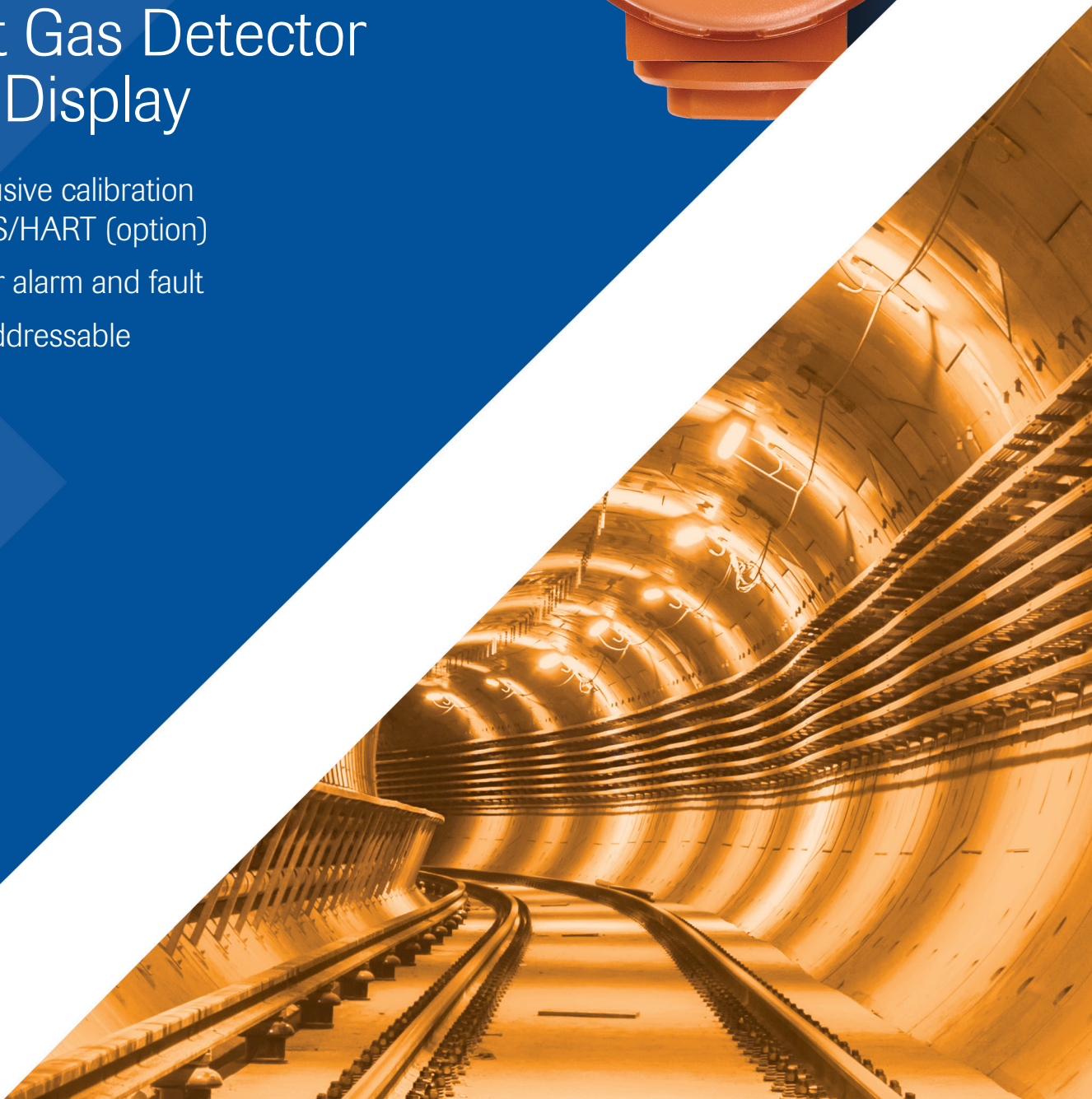# CROWCON

Detecting Gas Saving Lives

Xgard Bright

Addressable Fixed Point Gas Detector with Display

Non-intrusive calibration
MODBUS/HART (option)

Relays for alarm and fault

4-Wire addressable

Xgard Bright

Addressable Fixed Point Gas Detector with Display

Xgard Bright is a versatile platform offering flammable and toxic gas detection and oxygen monitoring, while providing ease of operation and reduced installation costs.

Lowering the cost of installation, the 4-wire addressable implementation drastically reduces cabling requirements. The large OLED display allows users to easily work with Xgard Bright during install, calibration and routine maintenance without the need to open the housing.

Gases and ranges

Gas	Sensor Technology	Ranges available
Range of flammable gases	MPS	0-100% LEL
Hydrogen sulphide (H_2S)	Electrochemical	10, 20, 25, 50, 100, 200 ppm
Oxygen (O_2)	Oxygen	0-25% vol
Carbon Monoxide (CO)	Electrochemical	0-25, 50, 100, 200, 250, 300, 1000, 2000 ppm
Methane (CH_4)	Pellistor	0-100% LEL
Pentane (C_5H_{12})	Pellistor	0-100% LEL
Hydrogen (H_2)	Pellistor	0-100% LEL
LPG	Pellistor	0-100% LEL
Carbon Dioxide (CO_2)	Infra-Red	0-5% vol
VOC*	PID	0-1000 PPM
Methane (CH_4)	Infra-Red	0-100% LEL
Propane (C_3H_8)	Infra-Red	0-100% LEL
Ammonia (NH_3)*	Electrochemical	0-50, 100 ppm
Chlorine (CL_2)*	Electrochemical	0-5, 10 ppm
Ozone (O_3)*	Electrochemical	0-1 ppm
Sulpur dioxide (SO_2)*	Electrochemical	0-10 ppm
Butane (C_4H_{10})	Infra-Red	0-100% LEL
Pentane (C_5H_{12})	Infra-Red	0-100% LEL
LPG	Infra-Red	0-100% LEL
Hydrogen Cyanide (HCN)*	Electrochemical	0-25 ppm
Hydrogen Peroxide (H_2O_2)*	Electrochemical	0-5 ppm

*Safe Area Only

Reducing the time operators spend in potentially hazardous areas:

At Crowcon we recognise the challenges faced and processes required every time an operator enters a facility or site that has been classified as a hazardous area. Permits are needed, specific training and equipment are required and procedures have to be followed. This consumes resource, which ultimately increases the cost of operations.
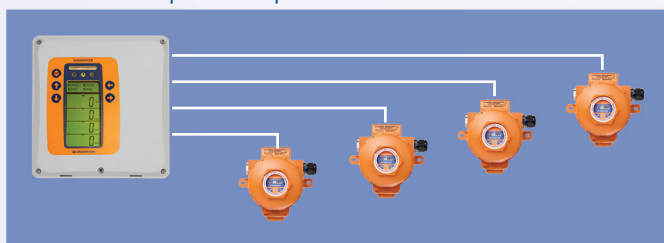
Xgard Bright has been designed with this in mind, making routine calibration and maintenance operations quick and simple to reduce the time operators spend in hazardous areas:

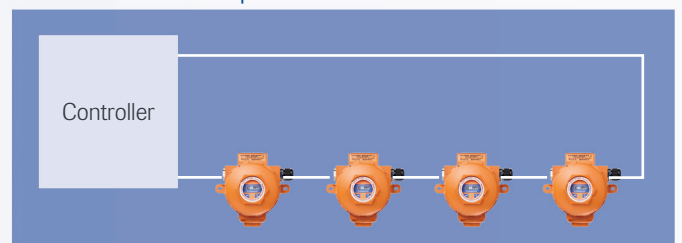| Non-intrusive calibration	Zero and calibration functions (plus set-up, tests and adjustments) are performed via the display using the magnetic wand, without needing to open the housing reducing the need for a hot-work permit.
OLED display	The brightly illuminated "organic light emitting diode" display clearly indicates the gas level and units as well as providing comprehensive menus for set-up and diagnosis. In low ambient light conditions, such as a dark room, the OLED display achieves a much higher contrast ratio than an LCD used on conventional gas detectors.

Lowering the cost of installation and maintenance

Addressable communications	Xgard Bright detectors can be connected on an addressable network using RS-485 Modbus. This option significantly reduces cable and installation costs, whilst increasing the flexibility and functionality of the wider system.

Traditional or point-to-point

Addressable or loop

Controller

Specification

Enclosure material	ADC 12 aluminium alloy or 316 stainless steel
Dimensions	Aluminium enclosure: 156 x 166 x 109mm (6.1 x 6.5 x 4.3inch) Stainless Steel Enclosure: 161 x 166 x 105mm (6.1 x 6.5 x 4.3inch)
Weight	Aluminium alloy 1kg (2.2lbs) Stainless Steel: 3.1 kg (6.8lbs) approx.
Ingress protection	IP65 & IP66 (with weatherproof cap)
Cable entry	2x M20 (stopping plug fitted to left-side entry) or 2x ½" NPT ports (stopping plug fitted to left-side entry)
Power	10-30Vdc. 3W max
Electrical output	4-20mA current sink or source RS-485 Modbus RTU HART (optional)
Relays	Alarm 1, Alarm 2, Fault SPST contacts rated 1A 30Vdc
Sounder out	24Vdc (nominally), 250mA maximum load
Operating temperature	-40°C to +70°C (-40°F to 158°F) Note: sensor operating temperatures vary widely Refer to the sensor module datasheet or contact Crowcon for specific sensor data.
Humidity	0 to 95% RH, non-condensing
Repeatability	+/- 2% FSD
Zero drift	+/- 2% FSD per year maximum
Approval codes	ATEX (Aluminium): Ex II 2 G Ex db IIC T6 Gb -40°C≤Ta≤70 °C; Ex II 2 D Ex tb IIIC T80°C Db. ATEX (Stainless Steel): Ex II 2 G Ex db IIC T3 Gb -40°C≤Ta≤70 °C; Ex II 2 G Ex db IIC T4 Gb -40°C≤Ta≤50°C; Ex II 2 D Ex tb IIIC T80°C Db. IECEx (Aluminium): Ex db IIC T6 Gb -40°C≤Ta≤70 °C; Ex tb IIIC T80°C Db. IECEx (Stainless Steel): Ex db IIC T3 Gb -40°C≤Ta≤70°C; Ex db IIC T4 Gb -40°C≤Ta≤50°C; Ex tb IIIC T80°C Db. Certificate numbers: TUV 16 ATEX 7908 X; IECEx TUR 16.0035 X
Standards	IEC 60079-0:2017 Ed.7.0; EN IEC 60079-0:2018; IEC 60079-1:2014 Ed.7.0; EN 60079-1:2014; IEC 60079-31:2013 Ed.2.0; EN 60079-31:2014
Zones	Certified for use in Zone 1 and Zone 2 areas
EMC compliance	EN50270:2015

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