ETO-D4 Ethylene Oxide Sensor

**PERFORMANCE**
- Sensitivity: nA/ppm in 20ppm EtO (1000 to 1400)
- Response time: t90 (s) from zero to 20ppm EtO (<100)
- Zero current: ppm equivalent in zero air (<0.7)
- Resolution: RMS noise (ppm equivalent) (<0.15)
- Range: ppm EtO limit of performance warranty (50)
- Linearity: ppm error at full scale, linear at zero, 40ppm EtO (0 to 3)
- Overgas limit: maximum ppm for stable response to gas pulse (100)

**LIFETIME**
- Zero drift: ppm equivalent change/year in lab air (nd)
- Sensitivity drift: % change/month in lab air, twice monthly test (nd)
- Operating life: months until 80% original signal (12 month warranted) (24)

**ENVIRONMENTAL**
- Sensitivity @ -20°C% (output @ -20°C/output @ 20°C) @ 40ppm EtO (40 to 60)
- Sensitivity @ 50°C % (output @ 50°C/output @ 20°C) @ 40ppm EtO (110 to 140)
- Zero @ -20°C ppm equivalent change from 20°C (<±1)
- Zero @ 50°C ppm equivalent change from 20°C (0 to 5)

**CROSS SENSITIVITY**
- H₂S sensitivity: % measured gas @ 20ppm H₂S (<250)
- NO₂ sensitivity: % measured gas @ 10ppm NO₂ (<60)
- Cl₂ sensitivity: % measured gas @ 10ppm Cl₂ (<1)
- NO sensitivity: % measured gas @ 50ppm NO (<100)
- SO₂ sensitivity: % measured gas @ 20ppm SO₂ (<60)
- CO sensitivity: % measured gas @ 400ppm CO (<30)
- H₂ sensitivity: % measured gas @ 400ppm H₂ (<0.5)
- C₂H₂ sensitivity: % measured gas @ 80ppm C₂H₂ (<100)
- NH₃ sensitivity: % measured gas @ 25ppm NH₃ (<0.1)
- HCHO sensitivity: % measured gas @ 4ppm HCHO (<100)
- CO₂ sensitivity: % measured gas @ 5% (<0.1)

**KEY SPECIFICATIONS**
- Temperature range: °C (-30 to 50)
- Pressure range: kPa (80 to 120)
- Humidity range: % rh continuous (15 to 90)
- Storage period: months @ 3 to 20°C (stored in original container) (6)
- Load resistor: Ω (recommended) (10 to 47)
- Bias voltage: mV (working electrode potential above reference electrode potential) (+300)
- Weight: g

At the end of the product's life, do not dispose of any electronic sensor, component or instrument in the domestic waste, but contact the instrument manufacturer, Alphasense or its distributor for disposal instructions.

**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.
ETO-D4 Performance Data

Figure 2 Response to 10ppm ETO

Figure 2 shows response to 10ppm ethylene oxide.

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".

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.