

**Product: XgardIQ Sensor Module**

**Subject: Technical Specification**

Document reference: M070036-HT

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<b>Product:</b>	<b>XgardIQ</b>
<b>Sensor Module Part Number:</b>	<b>XIQ-HT (0-100ppm)</b>
<b>Gas Type:</b>	<b>Hydrogen Sulphide (H<sub>2</sub>S)</b>
Sensor Technology:	Electrochemical

**Environmental Specification:**

Temperature Range:	-30°C to +70°C
Humidity Range for Operation/Storage:	0 to 95%rh non-condensing.
Recommended Storage Temperature	0°C to 20°C
Warranty Period:	24 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	<2% of full-scale
Long Term Sensitivity Drift:	<2% per year

**Configuration:**

XgardIQ Display Name:	H2S
Range:	0-100ppm
Maximum User-Selectable Range:	0-100ppm
Minimum Recommended User-Selectable Range:	0-20ppm
Alarm 1 Threshold	5ppm
Alarm 2 Threshold	10ppm
Stabilisation Time	~ 120 seconds

## Product Notes and Calibration Instructions:

Crowcon recommends H<sub>2</sub>S 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<sub>2</sub>S) 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
Carbon Monoxide	300ppm	<6ppm
Sulphur Dioxide	5ppm	<1ppm
Nitrogen Dioxide	5ppm	<±0.5ppm
Nitric Oxide	50ppm	<1ppm
Hydrogen	500ppm	<1ppm
Chlorine	1ppm	0ppm
Ethylene	100ppm	0ppm
Carbon Dioxide	5000ppm	0ppm

## 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.