

# Xgard IR

## Infrared Gas Detector

$\text{CH}_4$   
 $\text{C}_2\text{H}_4$   
 $\text{C}_3\text{H}_8$   
 $\text{C}_4\text{H}_{10}$   
 $\text{C}_2\text{H}_5\text{OH}$   
 $\text{C}_6\text{H}_{14}$   
LPG  
 $\text{C}_5\text{H}_{12}$   
 $\text{CO}_2$



Xgard IR is an explosion-proof gas detector which uses a dual-wavelength infrared sensor to provide highly dependable detection of hazardous gases and vapours. Xgard IR delivers many advantages of IR technology in an affordable package:

- Fail safe sensor technology
- Immune to poisoning
- No damage by over-gassing
- Fast response
- Does not need oxygen to work

#### Low cost of ownership

- >5 year sensor life
- Low maintenance requirement
- Simple parts replacement
- Lowest power consumption in class (half the consumption of catalytic beads)

#### Rugged and reliable

- Corrosion resistant aluminium or 316 stainless steel construction
- IP65 ingress protection
- Long-life tungsten IR lamp
- Full temperature compensation
- Accessories for wet environments
- 2 year warranty

#### Choice of sensors

- Hydrocarbon for detecting HC gases in flammable concentrations
- Carbon Dioxide for  $\text{CO}_2$  detection in toxic concentrations

#### Highly versatile

- Industry standard 4-20mA output
- Compatible with virtually any control system
- ATEX, IECEx, UL and MED marine approved\*\*



## Xgard IR Specification:

Enclosure material	Corrosion resistant Aluminium or 316 Stainless Steel
Size	156h x 166w x 111d mm (6.1 x 6.5 x 4.3 inches)
Weight	1kg (2.2lbs) Aluminium, 3.1 Kg (6.8lbs) Stainless Steel
Ingress Protection	IP65
Cable Entries	1 x M20 or 1/2"NPT on right-side
Power	10-30Vdc. 50mA at 24Vdc, 67mA at 10Vdc
Operating Temperature	-20°C to +55°C (-4°F to +131°F).
Humidity	0 to 95% RH non-condensing
Electrical Output	3-wire 4-20mA (current sink or source)
Terminals	Suitable for up to 2.5mm <sup>2</sup> cable
Sensor Type	Infrared
Repeatability	+/- 2% FSD*
Zero Drift	+/- 2% FSD/month*
Response Time	T90 <30 secs.*
Hazardous Area Zones	Zone 1 or Zone 2, Zone 21/22
Approvals	II 2 GD Exd IIC T6 (Tamb to +50°C) II 2 GD Exd IIC T4 (Tamb to +80°C) UL Class 1 Div. 1 Groups B,C,D IECEX Marine Equipment Directive (MED, 96/98/EC as amended)**
EMC Compliance	EN50270, EN60945, FCC part 15, ICES-003
Performance	EN60079-29-1

\*As tested in Crowcon laboratories  
\*\* MED marine approval available on Hydrocarbon versions only (not CO<sub>2</sub>)

## Xgard IR Accessories



Sunshield



Spray Deflector

For outdoor use and protection against wash-down operations



Flow adaptor

For use in sampling applications



Weatherproof cap

For use in very wet conditions, such as offshore installations and ships



Collector cone

For aiding detection of gases which are lighter than air (eg Methane)

Gas Type	LTEL LEL (% vol)	STEL UEL (% vol)	Ranges Available
Carbon Dioxide (CO <sub>2</sub> )	0.5% vol.	1.5% vol.	0-2 or 0-5%
Ethylene (C <sub>2</sub> H <sub>4</sub> )	2.7 (2.3)	36 (36)	0-100% lcl
Methane (CH <sub>4</sub> )	5 (4.4)	15 (17)	0-100% lcl
Propane (C <sub>3</sub> H <sub>8</sub> )	2.2 (1.7)	10 (10.9)	0-100% lcl
Butane (C <sub>4</sub> H <sub>10</sub> )	1.8 (1.4)	9 (9.3)	0-100% lcl
Ethanol (C <sub>2</sub> H <sub>5</sub> OH)	3.3 (3.1)	19 (19)	0-100% lcl
Hexane (C <sub>6</sub> H <sub>14</sub> )	1.2 (1)	7.4 (8.4)	0-100% lcl
LPG	2	10	0-100% lcl
Pentane (C <sub>5</sub> H <sub>12</sub> )	1.5 (1.4)	8 (7.8)	0-100% lcl

LEL figures shown in brackets are taken from EN 61779 Part 1:2000



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Detecting Gas Saving Lives