# **Carbon Monoxide**

Sensoric CO 3E 300



### Sensoric CO 3E 300

#### **FEATURES**

Amperometric 3 electrode sensor cell Very selective Highly sensitive Long lifetime

#### **TYPICAL APPLICATIONS**

TLV-monitoring, leakage detection portable & fixed point applications Oil & Petrochemical industry, parking garages, Mining, Steel Industry

#### PART NUMBER INFORMATION

MINI	0248-034-30009
SENSORIC CLASSIC	0248-034-30069
CTL 4 series adaptation	0248-034-30049
CTL 7 series adaptation	0248-034-30079



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#### **TECHNICAL SPECIFICATIONS**

Measuring Range 0-500 ppm

Sensitivity Range 70 nA/ppm ± 20 nA/ppm

Zero Current at  $20\,^{\circ}\text{C}$  < 150 nA Resolution at  $20\,^{\circ}\text{C}$  < 3 ppm Bias Potential 0 mV

Linearity < 5% full scale

Response Time at 20 ℃

< 10 s calculated from 2 min. exposure time</li>
 < 30 s calculated from 2 min. exposure time</li>

Long Term Sensitivity Drift < 10% per 6 months

**Operation Conditions** 

Temperature Range -40 °C to + 50 °C

Humidity Range 15-90 % r.H., non-condensing

Effect of Humidity no effect on base line shift,

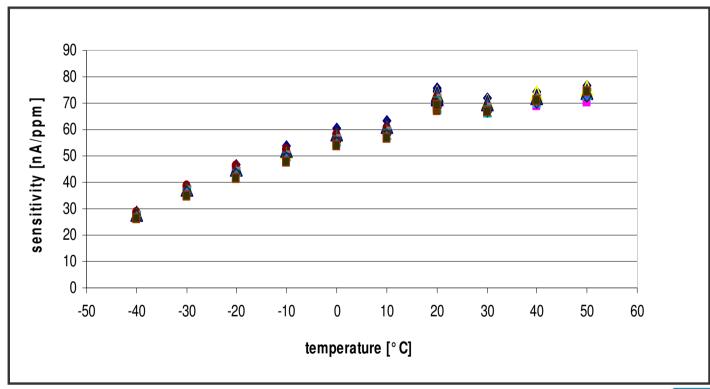
longer exposure to dry gas might decrease the sensitivity

Sensor Life Expectancy > 4 years Warranty 24 months



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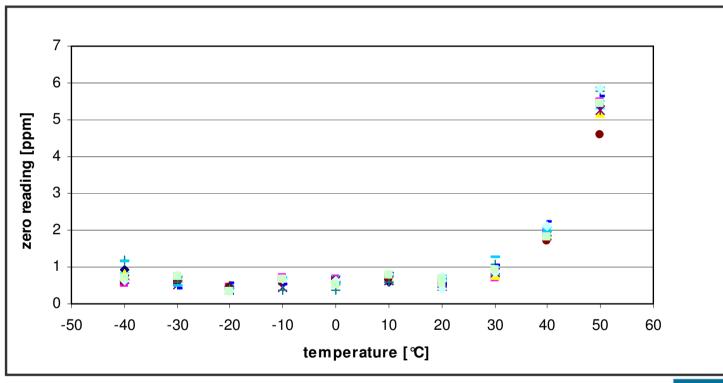
### **OUTPUT vs. TEMPERATURE:**





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#### **ZERO READING vs. TEMPERATURE:**





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#### **CROSS SENSITIVITIES AT 20 ℃**

Gas	Concentration	Reading [ppm]
Acetic Acid Alcohols (i.e.IPA) Ammonia Carbon Dioxide Chlorine Chlorine Dioxide Gasoline Vapour Hydrogen Hydrogen Sulfide Nitric Oxide Nitrogen Dioxide	sat. vapor 1025 ppm 100 ppm 10 % 1 ppm 1 ppm % range 3000 ppm 20 ppm 100 ppm	0 0 <sup>1</sup> 0.1 0 0 0 0 0 1 1000 0 <sup>1</sup> 25
Sulfur Dioxide	20 ppm	01

<sup>1)</sup> With inboard filter; to remove TLV levels of interfering gases; continuous high level exposure may reduce the efficiency of the filter material.

#### Notes:

- 1. Interference factors may differ from sensor to sensor and with life time. It is not adviseable to calibrate with interference gases
- 2. This table does not claim to be complete. The sensor might also be sensitive to other gases.



### **Safety Note**

This sensor is designed to be used in safety critical applications. To ensure that the sensor and/or instrument in which it is used, are operating properly, it is a requirement that the function of the device is confirmed by exposure to target gas (bump check) before each use of the sensor and/or instrument. Failure to carry out such tests may jeopardize the safety of people and property.

### **Attention**

Use of the Sensoric range sensors requires complete understanding of the instructions. Before using Sensoric range sensors please carefully read 'Application Notes' which can be found at www.citytech.com under the heading 'Support' -> 'Application Notes' -> 'Sensoric'

Product Safety Data Sheets (PSDS) can be obtained at <a href="www.citytech.com">www.citytech.com</a> under the heading 'Support' -> 'Product Safety Datasheets'

For further assistance on sensor selection and use, please contact a member of the Technical Sales team.

