



Portable Flue Gas Analyzer MODEL - Flexi

**Build Your
Own Analyzer**



**Combination of Technologies for
Gas Concentration
Measurement**



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Technical Specification

PARAMETER	RESOLUTION	ACCURACY	RANGE
Flue Temperature with probe	0.1°C	±2.0°C	0 - 1200° C with suitable probe
Inlet Temperature	0.1°C	±0.1°C	0 - 50° C
Pressure	0.1 mbar	±2% of reading	±150 mbar
Humidity	0.1%	±2% of reading	0 - 95% rh
Velocity	0.1 m/s	±2% of reading	0 - 50 m/s
GAS MEASUREMENT - ELECTROCHEMICAL			
Oxygen	0.1%	±0.2%	0 - 21%
Carbon Monoxide (Standard)	1 ppm	±20 ppm<500 ppm, ±5%>500 ppm,	0 - 10000 ppm
Carbon Monoxide (High Range)	0.01%	±5%	0 - 10%
Nitric Oxide (Standard)	1 ppm	±5 ppm<100 ppm, ±5%>100 ppm	0 - 5000 ppm
Nitric Oxide (Low Range)	1 ppm	±2 ppm<30 ppm, ±5 ppm>30 ppm	0 - 100 ppm
Nitrogen Dioxide	1 ppm	±5 ppm<100 ppm, ±10 ppm<500 ppm ±5% >500 ppm	0 - 1000 ppm
Sulphur Dioxide	1 ppm	±5 ppm<100 ppm, ±5% >100 ppm	0 - 5000 ppm
HCl	1 ppm	±5 ppm	0 - 200 ppm
HF	0.1 ppm	±0.5 ppm	0 - 30 ppm
H ₂ S	1 ppm	±5 ppm	0 - 500 ppm, 0 -1000 ppm
H ₂	1 ppm	±5 ppm	0 - 1000 ppm, 0 -10000 ppm
NH ₃	1 ppm	±5 ppm	0 - 500 ppm, 0 -1000 ppm
Cl ₂	1 ppm	±5 ppm	0 - 500 ppm, 0 -1000 ppm
GAS MEASUREMENT - INFRARED (IR)			
Carbon Dioxide	0.1%	±3%	0 - 1%, 0 - 5%, 0 - 20%, 0 -100%
Methane	0.1%	±3%	0 - 1%, 0 - 5%, 0 - 20%, 0-100%
Total Hydrocarbon	0.1%	±3%	0 - 1%, 0 - 5%, 0 - 100%
GAS MEASUREMENT - PID			
CS ₂	1 ppm	±2% of full scale	0 - 500 ppm
CALCULATIONS			
Carbon Dioxide	0.1%	±0.3% of reading	0 - 20%
Efficiency	0.1%	±1.0% of reading	0 - 120%
Losses	0.1%	±1.0% of reading	0 - 99.99%
Excess air	0.1%	±0.2%	0 - 2885.0%
Temp (Net) Standard	1°C	±2°C	0 - 600°C
CO/CO ₂ Ratio	0.0001	±0.0001	0 - 0.9999
Poison Index	0.01%	0.01%	0 - 99.99%

Other gases on request

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Unit Specification

- Ambient Temperature : 0-50°C
- Humidity : 0-95 % rh
- Repeatability : ± 1% of reading
- Power Supply : 80-230 VAC, 50 Hz, Adaptor
- Area Classification : General Purpose

Combination of Technologies for Gas Concentration Measurement

- NDIR Sensors
- PID Sensors
- Electrochemical Sensors

Total Solution for Boiler Efficiency Analysis Combined with Emission Monitoring

- Efficiency
- Losses
- Excess Air
- Poison Index
- Net Temperature
- Stack temperature
- Ambient temperature
- Derived CO₂ & NO_x
- Pressure
- Velocity
- Flow rate
- Humidity

Also calculates relative concentration of all Gas Emissions with respect to Reference O₂

Programmable units of measured gas concentration

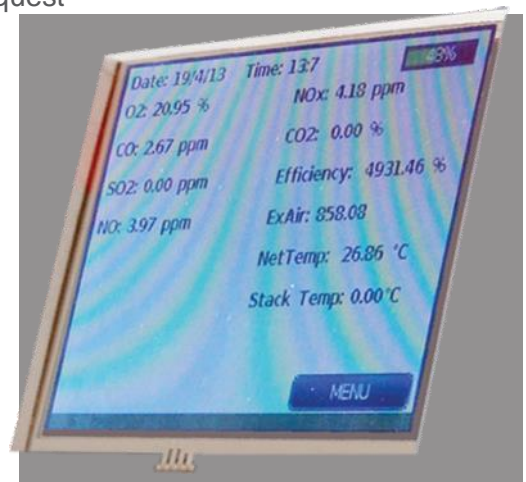
- Gas concentrations can be displayed either in ppm or mg/m³
- Gas concentrations can be displayed either in ppb or µg/m³ on request

Other parameters measured

- Pressure
- Velocity
- Flow rate

Data Management

- Can store up to 160 sets of data
- Data logger function for the analog inputs
- Can choose up to 15 parameters in a data set
- Auto store and averaging option for all gas concentration
- Powerful Windows Software for Analyzer Data Communication
- All measured values, stored values or displayed can be printed on the external printer



**5.7"QVGA TFT
Touch Screen Display**

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Hardware Capabilities

- 32-bit Cortex-M3 ARM Processor
- Rechargeable Lithium Ion Battery
- Suction Pump with 400 mbar w.r.t. absolute
- Printer Interface
- Borosilicate Filter with 0.1 micron porosity
- Gas probe with thermocouple and condensate trap
- RS-232 interface and multi functional PC program

Optional Accessories

- Choice of soft carrying case or hard housing
- For longer sampling duration : Mini Peltier gas dryer with peristaltic pump
- For velocity measurement : Pitot tube

Sampling Probes

- For SO_x/ NO_x measurement : Heated probe with heated hose
- Inconel probe for up to 1200° C
- Silicon Carbide probe for up to 1600° C
- Alumina probe for up to 1600° C
- Customized probe length contact office

Additional Capabilities

- Automatic zeroing when the analyzer is switched ON
- All parameters programmable
- 18 common fuels with 2 extra programmable fuels

Advantages

- Low cost of ownership, maintenance and installation
- Ensured after sales & service support
- Spares and accessories availability guaranteed for years
- Combination of technologies and integration under one roof