

Detectors-transmitters for flammable and toxic gases and oxygen

SERIES 50

Approval : IS or FLP

Pre-calibrated cell unit

Resistant
to corrosive agents

IP 66



CE Ex

OLDHAM
Group

Gas detection / stack gas monitoring



Let's secure your safety together

Together we will make your operations safe. In order to do this, it is essential to monitor the levels of gas in the atmosphere to avoid asphyxia, poisoning or explosions.

OLDHAM has developed the OLC 50 series, a new generation of high quality gas detectors designed for assemblers and other industries to cater for all detection requirements at an excellent price.

OLC 50 detectors

OLC 50 detector

The casing, which is made of alloy AS7 606 is covered with polyester epoxy paint (stainless-steel is also an option), is robust and resistance to corrosive agents. The OLC 50 detectors are practical and easy to use. The flammable cells are insensitive to poisons. Quick response times and reliable information.

OLC 50D detector

Based on the OLC 50 detector-transmitter, the OLC 50D allows the cell unit to be used in remote mode.

The detector is equipped with a 15 metre long cable (standard) and a packing gland for direct connection to a data logger to allow for detection in seemingly inaccessible locations.



OLC 50



OLC 50D



Sensor specifications

Gases	Type of sensor	Range (ppm)	Operating temperature	Relative humidity uncondensed
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	-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	-10°C to +30°C	10% to 95% RH
NH ₃	electrochemical	100 1000	-20°C to +40°C -20°C to +40°C	10% to 95% RH 10% to 95% RH
ETO/PRO	electrochemical	30	-20°C to +50°C	10% to 95% RH
O ₃	electrochemical	1	-10°C to +40°C	10% to 95% RH
PH ₃	electrochemical	1	-20°C to +40°C	10% to 95% RH
ClO ₂	electrochemical	3	-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	-10°C to +40°C	10% to 95% RH
AsH ₃	electrochemical	1	-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% LEL	-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	Type of sensor	Range (ppm)
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	Accuracy at full scale (at atmospheric pressure)	Life span (in month)	T (50)	IP
Atm +/- 10%	from 5 to 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 % LEL between 0- 60 % LEL	60	5	66
Atm +/- 10%	1 % LEL between 0- 60 % LEL	60	5	66

OLCT 50 transmitters

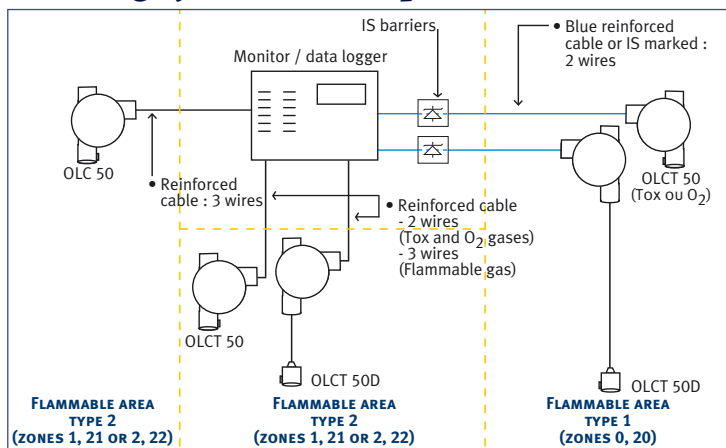
OLCT 50 transmitter

The casing of the new generation OLCT 50 transmitters is especially resistant to external contaminants. These transmitters are practical and easy to use. Their pre-calibrated cells carry "FLP" or "IS" approval (depending to which gases they detect).

OLCT 50D transmitter

Based on the OLCT 50, the OLCT 50D allows the cell to be used in remote mode. The detector is equipped with a 15 metre long cable (standard) and a packing gland for direct connection to a data logger to allow for detection in seemingly inaccessible locations.

Drawing of connections per zone



OLCT 50

New generation : new advantages

The cells, which are made of 316L stainless steel, are robust and resistance to corrosive agents. Certified IP 66, OLC 50 and OLCT 50 series are tightly sealed to avoid contamination from dust and liquid splashes. Pre-calibrated cells of the OLCT 50 and OLCT 50D can be disconnected by simply turning the head of the unit. The cells, which are equipped with a printed circuit, can be calibrated outside hazardous areas on a bench.

Accessories

1. Tool kit
2. Gas input device :
 - standard model : EXPLO, O₂, CO, H₂S, NO, H₂
 - model for special gases : NO₂, SO₂, Cl₂, HCl, HCN, HF, NH₃, ETO, O₃, ClO₂, PH₃, AsH₃, SiH₄...
3. Gas circulation head for explosive gases, CO, H₂S, O₂
4. Splash guard
5. Remote gas introduction head
6. PTFE protective filter/ Activated carbon filter
7. Fastening
8. Gas collectors
9. Pitot tube
10. Fixing kit for remote cell block



Technical characteristics

Detectors	OLCT 50		OLCT 50D		OLC 50	OLC 50D
Manufacturer	• OLDHAM SA		• OLDHAM SA		• OLDHAM SA	• OLDHAM SA
Type	• Flameproof transmitter	• IS transmitter	• Flameproof transmitter	• IS remote transmitter	• Flameproof detector	• Remote Flameproof detector
Gas detection principle	• Catalytic / chemical	• Chemical	• Catalytic / chemical	• Electrochemical	• Catalytic	• Catalytic
Detected gases	• Flammable and toxic gases, oxygen	• Toxic and oxygen	• Flammable and toxic gases, oxygen	• Toxic and oxygen	• Flammable gases	• Flammable gases
Cell range	See inside the brochure					
Casing	• Alloy AS7 606 - epoxy polyester paint					
Cell material	• INOX 316 L					
Pre-calibrated sensor	yes	yes	yes	yes	no	no
Power supply at the detector	• 15 to 30 VDC (catalytic) • 10 to 30 VDC (chemical)	• 10 to 26 VDC	• 15 to 30 VDC (catalytic)	• 10 to 26 VDC • 10 to 30 VDC (chemical)	• 2,7 VDC max	• 2,7 VDC max
Maximum power consumption	• 100 mA (catalytic) • 25 mA (chemical)	• 25 mA	• 100 mA (catalytic)	• 25 mA • 25 mA (chemical)	• 350 mA max	• 350 mA max
Output signal	• 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)	• 47 Ω max • Depending on power supply (chemical)	• Not applicable	• Not applicable
Wiring	• 3 reinforced wires (catalytic) • 2 reinforced wires (chemical)	• 2 reinforced wires	• 3 reinforced wires	• 2 reinforced wires (catalytic) • 2 reinforced wires (chemical)	• 3 reinforced wires	• 3 reinforced wires
Loop impedance with OLDHAM monitor	• 32 Ω (catalytic) (1 km in 1,5 mm ²) • 128 Ω (chemical) (4 km in 1,5 mm ²)	• 32 Ω (catalytic) (1 km in 1,5 mm ²)	• 32 Ω (catalytic) (1 km in 1,5 mm ²) • 128 Ω (chemical) (4 km in 1,5 mm ²)	• 32 Ω (catalytic) (1 km in 1,5 mm ²)	• 32 Ω (catalytic) (1 km in 1,5 mm ²)	• 32 Ω (catalytic) (1 km in 1,5 mm ²)
Wiring connexion	• Gland - cable 2 to 12 mm (standard)					
Fastening	• 2 x 7 mm holes					
Ingress protection	• IP 66					
Certification	• EEx d IIC T6 • ATEX II 2 GD • INERIS 01ATEX0027X	• EEx ia IIC T4 • ATEX II 1 GD • INERIS 01ATEX0027X	• EEx d IIC T6 • ATEX II 2 GD • INERIS 01ATEX0027X	• EEx ia IIC T4 • ATEX II 1 GD • INERIS 01ATEX0027X	• EEx d IIC T6 • ATEX II 2 GD • INERIS 01ATEX0027X	• EEx d IIC T6 • ATEX II 2 GD • INERIS 01ATEX0027X
CEM mark	• EN 50270	• EN 50270	• EN 50270	• EN 50270	• EN 50270	• EN 50270
Weight	• 1,9 kg		• 1,1 kg (casing)		• 1,1 kg	• 1,1 kg
Dimensions	• L 154 x l 233 x H 121	• L 154 x l 233 x H 121	• L 154 x l 170 x H 121	• L 154 x l 170 x H 121	• L 154 x l 160 x H 121	• L 154 x l 170 x H 121
Operating temperature	• -25°C to +60°C		• -25°C to +60°C		• -25°C to +70°C • -25°C to +200°C in HT version	

Guaranteed 2 years except consumables (cells, filters)



SERIES 50

OLDHAM

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