



SAMPLING
SOLUTIONS

MEGA SYSTEM

CALIBRATION
& METROLOGY

EMICHECK SERIES



- Combustion Analyser
- Electrochemical and NDIR Sensors
- Fume treatment line with built-in Peltier system
- Self-calibrating for extended sampling periods
- Built-in printer



CARE FOR THE
ENVIRONMENT



EMICHECK SERIES

EMICHECK portable analyzers series are used for detecting and monitoring fume and gas emissions deriving from various combustion processes in a simple, rapid and precise manner. They also allow combustion control, which optimizes the efficiency of small, medium and large thermal plants.

Models are differentiated by the number of sensors that can be installed. The available parameters are: O₂ - CO - NO - NO₂ - SO₂ - CO₂ IR.

Electrochemical sensors are used to identify gases, except for those used for carbon dioxide, which are NDIR.

The analyzers are equipped with a polycarbonate keyboard for setting data and a large backlit display for displaying parameters. The data collected and processed can be stored for later consultation. It may also be sent to the built-in printer, or downloaded to PC via an RS232 serial port and then transferred to a USB pen drive.

The software allows continuous or timed analyzes with recording of average values. All calculations comply with UNI 10389. Gas concentrations can be expressed in percentage, in ppm or in mg/m³.

Memory capacity allows for archival of over 800 records related to the average analysis values (data logger function).

Using the calibration program, with the help of certified gas mixtures, operators are able to check and / or calibrate sensors.

The analyzers are equipped with a filtering and condensation collection system that can be upgraded depending on specific needs, including a built-in PELTIER cell cooling system with automatic condensation discharge.

For long-term sampling with condensation, the analyzer can be equipped with a self-limiting Teflon tube probe with a cut-off point of 160 °C.



SOFTWARE CHARACTERISTICS

Displays, calculates and stores the following data:

- Parameters detected - variables depending on the selected configuration
- Total NO₂ - calculated and expressed in mg/m³.
- CO₂ % - detected only if the IR sensor is installed, otherwise calculated according to the maximum CO₂ for the selected fuel type.
- Burn rate, losses and excess air (lambda).
- Recording data average - and peak-values related to oxygen percentage and those of combustion.

TECHNICAL SPECIFICATIONS

■ Interface, Data Archiving	
Display	Alphanumeric LCD (40x4)
Interface	USB host (on Pen Drive)
Printer	Built-in
■ Environmental Conditions	
Working Temperature Range	0 °C ÷ +40°C 95% UR
■ Energy	
Power	230 Vac - 50 Hz
Consumption	115 W
Battery	Internal, high capacity
Battery charger	Built-in
■ Features	
Weight	8,5 kg
■ Supplied With	
Technical Manual	
Test report	

■ Sensors			
	Range	Resolution	Accuracy
Oxygen (O ₂)	0 ÷ 20,9%	0,1%	± 2%
Carbon monoxide (CO)	0 ÷ 4000 ppm	1 ppm	± 5%
Nitrogen oxide (NO)	0 ÷ 2000 ppm	1 ppm	± 5%
Nitrogen dioxide (NO ₂)	0 ÷ 800 ppm	1 ppm	± 5%
Sulphur dioxide (SO ₂)	0 ÷ 2000 ppm	1 ppm	± 5%
Carbon dioxide (CO ₂ - NDIR)	0 ÷ 30%	0,1%	± 5%
■ Temperature Sensors			
	Range	Resolution	Accuracy
Gas	0 ÷ 999 °C	1 °C	± 2 °C
Environmental	0 ÷ 50 °C	1 °C	± 2 °C