

Архангельск (8182)63-90-72
Астана +7(7172)727-132
Белгород (4722)40-23-64
Брянск (4832)59-03-52
Владивосток (423)249-28-31
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Калининград (4012)72-03-81
Калуга (4842)92-23-67
Кемерово (3842)65-04-62
Киров (8332)68-02-04
Краснодар (861)203-40-90
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Курск (4712)77-13-04
Липецк (4742)52-20-81
Магнитогорск (3519)55-03-13
Москва (495)268-04-70
Мурманск (8152)59-64-93
Набережные Челны (8552)20-53-41

Нижний Новгород (831)429-08-12
Новокузнецк (3843)20-46-81
Новосибирск (383)227-86-73
Орел (4862)44-53-42
Оренбург (3532)37-68-04
Пенза (8412)22-31-16
Пермь (342)205-81-47
Ростов-на-Дону (863)308-18-15
Рязань (4912)46-61-64
Самара (846)206-03-16
Санкт-Петербург (812)309-46-40
Саратов (845)249-38-78

Смоленск (4812)29-41-54
Сочи (862)225-72-31
Ставрополь (8652)20-65-13
Тверь (4822)63-31-35
Томск (3822)98-41-53
Тула (4872)74-02-29
Тюмень (3452)66-21-18
Ульяновск (8422)24-23-59
Уфа (347)229-48-12
Челябинск (351)202-03-61
Череповец (8202)49-02-64
Ярославль (4852)69-52-93

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Анализатор топлива PARAFUEL™

Технические характеристики



PARAFUEL™

Comprehensive Fuel and Crude Oil Analysis through NIR Spectroscopy



The ParaFuel™ NIR Process analyzer from LT Industries provides comprehensive inline analysis of Diesel, Gasoline, Jet Fuel, Kerosene, Crude Oil, Blending components and Blended Fuels for a wide range of critical properties including Octane, Distillation Points or RVP. The analyzer is also available in a benchtop version designed to improve efficiency when testing in laboratories.

- **Monitoring Fuels and Crude Oils**

With the ParaFuel™ analyzer, accurate measurement of the properties of petrochemical products and crude oils is easy. Whatever the analytical need – inspection of crude oil or finished products, inline property measurements, or validating shipments – the ParaFuel™ can do the job. The optical analysis technique allows for easy integration and rapid inline measurement.

- **In-Process Quality Measurements**

ParaFuel™ Process Systems measures key chemical and physical properties rapidly and accurately directly in process, to monitor changing process conditions in real time and to adjust as necessary. The simple test procedure allows for greater experimental repeatability — and it does not require special operator skills.

- **Gain knowledge of the whole process**

With the capability to measure 20 points with a single analyzer, you can validate quality and performance at all stages — from crude samples at the well to downstream refining. Improve your process knowledge and control.

- **Measuring Tools for all conditions**

The ParaFuel™ Process Analyzer comes complete with probes and flow cells built to suit your measurement needs. They are available in a variety of lengths, configurations and materials depending on your measurement requirements. High pressure and temperature sampling probes can withstand the conditions associated with oil production and refining.

- **Seamless Integration**

Instruments are designed for direct integration into existing control

systems via the LTBUS automation & communication software. The ParaFuel™ Analyzer can communicate directly via standard protocols such as Modbus and 4-20mA.

- **Benchtop Analyzer**

The ParaFuel™ Benchtop System provides the same high quality measurements as the process system.

Key Features

- Designed for 24/7 operation
- Measure up to 20 process points with one analyzer
- Probes and flow cells for continuous processes
- Easy integration into existing DCS
- Fully automated user interface
- Remote diagnostic capability
- Remote update capability
- Enclosures for protection against dust, water and environment



REAL TIME ANALYSIS

Automated, nondestructive inline analysis, completed within seconds, with results sent to your DCS, PLC, or LIMS:

- **Control** the use of high-value crudes and chemicals — Measure concentrations and use only what you need
- **Validate quality** throughout the process — Determine where and when product falls out of specification
- **Make process adjustments** in real time — Reduce waste by adjusting processes rather than discarding batches
- **Reduce energy consumption** and increase process efficiency — Accurately determine concentrations and reaction progress
- **Design quality** into your process — Achieve higher standards than are possible with batch testing alone

BENEFITS

- ParaFuel™ analyzers are utilizing LT Industries' knowledge of over 30 years experience in developing NIR analyzers
- Fast inline or laboratory measurement
- Real time monitoring of multiple process streams
- Automated results on a simple interface
- Validation of incoming product
- Improved product quality
- Improved repeatability
- Reduced expenses
- Minimal operator training
- Rapid return on investment

 PARAFUEL™ Petrochemical Analyzer				 PARAFUEL™ Crude Oil Analyzer			
Fuel Properties (Gasoline, Diesel, Kerosene, etc.)				Common Measurements			
RON	Flash Point	Aromatics, v%	Ethanol	Vapor Pressure	Wax Content	Water Content	Solids
MON	Cloud Point	Olefins, v%	Distillation		Pour Point	Aniline Point	Yields
Cetane	CFPP	MTBE, v%	Evaporation	Viscosity	Freeze Point	SARA	Asphalt
RVP [kPa]	Smoke Point	Saturates, v%	Color	CCR	Cloud Point	Total Aromatics	Asphaltene Content
Density / API	Specific Gravity	Benzene, v%	Pump Quality	Methanol	TBP		
Petrochemical Properties				Olefins	Distillation Points	API Gravity / Density	Asphaltene Deposition
p/o/m-Xylenes	Oxygenates	Aromatics	Olefins	Hydrogen			
Paraffins	Isoparaffins	Acids in Alkylation		C/H Ratio	n-Paraffins	Emulsion Stability	Asphaltene Precipitation
Naphthenes	C-Number	High/LowRON	BTX	Acidity / TAN	Sulfur		
PARAFUEL™ MODELS							
Process / Single Channel				ParaFuel™ NIR Process Analyzer + one (1) High Energy Bubble Shedding Probe			
Process / Multi Channel				ParaFuel™ NIR Process Analyzer + Multiplexer + Up to twenty (20) Probes			
Laboratory / Benchtop				ParaFuel™ NIR Benchtop Analyzer + one (1) Dip Probe			
TECHNICAL DATA							
Scan Time				30 seconds (user-adjustable)			
Power Supply				100-240 V AC, 50/60 Hz			
PROCESS ANALYZER							
Classification				C1D2 Standard, C1D1 Optional			
Control System Communication				Modbus RTU Standard (Options: Modbus TCP, 4-20 mA Analog Output Module)			
Sample				Up to 150°C and up to 7000 kPa (1000 psi)			
BENCHTOP ANALYZER							
Data Storage				Data automatically logged and stored; Standard TCP/IP connection for integration to LIMS			
Dimensions (WxHxD)				305 x 397 x 349 mm (12" x 15" x 13")			

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