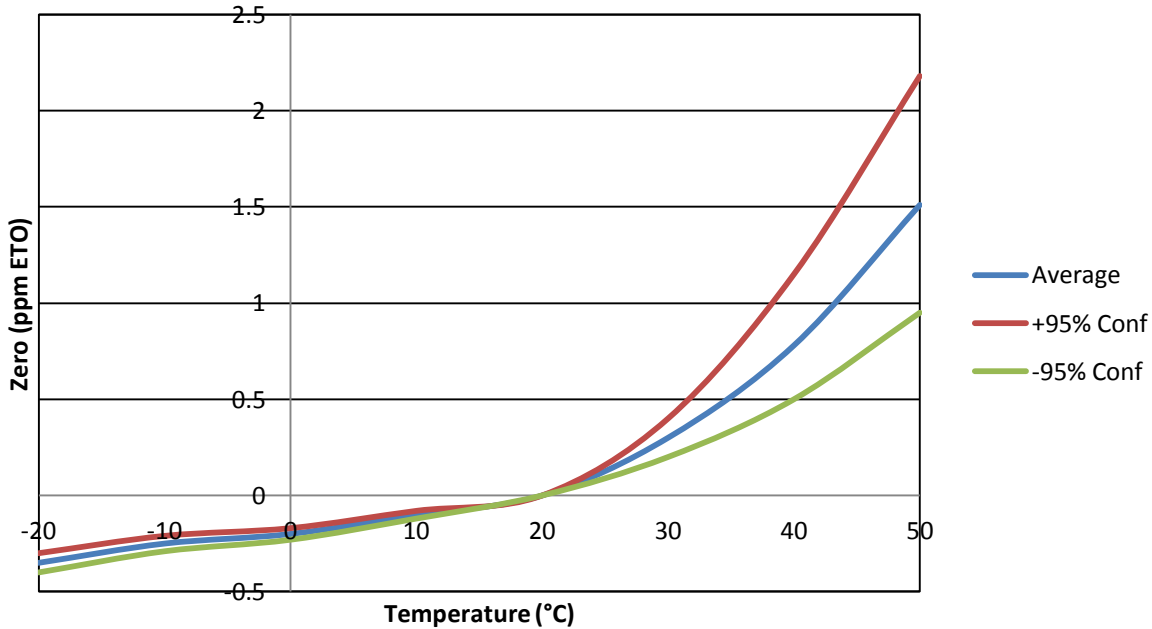
OUTLINE



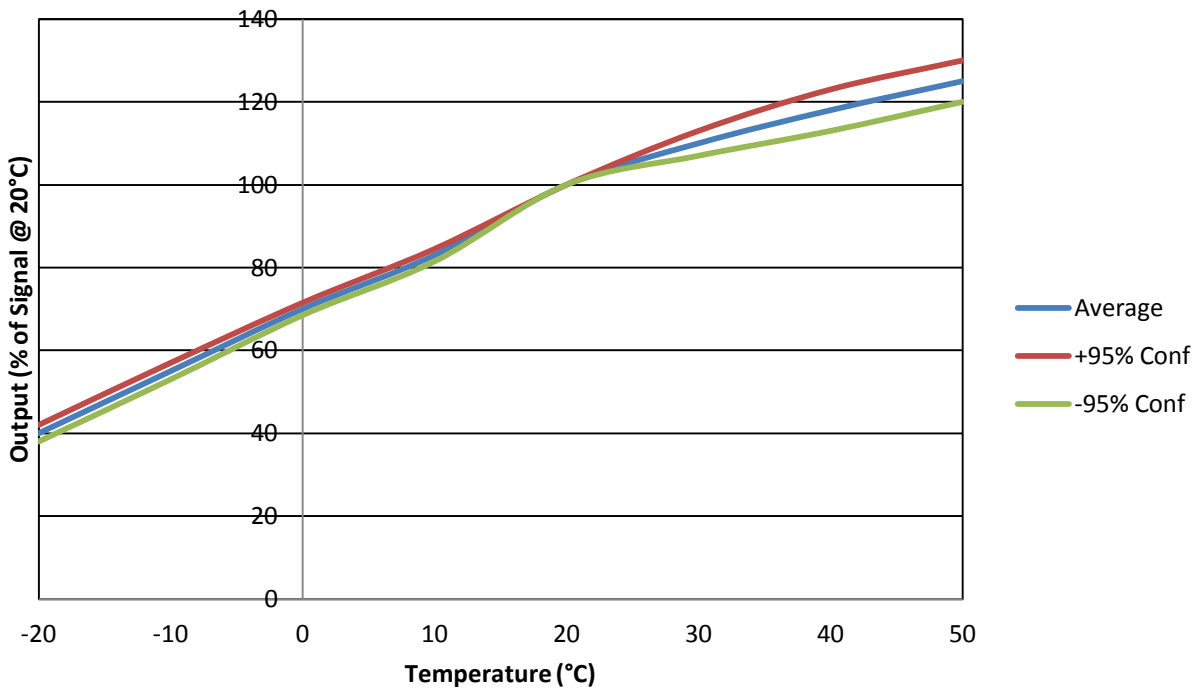
All dimensions are in millimeters.
All tolerances are ±0.2mm.

TEMPERATURE PERFORMANCE

Zero V's Temperature



Output V's Temperature



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In case of modification of the product, SGX disclaims all liability.

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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.) Correction Factor of ETO = Sensitivity of ETO / Sensitivity of test gas.
- 6.) The cross sensitivities are including but not limited to the gases stated in the table. It may respond to other gases.
- 7.) The cross sensitivities may fluctuate between $\pm 30\%$ and may differ from batch to batch or across sensor's life time.