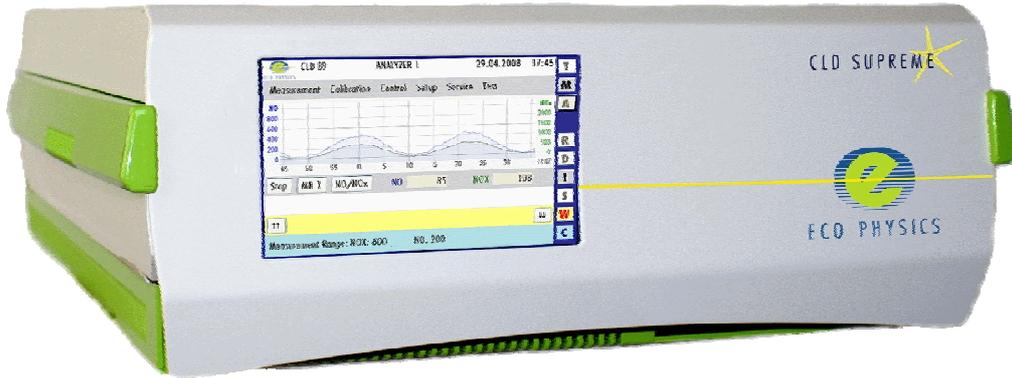


ECO PHYSICS CLD 89

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 CLD 89 nitrogen oxide analyzer is unique in its precision. It allows with the optional internal molybdenum converter the sequential measurement of NO and NO₂ concentrations even in the range of low parts per trillion!



Monitoring of ambient air quality.

When decimals are decisive.

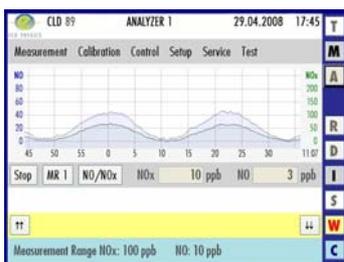
The CLD 89 fulfills the requirements of many research groups specializing in detecting and monitoring smallest variations of NO, NO_x and NO₂ concentrations. The lag time as well as the rise time of less than a second makes it attractive for fast laboratory applications and slow background ambient monitoring. NO₂ measurement is accomplished by a sequential detection of NO and NO_x.

Compact and modular design.

The CLD 89 is the most compact unit of its class. Thanks to the flexible installation this analyzer is designed for a multitude of applications.

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.

- Compact design without any additional space required
- Pre-chamber to offset cross sensitivity
- Four freely selectable measurement ranges
- Operation and control via touch screen



Clearly structured and full graphical color display informs the user about all relevant data.

For specific measurements in a clearly defined gas matrix, a molybdenum converter is optionally available.

Unique graphical interface.

The new designed graphical user interface enables easy access to various functions by touch screen technology. Integrated user management and configuration menus guarantee maximum flexibility for custom specific needs. Warnings and error messages, as well as user guidance, are displayed for easy identification. Online data are displayed numerical and graphical. The operator may use standard settings or user specific options like zoom functions. A standard feature is the data logger function for up to one year storage capability.

The pre-chamber minimizes zero drift and cross sensitivity. This makes it ideally suited for ambient air monitoring.

User friendliness.

The development of an ECO PHYSICS analyzer always requires full user comfort. The user can adapt the operation according to his needs by selection of predefined settings.

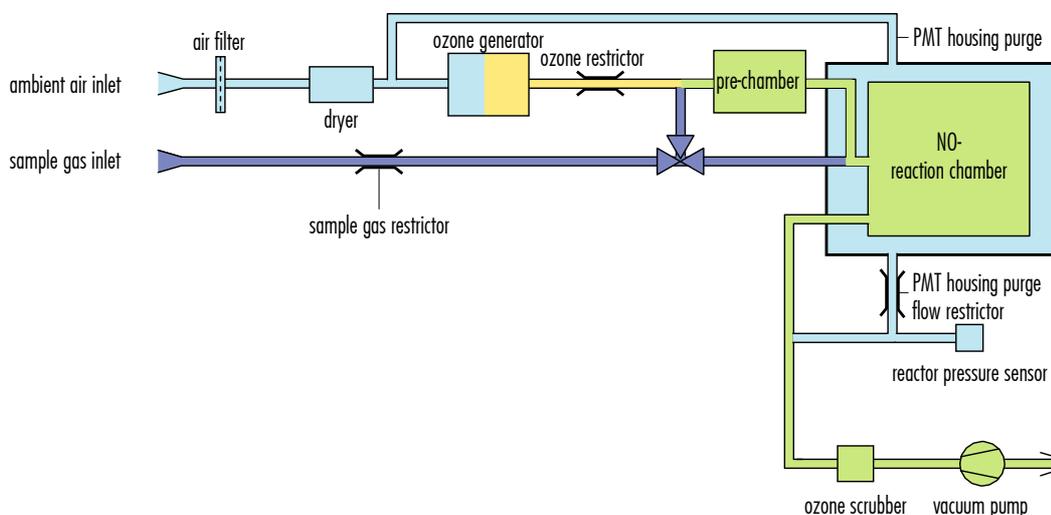


CLD 89

Specifications

Measuring ranges	four freely selectable ranges from 0.5–500 ppb	Analog output	4–20 mA into 500 Ω max. 0–1 V; 0–10 V
Min. detectable concentration	<0.025 ppb*	Dimensions	height: 178 mm (7") width: 450 mm (19") with moulding: 495 mm depth: 650 mm
Noise at zero point (1 σ)	<0.01 ppb*	Weight	38 kg
Lag time	<1 sec	Delivery includes	CLD 89 analyzer, power cable, operator's manual
Rise time (0–90%)	<1 sec	Standard	CLD 89 pre-chamber
Temperature range	5–40 °C	Option	Y molybdenum converter
Humidity tolerance	5–95% rel. h (non-condensing, ambient air and sample gas)	* depending on filter setting	
Sample flow rate	0.7 l/min	ECO PHYSICS reserves the right to change these specifications without notice.	
Input pressure	ambient (up to 2000 m above sea level)		
Dry air use for O ₃ generator	internally generated (no external supply gas required)		
Power required	320 VA (incl. membrane pump and ozone scrubber)		
Supply voltage	100–230 V/50–60 Hz		
Interface	RS 232		

Flow diagram



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