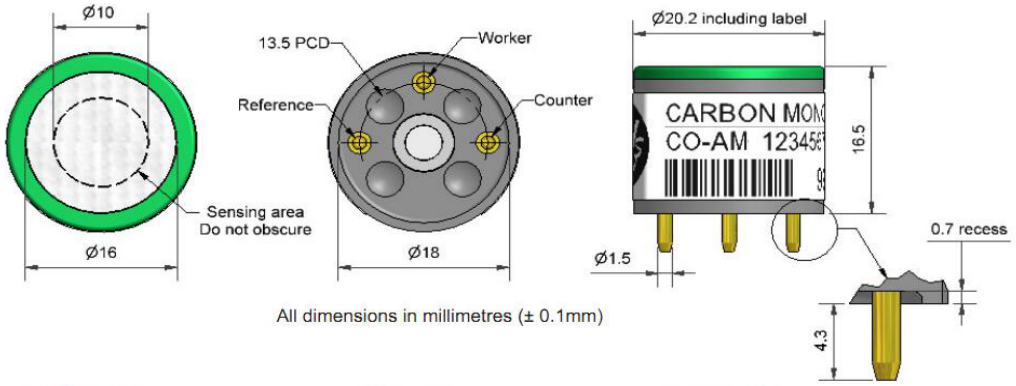
CO-AM Carbon Monoxide Sensor

Figure 1 Schematic Diagram of CO-AM



vertical view　　upward view　　lateral view

function	sensitivity	Sensitivity in 400ppmCO (nA/ppm)		55~90
	reaction time	Time from zero to 400ppmCO (s)		< 25
	zero current	Equivalent ppm value in zero air		-4~+2
	resolution ratio	RMS noise (equivalent ppm value)		< 0.5
	range	CO measurement limit (ppm) that guarantees product performance		5000
	degree of linearity	The ppm value of the full scale error is linear from 0 to 1000ppm		15~25
	overload	Maximum ppm value of gas pulse stabilized reaction		10000
life span	zero drift	Equivalent ppm values that change in the laboratory air from year to year		< 0.2
	sensitivity drift	Percentage change in laboratory air over the year, measured monthly		< 8
	working life	Number of months to which the output is reduced to 80% of the original signal (warranty 24 months)		> 24
environment	-20°C sensitivity	400ppm CO when, (output at-20°C/ output at 20°C)%		63~88
	Sensitivity at 50°C	400ppm CO when, (50°C output/20°C output)%		102~115
	-20°C when zero point	Change in equivalent ppm values with reference to 20°C zero		< ±3
	50°C at zero point	Change in equivalent ppm values with reference to 0°C 20		< ±8
cross sensitivity	filter capacity	ppm· hour	H_2S	250,000
	filter capacity	ppm- hour	NO_2	600,000
	filter capacity	ppm- hour	NO	20,000
	filter capacity	ppm- hour	SO_2	300,000
	H_2S	Gas sensitivity percentage at 20ppmH_2S		< 0.1
	NO_2	Gas sensitivity percentage measured at 10ppmNO_2		< 0.1
	Cl_2	Sensitivity percentage of gas measured at 10ppmCl_2		< 0.1
	NO	Gas sensitivity percentage measured at 50ppmNO		< 5
	SO_2	Gas sensitivity percentage at 20ppmSO_2		< 0.1
	H_2	Gas sensitivity percentage measured at 400ppmH_2(20°C)		< 60
	C_2H_4	Gas sensitivity percentage measured at 400ppmC_2H_4		< 25
	NH_3	Percentage sensitivity of gas at 20ppmNH_3		< 0.1
key parameter	temperature range	℃		-30~50
	pressure limit	kPa		80~120
	Humidity range	Percentage of continuous relative humidity		15~90
	Storage period	Number of months for preservation from 3 to 20℃ (to be kept in a sealed tank)		6
	load resistance	Ω（recommend）		10~47
	weight	g		< 6

Figure 2 Sensitivity Temperature Characteristics

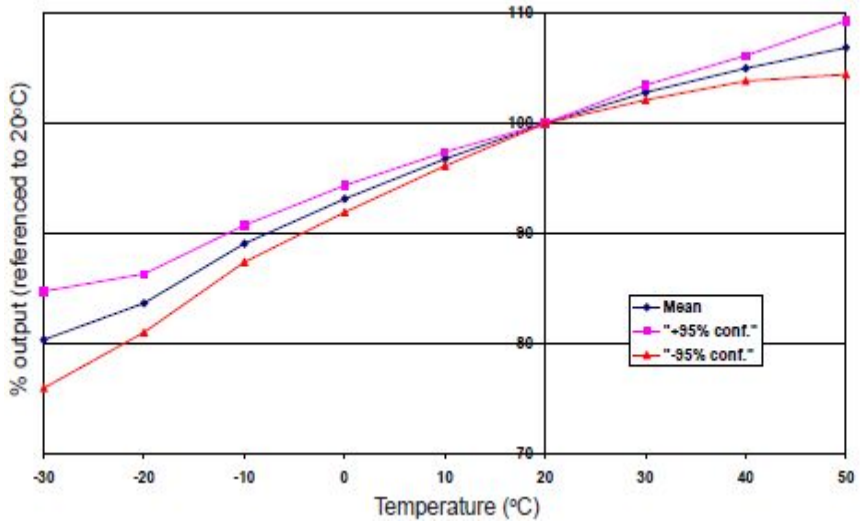


Figure 2 shows the change in sensor sensitivity caused by temperature changes.

The data were collected from a typical batch of sensors. Figure 2 shows the average percentage output (reference 20℃) and± 95% confidence interval.

Figure 3 Zero Temperature Characteristics

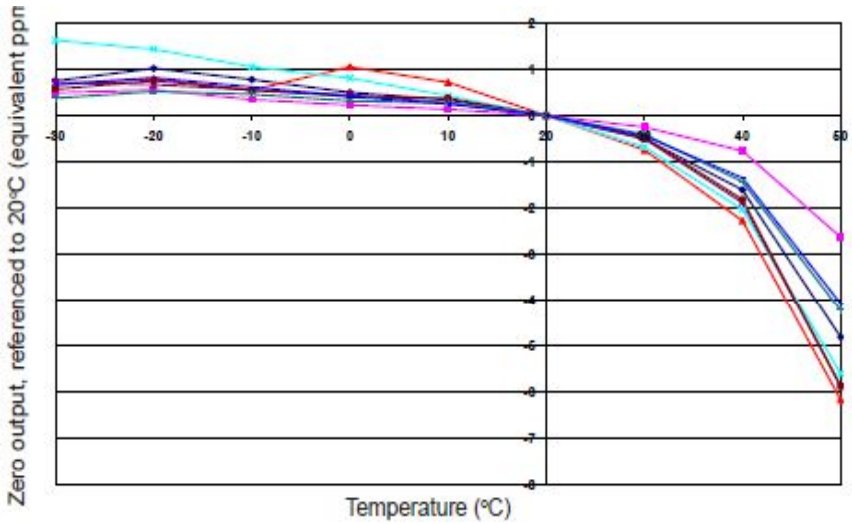


Figure 3 shows the change in zero point output caused by temperature changes, expressed as equivalent ppm values, with reference to the zero point at 20℃.

Data is taken from a typical batch of sensors.

Figure 4 Reaction Exposed to 2% CO

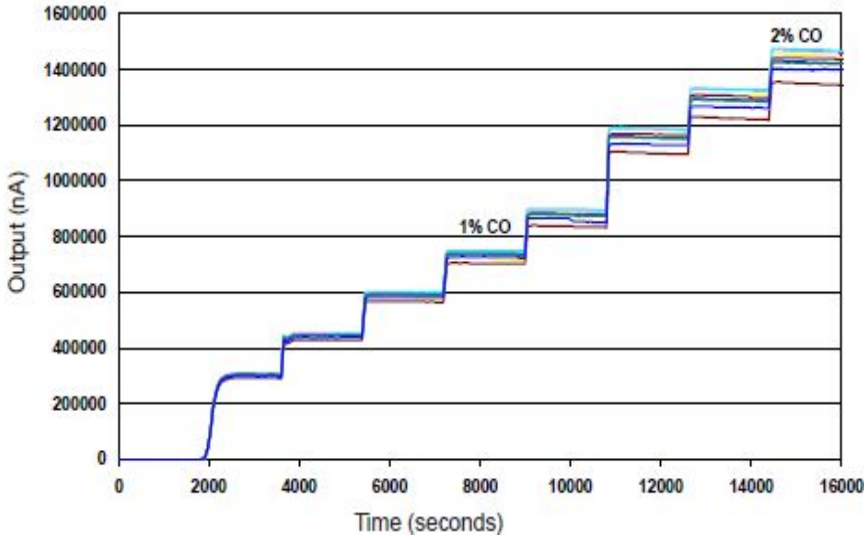


FIG. 4 shows the good response of the sensor output when the CO concentration is increased from 0 to 2%.

This data is taken from a typical batch of sensors.

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