



Product Data Sheet



Electrochemical CO Sensor (P/N: 051-0100-000)

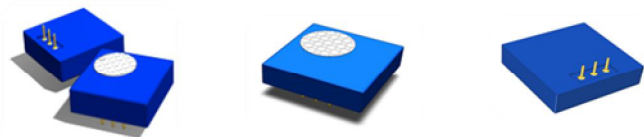
Description

Electrochemical carbon monoxide gas sensor is designed for fire detection, ventilation, indoor garage and vehicular air conditioning systems.

Performance Characteristics

Gas Concentration Range: 0~500ppm CO
Maximum Overload: 2000ppm
Zero Signal: -0.1~0.2 μ A
Sensitivity (at 20°C): 0.050+/-0.015 μ A/ppm CO
Response Time (T90): <30s
Resolution: 1ppm
Zero Drift (-20°C~50°C): <10ppm
Linearity: linear up to 500ppm
Bias Voltage: zero
Recommended load Resistor: 10 Ω

Product Dimensions

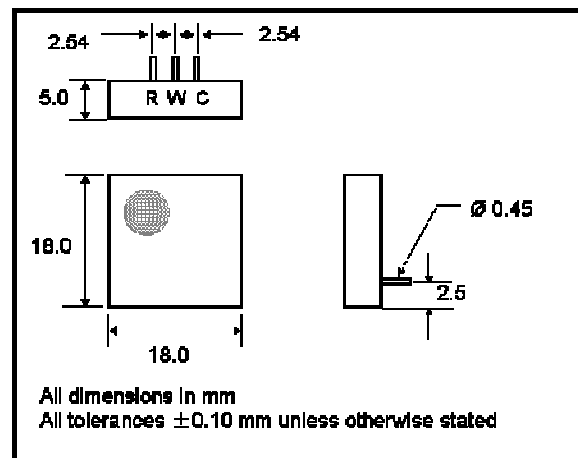


Environmental

Operating Temperature: -20°C~50°C
Operating Pressure: 1 atm \pm 10%
Operating Humidity: 15%~95% RH Non-Condensing

Life time

Life Time Output Drift: <5%/Year
Recommended Storage Temp: 10°C~30°C
Expected Operational Life: > 6 Years
Storage Life: 6 Months



Mechanical

Housing Material: ABS Plastic
Weight: 2g (Nominal)
Orientation: Any

Note:

The performance data in this document is conducted by using SemeaTech recommended test circuitry and test environment at 20 °C, 50% RH and 1 atm.

Sensor performance varies under different environmental conditions, please contact SemeaTech for more details.

Poisoning

Exposure to high concentrations of solvent vapours is avoided under any condition. When using sensors with printed circuit boards, degreasing agents should be used before the sensor is fitted. Do not glue directly on or near the sensor as the solvent may cause the crazing of the plastic.

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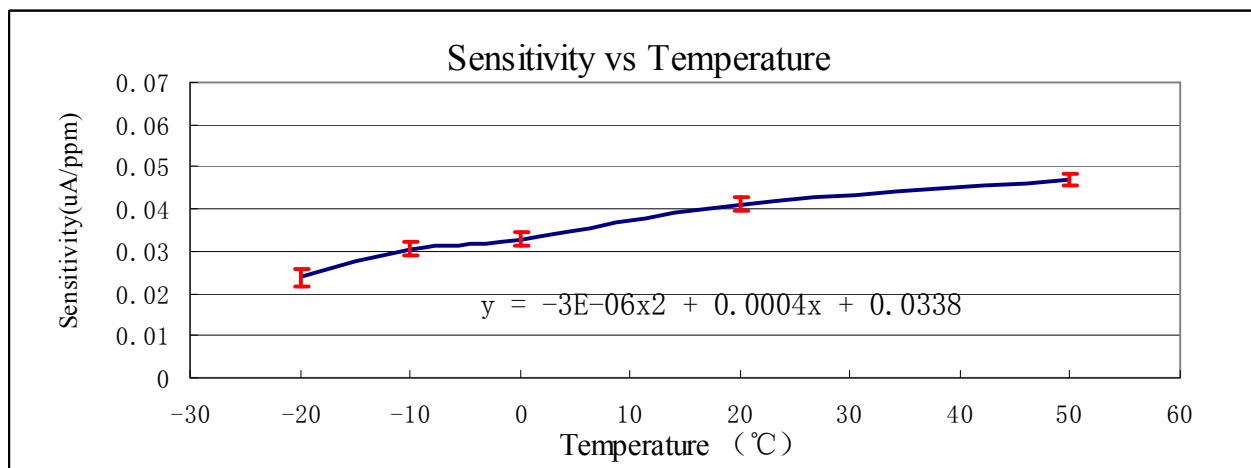
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Cross-sensitivity Data

Gas	Concentration (ppm)	Output signal (ppm CO equivalent)
Hydrogen Sulfide	15	1
Sulfur Dioxide	5	0
Nitric Oxide	35	<1
Nitrogen Dioxide	5	-1~0
Hydrogen	100	<40
Ethylene	100	<50
Chlorine	1	0
Ethanol	200	0

Note: The cross-sensitivity data shows the sensor response to other gases rather than the target gas. The data in the table above may vary from different batches of sensors and the changes of test environment.

Temperature Data



Safety Note

The sensor is designed to be used in certain instruments for life critical applications. To ensure the sensor functioning per its specifications inside the instrument, it is required to read the instrument user's guide carefully and comply with the calibration procedures by using certified target calibration gas before each use. Failure to do so may cause serious injury and fatality.

It is highly recommended for customers to validate the sensor performance using this document as a reference for their product designs or applications.