

O2-Analyzer - fast residual oxygen monitoring in feed water boilers -

O2-Analyzer provides detection and monitoring of rapid changes in residual oxygen concentrations in feed water boilers. Thus, the efficiency of the concrete degasser and its thermal effect can be controlled and manual measures for oxygen reduction and their effects can be tested.

O2-Analyzer is a very fast control system for the direct determination of the residual oxygen concentration in the boiler feed water. Continuous monitoring allows O2-Analyzer to react very dynamically to thermal changes and fillings and to work very efficiently. Constant overdosage of oxygen binders can be reduced, thus improving thickening in the boiler and reducing blowdown.

The rapid oxygen electrode integrated in the device allows direct oxygen monitoring, which enables optimal dosing of oxygen binding agents.

The measured values of the temperature-compensated residual oxygen content are shown in the display and saved with a time stamp in an electronic operating log of a data stick. These can be copied at any time for further evaluation by means of a data stick to an external PC and evaluated there. Furthermore, the measured data can be continuously output via a configurable 4..20 mA current loop or a LAN data interface.

Furthermore, a maximum residual oxygen threshold value and the threshold value overrun time can be parameterized by the user.

If both parameters are exceeded, the analyzer will trigger an alarm as long as these conditions are met.

This threshold alarm can be signaled externally by means of a potential-free contact.

The integrated sample cooling is monitored automatically and the measurements are stopped if a limit value temperature is exceeded.

The oxygen sensor can be manually calibrated at any time with calibration solutions. To do this, stop the continuous measurement and perform the manual calibration according to the prompt shown in the display.

The oxygen sensor is maintenance-free and must be replaced when determined exhaustion.

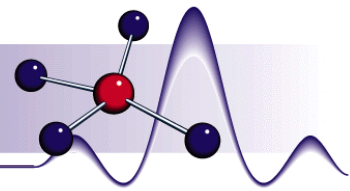
The use of amines as oxygen binders can lead to amine films on the sensor membrane, which can reduce or completely prevent the measurement of oxygen.

To that effect, the amine concentration in the sample flow should be very low. When using sodium sulfite as an oxygen binder there are no restrictions.

All alarms and calibrations are stored on the display and in the electronic logbook.

Thus, a high reliability of the overall system is secured and documented.





TECHNICAL DATA

| | |
|--------------------------------|--|
| Dimension in case: | 380 x 600 x 210 mm (W x H x D), wall mounted |
| Weight: | about 20 kg |
| Surrounding temperature: | 5 °C ... 50 °C |
| Relative humidity: | 20 % ... 80 % |
| Cooling water connection: | shut-off branch ½" internal thread |
| Cooling medium: | pressurized supplemental water, 1...10 bar, 5...20 °C |
| Hot and feed water connection: | shut-off branch ¼" internal thread with upstream hot water magnetic filter 100µm |
| Quality hot and feed water: | pressure afflicted, max. 10 bar, free of amines and sediments |
| Drainage: | pressure-free, PA pipes OD 15 mm and OD 8 mm |

OPERATING DATA

| | |
|--------------------------------|--|
| Oxygen measurement range: | 0,001 mg/l ... oxygen saturation (temperature compensated) |
| Measuring cycles: | continuously |
| Threshold value concentration: | parameterizable 10...100 µg/l dissolved oxygen |
| Threshold value duration: | parameterizable 1...100 minutes |
| Dosing chemical: | preferably sodium sulfite |
| Function control: | automatically |
| Operating time sensors: | about 12 months, without warranty |
| Signaling: | threshold alarm |

ELECTRICAL CONNECTIONS

| | |
|--------------------|--|
| Power supply: | power supply unit 230 Volt, 50 Hz (protection class I) |
| Operating voltage: | about 20 Watt |
| Alarm contacts: | potential-free changeover contact, max. 230 Volt, 10 A |
| Current loop: | 4..20 mA, max. 500 Ohm parameterizable |
| Optional: | LAN data interface |