

# PORTABLE KATHAROMETER GAS ANALYZERS FOR HYDROGEN, HELIUM, ARGON, NEON, & MORE

## K850 & KG850

### FEATURES

- Wide range of gases monitored up to 0-100% Volume including Hydrogen, Helium, Argon, Neon, and Methane
- Optional Oxygen measurement
- Fast warm-up with rapid response time
- Low maintenance and calibration requirements



K850 Series analyzers accurately measure the changes of one constituent in binary or pseudobinary gas mixtures (i.e. mixtures in which only one constituent changes). Examples include Hydrogen, Helium, Argon, Neon, Methane and various halogenated hydrocarbons such as 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 analyzer. True portability is 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 ABS case with a carrying handle that doubles as a variable-height tilt foot for bench use.

Dual-gas measurement is provided by the KG850. It combines the measurement abilities of the K850 with Oxygen measurement by electrochemical cell. Concentration ranges from 100 ppm to 100% Volume of Oxygen are available, depending on the application. 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.



**CEA Instruments, Inc.**

*"EXPERTS IN TOXIC GAS DETECTION"*

## K850 & KG850 SPECIFICATIONS

<b>Display</b>	Dot matrix LCD showing two or four lines of alphanumeric characters
<b>Thermal Conductivity Ranges and Gas Types</b>	0 to 10%, to 0 to 100% - Argon or Methane 0 to 0.5%, to 0 to 100% - Hydrogen or Helium
<b>Accuracy</b>	± 1% of span (typically)
<b>Oxygen Measurement Ranges (KG850 only)</b>	0 to 100% with 0.1% resolution Accuracy: ±0.25%  0 to 25% with 0.1% resolution Accuracy: ±0.1% (5 to 100% of scale) <i>ppm ranges available subject to application</i>
<b>Oxygen Cell Life</b>	Typically 2 years
<b>Speed of Response (Typical)</b>	Oxygen measurement: 12s (T90) Thermal conductivity measurement: 20s
<b>Sample Connections</b>	Compression fitting suitable for 0.25 inch (6 mm) OD tubing
<b>Sample Pressure</b>	Pump off: +3 bar G maximum Pump on: -100 mb G minimum
<b>Sample Flow</b>	100 to 300 ml/min for optimum performance
<b>Sample Temperature</b>	-10 to +60 °C (non-condensing)
<b>Outputs</b>	0 to 1V analogue
<b>Ambient Temperature</b>	-5 to 40 °C
<b>Battery Capacity</b>	6 hours
<b>Battery Chargers</b>	Mains: 120 VAC or 240 VAC (specify) Vehicle cigarette lighter: 12VDC
<b>Case</b>	ABS plastic with carrying handle doubling as variable-height tilt foot
<b>Dimensions</b>	250 mm wide x 255 mm deep x 94 mm high with handle parked in forward position
<b>Weight</b>	2 Kg approximately

(Specifications subject to change without notice.)



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## K850 & KG850 PRICE LIST

<u>PART NUMBER</u>	<u>DESCRIPTION</u>	<u>PRICE</u>
K850	<b>PORTABLE KATHAROMETER GAS ANALYZER</b> Bench top case with carrying handle / tilt support, digital display, air pump sampling system 130-2009, user adjustable 0 to 1 V output, and without alarms <i>(Specify either 120VAC or 240VAC power)</i> <b>Target Gas Measurement Ranges Available</b> Hydrogen 0 to 1%, 0 to 5%, 0 to 20%, <b>or</b> 0 to 100% Volume Helium 0 to 1%, 0 to 5%, 0 to 20%, <b>or</b> 0 to 100% Volume Argon 0 to 20% <b>or</b> 0 to 100% Volume Neon 0 to 20% <b>or</b> 0 to 100% Volume Methane 0 to 20% <b>or</b> 0 to 100% Volume <i>(Specify target gas, measurement range, and all background gases to assure the optimal performance of the analyzer.)</i>	\$ 6,995.00
KG850	<b>PORTABLE KATHAROMETER + O2 GAS ANALYZER</b> Bench top case with carrying handle / tilt support, dual digital display, air pump sampling system 130-2009, two user adjustable 0 to 1 V outputs, and without alarms <i>(Specify either 120VAC or 240VAC power)</i> Includes: Oxygen gas sensor for either 0-25% Volume <b>or</b> 0-100% Volume <i>(specify O2 range)</i> and one target gas sensor <b>Target Gas Measurement Ranges Available</b> Hydrogen 0 to 1%, 0 to 5%, 0 to 20%, <b>or</b> 0 to 100% Volume Helium 0 to 5%, 0 to 20%, <b>or</b> 0 to 100% Volume Argon 0 to 20% <b>or</b> 0 to 100% Volume Neon 0 to 20% <b>or</b> 0 to 100% Volume Methane 0 to 20% <b>or</b> 0 to 100% Volume <i>(Specify target gas, measurement range, and all background gases to assure the optimal performance of the analyzer.)</i>	\$ 8,995.00
	<b>Optional K850 / KG850 shoulder strap carrying bag with accessory compartment</b>	\$ 250.00