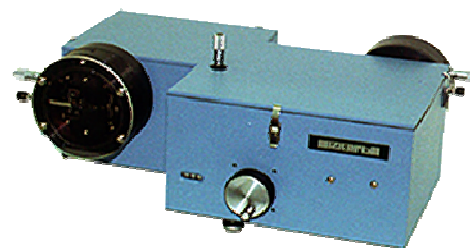


f/4.2 Double Monochromator

The Model 275D is a 200mm focal length f/4.2 double grating monochromator available with additive or subtractive dispersion. It uses two aberration corrected concave holographic gratings. Several different diffraction gratings are available optimizing for ultraviolet, visible or near infrared. The compact housing contains a single sine drive for both gratings. Each of the three slits is adjustable by precision micrometer. The 275D features a wavelength counter, and manually operable sine drive providing years of accurate and reproducible wavelength positioning. You can use it with the 789A-4 scan controller and software with data acquisition too. Double monochromators are best for applications requiring the lowest levels of scattered or stray light. Applications include source and detector standardization, radiometry, Raman and photoluminescence.



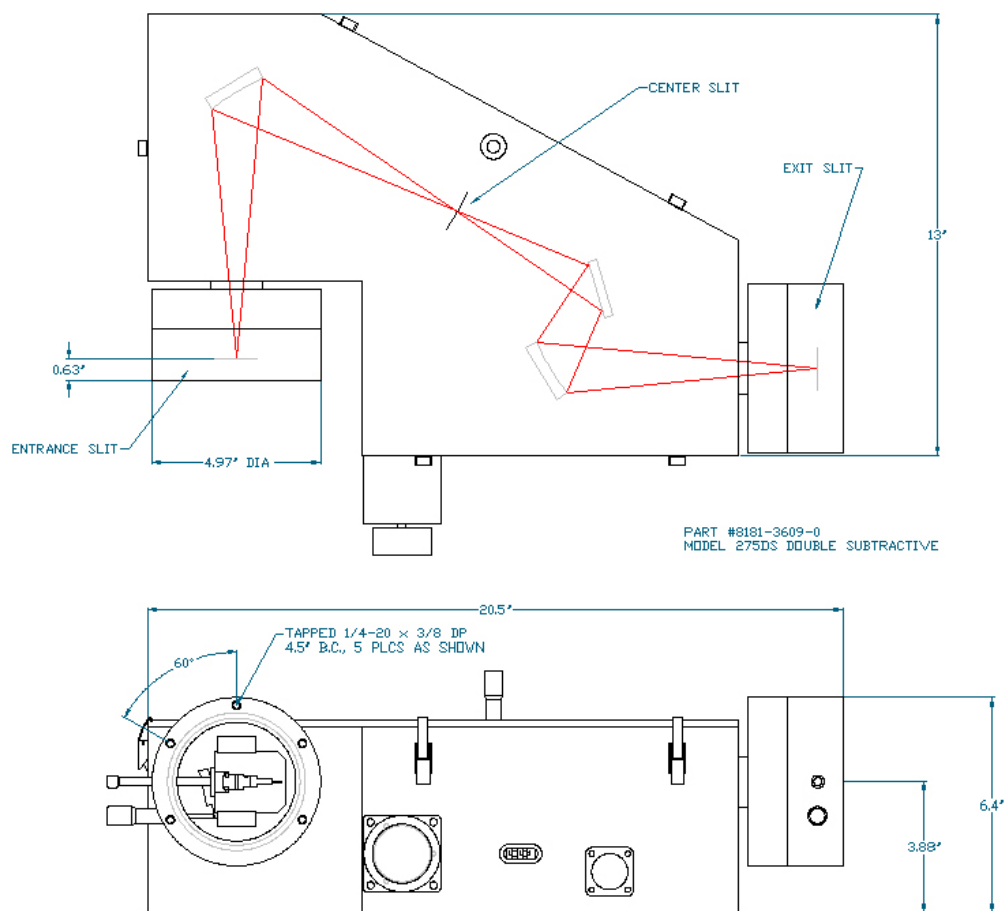
Subtractive or Additive Double Monochromator | f/4.2 Throughput | Micrometer Adjustable Slits

Optical Design	Aberration Corrected Concave Grating
Focal Length	200 ± 200 mm
Aperture Ratio	f/4.2 (NA 0.12)
Wavelength Range	refer to grating of interest for range
Wavelength Accuracy	±0.5 nm UV-Vis-NIR (±0.06 nm Vis, 1200 G/mm grating)
Wavelength Reproducibility	± 0.05 nm (with 1200 G/mm grating)
Grating Size	40 x 45 mm (single grating holder only)
Slits	Adjustable entrance, intermediate and exit slits (0.01 to 4 mm wide with micrometer)

Subtractive mode performance with various diffraction gratings:

Grating Groove Density (g/mm)	2400	1200	600
Spectral Resolution* at 312.6nm (nm, FWHM)	0.8	0.15	0.3
Reciprocal Linear Dispersion* (nm/mm)	2	4	8
Wavelength Range from 185nm to	500 nm	1000 nm	2000 nm

***Divide by 2 for Additive mode specification**



Ordering Information

Part Number 8181-3425-0 = Model 275DA 200 mm focal length additive dispersion double monochromator. Supplied with corrected concave holographic grating and adjustable entrance, intermediate and exit slits

Part Number 8181-3609-0 = Model 275DS 200 mm focal length subtractive dispersion double monochromator. Supplied with corrected concave holographic grating and adjustable entrance, intermediate and exit slits

References

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Shin-Woong Park, Sunwoo Yuk, Jung-Byung Park, Yun Yi

-Indium Nitride Surface Structure, Desorption Kinetics and Thermal Stability
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-Development and characterization of an optical fiber based instrument for ultraviolet resonance Raman of biomolecules
Greek, Lloyd Shane