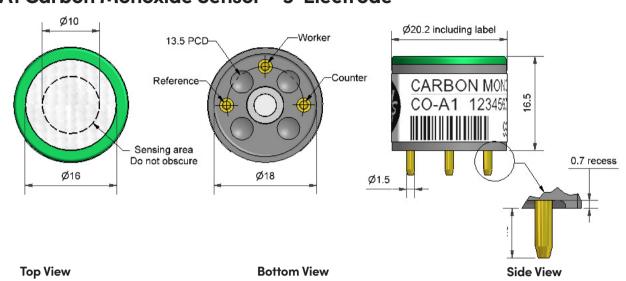
## CO-A1 Carbon Monoxide Sensor – 3-Electrode



Dimensions are in millimetres (± 0.1 mm).

Performance	Sensitivity Response time Zero current Resolution Range Linearity Overgas limit	nA/ppm in 400ppm CO t90 (s) from zero to 400ppm CO ppm equivalent in zero air RMS noise (ppm equivalent) ppm CO limit of performance warranty ppm error at full scale, linear at zero, 400ppm CO maximum ppm for stable response to gas pulse		50 to 90 < 25 -4 to +3 < 0.5 5,000 +15 to +25 10,000
Lifetime	Zero drift Sensitivity drift Operating life	ppb equivalent change/year in lab air % change/year in lab air, monthly test months until 80% original signal (24-month warranted)		< 0.2 < 8 > 24
Environmental	Sensitivity @ -20°C Sensitivity @ 50°C Zero @ -20°C Zero @ 50°C	(% output @ -20°C/output @ 20°C) @ 400ppm CO (% output @ 50°C/output @ 20°C) @ 400ppm CO nA equivalent change from 20°C nA equivalent change from 20°C		70 to 88 102 to 115 < ± 3 < ± 8
Cross Sensitivity	$H_2S$ sensitivity $NO_2$ sensitivity $CL_2$ sensitivity $SO_2$	% measured gas @ 20ppm % measured gas @ 10ppm % measured gas @ 10ppm % measured gas @ 50ppm % measured gas @ 20ppm % measured gas @ 400ppm % measured gas @ 400ppm % measured gas @ 20ppm	H <sub>2</sub> S NO <sub>2</sub> CL <sub>2</sub> NO SO <sub>2</sub> H <sub>2</sub> at 20°C C <sub>2</sub> H <sub>4</sub> NH <sub>3</sub>	< 350 < -20 < 60 < 30 < 35 < 85 < 150 < 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

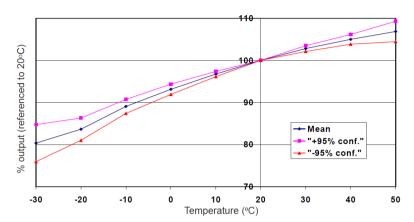


Figure 1 shows the variation in sensitivity caused by changes in temperature.

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

Figure 2 Zero Temperature Dependence

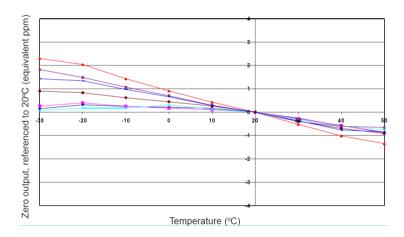


Figure 2 shows the variation in zero output caused by changes in temperature, expressed as ppm gas equivalent, referenced to zero at 20°C.

This data is taken from a typical batch of sensors.

Figure 3 Response to Exposure to 2% CO

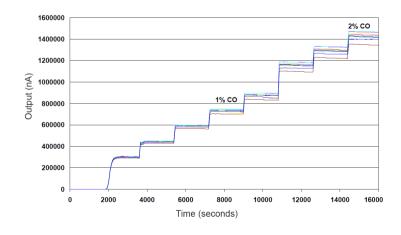


Figure 3 shows the excellent response to step changes in CO concentrations from zero to 2% CO by volume.

This data is taken from a typical batch of sensors.

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