STEAM BOILER FEEDWATER MONITORING

OXYGUARD

Continuously Measure O_2 and Adjust Chemical Dosing

OxyGUARD continuously measures the O_2 content of hot, thermally deaerated boiler feedwater in-line. Dosing of the chemical oxygen scavenger can be controlled according to demand based on the measured O_2 content.



Feedwater
Continuous in-line O_2 measurement instead of occasional spot samples.

Demand-Based Dosing
Oxygen scavenger control based on the measured value.

Measured Value Storage
Displayed measured values can be stored continuously.

Measuring Principle

The OXYTRANS TR-E oxygen monitoring sensor measures O_2 optically. An optical window containing indicator molecules is excited; oxygen changes the detected signal. Measurement requires no replacement of electrolyte or membrane.

Applications

- Hot Boiler Feedwater
- Thermal Deaeration
- Steam Boiler
- O_2 Scavenger
- Chemical Dosing
- Surface Blowdown
- Bottom Blowdown
- Corrosion Protection

Demand-based dosing is intended to reduce the energy losses associated with the usual surface and bottom blowdown losses of 3 - 5 %.

Technical Data

Technical data for selection and integration of the OxyGUARD version with OXYTRANS TR-E.

PARAMETER	OXYGUARD
Measuring Range, Liquid Phase	I) 1 ppb - 2 ppm
Accuracy, Liquid Phase	I) ± 1 ppb
Response Time	t90 ≤ 10 s
Operating Pressure	max. 12 bar
Operating Temperature	Standard -5 to +55 °C (Pt100) optional: max. +98 °C +98 to +110 °C: reduced accuracy
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	IP65
Power Supply	24 VDC

Optical Technology
No replacement of electrolyte or membrane.

Short Response Time
t90 ≤ 10 s and high long-term stability.

High Temperatures
Designed for applications at high temperatures.

Design & Integration

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

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