Hydrogen Sensor

Sensoric H2 3E 4 %



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FEATURES

Amperometric 3 electrode sensor cell Resistant to poison gases Good long term stability LEL detection

TYPICAL APPLICATIONS

TLV-monitoring, LEL-detection, fuel cells

PART NUMBER INFORMATION

MINI	0364-034-30009
SENSORIC CLASSIC	0364-034-30069
CTL 4 series adaptation	0364-034-30049
CTL 7 series adaptation	0364-034-30079



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TECHNICAL SPECIFICATIONS

Measuring Range 0–4% (100% LEL)
Sensitivity Range 1 nA/ppm ± 0.5 nA/ppm

Zero Current at $20 \,^{\circ}\text{C}$ < $\pm 100 \,^{\circ}\text{nA}$ Resolution at $20 \,^{\circ}\text{C}$ < $\pm 100 \,^{\circ}\text{ppm}$ Bias Potential $0 \,^{\circ}\text{mV}$

Linearity < 10% full scale

Response Time at 20 ℃

< 40 s calculated from 2 min. exposure time
 < 60 s calculated from 2 min. exposure time

Long Term Sensitivity Drift < 10% per 6 months

Operation Conditions

Temperature Range -20 °C to +40 °C

Humidity Range 15–95% r.H., non–condensing

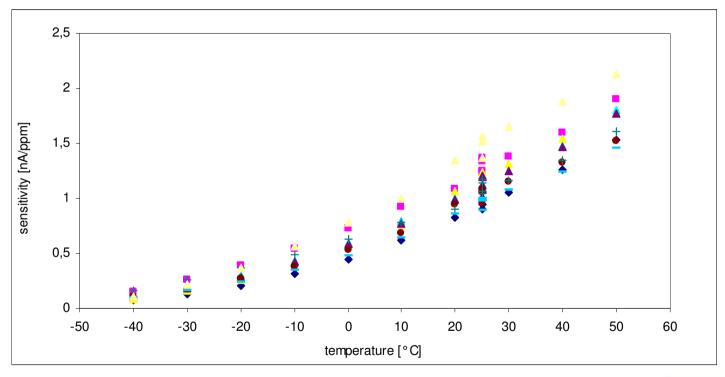
Effect of Humidity no effect

Sensor Life Expectancy > 24 months Warranty 18 months



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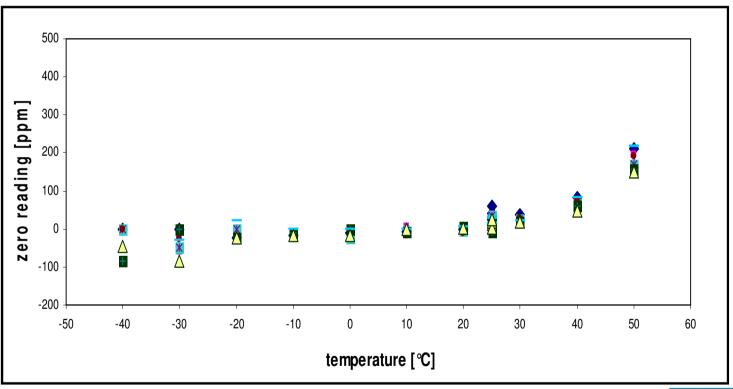
OUTPUT vs. TEMPERATURE:





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ZERO READING vs. TEMPERATURE:





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CROSS SENSITIVITIES AT 20 ℃

Gas	Concentration	Reading [ppm]
Ammonia	100 ppm	0
Arsine	0.2 ppm	0
Carbon Dioxide	1000 ppm	0
Carbon Monoxide	100 ppm	0
Chlorine	5 ppm	0
Ethylene	500 ppm	yes; n/d
Hydrogen Cyanide	20 ppm	0
Hydrogen Sulfide	20 ppm	44
Isopropanol	1100 ppm	yes; n/d
Methane	1 %	0
Nitric Oxide	100 ppm	0
Nitrogen Dioxide	10 ppm	0

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 www.citytech.com under the heading 'Support' -> 'Product Safety Datasheets'

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

