

Grating 600 lines/mm 1003079
Grating 300 lines /mm 1003080

Instruction sheet

06/18 ALF



1. Description

Transmission grating for spectroscopic examinations and for experiments on diffraction and interference. Suitable to resolve the Na-D lines. Gratings with 300 resp. 600 lines per mm, mounted on glass carrier. Both gratings have a high resolution power, provide a sharp, bright spectrum and are suitable for use in precision spectrometers.

The 300 line grating enables particularly well measurements to be taken of the separation of Na-D lines.

2. Technical data

Dimensions:	38 mm x 50 mm
Size of grating:	24 mm x 24 mm
No. of lines:	300 resp. 600 lines/mm
Grating constant:	3.3 μm resp. 1.7 μm

3. Operation

- To avoid scratching or soiling the surface of the grating, hold the slide only by its edges.

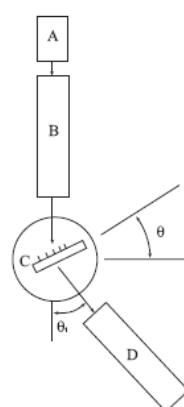
Note: The grating has a stronger spectrum on one side. For best results mount the diffraction grating in such a way, that the grating faces the light source.

3.1 Demonstration of diffraction by a grating

- Mount diffraction grating in holder (e.g. object holder on stem 1000855).
- Grating must be brought into a parallel beam of light.
- Diffraction can be observed.

3.2 Use of a spectrometer and goniometer

- Mount diffraction grating in holder of spectrometer-goniometer.
- Adjust the angles according to illustration.
- View the light diffracted by the line grating through the spectrometer telescope. Diffraction of higher order can be observed.
- If a sodium lamp is used, the doublet may be viewed when $\theta = 10.5^\circ$ and $\theta_1 = 21^\circ$.



A: Light source
 B: Collimator
 C: Grating
 D: Observation tube

