

# e2v

## EC4-50-CIO2 Electrochemical Sensor

### PERFORMANCE

Range ..... 0 - 50 ppm  
 Sensitivity (see note)..... 220 - 580 nA/ppm ClO2  
 Zero in air at 20 °C.....  $\pm 0.09$  ppm ClO2  
 Resolution ..... 0.05 ppm ClO2  
 Expected lifetime ..... 2 years  
 Linearity ..... linear across range  
 Response time, t90 ..... <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

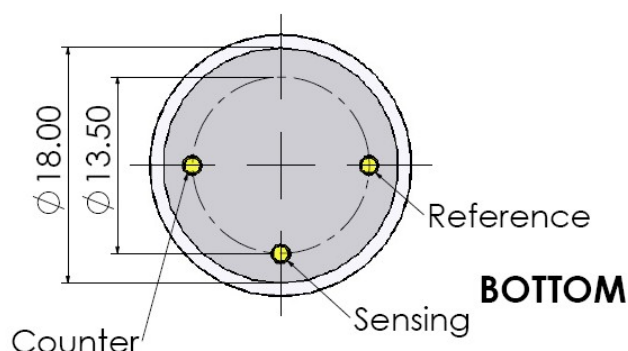
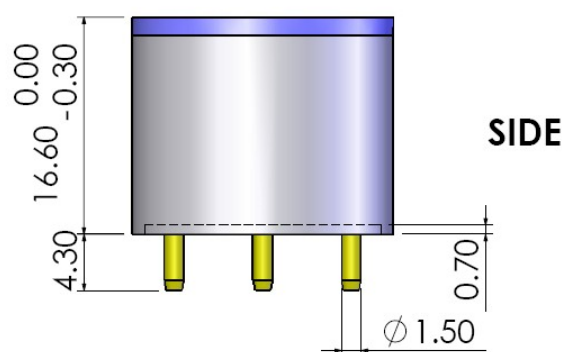
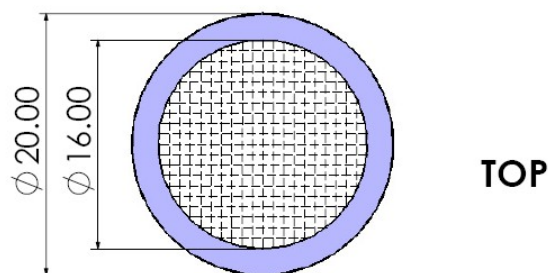
GAS	Concentration (ppm)	Sensor Response (As ppm CO)
H2S	20	-4.5
IsoButane	5000	0
NO2	10	13.5
H2	3000	0
CO	100	0
CO2	5000	0
Cl2	10	12

### 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 e2v website.

### OUTLINE



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

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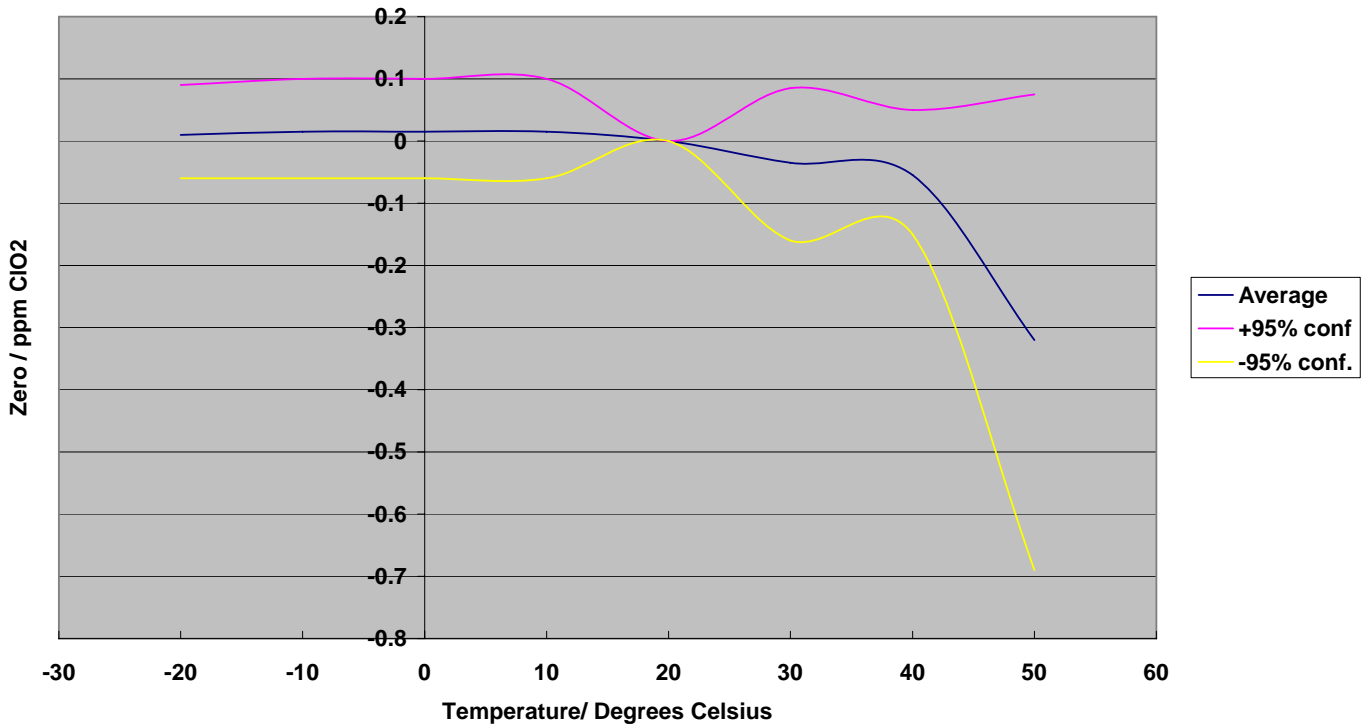
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## TEMPERATURE DEPENDENCE

EC-4-CIO2 Graph of Sensor Zero vs Temperature



EC4 -50-CIO2 Graph of % Sensitivity vs Temperature

