

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



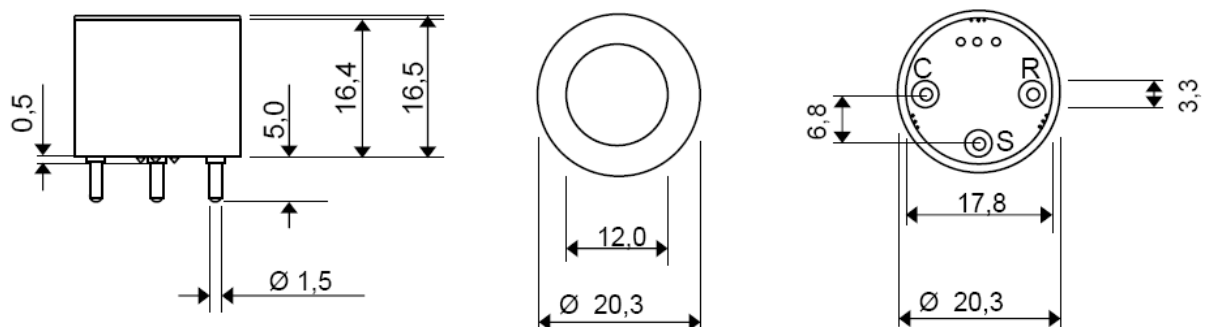
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Dimensional Drawing

Sensor dimensions

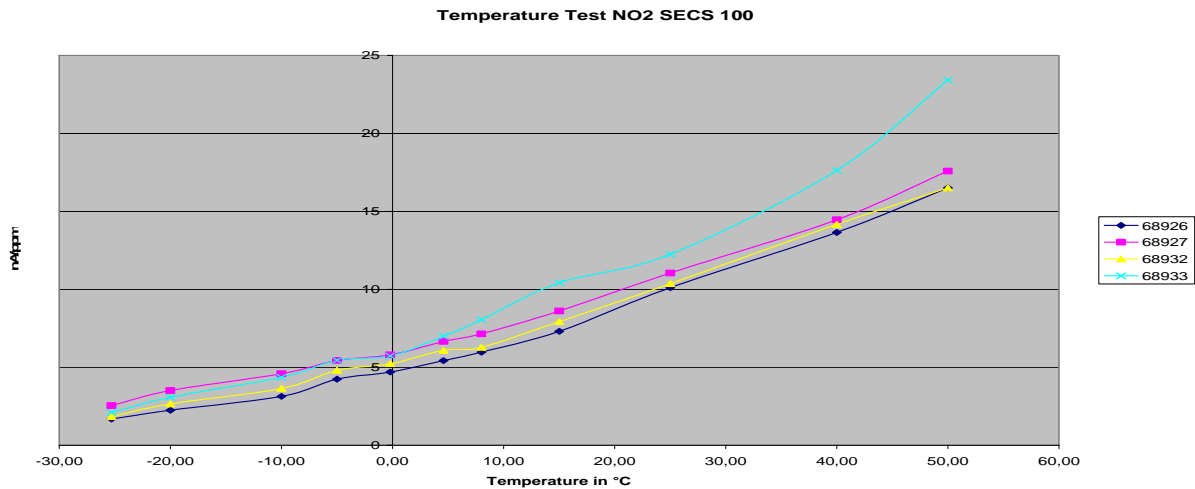
Ø 20,3 mm; High 21,5 mm

± 0,15 mm tolerance



* Soldering to the pins will damage the sensor

NITROGEN DIOXIDE 4 S **Temperature Dependency**



NITROGEN DIOXIDE 4 S **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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