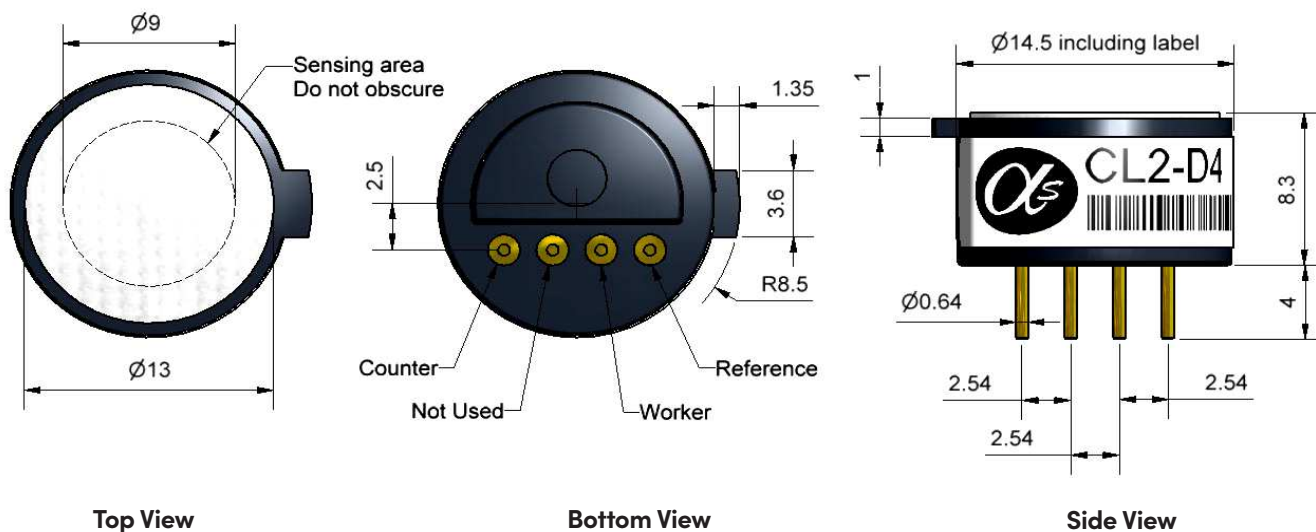


CL2-D4 Chlorine Sensor – Miniature Size



Dimensions are in millimetres (± 0.1 mm).

Performance	Sensitivity	nA/ppm in 10ppm Cl_2	-150 to -350
	Response time	t_{90} (s) from zero to 10ppm Cl_2	< 35
	Zero current	ppm equivalent in zero air	± 0.8
	Resolution	RMS noise (ppm equivalent)	< 0.1
	Range	ppm Cl_2 limit of performance warranty	20
	Linearity	ppm error at full scale, linear at zero and 10ppm Cl_2	± 0.5
	Overgas limit	maximum ppm for stable response to gas pulse	60

Lifetime	Zero drift	ppm equivalent change/year in lab air	nd
	Sensitivity drift	% change/month in lab air, twice monthly test	nd
	Operating life	months until 80% original signal (24-month warranted)	> 18

Environmental	Sensitivity @ -20°C	% (output @ -20°C/output @ 20°C) @ 10ppm Cl_2	80 to 110
	Sensitivity @ 50°C	% (output @ 50°C/output @ 20°C) @ 10ppm Cl_2	95 to 125
	Zero @ -20°C	ppm equivalent change from 20°C	-0.4 to 0.4
	Zero @ 50°C	ppm equivalent change from 20°C	0 to 0.5

Cross Sensitivity	H_2S sensitivity	% measured gas @ 20ppm	H_2S	< -200
	NO_2 sensitivity	% measured gas @ 10ppm	NO_2	< 120
	NO sensitivity	% measured gas @ 50ppm	NO	< 0.5
	SO_2 sensitivity	% measured gas @ 20ppm	SO_2	< -3
	CO sensitivity	% measured gas @ 400ppm	CO	< 0.1
	H_2 sensitivity	% measured gas @ 400ppm	H_2	< 0.1
	C_2H_4 sensitivity	% measured gas @ 400ppm	C_2H_4	< 0.1
	NH_3 sensitivity	% measured gas @ 20ppm	NH_3	< 0.1

Key Specifications	Temperature range	°C	-20 to 50
	Pressure range	kPa	80 to 120
	Humidity range	% rh (see note below)	15 to 90
	Storage period	months @ 3 to 20°C (stored in sealed pot)	6
	Load resistor	Ω (for optimum performance)	33
	Weight	g	< 2

Figure 1 Response to 10ppm Cl₂

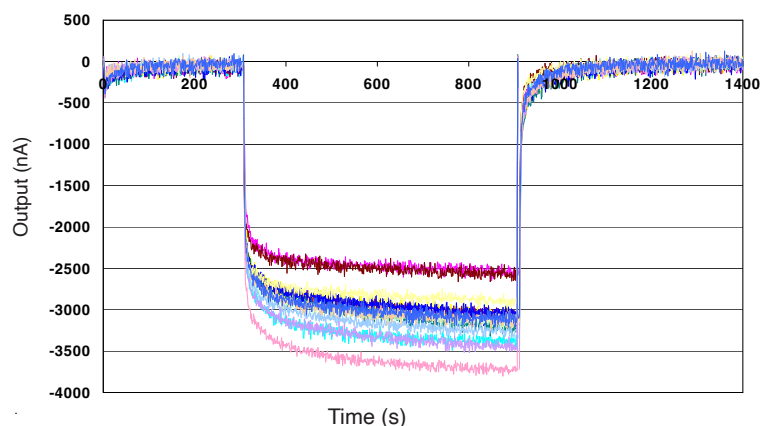


Figure 1 shows response to 10ppm Cl₂.
This data is taken from a typical batch of sensors.

Figure 2 Zero Temperature Dependence

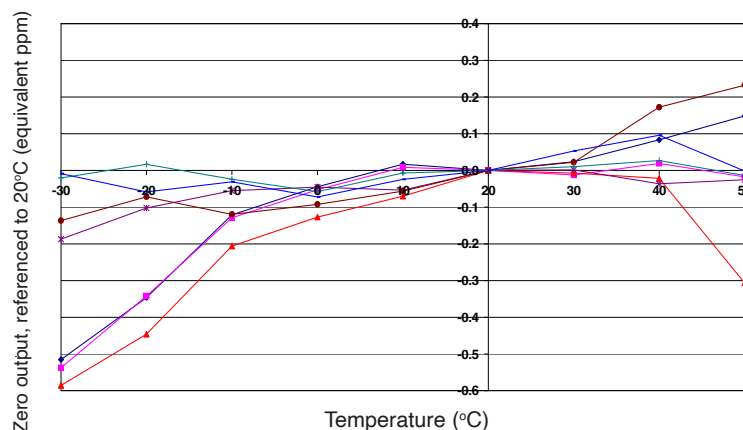


Figure 2 shows the variation in the zero by changes in temperature, expressed as equivalent ppm, referenced to zero at 20°C. This data is taken from a typical batch of sensors.

Figure 3 Load Resistor Dependence

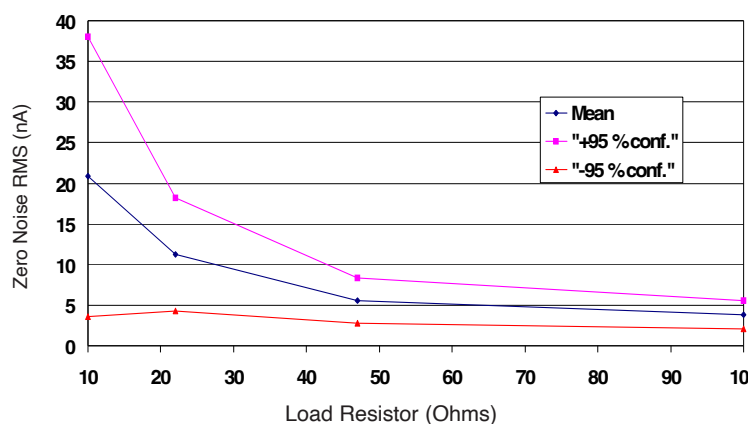


Figure 3 shows the effect of the load resistor on noise. Higher resistance reduces sensor noise, but also linearly increases response time.

Note: Above 85% rh and 40°C a maximum continuous exposure period of 10 days is warranted. Where such exposure occurs the sensor will recover normal electrolyte volumes when allowed to rest at lower % rh and temperature levels for several days.

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.

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