

THE SIL2-CERTIFIED ATEX TRANSMITTER AND SENSOR.

The OLC/OLCT 100 range of fixed gas detectors has been designed to detect explosive and toxic gases or oxygen. Available in an explosion-proof or intrinsically safe version, the OLCT 100 can detect all gases in ATEX zones.

Whether you are looking for a SIL2 detector further to a functional analysis or just an extremely reliable solution, the OLC(T) 100 is the obvious choice.

Different versions of the OLCT 100 gas detector are available:

OLCT 100 XP : explosion-proof version equipped with a catalytic, electrochemical or semiconductor sensor for detection of explosive and toxic gases or oxygen.

OLCT 100 IS : intrinsically-safe version equipped with a sensor for detection of toxic gases or oxygen.

OLCT 100 XP IR : IR: explosion-proof version equipped with an infrared sensor for detection of CO₂, R1234yf, SF₆, R134a and R407f.

OLCT100 XP HT : high-temperature explosion-proof version for detection of explosive gases up to 200°C.



TECHNICAL DATA

	OLC100	OLCT100 XP	OLCT100 XP IR	OLCT100 XP	OLCT100 XP HT	OLCT100 XP	OLCT100 SI
Sensor	Catalytic bead	Catalytic bead	Infrared	Electrochemical	Catalytic bead	Semi-conductor	Electrochemical
Material	Epoxy-coated aluminium housing (Inox 316L optional), 316 stainless steel sensors						
Size (cm)	13.5 x 13.3 x 8.4	13.5 x 13.3 x 8.4	17.9 x 13.8 x 8.4	17.9 x 13.8 x 8.4	15.0 x 13.8 x 8.4	17.9 x 13.8 x 8.4	17.9 x 13.8 x 8.4
Size (inches)	5.43 x 5.24 x 3.31	5.43 x 5.24 x 3.31	7.05 x 5.43 x 3.31	7.05 x 5.43 x 3.31	5.91 x 5.43 x 3.31	7.05 x 5.43 x 3.31	7.05 x 5.43 x 3.31
Weight (lbs/kg)	2.1 / 0.95	2.2 / 1.0	2.4 / 1.1	2.4 / 1.1	3.9 / 1.8	2.4 / 1.1	2.4 / 1.1
Protection Class	IP 66						
Cable Entry	M20 or ¾ NPT						
Power supply	only by OLDHAM Controller	15.5 to 32 VDC	13.5 to 32 VDC	10 to 32 VDC	15.5 to 32 VDC	15.5 to 32 VDC	15.5 to 32 VDC
Average Consumption	100 mA	100 mA	60 mA	23.5 mA	100 mA	100 mA	23.5 mA
Pressure	atmospheric ± 10%						
Output signal	Usual source encoded from 0 to 23 mA (not isolated) - linear 4 to 20 mA output, reserved for measurement - 0 mA : electronic fault or no power supply - <1 mA: fault - 2 mA: initialization mode - > 23 mA: out of range						
Approvals	Compliant with European directive ATEX 2014/34/EU and with IECEx schedule for explosion-proof detectors. OLC 100, OLCT 100 XP, OLCT 100 XP IR : ATEX II 2 GD / Ex d IIC T6 Gb / Ex tb IIIC T85°C Db IP66 OLCT 100 XP HT: ATEX II 2 GD / Ex d IIC T6 Gb / Ex tb IIIC T85°C Db IP66 (for the transmitter to be installed in a cold zone) ATEX II 2 G / Ex d IIC T4..T2 Gb (for the sensor to be installed in the hot zone) OLCT 100 IS Aluminum : ATEX II 2 GD / Ex ia IIC T4 Gb / Ex ia IIIC T135°C Db IP66 OLCT 100 IS Stainless Steel : ATEX II 1 GD / Ex ia IIC T4 Gb / Ex ia IIIC T135°C Da IP66 SIL 2 according to EN 50402 / EN 61508 for catalytic versions, O ₂ , CO, NH ₃ and H ₂ S Metrological performances according to EN/IEC 60079-29-1 Electromagnetic compatibility according to EN 50270						
Cable	3 active wires, shielded cable	3 active wires, shielded cable	3 active wires, shielded cable	2 active wires, shielded cable	3 active wires, shielded cable	3 active wires, shielded cable	2 active wires, shielded cable

SENSOR SPECIFICATIONS

Gas	Measuring Range (ppm)	Temperature Range (°F/°C)	% RH	Accuracy (ppm)	Average Life Expectancy (month)	Response Time T50/T90 (s)
Combustible Catalytic Gases	0-100% LEL	-40 to 158/-40 to +70	0 - 95	± 1% LEL (from 0 to 70% LEL)	40	6/15 (CH ₄)
Combustible Catalytic Gases	0-100% LEL	-4 to 392/-20 to +200	0 - 95	± 1% LEL (from 0 to 70% LEL)	40	6/15 (CH ₄)
AsH ₃ / Arsine	1.00	-4 to 104/-20 to +40	20 - 90	± 0.05	18	30/120
CH ₂ O / Formaldehyde	50.0	-4 to 122/-20 to +50	15 - 90	± 1.0	36	50/240
Cl ₂ / Chlorine	10.0	-4 to 104/-20 to +40	10 - 90	± 0.4	24	10/60
ClO ₂ / Chlorine dioxide	3.0	-4 to 104/-20 to +40	10 - 90	± 0.3	24	20/120
CO / Carbon monoxide	100 300 1,000	-4 to 122/-20 to +50	15 - 90	± 3 (range 0-100)	40	15/40
CO ₂ / Carbon dioxide	0-5,000 ppm 0-5% vol. 0-10% vol. 0-100% vol.	-4 to 104/-20 to +40	10 - 90	± 3%	48	20/120
COCl ₂ / Phosgene	1.00	-4 to 104/-20 to +40	15 - 90	± 0.05	12	60/180
ETO / Ethylene oxide	30.0	-4 to 122/-20 to +50	15 - 90	± 1.0	36	50/240
H ₂ / Hydrogen	2,000	-4 to 122/-20 to +50	15 - 90	± 5%	24	30/50
H ₂ S / Hydrogen sulfide	30.0 100 1,000	-40 to 122/-40 to +50	15 - 90	± 1.5 (range 0-30)	36	15/30
HCl / Hydrochloric chloride	30.0 100	-4 to 104/-20 to +40	15 - 95	± 0.4 (range 0-10)	24	30/150
HCN / Hydrogen cyanide	10.0 30.0	-40 to 104/-40 to +40	15 - 95	± 0.3 (range 0-10)	18	30/120
NH ₃ / Ammonia	1,000 100 1,000 5,000	-40 to 104/-40 to +40 -4 to 104/-20 to +40 -4 to 104/-20 to +40 -4 to 104/-20 to +40	15 - 90 15 - 90 15 - 90 15 - 90	± 20 ± 5 ± 20 ± 150 or 10%	24 24 24 24	-- 25/70 20/60 60/180
NO / Nitrogen monoxide	100 300 1,000	-4 to 122/-20 to +50	15 - 90	± 2 (range 0-100)	36	10/30
NO ₂ / Nitrogen dioxide	10.0 30.0	-4 to 122/-20 to +50	15 - 90	± 0.8	24	30/60
O ₂ / Oxygen	0-30% vol 0-30% vol	-4 to 122/-20 to +50 -4 to 122/-20 to +50	15 - 90 10 - 90	0.4% Vol (from 15 to 22% O ₂) ± 1.5	28 60	6-15 15-25
PH ₃ / Phosphine	1.00	-4 to 104 /-20 to +40	20 - 90	± 0.05	18	30/120
SiH ₄ / Silane	50.0	-4 to 104 /-20 to +40	20 - 95	± 1.0	18	25/120
SO ₂ / Sulphur dioxide	10.0 30.0 100	-4 to 122/-20 to +50	15 - 90	± 0.7 (range 0-10)	36	15/45
CH ₃ Cl / Methyl chloride	500	-4 to 131/-20 to +55	20 - 95	± 15% (from 20 to 70% FS)	40	25/50
CH ₂ Cl ₂ / Methylene chloride	500	-4 to 131/-20 to +55	20 - 95	± 15% (from 20 to 70% FS)	40	25/50
Freon R12	1% vol	-4 to 131/-20 to +55	20 - 95	± 15% (from 20 to 70% FS)	40	25/50
Freon R22	1% vol	-4 to 131/-20 to +55	20 - 95	± 15% (from 20 to 70% FS)	40	25/50
Freon R123	1% vol	-4 to 131/-20 to +55	20 - 95	± 15% (from 20 to 70% FS)	40	25/50
FX56	1% vol	-4 to 131/-20 to +55	20 - 95	± 15% (from 20 to 70% FS)	40	25/50
Freon R134 a	2,000 2,000 ppm	-4 to 131/-20 to +55 -4 to 122/-20 to +50	20 - 95 0 - 95	± 15% (from 20 to 70% FS) ± 40ppm (from 0 to 50% range)	40 60	25/50 40/170
Freon R11	1% vol	-4 to 131/-20 to +55	20 - 95	± 15% (from 20 to 70% FS)	40	25/50
Freon R23	1% vol	-4 to 131/-20 to +55	20 - 95	± 15% (from 20 to 70% FS)	40	25/50
Freon R143a	2,000	-4 to 131/-20 to +55	20 - 95	± 15% (from 20 to 70% FS)	40	25/50
Freon R404 a	2,000	-4 to 131/-20 to +55	20 - 95	± 15% (from 20 to 70% FS)	40	25/50
Freon R507	2,000	-4 to 131/-20 to +55	20 - 95	± 15% (from 20 to 70% FS)	40	25/50
Freon R410a	1,000	-4 to 131/-20 to +55	20 - 95	± 15% (from 20 to 70% FS)	40	25/50
Freon R32	1,000	-4 to 131/-20 to +55	20 - 95	± 15% (from 20 to 70% FS)	40	25/50
Freon R407c	1,000	-4 to 140/-20 to +60	20 - 95	± 15% (from 20 to 70% FS)	40	25/50
Freon R407f	1,000 2,000	-4 to 131/-20 to +55 -4 to 122/-20 to +50	20 - 95 0 - 95	± 15% (from 20 to 70% FS) ± 40ppm (from 0 to 50% range)	40 60	25/50 40/105
Freon R408a	1,000	-4 to 131/-20 to +55	20 - 95	± 15% (from 20 to 70% FS)	40	25/50
Ethanol	500	-4 to 131/-20 to +55	20 - 95	± 15% (from 20 to 70% FS)	40	25/50
Toluene	500	-4 to 131/-20 to +55	20 - 95	± 15% (from 20 to 70% FS)	40	25/50
Isopropanol	500	-4 to 131/-20 to +55	20 - 95	± 15% (from 20 to 70% FS)	40	25/50
2-butanone (MEK)	500	-4 to 131/-20 to +55	20 - 95	± 15% (from 20 to 70% FS)	40	25/50
Xylene	500	-4 to 131/-20 to +55	20 - 95	± 15% (from 20 to 70% FS)	40	25/50
SF6	2,000	-4 to 122/-20 to +50	0 - 95	± 40ppm (from 0 to 50% range)	60	25/120
R1234yf (HFO)	1,000 2,000 0-100% LEL	-4 to 131/-20 to +55 -4 to 122/-20 to +50 -4 to 122/-20 to +50	20 - 95 0 - 95 0 - 95	± 15% (from 20 to 70% FS) ± 40ppm (from 0 to 50% range) ± 2% LEL (from 0 to 50% LEL)	40 60 60	25/50 25/120 30/115
R1234ze	1,000	-4 to 131/-20 to +55	20 - 95	± 15% (from 20 to 70% FS)	40	25/50