

FI-RXF50

FI-RXF50 FTIR Spectrometer

An entry-level FTIR spectrometer, more compact than the FI-RXF100, with a permanently aligned interferometer and user-replaceable source and desiccant. Takes ATR, transmission, diffuse reflectance, specular reflectance and gas-cell accessories; 5000–500 cm^{-1} in the moisture-resistant ZnSe version, 8000–350 cm^{-1} with KBr.

Best for: Teaching and demonstration, industrial QA/QC, pharmaceutical analysis and identification of polymers and plastics.

5000–500 cm^{-1}

Spectral range, ZnSe version

0.9 cm^{-1}

Resolution, better than

0.01 cm^{-1}

Wavenumber accuracy, better than

17 × 39.5 × 22.3 cm

Dimensions



Overview

The FI-RXF50 combines a small footprint with strong performance. It is more compact than the FI-RXF100 while keeping excellent performance figures, and it accepts a range of accessories, so sampling is flexible and operation is simple: an entry-level FTIR spectrometer.

It is a highly integrated instrument for sampling unknown chemicals and identifying them quickly — solids, liquids, powders and viscous samples. Compact, rugged and light, it takes ATR, transmission, diffuse reflectance, specular reflectance and gas-cell sampling accessories.

Features

Compact and durable

- Rugged design for trouble-free operation in harsh environments
- Durable diode laser for years of trouble-free operation
- User-replaceable parts keep maintenance down
- Tolerates a wide range of temperature and humidity
- Permanently aligned interferometer with excellent mechanical stability, shock resistance and tolerance of high temperatures

Easy maintenance

- User-replaceable IR source, desiccant, power supply and sample-compartment windows
- The IR source and the desiccant are changed without opening the optical bench

Specifications

Optics	
Spectral range	5000–500 cm^{-1} (moisture-resistant ZnSe version); 8000–350 cm^{-1} available (standard KBr version)
Spectral resolution	Better than 0.9 cm^{-1}
Wavenumber accuracy	Better than 0.01 cm^{-1}
Interferometer	High-stability cube-corner interferometer, permanently aligned, service life over 10 years
Beamsplitter	Ge-coated KBr, optimised for the mid-infrared (moisture-resistant ZnSe version optional)
Detector	Fast-response pyroelectric detector
IR source	High-energy mid-infrared silicon nitride source, user-replaceable
Laser	Solid-state laser, service life over 10 years
System	
Interface	Network (LAN)
Power	100–240 V, 50–60 Hz
Sealed, desiccated optics	Sealed against moisture; the software shows the internal temperature and humidity in real time with an automatic humidity alarm; regenerable screw-in desiccant tube in the base plate
Dimensions	17 × 39.5 × 22.3 cm

Applications

- Teaching and demonstration in academic laboratories
- Industrial QA/QC
- Qualitative and quantitative analysis in pharmaceuticals
- Qualitative infrared testing of organic polymers and plastics
- Rapid identification of unknown chemicals: solids, liquids, powders and viscous samples

Figures



Sampling accessories: ATR, transmission, diffuse reflectance (two types), specular reflectance and gas cell.



User-replaceable parts: the sample-compartment window at the front; power supply, desiccant and IR source at the rear.

Request a quotation

Tell us what you measure and we will configure the FI-RXF50 — sampling accessories, detector and libraries — for it.

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