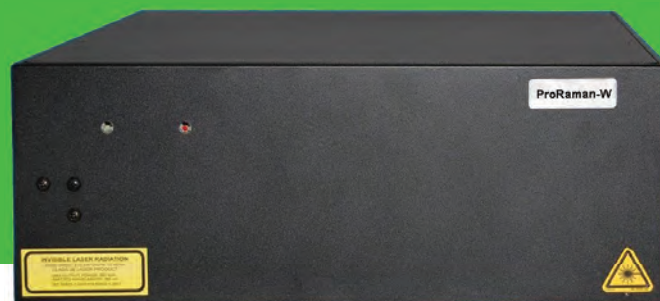


EXPERTRAMAN-W SERIES

HIGH SENSITIVITY WIDE-RANGE
RAMAN ANALYZER

The ExpertRaman-W Series of Raman analyzers are high performance Raman instruments suitable for industrial applications or laboratory experiments requiring a high sensitivity Raman instrument.



ExpertRaman-W systems each features a 785 nm frequency stabilized laser, high sensitivity CCD spectrograph with the CCD cooled to -60°C and a high throughput immersion fiber optics probe. The system has $\sim 10\text{ cm}^{-1}$ averaged optical resolution (optional 5 cm^{-1}) with spectral coverage from ~ 250 to $3,200\text{ cm}^{-1}$.

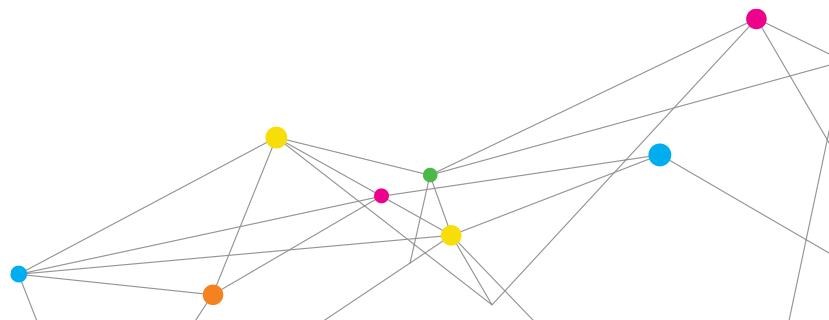
The ExpertRaman-W series is ideal for on-line process monitoring and for any academic, research, industrial applications requiring an affordable, high performance Raman instrument.

Features and Benefits

- + High sensitivity Raman system for laboratory and industrial process monitoring
- + Accurate, fast, repeatable raman measurements
- + Research grade performance without the price and complexity
- + High power, nir, frequency stabilized, narrow linewidth vexcitation source
- + 21 CFR part 11 and GMP compliant



UNDERSTANDING, ACCELERATED



SPECIFICATIONS

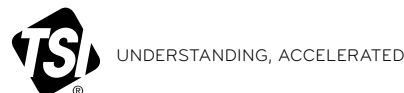
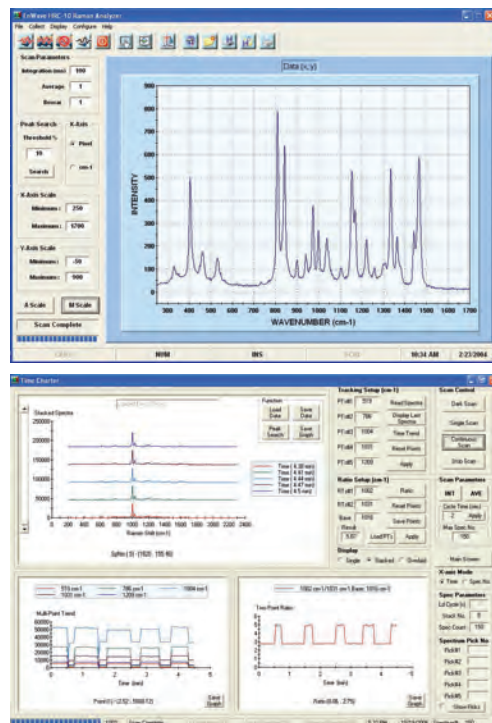
EXPERTRAMAN-W SERIES HIGH SENSITIVITY WIDE-RANGE RAMAN ANALYZER

Performance	
Excitation Source	NIR, Frequency Stabilized, Narrow Linewidth Diode Laser Wavelength Accuracy: 785 nm Laser Power: ~400mW (Higher Output Power Available Upon Request) Estimated Laser Lifetime: > 10,000 Hours Laser Shutter Control
Immersion Fiber-Optic Probe	Working Distance: 7 mm (Standard), 3 mm and 10 mm (Optional) Rayleigh Rejection: O.D. > 8 at Laser Wavelength Reaction Process Probe available
CCD Spectrograph	F1.8 High Sensitivity CCD Spectrograph TEC cooled CCD camera to -60°C 16 Bit Digitization Optical Resolution: ~10 cm ⁻¹ (5 cm ⁻¹ Optional) (785 nm Excitation) Nominal Resolution: ~1.9 cm ⁻¹ /pixel Spectral Coverage: ~ 250 cm ⁻¹ to 3,200 cm ⁻¹
System Software	Data Acquisition, Chemical Process Monitoring, and Spectra Management Software X-axis and Y-axis calibration function Spectral database search and management with GRAMS/AI Optional Symbion-RX Software for Pharmaceutical on-line process control applications (21CFR Part11 Compliant)
System Operating Temperature/Protection	10°C - 40°C With Thermal Shutdown Protection
Power Requirements	DC power supply (work both for 110/220V)
Physical	
Dimensions (L x W x H)	17.25" x 17" x 7"
Weight	30 LBS
Warranty	
Warranty	One Year for Parts and Labor

Specifications are subject to change without notice.

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Appropriate safety guidelines should be followed when operating this instrument. Complies with 21 CFR 1040.10 and 1040.11



TSI Incorporated - Visit our website www.tsi.com for more information.

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