



UniGas 2000+



Compact combustion analyser

Providing the latest technological analyser for heating service engineers, gas installers & plumbers

GAS ANALYSIS

7 INSTRUMENTS IN 1:

- 1 Combustion gas analyser
- 2 Draft & differential pressure meter
- 3 2 channel thermometer
- 4 Ambient CO monitor
- 5 Gas pipework leak tester
- 6 Gas leak detector
- 7 Ionization flame tester

Built-in impact printer

Built-in gas sniffer

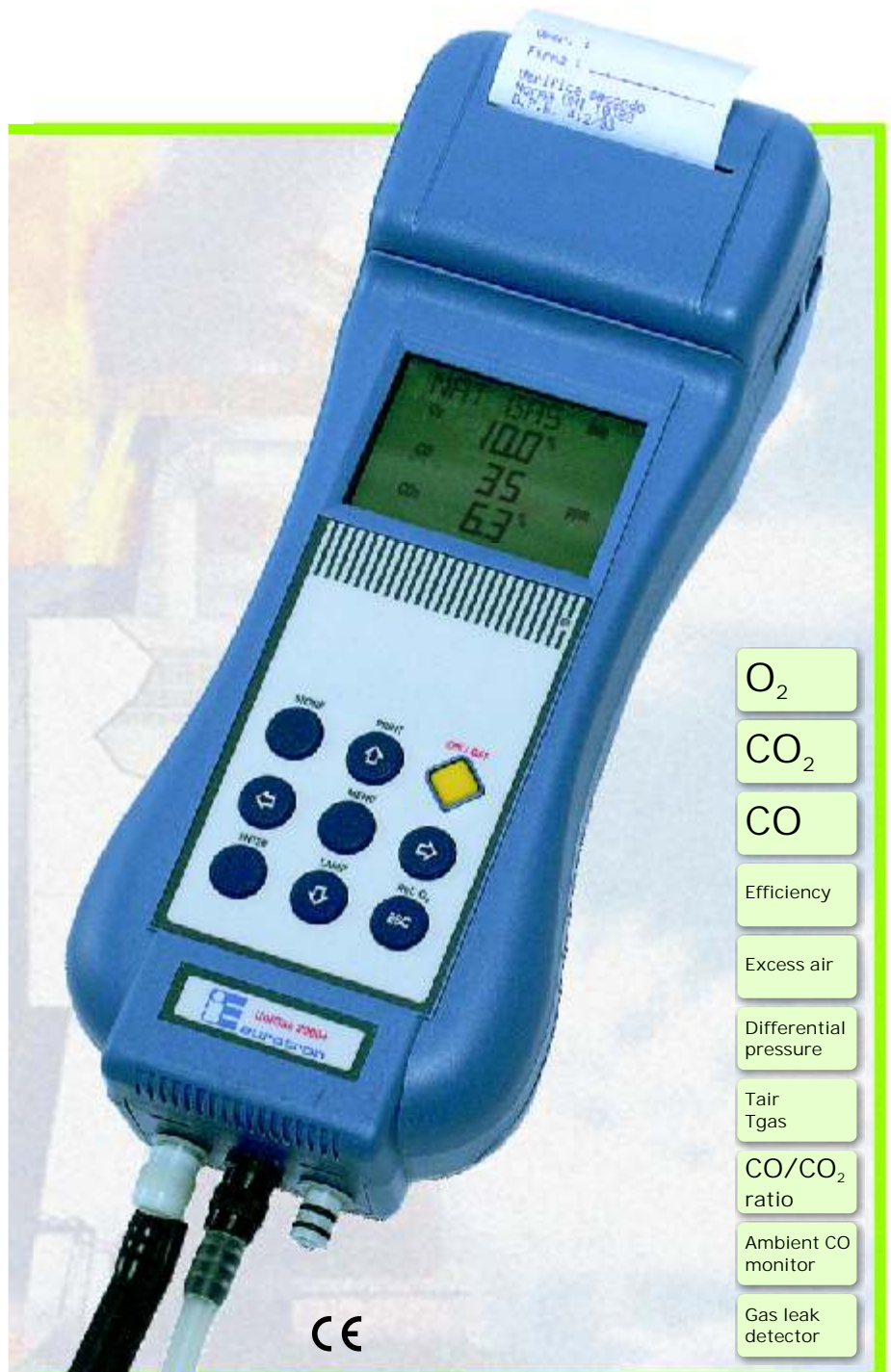
Rechargeable battery

Easy to use, text and keyboard in any language

Stores up to 250 samples

Windows software

Upgradable using flash memory



O₂

CO₂

CO

Efficiency

Excess air

Differential pressure

Tair
Tgas

CO/CO₂
ratio

Ambient CO
monitor

Gas leak
detector



Designed to meet BS7927, TUV, ISO, Gastec QA Criteria, GOST, Qualigaz, and UNI 10389



Multifunction unit for complete maintenance of your boiler

One instrument with many functions

The **NEW** handheld **UniGas 2000+** is the most comprehensive gas analyser available for:

- boiler tuning and maintenance;
- P boiler filters checks;
- pressure switch tuning;
- water, air, surface temperature measurements;
- draft, gauge and differential pressure measurements;
- search for presence and location of gas leaks;
- operator safety with ambient CO and O₂ continuous monitoring.

Easy replaceable gas sensors

UniGas 2000+ uses long life low maintenance sensors for O₂ and CO. Alarm levels with audible buzzer on gases measurement.

Standard Report of Calibration

Each instrument is factory calibrated and certified against Eurotron Standard to ensure traceability, and shipped with a Report of Calibration.

Rechargeable battery operations

Ni-MH rechargeable batteries provide longer field use. Flue gas analyser and internal printer is powered by unique batteries. Charger is supplied as standard.

Keyboard & Display

Text, menu, and keyboard available in most common languages (not icons) for simple and intuitive operations. Engineering units are selectable by keyboard for US and European standard. The large backlight multi-parameter LCD display is more easy to read.

Multi Fuel selection

UniGas 2000+ provides up to 10 fuels for calculating combustion values. Most used fuels for your country are pre-loaded from factory. Others fuels can be added using GasConfig PC software.

Built-in impact printer

The instrument is available with or without a built-in rugged impact printer. It uses a low cost common roll of paper. Certainly more readable, long time and heat resistant than the thermal printout on chemical paper.

External cordless HP printer

You can also remote print using your HP 82240B Infrared printer.

Pressure/Draft input

Differential pressure input to verify: draft, gas pipework leak with pressure decay programme, gas flow pressure, pressure in combustion chamber, P on filters and fan, pressure switches calibration.

Smoke index

Smoke index measurement is performed by using the optional external hand pump. The results can be stored in the internal memory and printed on the report.

Gas sampling probe

Flue gas sampling probes, with different lengths and shapes, are available to match each specific requirement. The sampling probe is connected to the instrument with a single or dual hose through a water trap and a suspended particle filter.

Combustion air temperature sensor

A remote Pt100 probe is available for remote combustion air temperature measurement. This probe is strongly recommended mainly in forced air boiler to obtain an accurate efficiency measurement.

Ambient monitoring

The instrument can operate in two ways:
A procedure can be selected to

monitor the CO and the O₂ in ambient air using the internal sensors. An internal program allow the CO max measurement in atmospheric boiler check.

An external optional probe is also available for continuous surveillance of the ambient and operator safety. Both acoustic and visual alarm are available.

Gas pipework leak test

To check gas pipework for the presence of leaks using a pressure decay program and the internal pressure sensor.

Gas leak sniffer

The instrument can operate in two ways: An **external** optional probe is available to locate the position of a gas leak. This probe has a flexible stainless steel shaft to reach difficult locations.

An **internal** optional sensor can be installed inside the analyser to locate the position of a gas leak into the domestic pipe network. The internal pump draws the air from ambient and makes the instrument more sensitive for micro-leaks.

Ionization flame tester

Checks the ionization current in flame control sensor.

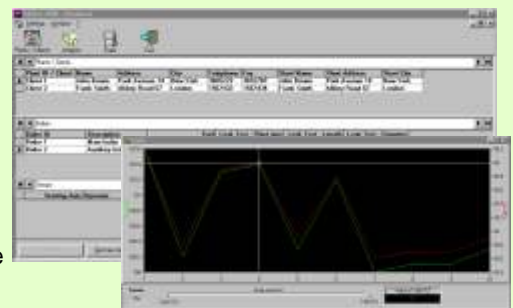
Flash memory

The flash memory allows the instrument to be configured by updating the UniGas firmware for any future legislation requirement or product performance upgrading.

DBGas 2000 - Boiler test & Customer database manager

UniGas 2000+ can store 250 readings structured by boilers and customers. Using the optional **DBGas2000 Windows™** software package, you can organize and manage your inspection and maintenance activity. Select your customer and boiler details from PC and download to your UniGas.

DbGas 2000 software package includes **GasConfig Windows™** software. With this software you can modify the configuration of the instrument.





UniGas 2000+

The most powerful
and complete gas analyser

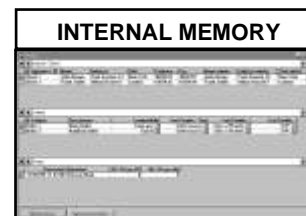
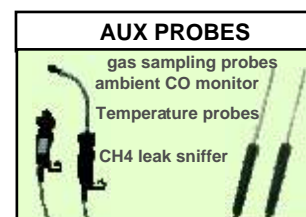
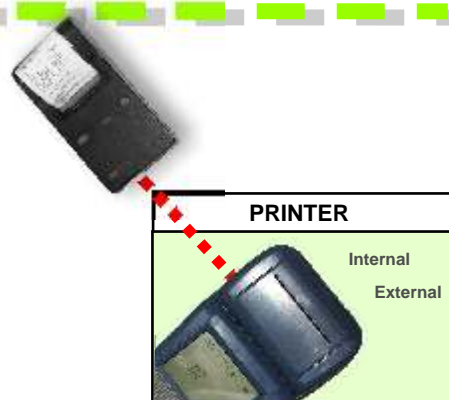
Specifications

- **Type:** palm-top combustion gas analyser with 1 or 2 gas sensors.
- **Calibration:** automatic calibration procedure at instrument switch-On.
- **Self-diagnosis:** Sensors efficiency test with display diagnostic messages.
- **Fuel types:** Up to 10 selectable from keyboard.
- **Power supply:** High capacity Ni-MH rechargeable battery pack / external battery charger.
- **Charging time:** 8h at 90% with instrument Off.
- **Battery life:** 6 hours (typical) continuous use (without printing and backlight).
- **Memory:** up to 250 full analysis data structured by boilers (Tags).
- **Printer:** Internal impact type 24 columns with 58 mm paper roll (10 meters long).
- **Printer power supply:** from the analyser battery pack.
- **Print autonomy:** up to 40 reports with full battery (typical).
- **Service and user information:** 3 programmable lines.
- **Printed report header:** 4 programmable lines.
- **Display:** 40x58 mm alpha-numeric LCD with backlight device.
- **Flue gas probes:** stainless steel shaft with incorporated temperature sensor.
- **Serial communication:** RS232 serial interface.
- **Infrared port:** compatible with HP82240B cordless printer.
- **Operating temperature:** from -5°C to +45°C
- **Storage temperature:** from -20 to +60°C (3 months maximum at temperatures exceeding the operational limits).
- **Dimensions and Weight:** 115x90x330 mm - 1.1 kg with battery and printer

Parameter	Sensor	Range	Resolution	Accuracy
O ₂	Electrochemical	0 - 25%	0.1%	±0.2% vol
CO	Electrochemical	0 - 2000 ppm	1 ppm	±10 ppm <400 ppm ±5% rdg up to 2000 ppm
<i>H₂ immune level <10%</i>				
CO	Electrochemical	0 - 8000 ppm	1 ppm	±10 ppm <300 ppm ±4% rdg up to 2000 ppm ±10% rdg elsewhere
<i>H₂ compensated</i>				
CO ₂	Calculated	0 - 99.9%	0.1%	
Tair	Pt100	-10 - 100°C	0.1°C	±0.5°C
Tgas	Tc K	0 - 600°C	0.1°C	±1°C
Differential temp.	Calculated	0 - 999°C	0.1°C	
Pressure/Draft	Piezoresistive	±99.99hPa	0.01 hPa	±3Pa <300 Pa ±1% rdg. elsewhere
Excess air	Calculated	1.00 - infinity	0.01	
Efficiency	Calculated	1 - 99.9%	0.1%	

All emission measurements can be displayed with reference to a programmable O₂ value.
Accuracy limits are stated as % of reading. An additional ±1 digit error has to be considered.
The stated pressure relative accuracy is valid only after the zero procedure.
Measuring reading can be directly converted from ppm to mg/Nm³ and from hPa to mmH₂O, mbar, inH₂O.

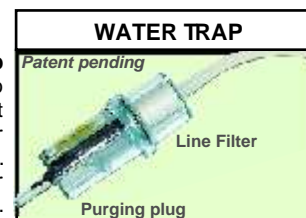
Specify your requirements



Consumable parts

EE650011	Filter paper set for smoke index measurements (40 pcs)
EE860004	Smoke index comparison table
EE340006	10 mt paper roll
EE490002	Printer ribbon cartridge
EE650074	Spare filter cartridge

Proprietary design trap
Patent pending to inhibit water into the instrument. External, to prevent risk of instrument damage. Big water tank capacity for condensation boiler. Small rubber cup for easy water purge. Long life paper filter.





UniGas 2000+ Modular design giving total flexibility

Accessories

Ordering Code



BB880028
ABS rigid carrying case
BB880033
Aluminium carrying case
BB880043
Compact rigid carrying case with
shoulder strap. UniGas 2000+, probes,
and accessories need 1/3 of the classic
carrying case space.

NEW



BB610051
180mm (TGD - Temperature, Gas,
Draft) sampling probe
BB610046
300mm (TGD - Temperature, Gas,
Draft) sampling probe



EE300086
Differential pressure probe
and burner hose kit



F7828000
Manual pump for smoke
index measurements



BB830006
Pt100 remote air sensor
with cone



BB290031
DC Auto Adapter



F2139000
Pipe Velcro TC type K



F2132100
130mm air TC type K



F2137100
130mm Contact TC type K



BB830009
Ambient CO probe

BB830010
Gas sniffer probe

BB830019
Ionization current probe

cat. 7822 - A - B - C - D - E - F - G

The standard package includes:

*Unigas 2000+ base unit with one electrochemical sensor, battery
charger, differential pressure sensor, infrared port for HP thermal
printer, instruction manual, Eurotron calibration certificate.*

Table A Sensor n.1

0 none
1 O₂ (0-25%)

Table B Sensor n.2

0 none
2 CO (0-2000 ppm)
2H CO (0-8000 ppm)

Table C Sample probes (including water trap and line filter)

0 none
1L 180mm flue gas or draft (single hose) probe BB610047
1 180mm flue gas probe + draft (dual hose) BB610051
2 300mm flue gas probe + draft (dual hose) BB610046
3 90mm 90° flue gas or draft (single hose) probe
BB610043
4 160mm multipoint flue gas (single hose) probe for
atmospheric boilers BB610070

Table D Options

0 none
1 Gas network leak test procedure with pressure decay
programme
2 Internal sensor for gas leak detector
3 External probe for gas leak detector
4 External probe for CO operator safety
6 Software GasConfig + DBGas2000 + RS232 cable
7 External probe for boiler ionization current
8 Remote combustion air temperature sensor with 2m
cable and positioning cone
9 Differential pressure connection kit (dual hose)
P Built-in impact printer

Table E Mains adapter / charger

1 115V ±10% 50/60Hz - USA plug
2 230V ±10% 50/60Hz - Schuko plug
3 230V ±10% 50/60Hz - UK plug
4 230V ±10% 50/60Hz - European plug
5 100V ±10% 50/60Hz - USA/Japan plug

Table F Accessories

0 None
1 Magnetic plate
2 Rubber protective holster with magnetic support
3 Vinyl case with shoulder strap
4 ABS carrying case
5 Aluminum carrying case
6 Manual pump for smoke index measurement with filters
and comparison table
7 DC Auto battery charger

Table G Calibration Certificate

1 Eurotron report

Specifications may change without notice.