

XGARD IQ

Intelligent Gas Detector and Transmitter

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



XgardIQ is an intelligent and versatile fixed detector and transmitter. 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 H₂S 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 versions

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.

GASES & RANGES

GAS	SENSOR TYPE	UNITS	MAX RANGE*	STANDARD RANGE	ALARM LEVEL 1+	ALARM LEVEL 2+	TEMP RANGE °C
Oxygen (O ₂)	Electrochemical	%Vol	30	25	19 (falling)	17 (falling)	-20 to +50
Ammonia (NH ₃)	Electrochemical	ppm	100/1000	50	25	35	-20 to +40
Carbon Monoxide (CO)	Electrochemical	ppm	1000	250	20	200	-30 to +50
Hydrogen Fluoride (HF)	Electrochemical	ppm	10	10	1.8	3	-20 to +40
Hydrogen Sulphide (H ₂ S)	Electrochemical	ppm	100/200	25	5	10	-30 to +50
Hight Temp (H2S)	Electrochemical	ppm	100	100	5	10	-30 to +70
Chlorine (Cl ₂)	Electrochemical	ppm	20	5, 10 or 20	0.5	1	-20 to +50
Ozone (O ₃)	Electrochemical	ppm	1	1	0.1	0.2	-20 to +40
Sulphur dioxide (SO ₂)	Electrochemical	ppm	100	10	1	1	-30 to +50
Hydrogen (H ₂)	Pellistor	%LEL	100	100	20	40	-40 to +75
Methane (CH ₄)	Pellistor	%LEL	100	100	20	40	-40 to +75
Pentane (C ₅ H ₁₂)	Pellistor	%LEL	100	100	20	40	-40 to +75
Propane (C ₃ H ₈)	Pellistor	%LEL	100	100	20	40	-40 to +75
Ethanol (C ₂ H ₅ OH)	IR	%LEL	100	100	20	40	-20 to +55
LPG	IR	%LEL	100	100	20	40	-20 to +55
Methane (CH ₄)	IR	%LEL	100	100	20	40	-20 to +55
Pentane (C ₅ H ₁₂)	IR	%LEL	100	100	20	40	-20 to +55
Propane (C ₃ H ₈)	IR	%LEL	100	100	20	40	-20 to +55

* NOTE: Measuring ranges are user-selectable on the XgardIQ transmitter
 * NOTE: Alarm levels are user-adjustable on the XgardIQ transmitter

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

SPECIFICATIONS

SIZE	XgardIQ transmitter	H278 x W140 x D89mm (10.9 x 5.5 x 3.5ins)
WEIGHT	XgardIQ transmitter	4.1kg (9lbs, stainless steel)
ENCLOSURE MATERIAL		316 stainless steel
INGRESS PROTECTION		IP66
CONNECTION		Three M20 or 1/2" NPT cable gland entries. Certified, removable plugs are fitted to left-hand and lower right-hand entries
POWER		14-30Vdc. < 4W
DISPLAY	Main display	OLED 128 x 64 pixels, yellow text on black background
	Indicators	Amber, Red and Green LEDs for detector status, Blue Positive Safety LED
ELECTRICAL OUTPUT		4-20mA current sink or source (auto-sense or manual selection) Warning and fault signals are configurable NAMUR NE 43 compliant RS-485 Modbus RTU, HART 7 over 4-20mA signal and via local I.S. test points (optional)
	Relays (optional)	Alarm 1, Alarm 2, Fault SPDT contacts rated 5A, 230Vac (Fault relay: SPST contacts)
	Relay configuration options	Energised or de-energised, latching or non-latching, rising or falling, configurable On and Off delays for alarm relays
EVENT LOGGING		Records alarm, fault and maintenance events. Events can be viewed on-screen and downloaded to a PC
OPERATING TEMPERATURE		Transmitter only: -40°C to +75°C (-40°F to 167°F) Sensor type: Oxygen (-20°C to +50°C ambient), Toxic (-40°C to +50°C ambient), Toxic (a high temperature H2S sensor -40°C to +75°C ambient), Pellistor (-40°C to +75°C ambient), Infra-red (IR) (-20°C to +55°C ambient)
HUMIDITY		Transmitter only: 0 to 95% RH non-condensing Note: sensor humidity operating range may vary. Contact Crowcon for specific sensor data
REPEATABILITY		+/- 2% FSD
ZERO DRIFT		+/- 2% FSD per year maximum
RESPONSE TIME		Sensor dependent: contact Crowcon for specific sensor data
PERFORMANCE	Tested in accordance with:	IEC EN 60079-29-1 for flammable catalytic bead and IR sensors; EN 50104 for oxygen sensor; EN 45544 and UL ANSI/ISA 92.00.01 for H2S sensor
FUNCTIONAL SAFETY		IEC61508, EN50402, SIL 2
APPROVALS		ATEX and IECEx: IEC EN 60079-0, IEC EN 60079-1, IEC EN 60079-11, Ex db ia IIC T4 Gb PESO, ECAS, INmetro
EMC COMPLIANCE		EN50270, EN61000-6-4, FCC CFR47 Part 15B, ICES-003
WARRANTY		3 years*

*Does not include sensor. Please refer to technical note on warranty periods and product manual for sensor warranty and terms & conditions.

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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