

# *K6050 and KG6050 Series portable gas analysers*



## Features

- ◆ **Wide range of gases monitored, including hydrogen, carbon dioxide, argon and SF<sub>6</sub>**
- ◆ **Optional oxygen measurement**
- ◆ **Rugged and portable**
- ◆ **Fast warm-up with rapid response time**
- ◆ **Weatherproof to IP67**



**Hitech K6050 Series analysers accurately measure** the changes of one constituent in binary or pseudo-binary gas mixtures (ie, mixtures in which only one constituent changes). Examples include hydrogen, carbon dioxide, argon, helium and various halogenated hydrocarbons such as the Freons. Almost any single constituent of a gas mixture can be measured, providing its thermal conductivity differs from that of the other components. The ranges provided depend upon the gas being measured but can be from high ppm to 100%.

**A non-depleting katharometer sensor** measures the thermal conductivity of the gas. The sensor incorporates a highly sensitive element of low thermal capacity, which requires no maintenance. Signal processing is provided by a microprocessor to give a level of accuracy and a range not normally associated with this type of sensor. Little or no calibration is required because of the system's inherent high stability.

**A built-in sample pump** means that samples can be drawn from low-pressure sources or can be naturally aspirated. An integral needle valve and flow indicator are used to control the sample flow through the analyser.

**Dual-gas measurement is provided by the KG6050.** It combines the measurement abilities of the K6050 with oxygen measurement by electrochemical cell. Concentration ranges from 100ppm to 100% of oxygen are available, depending on the application.

**True portability is achieved** from sealed rechargeable batteries, which offer 6 hours continuous operation. Extended operation is possible by running the unit with the battery charger connected. The whole instrument is housed in a tough co-polymer waterproof case with carrying handle.

**A large, alphanumeric LCD** shows measured values and also displays messages and prompts for the menu-driven configuration and calibration routines. These procedures are simple and straightforward.

## Applications

- ◆ Hydrogenation processes
- ◆ Gas purity
- ◆ Food processing
- ◆ Refrigeration systems
- ◆ Power generation/distribution
- ◆ Breweries
- ◆ Metallurgical atmospheres
- ◆ Products of fermentation

## SPECIFICATION

### Display

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

### Thermal conductivity ranges and gas types

0 to 20%, to 0 to 100%, 80 - 100% (alter ranges on application)  
Carbon dioxide, argon, methane, SF<sub>6</sub>

0 to 1%, to 0 to 5%, 0 to 20%, 0 to 100%  
Hydrogen, helium

Consult Hitech for other gases and ranges

**Accuracy** ±1% of span (typically)

**Stability** Better than 1% fsd/month

### Oxygen measurement ranges (KG6050 only)

0 to 100%

Resolution: 0.1%

Accuracy: ±0.25%

0 to 25%

Resolution: 0.1%

Accuracy: ±0.1% (5 to 100% of scale)

ppm level ranges also available, subject to application

### Oxygen cell life

Typically 2 years

### Speed of response (typical)

Oxygen measurement: 12s (T90)

Thermal conductivity measurement: 20s

### Sample connections

Compression fitting suitable for 0.25 inch (6mm) OD tubing or quick release connector

### Sample pressure

Pump off: +3 bar G maximum

Pump on: -100mb G minimum

Higher pressures available on request

### Sample flow

100 to 300ml/min for optimum performance

### Sample temperature

-10 to +55°C (non-condensing)

### Outputs

0 to 1V analogue

### Ambient temperature

-5 to +40°C

### Battery capacity

6 hours

### Battery chargers - supplied

Mains: 240V ac (UK only)

Vehicle cigarette lighter: 12V dc

### Case

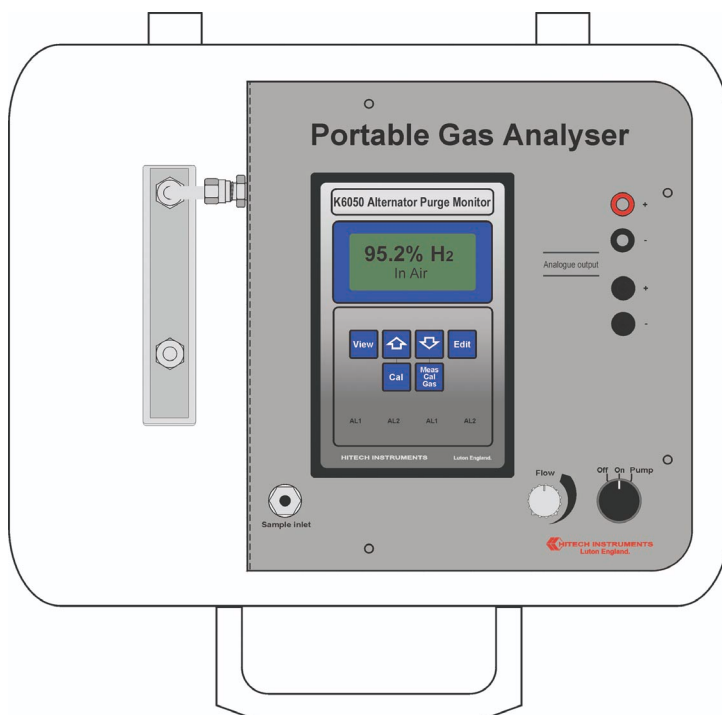
Tough co-polymer resin with carrying handle

### Dimensions

338mm wide x 295mm deep x 162mm high with handle parked in forward position

### Weight

5.2kg approximately



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

