



VM300 VUV Monochromator and Spectrometer



The Resonance Ltd. vacuum monochromator and spectrometer uses standard connections to allow simple integration into most systems. The f/5 grating is a type 4 for minimal aberrations. It is designed to allow easy interchangeability between being a monochromator and a CCD-based spectrometer. It's supplied with LabView-based codes and drivers for integration into user software.

The VM300 packs performance in a small package. The compact 4-kg system can be coupled directly to a vacuum chamber through a 2.75" Conflat™ style flange. Its single-grating design provides high VUV efficiency while the 300mm focal length offers an excellent balance between size and functionality.

The system can be configured as a manual monochromator, a motorized monochromator or as a CCD spectrometer using interchangeable accessories.

Features

High throughput f/5

Spectral range from 25-400nm

Single concave grating for high VUV efficiency

Easily switched from a monochromator to a CCD-based spectrometer

Only 4kg mass, 2 liter internal volume

Fixed interchangeable, adjustable slits

Control/data acquisition electronics, embedded computer and software

Interchangeable gratings for wavelengths up to 3200nm



VM300 Specifications	
Focal Length	300 mm
F/No	5
Wavelength Range	25 - 400nm (3000 G/mm grating)*
Resolution	0.1nm with 100um slit
Wavelength Accuracy	+/- 0.3nm with standard grating
Wavelength Reproducibility	+/- 0.1nm
Dispersion	1.0 nm/mm
Focal Plane	30mm max. width
Standard Grating	3000 G/mm
Grating (diameter	60mm
Standard CCD	28mm 2048 pixels
Standard Interchangeable Slits	25 - 4000 um width
Adjustable Slits Option	25 - 4000 um width
Stray Light	$<2 \times 10^{-4}$ in VUV
Ultimate Vacuum	$<10^{-6}$ torr
Available Scan Speeds	20, 10, 4, 2, 1, 0.3, 0.16 Angstroms/sec
Available Recording Scan Speeds	2, 1, 0.3 Angstroms/sec
Step Size	0.25 Angstroms
Dimensions	18cm dia. 16cm height main body

*custom gratings on request

