

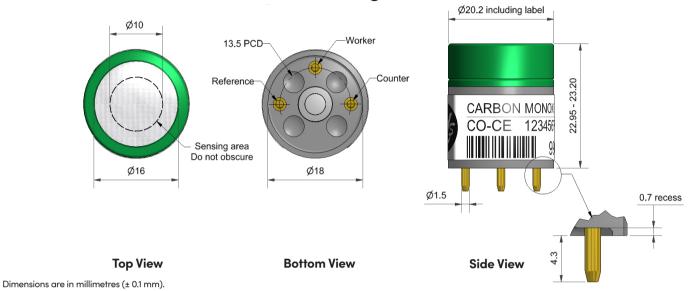


Instrument Expert Original factory www.dorgean.com

α lphasense **METEK**®

Technical specifications Version 1.0

CO-CE Carbon Monoxide Sensor – High Concentration



Performance	Sensitivity	nA/ppm in 2,000ppm CO		10 to 25
	Response time	t90 (s) from zero to 2,000ppm CO		< 75
	Zero current	ppm equivalent in zero air		< ± 20
	Resolution	RMS noise (ppm equivalent)		< 5
	Range	ppm CO limit of performance warranty		10,000
	Linearity	ppm error at full scale, linear at zero and 2,000ppm CO		< 500
	Overgas limit	maximum ppm for stable response to gas pulse		100,000
Lifetime	Zero drift	ppm equivalent change/year in lab air		< 1
	Sensitivity drift	% change/year in lab air, monthly test		< 4
	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 90
	Sensitivity @ 50°C	% (output @ 50°C/output @ 20°C) @ 400ppm CO		102 to 112
	Zero @ -20°C	ppm equivalent change from 20°C		< ± 3
	Zero @ 50°C	ppm equivalent change from 20°C		< ± 5
Cross Sensitivity	Filter capacity Filter capacity Filter capacity Filter capacity H_2S sensitivity NO_2 sensitivity NO sensitivity SO_2 sensitivity Cl_2 sensitivity H_2 sensitivity H_2 sensitivity H_3 sensitivity	ppm·hrs ppm·hrs ppm·hrs ppm·hrs % measured gas @ 20ppm % measured gas @ 10ppm % measured gas @ 50ppm % measured gas @ 20ppm % measured gas @ 10ppm % measured gas @ 400ppm % measured gas @ 400ppm % measured gas @ 20ppm	$H_{2}S$ NO_{2} NO SO_{2} $H_{2}S$ NO_{2} NO SO_{2} Cl_{2} $H_{2} \text{ at } 20^{\circ}C$ $C_{2}H_{4}$ NH_{3}	4,000,000 10,000,000 2,000,000 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 0.1 < 45 < 2 < 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		< 8

For further information on the performance of this sensor, on other sensors in the range or any other subject, please contact Alphasense Ltd. or visit our website at "www.alphasense.com".







Technical specifications Version 1.0

Figure 1 Sensitivity Temperature Dependence

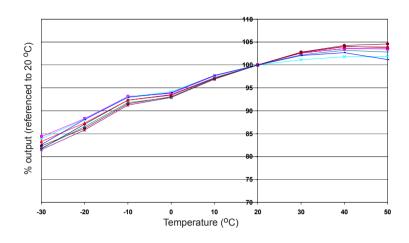


Figure 1 shows the variation in sensitivity caused by changes in temperature.

This data is taken from a typical batch of sensors.



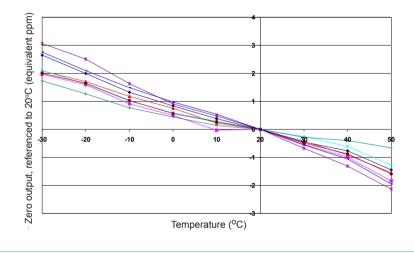
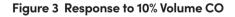


Figure 2 shows the variation in zero output caused by changes in temperature, expressed as ppm gas equivalent, referenced to zero at 20°C.

This data is taken from a typical batch of sensors and shows repeatability.



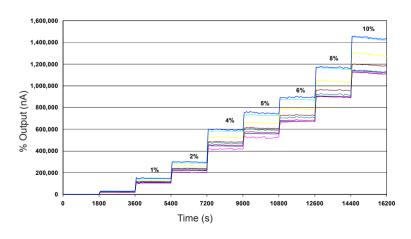


Figure 3 shows the non-linear response to step changes in CO concentrations from 10% CO to 0% CO.

This data is taken from a typical batch of sensors and shows repeatability.

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. NOTE: all sensors are tested at ambient environmental conditions unless otherwise stated. As applications of use are outside our control, the information provided is given without legal responsibility. Customers should test under their own conditions, to ensure that the sensors are suitable for their own requirements.

In the interest of continued product improvement, we reserve the right to change design features and specifications without prior notification. The data contained in this document is for guidance only. Alphasense Ltd accepts no liability for any consequential losses, injury or damage resulting from the use of this document or the information contained within. (©ALPHASENSE LTD) Doc. Ref. CO-CE/SEP22