| SPECIFICATIONS OZR5000                             |   |
|--|---|
| Measurement method                                 | MicroPoas®  |
| Range  | 0.01 ppm to 25 % O <sub>2</sub>   |
| Flow rate  | Minimum flow rate without bypass: 30 ml/min. From 1 to 3 l/h for the sensor + bypass flow for a quick loop                  |
| Maximum intake pressure and temperature            | 3 bars abs*<br>110°C  |
| Response time                                      | T90 < 2s open bypass  |
| User-friendly operation                            | Display of operation parameters, flow rate, error messages, indication of MicroPoas® status. Visual indication of the flow. |
| Output signals                                     | 4-20 mA output linear signal, galvanic isolation  |
| Output scales                                      | User configurable over the range (max. 3 decades)   |
| Alarms   | 2 threshold alarms, 1 general fault alarm, 1 flow alarm. Thresholds can be adjusted over the range.                         |
| Accuracy   | 2 % relative  |
| Drift/week   | <1% of reading  |
| Display resolution                                 | 0.01 ppm from 0.01 ppm to 10 ppm, 0.1 ppm from 10 ppm to 10 000 ppm, 0.01 % from 1 % to 10 %, 0.1 % from 10 % to 25 %       |
| Sample inlet/outlet connections                    | Stainless steel unions for tube   |
| Power supply                                       | 110 to 220 Vac - 50/60 Hz; 50 VA  |
| Dimensions and weight                              | 19" rack mounting<br>3 U : 483 x 133 x 365 mm - 10 kg   |
| Environment  | Temperature: 0 to 55°C – Humidity: 5 to 90 % without condensation   |
| * For an outlet pressure between 800 and 1750 mbar |   |

# Standard rack mount 3U Height > 133 mm | Depth > 365 mm | Width > 483 mm Front 19.0" (483 mm) Side Top



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# **OZR5000**

## Trace oxygen analyser

Control of pure gases and gas mixtures Built-in MicroPoas® technology





# **OZR5000** Trace oxygen analyser

Performance, reliability, ergonomics and technology

#### **GENERAL**

OZR5000 trace oxygen analyser manufactured by Orthodyne meets the requirements of industrial gas production and thermal treatment industries. It includes the MicroPoas® zirconia sensor technology with built-in metallic reference.

#### MICROPOAS® ZIRCONIA SENSOR

## 1. High technology for high accuracy measurement and

When you use MicroPoas®, you optimise your installation and process safety.

Zirconia sensor with built-in metallic reference : completely independent from the external environment. No need for a reference gas: easy set-up.

#### 2. Products with proven performance

The MicroPoas® sensor enables our analysers to deliver excellent accuracy and unequalled linearity and enables you to reduce maintenance costs and keep them under control. Its sturdiness quarantees lower and mastered maintenance costs. From measurement of oxygen fugacity in volcanic gases to microelectronics, the MicroPoas® technology is adaptable to a wide range of applications, in both industrial and scientific fields.

#### **APPLICATIONS**

- Air separation plants
- Specialty gas laboratories
- Process control
- Steel industry
- Cryogenic truck loading station
- Basic research
- Materials research
- Monitoring of atmospheres

#### 3. Performances of the smallest "MicroPoas®" zirconia sensor

- Recommended working temperature : 500 to 1050°C (high temperature version up to 1050°C on request)
- Resistance to total pressure > 400 atm
- Resistance to thermal shocks > 100 cycles between 20 and 700°C in 10s
- Thermal homogeneity for high measurement accuracy
- Fast set-up
- Special assemblies for measurement in a vacuum or under pressure (10<sup>-4</sup> mbar to more than 70 bar)

- Specific to gaseous oxygen
- No need for reference gas
- Life time > 3 years on clean gases

#### **OZR PERFORMANCES**

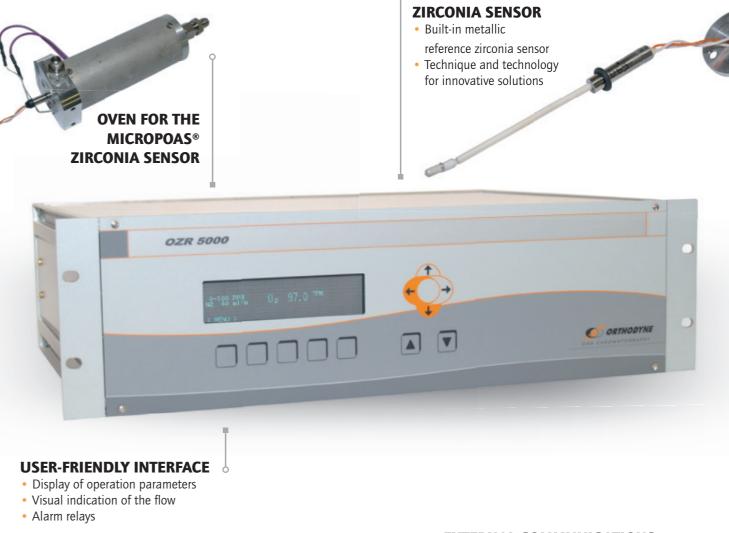
- Excellent response time
- Keyboard for intuitive operation
- Extremely high linearity
- From 0.01 ppm to 25 % O<sub>3</sub> in a single range
- Reliability and reproducibility
- Built-in bypass
- Almost maintenance-free
- Less sensitive to reducing gases thanks to its special sensor

#### **TYPE OF CONFIGURATION**

- OZR5001 : 1 zirconia sensor
- OZR5002 : 2 zirconia sensors
- OZR5003 : 3 zirconia sensors\*

**MICROPOAS®** 

- OZR5004: 4 zirconia sensors\*
- \* OZR5003 and OZR5004 will be assembled inside a rack of 365 mm depth and 6U height.



### **EXTERNAL COMMUNICATIONS**

Analog & digital output

Line 5000 - OZR5000 - Trace oxygen analyser