FIXED SYSTEMS

XGARDIQ

Intelligent Gas Detector and Transmitter

XgardIQ offers powerful features which minimize the time operators spend in hazardous areas performing routine maintenance.

XgardIQ is an intelligent and versatile fixed detector and transmitter with global certification. Its remote sensor and universal transmitter means you have access to Crowcon's full range of sensor technologies and improved detection. With its sensor range selection capabilities it means users can set the full-scale range of the sensor according to specific location requirements.

Available fitted with a variety of sensors for fixed flammable, toxic, oxygen or H_2S gas detection, this SIL2 certified detector is easy and safe to use, with OLED display for easy visibility of reading even in dark locations and a +Ve safety indicator to quickly confirm the detector is operating soundly at a glance.

The XgardIQ is optionally available with Alarm and Fault relays and HART communications.

EASY TO USE

- Positive Safety indicator Status checking at a glance and from a distance.
- Bright, clear OLED display indicates gas level even in dark locations.
- Functions performed via buttons, without the need for special magnets or tools.
- Clear event log and history of detector use
- Ultra lightweight- just 85g for toxic sensor module

SIMPLE INSTALLATION & MAINTENANCE

Hot-swap sensor Modules
Easily removed or replaced using the tool provided without requiring hot work permit or special tools.

Auto-sense Function
Automatically detects whether the control system is 4-20mA current sink or source, saving time and faults.

Auto-configure Function
Detects when sensor module is plugged in and uploads the appropriate gas type, range, units and alarm levels.

Smart Bump and Speedy Bump Test
Sensor health and response verified quickly and easily following simple on-screen instructions. Detector automatically provides a reminder when next bump test is due.

Calibration Due Warning
Automatically reminds the user when calibration is due to ensure sensors remain accurate at all times.

Sensor Range Selection
Users can set the full-scale range of the sensor via the display menu according to site or specific location requirements.

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DETECTING GAS. **SAVING LIVES.**

GASES & RANGES

GASES & RANGES			
GAS	**SENSOR TYPE**	**GAS RANGE**	**TEMPERATURE RANGE**
Ammonia (NH_3)	Electrochemical	0-50 ppm, 0-100 ppm, 0-1000 ppm	-4°F to 104°F
Carbon Monoxide (CO)	Electrochemical	0-250 ppm, 0-500 ppm, 0-1000 ppm	-22°F to 122°F
Chlorine (Cl_2)	Electrochemical	0-5 ppm, 0-10 ppm, 0-20 ppm	-4°F to 122°F
Hydrogen Fluoride (HF)	Electrochemical	0-10 ppm	41°F to 104°F
Hydrogen Sulphide (H_2S)	Electrochemical	0-100 ppm	-22°F to 158°F
Hydrogen Sulphide (H_2S)	Electrochemical	0-25 ppm, 0-50 ppm	-40°F to 122°F
Hydrogen Sulphide (H_2S)	Electrochemical	0-100 ppm, 0-200 ppm	-22°F to 122°F
Oxygen (O_2)	Electrochemical	0-25% Vol.	-4°F to 122°F
Ozone (O_3)	Electrochemical	0-1 ppm	-4°F to 104°F
Sulphur dioxide (SO_2)	Electrochemical	0-10 ppm, 0-100 ppm	-22°F to 122°F
Flammable Gases*	MEMS	0-100% LEL	-40°F to 167°F
Acetylene (C_2H_2)	Catalytic	0-100% LEL	-4°F to 140°F
Benzene (C_6H_6)	Catalytic	0-100% LEL	-4°F to 140°F
Ethanol (C_2H_6O)	Infra-Red	0-100% LEL	-4°F to 131°F
Heptane (C_7H_{16})	Catalytic	0-100% LEL	-4°F to 140°F
Hydrogen (H_2)	Catalytic	0-100% LEL	-40°F to 167°F
LPG	Catalytic Infra-Red	0-100% LEL	-4°F to 158°F -4°F to 131°F
Methane (CH_4	Catalytic Infra-Red	0-100% LEL	-40°F to 167°F -4°F to 131°F
Pentane (C_5H_{12})	Catalytic Infra-Red	0-100% LEL	-40°F to 167°F -4°F to 131°F
Propane (C_3H_8)	Catalytic Infra-Red	0-100% LEL	-40°F to 167°F -4°F to 131°F

Further gas types will be available. Contact Crowcon with your requests.

* Pending release

SPECIFICATIONS

DEVICE SPECIFICATIONS	
ENCLOSURE MATERIAL	316 Stainless Steel
SIZE	Transmitter: 278 x 140 x 89mm (10.9 x 5.5 x 3.5 inch) Smart Sensor Module: 66 x 53 x 45 mm (2.6 x 2.1 x 1.8 inch)
WEIGHT	4.1 kg (9 lbs)
CABLE GLAND ENTRY	3x M20 or 2x ½" NPT (Stopping plug fitted to the left-side and lower right entries)
INGRESS PROTECTION	IP66, EN 60529
OPERATING VOLTAGE	14V - 30V DC
POWER	<4W
OUTPUT	3-wire 4-20mA (Auto Detect Sink/Source); NAMUR NE43 compliant; Configurable warning/fault signals; RS-485 Modbus RTU; HART 7 over 4-20 mA and local IS points (Optional)
RELAY OUTPUT	Alarm 1, Alarm 2, Fault SPDT contacts (5A, 230Vac) SPST Fault relays Configurable relays (Energised/de-energised, latching/non-latching, rising/falling, delays)
DISPLAY	OLED Main Display (128 x 64 pixels) with yellow text on black background, +ve safety LED Status Indicator (Amber, Red and Green)
EVENT LOGGER	Built-in alarm, fault and maintenance events log
OPERATING TEMPERATURE	ATEX/IECEx: -40°F to 167°F FM: -40°F to 158°F Refer to sensor datasheet for sensor operating temperature
ACCURACY	Repeatability: +/- 2% FSD, Zero drift: +/- <2% FSD per year
EMC COMPLIANCE	EN 50270, EN IEC 61326-1, EN 55011, CISPR 11, EN 61000-4
HAZLOC STANDARDS & APPROVALS	Zone 1 and Zone 2 ATEX: EN IEC 60079-0, EN 60079-1, EN 60079-11 Ex II 2 G Ex db ia IIC T4 Gb IECEx: IEC 60079-0, IEC 60079-1, IEC 60079-11 Ex db ia IIC T4 Gb FM Approval US: ANSI/UL 60079-0, ANSI/UL 60079-1, ANSI/UL 60079-11 Class 1, Zone 1, AEx db ia IIC T4 Gb Canada: CSA C22.2 No. 60079-0, CSA C22.2 No. 60079-1, CSA C22.2 No. 60079-11 Ex db ia IIC T4 Gb
APPROVALS	$_{c}FM_{US}$ (Methane (Cat), Propane (Cat) and H_2S HT), IECEx, ATEX, CE, INMETRO, ECAS-Ex, PESO, CNEx
PERFORMANCE	ANSI/FM/UL and EN 60079-29-1, ANSI/FM/UL 62990-1, EN 50271, EN 50104, EN 45544, UL/ANSI/ISA 92.00.01, FM 6320, FM 6340
FUNCTIONAL SAFETY	SIL2 Certified, IEC 61508, EN 50402
WARRANTY	3 years on transmitter refer to GEN067 – Warranty Periods for sensor warranty

Disclaimer
Due to ongoing research and product improvement, specifications are subject to change without notice. While every effort has been made to ensure accuracy in this document, no responsibility can be accepted for errors or omissions. Data may change, as well as legislation, and you are strongly advised to obtain copies of the most recently issued regulations, standards, and guidelines. This document is not intended to form the basis of a contract.

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