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EC4-1-CLO2

Industrial Chlorine Dioxide Sensor

(Application : Portable Gas Detectors)

PERFORMANCE

Range	0 – 1 ppm	
Sensitivity	$0.65 \pm 0.30 \ \mu\text{A} \ / \text{ppm}$	
Zero in Air at 20°C	<±0.02 μA	
Zero Drift (-20°C to 40°C)	-0.06 to 0.03ppm Equivalent	
Resolution	0.03 ppm	
Linearity	Linear Across Range	
Response time (T ₉₀)	< 60 seconds	
Long-term Output Drift	< 2% signal/month	
Warranty	1 year	
Bias	0mV	

OPERATING CONDITIONS

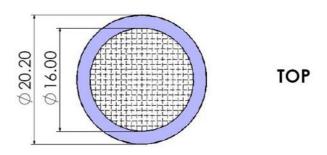
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Temperature Range	-20°C to +50°C		
Operating Humidity	15 – 90% RH (non-condensing)		
Pressure range	90 to 110 kPa		
Operating Circuit	See Application Note 2		
Recommended Storage Temperature	0°C to 20°C		
Storage life	6 months in original packing	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

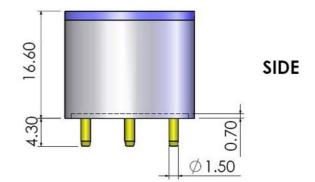
PHYSICAL CHARACTERISTICS

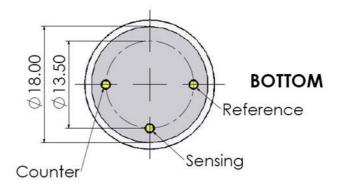
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Weight	5 g	
Orientation Sensitivity	None	
Dimensions	See Outline	

OUTLINE

All Dimensions are in mm All tolerances are ±0.15mm







Whilst SGX has taken care to ensure the accuracy of the information contained herein it accepts no responsibility for the consequences of any use thereof and also reserves the right to change the specification of goods without notice. SGX accepts no liability beyond the set out in its standard conditions of sale in respect of infringement of third party patents arising from the use of SGX products in accordance with information contained herein. In case of modification of the product, SGX disclaims all liability.

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CROSS-SENSITIVITY DATA

GAS	CONCENTRATION (ppm)	Sensor Response (as ppm CIO ₂)
Carbon Dioxide	5000	0
Carbon Monoxide	100	0
Chlorine	1	0.35
Hydrogen	3000	0
Hydrogen Sulfide	20	-12
Nitrogen Dioxide	10	6

^{*} 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 ± 30% and may differ from batch to batch or across sensor's life time.
- 7.) The device is designed to be RoHS compliant.

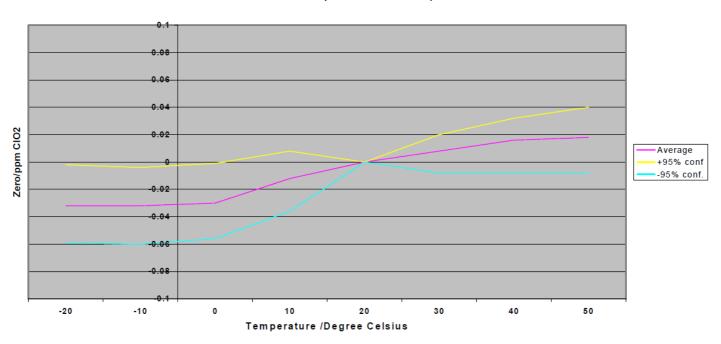
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TEMPERATURE

EC4-1-CIO2 Graph of Zero vs Temperature



EC4-1-CIO2 Sensitivity Graph of Sensitivity vs Temperature

