



ECO PHYSICS CLD 780 TR

APPLICATION EXAMPLES

- Measurement aboard aircraft
- Vertical flux measurement
- Ambient measurement
- Background measurement
- Tropospheric research
- Certification and calibration



The NO analyzer for scientific research of the free troposphere. Specially designed to rapidly detect very low NO/NO_x concentrations in the range of parts per trillion, the CLD 780 TR is a tailor-made solution for aircraft and vertical flux measurements.

Performance

Sensitivity	50 ppt in 3 sec./ 10 ppt in 60 sec.
Noise at zero (1 σ)	<25 ppt in 3 sec.
Detection limit	3 ppt
Integration interval	selectable: 0.1 ...999
Rise time (0 - 95%)	<1 sec
Zero drift	non (pre chamber)
Linearity deviation	<1% full-scale
Interferences	HC's, NH ₃ , NO _y non

Operating Specifications

Ranges	5, 10, 50, 100, 500 ppb
Outputs	serial: RS232 analog :1V, 10V, at >500 k Ω 4-20 mA at <600 Ω
Temperature range	5-50°C
Humidity tolerance	5 - 95% rel. humidity
Gas flow	sample: 3 l/min NPT O ₂ : 330 ml/min NPT dry air : <50 ml/min NPT
Reaction chamber pressure	14 mbar
PMT cooling temp.	<-15°C
Sample inlet temp.	60°C regulated
Operating voltage	standard: 28 VDC \pm 1% optional: 24 VDC \pm 1%
Power requirements	200 W max.

Delivery includes

NO/NO_x analyzer with all electrical cables, two silica-gel cartridges.

Delivery excludes

Vacuum pump, vacuum tubing and ozone destroyer

Physical characteristics

Dimensions (mm)	casing: width: 440/height: 225/depth: 420 front: width: 483/height: 264/depth: 4
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Weight (kg)	35
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Material	standard: aluminum · optional: aerospace aluminum
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Connections	all connections situated on front panel 28 VDC 1x RS232 3x analog output Connection for PLC O ₂ inlet (1/4" Swagelok) dry air inlet (1/4" Swagelok) sample inlet (1/4" Swagelok) vacuum outlet (DN 16 ISO KF)
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Options

Pressure regulation	· inlet pres. reg. system (bypass concept)
Increased sensitivity	· 25 ppt in 3 sec. / · 5 ppt in 60 sec.
NO ₂ converter	· PLC 762 SR (photolytic converter)

Measurably better

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

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