

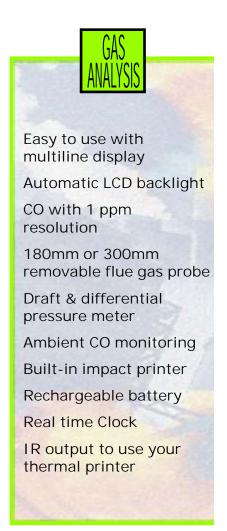


## UniGas 1000



# Basic Combustion Analyser

Low cost tool for boiler maintenance



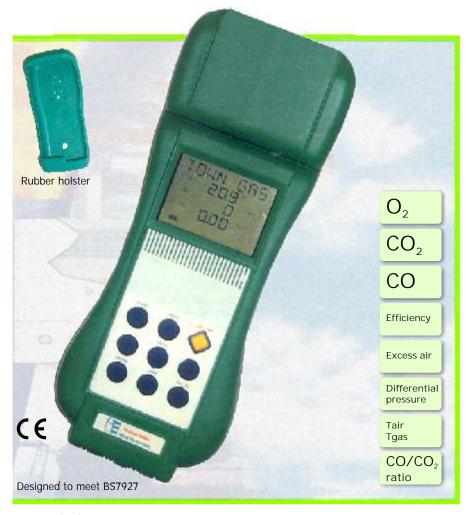
Easy replaceable gas sensors UniGas 1000 uses long life low maintenance sensors for O<sub>2</sub> and CO. Alarm levels with audible buzzer on gases measurement.

#### **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.

#### **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.

#### 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.

#### **Ambient monitoring**

A procedure can be selected to monitor the CO and the  $O_2$  in ambient air using the internal sensors. An internal program allow the CO max measurement in atmospheric boiler check.

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### UniGas 1000 Basic Combustion Analyser

Specifications

Ordering Code

- 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).
- Printer power supply: from the analyser battery pack.
- Printed report header: 4 programmable lines.
- Display: 40x58 mm alpha-numeric LCD with backlight device.
- 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



BB880028 ABS rigid carrying case BB880033 Aluminium carrying case

#### BB880043

Compact rigid carrying case with shoulder stap. UniGas 1000, probes, and accessories need 1/3 of the classic carrying case space.



cat. 7820 - A - B - C - D - E - F

The standard package includes:

Unigas 1000 basic unit, battery charger, differential pressure sensor, infrared port for HP thermal printer, rubber holster, instruction manual, Eurotron calibration certificate.

Table A	Sensor n.1
1	O <sub>2</sub> (0-25%)

Table B	Sensor n.2	
0	none	
2	CO (0-4000 ppm)	

Table C	Sample probe (including water trap and line filter)
0	none
1	180mm flue gas probe or draft (single

hose) BB610047
2 300mm flue gas probe or draft (single hose) BB610048

Table D	Options
0	none
Р	Built-in impact printer

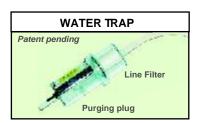
Table E	Mains adapter / charger
1	115V ±10% 50/60Hz - USA plug
2	230V ±10% 50/60Hz - Schuko plug
3	230V ±10% 50/60Hz - UK plug
4	230V ±10% 50/60Hz - European plug
5	100V ±10% 50/60Hz - USA/Japan plu

Table F Calibration Certificate
1 Eurotron report

Parameter	Sensor	Range	Resolution	Accuracy
O <sub>2</sub>	Electrochemical	0 - 25%	0.1%	±0.2% vol
CO	Electrochemical	0 - 2000 ppm	1 ppm	±10 ppm <100 ppm
		4000ppm max 15min.		±5% rdg elsewere
CO <sub>2</sub>	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
Pressure/Draft	Piezoresistive	±99.99hPa	0.01 hPa	±1% rdg.
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.



#### 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.



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