



OLCT 60

Fixed Gas Detection



Description

A new generation of high quality gas detectors designed for the detection of flammable, toxic gases or oxygen.

The OLCT 60 Series is available in several versions:

- Explosion-proof XP or intrinsically safe IS sensor (combustible, toxic or oxygen versions).
- Remote or on-board sensor. The OLCT 60 can be remotely mounted, allowing detection in inaccessible locations or in Zone 0 or 20 in the case of the intrinsically safe (IS) version. The OLCT 60 is equipped with a local display and non-intrusive access to a safe menu. In hazardous areas, calibration can be done without the need of a hot work permit.

The detector units are made of 316L stainless steel, and are rugged and resistant to corrosion.

Certified IP66, the OLCT 60 is sealed against dust and splash water. The versatile instrument is the ideal solution for gas detection covering all industrial needs for a wide variety of applications.

Features

- SIL 2 compatible
- Pre-calibrated sensors
- Non-intrusive calibration
- Infrared Version



OLCT 60

Fixed Gas Detection

Infrared sensor available

An infrared sensor is already available for CO₂, SF₆ and refrigerant gases detection, is guaranteed 2 years.



Infrared Sensor

Sensors technical specifications

| Gas | | Measuring Range (ppm) | XP Version | IS Version | Temperature Range (°C) | % RH | Accuracy (ppm) | Average Life Expectancy (month) | Response Time T ₅₀ /T ₉₀ (s) | Storage Condition |
|-------------------|-------------------|--|------------|------------|------------------------|---------|-----------------------------------|---------------------------------|--|-------------------|
| Explosive Gases | Catalytic | 0-100% LEL | • | | -20 to +55 | 0 - 95 | +/- 1% LEL (from 0 to 70% LEL) | 40 | 6/15 (CH ₄) | (b) |
| AsH ₃ | Arsine | 1.00 | | • | -20 to +40 | 20 - 90 | +/- 0.05 | 18 | 30/120 | (a) |
| Cl ₂ | Chlorine | 10.0 | | • | -20 to +40 | 10 - 90 | +/- 0.4 | 24 | 10/60 | (a) |
| ClO ₂ | Chlorine dioxide | 3.00 | | • | -20 to +40 | 10 - 90 | +/- 0.3 | 24 | 20/120 | (a) |
| CO | Carbon monoxide | 100 | • | • | -20 to +50 | 15 - 90 | +/- 3 (range 0-100) | 40 | 15/40 | (a) |
| | | 300 | • | • | | | | | | |
| | | 1000 | • | • | | | | | | |
| CO ₂ | Carbon dioxide | 0-5% vol. 0-10% vol. 0-100% vol. | • | • | -25 to +55 | 0 - 95 | +/- 3 | 48 | 11/30 | (a) |
| COCl ₂ | Phosgene | 1.00 | | • | -20 to +40 | 15 - 90 | +/- 0.05 | 12 | 60/180 | (c) |
| ETO | Ethylene oxide | 30.0 | | • | -20 to +50 | 15 - 90 | +/- 1.0 | 36 | 50/240 | (a) |
| H ₂ | Hydrogen | 2000 | • | • | -20 to +50 | 15 - 90 | +/- 5% | 24 | 30/50 | (a) |
| H ₂ S | Hydrogen sulfide | 30.0 | • | • | -20 to +50 | 15 - 90 | +/- 1.5 (range 0-30) | 36 | 15/30 | (a) |
| | | 100 | • | • | | | | | | |
| | | 1000 | • | • | | | | | | |
| HCl | Hydrogen chloride | 30.0 100 | | • | -20 to +40 | 15 - 95 | +/- 0.4 (range 0-10) | 24 | 30/150 | (a) |
| HCN | Hydrogen cyanide | 10.0 30.0 | | • | -25 to +40 | 15 - 95 | +/- 0.3 (range 0-10) | | 30/120 | (c) |
| HF | Hydrogen fluoride | 10.0 | | • | -10 to +30 | 20 - 80 | +/- 5% | 12 | 40/90 | (c) |
| NH ₃ | Ammonia | 100 | • | • | -20 to +40 | 15 - 90 | +/- 5 +/- 20 +/- 150 or 10% | 24 | 25/70 20/60 60/180 | (a) |
| | | 1000 | • | • | | | | | | |
| | | 5000 | • | • | | | | | | |

| Gas | | Measuring Range (ppm) | XP Version | IS Version | Temperature Range (°C) | % RH | Accuracy (ppm) | Average Life Expectancy (month) | Response Time T ₅₀ /T ₉₀ (s) | Storage Condition |
|---------------------------------|--------------------|----------------------------|-------------|-------------|------------------------|---------|--|---------------------------------|--|-------------------|
| NO | Nitrogen monoxide | 100 300 1000 | • • • | • • • | -20 to +50 | 15 - 90 | +/- 2 (range 0-100) | 36 | 10/30 | (a) |
| NO ₂ | Nitrogen dioxide | 10.0 30.0 | | • • | -20 to +50 | 15 - 90 | +/- 0.8 | 24 | 30/60 | (a) |
| O ₂ | Oxygen | 0-30% vol. | • | • | -20 to +50 | 15 - 90 | 0.4% Vol (from 15 to 22% O ₂) | 28 | 6/15 | (a) |
| | | | • | | -20 to +50 | 15 - 90 | +/- 2% | 60 | 15/25 | (a) |
| O ₃ | Ozone | 1.00 | | • | 0 to +40 | 10 - 90 | +/- 0.03 (from 0 to 0.2 ppm) +/- 0.05 (from 0.2 to 1 ppm) | 18 | 40/120 | (c) |
| PH ₃ | Phosphine | 1.00 | | • | -20 to +40 | 20 - 90 | +/- 0.05 | 18 | 30/120 | (a) |
| SiH ₄ | Silane | 50.0 | | • | -20 to +40 | 20 - 95 | +/- 1.0 | 18 | 25/120 | (a) |
| SO ₂ | Sulfur dioxide | 10.0 30.0 100 | | • • • | -20 to +50 | 15 - 90 | +/- 0.7 (range 0-10) | 36 | 15/45 | (a) |
| CH ₃ Cl | Methyl chloride | 500 | • | | -20 to +55 | 20 - 95 | +/- 15% (from 20 to 70% FS) | 40 | 25/90 | (d) |
| CH ₂ Cl ₂ | Methylene chloride | 500 | • | | -20 to +55 | 20 - 95 | +/- 15% (from 20 to 70% FS) | 40 | 25/90 | (d) |
| Freon R12 | | 1% vol. | • | | -20 to +55 | 20 - 95 | +/- 15% (from 20 to 70% FS) | 40 | 25/90 | (d) |
| Freon R22 | | 2000 | • | | -20 to +55 | 20 - 95 | +/- 15% (from 20 to 70% FS) | 40 | 25/90 | (d) |
| Freon R123 | | 2000 | • | | -20 to +55 | 20 - 95 | +/- 15% (from 20 to 70% FS) | 40 | 25/90 | (d) |
| FX56 | | 2000 | • | | -20 to +55 | 20 - 95 | +/- 15% (from 20 to 70% FS) | 40 | 25/90 | (d) |
| Freon R134 a | | 2000 | • | | -20 to +55 | 20 - 95 | +/- 15% (from 20 to 70% FS) | 40 | 25/90 | (d) |
| | | | • (IR) | | -20 to +50 | 0 - 95 | +/- 40ppm (from 0 to 50% FS) | 60 | 40/105 | (e) |
| Freon R11 | | 1% vol. | • | | -20 to +55 | 20 - 95 | +/- 15% (from 20 to 70% FS) | 40 | 25/90 | (d) |
| Freon R23 | | 1% vol. | • | | -20 to +55 | 20 - 95 | +/- 15% (from 20 to 70% FS) | 40 | 25/90 | (d) |
| Freon R143 a | | 2000 | • | | -20 to +55 | 20 - 95 | +/- 15% (from 20 to 70% FS) | 40 | 25/90 | (d) |
| Freon R404 a | | 2000 | • | | -20 to +55 | 20 - 95 | +/- 15% (from 20 to 70% FS) | 40 | 25/90 | (d) |
| Freon R507 | | 2000 | • | | -20 to +55 | 20 - 95 | +/- 15% (from 20 to 70% FS) | 40 | 25/90 | (d) |
| Freon R410 a | | 1000 | • | | -20 to +55 | 20 - 95 | +/- 15% (from 20 to 70% FS) | 40 | 25/90 | (d) |
| Freon R32 | | 1000 | • | | -20 to +55 | 20 - 95 | +/- 15% (from 20 to 70% FS) | 40 | 25/90 | (d) |
| Freon R227 | | 1% vol. | • | | -20 to +55 | 20 - 95 | +/- 15% (from 20 to 70% FS) | 40 | 25/90 | (d) |
| Freon R407 c | | 1000 | • | | -20 to +55 | 20 - 95 | +/- 15% (from 20 to 70% FS) | 40 | 25/90 | (d) |
| Freon R407f | | 1000 2000 | • | | -20 to +60 | 20 - 95 | +/- 15% (from 20 to 70% FS) | 40 | 25/50 | (d) |
| | | | • (IR) | | -20 to +50 | 0 - 95 | +/- 40ppm (from 0 to 50% FS) | 60 | 40/105 | (e) |
| Freon R408 a | | 1000 | • | | -20 to +55 | 20 - 95 | +/- 15% (from 20 to 70% FS) | 40 | 25/90 | (d) |
| Ethanol | | 500 | • | | -20 to +55 | 20 - 95 | +/- 15% (from 20 to 70% FS) | 40 | 25/60 | (d) |
| Toluene | | 500 | • | | -20 to +55 | 20 - 95 | +/- 15% (from 20 to 70% FS) | 40 | 25/60 | (d) |
| Isopropanol | | 500 | • | | -20 to +55 | 20 - 95 | +/- 15% (from 20 to 70% FS) | 40 | 25/60 | (d) |
| 2-butanone (MEK) | | 500 | • | | -20 to +55 | 20 - 95 | +/- 15% (from 20 to 70% FS) | 40 | 25/60 | (d) |
| Xylene | | 500 | • | | -20 to +55 | 20 - 95 | +/- 15% (from 20 to 70% FS) | 40 | 25/60 | (d) |
| SF ₆ | | 2000 | • (IR) | | -20 to +50 | 0 - 95 | +/- 40ppm (from 0 to 50% FS) | 60 | 25/120 | (e) |
| R1234yf (HFO) | | 1000 2000 0-100% LEL | • | | -20 to +55 | 20 - 95 | +/- 15% (from 20 to 70% FS) | 40 | 25/50 | (d) |
| | | | • (IR) | | -20 to +50 | 0 - 95 | +/- 40ppm (from 0 to 50% FS) | 60 | 25/120 | (e) |
| | | | • (IR) | | -20 to +50 | 0 - 95 | +/- 2% LEL (from 0 to 50% LEL) | 60 | 30/115 | (e) |
| R1234ze | | 1000 | • | | -20 to +55 | 20 - 95 | +/- 15% (from 20 to 70% FS) | 40 | 25/50 | (d) |

(a) +4°C to +20°C
20% to 60% HR
1 bar ± 10%
6 month maximum

(b) -25°C to +60°C
20% to 60% HR
1 bar ± 10%
6 month maximum

(c) +4°C to +20°C
20% to 60% HR
1 bar ± 10%
3 month maximum

(d) -20°C to +50°C
20% to 60% HR
1 bar ± 10%
6 month maximum

(e) -25°C to +85°C
0-80% HR
1 bar ± 10%
6 month maximum

OLCT 60

Fixed Gas Detection

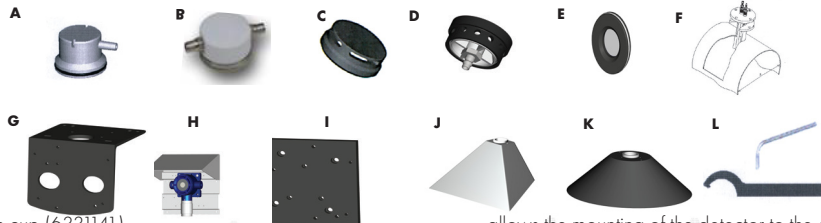
XP Transmitter with XP sensor

| | |
|---------------------------------------|--|
| Sensor: | • Catalytic / Electrochemical / Semi conductor / Infrared |
| Detected gases: | • Explosive or toxic gases, O ₂ , VOC and refrigerant |
| Material: | • Epoxy coated aluminium + 316 stainless steel sensor |
| Pre-calibrated block : | • yes |
| Power supply: | • 16 to 30 V DC |
| Average consumption: | • 140 mA (catalytic) • 80 mA (electrochemical) • 120 mA (infrared sensor) |
| Output signal: | • 0 - 23 mA (4-20 mA reserved for measurement) |
| Cable: | • 3 active wires, shielded cable |
| Max. cable loop resistance / lenght : | • Catalytic: 32 Ω / 1 km at 1.5 mm ² (16 AWG) • Electrochemical and XP IR: 48 Ω / 1.5 km at 1.5 mm ² (16 AWG) |
| Ingress protection: | • IP 66 |
| Approvals: | • ATEX II 2 GD • EEx d IIC T6 Gb - Ex tb IIIC T85° C Db • O ₂ & LEL versions are consistent with SIL2 • Electromagnetic compatibility according to EN50270 |
| Weight: | • 2.1 kg |
| Dimensions: | • 154 x 186 x 121 mm / 6.06 x 7.32 x 4.76 inches |
| Operating temperature: | • -20°C to +60°C |

XP transmitter with IS sensor

| | |
|---|--|
| Sensor: | • Electrochemical |
| Detected gases: | • Toxic gases or O ₂ |
| Material: | • Epoxy coated aluminium + 316 stainless steel sensor |
| Pre-calibrated block: | • yes |
| Power supply: | • 16 to 30 V DC |
| Average consumption: | • 80 mA |
| Output signal: | • 0-23 mA (4-20 mA reserved for measurement) |
| Cable: | • 3 active wires, shielded cable |
| Max. cable loop resistance / lenght with OLDHAM controller: | • 48 Ω / 1.5 km at 1.5 mm ² (16 AWG) |
| Ingress protection: | • IP 66 |
| Approvals: | • ATEX II 2 GD and ATEX II 2(1) GD • Ex d ia IIC T4 Gb - Ex tb IIIC T135°C Db (local sensor) • Ex d [ia Ga] IIC T4 Gb - Ex tb [ia Da] IIIC T135°C Db (offset sensor) • O ₂ & LEL versions are consistent with SIL2 • Electromagnetic compatibility according to EN50270 |
| Weight: | • 2.1 kg |
| Dimensions: | • 154 x 186 x 121 mm / 6.06 x 7.32 x 4.76 inches |
| Operating temperature: | • -20°C to +60°C |

Accessories



- A Calibration cup (6331141)
allows introduction of calibration gas on the sensor
- B Bypass adapter (6327910)
allows measurement of samples
- C Splash guard system (6329004)
protects the detector from liquid projections
- D Remote gas introduction head (6327911)
allows introduction of gas without opening the detector
- E Removable protective filter (6335975)
protects the sensor against projections and dust
- F Duct measurement kit (6793322)
allows gas monitoring in a duct
- G Mounting bracket (6322420)
allows the mounting of the detector to the ceiling
- H Protective cover (6123716)
protects the detector against bad weather conditions or against direct sun radiations
- I Adapter plate (6793718)
allows the replacement of another OLDHAM detector without re-drilling
- J Wall mounted collecting cone (6331169)
for use with lighter-than-air gases
- K Ceiling mount collecting cone (6331168)
for use with lighter-than-air gases
- L Tool kit (6147877)

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