**PERFORMANCE**

- **Sensitivity** nA/ppm at 2ppm NO: 500 to 850
- **Response time** $t_{90}$ (s) from zero to 2ppm NO: < 45
- **Zero current** nA in zero air at 20°C: 30 to 140
- **Noise**± 2 standard deviations (ppb equivalent): 15
- **Range** ppm NO limit of performance warranty: 20
- **Linearity** ppb error at full scale, linear at zero and 5ppm NO: < ±1
- **Overgas limit** maximum ppm for stable response to gas pulse: 50

* *Tested with Alphasense ISB low noise circuit*

**LIFETIME**

- **Zero drift** ppb equivalent change/year in lab air: 0 to 50
- **Sensitivity drift** % change/year in lab air, monthly test: 0 to -20
- **Operating life** months until 50% original signal (12 month warranted): > 24

**ENVIRONMENTAL**

- **Sensitivity @ -20°C** (% output @ -20°C/output @ 20°C) at 2ppm NO: 30 to 50
- **Sensitivity @ 50°C** (% output @ 50°C/output @ 20°C) at 2ppm NO: 110 to 130
- **Zero @ -20°C** nA change from 20°C: -30 to -60
- **Zero @ 50°C** nA change from 20°C: 250 to 300

**CROSS SENSITIVITY**

- H<sub>2</sub>S sensitivity % measured gas @ 5ppm H<sub>2</sub>S (after 3 minutes): < 10
- NO<sub>2</sub> sensitivity % measured gas @ 5ppm NO<sub>2</sub> (after 3 minutes): < 4
- Cl<sub>2</sub> sensitivity % measured gas @ 5ppm Cl<sub>2</sub>: < 3
- SO<sub>2</sub> sensitivity % measured gas @ 5ppm SO<sub>2</sub>: < 5
- H<sub>2</sub> sensitivity % measured gas @ 100ppm H<sub>2</sub>: < 0.1
- CO sensitivity % measured gas @ 5ppm CO: < 0.3
- NH<sub>3</sub> sensitivity % measured gas @ 5ppm NH<sub>3</sub>: < 0.1
- CO<sub>2</sub> sensitivity % measured gas @ 5% Vol CO<sub>2</sub>: < 0.1
- O<sub>3</sub> sensitivity % measured gas @ 100ppb O<sub>3</sub>: < 4
- Halothane sensitivity @ 100ppm Halothane: < 0.1

**KEY SPECIFICATIONS**

- **Bias voltage** mV (working electrode potential is above reference electrode): +200
- **Temperature range** °C: -30 to 50
- **Pressure range** kPa: 80 to 120
- **Humidity range** % rh continuous: 15 to 85
- **Storage period** months @ 3 to 20°C (stored in sealed pot): 6
- **Load resistor** Ω (ISB circuit is recommended): 33 to 100
- **Weight** g: < 13

**NOTE:** all sensors are tested at ambient environmental conditions, with 10 ohm load resistor, unless otherwise stated. As applications of use are outside our control, the information provided is given without legal responsibility. Customers should test under their own conditions, to ensure that the sensors are suitable for their own requirements.
In the interest of continued product improvement, we reserve the right to change design features and specifications without prior notification. The data contained in this document is for guidance only. Alphasense Ltd accepts no liability for any consequential losses, injury or damage resulting from the use of this document or the information contained within. (©ALPHASENSE LTD) Doc. Ref. NOB4/JUL14

**Figure 2 Sensitivity Temperature Dependence**

Figure 2 shows the temperature dependence of sensitivity at 2ppm NO. This data is taken from a typical batch of sensors.

**Figure 3 Zero Temperature Dependence**

Figure 3 shows the variation in zero output of the working electrode caused by changes in temperature, expressed as nA. This data is taken from a typical batch of sensors. Contact Alphasense for further information on zero current correction.

**Figure 4 Response to 200ppb NO**

Figure 4 shows response to 200ppb NO. Use of Alphasense ISB circuit reduces noise to 15ppb with the opportunity of digital smoothing to reduce noise even further.

For further information on the performance of this sensor, on other sensors in the range or any other subject, please contact Alphasense Ltd. For Application Notes visit "www.alphasense.com".