

M300  
Single Monochromator

# M300 Monochromator

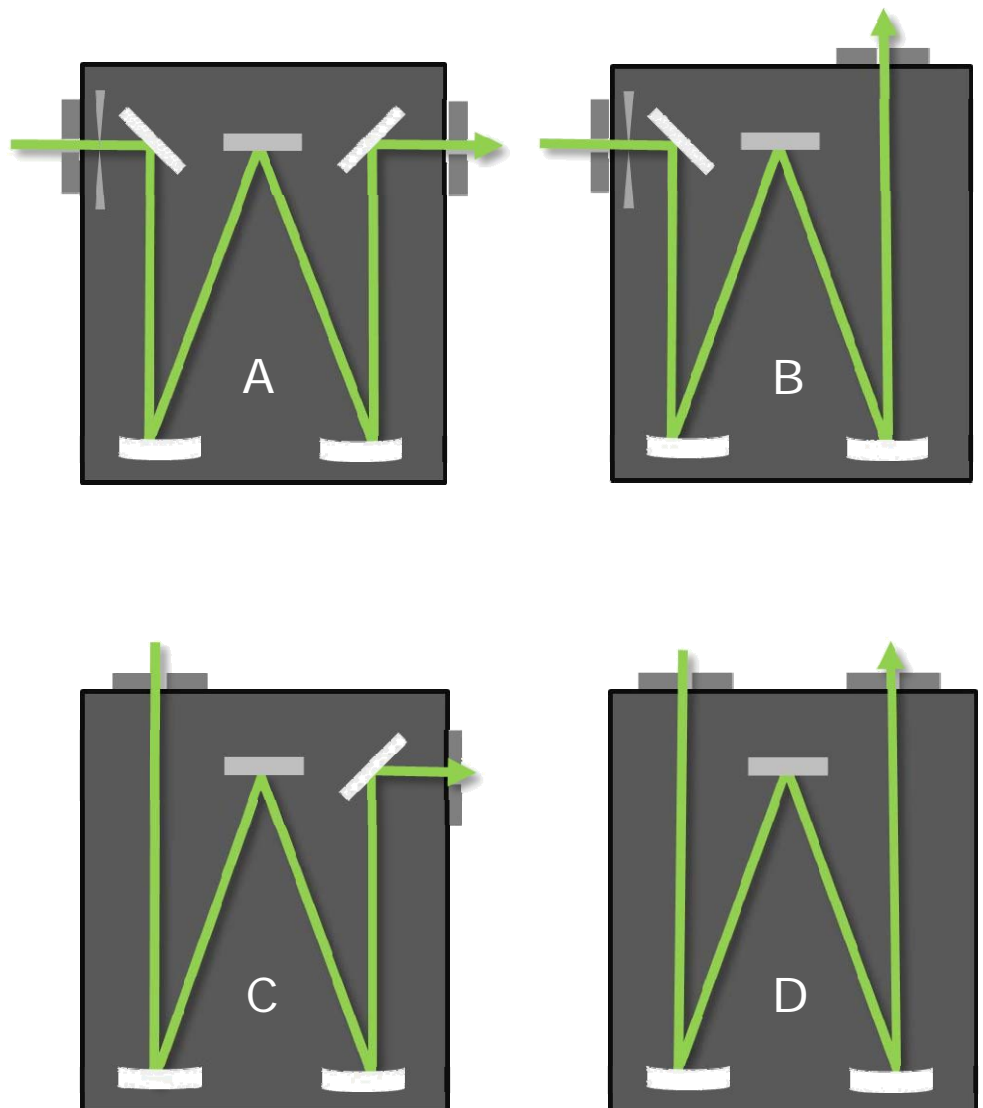
The M300 single monochromator, the first monochromator model introduced by Bentham over thirty-five years ago, remains popular thanks to its compact size and simplicity, ideal for dedicated applications.

Compatible with the full range of sources, detectors and accessories of the Bentham portfolio, the M300 monochromator has been deployed in an exceptional range of measurements throughout the UV, visible and IR.

## Key features:

- 300mm focal length single monochromator in Czerny-Turner configuration
- Accommodates single kinematically-mounted diffraction grating
- One entrance slit and one exit slit with multiple configurations available
- Fully automated through USB 2.0 interface

## Configurations (typical)

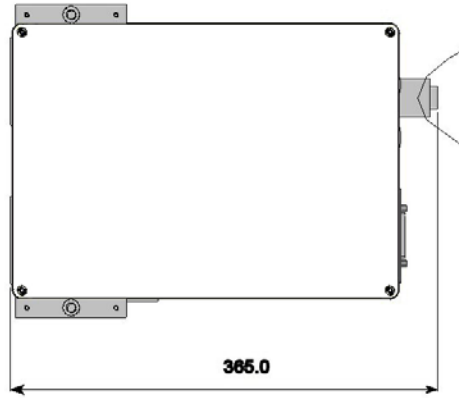


## Specification

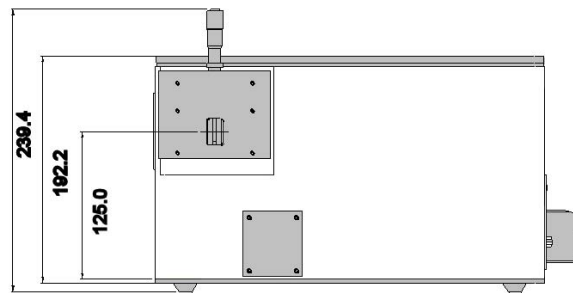
<b>Optical Layout</b>	
Configuration	Symmetrical Czerny Turner
Focal length	300mm
Grating Mount	Kinematic mount
Number of Gratings	1
Grating size	69 x 69mm
Aperture ratio	f/4.2 (at all grating angles)
Number of Entrance/ exit ports	One entrance, one exit
<b>Opto-Mechanical</b>	
Grating drive	Sine bar drive
Slit type	Fixed, micrometer or motorised variable
Slit Width & Height	10µm-10mm (W) x 20mm (H)
Order sorting	6/8-position filter wheel (includes shutter)
Filter Size	25mm diameter
<b>Optical Performance (quoted for 1200 g/mm gratings)</b>	
Spectral Range	Within range 200nm-50µm
Linear Dispersion	2.7nm/mm
Wavelength accuracy	0.2nm
Wavelength reproducibility	± 0.05nm
Resolution full/ reduced slit height	± 0.3/ 0.1nm
Stray light rejection at 2.5 FWHM	10 <sup>-5</sup>
Wavelength acquisition speed	1000nm/s
<b>Automation</b>	
Computer interface	USB, IEEE as option
Software Control	Benwin+/ SDK
<b>Electrical/ Mechanical</b>	
Overall dimensions (mm)	330W x 235D x 218H
Optical height (mm)	115mm
Construction	Single machined casting
Weight	Approx. 12 kg
Power supply	Mains input 110/220V 50/60Hz

# M300 Dimensions

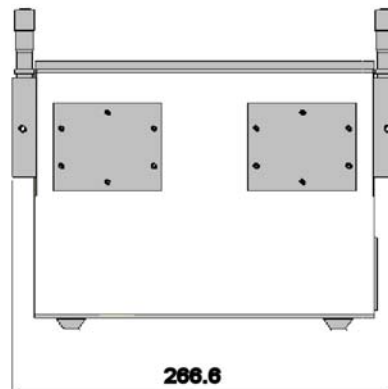
Top view



Side view



Front view



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