



## EC4-50-CIO2 Electrochemical Sensor

### PERFORMANCE

Range .....	0 - 50 ppm
Sensitivity (see note).....	220 - 580 nA/ppm ClO <sub>2</sub>
Zero in air at 20 °C.....	<±0.09ppm ClO <sub>2</sub>
Resolution.....	0.05 ppm ClO <sub>2</sub>
Expected lifetime .....	2 years
Linearity .....	linear across range
Response time, t <sub>90</sub> .....	<60 s
Long-term output drift.....	<2% change in output per month
Operating circuit.....	see Electrochemical Toxic Sensor Application Note

**Note:** This output current is negative. This is because the sensor reaction is a reduction of the target gas.

### OPERATING CONDITIONS

Temperature range .....	-20 to +50 °C
Operating humidity.....	15 - 90% RH (non-condensing)
Pressure range .....	90 - 110 kPa (nominal)
Operating circuit.....	see Electrochemical Toxic Sensor Application Note
Applied potential .....	0 V
Storage life.....	6 months in original packaging (0 - 25 °C)

### PHYSICAL CHARACTERISTICS

Label colour .....	silver
Weight.....	6 g
Dimensions .....	see outline
Shelf life .....	6 months

This device is designed to be RoHS compliant.

### CROSS-SENSITIVITY DATA

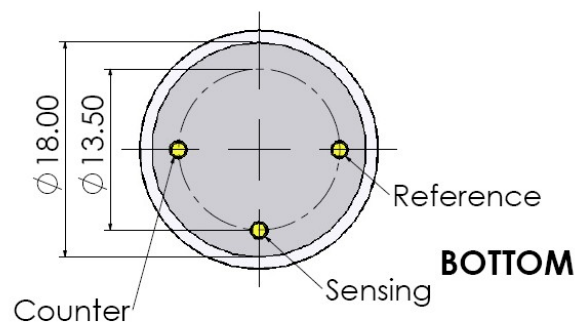
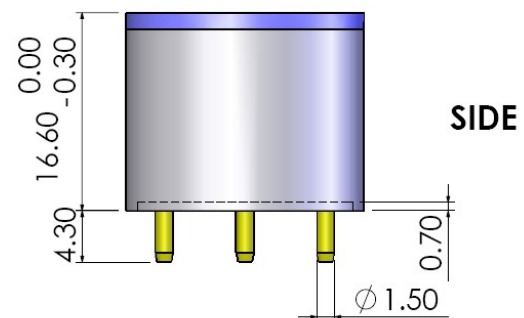
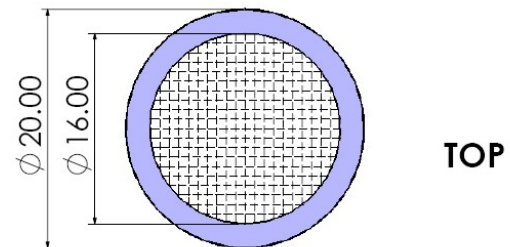
GAS	Concentration (ppm)	Sensor Response (As ppm CO)
H <sub>2</sub> S	20	-4.5
IsoButane	5000	0
NO <sub>2</sub>	10	13.5
H <sub>2</sub>	3000	0
CO	100	0
CO <sub>2</sub>	5000	0
Cl <sub>2</sub>	10	12

### Important Note

Do not solder to the connector pins as this may damage the sensor and thereby invalidate the warranty.

Details on recommended connector pins can be found in the Frequently Asked Questions within the Gas Sensor section of the SGX website.

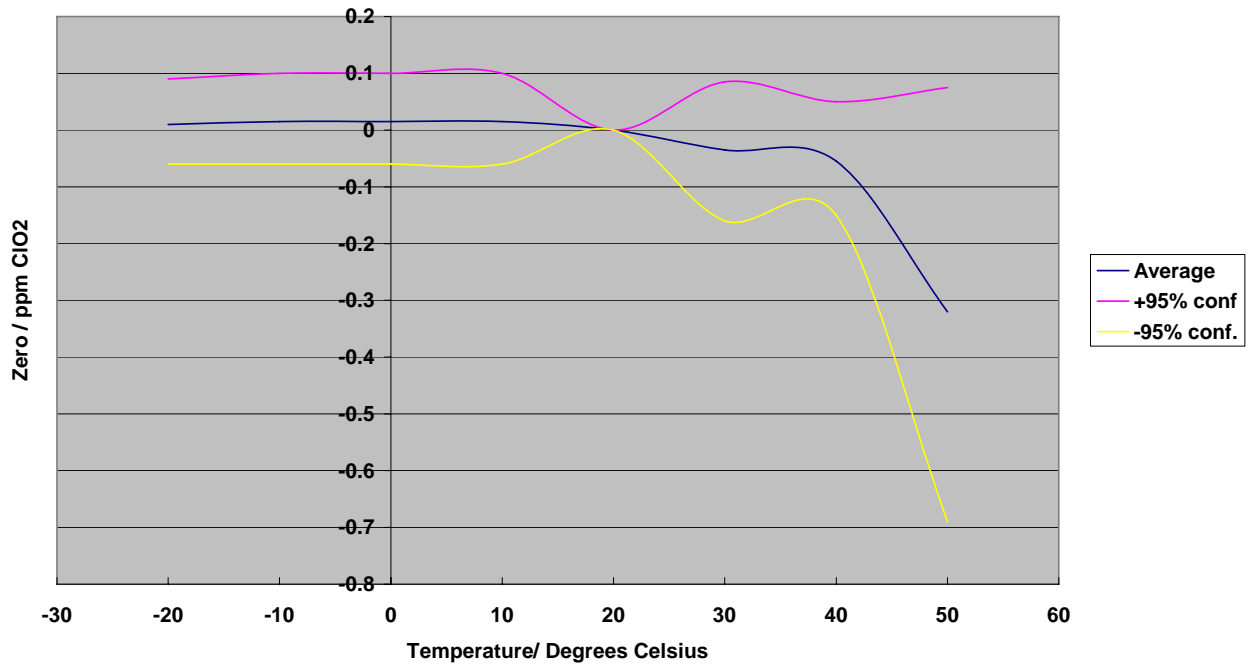
### OUTLINE



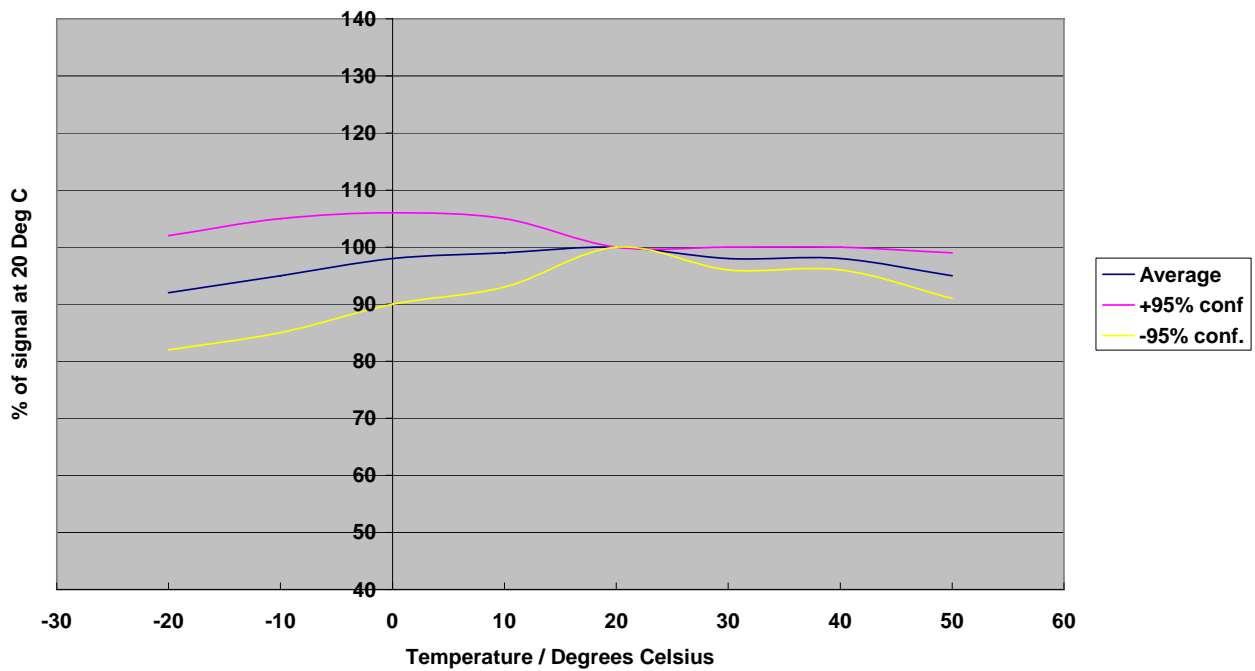
All dimensions in mm.  
All tolerances  $\pm 0.15$ mm unless otherwise stated.

### TEMPERATURE DEPENDENCE

#### EC-4-CIO2 Graph of Sensor Zero vs Temperature



#### EC4 -50-CIO2 Graph of % Sensitivity vs Temperature



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