

## Features

- **Robust sampling:** Universal compatibility with common solid, liquid, film, and gas accessories
- **Low maintenance design:** Sealed optical components with humidity & temperature monitoring
- **IRIS Software:** Integrated search features & automatic spectra comparison, compatible with industry standard libraries such as Bruker
- **Compliance:** GMP and 21 CFR part 11 compliant software, CE certified

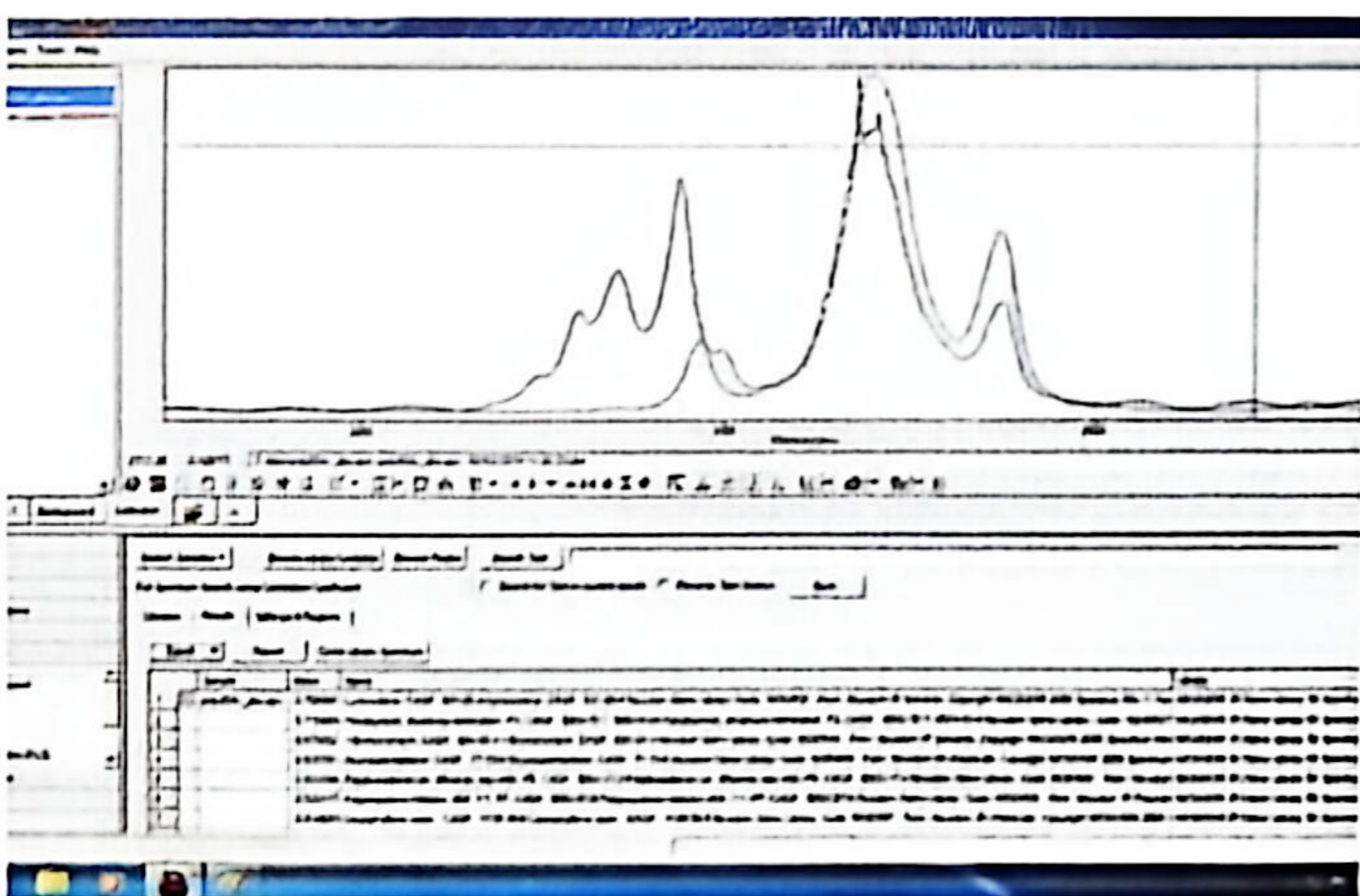


### **Fast. Stable. Connected.**

The SpectraMax FTIR delivers results in 5 seconds with reliable, sealed optics and built-in Wi-Fi.

## Description

The SpectraMax FTIR offers the unparalleled reliability, ease of use and affordability that you have come to expect from Buck. Our IRIS software offers a simple set of search and comparison tools for a wide array of analysis. In regulated settings, built-in controls keep records organized and make audits straightforward. With accessories for every type of sample, the SpectraMax is a powerful tool for qualification and quantification of solids, liquids, gasses, and films.



IRIS Software - (InfraRed Information System)  
Search and analysis window

# Buck FTIR

## Fourier Transform Infrared Spectroscopy

### Specifications

SpectraMax FTIR	
Spectral Range	7,800–350 $\text{cm}^{-1}$
Resolution	$\leq 1 \text{ cm}^{-1}$
Signal-to-Noise Ratio	30,000:1 / 45,000:1 (1-min, 4 $\text{cm}^{-1}$ , peak-to-peak)
Wavenumber Accuracy	$\leq 0.01 \text{ cm}^{-1}$
Wavenumber Precision	$< 0.1 \text{ cm}^{-1}$
Typical Analysis Time	$\leq 5 \text{ s}$
Beam Splitter	Humidity resistant KBr
Detector	MCT thermoelectric cooling infrared detector
IR Source	High-intensity, air-cooled
Compatible Sampling Accessories	Diamond ATR, Germanium ATR, single-bounce ATR, multi-bounce ATR, specular reflection, diffuse reflection, UPIR diffuse reflection, gold-plated diffuse reflection, multi-bounce transmission, gas cells, in-situ reaction-cell ATR, microscopy
Power	AC 110–250 V, 50/60 Hz; Auto Sensing
Connectivity	USB 3.0, Ethernet, Wi-Fi
Operating System	Windows 10/11
Software	Database workflows, AI-assisted search, quantitative tools, auto removal of ambient $\text{H}_2\text{O}/\text{CO}_2$
Compliance	GMP & 21 CFR Part 11–ready features
User Display	Front-panel LCD shows live operating parameters
Libraries	Robust compatibility for importing vendor libraries (Bruker)
Optical Path System	Fully sealed, optical design with constant temperature/humidity monitoring to protect components.

### Typical Applications

**Environmental**  
water & soil  
screening; and more

**Manufacturing & QA/QC**  
raw material ID:  
lot release testing

**Academia & Education**  
teaching spectra:  
research projects

**Optics & Electronics**  
glass/plastic films:  
contamination checks

**Food & Agriculture**  
oils/fats profiling:  
adulteration screening

**Energy & Petrochemical**  
lubricants/fuels analysis:  
contamination checks

**Pharma & Chemical R&D**  
reaction monitoring:  
raw material ID

**Automotive & Aerospace**  
paints/coatings on  
parts: incoming QA

**BUCK**  
Scientific

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