

OLCT IR

FLAMMABLE GAS HAZARDS

Infrared Transmitter Detector

- Resistant to poisons and corrosion
- SIL2 Capability
(according to EN 50402/ EN61508)
- MTBF of 28 years
(according to INERIS CGR 7448)
- Non-intrusive calibration
- Fail-safe technology



CERTIFICATIONS



OLCT IR

LET'S PROTECT YOUR
PERSONNEL TOGETHER

ATEX production certified, Oldham has provided entire gas measurement systems, from sensors to control units, for more than 50 years.

Our equipment meets the latest requirements of the European standards series EN 61779, which evaluates the performance of gas detectors and control units (response time, accuracy, resistance to poisons, alarm activation, etc.).

Trust us to help you choose a solution that complies to the ATEX 94/9/EC directive for safety equipment.

PROVEN LEADING-EDGE TECHNOLOGY

RELIABILITY

- The OLCT IR is a highly reliable infrared gas detector. SIL2 capable according to the standard EN 50402, the OLCT IR has a probability of failure on demand (PFD) of 0.0016.
- Mean Time Between Failure (MTBF) is 28 years.

EFFICIENCY

- 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.

IR Technology:

- Quick response time
- Operates in oxygen-deficient atmospheres
- Fail safe

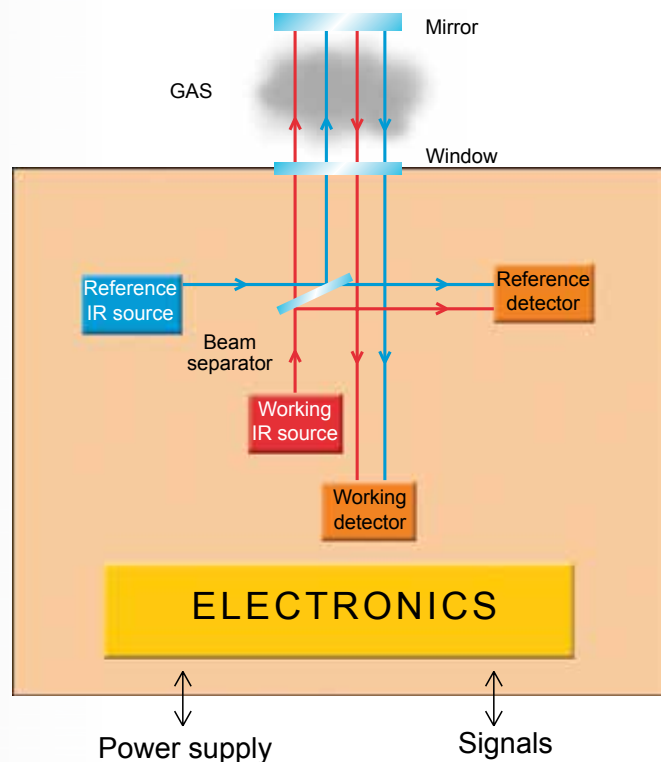
Measure without contact:

- No alteration of optical elements
- Minimal maintenance
- Resistant to poisons

Double sources / 4 beams:

- Compensation for dirty optics
- No long term drift caused by source and optical detector aging

Operating principle



ACCURATE TECHNOLOGY

- Optical detectors continuously measure the intensity of infrared light sources. The intensity is maximal in the absence of gas, so any decrease in intensity will indicate that gas is present.

NON INTRUSIVE CALIBRATION

- The OLCT IR is fitted with a non-intrusive system allowing a single operator to calibrate the transmitter without opening the housing. This allows the detector to be calibrated in an explosive area in compliance with safety rules.

RELIABLE, MAINTENANCE-FREE DETECTION

- The mirror and window are heated to prevent misting or icing of the optics and allow operation in harsh weather conditions.
- No sensitivity loss in case of high gas concentrations
- MTBF of 28 years
- Used in conjunction with the OLCT 60 or the OLCT 80, the OLCT IR is also available with display and internal relays.



OLCT IR combined with an OLCT 60

ACCESSORIES



- Magnetic key for maintenance
- Weatherproofing
- Mounting bracket
- Gas intake pipe
- Calibration cup
- Mosquito guard

The OLCT IR is an ideal detector for harsh applications such as refinery, onshore and offshore installations, LPG filling stations, compressor stations ...



OLCT IR

Detection principle	• Optics: infrared absorption
Detected gases	• Hydrocarbons • Methane, propane/butane as standard • Others on request including CO ₂
Range	• 0-100% LEL CH ₄ , C ₃ H ₈ , C ₄ H ₁₀ • 0-100% of volume CH ₄ • 0-3% of volume CO ₂
Housing	• 316L Stainless Steel
Ingress protection	• IP66 / IP67, DIN 40050
Sensitivity	• 1% LEL
Accuracy	• +/-3% LEL CH ₄ or +/- 5% of the value • +/-2% LEL HC or +/- 3% of the value
Response time	• T90 < 8 sec.
Self test	• Continuous
Calibration	• In factory or locally
Humidity range	• 0 to 99% (without condensation)
Output signal	• 4-20 mA
Max load resistance	• 300 Ω
Trouble signals	• Line fault (0 mA) • Optics fault (0.5 mA) • Other fault (1 mA) • Calibration mode (2 mA) • Scale over range (23 mA)
Power supply	• 15 to 30 VDC at detector terminal
Average consumption	• 2.5 W
Connection	• 3 active wires, shielded cable

Maximum resistance per conductor of detector/central unit cable	• 8 Ω (250 m in 1.5 mm ²) under 21 VCC
Type of cable inlet	• M20, Cable gland not supplied
Operating temperature	• -25°C to +55°C on standard version or • -50°C to +55°C on CH ₄ version (P/N WIRCH4LBT) & Propane (P/N WIRPROLBT)
Storage temperature	• - 50°C to +55°C
Weight and dimensions	• 212 x 105 x 120 mm; 1.6 kg
EC Electromagnetic compatibility	• Complies with EN 50270
Certifications	<ul style="list-style-type: none"> • Ineris 03ATEX0141X • Ex d e ia IIC T4- II 2GD • Ex tD A21 IP66 T135°C • T. amb: -50°C to + 65°C  <ul style="list-style-type: none"> • 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 
Performance	<ul style="list-style-type: none"> • INERIS 03ATEX0141X • EN 61779-1, -4
SIL capability	<ul style="list-style-type: none"> • INERIS 03ATEX0141X/02 • SIL 2 capability • EN 50402/EN 61508 