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# **EC4-1-CLO2**

## **Industrial Chlorine Dioxide Sensor**

(Application : Portable Gas Detectors)

### **PERFORMANCE**

Range	0 – 1 ppm		
Sensitivity	0.65 ± 0.30 μA /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 <sub>90</sub> )	< 60 seconds		
Long-term Output Drift	< 2% signal/month		
Warranty	1 year		
Bias	0mV		

# **OPERATING CONDITIONS**

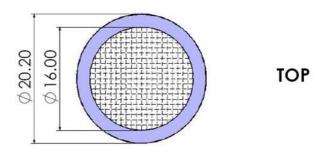
Temperature Range	-20°C to +50°C		
Operating Humidity	15 – 90% RH (non-condensing)		
Pressure range	90 to 110 kPa		
Operating Circuit	See Application Note 2		
Recommended Storage Temperature	0°C to 20°C		
Storage life	6 months in original packing		
Expected Operating Life	2 years		

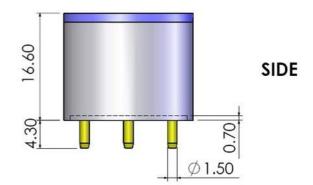
#### PHYSICAL CHARACTERISTICS

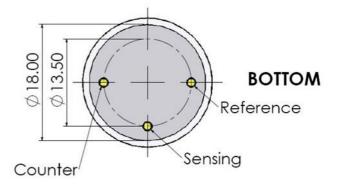
THOUSE CHARACTERIOTICS		
Weight	5 g	
Orientation Sensitivity	None	
Dimensions	See Outline	

# **OUTLINE**

All Dimensions are in mm All tolerances are ±0.15mm







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### **CROSS-SENSITIVITY DATA**

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

<sup>\*</sup> 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.

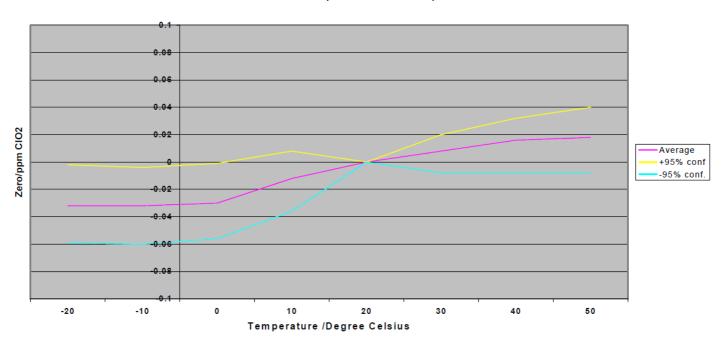
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# **TEMPERATURE**

EC4-1-CIO2 Graph of Zero vs Temperature



EC4-1-CIO2 Sensitivity Graph of Sensitivity vs Temperature

