



ProTrode DO sensor

Inline dissolved oxygen (DO) sensor

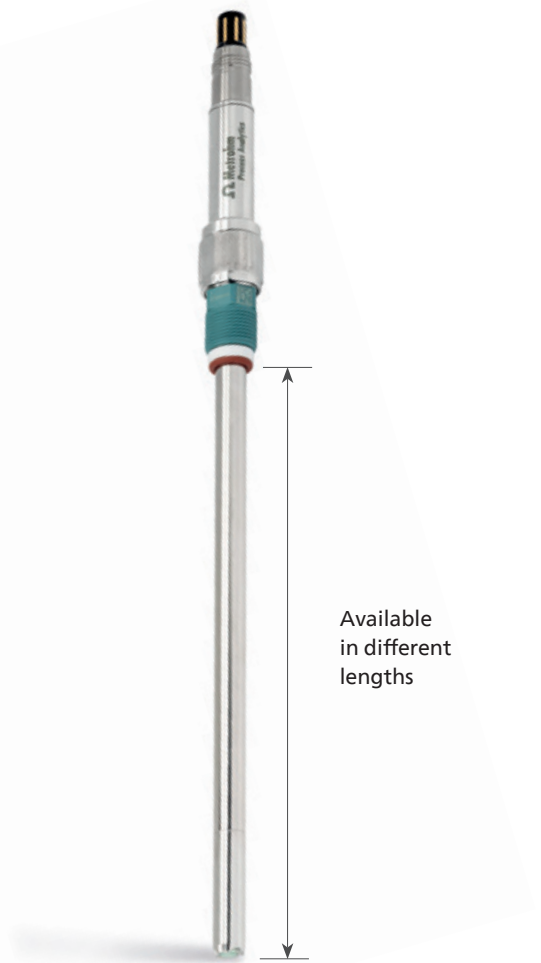
HIGHLIGHTS

- **Maintenance-free optical sensor**, no electrolyte replacement required
- **Supports CIP, SIP, and autoclaving**, suitable for hygienic and sterile environment
- **Improves batch consistency** by reducing process variability

Optimize your process by monitoring dissolved oxygen in «real-time»

Dissolved oxygen (DO) plays a vital role in aerobic biotechnological applications, particularly in fermentation and cell culture. Maintaining optimal oxygen levels is essential for supporting cell metabolism, ensuring consistent growth, and maximizing product yield.

The ProTrode DO sensor uses advanced optical technology to deliver accurate, real-time measurements of dissolved oxygen directly within the process stream. Unlike electrochemical sensors, ProTrode DO sensor is low-maintenance, eliminating the need for electrolyte replacement. Its robust design supports sterilization processes such as CIP (Clean-In-Place), SIP (Sterilize-In-Place), and autoclaving, making it ideal for demanding bioprocess environments.



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By continuously monitoring dissolved oxygen, the ProTrode sensor provides operators with the insights needed to tightly control oxygen levels throughout the production cycle. This reduces variability, improves batch consistency, and supports regulatory compliance, all while minimizing downtime and maintenance.

TECHNICAL SPECIFICATIONS

| | | |
|---------------------------------|---|-----------|
| Industry | Pharmaceuticals and biotechnology | |
| Measuring Range | 0 – 250 % air saturation 0 – 50 % O ₂ | |
| Membrane | Silicone | |
| Shaft material | Stainless steel (316S), Ra ≤ 0.4 | |
| Shaft diameter | 12 mm | |
| Temperature sensor | Pt100 | |
| Temperature range | 0 – 50 °C | |
| High temperature (autoclavable) | <20 min 121°C | |
| Pressure | 4 bar | |
| Sensor connector | VarioPin, PG 13.5 | |
| Min. immersion depth | 10 mm | |
| ATEX | No | |
| Output signal | Digital | |
| Min. immersion depth | 10 mm | |
| Length | 120 mm | 609332010 |
| | 220 mm | 609332020 |
| | Other lengths on request | |