HITECH INSTRUMENTS

Z230 Oxygen Analyser

With fast response zirconia sensor

What it gives you…

- **Measure oxygen from % levels down to ppm with the same instrument**
- **Very fast response - from 20.9% to 1% in less than 5 seconds**
- **The instrument will never fail due to sensor consumption, giving you less downtime**
- **Fully programmable analogue output - you decide which part of the range to monitor**
- **Digital RS232 port (and USB option) with remote calibration facility and datalogging software to save results**
- **Everything you need in one box with a simple gas connection inlet, flowmeter, and valve, providing easy process control**
- **From gas connection to readings in two minutes with super-fast zirconia sensor warm-up**
- **Alarms can be set and monitored remotely from a control room or a PLC system - easy to integrate into control systems**

Typical Applications

- **Nitrogen generators**
- **Nitrogen purged soldering systems**
- **Gas mixers**
- **Air separation plants**

The Z230 zirconia oxygen analyser measures oxygen concentrations from percentage levels to fractions of parts per million (ppm) in clean gases. This bench-top analyser is a self contained unit and comes with a simple needle valve and flowmeter. Options include a sample pump, fastflow loop system or a custom designed solution if required. Hitech also supply a wide range of sample conditioning accessories. The unique sensor and heater design gives a very fast warm-up time, rapid response and because the sensor is non-depleting, it has a very long life.

A fully bi-directional RS232 port is provided to allow the analyser to communicate with most proprietary micro controllers, and when used with the supplied software, gives full remote control capability. This means remote reading, setting of analogue outputs, and calibration is possible. In addition to the digital communications a fully isolated programmable 4 to 20mA analogue output is available. Two alarm channels provide volt-free changeover contacts, which can be user -configured to any concentration within the span of the instrument. The alarm channels are user-configurable for high, low or off states and hysteresis, and each provide one set of volt-free changeover contacts. One alarm can be specified as a fault alarm. A choice of two analogue outputs is provided, 0 to 5V or 4 to 20mA, each with pre-set ranges.

Combined with its low maintenance design, the instrument is trouble free and easy to use.
Ease of use and reliability—a good combination.

SPECIFICATION

Display
Multi-digit LCD – character height 12.7mm

Range
0.01ppm to 100% oxygen, autoranging

Display Resolution

From 10.0% to 99.9%	0.1%
From 1.00% to 9.99%	0.01%
From 0.100 to 0.999%	0.001%
From 100ppm to 999ppm	1ppm
From 10.0ppm to 99.9ppm	0.1ppm
From 0.00ppm to 9.99ppm	0.01ppm

Accuracy

25% to 100ppm:	±2% of reading or better
99ppm to 10ppm:	±1ppm
0ppm to 9.9ppm:	±0.1ppm

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

Speed of response in clean inert atmospheres
% levels: less than 1.5s for 90% change
Levels from 100 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

Dimensions & weight
w253mm x d260mm x h200mm. Weight 6kg

Sample flow
Between 100 and 300ml/min for optimum operation

Sample inlet pressure
10mbarg minimum
8barg maximum

Sample temperature
100°C maximum

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

Analogue outputs
Standard 4 to 20mA
0 to 5 volts configurable
User programmable between 0 to 25% to 0 to 5ppm

Alarm outputs
Two alarms, each user-programmable for mode - HIGH, LOW or OFF
Hysteresis programme from 0 to 10% of set point
Volt-free changeover contacts rated at 48Va.c./d.c. max., 1A max., max power 48W, normally energised

Ambient temperature
0 to 40°C (continuous operation)
-5 to + 55°C (intermittent operation)

Power supply
24V dc Separate PSU available as option

Other Instruments based on zirconia technology

Z1030 Remote mounted

Z1110 Wall mounted

Z4010 Transportable

Other instruments based on galvanic technology

G1010 panel mounted, % and ppm versions

G250 Benchtop, multirange

G610 wallmounted

We also have a range of instruments suitable for the following applications:

- Workplace Safety
- Hydrogen and Helium measurement
- Power plant and generator cooling
- Inert gas blanketing
- Toxic and flammable gas measurement
- Landfill gas monitoring
- Chlorine production
- Gas blending

Visit www.hitech-inst.co.uk for more information

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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ISO 9001 CERTIFIED ORGANISATION

HITECH INSTRUMENTS

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