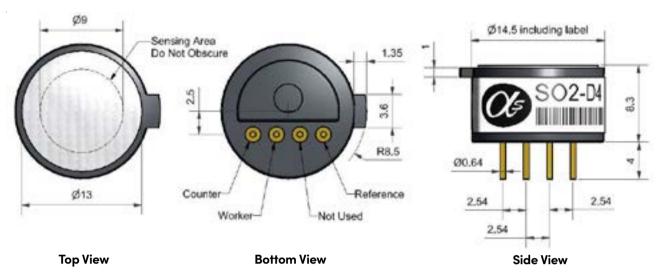


Technical specifications Version 1.0

SO2-D4 Sulfur Dioxide Sensor - Miniature Size



Dimensions are in millimetres (± 0.15 mm).

Performance	Sensitivity Response time Zero current Resolution Range Linearity Overgas limit	nA/ppm in 10ppm SO ₂ t90 (s) from zero to 10ppm SO ₂ ppm equivalent in zero air RMS noise (ppm equivalent) ppm limit of performance warranty ppm error at full scale, linear at zero and 10ppm maximum ppm for stable response to gas pulse	180 to 420 < 15 ± 0.7 < 0.2 20 < 5 50
Lifetime	Zero drift Sensitivity drift Operating life	ppm equivalent change/year in lab air % change/year in lab air, monthly test months until 80% original signal (24-month warra	< 0.2 < 6 nted) > 18
Environmental	Sensitivity @ -20°C Sensitivity @ 50°C Zero @ -20°C Zero @ 50°C	% (output @ -20°C/output @ 20°C) 10ppm % (output @ 50°C/output @ 20°C) 10ppm ppm equivalent change from 20°C ppm equivalent change from 20°C	72 to 88 74 to 95 < ± 0.5 < ± 0.5
Cross Sensitivity	H_2S sensitivity NO_2 sensitivity CI_2 sensitivity NO sensitivity	% measured gas @ 20ppm H ₂ S % measured gas @ 10ppm NO ₂ % measured gas @ 10ppm CI ₂ % measured gas @ 50ppm NO % measured gas @ 400ppm CO % measured gas @ 400ppm H ₂ % measured gas @ 400ppm C ₂ H ₄ % measured gas @ 20ppm NH ₃ % measured gas @ 10% CO ₂	< 400 < -120 < -60 < 3 < 0.5 < 0.2 < 15 < 0.1 < 0.1
Key Specifications	Temperature range Pressure range Humidity range Storage period Load resistor Weight	°C kPa % rh (see note below) months @ 3 to 20°C (stored in sealed pot) Ω (for optimum performance) g	-20 to 50 80 to 120 15 to 90 6 22 < 2

Figure 1 Sensitivity Temperature Dependence

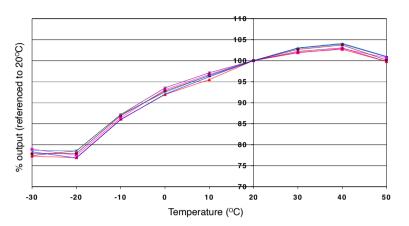


Figure 1 shows the variation in sensitivity caused by changes in temperature.

This data is taken from a typical batch of sensors.

Figure 2 Zero Temperature Dependence

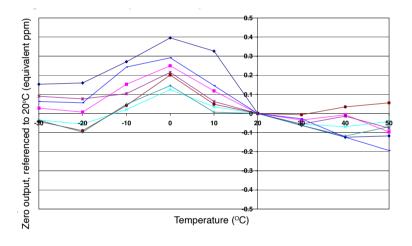
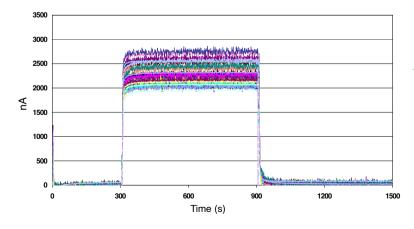


Figure 2 shows the variation in zero output caused by changes in temperature, expressed as ppm gas equivalent, referenced to zero at 20°C.

This data is taken from a typical batch of sensors.

Figure 3 Response to 10ppm SO,



Typical batch of 64 sensors all respond rapidly and repeatably to 10ppm SO₂.

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 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. SO2-D4/OCT22