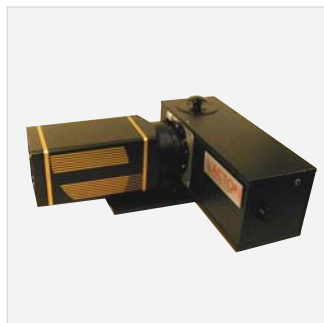


## SpectraPro HRE



Princeton Instruments/Acton, the world's leading designer and manufacturer of CCD based cameras and spectroscopic instrumentation, presents the **SpectraPro HRE**.

*SpectraPro HRE, the future of LIBS spectral analysis tools.*

The instrument incorporates an innovative approach to spectrograph technology, which is ideal for use with CCD and ICCD imaging arrays. The SpectraPro HRE achieves high spectral resolution over the entire wavelength range of the camera without any moving parts. The system is ideal for both general spectroscopy applications and Laser Induced Breakdown Spectroscopy.

Features	Benefits
Fixed prism/grating, No moving parts	Record data across the entire spectral range in one single image
Wide spectral range	Continuous sampling from 190nm - 1050 nm
User changeable wavelength elements	Change from high resolution UV coverage to full spectral coverage with ease
Compact, rugged design	Ideal for applications where space is a premium
Pre-aligned and focused digital spectroscopy solution	Quick and easy integration into your experimental setup
Renowned WinSpec software	Offers easy, yet sophisticated Windows® GUI controls; automates data acquisition, analysis and display
Scientific Toolkit for LabVIEW™	Respected application program interface provides a universal interface to all PI / Acton hardware
Wide range of optional components available	Including fibers and fiber adapters, sample chamber, and laser light sources
Three Purge Ports Included	Flush systems with nitrogen or argon for specialized applications that require operation down to 150nm.

## SpectraPro HRE Specifications

	SpectraPro HRE
<b>Focal Length</b>	250 mm
<b>Aperture Ratio</b>	f/10
<b>Standard Input Aperture</b>	25 $\mu$ m
<b>Spectral Accuracy</b>	+/- 0.02nm
<b>Size</b>	5" length x 13.9" width x 6.25" high 127 mm x 353 mm x 158.8 mm
<b>Weight</b>	13.5 lbs (6.12 kg)

## DISPERSIVE ELEMENTS

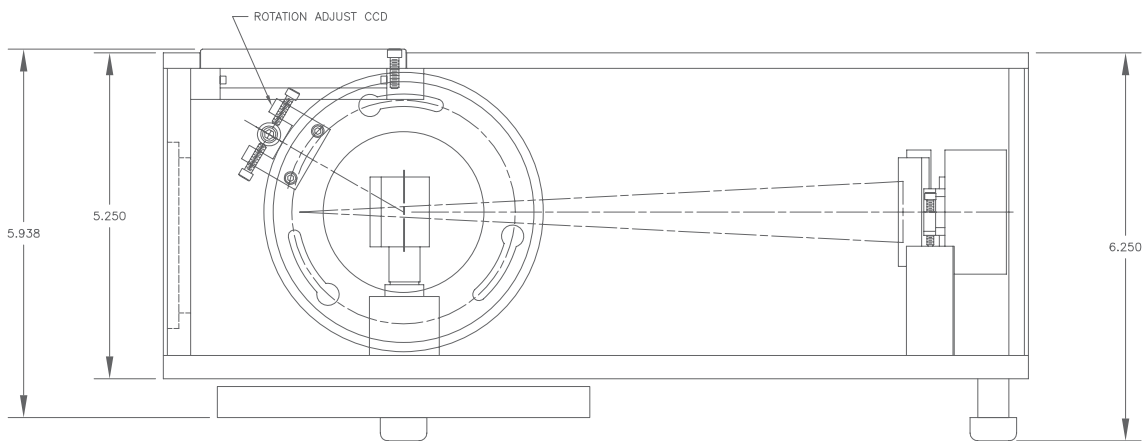
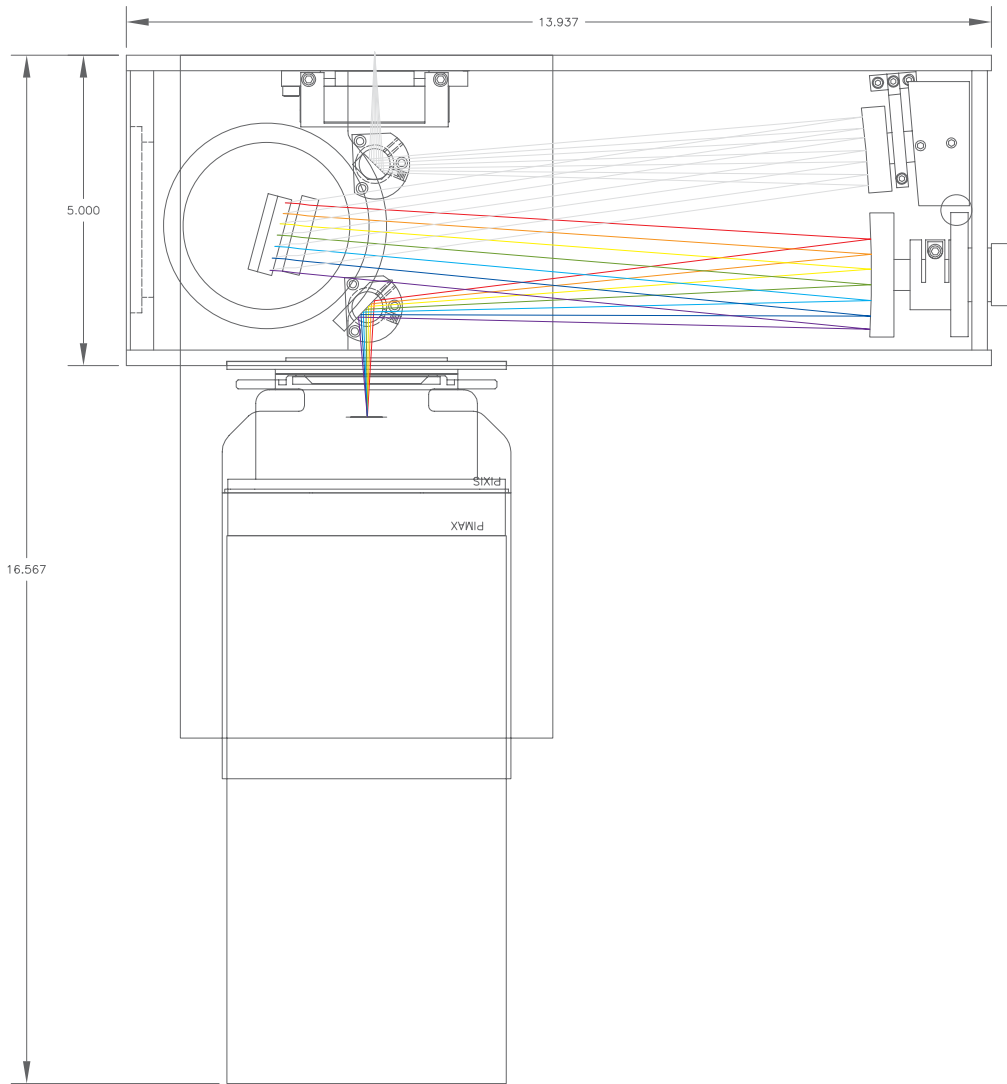
	HRE-DE-VUV	HRE-DE-UV	HRE-DE-BB
<b>Wavelength Range</b>	150 – 350 nm <sup>1</sup>	190 – 600 nm	190 – 1050 nm
<b>Resolving Power<sup>2</sup></b>	> 6000	> 6000	> 3000
<b>Resolution (@ 254nm)</b>	0.04 nm FWHM	0.04 FWHM	0.08 FWHM

<sup>1</sup> Requires system to be purged with Nitrogen or Argon

<sup>2</sup>  $\lambda/\Delta\lambda$ , using a 13 $\mu$ m or smaller pixel size

## COMPATIBLE CAMERAS

	Model	Pixel Size	Imaging Area
<b>High Resolution</b>	PIXIS:1024	13 x 13 $\mu$ m	13.3 x 13.3 mm
	PI•MAX:1K (Gen II/III)	13 x 13 $\mu$ m	13.3 x 13.3 mm
	PI•MAX2:1003 (Gen II/III)	12.8 x 12.8 $\mu$ m	13.1 x 13.1 mm
	CoolSnap:K4	7.4 x 7.4 $\mu$ m	15.1 x 15.1 mm
	Model	Pixel Size	Imaging Area
<b>Low Resolution</b>	PIXIS:512	24 x 24 $\mu$ m	12.3 x 12.3 mm
	PI•MAX:512 (Gen II/III)	24.1 x 24.1 $\mu$ m	12.4 x 12.4 mm
	PI•MAX2:512 (Gen II/III)	24.1 x 24.1 $\mu$ m	12.4 x 12.4 mm



**Princeton Instruments**



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