

SEC Gas Sensor

NITROGEN DIOXIDE 4 S

Technical Specification

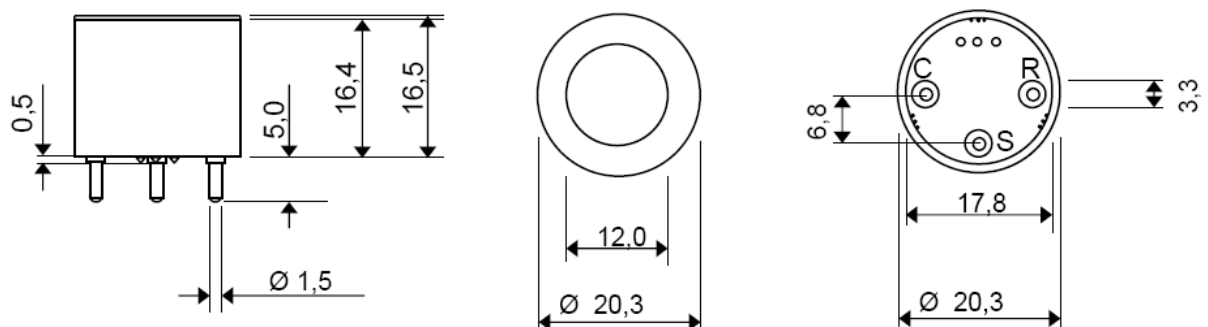
| | |
|-----------------------------------|---------------------------------------|
| Sensor Type | NO ₂ Sensor 4 S |
| Detectable Gases | Nitrogen Dioxide |
| Part Number | 01-04-50-03 |
| Measuring Principle | Amperometric 3-electrode sensor |
| Contact | 3 gold pins * non solderable |
| Standard Range | 0 – 100 ppm |
| Lower Detectable Limit (LDL) | 200 ppb |
| Maximum Range | 500 ppm |
| MAK/TLV | 3 ppm |
| Long Term Sensitivity Drift | < 1 % / month |
| Linearity at standard range | linear |
| Repeatability | > 98 % of signal |
| Zero current at normal conditions | +/- 2 nA |
| Sensitivity | 10 ... 30 nA/ppm |
| Response time at target level | |
| T50 | < 10 s |
| T90 | < 30 s |
| Sensor warm up time typically | 60 s |
| Operating conditions | - 20°C ... +60°C 10 ... 95 % r. h. |
| Expected sensor life time | 5 years |



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Dimensional Drawing

Sensor dimensions Ø 20,3 mm; High 21,5 mm ± 0,15 mm tolerance

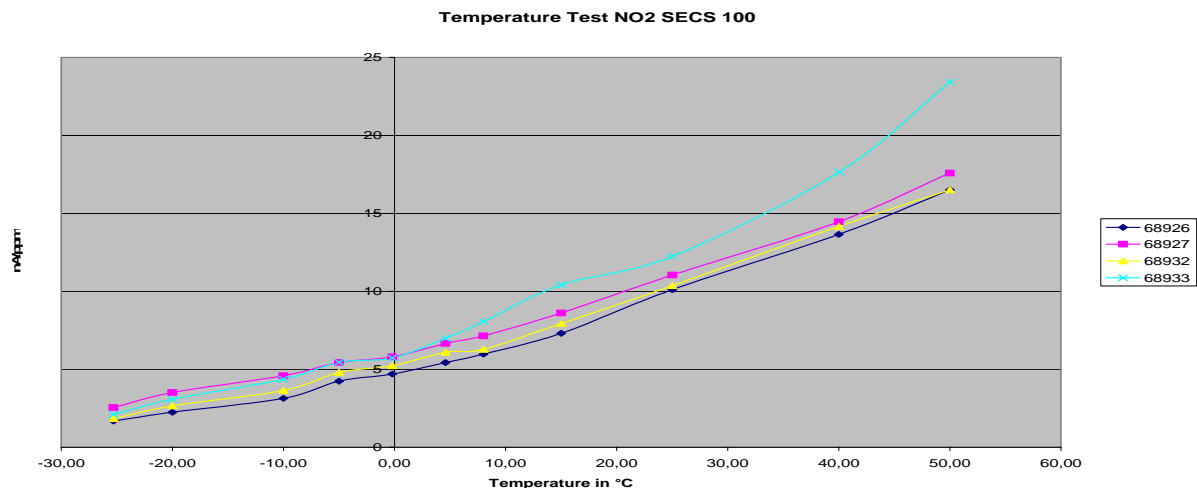


* Soldering to the pins will damage the sensor

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Temperature Dependency



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Cross Sensitivity

| Gas | Formula | Test Gas Concentration | Reading in ppm |
|--------------------------|----------------------------------|------------------------|----------------|
| Ammonia | NH ₃ | 25 ppm | 0 |
| Carbon Dioxide | CO ₂ | 5000 ppm | 0 |
| Carbon Monoxide | CO | 30 ppm | 0 |
| Chlorine | Cl ₂ | 1.0 ppm | 1.0 |
| Hydrocarbons unsaturated | - | 1 % | 0 |
| Hydrogen | H ₂ | 3800 ppm | 0 |
| Hydrogen Sulphide | H ₂ S | 10 ppm | -7 |
| Isopropanol | C ₃ H ₇ OH | 1000 ppm | 0 |
| Nitric Oxide | NO | 20 ppm | 0 |
| Chlorine Dioxide | ClO ₂ | 1 ppm | 1 |
| Ozone | O ₃ | 0.5 ppm | n/a |
| Sulphur Dioxide | SO ₂ | 20 ppm | n/a |

Note:

Test conditions at 20°C/ 1013 hPa, Flow Rate > 500 qcm/min
 Cross sensitivity gases are not target gases. Relation can change with aging.

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