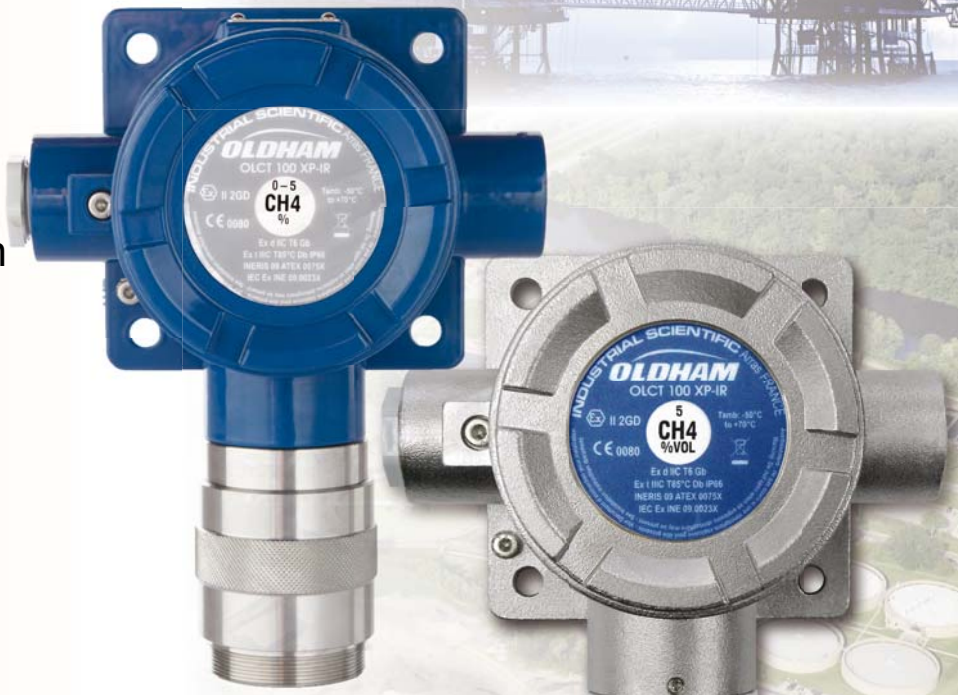
OLC(T) 100

Fixed Gas Detector

- Detection of explosive gases, toxic gases or oxygen
- Infrared XP version
- SIL 2 high reliability
- IP 66
- Aluminium or Stainless Steel version



Electronics 3 years Warranty

Certifications

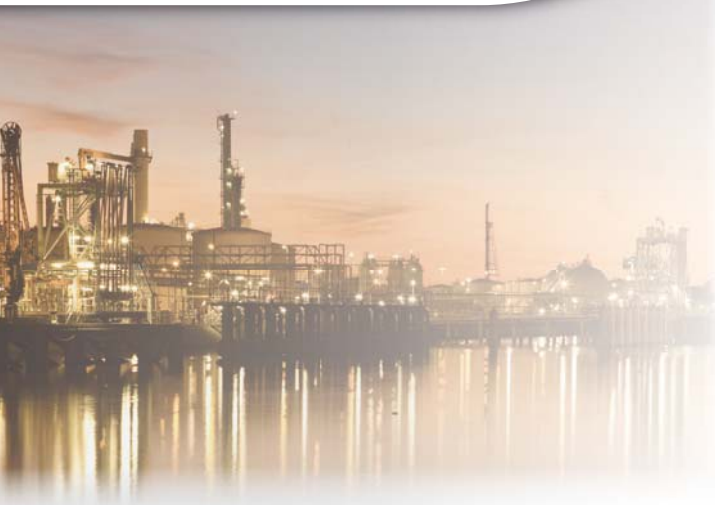
Pending

The Fixed Gas Detection People

OLDHAM
An Industrial Scientific Company

www.oldhamgas.com

OLC(T) 100



The OLC/OLCT 100 range of fixed detectors has been designed for detection of explosive gases, toxic gases or oxygen.
At Oldham, our products are always application-driven, solution-oriented. Options include

- OLCT 100 transmitter with 4-20 mA output
- OLC 100 detector with a Wheatstone bridge output for detection of explosive gases.

Available in explosion-proof or intrinsically safe versions, the OLC(T) 100 is suitable for detection of all gases in ATEX zones.

The OLCT 100 is available in a stainless steel version, offering increased resistance to corrosive elements (ideal for marine, wastewater treatment plants, food processing activities…).

This stainless steel intrinsically safe version is certified for use in zones 0 (gas) and 20 (dust), whereas all other versions of the OLCT100 are certified for use in zones 1 (gas) and 21 (dust).

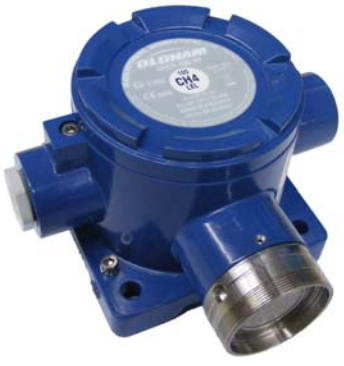
APPLICATIONS

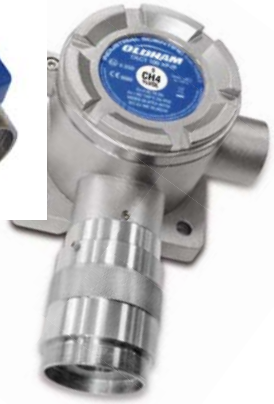
- Steel mills
- Petrochemical facilities
- Chemical industry
- Pharmaceutical industry
- Food industry
- Refrigeration industry
- Water treatment ...

IR SENSOR

The infrared sensor provides detection of explosive gases in more severe environmental conditions, where the presence of poisons could harm the use of a catalytic cell.

Our state of the art IR sensor with 3-year warranty offers outstanding reliability and long sensor life.





Sensor 3 years Warranty

Distribuito da:
Zetalab s.r.l.

Via Castelfidardo, 11 - 35141 Padova
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Internet: www.zetalab.it - e-mail: info@zetalab.it

OLCT 100 XP

Explosion-proof version is equipped with a catalytic, electrochemical or semiconductor sensor, for detection of explosive, toxic gases or oxygen.

OLCT 100 IS

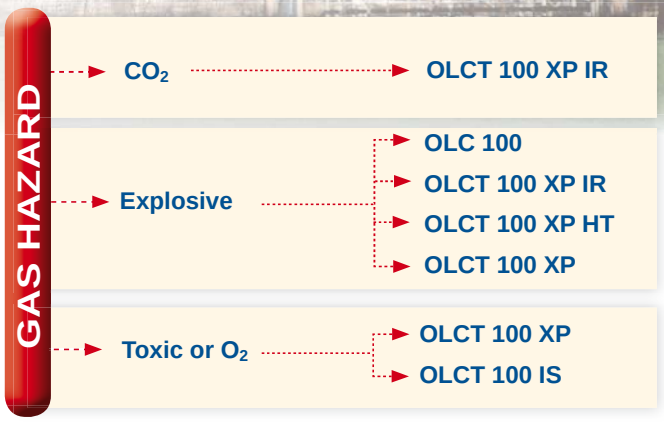
Intrinsically safe version is equipped with an electrochemical sensor for detection of toxic gases or oxygen.

OLCT 100 XP IR

Explosion-proof IR version is equipped with an infrared sensor for detection of explosive gases or CO_2.

OLCT 100 XP HT

High temperature explosion-proof version for detection of explosive gases up to 200°C.
High temperature cable included - 5, 10, 15 meter lengths.



RELIABILITY

The OLC(T) 100 is SIL 2 certified by INERIS, according to the EN 50402 standard, which corresponds to IEC/EN 61508 for gas detectors.

With a probability of failure on demand of 0.53 10^{-3} (corresponding to a failure rate of 1 out of 1887 solicitations), the SIL 3 level of reliability would have been reached, if it was recognized by the EN 50402 standard, which just considers SIL 1 and SIL 2 levels.

Gas	Mesure	SIL Capability	λ_{DU}	Reduction Risk Factor	Test Period
Combustibles	Catalytic (C1000)	SIL 2	2.19 10^{-6}	418	3 months
Combustibles, CO_2	**Infrared**	**SIL 2**	**0.13 10^{-6}**	**1887**	**12 months**
O_2	Electrochemical	SIL 2	0.74 10^{-6}	1234	3 months
CO	Electrochemical	SIL 2	1.09 10^{-6}	840	3 months
H_2S	Electrochemical	SIL 2	2.98 10^{-6}	306	3 months
NH_3	Electrochemical	SIL 2	4.48 10^{-6}	203	3 months

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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	Infrared	0-100% LEL 0-100% vol. CH_4	■ ■		-25 to +55	0 - 95	+/- 5% LEL	> 60	15/30 (CH_4)	(a)
	Catalytic	0-100% LEL	■		-40 to +70	0 - 95	+/- 1% LEL (from 0 to 70% LEL)	40	6/15 (CH_4)	(b)
	Catalytic High Temperature	0-100% LEL	■		-20 to +200	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)
CH_2O	Formaldehyde	50.0		■	-20 to +50	15 - 90	+/- 1.0	36	50/240	(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		■	-20 to +40	10 - 90	+/- 3%	48	20/120	(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	■ ■ ■	■ ■ ■	-40 to +50	15 - 90	+/- 1.5 (range 0-30)	36	15/30	(a)
HCl	Hydrochloric 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		■ ■	-40 to +40	15 - 95	+/- 0.3 (range 0-10)	18	30/120	(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)
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)
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	Sulphur 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	25/50	(d)
CH_2Cl_2	Methylene chloride	500	■		-20 to +55	20 - 95	+/- 15% (from 20 to 70% FS)	40	25/50	(d)
Freon R12		1% vol	■		-20 to +55	20 - 95	+/- 15% (from 20 to 70% FS)	40	25/50	(d)
Freon R22		2000	■		-20 to +55	20 - 95	+/- 15% (from 20 to 70% FS)	40	25/50	(d)
Freon R123		2000	■		-20 to +55	20 - 95	+/- 15% (from 20 to 70% FS)	40	25/50	(d)
FX56		2000	■		-20 to +55	20 - 95	+/- 15% (from 20 to 70% FS)	40	25/50	(d)
Freon R134 a		2000	■		-20 to +55	20 - 95	+/- 15% (from 20 to 70% FS)	40	25/50	(d)
Freon R142 b		2000	■		-20 to +55	20 - 95	+/- 15% (from 20 to 70% FS)	40	25/50	(d)
Freon R11		1% vol	■		-20 to +55	20 - 95	+/- 15% (from 20 to 70% FS)	40	25/50	(d)
Freon R23		1% vol	■		-20 to +55	20 - 95	+/- 15% (from 20 to 70% FS)	40	25/50	(d)
Freon R141 b		2000	■		-20 to +55	20 - 95	+/- 15% (from 20 to 70% FS)	40	25/50	(d)
Freon R143 a		2000	■		-20 to +55	20 - 95	+/- 15% (from 20 to 70% FS)	40	25/50	(d)
Freon R404 a		2000	■		-20 to +55	20 - 95	+/- 15% (from 20 to 70% FS)	40	25/50	(d)
Freon R507		2000	■		-20 to +55	20 - 95	+/- 15% (from 20 to 70% FS)	40	25/50	(d)
Freon R410 a		1000	■		-20 to +55	20 - 95	+/- 15% (from 20 to 70% FS)	40	25/50	(d)
Freon R32		1000	■		-20 to +55	20 - 95	+/- 15% (from 20 to 70% FS)	40	25/50	(d)
Freon R227		1% vol	■		-20 to +55	20 - 95	+/- 15% (from 20 to 70% FS)	40	25/50	(d)
Freon R407 c		1000	■		-20 to +55	20 - 95	+/- 15% (from 20 to 70% FS)	40	25/50	(d)
Freon R408 a		1000	■		-20 to +55	20 - 95	+/- 15% (from 20 to 70% FS)	40	25/50	(d)
Ethanol		500	■		-20 to +55	20 - 95	+/- 15% (from 20 to 70% FS)	40	25/50	(d)
Toluene		500	■		-20 to +55	20 - 95	+/- 15% (from 20 to 70% FS)	40	25/50	(d)
Isopropanol		500	■		-20 to +55	20 - 95	+/- 15% (from 20 to 70% FS)	40	25/50	(d)
2-butanone (MEK)		500	■		-20 to +55	20 - 95	+/- 15% (from 20 to 70% FS)	40	25/50	(d)
Xylene		500	■		-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) -50°C to +70°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

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