

Spectro FT-IR Oil Analyzer



Features

- Instrument and software specifically designed for the analysis of used oil.
- Transmission cell optimized for the analysis of used oil.
- Fixed interferometer, does not require software or manual alignment.
- Exceptional stability and reliability in harsh operating environments.
- Completely sealed and desiccated to prevent humidity interferences.

The Spectro FT-IR Oil Analyzer

The Spectro FT-IR Oil Analyzer is specifically designed for the molecular analysis of lubricating oil to determine oil degradation and contamination. It was developed and optimized for predictive maintenance programs according to JOAP and DIN standards for the rapid determination of oxidation, nitration, sulfation, water, coolant, fuel dilution, soot and wear additive depletion in used lubricating oils.

When coupled with an optional autosampler, the Spectro FT-IR Oil Analyzer is ideal for condition monitoring laboratories with large sample loads. The system is easy to use and requires little training for operation since it is optimized for one application: used oil analysis. It features continuous online diagnosis of all spectrometer components and automatic control of selected measurement parameters.

The Spectro Oil Analysis FT-IR Spectrometer is equipped with a zinc selenide transmission flow cell. The transmission cell has high infrared throughput, is optimized for used oil analysis and is easy to clean. The cell assembly is mounted in a pre-aligned base plate for fast and reproducible exchange.

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Spectro Oil Analysis FT-IR Spectrometer

Specifications:

Spectral Range	7,500 to 370 cm^{-1} , with standard KBr beamsplitter
Resolution	Better than 1 cm^{-1} (apodized)
Wavelength	Better than 0.01 cm^{-1} @ 2,00 cm^{-1}
Accuracy	
Photometric Accuracy	Better than 0.1% T
Signal to Noise (Minimum)	5 Sec: >6,000:1 (= 7.2×10^{-5} AU noise) peak-to-peak, 4 cm^{-1} resolution
Signal to Noise (Achievable)	5 Sec: >8,000:1 (= 5.4×10^{-5} AU noise) peak-to-peak, 4 cm^{-1} resolution 1 Min: >45,000:1 (= 9.7×10^{-6} AU noise) peak-to-peak, 4 cm^{-1} resolution
Interferometer Spectrometer Size (WxDxH)	66.5 x 43.4 x 28.1 cm (26 x 17 x 11 inches)
Sample Compartment Size (WxDxH)	25.5 x 27 x 16 cm (10 x 10.6 x 6.3 inches)
Weight	37 Kg (81 lbs)
Power	85 – 265 VAC, 45 – 67 Hz, 70 W
Computer Interface	Ethernet connection



Accessory Exchange

Exchanging sampling accessories or flow cells is straightforward and easy. The system features an innovative quick-lock base plate to simplify the exchange of cells. It automatically recognizes the cell, initiates a performance check, recognizes the crystal type, and performs a cleanliness check.

The Spectro FT-IR Oil Analyzer Features Easy to Replace Beamsplitters, Lasers and Detectors



The Spectro FT-IR Spectrometer is a complete used oil analysis system. It includes:

- Software for used oil analysis for the automatic determination of lubricant degradation and contamination.
- Permanently aligned, high sample throughput interferometer for spectrometer stability and durability.
- Software that continuously monitors all optical components and accessories.
- Source, detector and laser which are easily replaced without special training.
- Easy to install sampling accessories that mount into pre-aligned quick lock base plate.
- Fixed interferometer which avoids the need for time consuming and complex alignment.
- Internal Validation Unit (IVU) with calibration standards to systematically validate the system.
- Computer and monitor, Windows® XP PRO operating system.
- Ethernet connection for spectrometer operation from a PC, laptop or network.

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