Specification

	Flamgard Plus	TXgard Plus	TXgard-IS+
Size	200 x 115 x 115mm (7.9 x 6.1 x 6.1ins)		160 x 123 x 92mm (6.3 x 4.8 x 4.5ins)
Weight	2.2kg (4.9lbs)		0.7kg (1.5lbs)
Enclosure material	Junction box: Marine grade alloy Sensor housing: 316 stainless steel		Junction box: Carbon loaded nylon Sensor housing: ABD Plastic
Ingress protection	IP65		
Cable entries	2 x M20 or 1/2" NPT		1 x M20 or 1/2" NPT with adaptor
Power	10-30Vdc, 210mA max (relay version) 160mA max (non relay)		8-32Vdc, 4-20mA loop-powered
Operating temperature	-10°C to +55°C (14°F to 131°F)	-10°C to +55°C (14°F to 131°F) *	-20°C to +55°C (-4°F to 131°F) *
Humidity	0-99% RH non-condensing	15 to 90% RH non-condensing	
Relays (optional)	SPNO or SPNC contacts rated 30Vdc 1A (non-inductive load) for Alarm 1, Alarm 2, Fault		N/A
Display	3-digit LCD back-lit display, LED status indicator		2-Line, 16 character LCD
Calibration method	Via magnetically operated buttons		Via push-buttons
Electrical output	3 wire 4-20mA, sink or source		2 wire 4-20mA sink
Terminals	Suitable for up to 1.5mm² cable		Suitable for up to 2.5mm² cable
Sensor type	Catalytic bead	Electrochemical	
Repeatability	+/- 2% FSD typically		
Zero drift	+/-2% FSD, 6 months typically		
Response time	T90 <15 seconds typically	Contact Crowcon for a full list of sensor response times	
Hazardous area zones	Zone 1 or 2		Zone 0, 1 or 2, Division 1 or 2 (when connected via an isolation device)
Approvals	Ex II 2G Ex db IIC T6 Gb Tamb -20°C/+55°C		Ex II 1G Ex ia IIC T4 (-40°C to +65°C)
EMC compliance	EN50270, FCC: CFR 47 Part 15; ICES-003		

* Figures shown exclude the sensors - Please contact Crowcon for a full list of sensor operating temperatures

Disclaimer

Every effort has been made to ensure the accuracy of this document at the time of printing. In accordance with the company's policy of continued product improvement Crowcon Detection Instruments Limited reserves the right to make product changes without notice. The products are routinely subject to a programme of testing which may result in some changes in the characteristics quoted. Technical information contained in this document or otherwise provided by Crowcon are based upon records, tests, or experience that the company believes to be reliable, but the accuracy, completeness, and representative nature of such information is not guaranteed.

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Detecting Gas Saving Lives

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CROWCON
Detecting Gas Saving Lives

TXgard & Flamgard Plus

Fixed point gas detectors

- Non-intrusive calibration
- Intuative display
- Flexible output options
- Low cost of ownership
- Rugged and reliable
- Wide range of sensors

TXgard & Flamgard Plus

Toxic and oxygen gas detector with display

With 3 models available, we have a detector to suit your requirements.

Flamgard Plus

Flamgard Plus is a Flameproof (Ex d), ATEX, IECEx and UL certified flammable gas detector, which uses poison-resistant pellistors to detect explosive levels of hydrocarbons, hydrogen and other flammable gases and vapours, including aviation fuel and leaded petrol vapours.

TXgard Plus

TXgard Plus is a Flameproof (Ex d), ATEX, IECEx and UL certified toxic or oxygen gas detector with local LCD display. A choice of sensors are available enabling use in a wide range of applications, including water treatment, oil and gas exploration, chemical plants and steel production.

TXgard-IS+

TXgard-IS+ is an Intrinsically Safe (I.S.), 2-wire, toxic and oxygen gas detector with local LCD display. A wide choice of sensors is available for use in a variety of applications. TXgard-IS+ is ATEX and IECEx certified for use in Zone 0,1 or 2 hazardous areas, and also UL and cUL certified for use in Division 1 or 2 hazardous areas.

Low cost of ownership

Non-intrusive one man calibration	Easy to operate and maintain
Long life sensors	Keeps interruption to on-site activity to a minimum
Simple parts replacement	
Wide range of sensor options	Reduced training requirements

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Gases and ranges

Gas	LTEL (ppm)	STEL (ppm)	Range available: TXgard-IS+	Range available: TXgard Plus
Ammonia (NH_3)	25	35	50, 100, 1000ppm	-
Carbon monoxide (CO)	20	100	250, 500ppm	100, 250, 500, 1000ppm
Chlorine (Cl_2)	-	0.5	5, 10, 20ppm	-
Chlorine dioxide CLO_2)	0.1	0.3	1 ppm	-
Hydrogen (H_2)	-	-	2000ppm, 50% LEL, 100% LEL	-
Hydrogen cyanide (HCN)	0.9	4.5 (MEL)	25ppm	-
Hydrogen fluoride (HF)	1.8	3	10ppm	-
Hydrogen sulphide (H_2S)	5	10	25, 50, 100, 200ppm	15, 20, 25, 50, 100, 200ppm
Nitrogen dioxide (NO_2)	0.5	1	10ppm	-
Oxygen (O_2)	19.5% Vol. typical alarm	23.5% typical alarm	25% Vol.	25% Vol.
Ozone (O_3)	-	0.2	1ppm	-
Phosgene ($COCl_2$)	0.02	0.06	1ppm	-
Phosphine (PH_3)	0.1	0.2	2ppm	-
Sulphur dioxide (SO_2)	0.5	1	10, 20, 30ppm	-

STEL & LTEL figures are derived from the UK HSE document: EH40. Other thresholds may apply in countries outside the UK.

Gas	LEL (%vol.)	Range available: Flamgard Plus
Acetylene (C_2H_2)*	2.3	0-100% LEL
Ammonia (NH_3)	15	
Butane (C_4H_{10})	1.4	
Ethanol (C_2H_5OH)	3.1	
Ethane (C_2H_6)	2.4	
Ethylene (C_2H_4)	2.3	
Hexane (C_6H_{14})	1.0	
Hydrogen (H_2)	4	
LPG	2	
Methane (CH_4)	4.4	
Methanol (CH_3OH)	6	
Pentane (C_5H_{12})	1.1	
Petrol vapor	1.4	
Propane (C_3H_8)	1.7	
Propanol (C_3H_8O)	2.1	

LEL figures derived from EN60079-20-1:2010

*Acetylene option not available on UL certified version

Further gas types may be available - contact Crowcon with your requests.