Product: XgardIQ Sensor Module
Subject: Technical Specification
Document reference: M070036
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Product:	**XgardIQ**
Sensor Module Part Number:	**XIQ-AI (0-100ppm), XIQ-IN (0-200ppm),**
Gas Type:	**Hydrogen Sulphide (H_2S)**
Sensor Technology:	Electrochemical

Environmental Specification:

Temperature Range:	-30ºC to +50ºC
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 humidity.
Pressure Range:	80 to 120 kPa

Performance Characteristics:

Expected Operating Life:	>24 months in air if operated within stated environmental limits and not exposed to excessive gas concentrations or humidity.
Storage Life:	6 months from date of manufacture.
T90 Response Time:	~40 seconds
Minimum Display Resolution:	1ppm
Linearity	<5% of full-scale
Long Term Sensitivity Drift:	<3% per year

Configuration:

XgardIQ Display Name:	H2S
Range:	0-100ppm or 0-200ppm
Maximum User-Selectable Range:	0-200ppm
Minimum Recommended User-Selectable Range:	0-20ppm
Alarm 1 Threshold	0-100ppm range: 5ppm, 0-200ppm range: 10ppm
Alarm 2 Threshold	0-100ppm range: 10ppm, 0-200ppm range: 20ppm
Stabilisation Time	60 seconds

Product Notes and Calibration Instructions:

Crowcon recommends H_2S 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 25ppm Hydrogen Sulphide (H_2S) at a flow-rate of 0.5 - 1 litre per minute. The sensor must be zeroed in clean air before calibration is performed.

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
Ammonia	20ppm	<0.1%
Carbon Dioxide	5%	<0.1%
Carbon Monoxide	400ppm	<3%
Chlorine	10ppm	<-25%
Ethylene	400ppm	<0.5%
Hydrogen	400ppm	<0.5%
Nitrogen Dioxide	10ppm	<-30%
Nitric Oxide	50ppm	<35%
Sulphur Dioxide	20ppm	<18%

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: