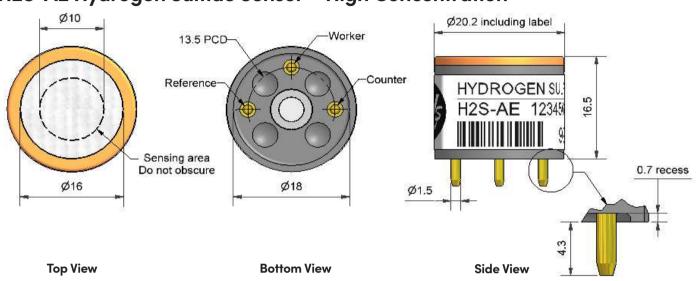


Technical specifications Version 1.0

H2S-AE Hydrogen Sulfide Sensor – High Concentration



Dimensions are in millimetres (± 0.1 mm).

Performance	Sensitivity Response time Zero current Resolution Range Linearity Overgas limit	nA/ppm in 400ppm H ₂ S t90 (s) from zero to 400ppm H ₂ S ppm equivalent in zero air RMS noise (ppm equivalent) ppm H ₂ S limit of performance warranty ppm error at full scale, linear at zero and 400ppm H ₂ S maximum ppm for stable response to gas pulse		65 to 125 < 25 < ± 3 < 0.5 2,000 0 to -40 10,000
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 warranted)		nd nd > 24
Environmental	Sensitivity @ -20°C Sensitivity @ 50°C Zero @ -20°C Zero @ 50°C	% (output @ -20°C/output @ 20°C) @ 20ppm % (output @ 50°C/output @ 20°C) @ 20ppm ppm equivalent change from 20°C ppm equivalent change from 20°C		80 to 92 100 to 110 < ± 1 < ± 1
Cross Sensitivity	NO_2 sensitivity CI_2 sensitivity NO sensitivity SO_2 sensitivity CO sensitivity C_2H_4 sensitivity C_2H_3 sensitivity C_3H_4 sensitivity C_3H_4 sensitivity	% measured gas @ 10ppm % measured gas @ 10ppm % measured gas @ 50ppm % measured gas @ 20ppm % measured gas @ 400ppm % measured gas @ 400ppm % measured gas @ 400ppm % measured gas @ 20ppm	NO_2 CI_2 NO SO_2 CO H_2 C_2H_4 NH_3	< -20 < -15 < 20 < 20 < 4 < 1 < 0.1 < 0.1
Key Specifications	Temperature range Pressure range Humidity range Storage period Load resistor Weight	°C kPa % rh continuous months @ 3 to 20°C (stored in sealed pot) Ω (recommended) g		-30 to 50 80 to 120 15 to 90 6 10 to 47 < 6

Figure 1 Sensitivity Temperature Dependence

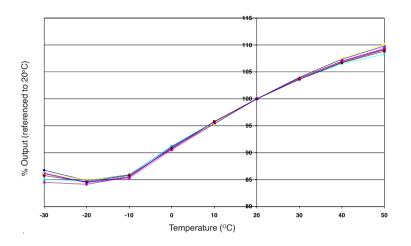


Figure 1 shows the variation of sensitivity due to changes in temperature.

This data is taken from a typical batch of sensors.

Figure 2 Zero Temperature Dependence

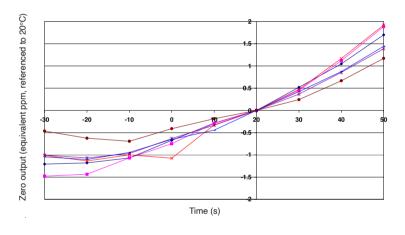


Figure 2 shows the variation in zero output caused by changes in temperature, expressed as ppm gas equivalent, referenced to zero at 20°C.

This data is taken from a typical batch of sensors.

Figure 3 Batch Repeatability

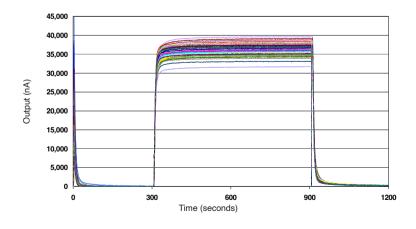


Figure 3 shows the response to 400ppm H2S for 64 sensors. Repeatable zero, fast response and stable output are the result of good process control.

This data is taken from a typical batch of sensors.

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.

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