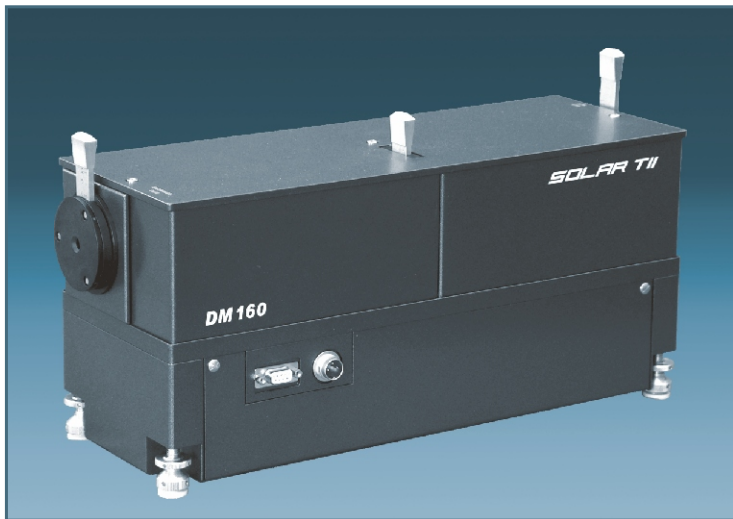


0,16 m DOUBLE MONOCHROMATOR



Double Monochromator with dispersion subtraction

MODEL

DM 160

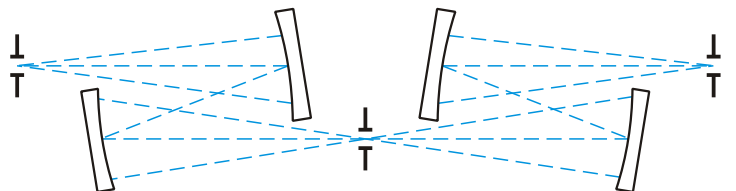
The DM160 is a high-aperture double monochromator with dispersion subtraction. It is an F/3,5 instrument with an input focal length of 160 mm. The DM160 uses the optical schematic with as few as four optical components and an intermediate slit ensuring the low stray light and the high aperture ratio.

The concave diffraction gratings with a variable spacing between the lines allow astigmatism compensation in the DM160.

FEATURES

- ✦ High throughput
- ✦ Low stray light
- ✦ No re-entrant spectra
- ✦ Automated control of grating rotation from PC
- ✦ Entrance, intermediate and exit slits with 4 fixed slit widths
- ✦ Original software Win'9x/ME/2000/XP

Optic Layout



APPLICATIONS

- UV to IR measurement
- Fluorescence and Raman Spectroscopy
- Absorption and Transmission
- Tunable filter with a narrow bandwidth (1,4 nm) and extremely low stray light

SPECIFICATIONS

SYSTEM

Design:	With dispersion subtraction
Ports:	1 input, 1 output
F/number (input):	3,5
Focal length:	160 mm
Grating size:	40x40x10 mm
Grating type:	Ruled concave, with a variable spacing
Main mirrors:	Spherical
Stray light:	< 0,01% (halogen lamp with 350 nm cut-off filter)

DRIVE

Motor:	High torque microstepper
Drive:	Worm
Step size:	3,4 arc seconds
Precision:	+/- 1 step
Max. speed:	10000 steps/s

WAVELENGTH

Grating:	1200 l/mm blaze 280 nm
Wavelength range:	190-560 nm
Reciprocal dispersion:	4,8 nm/mm
Wavelength repeatability:	+/- 0,1 nm
Wavelength resolution (slit width 0,22 mm):	1,4 nm
Wavelength accuracy:	+/- 0,25 nm
Wavelength step size (aver):	0,025 nm

SLITS

Adjustment of slit width:	manual (4 fixed slit widths)
Slit width	
- entrance and intermediate slit:	0,22 mm; 0,54 mm; 1,1 mm; 1,6 mm
- exit slit:	0,44 mm; 1,08 mm; 2,2 mm; 3,2 mm
Slit height:	6 mm

SYSTEM CONTROL

- Central control by on board CPU
- External control by Hand Controller (see p.53)
- Programmed control by external computer
- External interface RS-232

OVERALL SIZE (LxWxH): 419x140x175 mm

WEIGHT: 8 kg

DIMENSIONAL DRAWING

