

Detectors-transmitters for flammable and toxic gases and oxygen

Series 20

■ ■ ■ *Approval : IS or FLP*

■ ■ ■ *Small in size*

■ ■ ■ *Resistant to
corrosive agents*

■ ■ ■ *Precalibrated sensor unit*





Steel industry

■ ■ ■ *Together we'll make your applications safe*

It is essential to prevent any risk of asphyxia, poisoning or explosion due to the presence of gas in order to ensure safe operations.

OLDHAM has developed its Series 20, a new generation of gas detectors designed for production and other industries to cater for all detection requirements at an excellent price.

■ ■ ■ *Series OLC 20 and OLCT 20*

Cell unit OLC 20

The new generation of OLC 20 explosimetric cell units is unaffected by poisons. The units provide extremely quick response times and complete reliability. They can be fitted on a housing with a M25 or 3/4" NPT thread.



OLC 20

Detector OLC 20D

Based on the OLC 20 cell unit, the OLC 20D detector is equipped with a 15 m long cable (standard version) and stuffing gland for direct connection to a data logger. A high-temperature version allows operation at 200°C.



OLC 20 D



Sensor specifications

Gases	Type of sensor	Range (ppm)	Operating temperature	Relative humidity
O ₂	electrochemical	30,00%	-20°C to +50°C	10% to 95% RH
CO	electrochemical	100, 300 and 1000	-20°C to +50°C	10% to 95% RH
H ₂ S	electrochemical	30, 100 and 1000	-20°C to +50°C	10% to 95% RH
NO	electrochemical	100, 300 and 1000	-20°C to +50°C	10% to 95% RH
NO ₂	electrochemical	10 and 30,0	-20°C to +50°C	10% to 95% RH
SO ₂	electrochemical	10,0 30,0 and 100	-10°C to +50°C	10% to 95% RH
Cl ₂	electrochemical	10,0	-20°C to +50°C	10% to 95% RH
H ₂	electrochemical	2000	-20°C to +50°C	10% to 95% RH
HCL	electrochemical	30,0 and 100	-20°C to +40°C	10% to 95% RH
HCN	electrochemical	10,0 and 30,0	-20°C to +40°C	10% to 95% RH
HF	electrochemical	10,0	-10°C to +30°C	10% to 95% RH
NH ₃	electrochemical	100	-20°C to +40°C	10% to 95% RH
		1000	-20°C to +40°C	10% to 95% RH
ETO/PRO	electrochemical	30,0	-20°C to +50°C	10% to 95% RH
O ₃	electrochemical	1,00	-10°C to +40°C	10% to 95% RH
PH ₃	electrochemical	1,00	-20°C to +40°C	10% to 95% RH
ClO ₂	electrochemical	3,00	-20°C to +50°C	10% to 95% RH
SiH ₄	electrochemical	50	-20°C to +40°C	10% to 95% RH
COCl ₂	electrochemical	3,0	-10°C to +40°C	10% to 95% RH
AsH ₃	electrochemical	1,00	-10°C to +40°C	20% to 95% RH
CH ₄	catharometre	0-100%vol	-20°C to +50°C	10% to 95% RH
H ₂	catharometre	0-100%vol	-20°C to +50°C	10% to 95% RH
NH ₃	catalytic	0-5000	-20°C to +50°C	10% to 95% RH
Flammable gas	catalytic	0-100% LIE	-20°C to +70°C -20°C to 200°C	10% to 95% RH 10% to 95% RH

* temperature at 20°C and at Atmospheric Pressure

Gases	SI	ADF
O ₂	YES	YES
CO	YES	YES
H ₂ S	YES	YES
NO	YES	YES
NO ₂	YES	NO
SO ₂	YES	NO
Cl ₂	YES	NO
H ₂	YES	YES
HCL	YES	NO
HCN	YES	NO
NH ₃	YES	YES
ETO/PRO	YES	NO
O ₃	YES	NO
PH ₃	YES	NO
AsH ₃	YES	NO
ClO ₂	YES	NO
COCl ₂	YES	NO
SiH ₄	YES	NO
HF	YES	NO

Pressure uncondensed	Accuracy at full scale	Life span (at atmospheric pressure)	T (50) (in month)	IP
Atm +/- 10%	from 5 à 30% = 0,4%vol	28	6	66
Atm +/- 10%	+/- 2 ppm (range 0-100)	48	10	66
Atm +/- 10%	+/- 1,5 ppm (between 0-30 ppm)	48	15	66
Atm +/- 10%	+/- 2 ppm (range 0-100)	36	15	66
Atm +/- 10%	+/- 0,8 ppm	26	20	66
Atm +/- 10%	+/- 0,7 ppm range 0-10	36	15	66
Atm +/- 10%	+/- 0,5 ppm	26	50	66
Atm +/- 10%	+/-5 ppm range 0-100	26	50	66
Atm +/- 10%	+/- 0,5 ppm range 0-10	26	50	66
Atm +/- 10%	+/- 0,3 ppm range 0-10	26	40	66
Atm +/- 10%	+/- 0,5 ppm	20	50	66
Atm +/- 10%	+/- 5 ppm	26	50	66
Atm +/- 10%	+/- 10 ppm range 0-1000	26	50	66
Atm +/- 10%	+/- 1 ppm	36	50	66
Atm +/- 10%	+/-0,05 ppm	20	50	66
Atm +/- 10%	+/- 0,05 ppm	20	40	66
Atm +/- 10%	+/- 0,3 ppm	26	50	66
Atm +/- 10%	+/- 1 ppm	20	40	66
Atm +/- 10%	+/- 0,05 ppm	20	50	66
Atm +/- 10%	+/- 0,05 ppm	26	40	66
Atm +/- 10%	1% vol	60	5	66
Atm +/- 10%	1 % vol	60	5	66
Atm +/- 10%	100 ppm	36	8	66
Atm +/- 10%	1 % IIE between 0- 60 %LIE	60	5	66
Atm +/- 10%	1 % IIE between 0- 60 %LIE	60	5	66

Transmitter cell unit OLCT 20

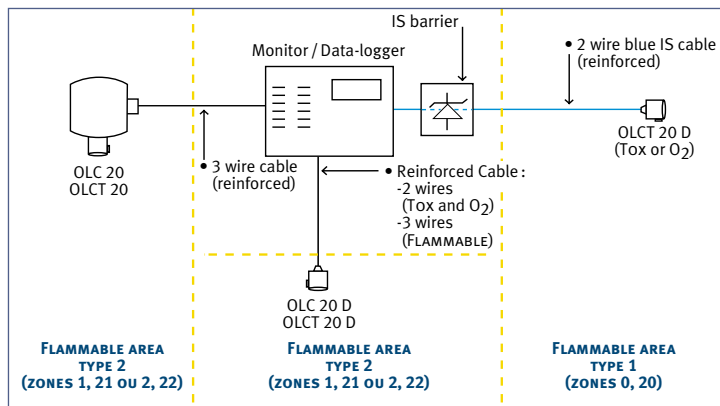
The OLCT 20 cell units, which are fitted with precalibrated cells (explosimetric, toxic or oxygen type), are classified as flameproof or intrinsic safety according to your needs or the gases detected.

As in the case of the OLC 20, they are fitted on the housing by a M25 or 3/4" NPT thread.

Detector-transmitter OLCT 20D

Based on the OLCT 20 cell unit, the OLCT 20D detector-transmitter is equipped with a 15 m long cable (standard version) and a packing gland for direct connection to a data-logger.

Wiring connection depending on the type of area



OLCT 20



OLCT 20D

New generation : new advantages

The cell units of 316L stainless steel provide robustness and resistance to corrosive agents.

Classified IP 66, they are resistant to dust and water ingress.

The precalibrated cells of the OLCT 20 and OLCT 20D are disconnected by turning the head of the unit.

These cells, which are equipped with a printed circuit, can be calibrated, on an autonomous bench, outside hazardous areas.

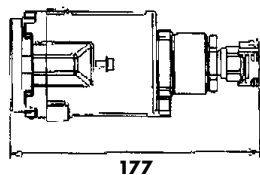
Accessories

1. Tool kit
2. Gas input device :
 - standard model : O₂ , CO, H₂S, NO, H₂
 - model for special gases : NO₂, SO₂, Cl₂, HCl, HCN, HF, NH₃, ETO, O₃, ClO₂, PH₃
3. Gas circulation head for explosive gases, CO, H₂S, O₂
4. Anti-splash device
5. Remote gas injection device
6. PTFE protective filter/ Activated carbon filter (additional protection of the cell)
7. Gas collectors
8. Pitot tube
9. Remote fastening device

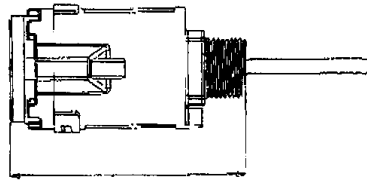


Technical characteristics

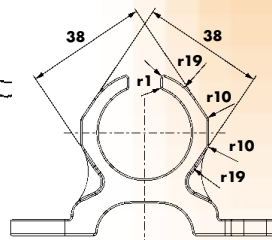
Detectors	OLCT 20		OLCT 20D		OLC 20	OLC 20D
Manufacturer	• OLDHAM SA		• OLDHAM SA		• OLDHAM SA	• OLDHAM SA
Type	• Flameproof transmitter	• IS transmitter	• Flameproof remote transmitter	• IS remote transmitter	• Flameproof detector	• Flameproof remote detector
Gas detection principle	• Catalytic / chemical	• Chemical	• Catalytic / chemical	• Chemical	• Catalytic	• Catalytic
Detected gases	• Flammable, toxics and oxygen	• Toxics and oxygen	• Flammable, toxics and oxygen	• Toxics and oxygen	• Flammable	• Flammable
Cell range and characteristics	See inside the brochure					
Cell material	• INOX 316 L		• INOX 316 L		• INOX 316 L	• INOX 316 L
Precalibrated sensor	yes	yes	yes	yes	no	no
Power supply at the detector	• 15 to 30 VDC (catalytic) • 15 to 30 VDC (chemical)	• 10 to 26 VDC	• 15 to 30 VDC (catalytic) • 15 to 30 VDC (chemical)	• 10 to 26 VDC	• Depending on the detector	• Depending on the detector
Maximum power consumption	• 100 mA (catalytic) • 25 mA (chemical)	• 25 mA	• 100 mA (catalytic) • 25 mA (chemical)	• 25 mA	• Depending on the detector	• Depending on the detector
Output signal	• 4-20 mA	• 4-20 mA	• 4-20 mA	• 4-20 mA	• Wheatstone bridge	• Wheatstone bridge
Load impedance	• 250 Ω (catalytic) • Depending on power supply (chemical)	• 47 Ω max	• 250 Ω (catalytic) • Depending on power supply (chemical)	• 47 Ω max	• Not applicable	• Not applicable
Wiring	• 3 reinforced wires (catalytic) • 2 reinforced wires (chemical)	• 2 reinforced wires	• 3 reinforced wires (catalytic) • 2 reinforced wires (chemical)	• 2 reinforced wires	• 3 reinforced wires	• 3 reinforced wires
Loop impedance with OLDHAM monitor	• 32 Ω (catalytic) (1 km with 1,5 mm ²) • 128 Ω (chemical) (4 km with 1,5 mm ²)	• 32 Ω (1 km with 1,5 mm ²)	• 32 Ω (catalytic) (1 km with 1,5 mm ²) • 128 Ω (chemical) (4 km with 1,5 mm ²)	• 32 Ω (1 km with 1,5 mm ²)	• 32 Ω (catalytic) (1 km with 1,5 mm ²)	• 32 Ω (catalytic) (1 km with 1,5 mm ²)
Wiring connexion	Delivered with a 6mm-diameter cable					
Fastening	• M25 thread to screw or 3/4" NPT	• M25 thread to screw or 3/4" NPT	• With a stirrup	• With a stirrup	• M25 thread to screw or 3/4" NPT	• With a stirrup
Ingress protection	• IP 66	• IP 66	• IP 66	• IP 66	• IP 66	• IP 66
Certification	• EEx d IIC T6 • II 2 GD • INERIS 01 ATEX 0004X	• EEx ia IIC T4 • II 1 GD • INERIS 01 ATEX 0004X	• EEx d IIC T6 • II 2 GD • INERIS 01 ATEX 0004X	• EEx ia IIC T4 • II 1 GD • INERIS 01 ATEX 0004X	• EEx d IIC T6 • II 2 GD • INERIS 01 ATEX 0004X	• EEx d IIC T6 • II 2 GD • INERIS 01 ATEX 0004X
CEM mark	• EN 50270	• EN 50270	• EN 50270	• EN 50270	• EN 50270	• EN 50270
Weight	• 800 gr		• 800 gr		• 800 gr	• 800 gr
Dimensions	• L 130 x D 60	• L 130 x D 60	• L 177 x D 60	• L 177 x D 60	• L 130 x D 60	• L 177 x D 60
Operating temperature (for electronic)	• -25°C to +60°C	• -25°C to +60°C	• -25°C to +60°C	• -25°C to +60°C	• -25°C to +70°C • -25°C to +200°C in HT version	• -25°C to +70°C • -25°C to +200°C in HT version



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Series 20



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