

# ECO PHYSICS nCLD 88 p

## Application examples



- Ambient monitoring in areas with excellent air quality
- Supervision of production processes in the chemical and hi-tech industries
- Permanent monitoring of clean room conditions in R & D labs
- Biomedical and pharmaceutical research
- Plant physiological research

**The nCLD 88 p nitrogen oxide analyzer is unique in its precision. It allows with the PLC 860 the sequential measurement of NO and NO<sub>2</sub> concentrations even in the range of parts per trillion!**



*Monitoring of ambient air quality.*

### When decimals are decisive.

The nCLD 88 p fulfills the requirements of many research groups specializing in detecting and monitoring smallest variations of NO<sub>2</sub> concentrations in less than thirty seconds despite its total sample flow. The lag time of less than a second makes it even more attractive.

NO<sub>2</sub> measurement is accomplished by a sequential detection of NO and NO<sub>x</sub>. The pre-chamber minimizes zero drift and cross sensitivity. This makes it ideally suited for areas with excellent air quality.

For specific measurements the photolytic converter unit

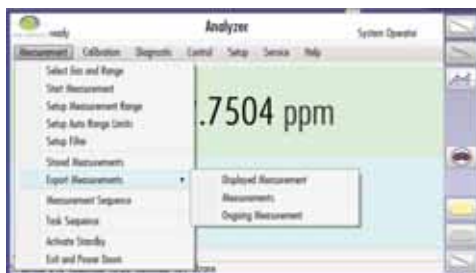
The use of first-rate components guarantees virtually service-free operation. Maintenance simply means annual replacement of filters and membranes besides the consumables required by special sampling conditions.

### Unique calibration by pressing a button!

The accuracy of chemiluminescence detection is strongly dependent on the calibration of the analyzer.

In order to assure reliability of its results the nCLD 88 p analyzer has optionally a calibration module (I) for the zero level and the NO reference gas. Calibration is quickly and automatically carried out by pressing a button on the keypad. This extremely useful feature eliminates the potential risk of erroneous calibrations.

- Compact design without any additional space required
- Photolytic converter for NO<sub>2</sub> detection
- Pre-chamber to offset cross sensitivity
- Four freely selectable measurement ranges
- Operation and control via touchscreen



*Clearly structured and full text displays inform the user about the instrument's status, any errors and measures to return to normal operation.*

PLC 860 can be replaced by the optionally available Y converter.

### User friendliness.

The "GUI - Graphical User Interface" enables the user to take advantage of all the features and functions of the analyzer and control it by means of the integrated 8-inch color touchscreen.

### Compact and modular construction.

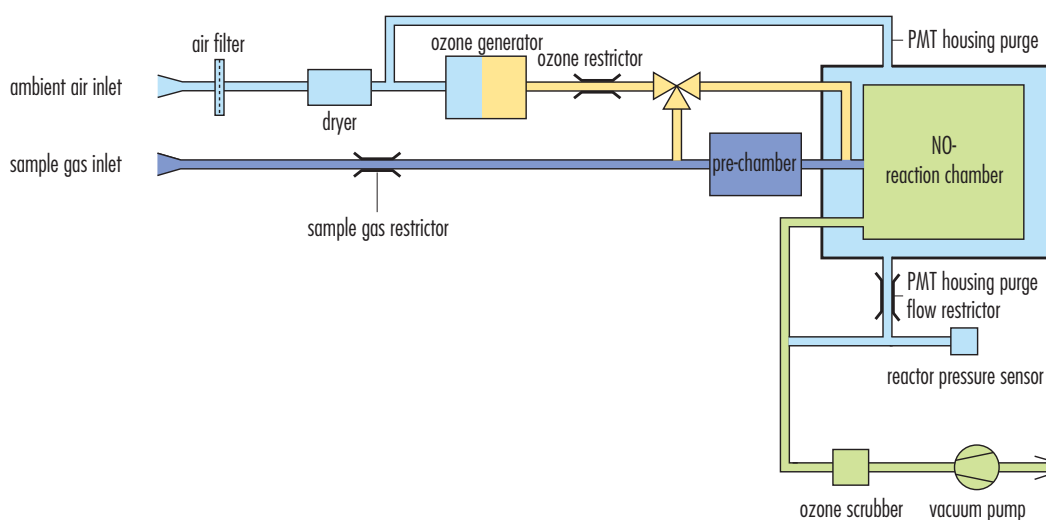
The nCLD 88 p is the most compact unit of its class. Thanks to the totally modular layout and the rich variety of options this analyzer is designed for a multitude of applications.

## Specifications

# nCLD 88 p

Measuring ranges	four freely selectable ranges from 5–5000 ppb	Interface	USB (2x), HDMI, RS232, Bluetooth, LAN, WLAN
Min. detectable concentration	0.05 ppb*	Optional	analog output with ext. box 4–20 mA; 0–1 V; 0–10 V
Noise at zero point (1 $\sigma$ )	0.025 ppb*	Dimensions	height: 133 mm (5¼") width: 450 mm (19") with moulding: 495 mm depth: 540 mm (21.2")
Lagtime	<1 sec	Weight	23 kg (51 lb)
Rise time (0–90%)	<30 sec	Delivery includes	nCLD 88 p analyzer, power cable, LAN connector, USB to RS232 converter cable, manual
Temperature range	5–40 °C	Standard	nCLD 88 Y p pre-chamber PLC 860 photolytic converter
Humidity tolerance	5–95% rel. h (non-condensing, ambient air and sample gas)	* depending on filter setting	
Sample flow rate	0.3 l/min	ECO PHYSICS reserves the right to change these specifications without notice.	
Input pressure	ambient		
Dry air use for O <sub>3</sub> generator	internally generated (no external supply gas required)		
Power required	400 VA (incl. membrane pump and ozone scrubber)		
Supply voltage	100–230 V/50–60 Hz		

## Flow diagram



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