

SIRA

SIRA ROA Premix

Analysis of residual oxygen content after the combustion of fuel gas/air mixtures

ROA-Premix is an application of the stationary SIRA-Analyzer which determines residual oxygen content following the combustion of premixed fuel gas/air mixtures. The optimum combustion of premixed gases is important for achieving maximum energy efficiency, product quality and minimum pollutant emissions. The device uses a catalyzer for oxidation of the gas sample and a zirconium-sensor for determining the residual oxygen content.

This Sira ROA Premix application is characterized by very low gas flows for the actual measuring process using a special gas dosing and gas mixing unit. This increases the service life of the zirconium-sensor and the catalytic converter, thereby reducing maintenance costs.

The device also features auto-monitoring of all measuring components and a regulated bypass for fast responses.

Typical industries requiring this application are glass fiber manufacturers and user of glass melting tanks.

Sensors

Reproducibility	±0.1 % of the measured value
Flow volume of the sensor	2-3 l/h
Response time t_{90}	< 5 s.

Operating conditions

Operating temperature	5-50 °C
Humidity	non-condensing
Calibration gas suggestion	air and O ₂ in N ₂

The device is operated with a user-friendly 7-inch touch display. Supply voltages are 115 to 240 V AC at a frequency of 47-63 Hz. It can be easily integrated into existing systems thanks to various interface configurations. The gas connections are equipped with 6 mm compression fittings, which ensure a secure connection. In addition, the SIRA analyzers are supporting various communication protocols such as 4-20 mA, Modbus TCP, and Profibus.

