Product: XgardIQ Sensor Module
Subject: Technical Specification
Document reference: M070066
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Product:	**XgardIQ**
Sensor Module Part Number:	**XIQ-AN (0-20ppm)** **XIQ-IS (0-10ppm)** **XIQ-CC (0-5ppm)**
Gas Type:	**Chlorine (Cl_2)**
Sensor Technology:	Electrochemical

Environmental Specification:

Temperature Range:	-20ºC to +50ºC (not to be used continually above 40ºC)
Humidity Range for Operation/Storage:	15 to 90%rh non-condensing.
Recommended Storage Temperature	20ºC
Warranty Period:	12 months if operated within stated environmental limits and not exposed to excessive gas concentrations or contaminants (see Product Notes).
Pressure Range:	Atmospheric +/-10%

Performance Characteristics:

Expected Operating Life:	>24 months in air if operated within stated environmental limits and not exposed to excessive gas concentrations or contaminants (see Product Notes).
Storage Life:	6 months from date of manufacture, stored in a sealed container
T90 Response Time:	~ 60 seconds
Minimum Display Resolution:	0.1ppm
Linearity	±1ppm above 10ppm
Long Term Sensitivity Drift:	<6% change/year in air

Configuration:

XgardIQ Display Name:	CL2
Range:	0-5ppm, 0-10ppm or 0-20ppm
Maximum User-Selectable Range:	0-20ppm
Minimum Recommended User-Selectable Range:	0-5ppm
Alarm 1 Threshold	0.5ppm
Alarm 2 Threshold	1.0ppm
Stabilisation Time	60 seconds

Product Notes and Calibration Instructions:

Crowcon recommends chlorine sensors are initially calibrated on commissioning and re-calibrated every 6 months minimum.

Please refer to the XgardIQ installation, operating and maintenance instructions for information on performing sensor zero and calibration.

Crowcon recommends calibration is performed using 10ppm chlorine (Cl_2) in air at a flow-rate of 0.5 - 1 litre per minute. The sensor must be zeroed in clean air before calibration is performed. When using a chlorine generator, follow best practices to ensure an accurate gas concentration reaches the sensor, for example, a suitable regulator for use with chlorine, short lengths of FEP tubing and running the generator for 20 minutes to saturate the lines before calibration.

Note: If the detector is expected to operate towards the upper and lower temperature ranges, calibration at this temperature is recommended.

Note: if a dust filter accessory is fitted to the sensor, calibration must be performed with the filter in-place. Filters must be inspected regularly and replaced as soon as they show signs of contamination. A dust filter will affect the T90 response time of the sensor: response time may be significantly longer than shown on this datasheet.

Cross-Sensitivity Data:

Gas	Concentration Used	Reading
H_2S	20ppm	-20
NO_2	10ppm	10
NO	50ppm	<0.25
SO_2	20ppm	<-0.4
CO	400ppm	<0.4
H_2	400ppm	<0.4
C_2H_4	400ppm	<0.4
NH_3	20ppm	<0.02
CO_2	5% (vol)	0

Safety Information:

XgardIQ sensor modules are designed to detect gases or vapours in air, and not inert or oxygen deficient atmospheres.

Maintenance and calibration operations must be performed by qualified service personnel.

Electrochemical cells used in toxic and oxygen sensor modules contain small volumes of corrosive electrolyte. Care should be observed when replacing or disposing of cells to ensure that the electrolyte does not come into contact with skin or eyes.

Disclaimer:

The data contained on this document is provided for guidance purposes only and is correct at the time of issue. Performance data is typical as measured at Crowcon; no guarantees can be made on the performance of individual products. Environmental specifications are specific to the sensor listed, and may differ from those shown on the gas detector datasheet.