

# Portable O<sub>2</sub>-Analyzer BA 4000



The portable Buhler O<sub>2</sub> 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 intergated 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 N<sub>2</sub> 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 O<sub>2</sub> analysis**
- **Various ranges available**
- **Housing in IP 20**
- **Battery operated**

## Technical Data

### Measurement Parameter Oxygen

Range (vol.% O <sub>2</sub> )	0 - 10
(indicate with order)	0 - 25
(custom ranges avail.)	0 - 100

### Measurement Principle Paramagnetic

### Performance Characteristics

Accuracy (% O <sub>2</sub> absolute)	0.1
Repeatability (% O <sub>2</sub> )	± 0.05
Response time (sec T <sub>90</sub> )	<10
Zero-drift (vol.% O <sub>2</sub> /week)	± 0.1
Span drift (% range/week)	± 1

### Sample Requirements

Inlet temperature(°F)	40 - 100
Inlet pressure (min psig)	0.15
(max psig)	20
w/internal pump psig	-0.07

### Sample Flow

without pump (l/min)	approx. 0.012
	@ min. pressure
with internal pump (l/min)	approx. 0.5

### Sample Conditioning

Dew point	at least 40 °F below ambient temperature
Particulates	8μ disposable filter fitted as standard

### Calibration Requirements

Zero gas	Nitrogen
Span gas	Air or bottled cal. gas

### Environmental Conditions

Ambient temperature (°F)	50 - 110
Storage temperature (°F)	-10 - 150
Relative humidity (% avg)	<75

### Analog Outputs

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

### Readings

Display	LCD 3½ digits
Flow	Flow meter
Range	0-10 NI/min air (0 - 0.17 l/min)

### Power Supply

Power supply	230 V, 50/60 Hz
	115 V, 50/60 Hz
Internal battery	12 V <sub>dc</sub> , 2.7 Ah (operating time approx. 14 hrs. w/out options)

### Physical Characteristics

Case Construction	Aluminum alloy
Protection degree	IP20 (standard)
Dimensions (H x W x D)	145 x 182 x 240 mm
	5.7 x 7.2 x 9.4 (approx. in)
	(standard housing)
Weight	Approx. 4.5 kg (10 lb.)
Gas inlet	Filter with glass fiber 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

## Please indicate with order

(incl. power supply )

### Analyzer Models

BA 4000	0 - 25%
BA 4000	0 - 100%

### Part No.

55 11 099
55 11 098

### Options for all analyzers

Internal pump
Power supply 230 V, 50/60 Hz, 12 VDC
Power supply 115 V, 50/60 Hz, 12 VDC
Back pressure regulator ARP

### Part No.

55 11 0991
55 11 0992
55 11 0993
46 00 999