

OLCT100

ATEX gas detector SIL 2 certified – Combustible gases (IR or catalytic) – Toxic (electrochemical) – Solvents or freons (semiconductor)



TECHNICAL FEATURES

Sensor: Catalytic bead, infrared, electrochemical or semiconductor

Material: Epoxy-coated aluminium housing (Inox 316L optional)

Sensor material: 316 stainless steel

Ingress Protection: IP66

Cable Entry: M20 or ¾ NPT

Supply Voltage: 15.5 to 32 VDC

Output signal:

OLC100: Wheatstone bridge

OLCT100: 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 94/9/CE 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 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 Ga / Ex ia IIIC T135°C Da IP66
- SIL 2 according to EN 50402 / EN 61508 for catalytic versions, O₂, CO, NH₃ and H₂S
- Metrological performances according to EN/IEC 60079-29-1
- Electromagnetic compatibility according to EN 50270

INTRODUCTION

The **OLC/OLCT 100** range of fixed detectors has been designed for detection of explosive gases, toxic gases or oxygen. 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 **OLCT 100** are certified for use in zones 1 (gas) and 21 (dust).

OLC 100: detector with a Wheatstone bridge output for detection of explosive gases (0-100% LEL only)

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 CO₂

OLCT 100 XP HT: High temperature explosion-proof version for detection of explosive gases up to 200°C

The **OLCT 100** transmitter has a 4-20 mA output for the connection of a wide range of controllers



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

OLCT100 ACCESSORIES



Calibration cup for combustible gases
(part number 6331141)

- Facilitates the injection of calibration gas on the sensor
- Effect on measurement: measurement similar to that for natural diffusion
- Effect on response time: none



PTFE remote sampling cup
(part number 6327910)

- Enables measurement in bypass time mode
- Effect on measurement: no effect if calibration is carried out under the same conditions (cup, flow rate)
- Effect on response time: none



Splash guard kit
(part number 6329004)

- Protects the detector against splashes
- Effect on measurement: no effect
- Effect on response time: response time for natural diffusion can increase for certain gases ; contact us for details



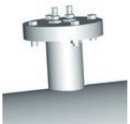
Remote calibration cup
(part number 6327911)

- Enables the detection of ambient gases simultaneously with a calibration gas injection pipe
- Effect on measurement: no effect
- Effect on response time: negligible



PTFE water barrier
(part number 6335975)

- Protects the gas inlet from dust and splashing
- Effect on measurement: no effect, but cannot be used for detecting O₃, HCL, HF or CL₂
- Effect on response time: response time increased (contact us for heavy gases of a density greater than 3 and at concentrations < 10 ppm)



Universal pitot tube with DN 80 flange
(part number 6793322)

- Enables the measurement of a gas passing through a sheath
- Requires the use of the gas circulation head
- Effect on measurement: no effect
- Effect on response time: negligible



Ceiling-mount
(part number 6322420)

- Enables a detector to be fixed to the ceiling
- Effect on measurement: no effect
- Effect on response time: no effect



Sunshield
(part number 6123716)

- Protects any detector mounted on the outside of a building
- Effect on measurement: no effect
- Effect on response time: negligible



Wall Mounted Collecting Cone
(part number 6331169)

- Allows the sensor to detect more quickly the gas (Wall mounting)
- Effect on measurement: no effect
- Effect on response time: response time can increase up to 10%



Ceiling Mounted Collecting Cone
(part number 6331168)

- Allows the sensor to detect quickly the gas (Ceiling)
- Effect on measurement: no effect
- Effect on response time: response time can increase up to 10%



Replacement adapter kit
(part number 6793718)

- Enables replacement of an existing detector without having to re-drill holes



GAS NAME	MEASURING RANGE	AVAILABLE WITH					GAS CODE
		OLC100	OLCT100-XP	OLCT100-IR	OLCT100-HT	OLCT100-IS	
BUTYL ACETATE	0 - 100 % LEL	•	•		•		008
METHYL ACETATE	0 - 100 % LEL	•	•		•		009
ETHYL ACETATE	0 - 100 % LEL	•	•		•		007
ACETONE	0 - 100 % LEL	•	•		•		010
ACETONITRILE	0 - 100 % LEL	•	•		•		011
ACETYLENE	0 - 100 % LEL	•	•		•		012
HYDROGEN CYANIDE (HCN)	0 - 10 ppm					•	229
HYDROGEN CYANIDE (HCN)	0 - 30 ppm					•	230
ACROLEIN	0 - 100 % LEL	•	•		•		014
BUTYL ACRYLATE	0 - 100 % LEL	•	•		•		015
ETHYL ACRYLATE	0 - 100 % LEL	•	•		•		016
ACRYLIC ACID	0 - 100 % LEL	•	•		•		013
ACRYLONITRILE	0 - 100 % LEL	•	•		•		017
AMMONIA (NH3)	0 - 100 ppm		•			•	231
AMMONIA (NH3)	0 - 100 % LEL	•	•		•		006
AMMONIA (NH3)	0 - 1000 ppm		•			•	232
AMMONIA (NH3)	0 - 5000 ppm		•			•	233
ARSINE (ASH3)	0 - 1 ppm					•	243
BENZENE	0 - 100 % LEL	•	•		•		018
BUTADIENE, 1,3	0 - 100 % LEL	•	•		•		019
BUTANE	0 - 100 % LEL	•	•	•	•		004
BUTANOL	0 - 100 % LEL	•	•		•		020
BUTANONE 2	0 - 100 % LEL	•	•		•		021
BUTANONE 2 (MEK)	0 - 500 ppm		•				659
CHLORINE (CL2)	0 - 10 ppm					•	224
METHYL CHLORIDE (CH3CL)	0 - 500 ppm					•	508
HYDROGEN CHLORIDE (HCL)	0 - 100 ppm					•	228
HYDROGEN CHLORIDE (HCL)	0 - 30 ppm					•	227
CUMENE	0 - 100 % LEL	•	•		•		022
CYCLOHEXANE	0 - 100 % LEL	•	•		•		023
CYCLOHEXANONE	0 - 100 % LEL	•	•		•		024
METHYLENE CHLORIDE (CH2CL2)	0 - 500 ppm					•	507
FUEL OIL	0 - 100 % LEL	•	•		•		033
DIMETHYL ETHER	0 - 100 % LEL	•	•		•		025
CARBON DIOXIDE (CO2)	0 - 10 % / vol.			•			240
CARBON DIOXIDE (CO2)	0 - 5 % / vol.			•			239
NITROGEN DIOXIDE (NO2)	0 - 10 ppm					•	219
NITROGEN DIOXIDE (NO2)	0 - 30 ppm					•	220
CHLORINE DIOXIDE (CLO2)	0 - 3 ppm					•	235
SULFUR DIOXIDE (SO2)	0 - 10 ppm					•	221
SULFUR DIOXIDE (SO2)	0 - 100 ppm					•	223
SULFUR DIOXIDE (SO2)	0 - 30 ppm					•	222
DODECANE	0 - 100 % LEL	•	•		•		026
ETHANE	0 - 100 % LEL	•	•		•		027
ETHANOL	0 - 100 % LEL	•	•	•	•		028
ETHANOL	0 - 500 ppm		•	•			656
ETHER	0 - 100 % LEL	•	•		•		029
ETHYLENE	0 - 100 % LEL	•	•		•		030
FORMALDEHYDE	0 - 100 % LEL	•	•		•		031
FREONS FX56	0 - 2000 ppm		•				510
FREONS R11 0	0 - 1 % / vol.		•				505
FREONS R12	0 - 1 % / vol.		•				500
FREONS R123	0 - 2000 ppm		•				509
FREONS R134A	0 - 2000 ppm		•				502
FREONS R141	0 - 2000 ppm		•				503
FREONS R142B	0 - 2000 ppm		•				504
FREONS R143A	0 - 2000 ppm		•				511
FREONS R22	0 - 2000 ppm		•				501
FREONS R227	0 - 1 % / vol.		•				516



TYPE de GAZ	GAMME de MESURE	VERSION DISPONIBLES					Code gaz
		OLC100	OLCT100-XP	OLCT100-IR	OLCT100-HT	OLCT100-IS	
FREONS R23	0 - 1 % / vol.		•				506
FREONS R32	0 - 1000 ppm		•				515
FREONS R404A	0 - 2000 ppm		•				512
FREONS R407C	0 - 1000 ppm		•				517
FREONS R408A	0 - 4000 ppm		•				518
FREONS R410A	0 - 1000 ppm		•				514
FREONS R507	0 - 2000 ppm		•				513
NATURAL GAS	0 - 100 % LEL	•	•	•	•		034
LPG	0 - 100 % LEL	•	•	•	•		032
HELIUM	0 - 1 % / vol.		•				062
HEPTANE	0 - 100 % LEL	•	•		•		035
HEXANE	0 - 100 % LEL	•	•		•		036
HYDROGEN (H2)	0 - 100 % LEL	•	•		•		003
HYDROGEN (H2)	0 - 100 % / vol.		•			•	061
HYDROGEN (H2)	0 - 2000 ppm		•			•	225
HYDROGEN SULFIDE (H2S)	0 - 100 ppm		•			•	214
HYDROGEN SULFIDE (H2S)	0 - 1000 ppm		•			•	215
HYDROGEN SULFIDE (H2S)	0 - 30 ppm		•			•	213
ISOBUTANE	0 - 100 % LEL	•	•	•	•		038
ISOBUTENE	0 - 100 % LEL	•	•		•		039
ISOPROPANOL	0 - 100 % LEL	•	•		•		040
ISOPROPANOL	0 - 500 ppm		•				658
JET FUEL	0 - 100 % LEL	•	•		•		041
METHYL METHACRYLATE	0 - 100 % LEL	•	•		•		042
METHANE (CH4)	0 - 100 % LEL	•	•	•	•		001
METHANE (CH4)	0 - 4.4 % / vol.		•	•			002
METHANE (CH4)	0 - 100 % / vol.		•	•			060
METHANOL	0 - 100 % LEL	•	•		•		043
METHYLAMINE	0 - 100 % LEL	•	•		•		044
CARBON MONOXIDE (CO)	0 - 100 ppm		•			•	203
CARBON MONOXIDE (CO)	0 - 1000 ppm		•			•	205
CARBON MONOXIDE (CO)	0 - 300 ppm		•			•	204
NITRIC OXIDE (NO)	0 - 100 ppm		•			•	216
NITRIC OXIDE (NO)	0 - 1000 ppm		•			•	218
NITRIC OXIDE (NO)	0 - 300 ppm		•			•	217
NAPHTA	0 - 100 % LEL	•	•		•		045
NAPHTALENE	0 - 100 % LEL	•	•		•		046
NONANE	0 - 100 % LEL	•	•		•		047
OCTANE	0 - 100 % LEL	•	•		•		048
PROPYLENE OXIDE	0 - 100 % LEL	•	•		•		050
ETHYLENE OXIDE (ETO)	0 - 30 ppm		•			•	244
ETHYLENE OXIDE (ETO)	0 - 100 % LEL	•	•		•		049
OXYGEN (O2)	0 - 30 % / vol.		•			•	200
PENTANE (C5H12)	0 - 100 % LEL	•	•	•	•		051
PHOSPHINE (PH3)	0 - 1 ppm					•	242
PHOSGENE (COCl2)	0 - 1 ppm					•	246
PROPANE	0 - 100 % LEL	•	•	•	•		005
PROPYLENE	0 - 100 % LEL	•	•		•		052
SF6	0 - 100 % / vol.					•	063
SILANE (SiH4)	0 - 50 ppm					•	245
STYRENE	0 - 100 % LEL	•	•		•		054
UNLEADED GAZOLINE (95)	0 - 100 % LEL	•	•		•		055
TOLUENE	0 - 100 % LEL	•	•		•		056
TOLUENE	0 - 500 ppm		•				657
TRIMETHYLAMINE	0 - 100 % LEL	•	•		•		057
WHITE SPIRIT	0 - 100 % LEL	•	•		•		058
XYLENE	0 - 100 % LEL	•	•		•		059
XYLENE	0 - 500 ppm		•				660