

**NEW
GENERATION**
★★★★★

NDIR-GFC Multi-Gas Analyzer

PROCESS & EMISSIONS MONITORING SYSTEMS

Eco-designed, ultra-compact, smart & connected instrument, the MIR 9000e is your next tool to measure combustion exhaust gas from boiler, or gas from different industrial furnaces and process applications.



ENVEA Connect™
Free Apps
iOS / Android



SPECIFIC FEATURES:

- Superior metrological performances for the simultaneous multi-gas measurement of: NO_x, SO₂, CO, O₂, residual H₂O, and optionally CO₂, CH₄ and N₂O (greenhouse gases)
- Environmental-friendly and cost-saving analyzer, with ultra low power consumption
- Breakthrough mechanical design for weight and power saving as well as thermal insulation & reliability
- Insensitive to T° variations in the range +5° to +40°C (no air conditioning required)
- Compatible with any type of drying technology (gas cooler, permeation, dilution...)
- No compressed air required (if using a gas cooler)
- Proactive, user-friendly remote communication
- Smart analyzer including AMS control functionalities: integrated sampling control, automatic zero and span gas injection, external pump control, system alarms display...
- Highly accurate, excellent stability
- Economical, easy and reduced maintenance
- Real-time graphic display (color touch screen), animated synoptic, self-diagnostic, control and maintenance data screens can be displayed while the instrument is operating
- Service assistant inside: detects early signs of trouble, allows predictive maintenance for increased productivity on site, reduced downtime, more efficiency, less training
- Includes embedded Communication Protocol for WEX® Management Software with automatic recognition and configuration

Complete systems would comprise of:

- Sampling and conditioning system
- Sampling lines
- NO_x converter
- Data acquisition & management system

MAIN APPLICATIONS:

- > Industrial Boilers and Furnaces
- > Power Generation & Combustion
- > Gas turbines
- > Chemical & Petrochemical Plants
- > Process gas monitoring...

NDIR-GFC Analyzer **MIR 9000e**

Infrared analyzers allow for high sensitivity measurement of a variety of gas components, technology employed since many years by ENVEA, and continuously evolved, with its well-known MIR 9000 generation of gas analyzers. The MIR 9000e is a new generation of gas monitors, which benefits from a unique eco-design expertise.

The MIR 9000e is capable of measuring up to 7 components, depending on your selection. NO_x, SO₂, CO, CH₄ and N₂O are measured by the Non-Dispersive Infrared Gas Filter Correlation method (NDIR-GFC), while O₂ is measured by a built-in zirconia sensor (or paramagnetic cell upon request).

Eco-designed, the gas monitor utilizes the most recent optical and electronic technologies offering increased precision and robustness, while requiring only limited maintenance.

MEASURING RANGES

NO _x as NO ₂ (after NO _x converter)	0 - 100* / 1500* / 5000 mg/m ³	Optional parameters:	
SO ₂	0 - 75* / 1500* / 5000 mg/m ³	CO ₂	0 - 20 / 0 - 30 %
CO	0 - 75* / 3000* / 8000 mg/m ³	CH ₄	0 - 50* / 200* / 1000 mg/m ³
O ₂	0 - 25%	N ₂ O	0 - 50* / 200* / 1000 mg/m ³
Residual H ₂ O	0 - 2%	*QAL 1 ranges (ongoing certification)	

TECHNICAL SPECIFICATIONS

Zero drift	< 2 % FS / 1 month
Span drift	< 2 % FS / 1 month
Linearity	< 1 % FS
Sample flow-rate	approx 25 l/h
Display	TFT LCD color screen, resolution: 800 (RGB) x 480, size: 7 inches
HMI	Touch screen & graphic display
Power supply	100-250Vac, 50/60Hz + ground
Energy consumption	Warm-up: 110 W / 160 VA; Measuring 50 W / 75VA
Working temperature	+5 °C to 40 °C
Memory storage of measurement values	Capacity: 1 year based on 1-min intervals
Alarms checks	Yes
Tests and maintenance diagnostics	Yes
Standard I/O	Modbus TCP, Modbus RTU (dongle), UDP protocol, RJ45
Optional I/O	4 to 8 analog outputs (0-1 V, 0-10 V, 0-20 mA, 4-20 mA) 6 to 12 output relays 4 to 8 logical inputs
USB port	Type A USB socket: 2.0 (3.0 compliant)
External SV control	Screw terminal connector for up to 5 SV (solenoid valves): Measurement, Zero, Span 1, Span 2, Probe / Analyzer
Dimensions (DxWxH)	19" rack, 3U; 483x330x133 mm
Weight	10.4 kg / 23 lbs

MAIN OPTIONS:

- Up to 5 SV (external)
- I/O modules (external)
- O₂ measurement (internal)
- Sampling system
- NO_x converter
- Rack cabinet, shelter integration
- Data acquisition and management system WEX®



Eco-designed, with exclusive "inside the box" modular concept making the product more robust, power saving, simpler to service and eco-friendly.



MIR_9000e_ENL_06.2020 - The ENVEA Group has a policy of continuous improvement of its products and we reserve the right to update or modify specifications without prior notice.



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