

## GD129NI SINGLE POINT INFRA-RED GAS DETECTOR

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### FEATURES

- Pre-calibrated
- No separate programmer needed
- On board confidence checking
- 4-20mA output
- Flammable Hydrocarbon and CO<sub>2</sub> versions
- Hazardous area operation
- Control box features can be separated from the sensor as an option
- Gas concentration continuously monitored
- State of the art SMT Components
- No heaters/mirrors or optics to get dirty
- Low power usage
- Wide range of temperature operation



The GD129NI operates on tried & tested infra-red adsorption principle. A unique sensor protection system permits operation in the harshest conditions offshore and in dusty, humid environments. Remote sensor capability eliminates the need for using expensive open path systems in inaccessible locations, ducts and heated enclosures. The sensor is immune to poisoning and high gas concentrations and is available for CO<sub>2</sub> and Hydrocarbons. Designed to offshore construction and with a protection rating IP55, the GD129NI is a versatile and robust instrument incorporating proven technology.

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## Gas monitoring solutions

The GD129NI is used to detect the presence of Flammable Hydrocarbons or Carbon Dioxide gases (Methane, Ethane, Propane, Butane and similar gases). The 4-20 mA output of the sensor would normally be connected to a TQ control panel or similar third party control system capable of providing indication and alarm generation.

The GD129NI is used for diffusion sensing applications, where the sensor is positioned at the point of monitoring and the gas diffuses through the sensor's optical path. These sensors are not affected by being gasses over range and can be used in inert atmospheres as the sensor does not rely on oxygen being present to operate correctly.

The GD 129Ni is a low maintenance sensor but has full auto zero and span functions allowing there calibration in the field. Can be calibrated in situ, even in the hazardous area as the junction box, enclosure does not have to be opened to perform the calibration.

Options are available for duct and through bulkhead mounting, providing a very versatile sensor.

TQ Environmental Plc, operate a policy of continual product development which means the specification is subject to change without prior notice.

For full assistance with your application contact TQ.

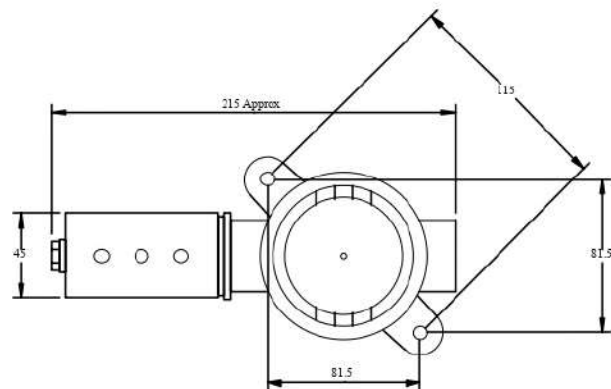


Cert No. LRQ 0958602

D2-GD129-0812

### SPECIFICATION

Construction	Sensor Housing 316 Stainless Steel with hydrophobic protection barrier Protection guard - Stainless Steel Junction box-Cu free aluminium with polyester paint finish
Ingress Protection	IP55
Conduit Entry	M20
Weight	ca 2.1Kg
Overall Dimensions	130mm W x 230mm H x 120mm D
Temperature Range	-30° to +60°C
Humidity Range	0 to 99% R.H (non condensing)
Shock & Vibration	Shock: Half Sine 15g, 20ms duration on all axis Vibration: 3 - 10 Hz, Displacement 0.5mm
Resistance	10 - 50 Hz, 2m/s <sup>2</sup>
Outputs	4-20mA source into 600 ohms (max)
Power	Operating voltage 24VDC (11-30VDC) Operating Current 75mA @ 24VDC, 2.1 watts
Accuracy	+/- 2% fsd on all ranges (linearised)
Repeatability	+/- 1% fsd
Gases and Ranges	HC version: 0-100% LEL std 0-100% volume optional Methane, propane, butane, hexane, ethylene, pentane, ethane, toluene monitored as standard  CO2 version: 10,000 & 50,000ppm (0-2%v/v, 0-5%v/v)
Response Time	<10 seconds to T50, <20seconds to T90 on CH4 & CO2
Built-in Self Test	Continuous
Non-Intrusive Adjustments	Calibrated for up to 2 years. with full auto zero and calibration facility.
Life expectancy	>5 years
Warranty	12 Months
Certification	EExd IIC T6 (Ta=-20 <55°C) SIRA 01 ATEX IIII



### PARTS LIST

340-002	GD129N IR Sensor CH <sub>4</sub> 0-100% LEL
340-020	GD129N IR Sensor CH <sub>4</sub> 0-100% LEL c/w Flow through adaptor
340-024	GD129N IR Sensor CH <sub>4</sub> 0-100% LEL c/w Duct mounting assembly
340-025	GD129N IR Sensor CH <sub>4</sub> 0-100% LEL c/w Bulkhead mounting
340-027	GD129N Volume CH <sub>4</sub> 0-100% Vol
340-011	GD129N IR Sensor Carbon Dioxide 0-5% Vol
	Please consult TQ Environmental for other options, ranges available.

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