

EZRAMAN-I SERIES

CUSTOMIZABLE PORTABLE RAMAN ANALYZER

The portable EZRaman-I Series are high-sensitivity, laboratory grade, field portable instruments housed in rugged packaging. The EZRaman-I Series can provide fast, accurate and easy material ID for a variety of applications.



The heart of the EZRaman-I is the user-selected laser. To better customize the instrument to your application, choose 532 nm, 785 nm or 905 nm. Next, select the grating that best suits your intended measurements. This is mated to a cooled CCD detector and a high throughput fiber optics probe.

EZRaman-I instruments are ideal for demanding on-site Raman identification, chemical process monitoring in the lab, and for any academic, research, industrial laboratories requiring a high performance Raman instrument in a portable package.

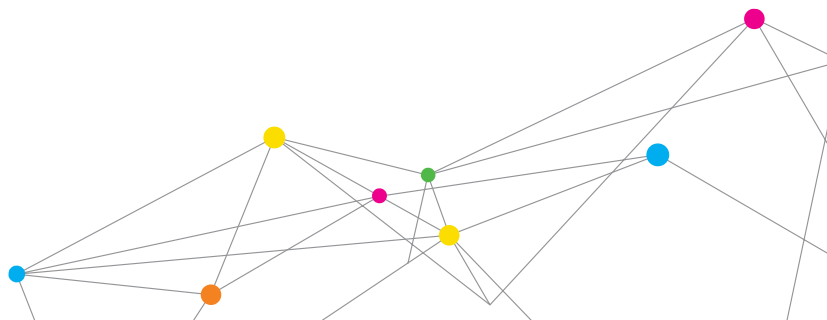
This instrument will measure your difficult samples, including: black samples, ion concentrations in aqueous solutions, and those samples having high native fluorescence.

Features and Benefits

- + Laboratory performance in portable package
- + The most sensitive portable Raman spectrometer on the market
- + Excellent fluorescence rejection
- + Fast sample times
- + High performance fiber optics probe
- + Best performance/cost ratio
- + Compact, reliable and easy to use

Applications

- + Pharmaceutical
- + Chemicals, polymers
- + Biology
- + Geology/mineralogy/gemology
- + Carbon nanotubes, graphene
- + Solar cells
- + Paper and pulp
- + Art and archaeology



SPECIFICATIONS

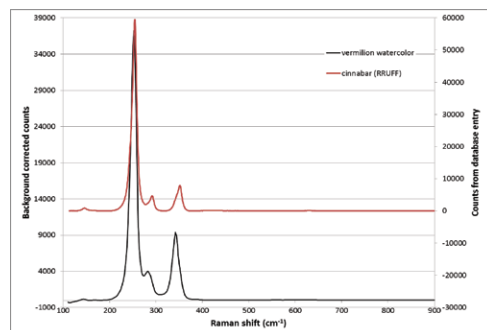
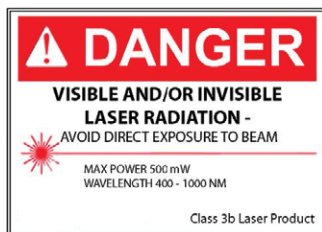
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Performance and Physical Characteristics		
Laser Wavelength	532	785
Laser Max Power	50 mW	400 mW
Spectrograph Ranges	100 - 3,100 cm^{-1}	100 - 2,200 cm^{-1}
	100 - 4,000 cm^{-1}	250 - 2,350 cm^{-1}
	-	100 - 3,300 cm^{-1}
Nominal Resolution	6-8 cm^{-1}	8-10 cm^{-1}
Operating CCD Temperature	-50° C	-50° C
Spectrometer f/#	4.0	4.0
Power	+ Rechargeable lithium battery + > 4 hours operation + 110/220 V DC power supply	+ Rechargeable lithium battery + > 4 hours operation + 110/220 V DC power supply
Physical Dimensions	17" x 13" x 7" (L x W x H), 25 lbs	17" x 13" x 7" (L x W x H), 25 lbs
<p>All TSI ChemLogix Raman instruments are delivered with high sensitivity, cooled CCD detectors with 16 bit digitization and HRP-8 fiber optically coupled sample interface probes. The probes have OD>8 Rayleigh rejection at the laser wavelength and a range of working distances (7 mm is standard, 3 mm and 10 mm are also available). All bench top and portable units also provide a laptop computer that is preloaded with RamanReader software that governs data acquisitions and spectra management. Data files can be exported as .TXT, .SPC, .DAT or .BMP formats. Depending upon the purpose, output can be directly ported to GRAMS or Symbion for post-analysis or process control. In addition, Raman-Reader has a variety of viewing options including stacked, overlaid and single spectrum display modes. It also has a Time Trend that plots spectra as a function of time, both as individual spectra and by peak ratios.</p> <p>Options available in this line include: Sample holder for liquid samples in vials or cuvette (SH), Probe Holder-XYZ Precision Stage for fine adjustment of sample measurements (XYZ), Pre-aligned lens tube for measurement on contact for solid samples (CLT), high NA lens tube with working distance from ~3mm [NA=0.55] (HNA), lens tube with working distance 10mm [NA=0.25] (WD10); μV-785 μViewer Converter (MVW), safety goggles (SG), spectral ID for spectral search and database building Raman library (SPID).</p>		
One year warranty for parts and labor.		

Specifications are subject to change without notice.

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

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Background-corrected Raman spectra of vermilion pigment and the mineral cinnabar. This data was acquired with 20 mW of 785 nm laser excitation and a spectral range of 100-3300 cm^{-1} . The acquisition period was 12s and the data was averaged 10x. The cinnabar spectrum was taken from the RRUFF database.



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

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