KG1550 dual-sensor gas analyser

Features

- Measures oxygen plus CO_2/H_2/Ar/He/Freon etc
- Programmable alarms and analogue output for each gas
- Microprocessor controlled
- Compact DIN panel-mounting enclosure

The Hitech KG1550 analyser combines accurate measurement of oxygen in mixtures that contain another constituent suitable for measurement by thermal conductivity. Other gases measured include carbon dioxide, helium and argon, giving the analyser a wide range of applications in both food and process industries.

Oxygen is measured by an electrochemical cell that is virtually maintenance-free. The oxygen concentration range can be from 0 to 100%, to 0 to 200ppm dependent upon the other constituents of the gas mixture.

The second gas is measured by a non-depleting, katharometer thermal conductivity cell which combines high stability and low mass to form a sensor with fast response, high sensitivity and virtually no maintenance costs. By applying the power of a microprocessor to temperature compensation and linearisation, an accuracy and measuring range not usually associated with katharometers is provided. All suitable gases can be measured over 0 to 100%, with the maximum sensitivity being gas-dependent, and ranges from 0 to 10% for carbon dioxide to 0 to 5000ppm for hydrogen.

Measured values are presented on a large, clear LCD screen which also displays messages and prompts for the menu-driven configuration and calibration routines.

Two concentration alarms are provided for each gas and give visual (LED) indication and volt-free changeover contact outputs. The user can configure the alarm function (high, low or off) as well as the hysteresis value.

The instrument is packaged in a standard DIN enclosure (96 x 144mm) with an optional locking cover with a rating of IP54.

For sampling, a variety of systems is available for any necessary pumps, filters and take-off tubes can also be supplied.

Typical Applications

- Food packaging
- Produce and fruit storage
- Hydrogenation processes
- Fermentation processes
- General process plant

SPECIFICATION

Display
Dot matrix LCD registering 2 or 4 lines of alphanumeric characters

Oxygen measurement
Range 0 to 100%
Resolution: 0.1%
Accuracy: ±0.25%
Range 0 to 25%
Resolution: 0. 1%
Accuracy: ±0.1% (5 to 100% of scale)
ppm level ranges also available, subject to application

Carbon dioxide measurement
Range 0 to 100%
Resolution:0.1%
Accuracy: ± 1 %
Range 0 to 10%
Resolution:0.1%
Accuracy: ±0.2%
Consult Hitech for other second gas ranges and for the effects of humidify on sampled gases

Sample flow
100 to 300ml/min for optimum performance

Sample temperature
-5°C to +40°C (non-condensing)

Sample pressure
Set by vent pressure which must be nominally atmospheric

Speed of response (typical) **(T90)**
Oxygen: 12s
Carbon dioxide: 20s

Sample connections
Inlet and outlet: captive seal compression fittings suitable for 0.25 inch (or 6mm) outside diameter tube

Output (signal) - each channel
4...20mA
Both outputs programmable between 20 to 100% of display span.

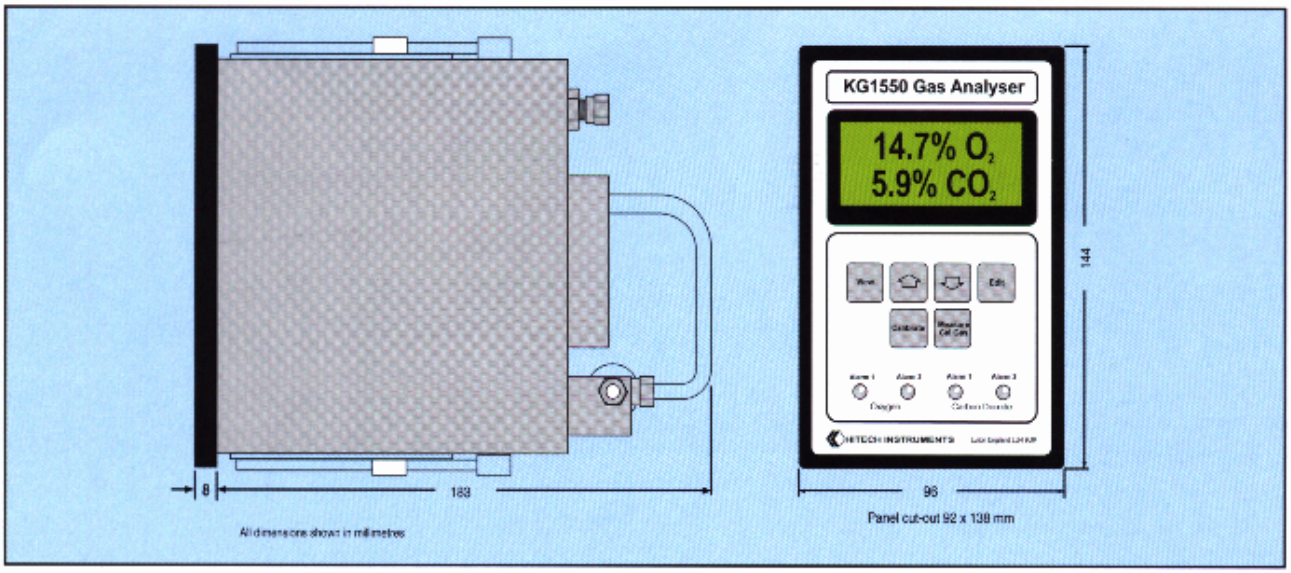
Outputs (alarm) - each channel
Two alarms: each user-configurable to OFF, HIGH or LOW
Hysteresis: user-configurable
Relay outputs: rated 48V ac or dc, 0.5A, normally energised

Ambient temperature
-5°C to +40°C

Power supply
110/120Vor 220/240Vac, 50/60Hz
Power consumption, 12VA

Mounting
Electronics unit: panel mounting with two clamps
Remote sensor unit: wall bulkhead (optional)

Materials
Enclosure: Glassfibre-reinforced Noryl to IP40 (IP54 locking door option)



Great Marlings, Butterfield, Luton, Bedfordshire, United Kingdom LU2 8DL
Tel: +44(0)1582 456900 Fax: +44 (011582 400901
E-mail:enq@hitech-inst.co.uk
Web site http://www.hitech-inst.co.uk

HITECH INSTRUMENTS LIMITED