

Infrared transmitter detector

OLCT IR

■■■ *Onshore and offshore installations*

■■■ *Insensitive to poisons*

■■■ *Resistant
to aggressive substances*

■■■ *Long-life,
highly-resistant sensor*

■■■ *Maintenance free*

■■■ *Non-intrusive calibration*



CE ATEX

OLDHAM
Group

Gas detection / stack gas monitoring



Example of application : Offshore platform

Let's secure your safety together

Offshore platforms, petrochemical and chemical industries, naval installations, waste treatment plants... your work environment ranks among the most aggressive and your activities require the most efficient gas and flame detection.

You encounter some of the most severe constraints and infrared technology is very often the only solution.

The extra-tough OLCT IR transmitter detector with infrared sensor for top performance provides top-end gas flammable detection reliability.

Proven leading-edge technology

"Zero maintenance" efficiency :

- The semi-conductor electronics of the OLCT IR guarantee extreme accuracy and constant stability. Costs are considerably reduced :
 - after an initial calibration the detector remains stable throughout its lifetime: the OLCT IR requires no continuous maintenance => operating costs are negligible !

The answer to spurious alarms

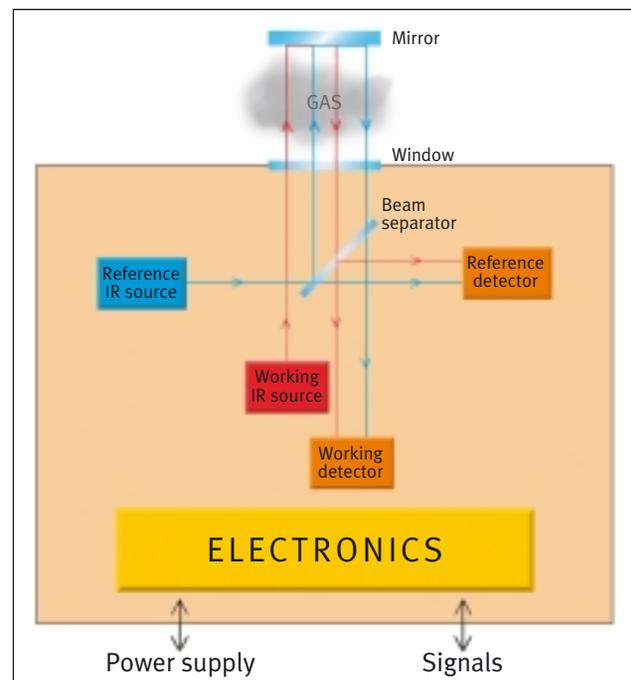
- In addition to hydrocarbon emissions, spurious alarms can very quickly become a major and recurrent problem. The economic implications have led Oldham to design the OLCT IR with the ability to ignore external substances that trigger false alarms.



Non-intrusive calibration

- The OLCT IR is equipped with a non-intrusive system allowing a single operator to access a protected menu. The detector can therefore be calibrated in an explosive area in total compliance with safety rules.

A reliable operating principle





Two configurations for adapting to your site

Standalone version

- This version comprises a case fitted with a fastening system and a connection compartment for electrical connections in explosive zones.
- Using a magnetic system housed in this compartment, the user can calibrate the detector locally in explosive zones by setting the zero and sensitivity without opening the compartment cover.

Free-fitting version

- This version of the OLCT IR comprises a case fitted with a 3-wire output for electrical connections. The detector can therefore be screwed to any approved junction box suitable for your application.



Unrivalled performance

Reliability

- Insensitive to poisoning by silicon vapours, hydrogen sulphide, chlorinated products, silicones etc.
- High gas concentration does not saturate the transmitted signal
- Low dispersion of response to various gases
- Overcomes the disadvantages of an optical system. All vital functions are maintained even if an accumulation of dust or other substances reduces transmissibility by 70%. In such cases, the OLCT IR reports the anomaly.
- The mirror and window are heated to prevent misting or icing of the optics
- Operates if there is an oxygen deficiency in the atmosphere.

Robustness

- The case comprises a stainless steel explosion-proof compartment and an increased-safety connection compartment
- The mirror is made of quartz
- External optics are made of quartz capable of withstanding high pressure and abrasive substances.

Special version

- Simultaneously optimises the response to various hydrocarbons, meeting the requirements for multi-hazard sites.



Accessories

- Magnetic key
- Weatherproofing
- Mounting bracket
- Gas intake pipe
- Circulation head

Technical characteristics

Manufacturer :	• OLDHAM SA
Type :	• OLCT IR
Detection principle :	• Optics : Infrared absorption
Gases detected :	• Hydrocarbons • Methane, propane/butane as standard • Others on request
Temperature range :	• 0-100 % LEL
Case :	• Stainless steel 316L
Ingress protection :	• IP 66
Sensitivity :	• 1 % LEL
Accuracy :	• +/-1 % LEL CH ₄ or +/-10 % of Tamb indication from -25°C to +55°C
Response time :	• T50 < 7sec
Selftest :	• Continuous
Calibration :	• In factory or locally for standalone version
Relative humidity :	• 0 to 99 % (without condensation)
Output signal :	• 4-20 mA
Max. load resistance :	• 300 Ω
Trouble signals :	• Line fault (0 mA) • Optics fault or T° outside limit (1 mA) • Calibration mode (2 mA) • Scale overrun (23 mA)
Power supply :	• 15 to 30 VDC at detector terminals
Power consumption :	• < 5W
Connection :	• Shielded cable, 3 active wires
Maximum resistance per conductor of detector / central unit cable :	• 8 Ω (0,5 Km of 1.5mm ²) under central unit 21 VDC
Type of cable inlet :	• Standalone version OLCT IR-E : cable gland PG9, cable diameter 7 to 11 mm • Free-fitting version : version OLCT IR-M25 : permanently secured cable
Operating temperature :	• -30°C to +65°C
Storage temperature :	• 0°C to +30 °C (dry place)

Weight and dimensions :

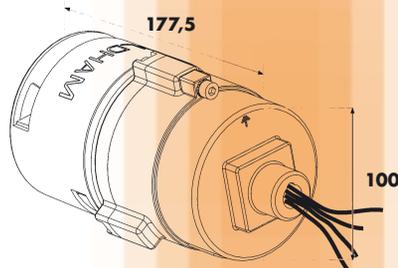
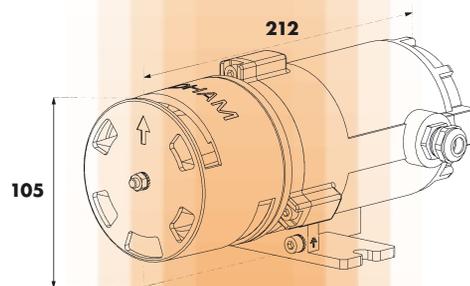
- Standalone version OLCT IR E : L 212 x H 105 x W 120mm - 3,1 kg
- Free-fitting version OLCT IR M25 : L177,5 x D 100 - 2,3 kg

CE Electromagnetic compatibility :

- Complies with EN50270

CE ATEX Explosive atmospheres :

- For the standalone version OLCT IR-E :
 - Ex II 2G
 - EEx d ia IIC T4 (T135°C) Tamb -20°C +65°C
 - INERIS 03ATEX0141X
- For free-fitting version OLCT IR-M25 :
 - Ex II 2GD
 - EEx d ia IIC T4 (T135°C) Tamb -30°C+65°C
 - INERIS 03ATEX0141X



OLCT IR

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