



UNIGAS 1000

Hand-held basic combustion gas analyzer with 2 sensors

UniGas 1000+ is a basic flue gas analyzer for 2 gases: O₂ & CO with electrochemical sensors, plus CO₂ calculated.

Description

UniGas 1000+ is a basic flue gas analyzer for 2 gases: O₂ & CO with electrochemical sensors, plus CO₂ calculated.

The instrument is delivered with a built-in rugged impact printer. The analyzer and its internal printer are powered by the same internal battery. Charger is supplied as standard.

Smoke index measurement is performed by using the optional external hand pump (ref: F7828000). The results can be stored in the internal memory and printed on the report.

A procedure can be selected to monitor the CO in ambient air using the internal sensors. An internal program allows CO max measurement in atmospheric boiler room test with 15 logged values.

Specifications

| Measured parameter | Range | Resolution | UniGas 1000 |
|--------------------|-------------------------|------------|----------------------|
| O2 | From 0 to 25% vol. | 0.1% | EC |
| CO | From 0 to 8000 ppm | 1 ppm | EC |
| CO2 | From 0 to 99.9% | 0.1% | Calc |
| Efficiency | From 1 to 99.9% | 0.1% | Calc |
| Excess air | From 1 to infinite | 0.01% | Calc |
| Pressure / Draft | From -10 to 120 hPa | 0.01 hPa | ✓ |
| Tair/Tgas | -10...100°C / 0...600°C | 0.1°C | Pt100 / Tc K Calc |

Further features

| | |
|-------------------|--|
| Zero calibration | Automatic calibration procedure at instrument power-on. Fresh air inlet with electrovalve and separate pneumatic circuit |
| Self-diagnosis | Sensor efficiency test with diagnostic page |
| Sampling pump | 1.4 l/min - 100 mbar |
| Smoke measurement | Using the external manual pump |
| Printer | 24 columns with 58 mm paper roll Autonomy: 40 reports with full battery |

General specifications

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|---------------------|--|
| Size | 115 x 90 x 330 mm |
| Weight | 1.1 kg with battery and printer |
| Power supply | 110 / 230 VAC (50/60 Hz) |
| Battery | Type: Rechargeable Li-ION Battery life: 6 hours continuous use Charging time: 8 h at 90% |
| Communication ports | RS 232 |

Environmental specifications

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|----------------------------|--|
| Operating reference range | From -5°C to +45°C (up to 50°C for short time) |
| Storage temperature limits | From -20 to +50°C (3 months max. at temperatures exceeding the operational limits) |

Models and accessories

Instrument:

Ordering code structure: 7820 - A - B - C - D - E - F / X

Please select the required options from tables A, B... below to define the right device reference.

7820 UniGas 1000

Standard delivery includes:

- Base unit with 2 sensors (O₂ + CO)
- Li-ION battery + charger module
- Internal impact printer
- IR port for thermal printer
- Factory test report
- Instruction manual
- Warranty: 1 year

Table A - Sensor n°1 (1 choice only)

1 O₂ (0 - 25%)

Table B - Sensor n°2 (1 choice only)

2H CO (0 - 8,000 ppm) H₂ compensated + Dilution system

Table C - Sample probes - including water trap and line filter (1 choice only)

0 None

1 180 mm sampling dual hose probe BB610051 (Gas + Draft) - max 800°C

2 300 mm sampling dual hose probe BB610046 (Gas + Draft) - max 800°C

Table D - Options (P is mandatory)

P Built-in impact printer

Table E - Mains adapter / Charger (1 choice only)

1 115 V - 50 / 60 Hz - USA plug

3 230 V - 50 / 60 Hz - UK plug

4 230 V - 50 / 60 Hz - European plug

5 100 V - 50 / 60 Hz - USA / Japan plug

Table F - Calibration certificate

1 Factory certificate (gas + pressure + temperature)

Table X - Customization

| | |
|------|---|
| INTL | English language - manual in English - English Keyboard |
| USA | English language - manual in English - English Keyboard |
| FR | French language - manual in French - French Keyboard |
| HOL | Dutch language - manual in English - English Keyboard |
| POL | Polish language - manual in English - English Keyboard |
| SPA | Spanish language - manual in English - English Keyboard |
| UK | English language - manual in English - English Keyboard |

Accessories:**Probes and sensors:**

| | |
|----------|--|
| BB610051 | 180 mm sampling dual hose probe BB610051 (Gas + Draft) - max 800°C |
| BB610046 | 300 mm sampling dual hose probe BB610046 (Gas + Draft) - max 800°C |
| BB830018 | Pt100 remote air temperature sensor, with 2 m cable and positioning cone |
| F2132100 | 130 mm air TC K-type probe |
| F2137100 | 130 mm contact TC K-type probe |
| F2139000 | Pipe Velcro TC K-type probe |

Test tools and miscellaneous:

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|----------|---|
| EE300088 | Single hose pressure probe and burner hose kit |
| F7828000 | Manual pump for smoke index measurements + 40 filters + table |

Software and connectors:

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|----------|------------------------------|
| BB260166 | DBGas 2004 standard software |
| EE700476 | USB adaptor cable |

Transport cases and protections:

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|----------|---|
| BB880028 | ABS rigid carrying case |
| BB880043 | Vinyl carrying case with shoulder strap |
| EE880047 | Rubber holster with magnetic support |

Consumable parts:

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|----------|--|
| EE340006 | Printer paper roll - <i>Minimum order of 10 pcs</i> |
| EE490002 | Printer ribbon - <i>Minimum order of 3 pcs</i> |
| EE650011 | Filter for soot (40 pieces per pack) |
| EE650074 | Filter cartridge for EE650076 / EE 650082 water trap + filter - <i>Minimum order of 10 pcs</i> |