OPTICAL OXYGEN MEASUREMENT

OXYTRANS TR

In-line O_2 Measurement in Liquids and Gases

OXYTRANS TR is an optical oxygen sensor for continuous O_2 measurement in deaerated water, wort, beer, beverages, liquid food products, CO_2 and inert gases.



In-line Measurement
Continuous measurement values directly from the process.

Liquid and Gas Phase
Two measuring ranges for both phases.

Optical Technology
No replacement of electrolyte or membrane.

Measuring Principle

Indicator molecules in the optical window are excited by blue-green light. Oxygen transfers the excitation energy and changes the detected signal. As the O_2 concentration increases, the signal decreases.

Applications

- Deaerated Water
- Wort
- Beer
- Beverages
- Liquid Food Products
- CO_2
- Inert Gases
- Product Line

OXYTRANS TR is designed for applications requiring maximum sensitivity and highest accuracy.

Technical Data

Technical data for the in-line version.

PARAMETER	OXYTRANS TR
Measuring Ranges, Liquid Phase	I) 1 ppb - 2 ppm II) 30 ppb - 35 ppm
Accuracies, Liquid Phase	I) ± 1 ppb II) ± 30 ppb
Measuring Ranges, Gas Phase	I) 0 - 4,2 % O_2 II) 0 - 50 % O_2 III) 0 - 0,02 % O_2
Accuracies, Gas Phase	I) ± 0,002 % O_2 II) ± 0,03 % O_2 III) ± 0,0002 % O_2
Range III Restriction	Gas phase and standard temperature range only
Response Time / Operating Pressure	t90 ≤ 10 s / max. 12 bar
Operating Temperature	-5 to +55 °C (Pt100); optional +98 °C
Material	1.4404 / AISI 316L, silicone (FDA), PTFE (FDA)
Input	1 x analog (4 - 20 mA) & 3 x digital (24 VDC)
Output / Fieldbus	2 x analog (4 - 20 mA) & 3 x digital (24 VDC) optional: PROFIBUS DP & PROFINET
Enclosure Rating / Supply	IP65 / 24 VDC

Optical Measurement
No replacement of electrolyte or membrane.

Short Response Time
t90 ≤ 10 s.

In-line Integration
Continuous measurement in the process.

Design & Integration

We support you with the project-specific selection and integration of the **OXYTRANS TR** - from measuring range and installation position to process connection and interfaces.

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