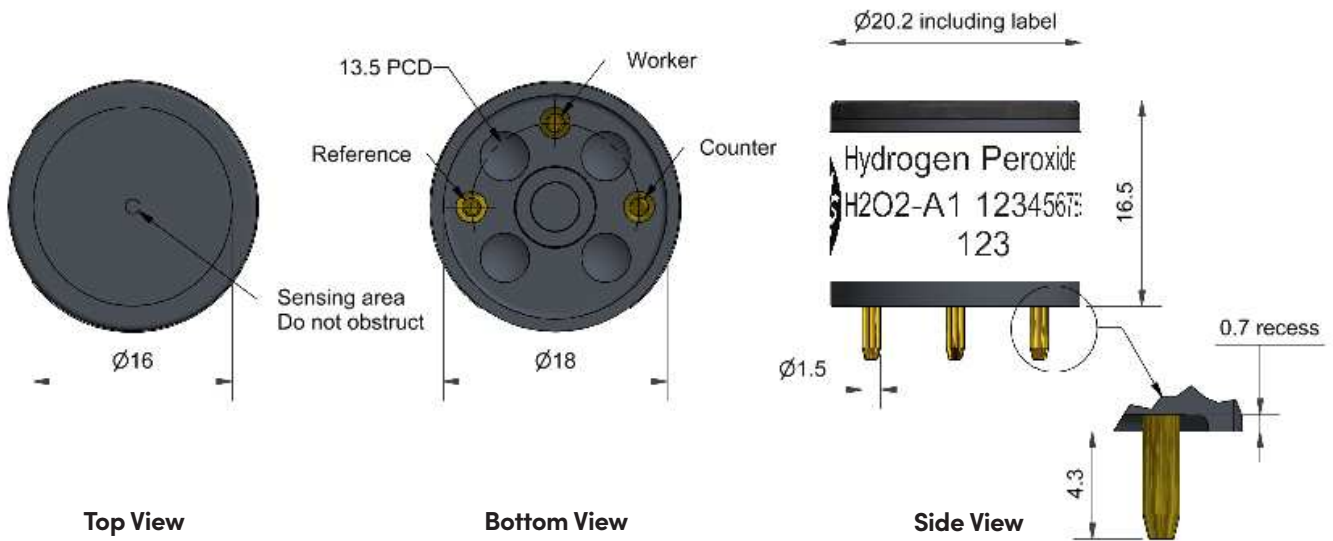


# H2O2-A1 Hydrogen Peroxide Sensor



Dimensions are in millimetres ( $\pm 0.1$  mm).

<b>Performance</b>	Sensitivity	nA/ppm in 400ppm CO	50 to 90
	Response time	t90 (s) from zero to 400ppm CO	< 25
	Zero current	ppm equivalent in zero air	-4 to +3
	Resolution	RMS noise (ppm equivalent)	< 0.5
	Range	ppm CO limit of performance warranty	2,000
	Linearity	ppm error at full scale, linear at zero, 400ppm CO	+15 to + 25
	Overgas limit	maximum ppm for stable response to gas pulse	5,000
	<b>Lifetime</b>	Zero drift	ppm equivalent change/year in lab air
Sensitivity drift		% change/year in lab air, monthly test	< 8
Operating life		months until 80% original signal (24-month warranted)	> 24
<b>Environmental</b>	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	< $\pm 3$
	Zero @ 50°C	ppm equivalent change from 20°C	< $\pm 8$
<b>Cross Sensitivity</b>	H <sub>2</sub> S sensitivity	% measured gas @ 20ppm	H <sub>2</sub> S < 350
	NO <sub>2</sub> sensitivity	% measured gas @ 10ppm	NO <sub>2</sub> < -20
	Cl <sub>2</sub> sensitivity	% measured gas @ 10ppm	Cl <sub>2</sub> < 60
	NO sensitivity	% measured gas @ 50ppm	NO < 30
	SO <sub>2</sub> sensitivity	% measured gas @ 20ppm	SO <sub>2</sub> < 35
	H <sub>2</sub> sensitivity	% measured gas @ 400ppm	H <sub>2</sub> at 20°C < 85
	C <sub>2</sub> H <sub>4</sub> sensitivity	% measured gas @ 400ppm	C <sub>2</sub> H <sub>4</sub> < 150
NH <sub>3</sub> sensitivity	% measured gas @ 20ppm	NH <sub>3</sub> < 0.1	
<b>Key Specifications</b>	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	$\Omega$ (recommended)	10 to 47
	Weight	g	< 6

Figure 1 Sensitivity Temperature Dependence

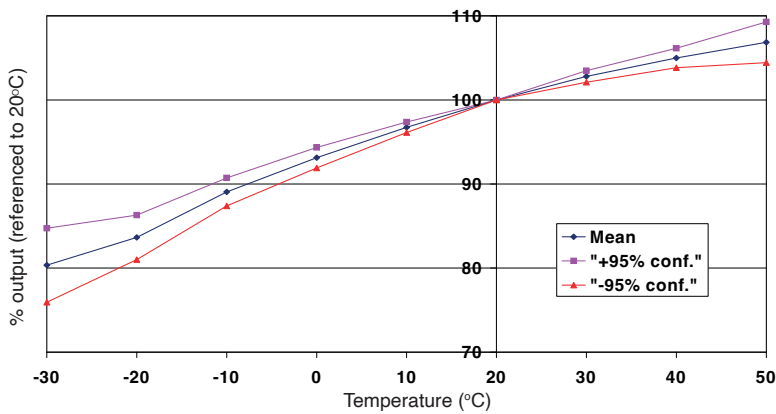


Figure 1 shows the variation in sensitivity caused by changes in temperature. This data is taken from a typical batch of sensors. The mean and  $\pm 95\%$  confidence intervals are shown.

Figure 2 Zero Temperature Dependence

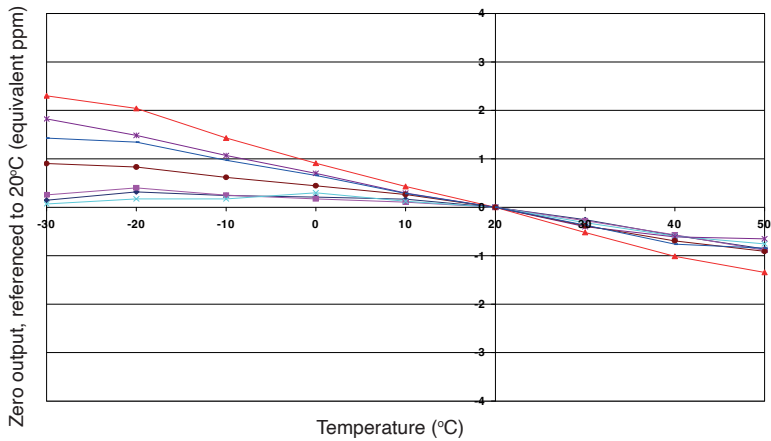


Figure 2 shows the variation in zero output caused by changes in temperature, expressed as ppm gas equivalent, referenced to zero at 20°C. This data is taken from a typical batch of sensors.

Figure 3 Response to Exposure to 2% CO

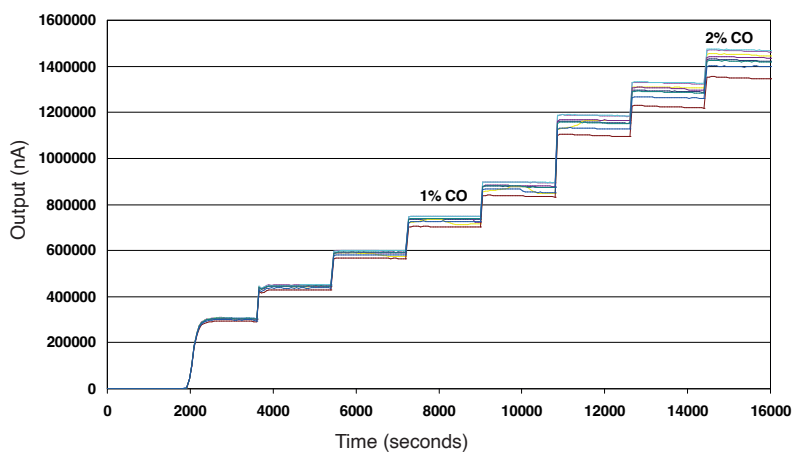


Figure 3 shows the excellent response to step changes in CO concentrations from zero to 2% CO by volume. This data is taken from a typical batch of sensors.

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