



3M™ Oldham™ OLCT 60

Fixed Gas Detection



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

3M™ Oldham™ 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	100 300 1000	• • •	• • •	-20 to +50	15 - 90	+/- 3 (range 0-100)	40	15/40	(a)
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	30.0 100 1000	• • •	• • •	-20 to +50	15 - 90	+/- 1.5 (range 0-30)	36	15/30	(a)
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 1000 5000	• • •	• • •	-20 to +40	15 - 90	+/- 5 +/- 20 +/- 150 or 10%	24	25/70 20/60 60/180	(a)

3M™ Oldham™ OLCT 60

Fixed Gas Detection

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	•		-20 to +60	20 - 95	+/- 15% (from 20 to 70% FS)	40	25/50	(d)
		2000	• (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)
SF6		2000	• (IR)		-20 to +50	0 - 95	+/- 40ppm (from 0 to 50% FS)	60	25/120	(e)
R1234yf (HFO)		1000	•		-20 to +55	20 - 95	+/- 15% (from 20 to 70% FS)	40	25/50	(d)
		2000	• (IR)		-20 to +50	0 - 95	+/- 40ppm (from 0 to 50% FS)	60	25/120	(e)
		0-100% LEL	• (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

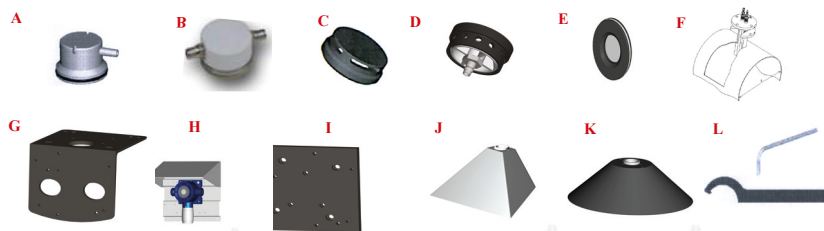
3M™ Oldham™ OLCT 60

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 / length :	● 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 × 186 × 121 mm / 6.06 × 7.32 × 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 / length 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 × 186 × 121 mm / 6.06 × 7.32 × 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)

As an ISO 9001 & ISO 14001 approved company, OLDHAM quality assurance programmes demand the continuous assessment and improvement of all OLDHAM products. Information in this leaflet could thus change without notification and does not constitute a product specification. Please contact OLDHAM or their representative if you require more details.

AMERICAS - Texas (USA)

4055 Technology Forest Blvd.
The Woodlands, TX 77381
Tel.: +1-713-559-9200
Fax: +1-713-893-6729

EMEA

ZI Est, Rue Orfila,
CS 20417
62027 ARRAS CEDEX, France
Tel.: +33-3-21-60-80-80
Fax: +33-3-21-60-80-00

ASIA PACIFIC

290 Guiqiao Road
Pudong, Shanghai 201206
People's Republic of China
Tel.: +86-21-3127-6373
Fax: +86-21-3127-6365



Copyright © 2018 3M, 3M Gas & Flame
Detection. All rights reserved.
gasdetection.3m.com. GF-30019D-EN