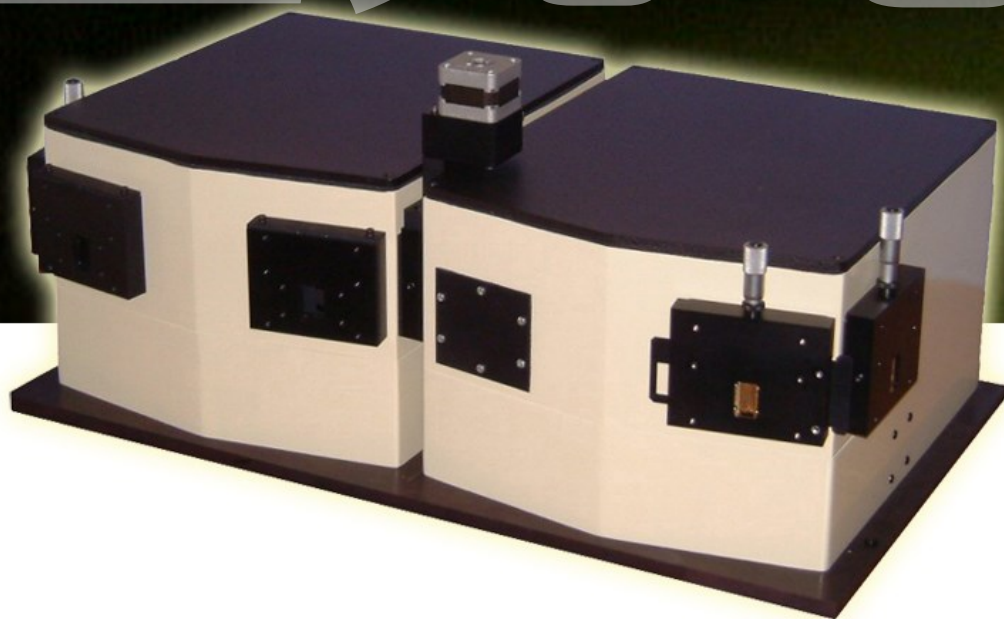


昊量光电



DTMc300
Double Monochromator

上海昊量光电设备有限公司 Phone: 4006-888-532 WeChat: Auniontech Website: www.auniontech.com E-mail: info@auniontech.com

DTMc300 Monochromator

For applications where the scattered light performance of a single monochromator is not sufficient, the excellent optical performance as the TMc300 may still be experienced with two of such used in tandem constituting thereby the DTMc300 double monochromator.

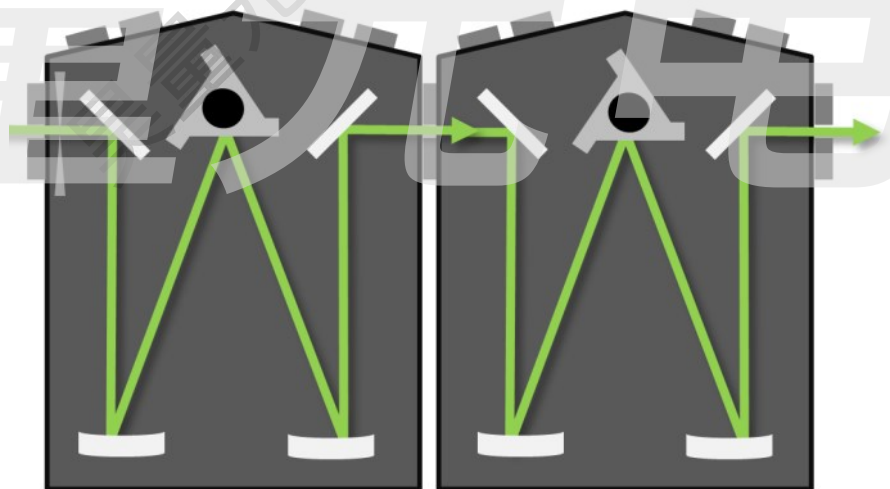
The DTMc300 maintains the flexibility of configuration and ability to cover a wide spectral range of the TMc300, within a single scan.

Compatible with the full range of sources, detectors and accessories of the Bentham portfolio, in the additive dispersion mode, the DTMc300 monochromator is at the heart of many of our light measurement solutions, particularly those incorporating a UV component, whilst the subtractive dispersion mode is sought by high level laboratories seeking minimum measurement uncertainty due to the resulting lack of dispersion at the exit slit.

Key features:

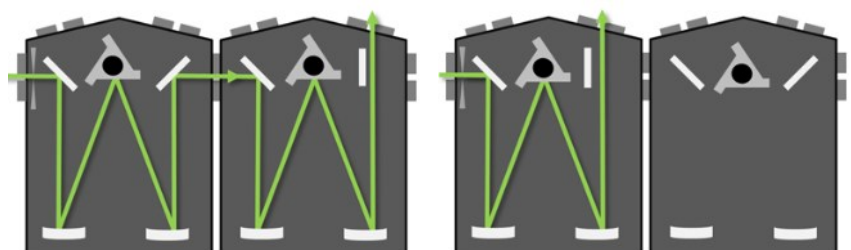
- Double monochromator composed of two 300mm focal length monochromators in Czerny-Turner configuration arranged for either additive or subtractive dispersion
- Each single monochromator accommodates up to three diffraction gratings permitting single-scan measurement over wide spectral range included in range 200nm-50µm
- Up to two entrance ports, one exit port on first monochromator (single mode) and up to two exits on second monochromator (double mode) with automated mirror-based port selection for use of multiple input/ output/ detector configurations
- Fully automated through USB 2.0 interface

Configuration (typical)



Standard configuration A

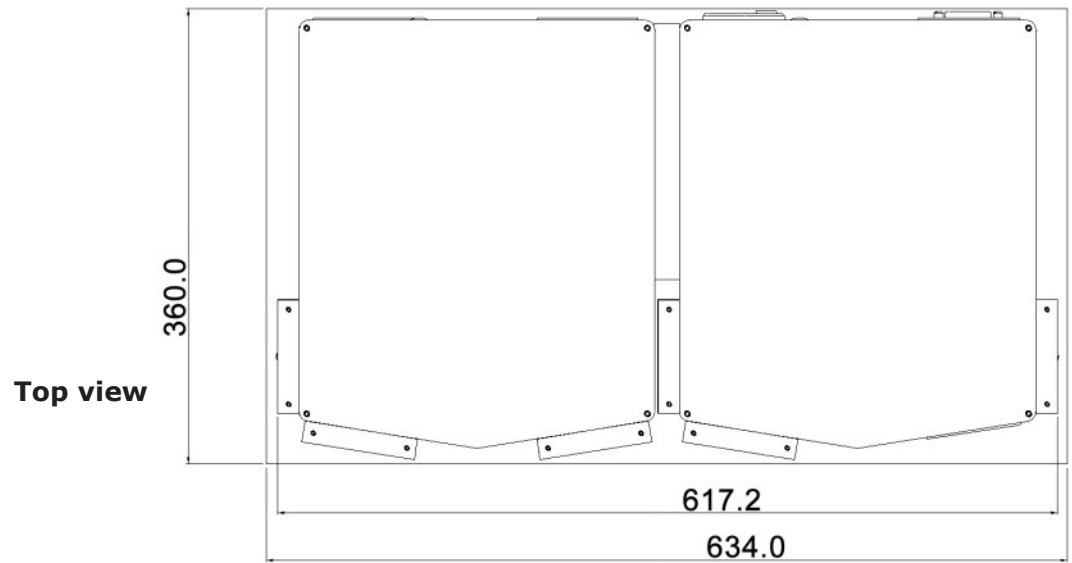
Alternative configurations B & C:



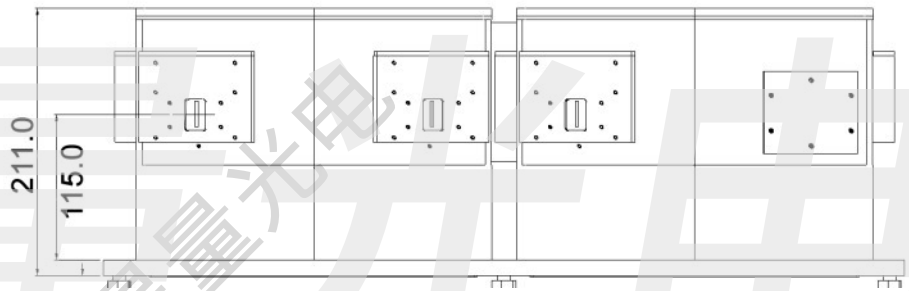
Specification

| Optical Layout | |
|--|--|
| Configuration | Pair symmetrical Czerny Turner monochromators arranged for either additive or subtractive dispersion |
| Focal length | Total focal length: 600mm (additive) Individual Units: 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 or 2 in both monochromators |
| Opto-Mechanical | |
| Mechanical resolution drive | 0.000072°/ step |
| Slit type | Fixed, micrometer or motorised variable |
| Slit width & height | 10µm-10mm (W) x 20mm (H) |
| Filter size | 23/25mm diameter |
| Optical Performance (quoted for 1200 g/mm gratings) | |
| Spectral range | Within range 200nm-50µm |
| Linear dispersion | 1.35nm/mm (additive) |
| Wavelength accuracy | ± 0.1nm |
| Wavelength reproducibility | ± 0.025nm |
| Resolution full/reduced slit height | 0.15/0.05nm |
| Stray light rejection at 2.5 FWHM | 10 ⁻⁸ |
| Wavelength acquisition speed | 2000nm/s |
| Automation | |
| Computer interface | USB |
| Software control | BenWin+/SDK |
| Electrical/Mechanical | |
| Overall dimensions (mm) | 634W x 360D x 211H |
| Optical height (mm) | 115mm |
| Weight | 28 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 |
| Filter wheel | 252-6 or 252-8 (6/8-position filter wheel, |

DTMc300 Dimensions



Side view



Contact Us

Bentham Instruments Ltd
2 Boulton Road
Reading
Berkshire
RG2 0NH
United Kingdom

DTMc300V3-1