

Hydrogen Sensor

H2 3E 4 %

Product Data Sheet

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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 |
| 4 series adaptation | 0364-034-30049 |
| 7 series adaptation | 0364-034-30079 |

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TECHNICAL SPECIFICATIONS

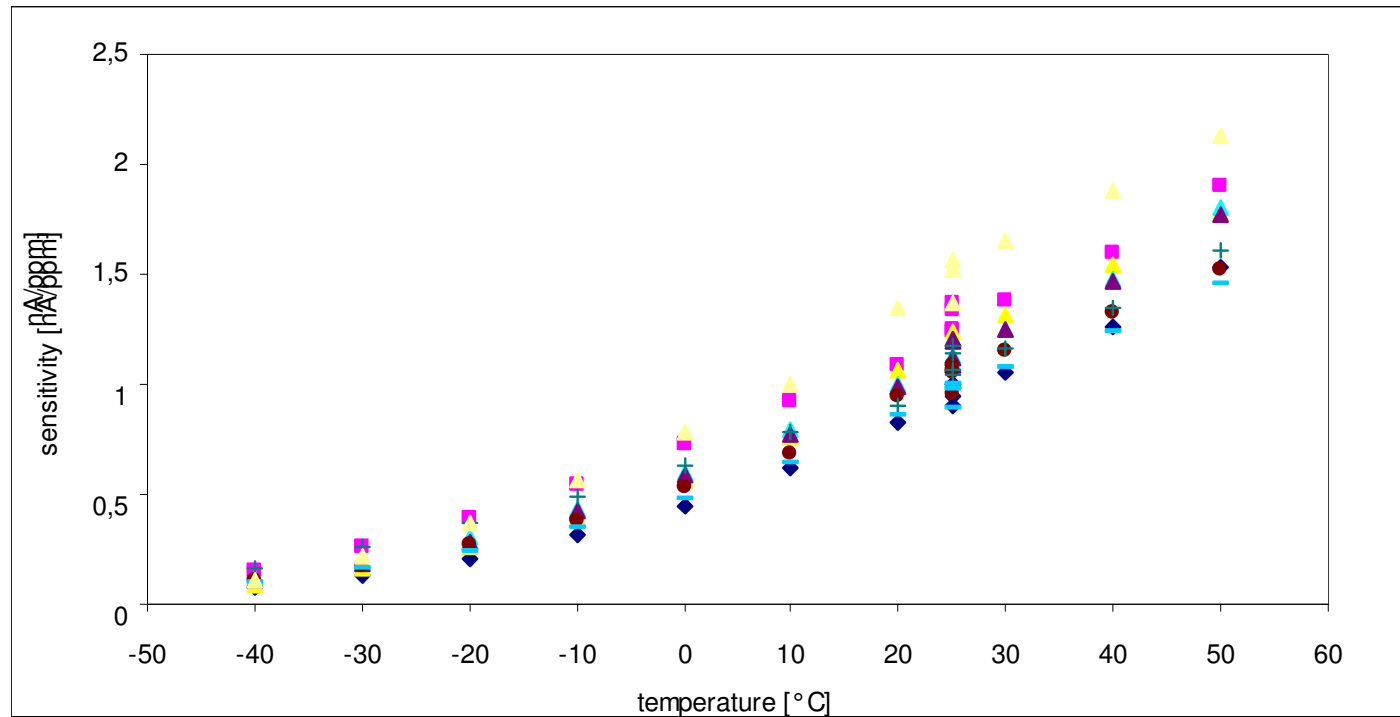
| | |
|-----------------------------|---|
| Measuring Range | 0–4% (100% LEL) |
| Sensitivity Range | 1 nA/ppm \pm 0.5 nA/ppm |
| Zero Current at 20°C | < \pm 100 nA |
| Resolution at 20°C | < 100 ppm |
| Bias Potential | 0 mV |
| Linearity | < 10% full scale |
| Response Time at 20°C | |
| t50 | < 40 s calculated from 2 min. exposure time |
| t90 | < 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:

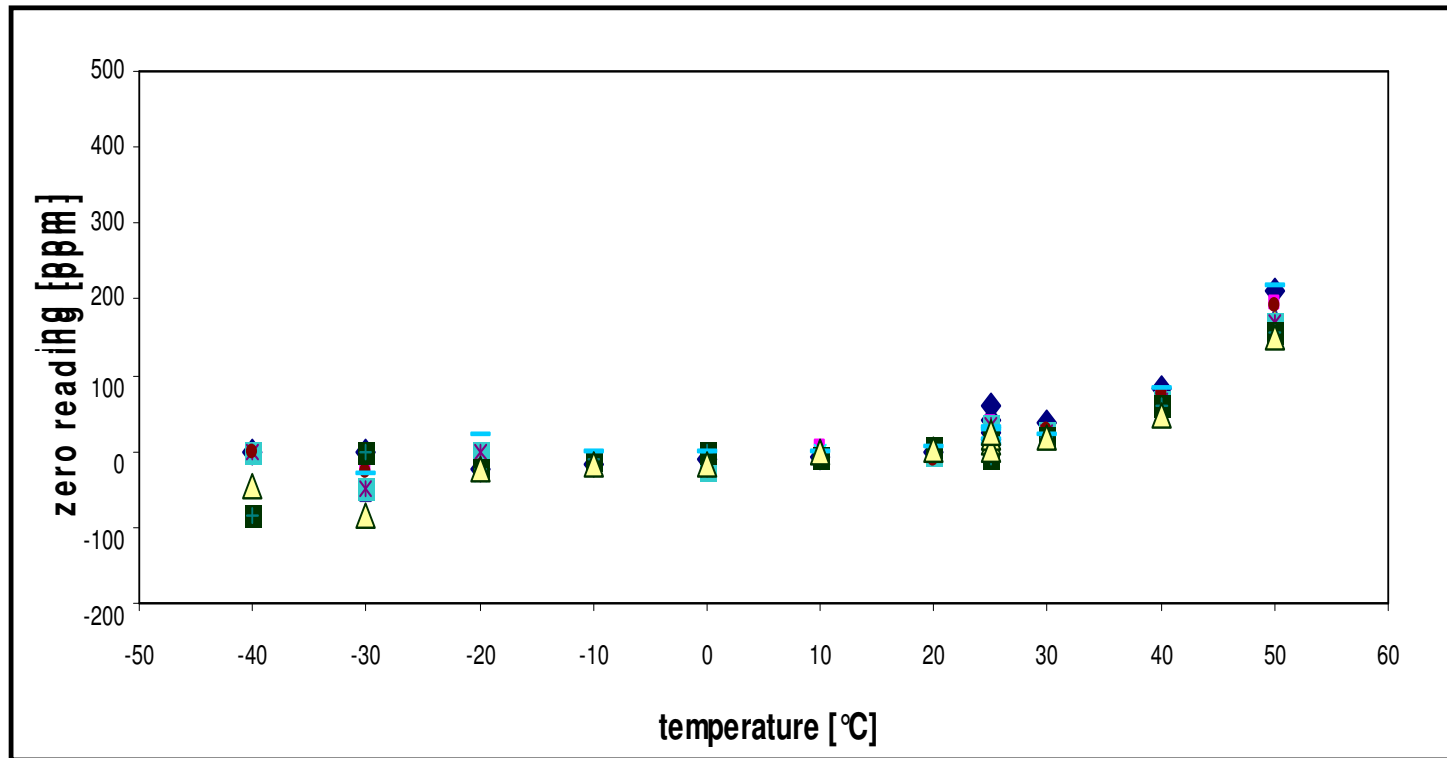


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ZERO READING vs. TEMPERATURE:



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CROSS SENSITIVITIES AT 20 °C

| 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 advisable to calibrate with interference gases.
2. This table does not claim to be complete. The sensor might also be sensitive to other gases.

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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 jeopardise the safety of people and property.

Attention

Use of this range of sensors requires complete understanding of the instructions. Before using this range, please carefully read relevant Application Notes.

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

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