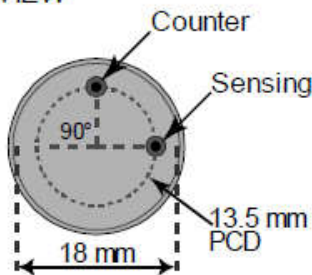


NO2 2E+ NITROGEN DIOXIDE SENSOR 0-20PPM NO2

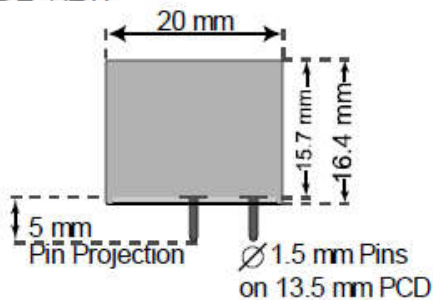


OUTLINE DIMENSIONS:

BOTTOM VIEW



SIDE VIEW



All dimensions are in millimetres mm.
All tolerances are +/- 0.2mm.
Note: PCB sockets are recommended for the sensor pin connection. Soldering to the sensor should be avoided and will invalidate warranty.
All performance specifications are based upon the following environment conditions: +20°C, 50% relative humidity and 1 atm (1013 mBar or ambient pressure).

SPECIFICATION – 4 SERIES SIZE

Operating Principle:	Electrochemical, 2-electrode cell
Gas Detected:	Nitrogen Dioxide NO ₂
Measurement Range:	0 – 20 ppm
Maximum Overload:	Not determined
Resolution:	0.1 ppm
Expected Operating Life:	2 years in air
Temperature Range:	-20°C to +50°C
Humidity Range (non-condensing):	15 – 90% RH
Response Time (T₉₀):	< 60 seconds
Long Term Sensitivity Drift:	< 2% signal per month
Linearity at Standard Range:	Linear
Sensitivity:	+300 +/- 70 nA/ppm*
Typical Baseline range (20°C):	-0.1ppm to +0.1ppm
Baseline Drift (+20°C to +40°C):	0.4 ppm equivalent
Pressure range:	Atmospheric +/- 10%
Bias Voltage:	Not required
Recommended Load Resistor:	33 Ohm
Repeatability:	< 2% of signal
Warranty Period:	12 months from date of despatch
Storage Life:	6 months in original sealed container
Storage Temperature:	+5°C to +20°C
Weight (approx):	5.4 g
Orientation Sensitivity:	None
Part Number:	2112B9998

* Please note: Sensor produces positive output like a CO sensor (in opposite direction than NO₂ 2E N).

**EURO-GAS MANAGEMENT SERVICES LTD, CHURSTON HOUSE,
BASCOMBE ROAD, CHURSTON FERRERS, DEVON, TQ5 0JJ, UK**

**☎: +44 (0)1803 844414 Fax: +44 (0)1803 844224
sales@euro-gasman.com www.euro-gasman.com**



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NO2 2E+ NITROGEN DIOXIDE SENSOR 0-20PPM NO2

CROSS SENSITIVITY DATA

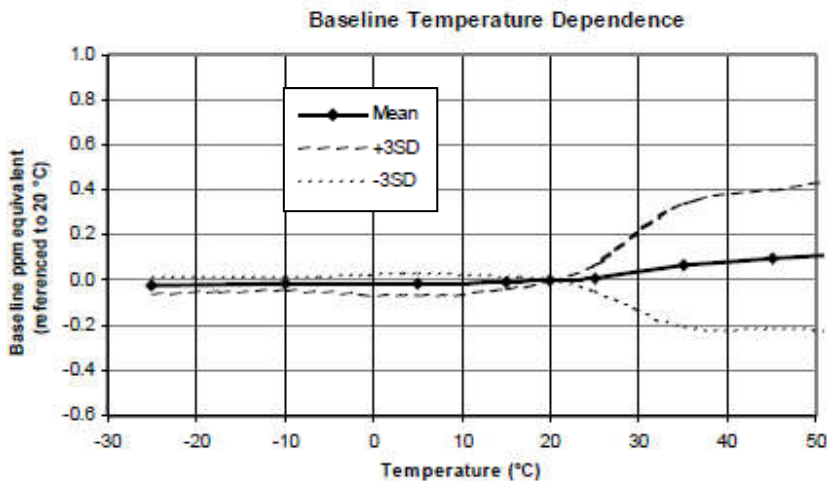
Interfering Gas	Concentration	Reading
CO	300 ppm	0 ppm
SO ₂	5 ppm	0 ppm
NO	35 ppm	0 ppm
H ₂	300 ppm	0 ppm
Ethylene	100 ppm	0 ppm
Cl ₂	10 ppm	~8 ppm

Notes: Calibration with cross-sensitivity gas is not recommended. The cross-sensitivity may fluctuate between +/- 30% and may differ from batch to batch and within the sensor's lifetime. The cross-sensitivities are including but not limited to the above gases. The sensor may also respond to other gases.

Performance data conditions: 20°C, 50% RH and 1023 mbar.

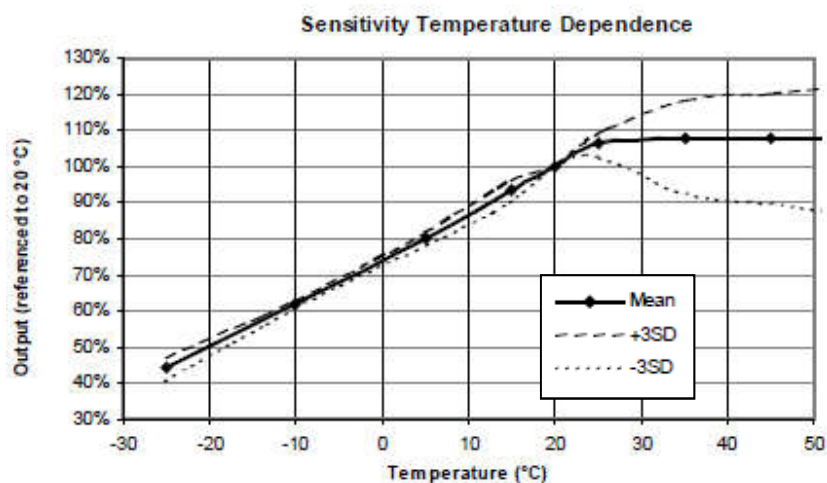
TEMPERATURE DEPENDENCE

The output of an electrochemical sensor varies with temperature. The graphs below show the variation in output with temperature for this type of sensor. The results are shown in the graphs as a mean for two batches of sensors, along with confidence intervals corresponding to ± 3 times the standard deviation. The sensitivity dependence is expressed as a percentage of the signal at 20 °C.



Notes: Sensors are designed to operate in a wide range of harsh environments and conditions. However, it is important to avoid exposure to high concentrations of solvent during storage, fitting into instrumentation and operation. When using sensors on PCBs, degreasing agents should be used prior to the sensor being fitted.

By the nature of the technology used, any sensor can potentially fail to meet specification without warning. Euro-Gas makes every effort to ensure reliability of all sensors but where life safety is a performance requirement of the product and, where practical, Euro-Gas recommends that all gas sensors and instruments using sensors are checked for response to gas before use.



The data contained in this document is believed to be accurate and reliable. The data given is for guidance only. Euro-Gas Management Services Ltd accepts no liability for any consequential losses, injury or damage resulting from the use of this datasheet or the information contained in it. Customers should test the sensors under their own conditions to ensure that the sensors are suitable for their own requirements and in accordance with the plans and circumstances of the specific project and any standards/regulations pertaining to the country in which the sensors will be utilised. Performance characteristics on this data sheet outline the performance of newly supplied sensors. Output signal can drift below the lower limit over time. This datasheet is not intended to form the basis of a contract and in the interest of product improvement, Euro-Gas reserves the right to alter design features and specifications without notice. 01/17

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EURO-GAS
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NO₂ 2E+ NITROGEN DIOXIDE SENSOR 0-20PPM NO₂

Accessories

- 4-20mA transmitter including NO₂ sensor and installation kit, part no: 2112B9999.
- Installation kit - Sensor holder, protection disc, O-ring, installation ring and installation screws suitable for assembling into a wall mounting box, part no: 2112B1012.
- Test gas flow cap, part no: 2112B1010.
- Gas Measuring System – NO₂ sensor with transmitter and installation kit provided as a complete assembly in aluminium housing, part no: 2112B9995.

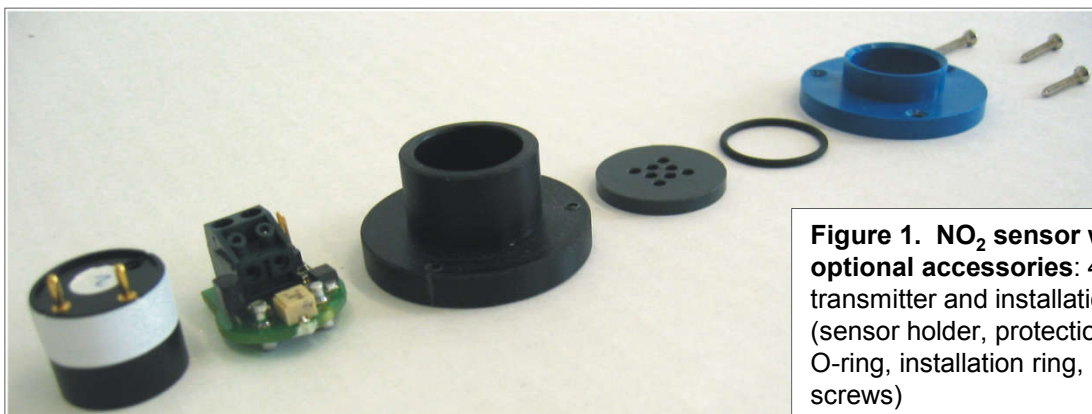


Figure 1. NO₂ sensor with optional accessories: 4-20mA transmitter and installation kit (sensor holder, protection disc, O-ring, installation ring, installation screws)

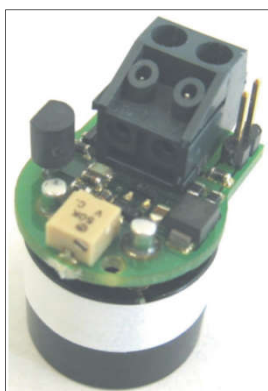


Figure 2. NO₂ sensor with 4-20mA transmitter

Range
0-20ppm NO₂
Part number:
2112B9999

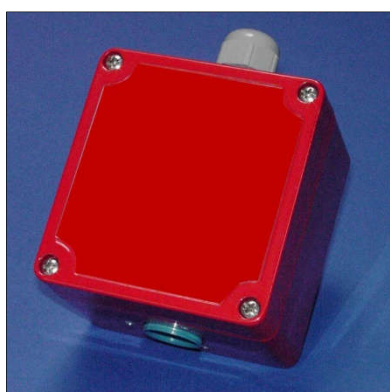


Figure 3. NO₂ Gas Measuring System
The NO₂ Nitrogen Dioxide sensor with 4-20mA transmitter and installation kit is also available as a complete housed unit in red aluminium housing.
Measuring range:
0-20ppm NO₂.
Part no. 2112B9995

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