

OPTICAL OXYGEN SENSOR DO-1

The optical oxygen sensor is designed for measurements of concentration of oxygen dissolved in liquid. It has several advantages in comparison with membrane, galvanic sensors.

Characteristic features

- Immediate readiness for work.
- No electrolyte.
- Does not use up the oxygen.
- Does not require flow of the measured liquid.
- Fast reaction time.
- In case of standard measurements calibration is practically unnecessary.
- Resistant to optical and chemical interference.
- Long-lasting work without changing the luminescent cap (8000 h).
- In case of lack of activity the luminescent cap does not wear up.
- Practically maintenance-free.

The sensor cooperates exclusively with **CO-404** meter adjusted to optical measurements.



Operation

The sensor works basing on changes of activity of the fluorescent dye, which covers the replaceable luminescent cap. The fluorescence reduction affected by light is dependent on oxygen concentration in the tested liquid. The higher concentration, the faster fluorescence reduction. This dependence is calculated with use of an appropriate formula. **DO-1** is equipped with built-in temperature sensor used for automatic temperature compensation.

Accessories

The sensor is equipped with a calibration vessel used for calibration and storage in optimally humid environment.

Technical Data

Oxygen measurement	Range	0 ÷ 20 mg/l ; 0 ÷ 200 %
	Accuracy	± 0.30 mg/l
	Stabilisation time (t ₉₀)	20 s
	Offset	< 0.10 mg/
	Repeatability	< 0.15 mg/l
	Drift	5%/year
	Working time of the luminescent cap	≥8000 hours
Temperature measurement	Range	0 ÷ 50°C
	Accuracy	±0.5°C
Communication protocol		RS-485
Cable length		3 m
Sensor's dimensions		Φ = 16 mm, L= 105 mm

ELMETRON®

41- 814 ZABRZE ul. W. Witosa 10
tel. 32 273 81 06

info@elmetron.com.pl www.elmetron.pl