CLD NOx Analyzer

700 LX Series CLD NOx Analyzer

PROCESS & EMISSIONS GAS PHASE ANALYZER

SPECIFIC FEATURES:

- Measures From 3 ppm up to 3,000 ppm Full Scale
- Three Measurement Modes — NO, NOx and NO/NO2/NOx
- Auto Calibration and Ranging
- Fast Response Time
- Robust and Rugged Linux Based Operating System
- Electronic Sample and Ozone Flow Control
- Does Not Require Vacuum Pump
- Comprehensive Diagnostics

MAIN APPLICATIONS:

- Combustion Efficiency
- Fuel Cell Analysis
- Turbine/Generator Feedback Control
- Ammonia Slip
- Process Chemical Gas Analysis
- Personnel Safety
- Pharmaceutical Processes
- Vehicle Emissions

MAIN OPTIONS:

- Internal Sample Pump
- Internal Calibration Solenoid Valves
- Internal Ozone Pump
- Low Flow
- Low Pressure
- 19 Inch Rack Mount Slides

CE

U.S. EPA COMPLIANCE
40 CFR PART 1065

Conforms to UL STD 61010-1, Certified to CAN/CSA C22.2 STD No. 610610.1

ECE 49-06 Compliant

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700 LX Series CLD Analyzer utilizes the principle of chemiluminescence for analyzing the NO or NOx concentration within a gaseous sample. In the NO mode, the method is based upon the chemiluminescent reaction between ozone and nitric oxide (NO) yielding nitrogen dioxide (NO_2) and oxygen. This reaction produces light which has intensity proportional to the mass flow rate of NO_2 into the reaction chamber.

The light is measured by means of a photodiode and associated amplification electronics. In the NOx mode, NO plus NO_2 is determined as above, however, the sample is first routed through the internal NO_2 to NO converter which converts the NO_2 in the sample to NO. The resultant reaction is directly proportional to the total concentration of NOx.

MEASURING RANGES

NO/NOx	0-3 to 0-3,000 ppm	Higher ranges available upon request

TECHNICAL SPECIFICATIONS

Detector	Photodiode
Response Time	Typically < 3 Seconds to 90% Full Scale
Repeatability	Better than 0.5% of Full Scale
Linearity	Better than 1% of Full Scale
Accuracy	Better than 1% Full Scale
Precision	Better than 0.5% Full Scale
Noise	Less than 0.5% of Full Scale
Zero & Span Drift	Less than 1% of Full Scale per 24 Hours
CO_2 Effect	Less than 2% with 10% CO_2
H_2O Effect	Less than 1% with 1% H_2O Interference Data: CO, HCN, SO2, NH3, N2O not Detectable at 100 ppm
Flow Control	Electronic Proportional Pressure Controller.
Sample Flow Rate	Typically 1.5 to 2.5 LPM (0.6 LPM with Low Flow Option)
Converter	Carbon Material @ 205 C; 95 to 100% Efficiency
Ozonator	Ultraviolet Lamp
Air or O_2 Requirements	Dry Air less than 0.01 ppm NOX at 350 cc/Min. @ 25 psig (Dew Point < -10°C)
NO/NOx Control	Manual/Remote/Auto Cycle
Standard Outputs	Voltage, Current, RS-232 AK Protocol, TCP/IP MODBUS and AK Protocol
Assignable Contact Alarms and Statuses	15 Assignable Contact Closures
Digital Diagnostics	Temperature, Pressure, EPC Volt %, and Flow
Display	3” x 5” LED
Sample Temperature	50°C (Noncondensing)
Ambient Temperature	5 to 40°C
Ambient Humidity	Less than 90% RH (Non-condensing)
Warm Up Time	1 Hour
Fittings	1/4 Inch Tube
Power Requirements	115/230 VAC; 50/60 Hz; 560 Watts
Dimensions (HxWxD)	5.25H x 19W x 23D In. (133.4H x 482.6W x 584.2D mm)
Weight	45 Lbs. (20.4 kg)

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