

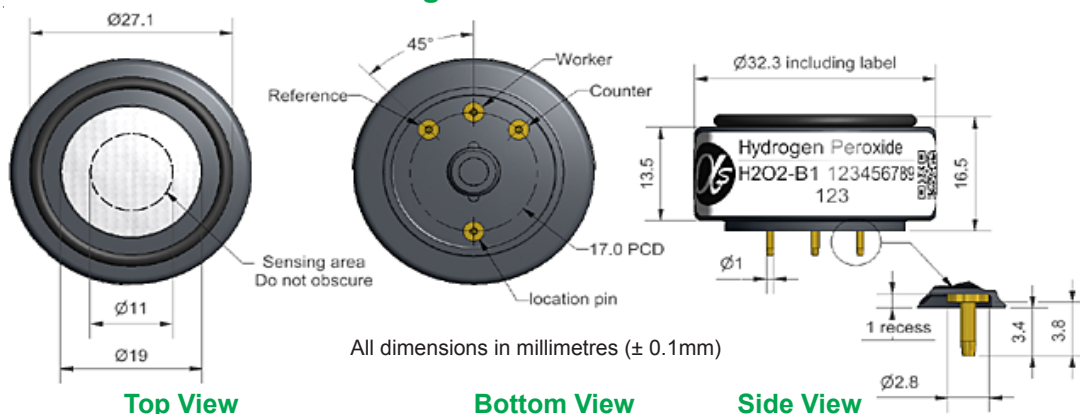


H2O2-B1 Hydrogen Peroxide Sensor



PATENTED

Figure 1 H2O2-B1 Schematic Diagram



PERFORMANCE (tested with surrogate gas CO)

Sensitivity	nA/ppm in 400ppm CO	80 to 130
Response time	t ₉₀ (s) from zero to 400ppm CO	< 25
Zero current	ppm equivalent in zero air	< ± 4
Resolution	RMS noise (ppm equivalent)	< 0.5
Range	ppm limit of performance warranty	5,000
Linearity	ppm CO error at full scale, linear at zero, 1000ppm CO	< ± 30
Overgas limit	maximum ppm for stable response to gas pulse	10,000

LIFETIME

Zero drift	ppm equivalent change/year in lab air	< 0.1
Sensitivity drift	% change/year in lab air, monthly test	< 3
Operating life	months until 80% original signal (24 month warranted)	> 24

ENVIRONMENTAL

Sensitivity @ -20°C	% (output @ -20°C/output @ 20°C) @ 400ppm CO	70 to 88
Sensitivity @ 50°C	% (output @ 50°C/output @ 20°C) @ 400ppm CO	102 to 115
Zero @ -20°C	ppm equivalent change from 20°C	< ± 1
Zero @ 50°C	ppm equivalent change from 20°C	< ± 6

CROSS SENSITIVITY

H ₂ S sensitivity	% measured gas @ 20ppm	H ₂ S	< 200
NO ₂ sensitivity	% measured gas @ 10ppm	NO ₂	< 50
Cl ₂ sensitivity	% measured gas @ 10ppm	Cl ₂	< -1
NO sensitivity	% measured gas @ 50ppm	NO	< 80
SO ₂ sensitivity	% measured gas @ 20ppm	SO ₂	< 50
H ₂ sensitivity	% measured gas @ 400ppm	H ₂ at 20°C	< 65
C ₂ H ₄ sensitivity	% measured gas @ 400ppm	C ₂ H ₄	< 65
NH ₃ sensitivity	% measured gas @ 20ppm	NH ₃	< 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 sealed pot)	6
Load resistor	Ω (recommended)	10 to 47
Weight	g	< 13



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.

Technical Specification



H2O2-B1 Performance Data

Technical Specification

Figure 2 Zero Temperature Dependence

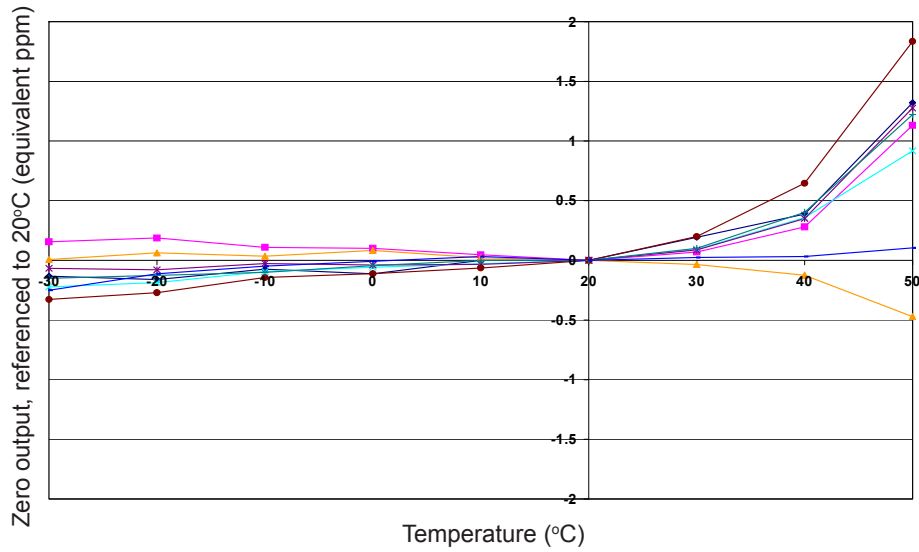


Figure 2 shows the variation in zero output caused by changes in temperature, expressed as ppm gas equivalent, referenced to zero at 20°C.

This data is taken from a typical batch of sensors.