

# Series 20

Detectors-Transmitters for Flammable, Toxic Gases and Oxygen

- Intrinsically Safe (IS) and XP approved
- Small in size
- Resistant to corrosion
- Pre-calibrated sensor unit



OLC 20



OLC 20 D

The OLC(T) 20 Series of gas detectors are designed for indoor or outdoor facility monitoring and other applications to accommodate your gas detection requirements at a reasonable price.

## OLC 20 Detector

The new generation of OLC 20 combustible sensors are 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 20D Detector

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

## New Generation: New Advantages

The stainless steel detector provides protection and resistance to corrosive agents. Classified IP 66, they are resistant to dust and water ingress. The pre-calibrated sensors of the OLCT 20 and OLCT 20D can be disconnected by turning the head of the unit. These "smart" sensors can be calibrated on a work bench, outside hazardous areas.

# Series 20

SENSOR SP

Gases	Type of sensor	Range (ppm)	Operating temperature*	Relative humidity uncondensed
O <sub>2</sub>	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 <sub>2</sub> 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 <sub>2</sub>	electrochemical	10 and 30,0	-20°C to +50°C	10% to 95% RH
SO <sub>2</sub>	electrochemical	10,0 30,0 and 100	-10°C to +50°C	10% to 95% RH
Cl <sub>2</sub>	electrochemical	10,0	-20°C to +50°C	10% to 95% RH
H <sub>2</sub>	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
NH <sub>3</sub>	electrochemical	100 1000	-20°C to +40°C -20°C to +40°C	10% to 95% RH 10% to 95% RH
O <sub>3</sub>	electrochemical	1,00	-10°C to +40°C	10% to 95% RH
PH <sub>3</sub>	electrochemical	1,00	-20°C to +40°C	10% to 95% RH
ClO <sub>2</sub>	electrochemical	3,00	-20°C to +50°C	10% to 95% RH
SiH <sub>4</sub>	electrochemical	50	-20°C to +40°C	10% to 95% RH
AsH <sub>3</sub>	electrochemical	1,00	-10°C to +40°C	20% to 95% RH
CH <sub>4</sub>	catharometer	0-100%vol	-20°C to +50°C	10% to 95% RH
H <sub>2</sub>	catharometer	0-100%vol	-20°C to +50°C	10% to 95% RH
NH <sub>3</sub>	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

## Transmitter Sensor Unit OLCT 20

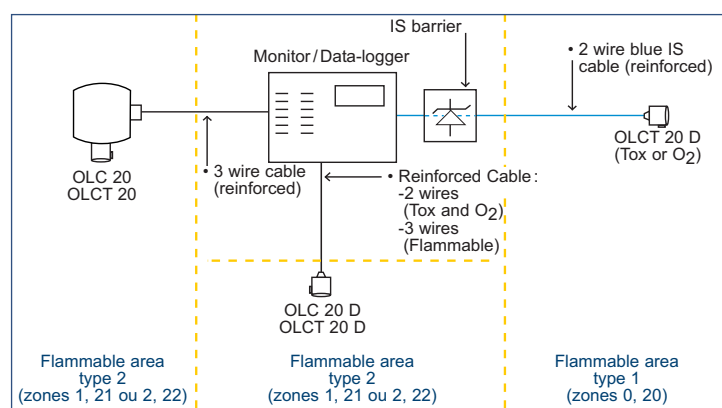
The OLCT 20 sensor units, which are equipped with pre-calibrated sensors (flammable, toxic or oxygen), are classified as flameproof or intrinsically safety according to your needs or the gases detected.

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 sensor 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



## SPECIFICATIONS

Pressure	Accuracy at full scale (at atmospheric pressure)	Life span (in month)	T (50)	IP	IS	AD
Atm +/- 10%	from 5 à 30% = 0,4%vol	28	6	66	YES	YES
Atm +/- 10%	+/- 2 ppm (range 0-100)	48	10	66	YES	YES
Atm +/- 10%	+/- 1,5 ppm (between 0-30 ppm)	48	15	66	YES	YES
Atm +/- 10%	+/- 2 ppm (range 0-100)	36	15	66	YES	YES
Atm +/- 10%	+/- 0,8 ppm	26	20	66	YES	NO
Atm +/- 10%	+/- 0,7 ppm range 0-10	36	15	66	YES	NO
Atm +/- 10%	+/- 0,5 ppm	26	50	66	YES	NO
Atm +/- 10%	+/-5 ppm range 0-100	26	50	66	YES	YES
Atm +/- 10%	+/- 0,5 ppm range 0-10	26	50	66	YES	NO
Atm +/- 10%	+/- 0,3 ppm range 0-10	26	40	66	YES	NO
Atm +/- 10%	+/- 5 ppm	26	50	66	YES	YES
Atm +/- 10%	+/- 10 ppm range 0-1000	26	50	66	YES	YES
Atm +/- 10%	+/-0,05 ppm	20	50	66	YES	NO
Atm +/- 10%	+/- 0,05 ppm	20	40	66	YES	NO
Atm +/- 10%	+/- 0,3 ppm	26	50	66	YES	NO
Atm +/- 10%	+/- 1 ppm	20	40	66	YES	NO
Atm +/- 10%	+/- 0,05 ppm	26	40	66	YES	NO
Atm +/- 10%	1% vol	60	5	66		
Atm +/- 10%	1% vol	60	5	66	YES	YES
Atm +/- 10%	100 ppm	36	8	66	YES	YES
Atm +/- 10%	1% LEL between 0- 60% LEL	60	5	66		
Atm +/- 10%	1% LEL between 0- 60% LEL	60	5	66		

1. Tool kit

2. Calibration cup:

- standard model: O<sub>2</sub>, CO, H<sub>2</sub>S, NO, H<sub>2</sub>
- model for special gases: NO<sub>2</sub>, SO<sub>2</sub>, Cl<sub>2</sub>, HCl, HCN, NH<sub>3</sub>, O<sub>3</sub>, ClO<sub>2</sub>, PH<sub>3</sub>

3. Bypass adapter for combustible gases, CO, H<sub>2</sub>S, O<sub>2</sub>

4. Splash guard

5. Remote gas injection device

6. PTFE protective filter/ Activated carbon filter  
(additional protection of the cell)

7. Gas collectors

8. Pitot tube

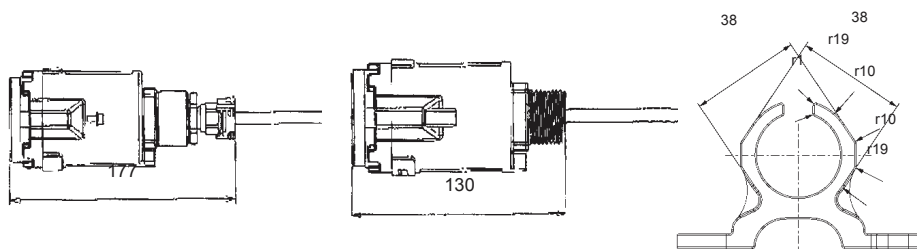
9. Remote mounting bracket



# Series 20

## SPECIFICATIONS

Detectors	OLCT 20		OLCT 20D		OLC 20	OLC 20D
	Type	IS transmitter	XP remote transmitter	IS remote transmitter	XP detector	XP remote detector
Gas detection principle	Catalytic/ Electrochemical	Electrochemical	Catalytic/ Electrochemical	Catalytic	Catalytic	Catalytic
Detected gases	Flammable, toxics and oxygen	Toxics and oxygen	Flammable, toxics and oxygen	Toxics and oxygen	Flammable	Flammable
Measuring range	See chart inside					
Sensor housing	Stainless steel type 316 L		Stainless steel type 316 L		Stainless steel type 316 L	
Pre-calibrated 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 on the detector	Depending on the detector	Depending
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 ISC monitor	32 Ω (catalytic) (1 km with 1,5 mm <sup>2</sup> ) 128 Ω (chemical) (4 km with 1,5 mm <sup>2</sup> )	32 Ω (1 km with 1,5 mm <sup>2</sup> )	32 Ω (catalytic) (1 km with 1,5 mm <sup>2</sup> ) 128 Ω (chemical) (4 km with 1,5 mm <sup>2</sup> )	32 Ω (1 km with 1,5 mm <sup>2</sup> )	32 Ω (catalytic) (1 km with 1,5 mm <sup>2</sup> )	32 Ω (catalytic) (1 km with 1,5 mm <sup>2</sup> )
Wiring connection	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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