

# ECO PHYSICS CLD 844 CM hr

## Application examples



Monitoring of process chemicals and gases

Permanent monitoring of clean room conditions

Control of air filter systems

Process control such as photolithography, etching, etc.

R&D of DeNO<sub>x</sub> devices

The CLD 844 CM hr is capable to measure and display NO, NO<sub>2</sub>, NO<sub>x</sub>, NH<sub>3</sub> and the total NO<sub>x</sub>-amines! The heated inlet minimizes chemical alterations of the sample gas.



### Two instead of one.

The CLD 844 CM hr analyzer is optimized for the measurement of N-containing compounds such as NO, NO<sub>2</sub>, NH<sub>3</sub>, NMP and amines.

The outstanding feature is the concept of two parallel reaction chambers. They

guarantee simultaneous measurement of e.g. NO and NO<sub>x</sub> in order to generate the precise value of NO<sub>2</sub>.

Thanks to its two converter with different characteristics measuring NO<sub>x</sub> and the total of NO<sub>x</sub>-amines allows even to determine the NH<sub>3</sub>. The required measurement mode can be selected via the keypad at the front panel.

### 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. All components are contained in a case of only 3 HU, including vacuum pump and thermal ozone scrubber.

Naturally occurring pressure variations in the sample flow are balanced out by means of an electronic and



The CLD 844 CM hr with slides is perfectly prepared for rack mounting.

mechanical bypass system (r). This module is not required in systems with an external sample pressure regulation.

Due to the heated inlet (h) no external preconditioning is required. This minimizes chemical alterations of the sample gas, e.g. salt formation with amines reduce the measured value of NH<sub>3</sub>.



Display of NO<sub>x</sub>-amines, and NH<sub>3</sub>

### 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.

• Four freely selectable measurement ranges

• Choice between several measurement modes

• Error message coded and in full text

• Rapid system integration

• Virtually maintenance-free even in continuous operation.



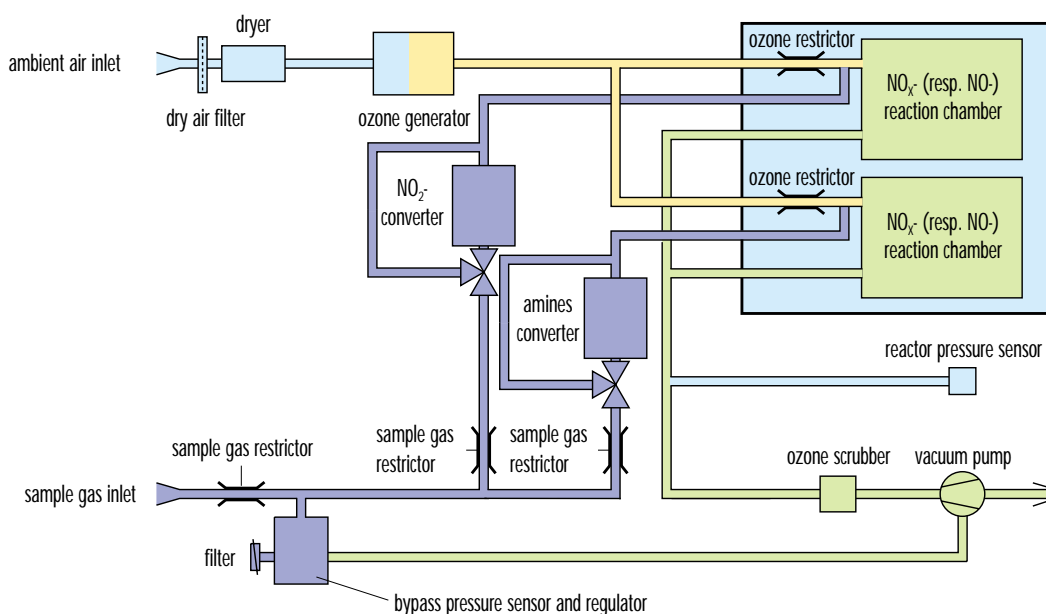
# CLD 844 CM hr

## Specifications

<i>Measuring ranges</i>	four freely selectable ranges from 0.5–500 ppm	<i>Power required</i>	400 VA (incl. membrane pump and ozone scrubber)
<i>Min. detectable concentration</i>	0.025 ppm*	<i>Supply voltage</i>	90–250 V/50–60 Hz
<i>Noise at zero point (1 <math>\sigma</math>)</i>	0.012 ppm*	<i>Interface</i>	RS 232
<i>Lagtime</i>	< 1 sec	<i>Analog output</i>	4–20 mA into 500 $\Omega$ max.; 0–1 V; 0–10 V
<i>Rise time (0–90%)</i>	< 1 sec	<i>Dimensions</i>	height: 133 mm (5¼ ") width: 450 mm (19 ") with moulding: 495 mm depth: 545 mm
<i>Temperature range</i>	5–40 °C	<i>Weight</i>	26 kg
<i>Humidity tolerance</i>	5–95% rel. h (non-condensing, ambient air and sample gas)	<i>Delivery includes</i>	CLD 844 CM hr analyzer, power cable, analog signal cable, manual
<i>Quenching</i>	for H <sub>2</sub> O: < 4%/vol.-% H <sub>2</sub> O for CO <sub>2</sub> : < 1%/vol.-% CO <sub>2</sub>	<i>Standard</i>	CLD 844 CM hr
<i>Sample flow rate</i>	1.2 l/min (0.3 l/min without option r)		two converters for the measurement of amines and NO <sub>2</sub> , electro-mechanical pressure regulator and heated gas inlet
<i>Input pressure</i>	600–1200 mbar abs. (without option r to be externally stabilized within $\pm 3$ mbar)	<i>* depending on filter setting</i>	
<i>Dry air use for O<sub>3</sub> generator</i>	internally generated (no external supply gas required)		

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

## Flow diagram



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