

Model DT5000 Chemiluminescent NO_x Analyzer

The Datatest Model DT5000 Microprocessor NO_x analyzer utilizes a chemiluminescent detector (CLD) for precise continuous measurement of the NO_x concentration in stack gases. The Model DT5000 analyzer delivers accurate measurement over a wide range. The range is selected via the keypad and a backlit LCD display. The 4 row by 20 character backlit LCD provides a continuous readout of the measured gas plus status such as alarms.

Datatest has chosen the molybdenum catalyst to be used in its heated, temperature controlled converter since it offers prolonged system life, high efficiency (over 95%) and freedom from interferences that traditionally have affected other types of converters. Along with the Micro-controller the Model DT5000 is one of the easiest NO_x analyzers to set -up and get on line, in a package that is compact and light compared to others. Call us or visit our website at www.datatest-inc.com.



The LCD and keypad also provide a pathway for calibration mode, and all other programmed parameters. The Model DT5000 has scales starting at 0-100 ppm full scale up to 0-250 ppm. The analyzer can be configured starting with a full scale of 0-10 ppm as an option. Outputs on the system include 4-20 mA and a 232/485 Modbus serial port.

Specifications

Analysis Method	Chemiluminescent Detection (CLD) Technique
Types of Gases Measured	NO _x
Sensitivity	0 - 250 ppm range - +/- 0.1 PPM
Ambient Humidity	95% Relative Humidity or less
Repeatability	Less than 1.0% of Full Scale
Response Time	90% within 3 seconds of all ranges
Sample Flow Rate	0.5 -1.0 liters/minute
Air/Oxygen Flow	60-80 ml/minutes (reaction chamber) Minimum of 0.5 -1.0 liters/minute @ 207 kilo-Pascal (Minimum of 1.0 -2.0 CFH @ 30 PSIG)
Stability	24 hours * <0.5% of full-scale
Zero Drift:	7 days * <2.0% of full-scale
Span Drift:	24 hours * <0.5% of full-scale
	7 days * <2.0% of full-scale
Zero & Span Adjustment	Software via keypad
Accuracy	+/-1.0% of full-scale
Linearity	Better than 0.5% of full-scale
Precision	0.5% of full-scale
Display	4 line x 20 character backlit LCD
Ambient Temperature Range	0-37 °C (32 - 100 °F)
Sample Temperature Range	0-55 °C (32 - 131 °F)
Sample Converter Temperature	Ambient to 300 °C (572 °F)
Warm-Up Time	Approximately 1 hour
Analog Outputs	4-20 mA DC (isolated), 232/485 Modbus serial port
Control NO _x	Software selectable
Ranges	0-250 PPM software selectable
Fittings	1/4" & 1/8" NPT
System Requirements	115/230 (+/- 10%) VAC @ 50/60 Hz
Dimensions	7" H x 19"W x 16" D
Weight	14 KG (30 LBS)
Materials in Contact with Sample	316 Stainless Steel, Teflon/PTFE
Calibration Gases	Zero: N ₂ or Air
	Span: NO in N ₂
Sample Inlet Pressure	1 PSIG minimum
Gas Sampling	Mg/m ³ Continuous Sampling
Measuring Range	PPM- Instantaneous and Averaged
Ozone Generation Method	Internal high energy, ultra-violet (UV) generator

* At constant ambient temperature,
AC line voltage, and sample flow.