

▶ OLC(T)100

ATEX gas detector (hydrocarbons, solvents, freons and toxic gases)



Technical specifications

Sensor type: Catalytic bead, infrared, electrochemical or semiconductor sensors depending on the nature of the targeted gas.

Material: Epoxy painted aluminum casing (316L stainless steel optional).

Sensor and nose: 316L stainless steel

Protection: IP66

Cable entry: M20 or ≤ NPT

Power supply: 15.5 to 32 VDC

Output:

OLC100: Wheatstone bridge

OLCT100 XP, OLCT100 IS, OLCT100 XPIR, OLCT100 XP HT:

Current source coded from 0 to 23 mA (not isolated)

- Power 4 to 20mA linear reserved for measurement
- 0 mA: electronic fault or lack of power
- <1mA: Fault
- 2 mA: initialization mode
- > 23 mA : over scale

Certifications :

- Complies with the European ATEX 94/9 / CE standard and the IECEx scheme for explosion proof detectors.
- OLC100, OLCT100-XP, OLCT100-XP-IR : ATEX II 2 GD / Ex d IIC T6 Gb / Ex t IIIC T85°C Db IP66.
- OLCT100-IS : ATEX II 2 GD / Ex ia IIC T4 / Ex ia D 21 T135°C IP66 SIL 2 according to EN 50402 / EN 61508 for the catalytic, infrared, O₂, CO, NH₃ and H₂S versions sensor for the detection of explosive gases or some toxic gases.

Product description

OLC(T)100 are fixed gas detectors for control and measurement of explosive gases (hydrocarbons, solvents, alcohols), toxic gases, asphyxiating gases and refrigerant gases (freons, HFO, CFC, HFC) in industrial environments. Available in as explosion-proof or intrinsically safe versions, it is suitable for monitoring all gases in ATEX zones.

▶ Many possible variations

The **OLC(T)100** is available in several versions depending on the type of sensor and gas:

- **OLC100:** Catalytic sensor with Wheatstone bridge output for explosive gas detection (0-100% LEL only).
- **OLCT 100 XP:** Explosion-proof version with linear 4-20 mA output equipped with a catalytic, electrochemical or semiconductor cell for detection of explosive gases or certain toxic gases.
- **OLCT 100 IS:** Intrinsically safe (IS) version with 4-20 mA linear output equipped with an electrochemical sensor for some toxic gases.
- **OLCT 100 XP IR:** Explosion-proof version with linear 4-20 mA output equipped with an infrared sensor for monitoring explosive gases, CO₂ or some freons.
- **OLCT 100 XP HT:** Explosion-proof high temperature version, for combustible gases detection up to 200 °C, supplied with high temperature cables of 5, 10 or 15 meters.

▶ High SIL 2 reliability level

The explosion-proof versions with Wheatstone bridge catalytic sensors or 4-20 mA output as well as the versions with CO, H₂S, NH₃ or O₂ sensors are SIL 2 certified by INERIS, according to the EN 50402 standard, which corresponds to IEC/EN 61508 for gas detectors.

▶ Many available accessories

Description	Code
Calibration cup (allows introduction of calibration gas on the sensor)	6331141
Bypass adapter (allows samples measurement)	6327910
Remote gas introduction head (allows introduction of gas without opening the detector)	6327911
Splash guard system (protects the detector from liquid projections)	6329004
Duct measurement kit (allows gas monitoring in a duct)	6793322
Collecting cone (for use with lighter-than-air gases)	6331168
Protective cover (protects the detector against bad weather conditions or against direct sun radiations)	6123716

Gas	Measure range	Sensor	OLC100-XP (mV)	OLCT100-XP (4-20 mA)	OLCT100-XPIR (4-20 mA)	OLCT100-IS (4-20 mA)	SIL2	Gas code
Acetone	0-100% LEL	CAT	●	●			●	010
Acetonitrile	0-100% LEL	CAT	●	●			●	011
Acetylene	0-100% LEL	CAT	●	●			●	012
Acrolein	0-100% LEL	CAT	●	●			●	014
Acrylic acid	0-100% LEL	CAT	●	●			●	013
Acrylonitrile	0-100% LEL	CAT	●	●			●	017
Allylic alcohol	0-100% LEL	CAT	●	●				074
Ammonia	0-100% LEL	CAT	●	●			●	006
Ammonia	0-100 ppm NH3	EC		●		●	●	231
Ammonia	0-1000 ppm NH3	EC		●		●	●	232
Ammonia	0-5000 ppm NH3	EC		●		●	●	233
Ammonia	0-300 ppm NH3	EC		●		●	●	273
Ammonia (-40°C)	0-100 ppm NH3	EC		●		●	●	264
Ammonia (-40°C)	0-1000 ppm NH3	EC		●		●	●	265
Arsine	0-1 ppm AsH3	EC				●		243
Benzene	0-100% LEL	CAT	●	●			●	018
Benzene	0-500 ppm	SC		●				663
1.3- Butadiene	0-100% LEL	CAT	●	●			●	019
Butane	0-100% LEL	CAT	●	●			●	004
Butane	0-100% LEL	SC		●				666
Butanol (isobutanol)	0-100% LEL	CAT	●	●			●	020
2-Butanone	0-100% LEL	CAT	●	●			●	021
Butyl acetate	0-100% LEL	CAT	●	●			●	008
Butyl acrylate	0-100% LEL	CAT	●	●			●	015
Carbon dioxide	0-5 % vol. CO2	IR			●			239
Carbon dioxide	0-10 % vol. CO2	IR			●			240
Carbon dioxide	0-100 % vol. CO2	IR			●			241
Carbon dioxide	0-5000 ppm CO2	IR			●			252
Carbon monoxide	0-100 ppm CO	EC		●		●	●	203
Carbon monoxide	0-300 ppm CO	EC		●		●	●	204
Carbon monoxide	0-1000 ppm CO	EC		●		●	●	205
Chlorine	0-10 ppm Cl2	EC				●		224
Chlorine	0-20 ppm Cl2	EC				●		259
Chlorine dioxide	0-3 ppm ClO2	EC				●		235
Chloromethane	0-100% LEL	CAT	●	●				070
Chloromethane (Methyl chloride)	0-500 ppm	SC		●				508
CS2	0-500 ppm	SC		●				668
Cumene	0-100% LEL	CAT	●	●			●	022
Cyclohexane	0-100% LEL	CAT	●	●			●	023
Cyclohexanone	0-100% LEL	CAT	●	●			●	024
Cyclopentane	0-100% LEL	CAT	●	●			●	072
Dichloromethane	0-500 ppm	SC		●				507
Diesel	0-100% LEL	CAT	●	●			●	033
Dimethylether	0-100% LEL	CAT	●	●			●	025
DMA (Dimethylamine)	0-100% LEL	CAT	●	●			●	066
DMS (Dymethyl sulfide)	0-100 ppm	EC		●		●		254
Dodecane	0-100% LEL	CAT	●	●			●	026
Ethane	0-100% LEL	CAT	●	●			●	027
Ethanol	0-100% LEL	CAT	●	●			●	028
Ethanol	0-500 ppm	SC		●				656
Ether (diethylether)	0-100% LEL	CAT	●	●			●	029
Ethyl acetate	0-100% LEL	CAT	●	●			●	007

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Gas	Measure range	Sensor	OLC100-XP (mV)	OLCT100-XP (4-20 mA)	OLCT100-XPIR (4-20 mA)	OLCT100-IS (4-20 mA)	SIL2	Gas code
Ethyl acrylate	0-100% LEL	CAT	●	●			●	016
Ethyl chloride	0-100% LEL	CAT	●	●			●	068
Ethylene	0-100% LEL	CAT	●	●			●	030
Ethylene oxide	0-100% LEL	CAT	●	●			●	049
Ethylene oxide (ETO)	0-30 ppm	EC				●		244
Ethylene oxide (ETO)	0-100 ppm	EC				●		248
Ethylmercaptan	0-100 ppm C ₂ H ₆ S	EC		●		●		253
Formaldehyde	0-100% LEL	CAT	●	●			●	031
Formalin	0-50 ppm	EC				●		247
Formalin	0-150 ppm	EC				●		270
FX56	0-2000 ppm	SC		●				510
Heptane	0-100% LEL	CAT	●	●			●	035
Hexane	0-100% LEL	CAT	●	●			●	036
HFO-1234yf	0-100% LEL	IR			●			065
HFO-1234yf	0-2000 ppm	IR			●			526
HFO-1234yf	0-1000 ppm	SC		●				662
HFO-1234ze	0-1000 ppm	SC		●				525
Hydrazine	0-2 ppm N ₂ H ₄	EC				●		286
Hydrogen	0-100% LEL	CAT	●	●			●	003
Hydrogen	0-2000 ppm H ₂	EC		●		●		225
Hydrogen chloride	0-30 ppm HCl	EC				●		227
Hydrogen chloride	0-100 ppm HCl	EC				●		228
Hydrogen cyanide	0-10 ppm HCN	EC				●		229
Hydrogen cyanide	0-30 ppm HCN	EC				●		230
Hydrogen sulfide	0-30 ppm H ₂ S	EC		●		●	●	213
Hydrogen sulfide	0-100 ppm H ₂ S	EC		●		●	●	214
Hydrogen sulfide	0-1000 ppm H ₂ S	EC		●		●	●	215
Hydrogen sulfide	0-5000 ppm H ₂ S	EC		●		●	●	249
Isobutane	0-100% LEL	CAT	●	●			●	038
Isobutene	0-100% LEL	CAT	●	●			●	039
Isopropanol	0-100% LEL	CAT	●	●			●	040
Isopropanol	0-500 ppm	SC		●				658
Kerosene (JP4)	0-100% LEL	CAT	●	●			●	041
LPG	0-100% LEL	CAT	●	●			●	032
MEK (2-Butanone)	0-500 ppm	SC		●				659
Methane (4.4% vol.)	0-100% LEL	CAT	●	●			●	002
Methane (4.4% vol.)	0-100% LEL	SC		●				665
Methane (5% vol.)	0-100% LEL	CAT	●	●			●	001
Methane (5% vol.)	0-100% LEL	SC		●				664
Methanol	0-100% LEL	CAT	●	●			●	043
Methanol	0-1000 ppm	EC				●		250
Methyl acetate	0-100% LEL	CAT	●	●			●	009
Methyl methacrylate	0-100% LEL	CAT	●	●			●	042
Methylamine	0-100% LEL	CAT	●	●			●	044
Methylmercaptan	0-100 ppm CH ₄ S	EC		●		●		261
MIBK (methylisobutyl ketone)	0-100% LEL	CAT	●	●			●	064
Naphtha	0-100% LEL	CAT	●	●			●	045
Naphthalene	0-100% LEL	CAT	●	●			●	046
Natural gas	0-100% LEL	CAT	●	●			●	034
Nitric oxide	0-100 ppm NO	EC		●		●		216
Nitric oxide	0-300 ppm NO	EC		●		●		217
Nitric oxide	0-1000 ppm NO	EC		●		●		218

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Gas	Measure range	Sensor	OLC100-XP (mV)	OLCT100-XP (4-20 mA)	OLCT100-XPIR (4-20 mA)	OLCT100-IS (4-20 mA)	SIL2	Gas code
Nitrogen dioxide	0-10 ppm NO2	EC				●		219
Nitrogen dioxide	0-30 ppm NO2	EC				●		220
Nonane	0-100% LEL	CAT	●	●			●	047
Octane	0-100% LEL	CAT	●	●			●	048
Oxygen (2 years)	0-30% vol. O2	EC		●		●	●	200
Oxygen (5 years)	0-30 % vol. O2	EC		●		●	●	272
Oxygen (5 years)	0-10 % vol. O2	EC		●				282
Pentane	0-100% LEL	CAT	●	●			●	051
Phosgene	0-1 ppm COCl2	EC				●		246
Phosphine	0-1 ppm PH3	EC				●		242
Propane	0-100% LEL	CAT	●	●		●	●	005
Propane	0-100% LEL	SC		●				667
Propylene	0-100% LEL	CAT	●	●			●	052
Propylene oxide	0-100% LEL	CAT	●	●			●	050
R11	0-1% % vol.	SC		●				505
R12	0-1% % vol.	SC		●				500
R123	0-2000 ppm	SC		●				509
R134A	0-2000 ppm	SC		●				502
R134A	0-2000 ppm	IR			●			502
R143A	0-2000 ppm	SC		●				511
R22	0-2000 ppm	SC		●				501
R23	0-1% % vol.	SC		●				506
R245FA	0-1000 ppm	SC		●				521
R32	0-1000 ppm	SC		●				515
R404A	0-2000 ppm	SC		●				512
R407A	0-1000 ppm	SC		●				523
R407C	0-1000 ppm	SC		●				517
R407F	0-1000ppm	SC		●				519
R407F	0-2000 ppm	IR			●			528
R408A	0-4000 ppm	SC		●				518
R410A	0-1000 ppm	SC		●				514
R422D	0-4000 ppm	SC		●				524
R434A	0-4000ppm	SC		●				520
R449A	0-2000 ppm	IR			●			529
R507	0-2000 ppm	SC		●				513
SF6	0-2000 ppm	IR			●			527
Silane	0-50 ppm SiH4	EC				●		245
Styrene	0-100% LEL	CAT	●	●			●	054
Styrene	0-500 ppm	SC		●				661
Sulphur dioxide	0-10 ppm SO2	EC				●		221
Sulphur dioxide	0-30 ppm SO2	EC				●		222
Sulphur dioxide	0-100 ppm SO2	EC				●		223
Super (SP95)	0-100% LEL	CAT	●	●			●	055
Toluene	0-100% LEL	CAT	●	●			●	056
Toluene	0-500 ppm	SC		●				657
Trimethylamine	0-100% LEL	CAT	●	●			●	057
White spirit	0-100% LEL	CAT	●	●			●	058
Xylene	0-100% LEL	CAT	●	●			●	059
Xylene	0-500 ppm	SC		●				660