Portable O2-Analyzer BA 4510

The portable analyser BA 4510 is used to measure traces of oxygen in inert gas. At the core of this unit is a tried and tested, maintenance-free zirconium dioxide measuring cell. This oxygen-ion conductor combines the advantage of high selectivity with high mechanical stability and consistency. As the oxygen content drops in inert gases, the voltage zirconium oxide cells supply increases, making it particularly easy to measure traces.

An internal processor converts the measuring signal to oxygen concentration, displays it on the LCD screen, and can be output as an analogue current signal. An internal switchable gas pump provides the necessary flow rate if the primary pressure of the sample gas is too low.

The unit is menu-driven using membrane keys at the front. A special version (BA4510 KIZ) is available for measuring gases with flammable components.

- calibration- and virtually drift-free measuring cell
- 4 – 20 mA output signal
- RS 232 interface
- internal, switchable pump
- easy to navigate menu
- programmable limits
- no test gas required
Technical Data

Measuring components
- Measuring component: Oxygen
- Measuring range: 0 Vol.-ppm ... 20.9 Vol.-% \( \text{O}_2 \)
- Measuring principle: Zirconium dioxide

Measuring Data
- Accuracy: < 5 % (from measured value)
- Reproducibility: < 1.5 % \( \text{O}_2 \)
- Detection limit: 0.1 vpm \( \text{O}_2 \)
- Response time \( (T_{50}) \): < 5 s
- Linearity deviation: < 0.4 vpm \( \text{O}_2 \)
- Zero drift: < 0.2 vpm \( \text{O}_2 \) per week
- Sensitivity drift: < 0.02 % from measured value per week or 200 vpb per week, whichever is higher

Gas inlet conditions
- Gas temperature: 41 °F to 176 °F
- Gas overpressure: max: 0.29 psig
- Gas flow without pump: 0.08 ... 0.17 lpm (regulated to 0.12 lpm when using the internal pump)

Sample gas conditioning
- Dew point: at least 41 °F below ambient temperature

Climatic conditions
- Ambient temperature: 50 °F to 113 °F
- Transport and storage temperature: -4 °F to 140 °F
- Relative humidity: < 80 % at 68 °F

Signal outputs
- Current signal: 0/4 ... 20 mA (on error near 0 mA); scalable
- Alarm relay: 1x limit, 200 VDC, 0.5 A, 10 W
- Serial port: RS 232

Keyboard and displays
- Measurement display: LCD plain text display
- Keyboard: 3 keys

Power supply
- Voltage: 100 - 240 V AC, 47 - 63 Hz
- Power input: 20 VA

Construction
- Housing: Aluminium housing with handle
- Dimensions (h x w x d): 5.31 x 3.94 x 9.45 in
- Sample gas inlet: 3 mm (0.12 in) screw-in connection
- Sample gas outlet: Stainless steel hose nipple for hose with 4 mm (0.16 in) inside diameter
- Housing protection class: IP40
- Weight: approx. 6.6 lb

Ordering instructions

Device model

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