



# G1010 Series oxygen analysers

## Features

- ◆ Exceptional dynamic range
- ◆ Single-point calibration
- ◆ Microprocessor-controlled
- ◆ Programmable alarms and analogue output
- ◆ Hazardous-area sensor location with IS interface



The oxygen analysers in the **G1010 Series** use galvanic cell primary elements and can measure oxygen concentrations from 100% to 0.1ppm (parts per million) in a variety of gases. The instruments are microprocessor-controlled and provide exceptional performance and versatility.

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

**Two alarm channels**, user-programmable 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.

A **user programmable analogue output** can be set to one of several ranges. A choice of 0 to 5v or 4 to 20mA is provided at the time of ordering.

**Several versions of sensor are available**, enabling the analyser to operate at optimum performance in a diverse range of applications. These include a sensor suitable for operating in the presence of high concentrations

of mildly acidic gases such as carbon dioxide and hydrogen sulphide.

**Remote sensor versions are available** that allow the separation of the control/ display module and sensor by up to several hundred metres. Depending on the distance and concentration being measured, the sensor is either connected directly to the display module or via an integral two-wire transmitter.

Because the sensor conforms to the 'simple apparatus' category as defined by European standard EN 50020, remote **sensors may be located in a hazardous area**. A suitable zener barrier or galvanic isolator must be inserted between the sensor assembly and the control/display module.

**Three other analysers are derived from the G1010:**

The **bench-top G210** is a mains powered analyser which can be equipped with a variety of sampling systems and accessories including a pump, filter and flow control.

The **wall-mounting G610** is packaged in an IP65 enclosure

allowing it to be located in almost any industrial situation.

The **fully portable G810** is fitted with a sample pump as standard and can operate for over 12 hours on its rechargeable battery pack. Specification sheet HPS130 gives full details

## Applications

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

## SPECIFICATION

### Display

Multi-digit LCD - character height 1 2.7mm

### Display ranges

E version - display range 0.01% to 100.0%. Suitable for samples containing mildly acidic gases; eg, carbon dioxide, hydrogen sulphide etc

N version - display range 100ppm to 50%

L version - display range 0.1ppm to 25%

### Display resolution

0.1% from 10% to 100%

0.01% from 0.50% to 9.99%

10ppm from 500ppm to 4999ppm

1ppm from 50ppm to 499ppm

0.1ppm from 0ppm to 49.9ppm

### Stability

Better than 2% of full-scale per month

### Cell life

E version - up to 5 years

N and L versions - up to 2 years

### Sample flow

Between 100 and 300ml/min for optimum operation. Max 1 litre/mm.

### Sample temperature

-5 to +40°C (non condensing)

### Sample connections

Inlet and outlet: captive-seal compression fittings suitable for 0.25 inch (or 6mm) o/d tube

### Speed of response

190 - variable depending on sensor and concentration.

Approximately 3s at % levels and 20s at ppm levels. The ppm figure assumes that the sensor is purged down to the ppm concentration of interest.

### Analogue outputs

0 to 5V or 4 to 20mA (specify at time of order)

Each user-programmable to the following spans:

E version 0 to 100%, 0 to 25%, 0 to 5%

N version 0 to 100%, 0 to 25%, 0 to 5%, 0 to 5000ppm, 0 to 500ppm

L version 0 to 25%, 0 to 5%, 0 to 5000ppm, 0 to 500ppm, 0 to 50ppm

### G1010TX output

The output span of the Tx version is fixed to any one of the ranges given above.

### Alarm outputs

Two alarms, each user-programmable for mode - HIGH, LOW or OFF

Hysteresis programmable from 0 to 10% of set point

Volt-free changeover contacts rated at 250V r.m.s.a.c max., 3A max., max power 60W, normally energised.

### Ambient temperature

0 to 40°C (continuous operation)

-5 to +55°C (intermittent operation)

### Power supply

110/120V or 220/240V, 50/60Hz; 24V dc

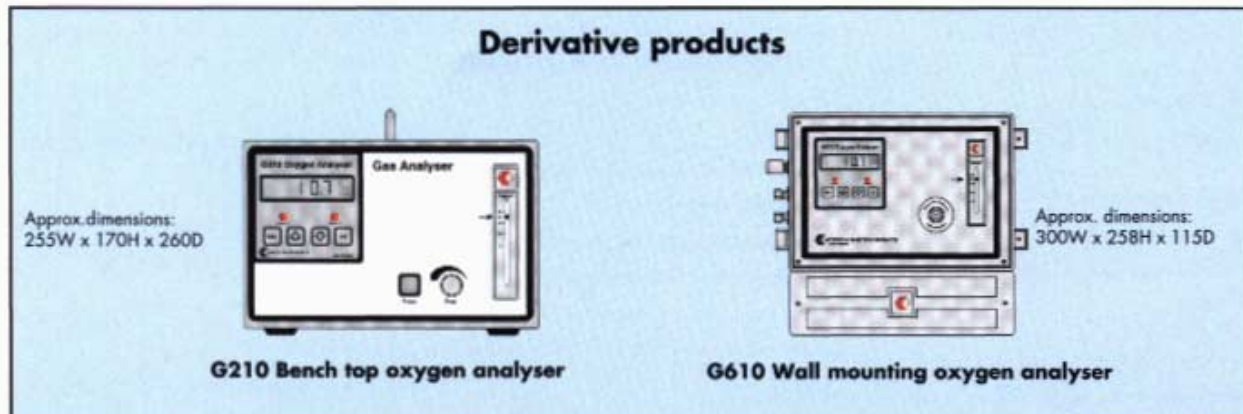
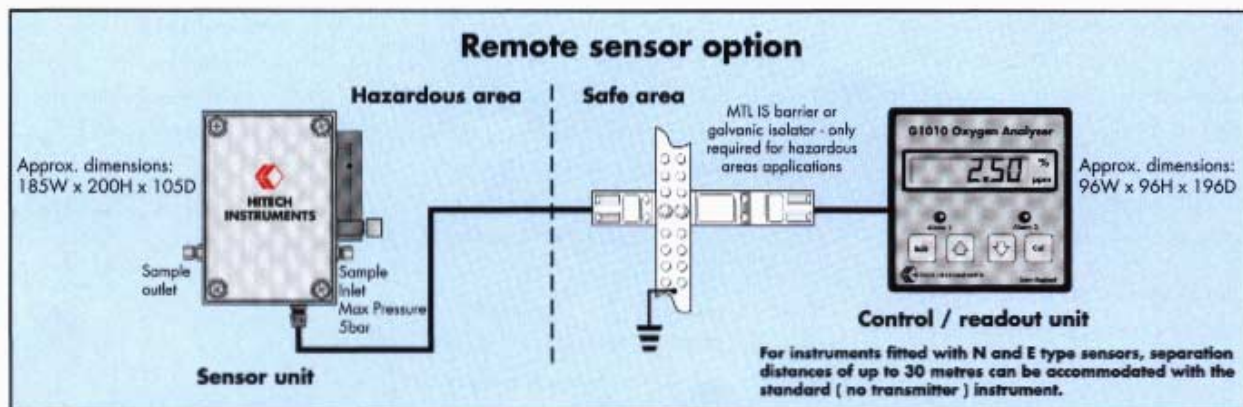
Max power consumption 4VA

### Enclosure

Panel-mounting glass-reinforced Noryl case to IP40. Optional lockable transparent door to IP54 is available.

### Dimensions

See drawing below



All dimensions in mm

*In keeping with a policy of continuous development, we reserve the right to change any part of this specification without notice*

