OLCT 60

Fixed Gas Detection

Description

The OLCT 60 Series represents a new standard in gas detection, offering unparalleled quality and reliability for the detection of flammable, toxic gases, or oxygen. This series features a range of versions to suit diverse needs:

• Explosion-proof XP or intrinsically safe IS sensors, available for combustible, toxic, or oxygen detection.

• Flexible placement options with remote or on-board sensor configurations. The OLCT 60 can be mounted remotely, enabling detection in challenging or hazardous environments, including Zone 0 (gas) and Zone 20 (dust) for the intrinsically safe (IS) version.

• Equipped with a local display and intuitive, non-intrusive menu for easy operation. Calibration can be performed safely in hazardous areas without requiring a hot work permit.

• Built to last with durable 316L stainless steel construction, ensuring resistance to corrosion and harsh conditions.

• Certified IP66, providing dust and splash water protection for reliable performance in demanding environments.

• Versatile and adaptable, the OLCT 60 Series offers the ideal solution for gas detection across a wide range of industrial applications, meeting diverse needs with precision and efficiency.

Features

- Pre-calibrated sensors ensure accurate and reliable detection without the need for manual calibration, saving time and ensuring precision.
- Non-intrusive calibration allows for convenient adjustments to maintain optimal performance without disrupting operations or requiring specialized equipment.
- Infrared version available, offering enhanced capabilities for specific detection needs, providing advanced functionality and versatility in gas detection applications.

For pricing or any further information, please contact Omni Instruments Ltd.

Measurement and data acquisition solutions

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Fixed Gas Detection

Infrared sensor available

An infrared sensor is currently offered for the detection of CO_2, SF6, and refrigerant gases, providing advanced capabilities for precise and reliable detection in various environmental conditions.

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)
Infrared	GD10P	0-100% LIE	•		-20 to +60	0 - 99	+/-3% (range 0-50) +/-5% (range 50-100)	>60	1/2 (CH_4) 3/6 (HC)	(a)
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	4/32	(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_2S	Hydrogen sulfide	30.0 100 1000	• • •	• • •	-20 to +50	15 - 90	+/- 1.5 (range 0-30)	36	15/35	(a)
HCl	Hydrogen chloride	30.0 100		• •	-20 to +40	15 - 95	+/- 0.4 (range 0-10)	18	10/30	(a)
HCN	Hydrogen cyanide	10.0 30.0		• •	-25 to +40	15 - 95	+/- 0.3 (range 0-10)	24	16/75	(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	56/157 24/92 24/92	(a)

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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	13/33	(a)
NO_2	Nitrogen dioxide	10.0 30.0		• •	-20 to +50	15 - 90	+/- 0.8	24	18/42	(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_3Cl	Methyl chloride	500	•		-20 to +55	20 - 95	+/- 15% (from 20 to 70% FS)	40	25/90	(d)
CH_2Cl_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	• • (IR)		-20 to +55 -20 to +50	20 - 95 0 - 95	+/- 15% (from 20 to 70% FS) +/- 40ppm (from 0 to 50% FS)	40 60	25/90 40/105	(d) (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 R407 c		1000	•		-20 to +55	20 - 95	+/- 15% (from 20 to 70% FS)	40	25/90	(d)
Freon R407f		1000 2000	• • (IR)		-20 to +60 -20 to +50	20 - 95 0 -95	+/- 15% (from 20 to 70% FS) +/- 40ppm (from 0 to 50% FS)	40 60	25/50 40/105	(d) (e)
Freon R408 a		1000	•		-20 to +55	20 - 95	+/- 15% (from 20 to 70% FS)	40	25/90	(d)
R32		2000	• (IR)		-20 to +50	0-95	+/- 40 (from 0 to 50% FS)	60	25/120	(e)
R449a		2000	• (IR)		-20 to +50	0-95	+/- 40 (from 0 to 50% FS)	60	25/120	(e)
R1233zd		5000	• (IR)		-20 to +50	0-95	+/- 40 (from 0 to 50% FS)	60	25/120	(e)
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 2000 0-100% LEL	• • (IR) • (IR)		-20 to +55 -20 to +50 -20 to +50	20 - 95 0 - 95 0 - 95	+/- 15% (from 20 to 70% FS) +/- 40ppm (from 0 to 50% FS) +/- 2% LEL (from 0 to 50% LEL)	40 60 60	25/50 25/120 30/115	(d) (e) (e)
R1234ze		1000 0-100% LEL 0-2000	• • (IR) • (IR)		-20 to +55 -20 to +50	20 - 95 0 - 68	+/- 15% (from 20 to 70% FS) +/- 2% LEL (from 0 to 50% LEL) +/- 40ppm (from 0 to 50% FS)	40 60 60	25/50 55/180 25/120	(d) (e) (e)

(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

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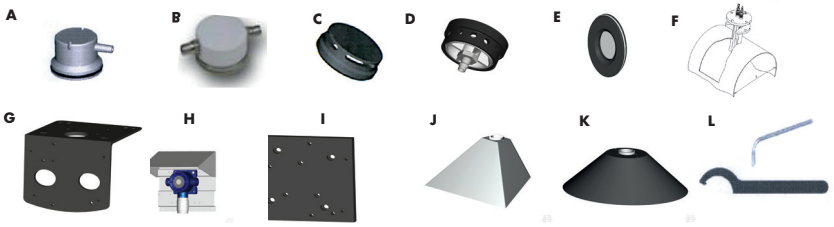
OLCT 60

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 mm² (16 AWG) • Electrochemical and XP IR: 48 Ω / 1.5 km at 1.5 mm² (16 AWG)
Ingress protection:	• IP 66
Approvals:	OLCT60D (with integrated cell): ATEX II 2 GD Ex db IIC T6 Gb - Ex tb IIIC T85°C Db Ambient temperature: -20°C to 60°C OLCT60D d (with remote cell): ATEX II 2 GD Ex db IIC T6 Gb - Ex tb IIIC T85°C Db Ambient temperature: -20°C to 70°C (for the detector) ATEX II 2 GD - Ex db IIC T6 Gb - Ex tb IIIC T85°C Db Ambient temperature: -20°C to 70°C (for the remote cell) 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 mm² (16 AWG)
Ingress protection:	• IP 66
Approvals:	OLCT60id (with integrated cell): ATEX II 2 GD - Ex db [ia Ga] ia IIC T4 Gb - Ex tb [ia Da] ia IIIC T135°C Db Ambient temperature: -20°C to 60°C OLCT60D id: (with remote cell) ATEX II 2 (1) GD - Ex db [ia Ga] IIC T4 Gb - Ex tb [ia Da] IIIC T135°C Db Ambient temperature: -20°C to 60°C (for the detector) ATEX II 1 GD - Ex ia IIC T4 Ga - Ex ia IIIC T135°C Da Ambient temperature: -20°C to 70°C (for the remote cell) Electromagnetic compatibility according to EN 50270
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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