



# ECO PHYSICS nCLD 82 Mh

## APPLICATION EXAMPLES

- Gas manufacturers
- Manufacturers of gas turbines
- Certification and calibration
- DeNOx plants
- Stack gas measurement
- Petrol industry
- Research and development



*The nCLD 82 Mh analyzer is the next generation in high precision single-channel nitrogen oxide measurement. Unique in speed and reliability, the nCLD 82 Mh is modular designed and capable of measuring NO<sub>x</sub> from hot and humid gas sources without additional cooler. The new and intuitive graphical user interface also individually displays and connects to other instruments' data.*

Measurement of:

- NO/NO<sub>x</sub>

### Straight From the Source

The nCLD 82 Mh includes everything that is needed for measuring NO<sub>x</sub> in unpreconditioned gas samples. The integrated hot tubing enables the instrument to analyze hot and moist sources and the optional electro-mechanical bypass system balances out pressure variations occurring in the sample flow. Furthermore, the analyzer is adaptable to numerous non-standardized applications. Dual sample gas inlet is an option that allows the user to measure two sources in parallel, enabling comparison of the samples. Calibration and adjustment of the unit runs quick and automatically, while all necessary data is continuously stored and available anywhere and at any time.

### User Friendliness

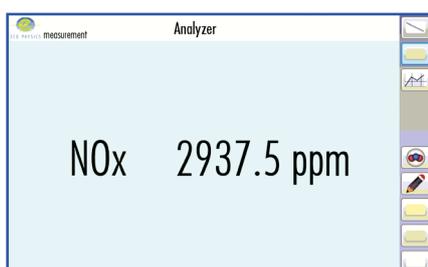
The new and intuitive touch sensitive graphical user interface enables the user to individually adjust the instrument operation and data management according to his/her needs and applications. The bright 7" monitor gives a clear overview and allows numerical and graphical display of values. Multiple digital in- and outputs guarantee a maximal connectivity and flexibility for the remote operation, control and maintenance of the nCLD 82 Mh.

### Compact, Modular and Intelligent!

The nCLD 82 Mh 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 will conform to the standard method for NO<sub>x</sub>-detection in stationary source emissions (EN 15267).

- Rapid system integration and rack mounting
- Compact and modular design
- Virtually maintenance free even in continuous operation
- Four freely selectable measuring ranges

Graphical user interface "GUI" for individual analyzer operation and data management



Measurably better

# SPECIFICATIONS

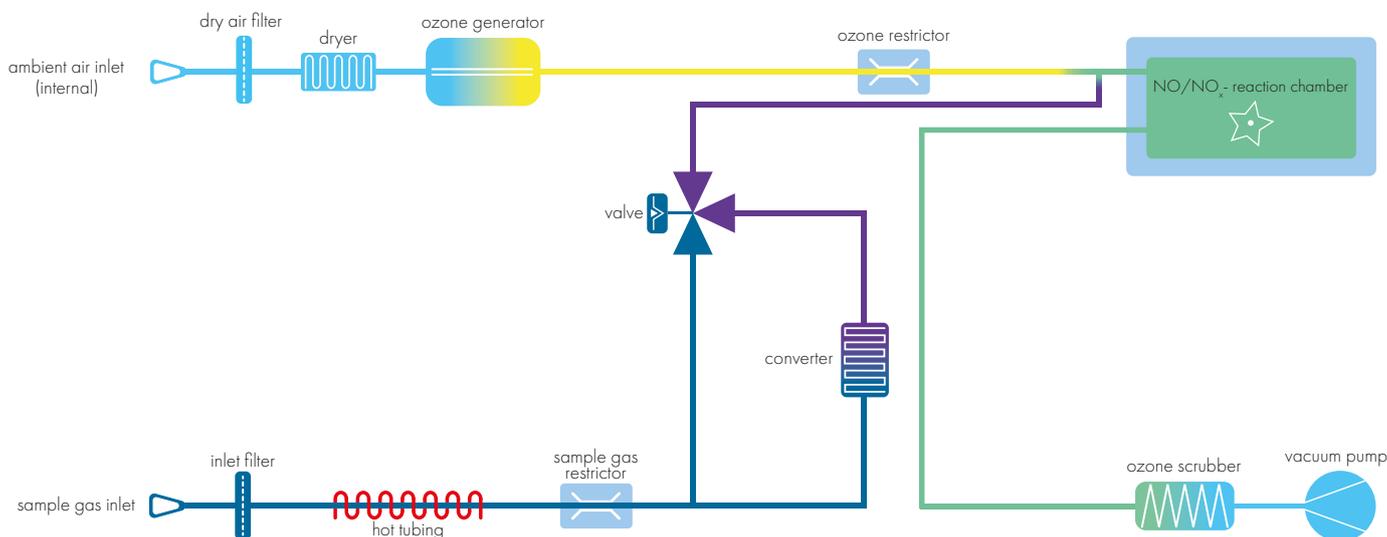
# nCLD 82 Mh

|                                          |                                                                             |                              |                                                                                                                                                                                                                                                                     |
|------------------------------------------|-----------------------------------------------------------------------------|------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Analyzer type                            | single chamber CLD with cooled PMT for measurement of NO or NO <sub>x</sub> | Supply voltage               | 100 - 240 V/50 - 60 Hz                                                                                                                                                                                                                                              |
| Measuring ranges                         | four freely selectable ranges from 5 ppm - 5'000 ppm                        | Interface                    | USB(3x), HDMI, Bluetooth, RS232 (w/o 9pin connector), LAN, WLAN                                                                                                                                                                                                     |
| Min. detectable concentration*           | 0.12 ppm                                                                    | Dimensions                   | height: 133 mm (5¼")<br>width: 450 mm (19")<br>with molding: 495 mm<br>depth: 540 mm (21.2")                                                                                                                                                                        |
| Noise at zero point (1σ)*                | 0.06 ppm                                                                    | Weight                       | 23 kg (51 lb)                                                                                                                                                                                                                                                       |
| Lag time                                 | <3 sec                                                                      | Delivery includes            | nCLD 82 Mh analyzer, power cable, FTDI-RS232-USB cable, USB-LAN adapter, HDMI adapter                                                                                                                                                                               |
| Rise time (0 - 90%)                      | <1 sec                                                                      | Standard                     | nCLD 82 Mh<br>· <b>M</b> - metal converter<br>· <b>h</b> - hot tubing                                                                                                                                                                                               |
| Temperature range                        | 5 - 40 °C                                                                   | Options                      | · <b>V1</b> - single calibration valve<br>· <b>V2</b> - two calibration valves for pressurized calibration (zero & span / 2-3 bar)<br>· <b>r</b> - electro-mechanical pressure regulation<br>· USB-RS232 9pin connector<br>· 0 - 10 V<br>· 4 - 20 mA into 500Ω max. |
| Humidity tolerance                       | 5 - 95% rel. h<br>(non-condensing, ambient air and sample gas)              | Analog output (External Box) |                                                                                                                                                                                                                                                                     |
| Sample flow rate                         | 1.0 l/min                                                                   |                              |                                                                                                                                                                                                                                                                     |
| Input pressure                           | 600 - 1'200 mbar abs.                                                       |                              |                                                                                                                                                                                                                                                                     |
| Dry air use for O <sub>3</sub> generator | internally generated (no external supply gas required)                      |                              |                                                                                                                                                                                                                                                                     |
| Power required                           | 350 VA (incl. membrane pump and ozone scrubber)                             |                              |                                                                                                                                                                                                                                                                     |

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# FLOW DIAGRAM

\*Depending on filter setting  
Connectivity properties are country-specific  
ECO PHYSICS reserves the right to change these specifications without notice.



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