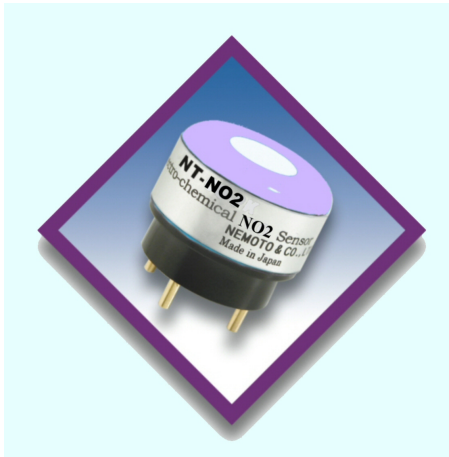




nemototech

TECHNICAL INFORMATION SHEET: NEMOTO NT-NO2 Electrochemical Nitrogen Dioxide Sensor



| | |
|------------------------------------|------------------------|
| Zero in clean air: | <+/- 0.2ppm equivalent |
| Output drift in air: | < 2%/month |
| Response time (T _{90%}): | < 25 seconds |
| Temperature drift (zero) | <TBA |
| Expected lifetime*: | >2 years |

Operating conditions:

| | |
|---------------------------------|-----------------|
| Operating temperature: | -20°C to + 50°C |
| Humidity range (constant) | 15-90% RH |
| Humidity range (intermittent) | 0-99% RH |
| Pressure: | 0.9 – 1.1 atm |
| Recommended resistor: | 10 ohms |
| Bias voltage: | Not required |
| Recommended Storage temp | 0-20°C |
| Storage time | 6 months |
| (without compromising lifetime) | |

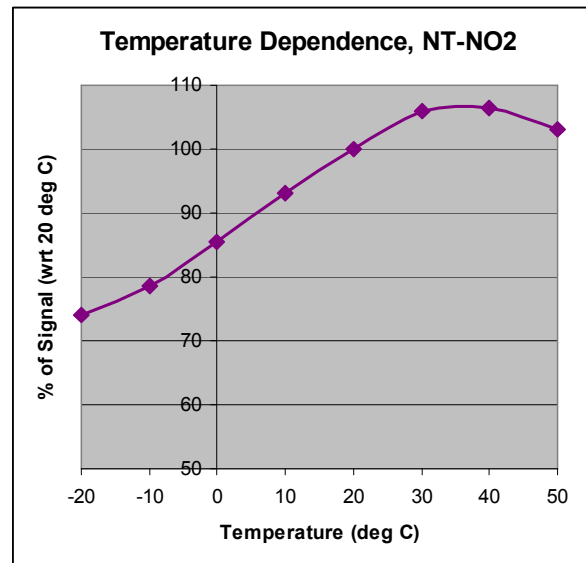
General Description

The NT-NO2 is a new electrochemical gas sensor with 3 electrodes for the detection of Nitrogen Dioxide (NO₂) in a variety of gas detection applications. Exhibiting high performance with long-term stability, this compact (20.4mm dia) sensor is suitable for portable Gas Detection Instruments or Fixed Gas Detection heads alike. The NT-NO2 is particularly suitable for use in fixed monitoring systems measuring NO₂ levels in underground car parks, where long term reliability and low cost are essential requirements.

Nemototech's porous electrode technology enables accurate gas detection with high sensitivity. The mechanical design of the sensor gives optimum gas diffusion characteristics, and the hermetically sealed enclosure prevents costly electrolyte leakage.

Specifications NT-NO2

| | |
|---|--------------------|
| Detectable gas: | Nitrogen Dioxide |
| Detection range: | 0 – 20 ppm |
| Maximum range (short periods) | 150 ppm |
| Output current: | 600 +/- 150 nA/ppm |
| Note: The output signal of the NT-NO2 sensor is of opposite polarity to similar sensors such as for CO or H2S. | |
| Reproducibility: | +/- 2% |



Further performance data and information on operating characteristics are available on the Characterisation Document nt-no2-CD.doc.

Nemototech has a policy of continuous development and improvement of its products. As such the specification for the device outlined in the data sheet may be changed without notice.

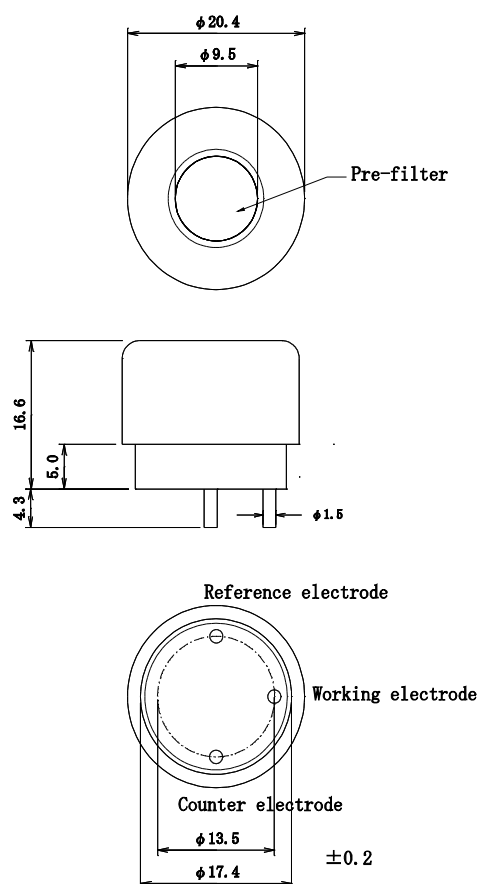
ds-nt-no2.doc, issue 3, May 2008



Typical Cross-Sensitivities:

| Gas | Test Gas Used (ppm) | NO ₂ Concentration Equivalent (ppm) | % Cross Sensitivity |
|-------------------|---------------------|--|---------------------|
| Nitrogen Dioxide | 20 | 20 | 100 |
| Nitric Oxide (NO) | 50 | 0 | 0 |
| Carbon Dioxide | 5000 | 0 | 0 |
| Carbon Monoxide | 400 | 0 | 0 |
| Sulphur Dioxide | 30 | -0.6 | ≈ -2 |
| Hydrogen Sulphide | 20 | <-25 | <125 |
| Hydrogen | 1000 | 0 | 0 |
| Ethyl Acetate | 100 | <0.5 | <0.5 |
| Ethanol | 100 | 0 | 0 |
| Chlorine | 1 | 1 | 100 |
| Ethylene | 500 | 0 | 0 |
| Toluene | 50 | <1.5 | <3 |
| Ammonia | 100 | 0 | 0 |

Dimensions:



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