

FTIR Spectrometer

Lyza Series



Lyza Series: Transforming FTIR Spectroscopy

The Lyza series FTIR spectrometers transform industry standards: They are so straightforward to use that anyone can start measuring right away. Guided workflows, combining measurement, processing, and spectral analysis in an automated method, allow users with minimal experience to perform QC measurements in just three steps, for a quick pass/fail result.

Measure hundreds of sample types, from solid to liquid or gaseous, and switch effortlessly between measurement cells, thanks to the versatile modular cell concept. Premium optical components ensure consistently high performance and longevity for years to come.

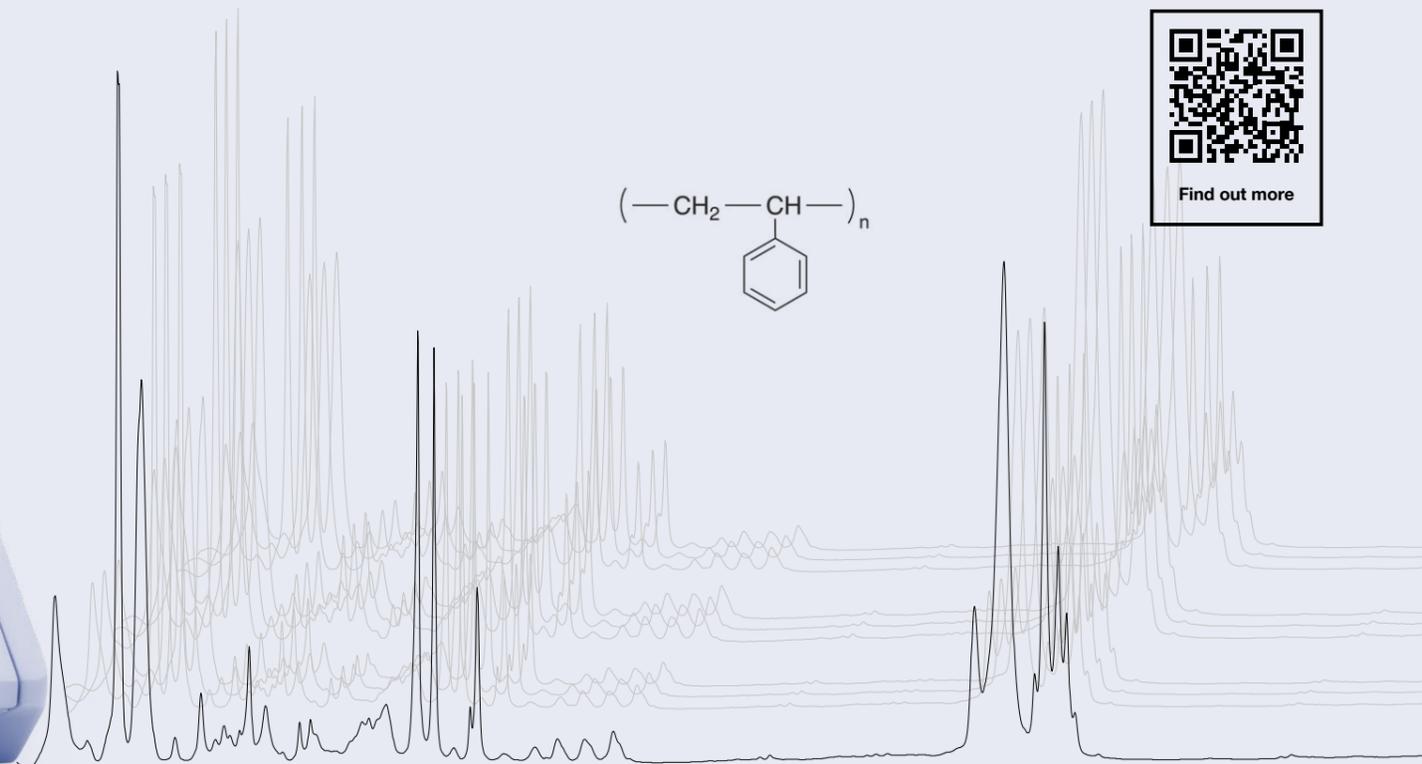
Fast pass/fail
spectral analysis

Verify, identify,
quantify

Combine multiple
analyses in a
method

Plug-and-play
module exchange

15-year warranty
on IR source,
laser, and
interferometer



Find out more

Remarkably Powerful

Lyza 7000 is a compact instrument with powerful embedded software that works right out of the box. The instrument is equipped with an adjustable touchscreen and a smartphone-inspired user interface.

Lyza 3000 is a budget-friendly FTIR spectrometer that integrates premium optical components, ensuring years of stable performance. The Anton Paar Spectroscopy Suite desktop software guides even inexperienced users through all measurement tasks.



System health

Innovative internal system monitoring technology provides everything you need to know at a glance. The smart status LED light updates you on measuring progress wherever you are in the lab.



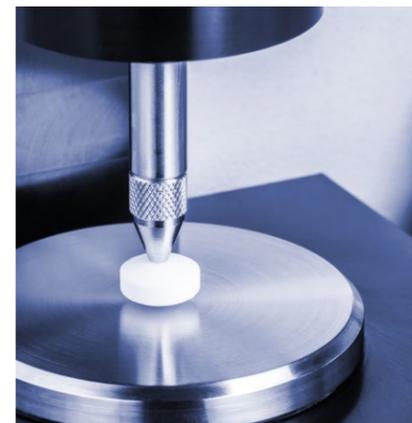
Modular design

The instrument's easily exchangeable cell module is compatible with a variety of ATR and transmission cells, enabling you to handle hundreds of sample types. With automatic detection, switching modules is fast and seamless.



Premium components

Based on a century of manufacturing expertise, Lyza series instruments come with a three-year warranty and 15-year coverage for the IR source, laser, and interferometer.



Versatile setup

Identify and verify any sample or unknown substance via your own specialized library, or choose from a variety of industry-standard libraries like S.T.Japan, Aldrich, and IChem.



Tailored solution

Lyza 7000 can be adapted to all your QC challenges, with integrated workflows for quantification, verification, single measurements, and complex analyses.



Cost-efficient analysis

Choose Lyza 3000, our entry-level spectrometer with no compromise on quality. Operated via AP Spectroscopy Suite, it's your ideal companion for straightforward spectral analysis.

Press “Start,” and “Methods” Takes Care of the Rest

Perform complex measurements at the push of a button. Control the innovative operating system directly on the instrument – no PC needed. Combine multiple analyses in a single method with a customizable report.

Anton Paar has designed high-quality analytical measuring solutions for decades. Our experience combined with our in-depth knowledge of FTIR spectroscopy gives you access to powerful analysis. Just choose your method, press “Start,” and let Lyza take care of the rest.



Powerful automated analysis in just three simple steps



1. Choose method

→ Predefine your measurement settings and spectral analyses. Save them as “Method.” Use them again and again.



2. Press start

→ Start your analyses with a single tap.

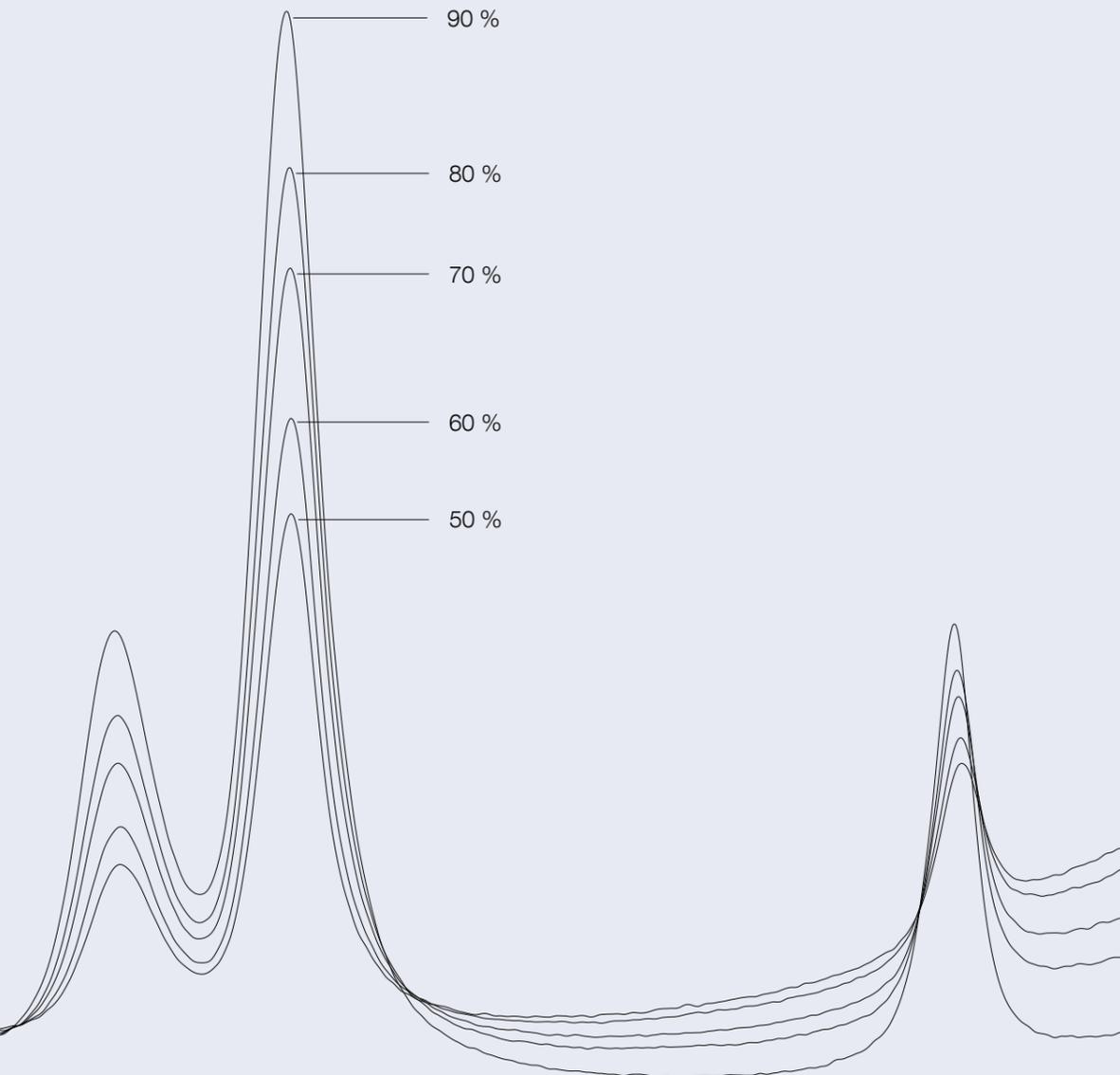


3. Result

→ Enjoy the convenience of automatic spectral analysis. Receive a summary of your results in a single report.

Quantification Made Simple with Lyza 7000

Creating FTIR quantification methods can be complex and time-consuming, often requiring expert knowledge and extensive trial and error. Lyza 7000 overcomes this challenge by guiding you through a five-step process. Minimize effort with a solution designed to make method development efficient and seamless.



- **Step 1:** Choose a name and unit for your quantification
- **Step 2:** Select your reference spectra
- **Step 3:** Fine-tune your spectra to achieve optimal results
- **Step 4:** Define your desired peak
- **Step 5:** Save the automatically generated quantification model

The Heart of Lyza

The hermetically sealed, desiccated spectrometer core contains all the premium optical components needed to ensure the most stable conditions for precise measurements.

An exchangeable cell module houses a range of measurement cells, including horizontal ATR, transmission cells for liquid samples, and single-bounce ATR cells.

- ✓ Automatic calibration for optimal performance with every cell
- ✓ Permanently aligned cube-corner interferometer to compensate vibrations
- ✓ Ceramic composite IR source to ensure fast warm-up, stability, and durability
- ✓ High-performance molecular sieve drying cartridge that can be exchanged without tools to keep your core components safe and dry at all times

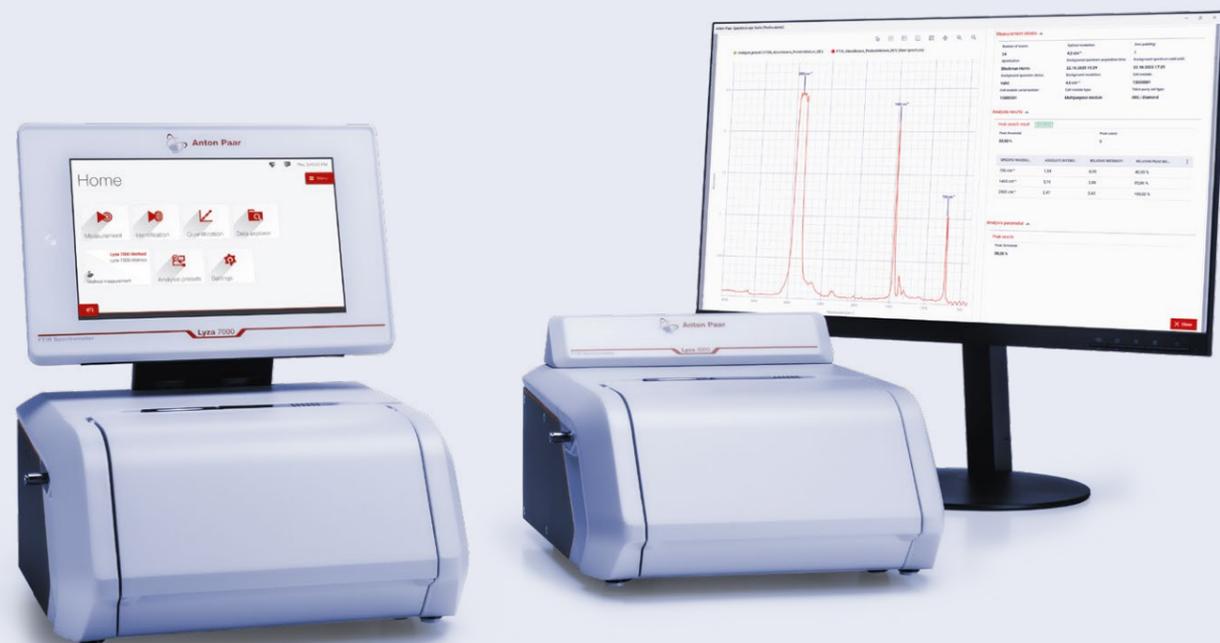


Spectroscopy Suite

The Lyza series, in combination with the AP Spectroscopy Suite software, is tailored to incoming goods inspection and R&D in both regulated and non-regulated environments. You need results, not spectra: Our system simplifies complex spectroscopy tasks by providing predefined workflows and settings that accelerate measurements and ensure consistent, high-quality results in both quality control and research.

All workflows, like running samples, setting up methods, and generating reference libraries, adhere to stringent compliance regulations.

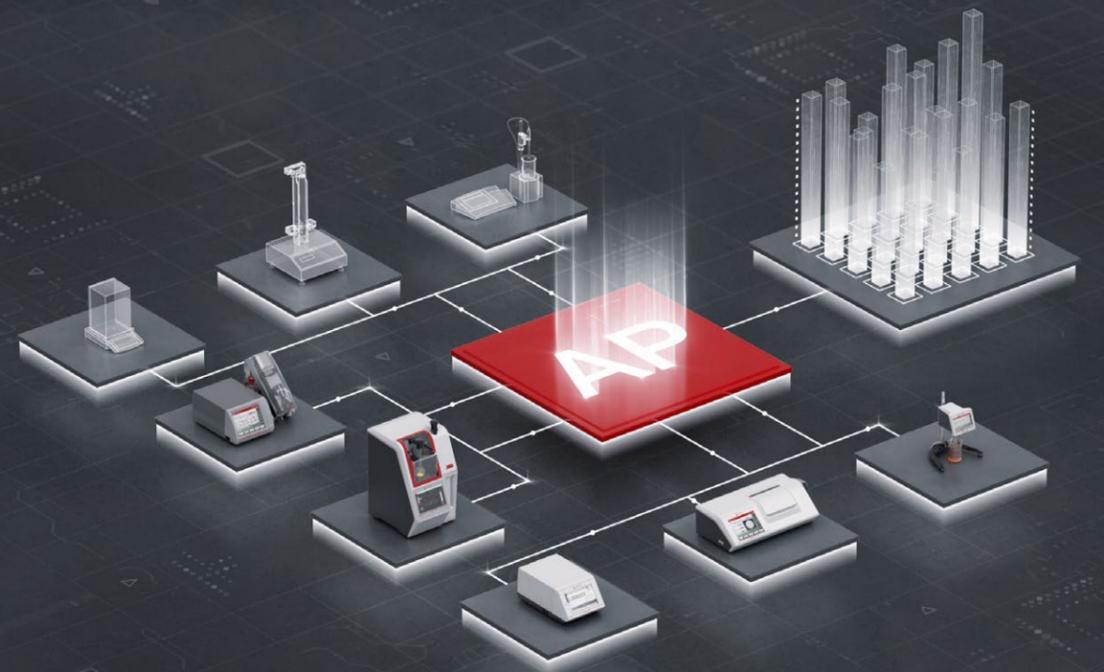
- ✓ Complies with key regulations such as 21 CFR Part 11 and EU GMP Vol. 4 Annex 11
- ✓ Permission and user group management via active directory
- ✓ Full traceability including audit trail, library and method versioning, and signing procedures
- ✓ Lifetime data integrity with a secure SQL database



Data at Your Fingertips

AP Connect streamlines instrument data workflows in laboratories by providing seamless, efficient data management and integration for instruments. This ensures accuracy, data safety, compliance, and paperless efficiency in a centralized digital hub, which in turn helps improve data quality and reduces overhead costs.

- ✓ Vendor-independent digitization of laboratory instrument data guarantees a secure, centralized repository for all instrument data, thereby eliminating transcription errors.
- ✓ Seamless integration of all connected instruments (regardless of vendor or type) into AP Connect reduces the complexity of instrument integration into your leading information management system.
- ✓ Improved laboratory efficiency with a time-saving flawless start of measurements and generation of sample lists directly from an online PC. This reduces manual intervention, increases productivity, and lowers operational costs.
- ✓ Compliant with key industry regulations like 21 CFR Part 11 and EU Annex 11, providing a secure, traceable, and reliable laboratory data management system.



	Lyza 3000	Lyza 7000
Bearing design	Pyroelectric DLaTGS detector	
Optics	Hermetically sealed aluminum casing with gold-coated mirrors, KBr windows, and beamsplitter	
Signal-to-noise ratio	55,000:1 (1 min, 8 cm ⁻¹ , 2,100 cm ⁻¹ to 2,200 cm ⁻¹)	
Spectral range	350 cm ⁻¹ to 7,500 cm ⁻¹	
Spectral resolution	1.4 cm ⁻¹ to 16 cm ⁻¹	1.0 cm ⁻¹ to 16 cm ⁻¹
Wavenumber accuracy	<0.05 cm ⁻¹ (at 900 cm ⁻¹ to 3,000 cm ⁻¹)	
Wavenumber precision	<0.0005 cm ⁻¹ at 2,000 cm ⁻¹ (standard deviation of 10 repeated measurements)	
Photometric accuracy	Better than 0.06 % transmittance	
Typical measurement time	<30 seconds	
Laser type	Single-mode vertical-cavity surface-emitting laser (VCSEL)	
Laser class	Class 1, enclosed hermetically	
IR source	SiC composite	
Interferometer	Permanently aligned cube-corner interferometer	
Desiccant	Molecular sieve with color indicator, user-replaceable	
Operating temperature range	10 °C to 30 °C (50 °F to 86 °F) (non-condensing)	
Instrument dimensions (L x W x H)	365 mm x 315 mm x 204 mm (14.4 in x 12.4 in x 8.0 in)	365 mm x 315 mm x 382 mm (14.4 in x 12.4 in x 15 in)
Cell compartment width	152 mm	
Weight	11.7 kg (25.8 lbs)	12.8 kg (28.2 lbs)
Power supply	AC 100 V to 240 V, 47 Hz to 63 Hz; DC 24 V, max. 3.75 A	
Typical power consumption	24 W (during operation)	30 W (during operation) 15 W (with activated eco mode)
Communication interfaces	4 x USB 2.0 / CAN / Ethernet	
Wireless connectivity	-	Wi-Fi ¹⁾
Data export formats	.csv, .pdf, .spc	.csv, .pdf, .spc, .png
Data management	AP Connect	
Display	No touchscreen	10.1", PCAP touchscreen, multi-touch
Controls	AP Spectroscopy Suite required	Touchscreen Optional: keyboard, mouse, barcode reader, AP Spectroscopy Suite
Internal storage	-	32 GB
Spectral libraries	Factory library, user-built, third-party options	
Regulatory compliance	21 CFR Part 11 including installation, operation qualification, and performance qualification (DQ/IQ/OQ/PQ) ²⁾	

1) Via external Wi-Fi stick (material number 390637)

2) Available with AP Spectroscopy Suite Premium (material number 256138)

Reliable. Compliant. Qualified.



Find out more

Our well-trained and certified technicians are ready to keep your instrument running smoothly.

Maximum uptime

Regardless of how intensively you use your instrument, we help you keep your device in perfect shape and safeguard your investment. For at least 10 years after the discontinuation of a device, we'll provide you with any service and spare part that you might need.

Warranty program

We're confident in the high quality of our instruments. That's why we provide **a full 3-year warranty**. Just make sure to follow the relevant maintenance schedule. You can also extend your instrument's warranty beyond its expiration date.

Short response times

We know that sometimes it's urgent. That's why we provide a response to your inquiry within 24 hours. We give you straightforward help from experienced people, not from bots.

Global service network

Our large service network for customers spans 85+ locations with more than 600 certified service technicians. Wherever you're located, there's always an Anton Paar service technician nearby.



