



"The MIR 9000 CLD offers the lowest QAL 1 certified range on the CEMS market"



# MIR9000CLD Emissions & Process Gas Analyser

The MIR 9000 CLD uses the chemiluminescence detection principle which which allows the MIR 9000 CLD to offer the lowest QAL 1 certified range of the CEMS market.

High performance for  $NO_x$  measurements, including  $O_2$  by paramagnetic sensor.

Unique: 20 mg/Nm³ QAL 1 certified range

Available in 2 versions:

- NOx (CLD) and O<sub>2</sub> (Paramagnetic) in 19" Rack or Tight box
- $\bullet$  CO, CO<sub>2</sub>, SO<sub>2</sub>, HCl, HF, TOC, N<sub>2</sub>O (IR) + NOx (CLD) + O<sub>2</sub> in Tight box

#### Leading Edge Technology

- Built-in data logger for 7 additional parameters (flow, pressure, temperature or any other analogue input
- On-board oxygen measurement for environmental reporting
- Measures from 1 to 10 gases simultaneously
- Highly accurate, excellent stability with automatic optical stability check
- Over 2500 installations worldwide, covering many applications and industries

## Gases analysed



### **KEY FEATURES**

- Chemiluminescence Standard Reference Method for low & ultra low NO<sub>x</sub>
- Fast & simultaneous measurements of up to 10 gases
- Automatic cross interference correction
- Dry-basis measurement technique
- MCERT & TÜV compliant

## **Technical Specification**

#### **GENERAL**

- In-situ multi-gas monitoring system
- IED compliant
- · Internal data logger
- Optional; flow, temperature and pressure monitoring

#### **APPLICATIONS**

- Industrial boilers & furnaces
- Chemical & petrochemical plants
- Upstream / downstream gas treatment
- Process control

#### **PHYSICAL**

- Dimensions: 200 x 600 x 600mm (DxWxH)
- Probe length: 700 x 1000 x 1500mm
- · Weight: Up to 32kg

#### **PERFORMANCE**

- Number of gases monitored: up to 10
- External analog inputs: 7
- Operating temperature: +5°C to +40°C
- Data storage: last 3000 averages
- Digital output: RS232/422, Ethernet
- Power: 80/230VAC, 50/60Hz,
- Power Consumption: 300VA

#### **CERTIFIED RANGES**

- NO: 0-100mg/m<sup>3</sup> 0-500mg/m<sup>3</sup>
- N<sub>2</sub>O: 0-20mg/m<sup>3</sup> 0-200mg/m<sup>3</sup>
- CO: 0-75mg/m<sup>3</sup> 0-500mg/m<sup>3</sup>
- CO<sub>3</sub>: 0-25%
- SO<sub>3</sub>: 0-75mg/m<sup>3</sup> 0-200mg/m<sup>3</sup>
- HCl: 0-15mg/m³ 0-100mg/m³
- CH<sub>4</sub>: 0-10mg/m<sup>3</sup> 0-200mg/m<sup>3</sup>
- O<sub>2</sub>: 0-10% 0-25%

#### **SPAN & DRIFT**

- Repeatability: >2% of full scale
- Zero drift: >2% of full scale/30 days
- Span drift: >1% of full scale/30 days
- Linearity: ± 1% of full scale

#### **COMPLIANCE**

- EU Regulation IED (WID / LCPD / MCPD directives)
- MCERTS certified to EN15267-3
- QAL1 as defined by EN15267-3
- QAL3 compliance to EN15267-3

#### Complete systems would normally comprise of;

- Rack cabinet, cubicle or shelter integration
- Sample extraction and conditioning probe (with integrated temperature, pressure and flow measurement)
- Cold sample lines
- Calibration module
- Instrument air drying modul
- a1-cbiss Data Acquisition Software (CDAS)