

MIR
9000P

Portable multi-gas analyzer

Save time all along your stack emission testing process

8 > **SIMULTANEOUS PARAMETERS**
NO_x, SO₂, CO, CO₂, CH₄, N₂O, O₂ and residual H₂O
Accuracy and extended measuring ranges

Compliant with
international directives &
regulations

EN 15267-4
Meets the highest
European & U.S. standards
for Portable-Automated
Measuring Systems



THE MIR 9000P

belongs to the new generation of ENVEA gas monitors, showcasing eco-design, IoTs and on-board intelligence. It measures simultaneously 8 gases and uses the non-dispersive infrared method with gas filter correlation (NDIR-GFC). O₂ is measured by a SRM built-in **paramagnetic** sensor.

The analyzer has been designed to meet the specific needs of on-site regulatory measurement providing superior mobility, robustness, accuracy and compliance.

All this makes up for a unique gas emission monitor offering high productivity and low operational cost.

INCREASED MOBILITY & PRODUCTIVITY

- > All-in-one case design for easy transport/storage
- > Lightweight, compact and extra resistant transport case

| | | | | |
|--|---|--------|--|--------|
|  | L | 641 mm |  | 15 kg |
| | H | 393 mm | | 33 lbs |
| | D | 209 mm | | |



- > The analyzer operational temperature can be maintained:
 - in between stack controls (optional battery unit)
 - in transport, through the 12 V car plug (adaptor not provided)

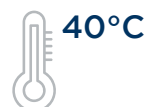
- > Standby mode guarantees the instrument is operational at any time

✓ Maximizes the number of stacks tested

ROBUST DESIGN

- > Built-in vibration absorber ensures measurement cell protection and stability
- > Extended operating temperature ranges
- > High protection (IP 44) against water splashing from any direction

✓ Whatever the weather, it operates!



STAY CONNECTED & GET ON WITH OTHER TASKS

- > Remote access to full operation thanks to ENVEA Connect™ App and proprietary WiFi
- > Smartphone alerts and notifications
- > IoT ready: software update, TCP/IP access...



Operates case closed or open



FREE APP



PLUG & PLAY

QUICK INSTALLATION

- > Warm-up time: 30 min maximum
- > Robust gas connectors
- > Self-adaptive measuring scales
- > Compatible with most sampling systems on the market



ONE CLICK OPERATIONS

- > Integrated user guidance and shortcuts to key functions: calibrations, span check, zero, etc.
- > Synoptic with real-time status
- > Secured user management



ANALYZER STATUS AT A GLANCE

- > Front side indicator provides key status info to the user



- ✓ No more comings & goes to open the lid and check on the analyzer

PREPARE REPORT ELEMENTS WHILE ON SITE



- > Direct access to real-time and stored data; time frame selection to generate graphs
- > Screenshot function for quick integration into reports
- > Redundant and secured data back-up
- > All data can be saved on USB memory stick



MAXIMIZED UPTIME OF THE ANALYZER

- > Modular design and Plug & Play parts (O₂ probe, NOx converter, protection filter, etc.)
- > Share the analyzer's state of health and get remote diagnosis & support



- > Turn-up lid designed for quick access to operational modules and easy maintenance

SYSTEM & ACCESSORIES



MIR 9000P



Gas conditioning unit



Heated line



TECHNICAL SPECIFICATIONS

| | | |
|--|--|---|
| Measured gases | SO ₂ , NO or NO _x , CO, CO ₂ , N ₂ O, CH ₄ , O ₂ and residual H ₂ O | |
| Measuring units (programmable) | ppm, mg/m ³ or % vol. | |
| Parameters | Typical measuring ranges | |
| SO ₂ | 0/143*/2000*/8600 mg/Nm ³ | 0/50*/700*/3000 ppm |
| NO _x as NO (after NO _x converter) | 0/70*/2000*/3300 mg/Nm ³ | 0/50*/1500*/2500 ppm |
| NO _x as NO ₂ (after NO _x converter) | 0/107*/3100*/5000 mg/Nm ³ | |
| CO | 0/70*/3000*/8000 mg/Nm ³ | 0/60*/2500*/6500 ppm |
| CO ₂ | 0-20/30% vol. | |
| N ₂ O | 0/50/150*/450*/980 mg/Nm ³ | 0/25/75*/225*/500 ppm |
| CH ₄ | 0/50/100/300/3600 mg/Nm ³ | 0/70/140/400/5000 ppm |
| O ₂ | 0-10/25% vol. Measured by a built-in paramagnetic sensor | |
| Residual H ₂ O | 0-2% vol. | |
| Repeatability | ±2% | |
| Zero drift | ±2% / 30 days | |
| Span drift | ±2% / 30 days | |
| Linearity | ±1% of Full Scale | |
| Resolution | < 0.1 ppm (CO ₂ : < 0.1%) | |
| Response time | 1 minute as standard, programmable | |
| Dimensions (L x H x D) | 641 x 393 x 209 mm | |
| Weight | 15 kg / 33 lbs | |
| Protection class | IP 44 (case closed) | |
| Operating temperature | +5 to +40°C | |
| Power supply | 100-250VAC, 50/60Hz + ground | |
| Energy consumption (except accessories) | Preheating: 120 W / 160 VA Measurement: 60 W / 75 VA | |
| Sample flow-rate | 6.66 × 10 ⁻⁶ m ³ /s (0.4 l/min.) | |
| Display & Control | Color touchscreen, TFT LCD 7", resolution: 800(RGB) x 4480 | |
| Internal storage of measurement data | 1 year for 1 minute data/ 1 month for 5 sec | |
| Standard I/O | 3 x USB ports type A: 2.0 (compatible 3.0) 1 x RJ45 (MODBUS TCP, MODBUS RTU (dongle) UDP Protocol) WiFi (via USB) Analog input: 0-250 mV or 0-1 V | |
| Connectivity | iOS, Android : via IP address or free ENVEA Connect™ App Computer (via any browser,TCP/IP) | |
| Options | I/O | - 8 non-isolated analog outputs (0-1 V, 0-10 V, 0-20 mA, or 4-20 mA), with common ground and user programmable scales - 8 non-isolated analog inputs 0-2.5 V - 8 isolated digital inputs - 12 digital outputs by potential free relay |
| | Battery | Type: AA 2800 mAh (min. 2650 mAh) NiMH 1,2 V x 20 |
| | System accessories | <ul style="list-style-type: none"> • Portable gas sample probe electrically heated with calibration gas feeding. • Portable sample conditioning system equipped with high-performance Peltier gas cooler. • Heated sample line with multi-pin plug on-off electronic temperature controller. |

*certified ranges



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