

Mira Flex Packages



Customized Metrohm Instant Raman Analyzers (Mira)
for your unique applications

Mira Flex – identification and verification of materials made fast and easy

Handheld Mira devices make identification and verification of materials fast, easy, and reliable – for everyone. Mira devices are available in flexible packages allowing you to select customized kits depending on your industry's precise requirements. The robust design of the Mira platform meets the specifications of MIL-STD-810 making Mira devices an ideal tool for use even in harsh environments.

Flexible: Customize Mira Flex to suit your unique needs



- Customize the Flex system with only the attachments you need
- Customizable reports
- Customizable operating procedures
- Wide variety of sampling options

Simple to use: Straightforward guided workflow



- Foolproof operation with controlled user interface
- Automatic report generation
- Seamless transition between samples

Barcode scanning (Mira P Flex)

- Barcode scan automatically selects operating procedure and populates:
 - Lot
 - Batch
 - Container

Fast: Results in seconds



- Increase throughput
- Move quickly from sample to sample
- Complete analysis in seconds

Evaluation Type

- Material verification with Pass/Fail results (Mira P Flex)
- Material identification based on spectral library searching (Mira P/DS Flex)
- Multi-component identification with Mixture Matching (Mira P/DS Flex)

Smart Acquire (Mira DS Flex)

- The Mira DS Flex intuitive operation requires no instruction: Turn it on, put it on the sample, touch the screen, and get a result – that's it!

Results you can trust: Decisions made with confidence



- Discriminatory algorithms
- Customizable model building
- Clear results



Smart sampling attachments for a wide range applications and enhanced user safety

Unique flexibility meets your needs

With a uniquely comprehensive set of smart sampling attachments available, customize your Mira Flex package to verify the contents of any container.

• Point-and-shoot Attachments

Three optional Point-and-shoot Attachments are available for the Mira Flex packages. The SWD is used for direct contact or thin bags while the LWD and XLWD are for thicker containers such as glass bottles or thick sight glass in a process line.

• Right Angle Attachment

Use the Right Angle Attachment to lay Mira on the sample for hands free precise data collection.

• Contact Ball Probe

Verify materials by simply immersing the Contact Ball Probe into a liquid or powder.

• Standoff Attachment

Identify substances from a distance with the Standoff Attachment, e.g., by standing in a door way and scanning a container from across the room.

• Tablet Holder

A spring-loaded mechanism holds large and small tablets for final formulation analysis.

• Vial Holder

The vial holder attachment permits the user an easy, convenient way to measure liquid samples, or even powdered samples that are stored in vials.

• Calibrate/Verify Accessory (CVA)

Available for the Mira P Flex only, the CVA consists of an ASTM Raman shift standard and a NIST-traceable verification sample following USP/EP guidance.

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True single-handed operation

Superior usability

Mira handheld devices are hard to beat when it comes to convenience. Due to their small size (just 13.0 x 8.5 x 4.0 cm), they fit into your pocket and enable true single-handed operation.

Mira Flex Packages – Ready to conquer any application

Mira Flex Packages are adaptable for many different applications and industries.

Mira Flex Applications

- Raw material verification
- Narcotics ID
- Blend uniformity
- Chemical analysis
- Counterfeiting
- Conservation
- Defect analysis
- Explosives
- Gemology
- Hazardous chemicals
- Polymers and plastics
- Toxic industrial chemicals (TICs)
- Toxic industrial materials (TIMs)
- SERS applications

Mira Flex Industries

- Pharmaceuticals
- Defense, safety, security and forensics
- Art and archeology
- Cosmetics
- Food integrity (food safety)
- Gems and minerals
- Medical
- Nanotech
- Nutraceuticals
- Petroleum and petrochem
- Plastics and polymers
- Research laboratories
- Surface Enhanced Raman Scattering (SERS)
- Teaching and education



Scale 1:2

Mira handheld Raman Spectrometer

Technical Data

Mira Flex 785	
Laser (excitation wavelength)	785 nm \pm 0.5 nm
Laser Output Power	100 mW, 50 mW at sample, 5 adjustable laser powers down to 10 mW
Collection Optics	5 mm working distance; 0.04 spot size, 2.5 mm raster size
Collection Techniques	Orbital Raster Scan (ORS™) to average over the sample
Exposure	Automatic modes (100 ms minimum)
Battery	2 AA Batteries, Lithium ion, >4 hours operation
Weight	0.705 kg
Size	88.2 × 126.5 × 45.3 mm
Operating Temperature	-20 °C to +50 °C (continuous)
Ruggedization	MILSPEC 810G, IP67 Certified
Display	High visibility, glove compatible, color touch screen
Security Log in	PIN Code (Mira DS Flex) User login (Mira P Flex)
Measurement Accessories	Comprehensive set of Smart Attachments
Laser Class	Class 3B
Compliance	CE certification

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