

Z4010 portable oxygen analyser



Features

- ◆ Measures from 100% to less than 1ppm
- ◆ Fast response time of less than 5s for 90% change
- ◆ Fully autoranging
- ◆ Fully programmable analogue output



The **Z4010 zirconia oxygen analyser** measures a wide range of oxygen concentrations from percentage levels to less than ppm in clean non-reactive gas mixtures. Its robust carrying case, fast warm up time and switchable supply voltage provide an ideal solution for on-the-spot oxygen monitoring applications.

A **large multi-digit, autoranging LCD** is used to display measured concentrations and also user-adjustable parameters for alarm and analogue output configuration. A programmable analogue output provides an easy means to log results where necessary.

Two alarms channels, user-configurable for high, low or off states and hysteresis, each provide one set of volt-free changeover contacts. They can be set to any concentration within the span of the instrument. A choice of two analogue outputs is available, 0 to 5V or 4 to 20mA, each with several pre-set ranges. Sample flow adjustment and monitoring are built-in, along with a sample pump for applications with a low sample pressure.

The sampling system is a simple needle valve and flowmeter. Options include: sample pump, fast flow loop system, syringe injection port. Hitech also supply a range of sample conditioning accessories to cater for most sample sources.

Applications

- ◆ Air separation plants
- ◆ Nitrogen purged soldering systems
- ◆ Cylinder gas quality
- ◆ Pharmaceutical and food packaging and storing
- ◆ Purge gas monitoring
- ◆ Glove boxes
- ◆ Workplace air monitoring
- ◆ Medical monitoring

SPECIFICATION

Display

Multi-digit LCD – character height 12.7mm

Ranges

0.1ppm to 100% oxygen, autoranging

Display resolution

From 10% to 100%: 0.1%
From 0.50% to 9.99%: 0.01%
From 500ppm to 4999ppm: 10ppm
From 50ppm to 499ppm: 1ppm
From 0.00ppm to 49.9ppm: 0.1ppm

Accuracy

10% to 100ppm: $\pm 2\%$ of reading or better
99ppm to 10ppm: ± 1 ppm
0.1ppm to 9.9ppm: ± 0.2 ppm

Stability

Better than 2% of reading or 0.5ppm/month, whichever is greater

Sample flow

Between 100 and 250ml/min for optimum operation.

Speed of response in clean inert atmospheres

Percentage levels: less than 0.5s for 90% change
Levels from 1000 to 10ppm: less than 5s for 90% change
Levels less than 100ppm: less than 30s for 90% change
When the cell is stabilised/conditioned at low levels, response to changes at that level is of the order of 3 to 4s

Sample pressure

The vent pressure determines the pressure applied to the sensor. This should be atmospheric for quoted accuracies.

Sample inlet pressure

Maximum inlet pressure 6 barg.

Sample temperature (at analyser)

100°C maximum

Sample system materials

Materials include: nickel, brass, stainless steel, platinum, zirconia, alumina, PTFE and nitrile-rubber

Sample connection

Captive-seal compression fittings suitable for 0.25 inch (6mm) outside diameter tube

Analogue outputs

Standard: 0 to 5V

Optional: 4 to 20mA

Each user-programmable to between 0 to 100% and 0 to 5ppm

Ambient temperature

45°C maximum

Power supply

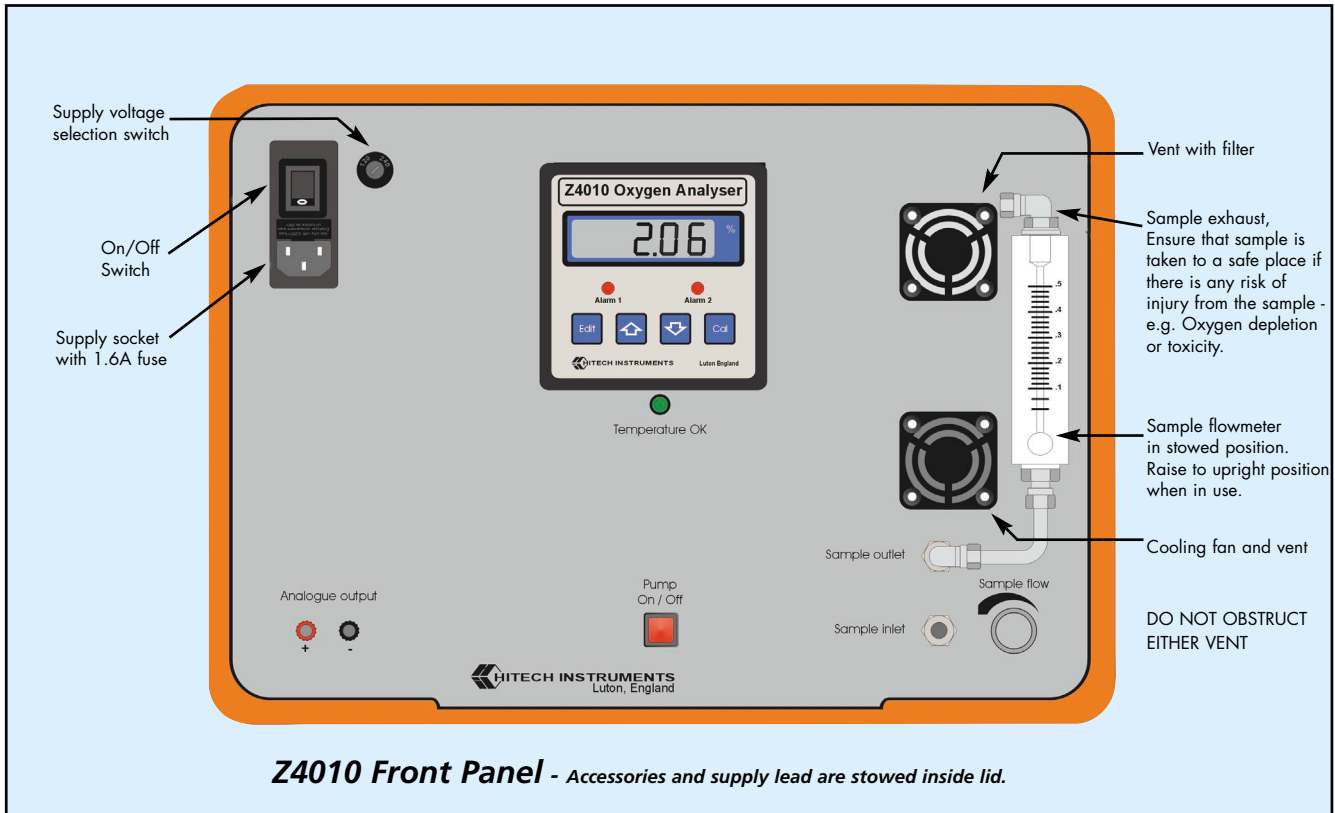
110/120V, 50/60Hz at 100VAmx. or

220/240V, 50/60Hz at 100VAmx.

Selectable on front panel.

Mounting

Supplied in fully waterproof, carrying case to IP67



In keeping with a policy of continuous development, Hitech Instruments Ltd reserves the right to change any part of this specification without notice

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