Multi-Gas Infrared GFC Analyzer **MIR 9000**

(Plus CLD Option)

QAL 1 EN 14181 QAL3 EN 14181 TÜV MCERTS

Offers excellent performance for multiple gas measurements, including HCl, NO, NO_2 (NOx), SO_2, CO, CO_2, HC, CH_4 (TOC), HF, H_2O and O_2

MIR 9000 rack 19'' version

MIR 9000 with CLD option

MIR 9000 - customized installation

Utilising Infra-Red Gas Filter Correlation allows the MIR-9000 to offer up to ten gas measurements simultaneously, including Nitric Oxide (NO), Nitrogen Dioxide (NO_2), Sulphur Dioxide (SO_2), Carbon Monoxide (CO), even Hydrogen Chloride (HCl) and Hydrogen Fluoride (HF).

EXCLUSIVE FEATURES :

- Over 1500 installations world wide, covering many applications and industries
- Designed to measure dry and corrosive sample
- Measures from 1 to 10 gases simultaneously
- Built-in data logger for 7 additional parameters (flow, pressure, temperature or any other analogue input)
- Real time graphic display
- Interactive menu-driven software allowing ease of operation
- Unheated sample line utilising the permeation drying technology
- Readings measured and expressed on a dry basis
- On-board oxygen correction for environmental reporting
- Automatic cross interference correction
- Highly accurate, excellent stability with automatic optical stability check
- Intrinsic security with on-board residual H_2O measurement
- Available in 19'' Rack or Tight box version
- **MCERTs and TÜV certified** to EN15267-3
- **QAL1** as defined by EN14181
- **QAL3** compliance to EN14181
- Compliant with **U.S. EPA**

MAIN APPLICATIONS:

- Municipal and Hazardous Waste Incinerators
- Cogeneration, Gas Turbines
- Industrial Boilers and Furnaces
- Power & Combustion
- Chemical & Petrochemical Plants

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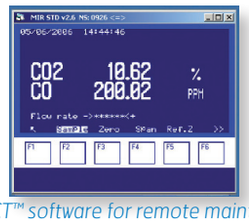
TECHNICAL SPECIFICATIONS :

	Lowest / Highest available ranges
NO (CLD)	0-20 / 2 000
NOx (CLD)	0-20 / 2 000
NO_2 (CLD)	0-20 / 200
NO (IR)	0-80 / 500
NOx (IR)	0-200 / 5 000
NO_2 (IR)	0-200 /
CO	0-75 / 10 000
CO_2	0-10 / 25 %
SO_2	0-75 / 5 000
N_2O	0-20 / 1 000
HCl	0-15 / 5 000
HF	0-20 / 300
CH_4	0-10 / 1 000
TOC	0-50 / 5 000
O_2	0-10 / 25 %

- Repeatability: <2% of Full Scale (F.S.)
- Zero drift: <2% F.S. / 30 days
- Span drift: < 1% F.S. / 7 days
- Linearity: < 1% F.S.
- Power supply: 80 - 230V, 50-60 Hz
- Consumption: 300 VA
- Serial link: RS232, RS 422
- Operating temperature: +5 °C to +40 °C
- Version with CLD (tight box):
  - Dim.: 200x600x600 mm (DxWxH)
  - Weight: 32 Kg
- Version without CLD (tight box):
  - Dim.: 200x400x600 mm (DxWxH)
  - Weight: 24 Kg
- Version without CLD (rack 19''):
  - Dim.: 490x483x177 mm (DxWxH)
  - Weight: 14 Kg

MAIN OPTIONS:

- Pressure, temperature & gas velocity measurements
- SEC® sampling system (permeation based)
- ESTEL board (1 or 2 boards) each including 4 analog I/O and 6 relays
- Rack cabinet, cubicle or shelter integration
- CONTACT™ software

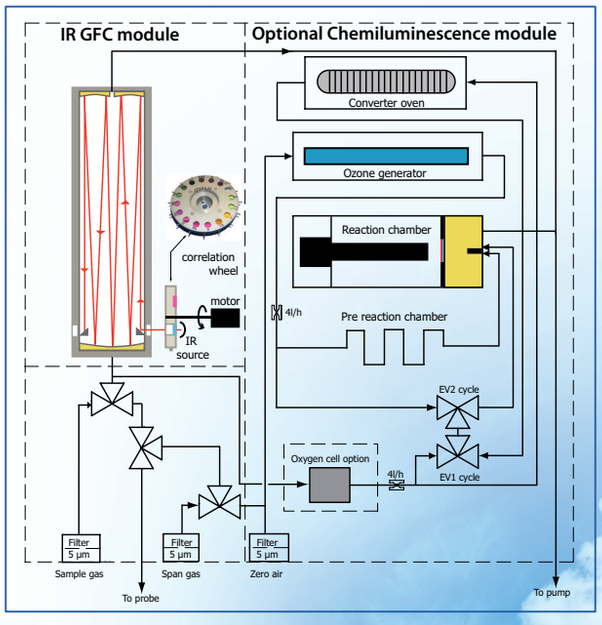


CONTACT™ software for remote maintenance

With over 1500 installations world wide, the MIR-9000 is a proven Continuous Emissions Monitoring system across a wide range of industries. All measurements are supplied dry as the sample is conditioned at the extraction point via the SEC drying system before being transported down a cool polytube line. Designed to operate under legislation such as 2000/76/EC (WID) and 2001/80/EC (LCPD), The MIR-9000 offers maximum availability and complete compliance with QAL 1 of EN14181 & EN15267-3.
The MIR-9000-CLD option utilises the **Standard Reference Method** (SRM) for the monitoring of NO, N_2O, NO_2, NOx, CO, CO_2, SO_2 and O_2. The MIR- 9000-CLD analyser is a free standing monitoring system that incorporates three monitoring technologies, these are Chemiluminescence for low level NOx measurement, Infra-Red Gas Filter Correlation for CO, CO_2 etc and finally Paramagnetic for O_2.

PRINCIPLE OF OPERATION:

The MIR-9000 is a multi-component Non-Dispersive Infra-Red (ND-IR) analyser using Gas Filter Correlation technique (GFC). GFC is a well-established method to reduce cross sensitivities to gases that cause interferences in infrared measurements.
In the technique an optical band pass filter is used to select an infrared band and then cell filled with the gas of interest is placed on the beam, effectively blocking the spectral lines that the gas absorbs at. It is important to note that variations in optical clarity like dirt on cell windows, source strength, and other causes are not related to the spectral lines selected, will have no effect on the ratio of two pulses, making GFC an extremely sensitive and selective analytical technique.
The MIR-9000 uses a 16-position rotating correlation wheel, on which both interferential filters and gas cells are mounted, thus allowing multiple gases to be simultaneously measured.
The MIR 9000 is equipped with LAN connection for remote control and display functions , embedded Communication Protocol for WEX® Management Software, interactive menu-driven display allowing user-friendly and intuitive interface for the operator.



Complete systems would normally comprise of: • Sample extraction and conditioning probe (with integrated temperature, pressure and flow measurement) • Cold sample lines • Automatic calibration units • Instrument air drying system • Data acquisition & management system.

Distributed by:

Typical specifications subject to changes without prior notice.

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