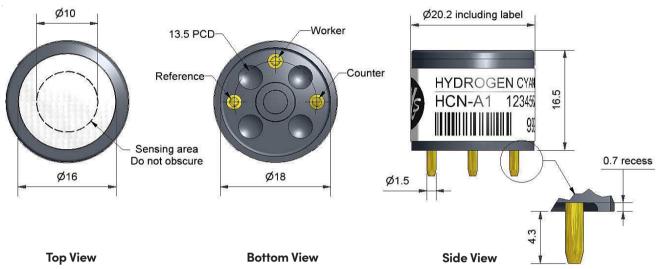
HCN-A1 Hydrogen Cyanide Sensor



Dimensions are in millimetres (± 0.15 mm).

Performance	Sensitivity Response time Zero current Resolution Range Linearity Overgas limit	nA/ppm in 30ppm HCN t90 (s) from zero to 30ppm HCN ppm equivalent in zero air RMS noise (ppm equivalent) ppm HCN limit of performance warranty ppm error at full scale, linear at zero, 40ppm HCN maximum ppm for stable response to gas pulse		45 to 85 < 70 -2 to 10 < 0.05 100 4 to 8
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 (12-month warranted)		nd nd > 12
Environmental	Sensitivity @ -10°C Sensitivity @ 50°C Zero @ -20°C Zero @ 50°C	% (output @ -10°C/output @ 20°C) @ 30ppm HCH % (output @ 50°C/output @ 20°C) @ 30ppm HCH ppm equivalent change from 20°C ppm equivalent change from 20°C		75 to 95 105 to 120 < 0 to 1 < ± 1
Cross-sensitivity	H ₂ S sensitivity NO ₂ sensitivity CI ₂ sensitivity NO sensitivity SO ₂ sensitivity CO sensitivity H ₂ sensitivity C ₂ H ₄ sensitivity NH ₃ sensitivity CO ₂ sensitivity	% measured gas @ 20ppm % measured gas @ 10ppm % measured gas @ 10ppm % measured gas @ 50ppm % measured gas @ 20ppm % measured gas @ 400ppm % measured gas @ 400ppm % measured gas @ 400ppm % measured gas @ 20ppm % measured gas @ 20ppm % measured gas @ 5% volume	H ₂ S NO ₂ Cl ₂ NO SO ₂ (transient peak) CO H ₂ C ₂ H ₄ NH ₃ CO ₂	< 300 < -180 < -12 < 1 < 10 (transient) < 0.1 < 0.1 < 0.1 < 0.1 < 1 < 0.1
Key Specifications	Temperature range Pressure range Humidity range Storage period Load resistor Bias voltage Weight	°C kPa % rh continuous months @ 3 to 20°C (stored in original container) Ω (recommended) mV g		-30 to 50 80 to 120 15 to 90 6 10 to 33 not required < 6

Figure 1 Sensitivity Temperature Dependence

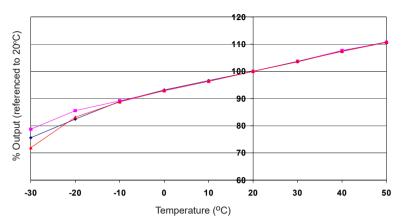


Figure 1 shows the variation in sensitivity caused by changes in temperature.

This data is taken from a typical batch of sensors. The mean and ±95% confidence intervals are shown.

Figure 2 Zero Temperature Dependence

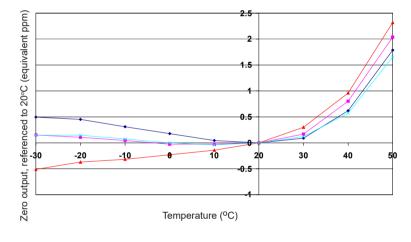
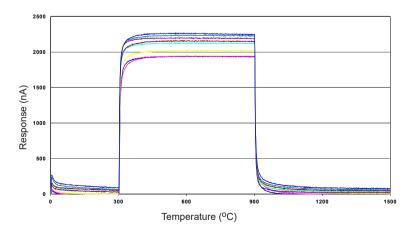


Figure 2 shows the variation in zero output caused by changes in temperature, expressed as ppm gas equivalent, referenced to zero at 20°C.

This data is taken from a typical batch of sensors.

Figure 3 Response to 30ppm HCN



The HCN-A1 shows fast response and stable output when exposed to 30ppm HCN.

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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