CO-CE Carbon Monoxide Sensor High Concentration

Figure 1 Schematic Diagram of CO-CE

Top view Bottom view Side view

function	sensitivity	Sensitivity in 2000ppmCO (nA/ppm)		10~25
	reaction time	Time from zero to 2000ppmCO (s)		< 75
	zero current	Equivalent ppm value of zero air		< ±20
	resolution ratio	RMS noise (equivalent ppm value)		< 5
	range	CO measurement limit (ppm) that guarantees product performance		10000
	degree of linearity	The ppm value of the full scale error is linear from 0 to 2000ppm		< 500
	overload	Maximum ppm value of gas pulse stabilized reaction		100000
life span	zero drift	Equivalent ppm values that change in the laboratory air from year to year		< 1
	sensitivity drift	Percentage change in laboratory air over the year, measured monthly		< 4
	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)%		70~90
	Sensitivity at 50°C	400ppm CO when, (50°C output/20°C output)%		102~112
	-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 20°C zero		< ±5
cross sensitivity	filter capacity	ppm· hour	H_2S	4,000,000
	filter capacity	ppm- hour	NO_2	10,000,000
	filter capacity	ppm- hour	NO	2,000,000
	filter capacity	ppm- hour	SO_2	5,000,000
	H_2S	Gas sensitivity percentage at 20ppmH_2S		< 0.1
	NO_2	Gas sensitivity percentage $_2$ measured at 10ppmNO		< 0.1
	NO	Gas sensitivity percentage measured at 50ppmNO		< 0.1
	SO_2	Gas sensitivity percentage $_2$ at 20ppmSO		< 0.1
	Cl_2	Sensitivity percentage of gas measured $_2$ at 10ppmCl		< 0.1
	H_2	Gas sensitivity percentage $_2$ measured at 400ppmH(20°C)		< 45
	C_2H_4	Gas sensitivity percentage measured at 400ppm $_2$ C_4		< 2
	NH_3	Percentage sensitivity of gas $_3$ at 20ppmNH		< 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		< 8

Figure 2 Sensitivity Temperature Characteristics

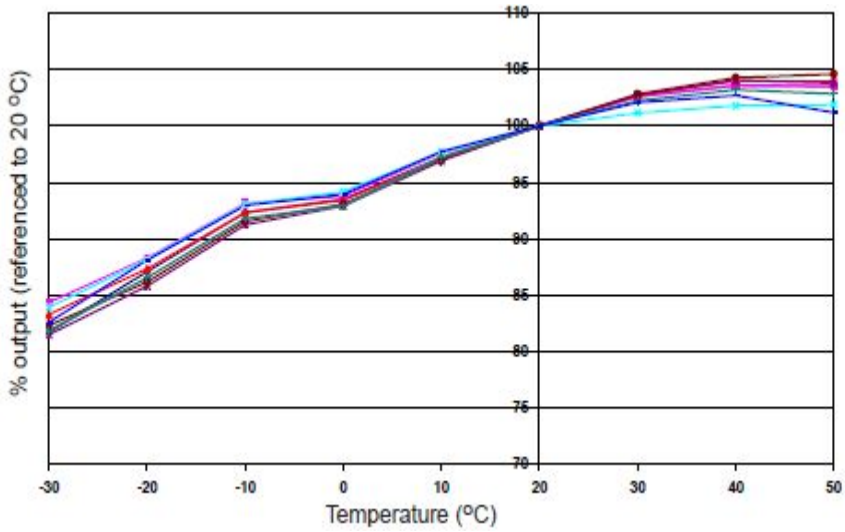

Figure 2 shows the sensitivity changes caused by temperature changes.

Data is taken from a typical batch of sensors.

Figure 3 Zero Temperature Characteristics

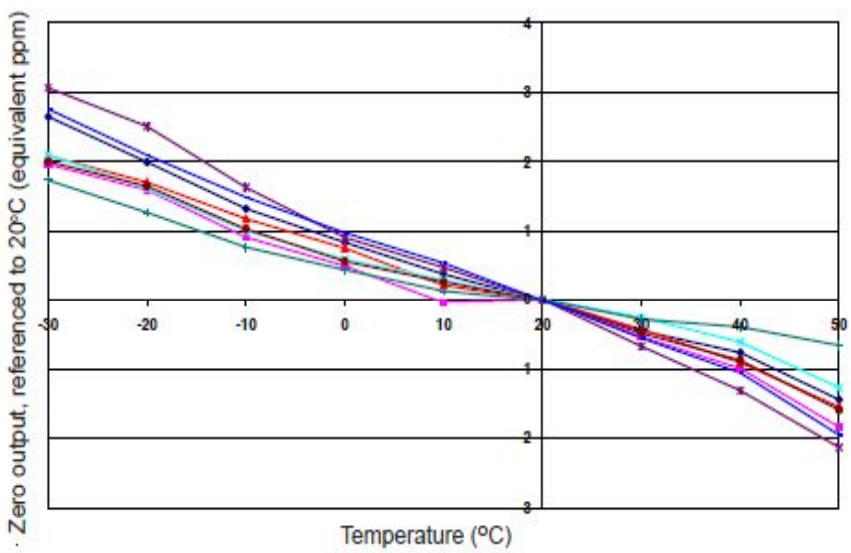

Figure 3 shows the change in zero point output caused by temperature changes, expressed in equivalent ppm, with reference to the zero point at 20°C.

This data is taken from a typical batch sensor and demonstrates the repeatability of zero temperature characteristics.

Figure 4 Reaction of 10% CO

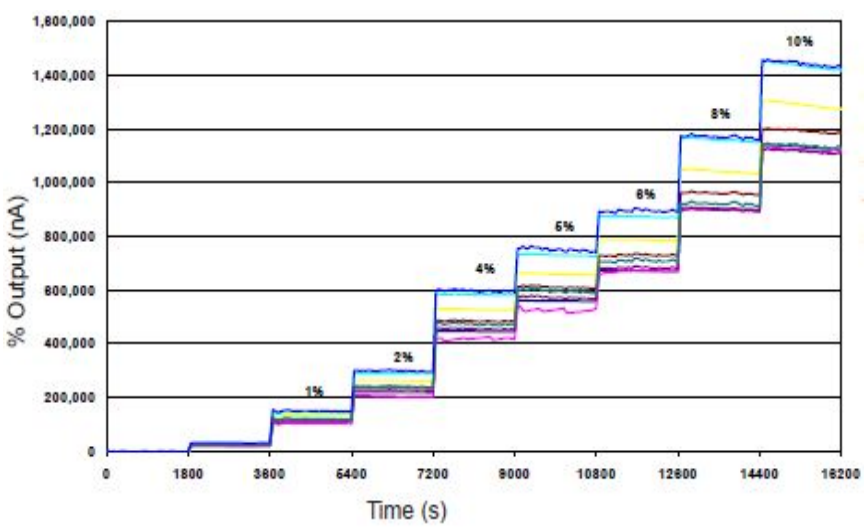

Figure 4 shows the nonlinear response of the transducer as CO concentration is increased from 0% to 10% in a stepwise manner.

This data is taken from a typical batch of sensors and reflects the repeatability of the sensor response.

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