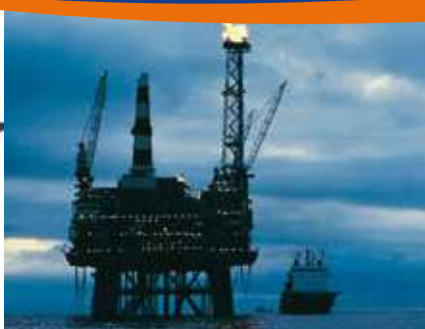




IRmax

Infrared Hydrocarbon Gas Detector



IRmax

IRmax is a compact, low power and highly rugged infrared gas detector for monitoring potentially flammable concentrations of methane, butane, propane and many other hydrocarbon gases and vapours.

IRmax is a certified explosion-proof product constructed from 316 stainless steel to ensure suitability for use in extremely harsh environments.

IRmax Features:

- **Compact size:** IRmax is much smaller than conventional IR gas detectors, and thus requires less space, effort and time to install.
- **Low power:** IRmax consumes only 1 Watt of power, enabling smaller power supplies and battery back-up systems to be used.
- **Fast response:** with a response time of only 4 seconds, IRmax provides rapid detection of hydrocarbon gas hazards.
- **Low maintenance:** IRmax employs sophisticated systems and algorithms to ensure reliable operation at all times. Test gas can be applied without needing to directly access the detector.
- **Ultimate dependability:** designed for compliance with IEC61508 SIL 2, IRmax has been rigorously tested in offshore environments.
- **Compatibility:** standard 4-20mA output signal and RS-485 Modbus communications ensure IRmax is compatible with virtually any control system.
- **Wide operating temperature range:** IRmax is fully temperature compensated for operation in environments from -40°C to +75°C.

IRmax is a premium quality IR gas detector designed for protecting facilities against flammable gas hazards. IRmax is the perfect choice for protecting new installations or for upgrading safety on existing sites.

STAY-CLIR optics: optical components are treated with a patented coating to prevent potential obscuration in condensing atmospheres. Unlike conventional IR gas detectors, IRmax does not require heated windows or mirrors.

Dependable detection: IRmax continues to detect gas with the optical system 90% obscured by salt or other contaminants. A fault signal is generated when optics are 75% obscured.

Rugged and reliable: IRmax is ingress protected to IP66 and has been subjected to intense tests for suitability in hot, cold, wet and saline environments.

Simple to maintain: calibration can be performed remotely via an RS-485 serial link. This combined with the remote gassing feature enables simple and quick bump-testing and calibration.

Versatile connectivity: IRmax can be installed on 4-20mA point-to-point systems, or daisy-chained on a Modbus addressable network.

Third party validation: IRmax has been independently tested for reliability and performance in harsh offshore conditions by Micropack Engineering Ltd, a highly respected test authority.

IRmax Accessories:

- **Auxiliary junction box:** 316 stainless steel junction box with two cable entries (M20 or ½"NPT) for addressable systems
- **Spigot gland:** for mounting IRmax to auxiliary junction boxes
- **Mounting bracket:** suitable for wall or pipe mounting (not required if spigot gland and auxiliary junction box is used)
- **Duct sampling kit**
- **Sun shade/collector cone**
- **Calibration cap** (required if ambient air speed exceeds 2m/s)

Specifications:	
Description	Dual-beam infrared hydrocarbon gas detector
Gases	0-100% LEL methane, propane, butane and other hydrocarbons
Enclosure material	316 stainless steel
Size	75H x 55W x 135L mm (2.95 x 2.15 x 5.3 ins)
Weight	1.5Kg (3.3lbs)
Ingress protection	IP66
Connection	One M20 or ½" NPT cable gland entry
Power	12-32Vdc. <1W
Electrical output	4-20mA current sink or source 2mA dirty optics warning (configurable) 0mA detector fault signal (configurable) RS-485 Modbus RTU*
Operating temperature	-40°C to +75°C (-40°F to 167°F)
Humidity	0 to 100% RH non-condensing
Repeatability	+/- 2% FSD
Zero drift	+/- 2% FSD per year maximum
Response time	T90 <4 secs.
Performance	Tested in accordance with EN60079-29-1*
Functional safety	Validated to IEC61508 SIL 2*
Approvals	ATEX and IECEx Ex II 2 G Exd IIB + H ₂ T6 (-40 to +50°C), T4 (to +75°C)
EMC Compliance	EN50270:2006 FCC CFR47 Part 15B ICES-003

*Features currently pending, contact Crowcon for more information

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Gas Detection You Can Trust

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