



## OLCT IR

### Fixed Gas Detector



The OLCT IR is a highly reliable infrared gas detector which is SIL2 capable according to the standard EN 50402

The OLCT IR is built to withstand harsh environments such as; offshore platforms, petrochemical and chemical industries, naval installations, and waste water treatment plants. Infrared Technology is often the only solution to these types of environments and requires the most efficient gas and flame detection

#### Infrared Sensors for Extended Reliability

Based on the infrared absorption principle, the OLCT IR offers significant advantages when compared to catalytic detectors. Its dual source, four-beam technology further improves the unit's performance over other infrared detectors.

#### Free Access Provides Non-Invasive Calibration

The OLCTIR is fitted with a non-intrusive system allowing the user to calibrate the detector without opening the housing. The free access means the OLCTIR can be calibrated even in explosive areas

#### Project Driven, Bespoke Solutions

Using our expert engineering knowledge, the a1-cbiss project team produce the design, specify equipment and integrate the system before it's delivered to site by our service and maintenance team

“The semi-conductor electronics of the OLCT IR guarantee extreme accuracy and constant stability”

## KEY FEATURES

- Heated optics, dirty optics compensation, double sources
- Maintenance free making it suitable for onshore and offshore applications
- MTBF of 28 years (according to INERIS CGR 7448)
- Stainless steel explosion-proof compartment
- Non-intrusive system that allows a single user to access the protected menu

## Technical Specification

### GENERAL

- Resistant to poisons and corrosion
- SIL2 capability
- Fail-safe technology

### PERFORMANCE

- Detection principle: Optics: infrared absorption
- Detected gases: Hydrocarbons, methane, propane / butane as standard, others on request including CO<sub>2</sub>
- Response time: T90 < 8 sec.
- Inputs: Two analog inputs 4-20 mA
- Accuracy: +/-3% LEL CH<sub>4</sub> or +/- 5% of the value  
+/-2% LEL HC or +/- 3% of the value
- Operating temperature: -25°C to 55°C
- Storage temperature: - 40°C to 55°C

### TROUBLE SIGNALS

- Line fault (0 mA)
- Optics fault (0.5 mA)
- Other fault (1 mA)
- Calibration mode (2 mA)
- Scale over range (23 mA)

### MEASURING RANGES

- 0-100% LEL CH<sub>4</sub>, C<sub>3</sub>H<sub>8</sub>, C<sub>4</sub>H<sub>10</sub>
- 0-100% of volume CH<sub>4</sub>
- 0-3% of volume CO<sub>2</sub>

### PHYSICAL

- Dimensions: 212 x 105 x 120 mm
- Weight: 1.6 kg
- Housing: 316L Stainless Steel

### POWER

- Output signal: 4-20 mA
- Max load resistance: 300 Ω
- Power supply: 15 to 30 VDC at detector terminal
- Average consumption: 2.5 W
- Connection: 3 active wires, shielded cable

### CERTIFICATIONS

- Ineris 03ATEX0141X, Ex d e ia IIC T4- II 2GD, Ex tD A21  
IP66 T135°C, T. amb: -50°C to + 65°C
- IECEx INE 07.0005X, Ex d e ia IIC T4- II 2GD, Ex tD A21  
IP66 T135°C, T. amb: -50°C to + 65°C
- SIL Capability: INERIS 03ATEX0141X/02, SIL capability 2,  
EN 50402/EN 61508

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