



EnSpectr R1064[®] Express IR Raman Analyzer

EnSpectr R1064[®] is a unique instrument that enables to obtain Raman spectra in those applications where the Raman scattering signal is largely exceeded by fluorescence. With EnSpectr R1064 you can easily analyze gas, oils, dyes, paints, organic substances, etc.

EnSpectr R1064[®] is now the only portable device on the market which can see the water Raman line using a 1064 nm laser owing to its record wide spectral range. This makes it a comprehensive tool for analysis of liquids through transparent and semitransparent packaging. Due to its unique characteristics EnSpectr R1064[®] is an irreplaceable assistant in transport security and many other fields.

EnSpectr R1064[®] combines the advantage of a portable probe system with performance of a highly specialized laboratory instrument. Real-time and accurate identification of an unknown substance is achieved by comparing its unique Raman spectrum of molecular vibration (molecular "fingerprint") to Raman spectra of reference substances stored in the spectral database.

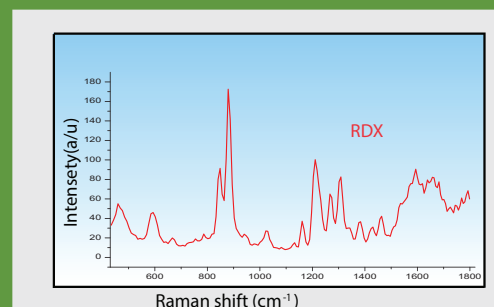
EnSpectr R1064[®] performs identification through sealed bags, transparent bottles, vials and ampoules. The ease of use, single-hand operation, small size and weight of EnSpectr R1064[®] enables analysis of chemical substances at the point of receipt, use or delivery. Results are displayed within dozen seconds and can be accessed via the intuitive user interface. The data are retrieved remotely via the USB port.

Features

- > Special TE cooling system ensures acquisition of low noise spectra
- > Non-contact real-time identification

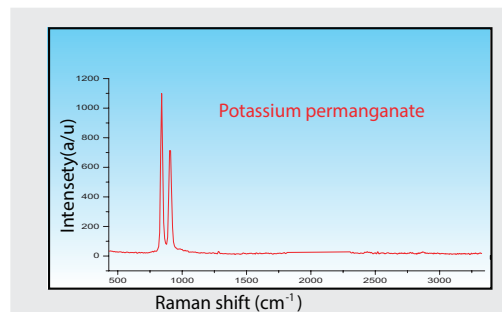
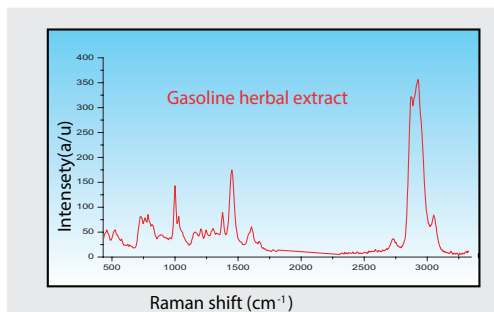
Benefits

- > Precisely tailored to customer's requirements
- > Fast and trustworthy results
- > Easy-to-use



Applications

- > Oil industry
- > Food and agriculture industry
- > Forensic analysis
- > Environmental sciences
- > Chemical processes
- > Polymers
- > Paints and dyes analysis



EnSpectr R1064® Raman Analyzer Specification

EnSpectr R1064-1® Raman Analyzer Specification

Laser		
Wavelength	1064 nm	1064 nm
Laser Power	300 mW	300 mW
Spectrometer		
Spectral Range	100–3600 cm ⁻¹	100-1750 cm ⁻¹
Spectral Resolution	18-22 cm ⁻¹	10-12 cm ⁻¹
Detector		
Detector Type	CCD Array	CCD Array
Pixel Number	512	512
Pixel Size	24 μm x 500 μm	24 μm x 500 μm
Max Quantum Efficiency	90%	90%
Integration Time	10 ms – 500000 ms	10 ms – 500000 ms
Optical Bench		
Focal Length	60 mm	75 mm
Entrance Aperture	50 (20, 30 optional) μm wide slit	50 (20, 30 optional) μm wide slit
Grating	300 g/mm NIR optimized ruled grating	600 g/mm NIR optimized ruled grating
Electronics		
USB	1 External Port 2.0	1 External Port 2.0
Power Input	100 – 240 VAC, 50 –60 Hz	100 – 240 VAC, 50 –60 Hz
System Requirements	Windows	Windows
Physical		
Dimensions	222 mm x 145 mm x 55 mm	222 mm x 145 mm x 55 mm
Weight	1.7 kg	1.7 kg