



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
Weight (kg)	35
Material	standard: aluminum · optional: aerospace aluminum
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)

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 (photolytic converter)

Measurably better

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

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