

# ECO PHYSICS CraNOx II

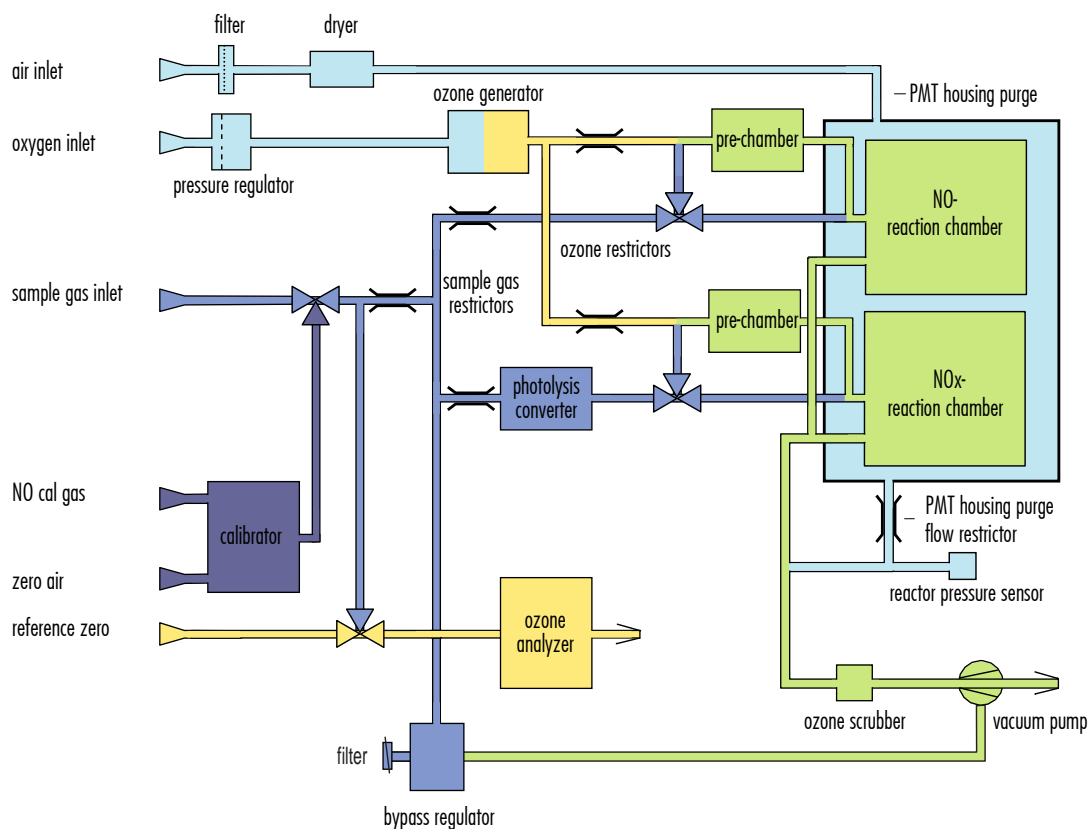
## Application examples

- Precise ambient measurements
- Tropospheric research
- Long range transport of air masses
- Background ambient monitoring stations
- Flux measurements in rural areas



With CraNOx II ECO PHYSICS is launching the second generation for measurement solutions in the ppb and ppt range. The new system is smaller and more sophisticated as it calculates the photostatic equilibrium thanks to the integrated ozone analyzer. The CraNOx II system offers the simultaneous measurement of NO and NO<sub>2</sub> as well as optional NH<sub>3</sub> concentrations.

## Flow diagram



NO / NOx detection by CLD:		Interface		RS 232, LAN, keyboard, mouse and video out
Measuring ranges	four freely selectable ranges	Display		7 " color, touch screen
	from 1 – 1000 ppb	Data presentation		online values, graphs, tables
Min. detectable concentration	<0.025 ppb *	Data storage		> 1 year cont. operation
Noise at zero point (1 σ)	<0.01 ppb *			measurement values, calibrations, states of operation
Pre-chambers	chemical zero compensation	Export data format		ASCII (tables and online values)
NO2 conversion by photolytic converter:		Power required		950 VA (incl. membrane pump and ozone scrubber)
Converter volume	270 ml	Supply voltage		100–230 V / 50–60 Hz
Light source	metal halide lamp (200 W)	Dimensions		height: 356 mm (14 ") width: 450 mm (19 ") with molding: 495 mm depth: 650 mm (25.6 ")
Analysis	automatic correction for photo-dissociation rate and ambient ozone concentration	Weight		75 kg
Ozone detection by UV photometer:		Delivery includes		CraNOx II system, power cable, operator's manual
Measuring ranges O3	50 to 1000 ppb	Standard		CraNOx II two channel, pre-chambers photolytic converter ozone analyzer calibrator
Precision	1 ppb	Options		CON 765 C NOy Gold converter NOxAmines, NH3 (requires an additional CLD899)
Noise	± 1 ppb			
Calibrator:				
Principle of operation	Mass Flow Controller			
Accuracy (of set point)	± 1 % (flow and concentration)			
Modes of operation	man. or automatic zero / span range selectable converter efficiency check and compensation			
General specifications:				
Lag time	< 3 sec			
Rise time (0–90%)	<1 sec			
Temperature range	15–35 °C			
Humidity tolerance	5–95% rel. h (non-condensing, ambient air and sample gas)			
Sample flow rate	2.7 l/min			
Input pressure	ambient			
Dry air flow rate	140 ml/min			
Oxygen use for O3 generator	200 ml/min			

CraNO<sub>x</sub>, a combination of best available technology in a "turnkey" system to ensure automatic and trouble free operation for tropospheric NO<sub>x</sub> analysis.

## Correct analysis of NO<sub>x</sub> - CraNOx II



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