

XGARD BRIGHT

Addressable Fixed Point Gas Detector with Display

Non-intrusive calibration
MODBUS, HART & relay options



Xgard Bright is a versatile platform designed for detecting flammable and toxic gases, as well as monitoring oxygen levels.

The 4-wire addressable implementation minimizes cabling requirements, lowering installation costs. The large OLED display ensures users can easily interact with Xgard Bright during installation, calibration, and routine maintenance without opening the housing.

FEATURES

Long-life Sensors

Choose from robust sensor options such as MPS (10+ years), O2 Long-life (5 years), and IR sensors (10+ years) to reduce the frequency of sensor replacements and minimize operational expenses.

Flexible Communication

Xgard Bright supports connection to an addressable network using Modbus RS-485 RTU, alongside analogue 4-20 mA output. This setup reduces cable and installation costs while enhancing system flexibility and functionality. HART communication is also available as an option.

OLED Display

The bright OLED display clearly shows gas levels and units, providing comprehensive menus for setup and diagnostics. In low-light conditions, the OLED display offers a higher contrast ratio than conventional LCDs, making it easier to read.

Non-intrusive Calibration

Zero and calibration functions, along with setup, tests, and adjustments, are performed via the display using a magnetic wand, eliminating the need to open the housing and reducing the requirement for a hot-work permit.

GAS RANGES & ALARMS

GAS	SENSOR	RANGES AVAILABLE	TEMP. RANGE
Flammable gases*	MPS	0-100% LEL	-40 to +75 °C
Butane (C ₄ H ₁₀)	Infrared	0-100% LEL	-40 to +60°C
Hydrogen (H ₂)	Catalytic	0-100% LEL	-40 to +70°C
LPG	Catalytic Infrared	0-100% LEL	-40 to +70°C -40 to +60°C
Methane (CH ₄)	Catalytic Infrared	0-100% LEL	-40 to +70°C -40 to +60°C
Pentane (C ₅ H ₁₂)	Catalytic Infrared	0-100% LEL	-40 to +70°C -40 to +60°C
Propane (C ₃ H ₈)	Catalytic*** Infrared	0-100% LEL	-40 to +70°C -40 to +60°C
Carbon Monoxide (CO)	Electrochemical	0-25, 50, 100, 200, 250, 300, 1000, 2000 ppm	-30 to +50°C
Hydrogen sulphide (H ₂ S)	Electrochemical	10, 20, 25, 50, 100, 200 ppm	-40 to +50°C
Oxygen (O ₂) - Long Life Lead Free	Electrochemical	0-25% vol	-40 to +60°C
Oxygen (O ₂)	Electrochemical	0-25% vol	-20 to +50°C
Carbon Dioxide (CO ₂)	Infrared	0-5% vol	-40 to +60°C

* Contact Crowcon for more information
*** Contact Crowcon for availability



SPECIFICATIONS

ENCLOSURE MATERIAL	ADC 12 aluminium alloy or 316 stainless steel	
DIMENSIONS	Aluminium Enclosure ATEX/IECEX: 156 x 166 x 109 mm (6.1 x 6.5 x 4.3 inch) UL: 162 x 166 x 110 mm (6.4 x 6.5 x 4.3 inch) Stainless Steel Enclosure ATEX/IECEX: 165 x 166 x 105 mm (6.1 x 6.5 x 4.1 inch) UL: 162 x 166 x 103 mm (6.4 x 6.5 x 4.1 inch)	
WEIGHT	Aluminium enclosure ATEX/IECEX: 1kg (2.2 lbs) UL: 1.5 kg (3.31 lbs) Stainless Steel enclosure ATEX/IECEX: 3.1 kg (6.8 lbs) UL: 3.5 kg (7.72 lbs)	
INGRESS PROTECTION	IP65/66, EN 60529	
CABLE ENTRY	2x M20 or 2x ½" NPT (Stopping plug fitted to the left-side entry)	
OPERATING VOLTAGE	10-30Vdc. 3W max	
POWER	3W max	
ELECTRICAL OUTPUT	3-wire 4-20mA (Sink or Source) RS-485 Modbus RTU HART 7 (Optional)	
RELAY OUTPUT	Alarm 1, Alarm 2, Fault (SPDT Contacts. Rated 1A, 24Vdc)	
SOUNDER	High Side Switch (24V nominal, 12V minimum, 700mA maximum load)	
OPERATING TEMPERATURE	ATEX/IECEX: -40°C to +70°C (-40°F to 158°F) UL: -40°C to +60°C (-40°F to 140°F)	
HUMIDITY	0 to 95% RH (non-condensing) Contact Crowcon for sensor operating humidity range.	
REPEATABILITY	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 AND APPROVALS	ATEX: EN IEC 60079-0, EN 60079-1, EN 60079-31 IECEX: IEC 60079-0, IEC 60079-1, IEC 60079-31 Zone 1 and Zone 2 or Zone 21 and Zone 22 Aluminium: Ex II 2 G Ex db IIC T6 Gb Tamb: -40°C≤Ta≤70 °C Ex II 2 D Ex tb IIIC T80°C Db Ex db IIC T6 Gb Tamb: -40°C≤Ta≤70 °C Ex tb IIIC T80°C Db	Stainless Steel: Ex II 2 G Ex db IIC T3 Gb Tamb: -40°C≤Ta≤70 °C Ex II 2 G Ex db IIC T4 Gb Tamb: -40°C≤Ta≤50°C Ex II 2 D Ex tb IIIC T80°C Db Ex db IIC T3 Gb Tamb: -40°C≤Ta≤70°C Ex db IIC T4 Gb Tamb: -40°C≤Ta≤50°C Ex tb IIIC T80°C Db UL: UL 1203 -40°C≤Ta≤60 °C Class I, Division 1, Groups B, C, D T6 Class II Division 1, Groups E, F, G T6
APPROVALS	UL, IECEX, ATEX, CE, ECAS, PESO, CNEx, UC, CCS TA, MED***	
PERFORMANCE	UL 60079-29-1**	
WARRANTY	2 years on transmitter 5 years on MPS flammable and O2 Long Life sensor 2 years on IR flammable sensors Refer to GEN067 – Warranty Periods for other sensors	

**pending

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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