

Portable Fuel Property Analyzer



The Portable Fuel Property Analyzer (PFPA) provides rapid fuel analysis anywhere it's needed: the plant, port, or field. Analysis is obtained in seconds using only a 2 mL fuel sample. The PFPA uses Near Infrared Spectroscopy combined with Advanced Multivariate Analysis to determine key fuel properties that influence engine performance.

The PFPA property determinations were developed and validated according to ASTM E1655 "Standard Practice for Infrared Multivariate Quantitative Analysis" using the property values of a diverse matrix of over 800 fuels from around the world determined by traditional ASTM methods.

Specifications

Fuel Properties: Developed and validated according to ASTM E1655

Operation:

Warm-up Time: 1 minute
Measurement Time: 10 seconds
Sampling: 2 mL glass vials (disposable)

Analyzer:

Measurement Type: Near Infrared Spectroscopy
Optical Design: Dispersive (no moving parts)
Light Source: Incandescent Lamp
Detector: 256 pixel InHaAs
Spectral Resolution: 3 – 6 nm (20 – 30 cm⁻¹)
Spectral Range: 1000 to 1600 nm
Calibration: Factory set using NIST standard lamp

Analysis:

Calibration: Each unit is calibrated with a diverse matrix of over 800 fuels
System Check: Methylene Chloride Matrix
Outlier Detection: Non fuel or contaminated fuel rejected

Data System

Computer: Tablet with Windows 8.1
Sample Storage: Over 1000 measurements
Data Export: USB Port, Ethernet, WiFi
Data Printout: Thermal Printer

Environment

Dimensions: 7 x 13 x 16 in. (17.4x33x40.6 cm)
Weight: 14 lbs (6.24 kg)
Power: 120/240 VAC 50/60 Hz or 12 VDC with automotive lighter adapter. (Optional rechargeable battery pack)
Operating Temperature: 35 - 95°F (0 - 40°C)

Properties Predicted by the PFPA

Diesel	Jet Fuel	Gasoline
Density/API Gravity	Density/API Gravity	Density/API Gravity
Distillation Fractions	Distillation Fractions	Distillation Fractions
Cetane Index	Freeze Point	Ethanol & MTBE
Viscosity (40°C)	Flash Point	BTEX
Flash Point	Fuel System Icing Inhibitor	Reid Vapor Pressure
Cloud Point	Viscosity (-20, +40C)	Octane (RON, MON, AKI)
Aromatics / Saturates	Aromatics	
	Hydrogen Content	
	Net Heat	

Advantages / Features

- One Analyzer for all fuel types
- Only 2mL of fuel required
- No sample preparation required
- Analyzer warm-up takes <1 minute
- Complete analysis in 10 seconds
- Permanently aligned and calibrated
- Light weight, portable and easy to use
- Rugged design, no moving parts
- Analysis based on ASTM Data, developed and validated according to ASTM E1655
- Analysis software and tablet computer included
- Imbedded Printer
- Optional 4 hour rechargeable battery pack

Ordering Information

Catalog No.

K24900 Portable Fuel Property Analyzer



1595 SYCAMORE AVENUE • BOHEMIA, NEW YORK 11716-1796
1-800-878-9070 (IN U.S. ONLY) • TEL: +1 631 589 3800 • FAX: +1 631 589 3815
www.koehlerinstrument.com • Email: sales@koehlerinstrument.com
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