

Portable trace O₂-analyzer BA 4510



The BA4510 is designed for measurements of oxygen traces in inert gases. It is based on an advanced, zirconia measurement cell. The highly selective cell combines high mechanical strength with consistent accuracy. With inert gases, the cell delivers an increasing signal if the partial pressure of oxygen drops thus giving a highly precise measurement of trace oxygen levels. The value is shown on the digital display and a current output is provided.

The BA 4510 has an integrated sample pump which can be switched on if the sample gas is provided at to low pressure.

The unit is operated with menu guided keys on the front panel.

For measurement in gases containing combustible components, a special version (BA4510KIZ) is available.

- **Measurement cell does not require daily or weekly calibration and is nearly drift free**
- **4 - 20 mA analog output**
- **RS 232-Interface**
- **Internal sampling pump**
- **Simple menu-guided operation**
- **Programmable alarm output**

Technical Data

General

Measured component	Oxygen
Measurement range (% O ₂)	0 - 20.9
Measurement principle	Zirconia dioxide

Performance Specification

Accuracy (% measured value)	< 5
Repeatability (% O ₂) ¹	< 1.5
Detection limit (vpm O ₂)	0.1
Response time (sec T ₉₀)	< 5
Linearity fault (pmmv O ₂) ¹	< 0.4
Zero drift (ppmv O ₂ per week)	< 0.2
Span drift (weekly % range / ppbv)	< 0.02 / < 200 whichever is larger

¹(range 0 - 1000 ppm)

Sample conditions

Sample temperature (°F)	40 - 175
Sample pressure (max psig)	0.29
Sample flow rate (l/min without pump)	0.08-0.17 (automatically regulated by internal pump to 0.12 l/min)

Sample Conditioning

Dew point (°F min under ambient temp)	5
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Environmental conditions

Ambient temperature (°F)	50 - 113
Storage temperature (°F)	-4 - 140
Relative humidity (% @68°F)	< 80

Signal outputs

Signal output (mA)	0/4-20 (error condition signal - 0 mA), scalable
Alarm relay	1x limit, 200VDC, 0.5A, 10W
Serial interface	RS 232

Keyboard and readings

Display	LCD-dot matrix
Keyboard	3 buttons

Power supply

Power supply	115 VAC; 50/60 Hz 230 VAC; 50/60 Hz
Power consumption	20 VA

Mechanical data

Housing	Aluminum case with carrying handle
Dimensions (H x W x D)	135 x 100 x 240 mm (approx. 5.3 x 3.9 x 9.4 in)
Gas input	3 mm Swagelok™ screw union
Gas output	Tube nipple 4 mm
Protection class	IP 40
Weight	approx. 6.6 lb

Please indicate with order

Type	Part No.
BA 4510	55 15 000
BA 4510 KIZ	55 15 001