

# *G250 and G125 fast-response oxygen analysers*



## Features

- ◆ Measures from 25% to 0.1 ppm oxygen
- ◆ Unique non-saturating dual-cell sensing systems
- ◆ Programmable 4 to 20mA analogue outputs
- ◆ Two programmable alarms
- ◆ Autoranging displays



The **G250 and G125 fast-response oxygen analysers** operate identically, differing only in the way they are packaged.

For transportable bench-top use the G250 shown in the photograph offers maximum convenience.

Where fixed installation is required the 19-inch rack-mounting G125 offers the perfect solution.

Exceptional range and speed are accomplished by using a unique micro-processor-controlled dual-cell sensor system. Two measuring cells are employed: one measures percentage concentrations, the other low-level parts per million (ppm) concentrations. The low-level cell is maintained at a low oxygen level in a fully sealed condition until it is required for use. The concentration of the sample is initially measured by the high-

level cell. When the high-level cell senses a low level of concentration in the sample, the electronic control automatically diverts the sample to the low-level cell. Because this cell is maintained at a low level it responds rapidly and accurately to measure the low concentration. Safeguards, built into the analyser control system, protect the low-level cell from being exposed to high concentrations.

Advanced software provides 'seam-less' and fully automatic transfer from one cell to the other. No special skills are required to use the analyser.

A programmable 4 to 20mA output is provided and can be set between the ranges of 0 to 20ppm and 0 to 25% oxygen.

Two alarm channels, programmable by the user to be high, low or off, each provide one set of volt-free

changeover contacts and can be set to any concentration within the span of the instrument.

The G250 is completely self-contained and is supplied as standard with a sampling pump, filter, flow control valve and flow monitor.

## Applications

- ◆ Inert soldering
- ◆ Purge gas monitoring
- ◆ Furnace atmospheres
- ◆ Glove boxes
- ◆ Cylinder gas quality
- ◆ Inert gas blankets
- ◆ Environmental chambers
- ◆ Air separation plants

## SPECIFICATION (G250 and G125)

### Display

Dot-matrix LCD with two or four lines of alphanumeric characters

### Display range

0.1ppm to 25.0% oxygen

### Stability

Better than 2% full scale/month

### Speed of response

% levels: less than 3s for T90

ppm levels: less than 20s for 190

Air to less than 10ppm: 90s

### Sample flow

Between 600 and 800ml/min for optimum performance; set via unit front panel

### Sample temperature (at analyser)

-5 to 40°C

### Sample connections

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

### Output (signal)

4 to 20mA; maximum load 500Ω

Programmable between 0 to 20ppm and 0 to 25%

### Output (alarms)

2 alarms: each user-configurable to OFF, HIGH or LOW

Hysteresis: user-configurable

Relay outputs: rated 48V ac or dc, 0.5A, normally energised

### Ambient temperature

-15 to +40°C (constant operation)

-15 to +55°C (intermittent operation)

### Power supply

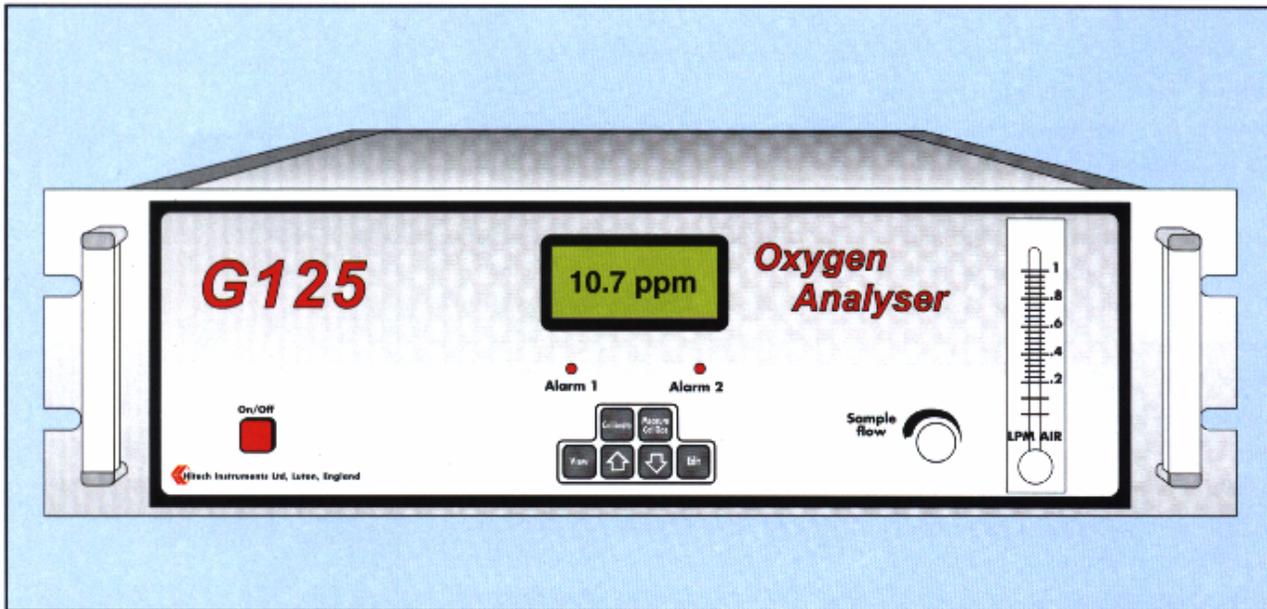
1 10/120V or 220/240V ac, 50/60Hz

### Mounting

G250: Transportable, free-standing case:  
255mm wide x 170mm high x 260mm deep Weight:  
6kg

G125: 19-inch x 3U rack mounting:  
483 mm wide x 133mm high x 309mm deep  
(+40mm for handles)

*NB: a sampling pump is optional for the G 125 19-inch rack mounting version*



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

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