Portable O₂-Analyzer
BA 4000

The portable Bühler O₂-Analyzer is suitable for various applications in non-hazardous areas.

As an option the BA4000 can be equipped with an integrated sample gas pump. The optional sampling pump is required for applications at atmospheric pressure or light vacuum and is switched on and off by an integrated switch in the front panel.

Alarm set points can be adjusted individually to indicate deviations from predetermined values. The continuous output can be configured either as 0-1 V or 0/4-20 mA.

The calibration can be done easily with N₂ as zero gas and ambient air as the span gas. The calibration points can be adjusted using the potentiometers on the front panel.

An easily accessible fine filter protects the measurement cell from particulate contamination. If the unit must be used for wet sample gas, a portable sample conditioning system (Model TGAK) is required.

The BA 4000 is powered by an integrated high capacity battery allowing it operate independently from a power supply for at least 14 hours.

- Paramagnetic operating principle
- 4-20 mA analog output
- Reliable, durable measuring cell
- Simple operation
- Fast accurate O₂ analysis
- Various ranges available
- Housing in IP 20
- Battery operated
Technical Data

Measurement Parameter | Oxygen
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Range (indicate with order) | 0 … 10 Vol. % O₂
(custom ranges avail.) | 0 … 25 Vol. % O₂
| 0 … 100 Vol. % O₂
Measuring Principle | Paramagnetic

Performance Characteristics

Accuracy | 0.1% O₂ absolut
Repeatability | ± 0.05 % O₂
Response time | Tₚ <10 s
Zero-drift | ± 0.1 Vol.% O₂ per week
Span drift | ± 1 % range per week

Sample Requirements

Inlet temperature | +5 °C to 40 °C
Inlet pressure | min. 10 mbar
with internal pump | max. 1.5 bar
Sample Flow
without pump | approx. 120 ml/min @ min. pressure
with internal pump | approx. 30 l/h
Sample Conditioning
Dew point | at least 5 °C below ambient temperature
Particulates | 8 µ disposable filter fitted as standard

Calibration Requirements

Zero gas | Nitrogen
Span gas | Air or bottled cal. gas

Environmental Conditions

Ambient temperature | +10 °C to 45 °C
Storage temperature | -25 °C to 65 °C
Relative humidity | <75 % in average

Analogue Outputs

Signal output | 4…20 mA (max. 400 Ω)
| 0…1 V ( min. 1 kΩ) optional
Readings

Display | LCD 3½ digits
Flow | Flow meter
Range | 0 - 10 Nl/h air

Power Supply

Power supply | 100-240 V, 50/60 Hz
Internal battery | 12 V, 2.7 Ah (operating time appr. 14 hrs. without options)

Physical Characteristics

Case construction | Aluminium alloy
Protection degree | IP20 (standard)
Dimensions (H x W x D) | 145 x 182 x 240 mm (standard housing)
Weight | approx. 4.5 kg
Gas inlet | filter with glass fibre element
Gas connections | 6 mm OD
| 4 mm ID tube, push-on
Sample wetted parts | PVDF, glass, SS 1.4571, gold, viton, platinum-iridium, epoxy resin

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please indicate with order
(incl. power supply, part no. 55 11 0992)

**Analyzer Models** | **Part No.** | **Options for all analyzers** | **Part No.**
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BA 4000 0 - 25 % | 55 11 099 | Internal pump | 55 11 0991
BA 4000 0 - 100 % | 55 11 098 | Back pressure regulator ARP | 46 00 999

we reserve the right to amend specifications