ECO PHYSICS **CLD 822 M h**

Application examples

- Burners and Boilers
- Manufacturers of gas turbines
- Certification and calibration authorities - QAL 1 approved
- DeNOx plants
- Refining of fuels and lubricants
- Tobacco industry
- Research and development

The solution for simultaneously measured of NO, NO_2 and NO_x has got a name: CLD 822 M h. The heated inlet copes with hot and humid gas samples – no gas cooler required!

A fascinating technology.

The analyzer is not only a state-of-the-art product in terms of precision and reliability. Its technological base also sets the trend for others. The integrated hot tubing (h) allows the direct measurement of hot and moist gases. An external preconditioning of the sample gas is not required. Naturally occurring pressure variations in the sample flow are balanced out by means of an electronic and mechanical bypass system (r).

Many options can be integrated without any problem to satisfy the need for non-standardized applications. The advantage of compact design: the CLD 822 M h includes everything inside the case – even the vacuum pump and the ozone scrubber.

The CLD 822 M h with slides is perfectly prepared for rack mounting.

Two instead of one.

The CLD 822 M h nitrogen oxide analyzer is optimized for its use in systems which require reliable NO_2 measurements or the control of two sample gases in parallel.

The outstanding feature is the concept of two parallel reaction chambers. They guarantee simultaneous measurement of NO and NO_x in order to generate the precise value of NO_2.

The analyzer is capable of coping with two separate measurement tasks. This may include the task of comparing the values at the inlet and the outlet of a process or the direct comparison of two independent samples. The analyzer simply requires a dual inlet feature option (d) and one additional converter.

User friendliness is a top priority.

The analyzer can be operated by means of the integrated keypad or remotely from a personal computer. The clear layout of the menu structure guides the user and enables him to take advantage of all analyzer functions with simple commands. Integrating the analyzer in larger systems is possible by including runners in the standard chassis design.

- *Four freely selectable measurement ranges [with option (d) two per channel]*
- *Choice between several types and numbers of converters from 0 to 2 according to the application*
- *Error message coded and in full text*
- *Rapid system integration*
- *Virtually maintenance-free even in continuous operation.*

CLD 822 M h

Specifications

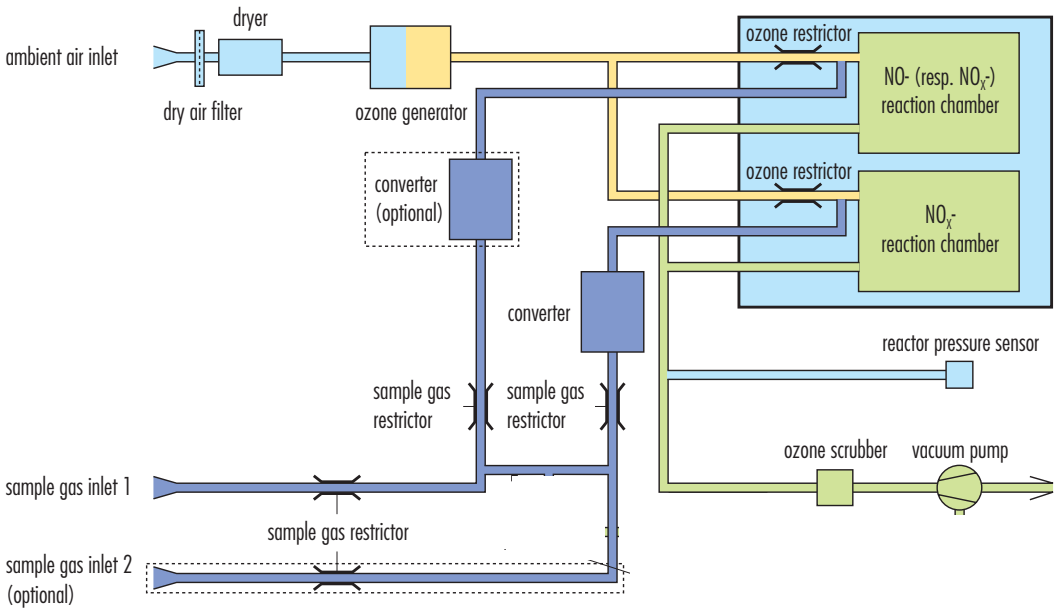
Measuring ranges	four freely selectable ranges from 5–5000 ppm, with option d two per channel
Min. detectable concentration	0.25 ppm*
Noise at zero point (1 σ)	0.125 ppm*
Lagtime	<1 sec
Rise time (0–90%)	<1 sec
Temperature range	5–40 °C
Humidity tolerance	5–95% rel. h (non-condensing, ambient air and sample gas)
Quenching (with gas cooler)	for H_2O: <1.5% of meas. value for CO_2: <0.3%/vol.-% CO_2
Sample flow rate	0.1 l/min
Input pressure	externally stabilized within ±3 mbar
Dry air use for O_3 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
Interface	RS 232 (standard)
Analog output	4–20 mA into 500 Ω max.; 0–1 V; 0–10 V
Dimensions	height: 133 mm (5¼ ") width: 450 mm (19 ") with moulding: 495 mm depth: 545 mm
Weight	26 kg
Delivery includes	CLD 822 S h analyzer, power cable, analog signal cable, manual

Standard	CLD 822 M h	metal converter, hot tubing
Options	S	steel converter
	d	dual sample gas inlet
	MM d	dual channel NO_x/NO_x

** depending on filter setting*

ECO PHYSICS reserves the right to change these specifications without notice.

Flow diagram



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