



Gas detectors
with display

TXgard and Flamgard Plus

The Flamgard and TXgard 'Plus' range of detectors offer reliable detection of flammable, toxic or oxygen gases with a local display and optional relays.

Three models are available to suit all requirements:

Flamgard Plus: 'Exd - Flameproof' flammable gas detector with local display and optional relays

TXgard Plus: 'Exd - Flameproof' toxic or oxygen gas detector with local display and optional relays

TXgard-IS+: 'I.S. - Intrinsically Safe' toxic or oxygen gas detector with local display.

In short, a range of gas detectors you can trust.

Low cost of ownership

- Non-intrusive one-man calibration
- Long-life sensors
- Simple parts replacement

Rugged and reliable

- TXgard Plus and Flamgard Plus are constructed using marine grade aluminium with a stainless steel sensor housing
- TXgard-IS+ is made from tough carbon-loaded nylon
- Proven track record for operation in the harshest environments

Wide range of sensors







- Choice of catalytic beads for a wide selection of flammable gases and vapours
- Extensive range of electrochemical sensors for toxic gases and oxygen

Flexible output options

- 4-20mA current sink or source
- 2 or 3 wire formats
- Optional relays for alarm and fault

TXgard and Flamgard Plus

Specifications

Model	Flamgard Plus 	TXgard Plus 	TXgard-IS+ 
Size	200h x 115w x 115d (mm)	200h x 115w x 115d (mm)	160h x 123w x 92d (mm)
Weight	2.2 kg	2.2 kg	0.7 kg
Enclosure material	Junction box: Marine grade alloy Sensor housing: 316 stainless steel	Junction box: Marine grade alloy Sensor housing: 316 stainless steel	Junction box: Carbon loaded nylon Sensor housing: ABS plastic
Ingress protection	IP65, IP66 with weatherproof cap	IP65, IP66 with weatherproof cap	IP65, IP66 with weatherproof cap
Cable entries	2 x M20 or 1/2"NPT	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.)	10-30Vdc, 100mA max. (relay version). 50mA max. (non relay)	10.8-30Vdc, 4-20mA loop-powered
Operation temperatures	-10°C to +55°C (14°F to 131°F)	-10°C to +55°C (14°F to 131°F) Figures shown exclude the sensors. Please contact Crowcon for a full list of sensor operating temperatures	-20°C to +55°C (-4°F to 131°F) Figures shown exclude the sensors. Please contact Crowcon for a full list of sensor operating temperatures
Humidity	0 to 99% RH non-condensing	15 to 90% RH non-condensing	15 to 90% RH non-condensing
Relays (optional)	SPNO or SPNC contacts rated 30Vdc 1A (non-inductive load) for Alarm1, Alarm 2, Fault	SPNO or SPNC contacts rated 30Vdc 1A (non-inductive load) for Alarm1, Alarm 2, Fault	N/A
Display	3-digit LCD back-lit display, LED status indicator	3-digit LCD back-lit display, LED status indicator	2-line, 16 character LCD
Calibration method	Via magnetically operated buttons	Via magnetically operated buttons	Via push-buttons
Electrical output	3-wire 4-20mA (current sink or source)	3-wire 4-20mA (current sink or source)	2-wire 4-20mA (current sink)
Terminals	Suitable for up to 1.5mm ² cable	Suitable for up to 1.5mm ² cable	Suitable for up to 2.5mm ² cable
Sensor type	Catalytic bead	Electrochemical	Electrochemical
Repeatability	+/- 2% FSD*	+/- 2% FSD*	+/- 2% FSD*
Zero drift	+/- 2% FSD, 6 months*	+/- 2% FSD, 6 months*	+/- 2% FSD, 6 months*
Response time	T90 <15 secs, typically*	Contact Crowcon for a full list of sensor response times	Contact Crowcon for a full list of sensor response times
Hazardous area zones	Zone 1 or Zone 2	Zone 1 or Zone 2	Zones 0, 1, 2 or Zones 20, 21, 22 (when connected via an isolation device) Division 1 or 2
Approvals	 II 2 G EExd IIC T6 UL Class 1, Zone 1	 II 2 G EExd IIC T6 UL Class 1, Zone 1	 II 1 GD EExia IIC T6 UL Class 1 Div, I Groups B,C, D cUL Class 1 Groups A, B, C, D

* Typical data, performance may vary according to site conditions and sensor type.

Gas Type	LTEL (ppm)	STEL (ppm)	Range Available: TXgard-IS+	Ranges Available: TXgard Plus
Ammonia (NH ₃)	25	35	50, 100, 1000 ppm	-
Carbon Monoxide (CO)	30	200	250, 500 ppm	100, 250 500, 1000 ppm
Chlorine (Cl ₂)	-	0.5	5, 10, 20 ppm	-
Chlorine Dioxide (ClO ₂)	0.1	0.3	1 ppm	-
Hydrogen (H ₂)	N/A	N/A	2000, 20000ppm (50%lel)	-
Hydrogen Cyanide (HCN)		10 (MEL)	25 ppm	-
Hydrogen Fluoride (HF)	1.8	3	10 ppm	-
Hydrogen Sulphide (H ₂ S)	5	10	5, 25, 50, 100, 200 ppm	10,15,20, 25, 50, 100, 200 ppm
Nitrogen Dioxide (NO ₂)	1	1	10 ppm	-
Ozone (O ₃)	-	0.2	1 ppm	-
Oxygen (O ₂)	-	-	25% Vol	25% Vol
Phosgene (COCl ₂)	0.02	0.06	1 ppm	-
Phosphine (PH ₃)	0.1	0.2	2 ppm	-
Sulphur Dioxide (SO ₂)	1	1	10, 20 ,30 ppm	-

Other ranges may be available, please contact Crowcon

Gas Type	LEL (%vol)	Ranges Available: Flamgard Plus
Acetylene (C ₂ H ₂)*	2.3 (2.4)	0-100% LEL
Ammonia (NH ₃)	15	0-100% LEL
Butane (C ₄ H ₁₀)	1.4 (1.8)	0-100% LEL
Ethane (C ₂ H ₆)	2.5 (3)	0-100% LEL
Ethylene (C ₂ H ₄)	2.3 (2.7)	0-100% LEL
Hexane (C ₆ H ₁₄)	1.2	0-100% LEL
Hydrogen (H ₂)	4	0-100% LEL
LPG	2	0-100% LEL
Methane (CH ₄)	4.4 (5)	0-100% LEL
Pentane (C ₅ H ₁₂)	1.4 (1.5)	0-100% LEL
Petrol	1.3	0-100% LEL
Propane (C ₃ H ₈)	1.7 (2.2)	0-100% LEL

Ethanol, Methanol and Propanol also available.

Figures in brackets are taken from EN61779

*Acetylene not available in UL certified form.