

## Exact Measurement of Residual Oxygen Content in Furnace Exhaust Gas



▲ **Dynamic oxygen measuring system MF010-O-LC**

The Technical Inspectorate of Southern Germany (TÜV Süd) has confirmed it: the MF010-O-LC dynamic oxygen measuring system from J. Dittrich Elektronik is the fail-safe way to determine the residual oxygen content in furnace exhaust gas. With the help of a coupled

controller the excess air specified for reasons of safety can be minimised and combustion in the furnace optimised, thereby increasing efficiency. In this way it is possible to compensate for fluctuations in the quality of fuels for modern wood firing.

Contrary to a lambda probe which measures the relative oxygen content, the extremely robust oxygen measuring system determines the absolute content, i. e. the oxygen partial pressure in the exhaust gas. For this reason, fluctuations in air pressure, humidity and temperature have no influence on the accuracy of the measurement.

The system is calibrated electrically, without reference gas and without additional personnel, in atmospheric air

at the end of the furnace's ventilation phase, thereby reducing maintenance work. This is made possible by a dynamic zirconium dioxide sensor and intelligent hardware. The measuring system monitors its own functions and reports hardware and software faults via a digital channel. There is also an analogue output (4-20 mA or 0-10 V). Measuring range is from 0.1 to 25 % by vol. oxygen at an exhaust gas temperature of up to +250 °C.

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