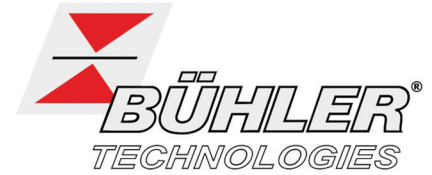




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DRM Technic

Suppliers of Gas Analysis Equipment

GEN'AIR Oxygen Pump-Gauge

GEN'AIR OXYGEN PUMP GAUGE

The GEN'AIR is specified for the generation and measurement of several different oxygen atmospheres. Its technology is based on the zirconia ionic conduction principle.

It is made of two parts: the pump (which raises or decreases the oxygen partial pressure in the gas that passes through its zirconia tube) and the gauge (which measures the partial pressure generated by the pump).



FEATURES

**Generation and Analysis of Atmospheres at Controlled Oxygen Rates | Large Dynamic Scale
Only Uses Small Quantity of Carrier Gas | Compact and Secured System | Almost Maintenance Free**

OPERATION PRINCIPLES

Pump: A selector and a potentiometer are on the front panel to adjust the voltage applied to the pump (between 0 and around +/-1250mV). This generates an oxygen flow through the zirconia tube. The flow follows the Faraday's law: $X=X_0 \pm 0.209 \cdot I/D$ (where X_0 is the mole fraction of oxygen before the pump, X is the mole fraction of oxygen after the pump, I is the current intensity in amperes, and D is the flow of the carrier gas in l/h).

Gauge: The gauge is placed after the pump; it enables validating the partial pressure generated by the pump. The MicroPoas® Zirconia Sensor carries out the measurement. Like all other zirconia, the MicroPoas® is based on the Nernst's law, : $E=(RT/4F)\ln(P_{mes}/P_{ref})$. The reference partial pressure is set by an equilibrium between a metal and its oxide.

SPECIFICATIONS

Part No.	GEN'AIR Oxygen Pump Gauge
Measurement Range	10 ⁻³⁵ to 0.25 atm
Necessary Flow	1 to 12 l/h
Output Signals	0-20mA or 4-20mA, Linear, with Galvanic Insulation, RS232 Port
Dimensions / Weight	430 x 170 x 430 mm / 15 kg
Power Supply	230 V AC - 50/60 Hz - 550 VA

CONTACT US: DRM Technic, 15C Raleigh Hall Industrial Estate, Stafford, Staffordshire, ST21 6JL