The nCLD 824 MMdr analyzer is the next generation in two-channel high precision nitrogen oxide measurement. Unique in speed and reliability, the nCLD 824 MMdr is modular designed and capable of simultaneously measuring NO\textsubscript{X} from two different gas sources with pressure fluctuations. The new and intuitive graphical user interface “GUI” also individually displays and connects to other instruments’ data.

Two Instead of One
The nCLD 824 MMdr includes everything that is needed for simultaneously measuring NO\textsubscript{X} in two different gas samples. Dual sample gas inlet combined with two metal converters allows the user to measure two different sources simultaneously, enabling comparison of the samples. The integrated electro-mechanical bypass system balances out pressure variations occurring in the sample flow and the optionally available hot tubing enables the instrument to analyze hot and moist gas sources. Calibration and adjustment of the unit runs quick and automatically with all necessary data continuously stored and readily available anywhere and at any time.

User Friendliness with “GUI”
The new touch sensitive graphical user interface “GUI” enables the user to individually adjust the instrument operation and data management according to his/her needs and applications. The bright 8” monitor gives a clear overview and allows numerical and graphical display of values. Multiple digital in- and outputs guarantee a maximal connectivity for your remote operation, control and maintenance of the nCLD 824 MMdr, ensuring unsurpassed precision and reliability.

Compact, Modular and Intelligent!
The nCLD 824 MMdr is manufactured in a new compact and modular layout, in which each essential component of the chemiluminescence analyzer hosts its own CPU and interacts with other CPUs by BUS-communication. This assembly increases accessibility and serviceability by reducing wiring and piping. The measurement principle conforms to the standard method for NO\textsubscript{X}-detection in stationary source emissions [EN 14792].

- Rapid system integration and rack mounting
- Compact and modular design
- Virtually maintenance free even in continuous operation
- Four freely selectable measuring ranges (with dual inlet: two per channel)
- Choice between different types and numbers of converters

Measurably better
**SPECIFICATIONS nCLD 824 MMdr**

- **Measuring ranges**: channel 1: two freely selectable ranges from 5 ppm - 5000 ppm, channel 2: two freely selectable ranges from 0.5 ppm - 500 ppm
- **Power required**: 400 VA (incl. membrane pump and ozone scrubber)
- **Supply voltage**: 100–230 V/50–60 Hz
- **Interface**: USB (2.0), HDMI, Bluetooth, RS232 (w/o 9-pin connector), LAN, WLAN
- **Dimensions**: height: 133 mm (5¼”), width: 450 mm (17”), depth: 540 mm (21.2”)
- **Weight**: 23 kg (51 lb)
- **Delivery includes**: nCLD 824 MMdr analyzer, power cable, FTDI-RS232-USB cable, USB-LAN adapter, manual
- **Standard**: nCLD 824 MMdr dual channel NOx/NOx w/metal converters and electro-mechanical pressure regulation
- **Options**: - dual channel NOx/NOx w/steel converters - hot tubing - USB-RS232 9pin connector - 0 - 10 V / 4 - 20 mA into 500 Ω max.
- **Analog output**: (External Box)

**FLOW DIAGRAM**

- Measuring ranges:
  - Channel 1: two freely selectable ranges from 5 ppm - 5000 ppm
  - Channel 2: two freely selectable ranges from 0.5 ppm - 500 ppm

- **Min. detectable concentration**
  - Channel 1: 0.25 ppm
  - Channel 2: 0.025 ppm

- **Noise at zero point (1σ)**
  - Channel 1: 0.125 ppm
  - Channel 2: 0.0125 ppm

- **Lag time**: <1 sec
- **Rise time (0–90%)**: <1 sec
- **Temperature range**: 5 - 40 °C
- **Humidity tolerance**: 5 - 95% rel. h (non-condensing, ambient air and sample gas)
- **Sample flow rate**: 1.2 l/min (0.11 l/min without pressure regulation)
- **Input pressure**: 600–1200 mbar abs. (without pressure reg. to be externally stabilized within ± 3 mbar)
- **Dry air use for O₃ generator**: internally generated (no external supply gas required)

*depending on filter setting. ECO PHYSICS reserves the right to change these specifications without notice.*