

OXF 2011

Portable Dissolved Oxygen Analyser

Portable analyser for on-line and continuous measurement of dissolved oxygen.

HIGHER PERFORMANCES

Relative error : $< \pm 5\%$ or $\pm 0,5 \mu\text{g/l}$

Stability (1 day) : $\pm 0,5\%$

Repeatability : $< \pm 5\%$

OPERATION PRINCIPLE

The measurement principle of the oxygen analyser is based on the use of a specific electro-chemical sensor (type HERSCH pile). The current delivered by the sensor is directly proportional to the oxygen concentration.

Thanks to its measurement principle linked to “the absence of potential difference between the electrodes”:

- The sensor is naturally independent of interfering elements present in boiler waters conditioning (complexants, re-decomposition products, hydrazine, dissolved H_2).
- The power delivered by the sensor is nil without oxygen.

Thanks to the oxygen sensor operating, the semi-automatic calibration is realized in ambient air and with a single measurement.

Temperature and pressure sensors ensure the necessary compensations.

LOWER COSTS

No conditioning products

No management and standard solutions use

Simplified and robust hydraulic circuit

ERGONOMICS

Measurement display and clear dialogue on a large-sized screen :

- dissolved oxygen
- temperature of sample
- sample flow
- atmospheric pressure



Main characteristics

MEASUREMENT RANGE : 0,1 à 20mg/l

SIMPLICITY AND ROBUSTNESS

SEMI-AUTOMATIC CALIBRATION

USER-FRIENDLY

FLOW FREE MEASUREMENT

AUTONOMY > TO 60 H

COMPACT

SENSOR COMPLIANT WITH CITA 2021



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Technical specifications

Display range	1	2
Measurement O ₂	0 – 999,9 µg/l	1,000 – 20,000 mg/l
Resolution	0,1 µg/l	0,001 mg/l
Precision	≤ 5% of the measure or +/- 0.5µg/l	+/- 5% of the measure
Response time (90% of signal)	< 30s	< 30s

Additional measurements	Range	Precision	Display resolution
Temperature	0 – 100°C	< +/- 1 % of the measure	0,1°C
Flow	2 – 60 l/h	< +/- 10 % of the measure	0,1 l/h
Atmospheric pressure	500 – 1100 mbar	< +/- 0,5 % of the measure	1 mbar

Use conditions

Sample characteristics

Temperature	5°C to 60°C
Pressure	0,9 to 20 absolute bar
Flow	10 to 50 l/h

Environment

Hydraulic connectors (modifiable standard application)	At input : connection for rigid or semi-rigid join Øext. 6mm At output : ¼ F Gaz
Operating temperature	5°C to 45°C
Watertight unit	IP 65

Outputs

Oxygen measurement	
Voltage output	0 – 1,999 V for 0 – 100 % of the selected range Precision : +/- 5mV
Power output	0 – 20 mA or 4 – 20 mA for 0 – 100 % of the selected range Max. charge 200Ω Precision : +/- 0,05mA
Alarms	2 assignable thresholds (oxygen) 2 relays (commutation voltage max. 250V _{AC} , Permanent power : max. : 1A, Commutation power max. : 1A, Breaking power max. : 30W continuously, 60VA in adjustable alternative

Electrical power supply

Alternating power	110 / 230 V _{AC} +/- 15 %, 47 / 63 Hz - ≤ 20 VA Protection by fuse at rear face, Protection and anti-interference filters built-in sector.
Direct voltage	12 to 16 V external continuous

Battery

Built-in battery	60-hour endurance without display unit lighting and without alarms 20 days in stand-by mode
Built-in charger	Charge lifetime < 8 h

Physical characteristics

Dimensions	260 x 180 x 160 mm
Weight	< 2 kg



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