



# G810 portable oxygen analyser

## Features

- ◆ Measures from 100% to below 1000ppm
- ◆ Air calibration
- ◆ High accuracy
- ◆ Sample pump
- ◆ Rechargeable batteries provide up to 30 hours of running time



The **G810 oxygen analyser** is a portable instrument for measuring oxygen concentrations over a wide range. Based on a galvanic cell sensor, the analyser employs advanced linearisation to offer a high degree of accuracy whilst retaining the ability to be simply calibrated on air.

**Two sensor versions are available** to enable the analyser to operate at optimum performance in a diverse range of applications. One of the sensors is for operating in the presence of high concentrations of mildly acidic gases such as carbon dioxide and hydrogen sulphide.

**A large multi-digit, autoranging LCD** shows the concentration and user-adjustable parameters.

**A 0 to 1V analogue output is provided**, which can be set to one of several pre-set ranges by the user.

**An internal sample pump** is fitted as standard, enabling samples at less than atmospheric pressure to be taken. For samples at an adequate pressure the pump may be switched off. The gas flow is set by an integral needle valve.

**True portability** is achieved from sealed rechargeable batteries which offer from 16 to 30 hours' operation, depending on pump use. For maximum flexibility, recharging can be carried out from a mains supply or from a vehicle's cigarette lighter socket.

**The whole instrument** is housed in a tough ABS case with a carrying handle that doubles as a available-height tilt foot for bench use. A mains charger unit (UK only) and vehicle cigarette lighter adaptor are supplied with the instrument as standard, and a carrying case is available as an option.

### Applications include:

- ◆ Checking quality of inert gases
- ◆ Checking oxygen content of landfill gases
- ◆ Cylinder gas quality checking
- ◆ Commissioning purged processes and gas generators
- ◆ Checking oxygen content of process gases.

## SPECIFICATION

### Display

Multi-digit LCD — character height 12.7mm

### Ranges

- 1) **0 to 100%**  
Display range 0.01% to 100.0%. Suitable for samples containing mildly acidic gases, e.g. carbon dioxide, hydrogen sulphide etc.
- 2) **0 to 50%**  
Display range 1 00ppm to 50%.

### Stability

Better than 2% of reading per month

### Speed of response

Less than 3s for 90% step change for % levels of oxygen

### Cell life

Acid gas resistant cell (KE): up to 5 years Standard CN cell: up to 18 months

### Sample connection

Compression fitting suitable for 1/4 inch O/D (6mm) tubing

### Sample pressure

Pump off: +3 bar C maximum  
Pump on: -100mb G minimum

### Sample flow

200 to 500ml/min for optimum accuracy

### Sample temperature

-10 to 80°C

### Analogue outputs

0 to 1V standard.  
User-programmable in the following spans.  
Range 1) 0 to 100%, 0 to 25%, 0 to 5%  
Range 2) 0 to 100%, 0 to 25%, 0 to 5%, 0 to 5000ppm

### Ambient temperature

0 to 40°C

### Battery capacity

Pump off: 30 hours  
Pump on: 16 hours

### Battery chargers

Mains:	240V ac supply (UK only)
Vehicle cigarette lighter:	12Vdc
General:	12 to 24Vdc at 300mA

### Case

ABS plastic with carrying handle doubling as a variable-height tilt foot

### Dimensions

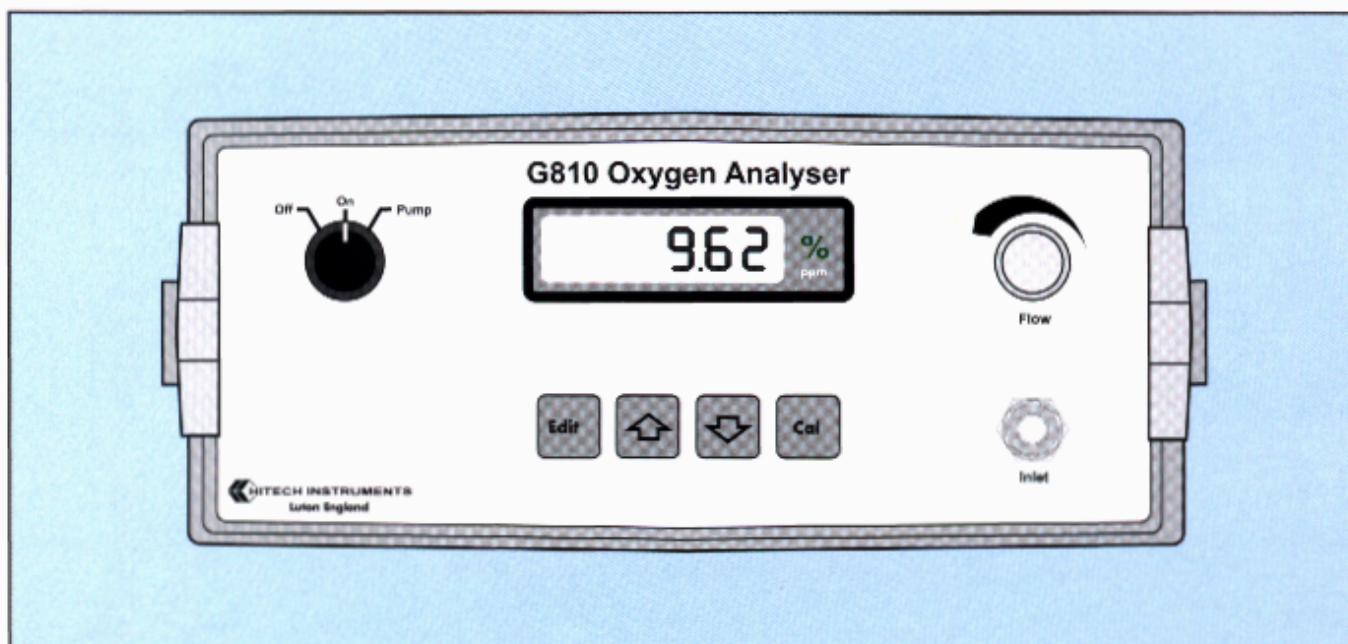
250mm wide x 255mm deep x 94mm high with handle parked in forward position

### Weight

1kg approximately

### Options

Carrying case



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

Great Marlings, Butterfield, Luton, Bedfordshire, United Kingdom LU2 8DL  
Telephone: +44 (0)1582 456900 Fax: +44 (0)1582 400901  
e-mail: enq@hitech-inst.co.uk  
web site: <http://www.hitech-inst.co.uk>

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