

Oxygen analyser Oxystem 1800

High temperature version



- In situ measurement directly in the gas duct
- Fast response
- No gas treatment required
- Easy operation



Application For monitoring combustion processes and controlling the furnace atmosphere at high temperatures, e.g. in industrial furnaces used in the ceramics or aluminium industry. Measurement directly in the gas with short response times.

Description The sensor of the probe is based on the principle of solid electrolytes (zirconium dioxide). The free oxygen ion movement begins at temperatures of more than 500 °C (solid electrolyte potentiometric method). The probe is heated by the gas atmosphere, it does not have its own heating. The oxygen concentration is calculated from the cell voltage and the temperature according to Nernst's law. The analyser consists of two components, the probe and the control unit. The probe is mounted horizontally or suspended vertically (at temperatures of more than 1,200 °C). The control unit and the probe are connected by means of a two-wire shielded cable and a shielded temperature compensation lead, type S (Pt/PtRh10). The maximum length is 20 m. Operation via keypad and display. The display shows the current oxygen concentration in % or ppm and the temperature of the measuring cell. The ranges automatically switch from % by volume to ppm and to e xx % O₂ by volume.

Technical specifications

Operating temperature range

Medium: +700/+1,450 °C
Ambient: +5/+50 °C (control units)
-15/+70 °C (probe)

Permissible reference gas throughput

Not required, in special cases 0.5 to 5 l/h

Supply voltage

AC 42 V (probe)
AC 110–230 V, 50–60 Hz (control unit)

Power input

160 VA (probe)
20 VA (control unit)

Analogue output

0–20 mA or 4–20 mA
(selectable)

Switching outputs

Relay contacts: 3 voltage-free changeover contacts
Contact rating: 0.5 A

Display

Four-line, alphanumerical LC display (temperature, oxygen concentration % by vol.). Measuring range can be selected as required between 21 % by volume and 0.1 ppm O₂ via the software. Operation via keypad and menus.

Housing

W x H x D: 310 x 270 x 220 mm
Weight: 4.5 kg

Dimensions probe

(Ø x L): 25 x 600 mm, other lengths on request

Degree of protection: IP 55 (EN 60529)

DG: E	Part no.	Price €
Measuring probe 600 mm	69562	
Extension to 1 m	69563	
Control unit	69564	
2 contacts for limit values	69454	
Wall duct	69455	
Temperature compensation lead	69565	
2-wire measuring cable	69566	