

GIR250 dual range analyser for oxygen and carbon dioxide

What it gives you...

- ◆ **Dual measurement of oxygen and carbon dioxide in one instrument**
- ◆ **Compact, robust unit**
- ◆ **Transportable laboratory style case**
- ◆ **Simple, easy to read display**
- ◆ **Intuitive user interface**
- ◆ **Easy calibration process**
- ◆ **Pump and flowmeter for sample control**
- ◆ **Comprehensive set of programmable alarm relays and analogue outputs**
- ◆ **Real time results**
- ◆ **Fast sensor response**

Typical Instrument Applications

- ◆ **Respiration measurement**
- ◆ **Fermentation monitoring**
- ◆ **Douglas bag analysis**
- ◆ **Sports science**



The **GIR250** is designed to monitor percentage levels of oxygen and carbon dioxide in a single, robust unit.

Based on our galvanic (electrochemical) cell measuring principle for oxygen measurement, and the infra-red principle for carbon dioxide, the GIR250 provides a permanent display of both gases up to a resolution of 0.01%. The instrument can be pre-programmed with pass/fail criteria for each of the gases, and results can be transferred to external recording/logging devices using the 4-20mA outputs.

The key design philosophy is to provide a simple to use, reliable instrument providing accurate repeatable results over the whole of its range. Calibration is very simple using the front panel keypad and can be carried out with little or no training.

Cost of ownership is very low, containing a non-depleting infra-red sensor and a user-serviceable replacement galvanic cell.

Ease of use and reliability—a good combination.

SPECIFICATION

Ranges, resolution and accuracy

Oxygen:

0/100% range, resolution 0.1%, accuracy $\pm 2\%$ of span

0/25% range, resolution 0.01%, accuracy $\pm 2\%$ of span (5% to 100% of scale)

Carbon dioxide:

0/100%, resolution 0.1%, accuracy $\pm 2\%$ of span

0/10%, resolution 0.01%, accuracy $\pm 2\%$ of span

Speed of Response

Typically:

Oxygen 15 seconds

Carbon dioxide 20 seconds

Sample Conditions

Flow 100 – 300 ml/min

Pressure Set by vent pressure (nominally atmospheric)

Temperature $-5 - 40^{\circ}\text{C}$ (non-condensing)

Analogue Outputs:

4-20mA for both gases. Programmable to be proportional to anywhere between 0/20% and 0/100% of span. Maximum load 1000 ohms per output.

Alarm Relay Outputs

Two alarms per gas, programmable to be OFF, HIGH, or LOW. The hysteresis is also user programmable. Rated at 48v AC or DC at 0.5 amp.

Sample Connections, inlet and outlet

Inlet and outlet 0.25" (suitable for 6mm) diameter tube. Both ports are fitted with captive seal compression fittings.

Ambient temperature

-5°C to 40°C

Power supply requirements

110 to 120v or 220 to 240v at 50 to 60Hz.

Power consumption

36VA

Enclosure

Free standing case 255W x 170H x 260D - dimensions do not include case fittings.

Weight 6.0kg approximate

Other instruments used for oxygen measurement

G1010 Panel mount analyser



G610 Wall mount analyser



Z4010 Transportable analyser



Other instruments used for carbon dioxide measurement

IR600



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

- Workplace Safety
- Furnace heat treatment measurement
- Power plant and generator cooling
- Inert gas blanketing
- Toxic and flammable gas measurement
- Landfill / digester gas monitoring
- Flow soldering atmosphere control
- 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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