

▶ OLCT80

Wireless gas detector RS485, 4-20mA outputs & relays



Technical specifications

Detected gases: Combustible, hydrocarbon, solvents, toxic, asphyxiating or refrigerant gas

Type of sensors: Catalytic filaments, infrared, electrochemical or semiconductor sensors depending on targeted gas (sensors are pre-calibrated).

Power supply: 16 to 28 Vcc

Inputs: 2 analog inputs 4-20mA (load resistance 120 Ω) usable TOR binary inputs

Outputs:

- Relays: 3 dry relays (fault, A1, A2)
- Analog: standardized 4-20mA output
- Digital: one serial RS 485 output

Display:

- 4-digit LCD display for measurement + 1 alphanumeric line
- 3 LED (green: on / yellow: fault / red: alarm)

Antenna specifications:

- Frequency band 900 MHz or 2400 MHz (to specify when ordering)
- Impedance: 50 Ω / Gain: 2dBi / Power 2 watts

Range (line of sight): 3200 meters (2,4 GHz)

Material: Epoxy coated aluminium + 316 stainless steel sensor

Cable entries: 4 x M20 + 2 x M25

Operating temperature: -20°C to +55°C

Ingress protection: IP66

Weight: 3.5 kg (wire version) / 4 kg (Wireless version)

Certifications:

- EEx d IIB T5 (T 100°C) for OLCT80 with explosion-proof sensor
- EEx d[ia] ia IIB T4(T135°C) for OLCT80 with intrinsically safe sensor
- Approval INERIS 03ATEX0240X

Product description

The **OLCT80** Wireless is a wireless analog and digital gas detector, for combustible leak detection (hydrocarbons, solvents, alcohols), toxics asphyxiating (lack of oxygen) and refrigerants (HFO, CFC, HFC) monitoring in ATEX zone.

Interconnected with each other to form a real mesh network, **OLCT80** Wireless gas detectors can communicate with the master receiver up to 3 km away in open fields. The type of network will depend on the number of points, the surface to be covered, its architecture and the configuration of the terrain.

▶ The OLCT80: 3 in 1 gas detector

Thanks to its 2 analog inputs (4-20 mA) available to connect other transmitters (gas detectors, flame detectors, etc.), the **OLCT80** can monitor up to 3 parameters simultaneously making it particularly flexible and suitable for many industrial applications.

An infrared remote control allows remote configuration and control of the **OLCT80** without opening its housing. Approved "intrinsically safe", it can be used in ATEX zone (zone 1) with a maximum range of about 5 meters.

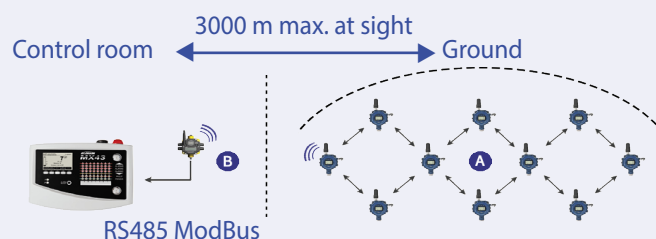
▶ The OLCT80 Wireless : wireless communication

The **OLCT80** Wireless is an ideal solution to meet certain wiring constraints for gas detectors in industrial environments, such as :

- Gas detection on moving equipment (crane bucket, overhead traveling cranes)
- Problematic or even impossible device wiring (road, waterway or railroad)
- Measurements transmission over long distances generating significant wiring costs, especially in classified areas

The link between the **OLCT80** Wireless and the measurement controller or a PLC is carried out by radio wave on 2.4 GHz bands in Europe or 900 MHz in the USA, over a distance of up to 3200 or 9600 meters respectively (line of sight).

The **OLCT80** wireless transmitters communicate with each other up to a Master receiver connected to the MX43 controller unit (via an RS485 ModBus link). This Master receiver allows the management of a mesh network (Mesh technology) comprising up to 49 transmitters supplied with 10 to 30 Vdc (batteries, solar panels).



Gas	Measure range	Cell	OLCT80-XP (4-20 mA)	OLC80-XPIR (4-20 mA)	OLCT80-IS (4-20 mA)	Code
Acetone	0-100% LEL	CAT	●			10
acetonitrile	0-100% LEL	CAT	●			11
Acetylene	0-100% LEL	CAT	●			12
Acrolein	0-100% LEL	CAT	●			14
Acrylic acid	0-100% LEL	CAT	●			13
Acrylonitrile	0-100% LEL	CAT	●			17
Allylic alcohol	0-100% LEL	CAT	●			74
Ammonia	0-100% LEL	CAT	●			6
Ammonia	0-100 ppm NH3	EC	●		●	231
Ammonia	0-1000 ppm NH3	EC	●		●	232
Ammonia	0-5000 ppm NH3	EC	●		●	233
Arsine	0-1 ppm AsH3	EC			●	243
Benzene	0-100% LEL	CAT	●			18
Benzene	0-500 ppm	SC				663
Brome	0-20 ppm Br2	EC			●	286
Brome	0-300 ppm Br2	EC			●	287
Butadiene 1.3-	0-100% LEL	CAT	●			19
Butane	0-100% LEL	CAT	●			4
Butane	0-100% LEL	SC	●			666
Butanol (isobutanol)	0-100% LEL	CAT	●			20
Butanone2-	0-100% LEL	CAT	●			21
Butyl acetate	0-100% LEL	CAT	●			8
Butyl acrylate	0-100% LEL	CAT	●			15
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
Carbon monoxide	0-1000 ppm /H2	EC	●		●	289
Carbon monoxide	0-2000 ppm	SC	●			512
Chlorine	0-10 ppm Cl2	EC			●	224
Chlorine dioxide	0-3 ppm ClO2	EC			●	235
Chloromethane	0-100% LEL	CAT	●			70
CS2	0-500 ppm	SC	●			668
Cumene	0-100% LEL	CAT	●			22
Cyclohexane	0-100% LEL	CAT	●			23
Cyclohexanone	0-100% LEL	CAT	●			24
Cyclopentane	0-100% LEL	CAT	●			72
Diesel	0-100% LEL	CAT	●			33
Dimethylether	0-100% LEL	CAT	●			25
DMA (Dimethylamine)	0-100% LEL	CAT	●			66
Dodecane	0-100% LEL	CAT	●			26
Ethane	0-100% LEL	CAT	●			27
Ethanol	0-100% LEL	CAT	●			28
Ethanol	0-500 ppm	SC	●			656
Ether (diethylether)	0-100% LEL	CAT	●			29
Ethyl acetate	0-100% LEL	CAT	●			7
Ethyl acrylate	0-100% LEL	CAT	●			16

Gas	Measure range	Cell	OLCT80-XP (4-20 mA)	OLC80-XPIR (4-20 mA)	OLCT80-IS (4-20 mA)	Code
Ethyl chloride	0-100% LEL	CAT	●			68
Ethylene	0-100% LEL	CAT	●			30
Ethylene oxide	0-100% LEL	CAT	●			49
Ethylene oxide (ETO)	0-30 ppm	EC			●	244
Ethylene oxide (ETO)	0-100 ppm	EC			●	248
Ethylmercaptan	0-100 ppm C2H6S	EC	●		●	253
Formaldehyde	0-100% LEL	CAT	●			31
Formol	0-50 ppm	EC			●	247
FX56	0-2000 ppm	SC	●			510
GPL	0-100% LEL	CAT	●			32
Heptane	0-100% LEL	CAT	●			35
Hexane	0-100% LEL	CAT	●			36
HFO-1234yf	0-100% LEL	IR		●		65
HFO-1234yf	0-2000 ppm	IR		●		526
HFO-1234yf	0-1000 ppm	SC	●			662
HFO-1234ze	0-1000 ppm	SC	●			525
Hydrogen	0-100% LEL	CAT	●			3
Hydrogen	0-100% %/vol.	CAT				61
Hydrogen	0-2000 ppm H2	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 fluoride	0-10 ppm	EC			●	285
Hydrogen sulfide	0-30 ppm H2S	EC	●		●	213
Hydrogen sulfide	0-100 ppm H2S	EC	●		●	214
Hydrogen sulfide	0-1000 ppm H2S	EC	●		●	215
Isobutane	0-100% LEL	CAT	●			38
Isobutene	0-100% LEL	CAT	●			39
Isopropanol	0-100% LEL	CAT	●			40
Isopropanol	0-500 ppm	SC	●			658
Kerosene (JP4)	0-100% LEL	CAT	●			41
MEK (2-Butanone)	0-500 ppm	SC	●			659
Methane	0-100% %/vol.	CAT				60
Methane (4.4% vol.)	0-100% LEL	SC	●			665
Methane (4.4% vol.)	0-100% LEL	CAT	●			2
Methane (5% vol.)	0-100% LEL	SC	●			664
Methane (5% vol.)	0-100% LEL	CAT	●			1
Methanol	0-100% LEL	CAT	●			43
Methyl methacrylate	0-100% LIE	CAT	●			42
Methylamine	0-100% LEL	CAT	●			44
Methylmercaptan	0-100 ppm CH4S	EC	●		*	261
Metyl acetate	0-100% LEL	CAT	●			9
MIBK (methyl isobutyl ketone)	0-100% LEL	CAT	●			64
Naphta	0-100% LEL	CAT	●			45
Naphtalene	0-100% LEL	CAT	●			46
Natural gas	0-100% LEL	CAT	●			34
Nitric dioxide	0-10 ppm NO2	EC			●	219
Nitric dioxide	0-30 ppm NO2	EC			●	220
Nitric monoxide	0-100 ppm NO	EC	●		●	216

Gas	Measure range	Cell	OLCT80-XP (4-20 mA)	OLC80-XPIR (4-20 mA)	OLCT80-IS (4-20 mA)	Code
Nitric monoxide	0-300 ppm NO	EC	●		●	217
Nitric monoxide	0-1000 ppm NO	EC	●		●	218
Nonane	0-100% LEL	CAT	●			47
Octane	0-100% LEL	CAT	●			48
Oxygen (2 ans)	0-30% vol. O2	EC	●		●	200
Oxygen (5 ans)	0-30 % vol. O2	EC	●			272
Ozone	0-1 ppm O3	EC			●	284
Pentane	0-100% LEL	CAT	●			51
Phosgene	0-1 ppm COCl2	EC			●	246
Phosphine	0-1 ppm PH3	EC			●	242
Propane	0-100% LEL	CAT	●			5
Propane	0-100% LEL	SC	●			667
Propylene	0-100% LEL	CAT	●			52
"	0-100% LEL	CAT	●			50
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
R30 (Dichloromethane)	0-500 ppm	SC	●			507
R32	0-1000 ppm	SC	●			515
R40 (Chloromethane)	0-500 ppm	SC	●			508
R407A	0-1000 ppm	SC	●			523
R407C	0-1000 ppm	SC	●			517
R407F	0-1000 ppm	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	0-4000 ppm	SC	●			520
R449A	0-2000 ppm	IR		●		529
R507	0-2000 ppm	SC	●			513
SF6	0-100% %/vol.	CAT				62
SF6	0-2000 ppm	IR		●		527
Silane	0-50 ppm SiH4	EC			●	245
Styrene	0-100% LEL	CAT	●			54
Styrene	0-500 ppm	SC	●			661
Sulfur dioxide	0-10 ppm SO2	EC			●	221
Sulfur dioxide	0-30 ppm SO2	EC			●	222
Sulfur dioxide	0-100 ppm SO2	EC			●	223
Super (SP95)	0-100% LEL	CAT	●			55
Toluene	0-100% LEL	CAT	●			56
Toluene	0-500 ppm	SC	●			657
Trimethylamine	0-100% LEL	CAT	●			57
White spirit	0-100% LEL	CAT	●			58
Xylene	0-100% LEL	CAT	●			59
Xylene	0-500 ppm	SC	●			660

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