OPTICAL OXYGEN MEASUREMENT

OXYTRANS

Measure O_2 in Liquids and Gases

OXYTRANS measures O_2 in deaerated water, wort, beer, beverages, liquid food products, CO_2 and inert gases. OXYTRANS TR operates in-line; OXYTRANS M is portable. Both are available in High Accuracy and Eco versions.





OXYTRANS TR
Continuous in-line measurement in the process.

OXYTRANS M
Portable measurement at changing inspection points.

High Accuracy or Eco
Versions with different measuring ranges and accuracies.

Measuring Principle

The measuring head contains an optical window with indicator molecules. These are excited by blue-green light. Oxygen changes the detected signal; other gases do not affect the measurement result.

Applications

- Deaerated Water
- Wort
- Beer
- Beverages
- Liquid Food Products
- CO_2
- Inert Gases
- Process Inspection

The High Accuracy variants cover lower detection ranges. The Eco variants are documented in in-line and portable versions.

Technical Data

Shared measurement data and version-specific interfaces for OXYTRANS TR and M.

PARAMETER	OXYTRANS
High Accuracy / Liquid Phase	I) 1 ppb - 2 ppm / ± 1 ppb II) 30 ppb - 35 ppm / ± 30 ppb
High Accuracy / Gas Phase	I) 0 - 4,2 % O_2 / ± 0,002 % O_2 II) 0 - 50 % O_2 / ± 0,03 % O_2 III) 0 - 0,02 % O_2 / ± 0,0002 % O_2
Measuring Range III	Gas phase and standard temperature range only
Eco / Liquid Phase	I) 3 ppb - 2 ppm / ± 3 ppb II) 50 ppb - 35 ppm / ± 50 ppb
Eco / Gas Phase	I) 0 - 4,2 % O_2 / ± 0,006 % O_2 II) 0 - 50 % O_2 / ± 0,05 % O_2
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)
OXYTRANS TR Inputs/Outputs	Input: 1 x analog (4 - 20 mA) & 3 x digital (24 VDC) Output: 2 x analog (4 - 20 mA) & 3 x digital (24 VDC); optional PROFIBUS DP & PROFINET
OXYTRANS M Data Logging	manual / automatic, 5 - 600 s; approx. 5.000 measured values; PC software / USB
Enclosure Rating / Supply	IP65 / 24 VDC (TR) / rechargeable battery (M)

Low Measuring Ranges
Measurement down to the ppb range.

Short Response Time
t90 ≤ 10 s.

Long-Term Stability
Optical principle requiring no electrolyte replacement.

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

Centec GmbH
+49 6181 1878-0
info@centec.de
centec.de