

Wide Range Oxygen Probe LDO VISI

(max. 0 - 100 % O₂)



The LDO VISI combine an optical sensor type and electro-optical module in one probe. The sensor has a maximum measurement range of 0 - 100 % O₂, and a detection limit of 0.03 % O₂ / 20 ppb. It is integrated in a removable sensor cap (OEC), which can easily be exchanged.

These exchange caps are available in different versions for certain demands (USP Class VI compatible, fast response time, safe for food applications, for measurements in aggressive environments, reduced air bubble formation). The wide range LDO VISI are ideally suited for application in the biotech sector. They are directly connected to the control unit and have a standard PG 13.5 stainless steel thread for easy integration at the measurement site. As a digital interface these probes use RS485 and have 4 - 20 mA analog output.

- Maximum measurement range of 0 - 100 % O₂, detection limit 0.03 % O₂
- Ideal for O₂ monitoring in the biotech sector
- Stands SIP (max. 140 °C, 1.5 atm) & CIP (2 % NaOH, + 80 °C)
- Simple integration due to standard PG 13.5 thread
- Communication via RS485

TECHNICAL

Specifications	Gaseous & Dissolved O ₂	Dissolved O ₂
Measurement range*	Optimal: 0 - 50 % O ₂ , 0 - 500 hPa Max.: 0 - 100 % O ₂ , 0 - 1000 hPa	Optimal: 0 - 22.5 mg/L Max.: 0 - 45 mg/L
Limit of detection	0.03 % O ₂ , 0.3 hPa	0.015 mg/L, 20 ppb
Resolution	1 ± 0.02 % O ₂ 20.9 ± 0.1 % O ₂	0.2 mg/L ± 0.009 mg/L 9 mg/L ± 0.04 mg/L
Response time (t ₉₀)	< 10 sec	< 40 sec.

Specifications	Gaseous & Dissolved O ₂	Dissolved O ₂
Properties		
Compatibility	Aqueous solutions, ethanol, methanol, cleaning agents containing ClO ₂ at room temperature	
No cross-sensitivity to	pH 1 - 14, CO ₂ , H ₂ S, SO ₂ , ionic species	
Cross-sensitivity	Organic solvents, such as pure acetone, toluene, chloroform or methylene chloride Chlorine gas	
Sterilization procedure	Steam sterilization (max. + 140 °C, 1.5 atm)	
Storage stability of sensor cap	5 years, provided the sensor is stored at room temperature in dry conditions and in the dark	
Sampling rate	1 sec. up to 9 min. 59 sec.	
Temperature sensor	NTC	
Temperature performance	Accuracy < ± 1 °C	
Power supply	7 - 30 V	
Power consumption in active mode	Max. 1 W	
Power consumption in stand-by mode	0.15 W	
Temperature range operation	Optimal: 0 °C to + 50 °C Max.: - 40 °C to + 90 °C	
Temperature range storage	Optimal: room temperature (+ 20 °C ± 5 °C) Max.: 0 °C to + 70 °C	
Pressure resistance	10 mbar up to 12 bar	
Dimensions	Max. immersion depth: 120 mm / 225 mm / 325 mm / 425 mm + 7 mm w PG 13.5 thread and VP8 connector: 55 mm Diameter: 12 mm	
Probe housing material	Stainless steel 1.4435	
Surface quality of steel	Ra < 0.4 µm (N5)	
Wetted part	Stainless steel 1.4435, silicone, EPDM	
Weight	100 g	
Digital interface	RS485, half-duplex	