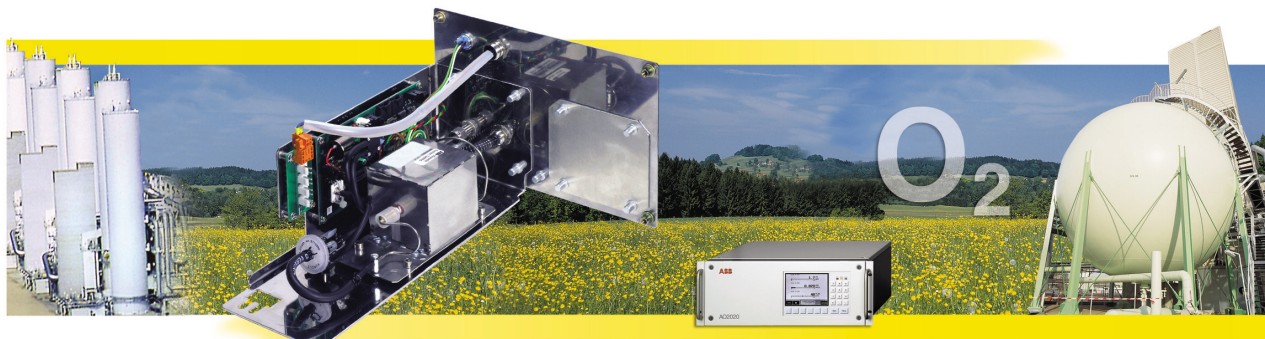


Oxygen Trace Analyzer AO2000-ZO23

Measuring oxygen traces in pure gases



The oxygen trace analyzer ZO23 measures the gas concentration with a zirconium dioxide measuring cell.

The measuring element consists of ceramics with a platinized surface, conducting oxygen ions at temperatures typically above 600 °C. The measuring cell is catalytically inactive.

The measuring method is especially advantageous to small measuring ranges of down to 1 ppm. This makes the analyzer particularly suitable for measuring oxygen in pure gases.

The method is also suitable if the sample gas contains small amounts of flammable components.

Gas conditioning can be dispensed with. For flow regulation, analyzers can be upgraded with each a pump and a flowmeter.

Calibration takes place manually or automatically. Calibration on a regular basis requires only one test gas.

The AO2000 central unit can hold and monitor two ZO23 analyzers.

The patented function test makes it possible to check the function of the measuring cell without using test gases, thus ensuring high availability.

Typical applications

- Measurement of oxygen purity, even with small amounts of flammable components
- Air separation plants
- Quality control in gas depots

Sample components

- O₂ in nitrogen or argon

Measuring ranges

- Minimal measuring range: 0...1 ppm
- Measuring ranges can be user set, factory setting: 0 – 1/10/100/1000 ppm

Measurement Principle

- Measurement of oxygen with catalytically inactive ZrO₂ cell
- Minor cross sensitivity effects against flammable components: < 20% of the O₂-amount at 5 ppm O₂ and 10 ppm H₂
- Repeatability < 1% span or 100 ppb (the greater value applies in each case)

Dynamic Response

- T₉₀ < 60 s when switching from sample to test gas

Calibration

- Manual or automatic calibration

Technical Data: Oxygen Trace Analyzer ZO23

Type	¼ 19", i. e., two ZO23 modules and one electronic module fit into one AO2000 system case	Operational life	Sensor > 12 months Pump > 12 months
Connection		Ambient temperature	5...45 °C
Inlet	3 mm Swagelok		
Outlet	1/8" NPT internal thread	Sample gas temperature	5...50 °C
Flow	typically 8 l/h ± 1 l/h Regulated internally or externally (pump and flowmeter optional)		

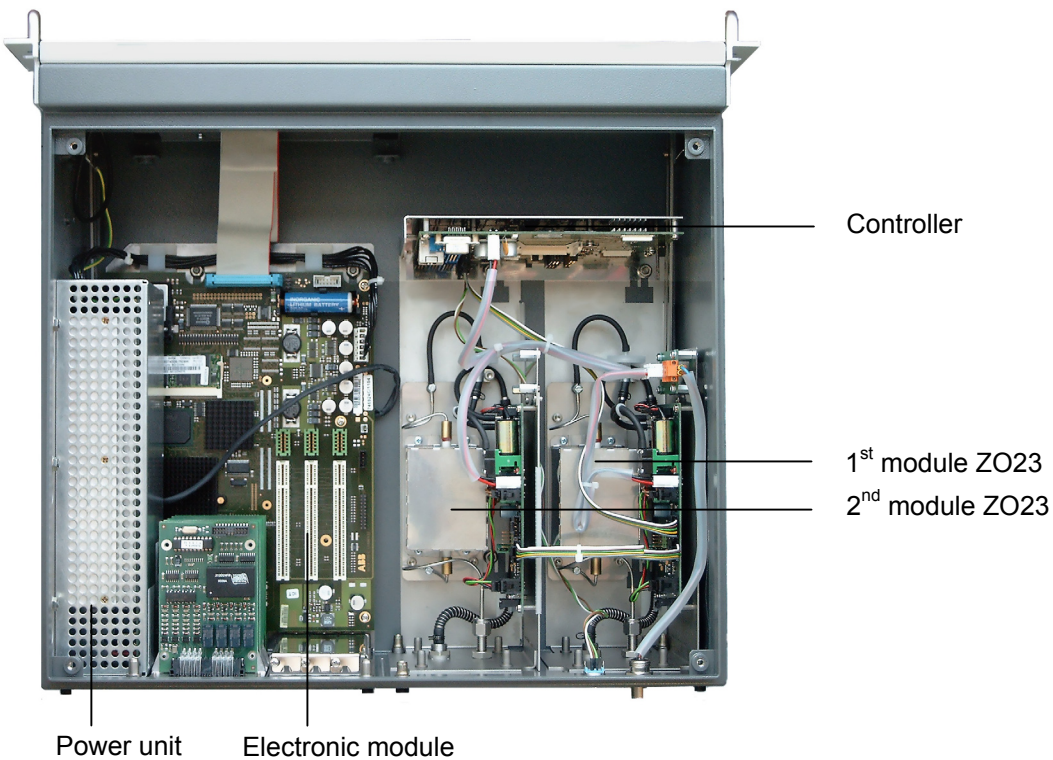


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