

TMc300
Monochromator
with triple grating turret

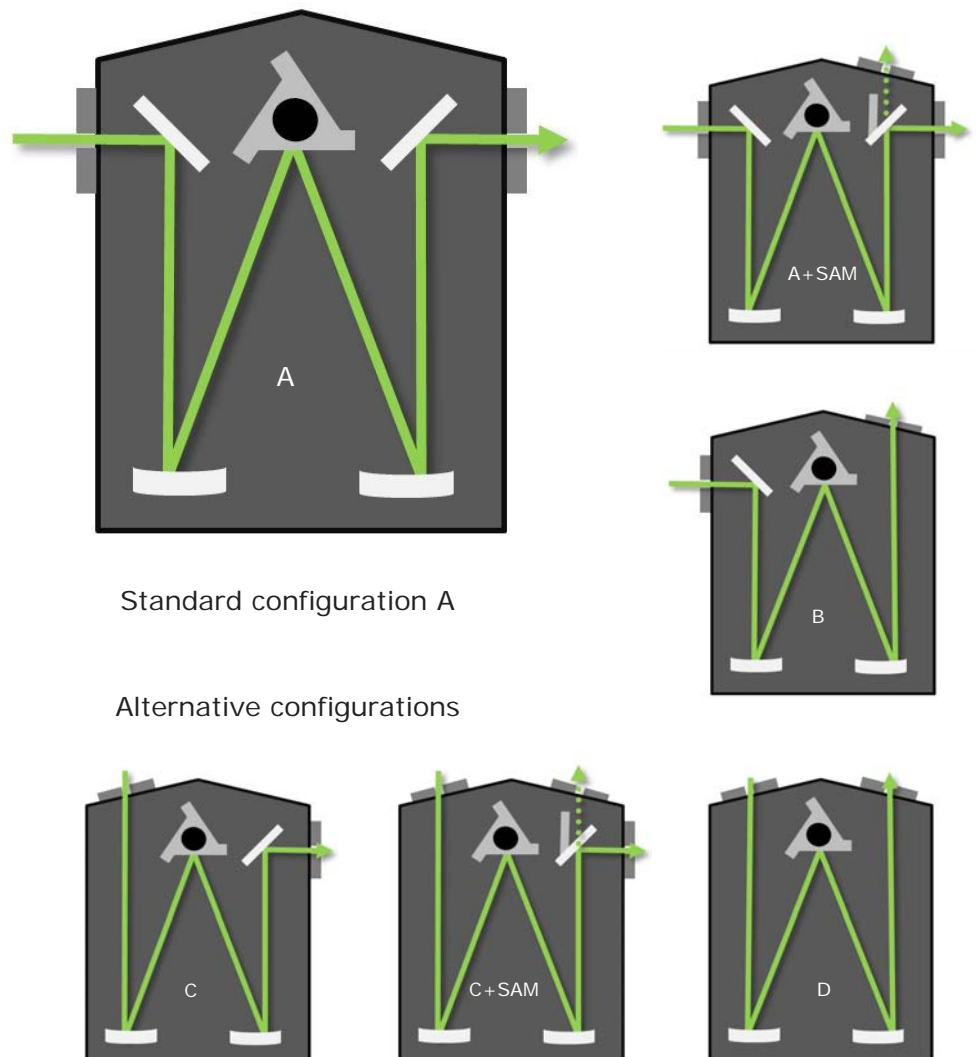
TMc300 Monochromator

The TMc300 single monochromator remains one of our most popular, thanks to its flexibility of configuration and its ability to cover a wide spectral range in a single scan. Compatible with the full range of sources, detectors and accessories of the Bentham portfolio, the TMc300 monochromator is at the heart of many of our light measurement solutions throughout the UV, visible and IR.

Key features:

- 300mm focal length single monochromator in Czerny-Turner configuration
- Accommodates up to three diffraction gratings to permitting single-scan measurement over wide spectral range
- May be configured over ranges included in 200nm-50µm, below 300nm typically only where stray light not impact
- Up to two entrance and/or exit ports with automated mirror-based port selection for use of multiple input/output/ detector configurations
- Large rectangular gratings enhances light throughput whilst optical layout minimises scattered light
- Fast wavelength acquisition with zero backlash

Configurations



Standard configuration A

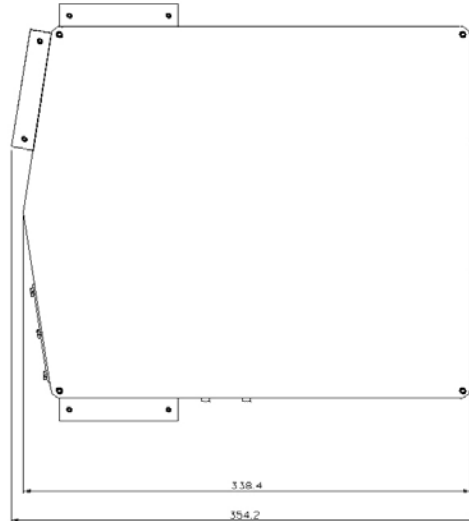
Alternative configurations

Specification

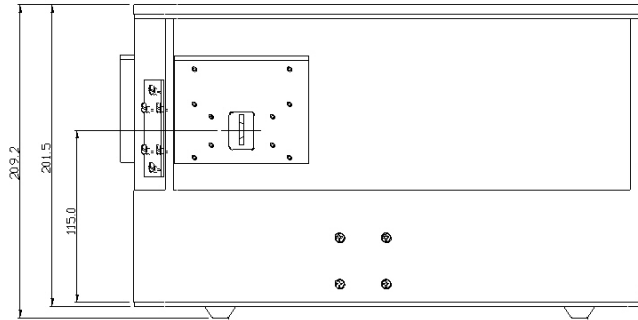
Optical Layout	
Configuration	Symmetrical Czerny Turner
Focal length	300mm
Grating Mount	Triple grating turret
Number of Gratings	1-3
Grating size	68 x 84mm
Aperture ratio	f/4.1 (at all grating angles)
Number of Entrance/ exit ports	1/2 or 2/1
Opto-Mechanical	
Grating drive	Worm and wheel driven turret
Mechanical resolution drive	0.000072°/ step
Slit type	Fixed, micrometer or motorised variable
Slit Width & Height	10µm-8mm (W) x 20mm (H)
Order sorting	6/8-position filter wheel (includes shutter)
Filter Size	25mm diameter
Optical Performance (quoted for 1200 g/mm gratings)	
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 ⁻⁵
Wavelength acquisition speed	1000nm/s
Automation	
Computer interface	USB
Software Control	BenWin+/SDK
Electrical/Mechanical	
Overall dimensions (mm)	316W x 354D x 209H
Optical height (mm)	115mm
Construction	Single machined casting
Weight	14 kg
Power supply	Mains input 110/220V 50/60Hz
Options	
Diffraction gratings	See separate Diffraction Gratings datasheet
Order sorting filters	See separate Order Sorting Filters datasheet
252-8	8-position order-sorting filter wheel (filter diameter 23mm)

TMc300 Dimensions

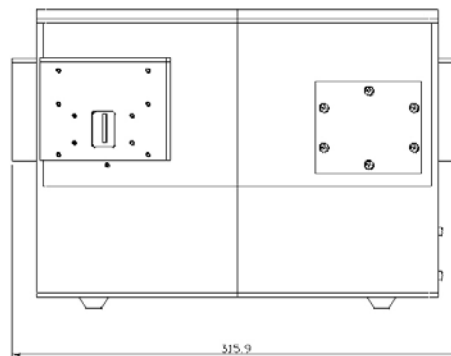
Top view



Side view



Front view



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