## OXYTRANS INNOVATION

If required OXYTRANS can be supplied with a manual or pneumatic retractable unit made of electro-polished stainless steel. Equipped with an automatic safety lock while the sensor is removed, this is the perfect solution for all manufacturers who cannot stop production for maintaining the sensor. Also, this feature safely protects the optical window during cleaning of the plant – even with the most aggressive cleaning detergents. The retractable unit has two connections for optimum sterilization and a stroke of just 36 mm.

**Innovation. Dedication. Centec.**


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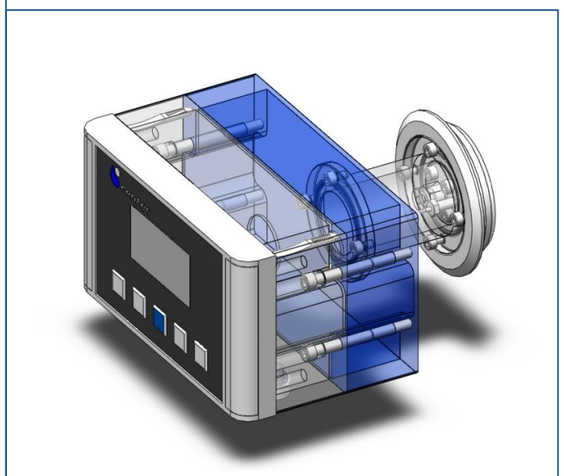
OXYTRANS

# Measurement of Oxygen Content

## Centec Process Sensors



More information at **www.centec.de**

Automated process skids and high precision sensors from a single source. Centec.

# OXYTRANS

## The Principle

OXYTRANS continuously measures the content of oxygen in liquids and gases. Designed for applications that require maximum sensitivity and high accuracy, this device is used in various industries all around the world. Breweries and soft drink manufacturers determine the $O_2$ content in deaerated water and beverages with OXYTRANS. Oxygen measurement during fermentation is an ideal application. Numerous power plants use the sensor to monitor oxygen levels in their boiler water. The state of the art optical measurement technology is based on the effect of luminescence quenching, i.e. the radiationless redistribution of excitation energy via a molecular interaction. An indicator layer on a small glass component ("optical window") installed in the measuring head is illuminated with blue-green-light. When the indicator molecules absorb the incident light they are promoted to a higher energy state. After a certain time they convert back to their ground state during which a detectable red light is emitted. If $O_2$ is present the energy is transferred from the indicator molecules to the oxygen. The detected signal decreases according to the oxygen content. OXYTRANS displays various units, e.g. ppb, ppm and % oxygen. The lightweight portable device is very robust and can easily be connected with hoses.


**OXYTRANS TR**
Transmitter Version


**OXYTRANS M**
Portable Version

The Centec production is certified according to ISO 9001.

- **Available as Transmitter and Portable Version with Local Display**
- **Highly Precise and Fast Measurement of $O_2$ in Liquids and Gases**
- **Optical Technology without Membrane and Electrolyte**
- **Short Response Time and Excellent Long-Term Stability**
- **Hygienic Execution and Full CIP Capability**
- **Easy Maintainable within a Few Minutes**
- **Outstanding Price-Performance-Ratio**

| Technical Data | **OXYTRANS TR** | **OXYTRANS M** |
|---|---|---|
| **Liquid Phase** Measuring Range | I) 1 ppb - 2 ppm or<br>II) 30 ppb - 50 ppm | I) 1 ppb - 2 ppm or<br>II) 30 ppb - 50 ppm |
| **Liquid Phase** Accuracy | I) ± 1 ppb or<br>II) ± 30 ppb | I) ± 1 ppb or<br>II) ± 30 ppb |
| **Gas Phase** Measuring Range | I) 0 - 4,2 % $O_2$ or<br>II) 0 - 50 % $O_2$ | I) 0 - 4,2 % $O_2$ or<br>II) 0 - 50 % $O_2$ |
| **Gas Phase** Accuracy | I) ± 0,002 % $O_2$<br>II) ± 0,03 % $O_2$ | I) ± 0,002 % $O_2$<br>II) ± 0,03 % $O_2$ |
| Response Time | T90 ≤ 10 s | T90 ≤ 10 s |
| Inlet Pressure | max. 12 bar | max. 12 bar |
| Temperature of Operation | - 5 - + 55 °C (option: + 98 °C)<br>resistance: max. + 130 °C | - 5 - + 55 °C (option: + 98 °C)<br>resistance: max. + 130 °C |
| Temperature Compensation | Pt100 | Pt100 |
| Material | 1.4404/AISI 304,<br>silicon (FDA), PTFE (FDA) | 1.4404/AISI 304,<br>silicon (FDA), PTFE (FDA) |
| Connections | Varivent© DN65 compatible<br>to inline housings DN40 - 150;<br>DIN; ANSI; others on request | hoses of 6 mm diameter |
| Interface (OXYTRANS TR)<br><br>Data Logger (OXYTRANS M) | input:<br>2 x digital (24 VDC)<br>output:<br>3 x digital (24 VDC) &<br>2 x analog (4 - 20 mA) | manual and automatic with<br>selectable intervals (5 - 600 s);<br>approx. 5.000 measured vales;<br>PC software and USB-interface<br>for data management |
| Profibus DP | option | - |
| Enclosure Rating | IP65 | IP65 |
| Power Supply | 24 VDC | battery, rechargeable |