

Sample analysis

Ramina Process Analyzer

Enabling accurate, real-time results for process monitoring

System overview

The Thermo Scientific™ Ramina™ Process Analyzer is a compact and portable Raman spectrometer. This all-in-one system is purpose-built for rapid deployment, ease of use, and scalability in markets where time-to-results is critical.

The Ramina Process Analyzer offers:

- Analysis without sample preparation, delivering Raman spectral results in real time
- Easy setup and deployment by non-Raman spectroscopists
- Nondestructive workflows to protect precious samples
- Noninvasive handling to minimize contamination of samples
- Small footprint for convenient deployment
- Factory calibration for hardware stability and portability

With the Ramina Process Analyzer, businesses can conduct real-time, nondestructive, and immediate analysis without the need for sample preparation. This analyzer makes precise and accurate measurements simple to execute and understand with its one-button hardware and easy-to-use software.

The Ramina analyzer is designed for out-of-the-box use, enabling you to collect highly accurate Raman measurements in less than 15 minutes. Pack this analyzer in a protective case and take it to the point of need, as its factory calibration ensures continuous and precise analysis on the go. The Ramina analyzer can be easily integrated into your existing process and eliminates the need for costly technical expertise.

Flexibility to meet your needs

A comprehensive range of probes is available to seamlessly integrate your Ramina analyzer into almost any application.



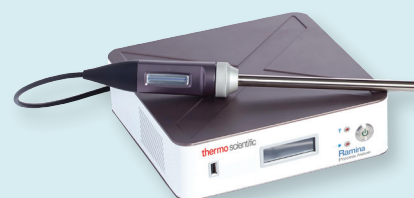
Application versatility

Use the Ramina analyzer for different applications such as biopharmaceutical process analytical technology (PAT), and oil and gas production.



Process monitoring

With a small footprint and lower cost, the Ramina analyzer makes in-line process monitoring possible and enables you to make optimization decisions faster.



Service plans

Thermo Fisher Scientific offers several service plans designed to maximize productivity and optimize performance throughout the life cycle of your Ramina Process Analyzer. Plans include exclusive service advantages such as:

- Unlimited technical support
- Depot repair services
- Maintaining system compliance
- Consulting services

Speak with your sales representative to learn more about service and support options.

Service plan coverage

Features	Premium	Basic
Technical support	√	√
Depot repair (labor and parts)	√	√
Software updates (fixes/security patches)	√	√
Shipping (to and from depot center)	√	Return only
Qualification services (IQ/OQ/PQ)*	√	
User training	√	

* Installation qualification/operational qualification/performance qualification

Ramina Process Analyzer specifications

Performance	
Excitation wavelength	785 nm
Excitation power	100–450 mW
Detector	Thermally stabilized CCD (2-stage TEC)
Spectral range	100–3,250 cm^{-1}
Resolution	6.5 cm^{-1} average across spectral range
RMS dark noise	≤ 16.5 counts at 10 sec integration
Physical properties	
Size	H: 7.7 cm W: 25 cm D: 25 cm
Fiber conditions	FC/PC (both excitation and collection)
Probe	Fiber BallProbe® probe
Mounting options	Stackable
Operating temperature range	15°C to 33°C
Operating humidity range	Noncondensing
Included peripherals	Wireless mouse, HDMI cable, and monitor
Product safety	
Safety features	Keyed laser interlock switch Electronic laser trigger
Laser certification	Class 3B laser device Reported to the FDA
Electrical properties	
Input voltage	90–264 VAC 50–60 Hz
Operating voltage	12 VDC, 2 A
Onboarding control system	
Software	Thermo Scientific™ Ramina™ Raman suite
Operating system	Integrated PC (Microsoft™ Windows™ 10 operating system)
Onboard storage	1RJ-45 Ethernet port 3 USB 3.0
Video output	1 DisplayPort™ 1.1 interface (VGA, DVI, or HDMI with adapter)

Product ordering information

Description	Cat. No.
Ramina Process Analyzer	
Ramina Process Analyzer with Bioreactor BallProbe probe	800-04541-01
Ramina Process Analyzer with Process BallProbe probe	800-04551-01
Ramina Process Analyzer with low-pressure flow cell	800-04561-01
Ramina Process Analyzer probe accessories	
Ramina Process Analyzer, fiber head, fiber head only	810-02871-01
Ramina Process Analyzer, Bioreactor BallProbe, probe only	810-02851-01
Ramina Process Analyzer, Process BallProbe, probe only	810-02841-01
Ramina Process Analyzer, low-pressure flow cell, flow cell only	810-02861-01

Service plan ordering information

Plan length	Premium	Basic
1-year Service plan	820-00419-01	820-00420-01



Learn more or request a demo at thermofisher.com/ramina

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