

Scientific
Education

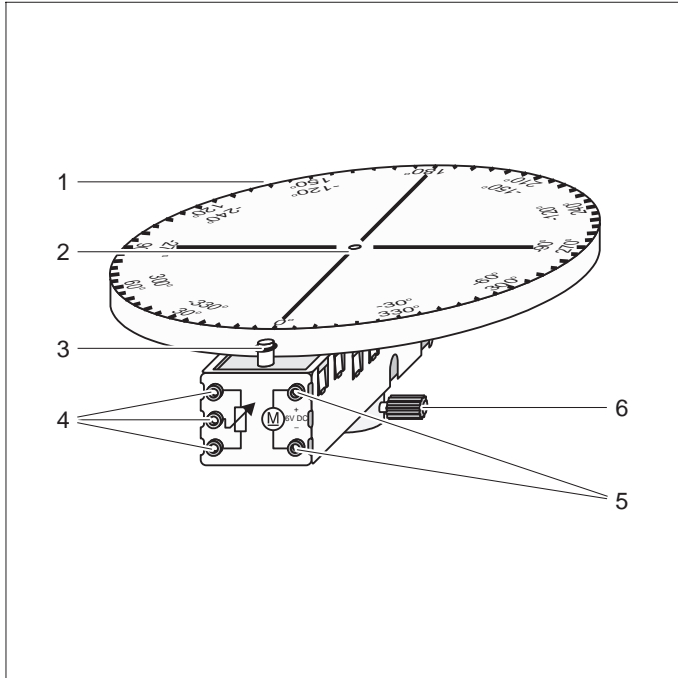
Technical Training
and Education

Trade



LEYBOLD DIDACTIC GmbH

04/99-V5-Hke/Se



Instruction Sheet 311 902

Rotating Platform with Motor Drive (311 902)

- 1 Turntable with angular scale
- 2 4-mm hole,
for attaching experiment apparatus
- 3 Friction wheel
- 4 Connection sockets for five-turn potentiometer
- 5 Connection sockets for drive motor
- 6 Bushing with screw

1 Description

The rotating platform with motor drive enables experiments in which a setup turns at a constant angular velocity and the instantaneous rotation angle is recorded using a chart recorder or computer. The system is driven by a geared DC motor. The change in the rotation angle is proportional to the change in the resistance of a five-turn potentiometer.

Safety notes

Set up rotating experiments carefully to ensure that they are sufficiently stable.

- Make sure the stand and apparatus are attached securely.
- As far as possible, position the load on the turntable so that it is directly above the axis.
- Do not exceed the maximum load limit.

Currents above 10 mA can destroy the five-turn potentiometer.

- Do not exceed the maximum external voltage.
- Apply the external voltage to the blue and red sockets only, and never to the yellow socket (center tap).

2 Technical data

Turntable:

Diameter:	25 cm
Maximum load:	15 kg (center), 5 kg (edge)
Scale:	0-360°, 5° graduation
Reproducibility:	< 1.2%

Drive motor:

Operating voltage:	0 ... ±6 V DC
Maximum current:	±100 mA DC

Five-turn potentiometer:

Usable angle of rotation:	380°
Calibration:	10 kΩ ± 380°
Linearity:	±0.25 %
Maximum external voltage:	60 V-

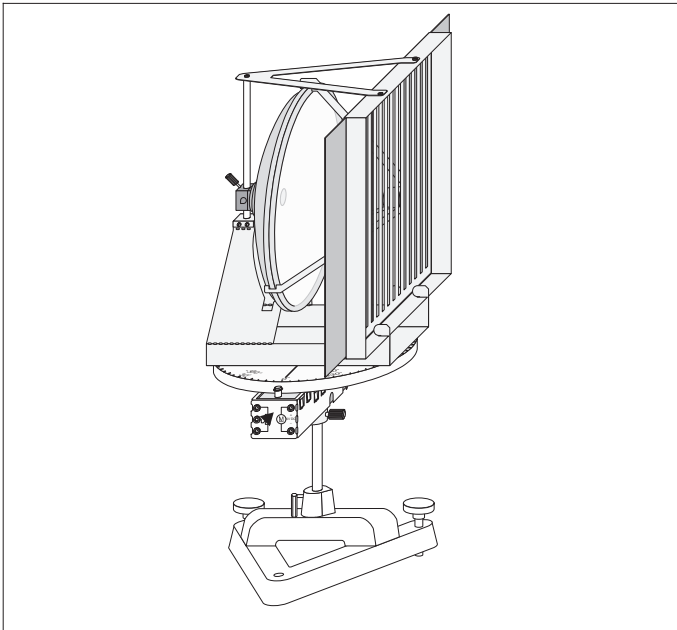
Stand holder:

Inside diameter:	12 mm
------------------	-------

3 Operation

3.1 Mechanical assembly

Here: with setup for the diffraction of ultrasonic waves.

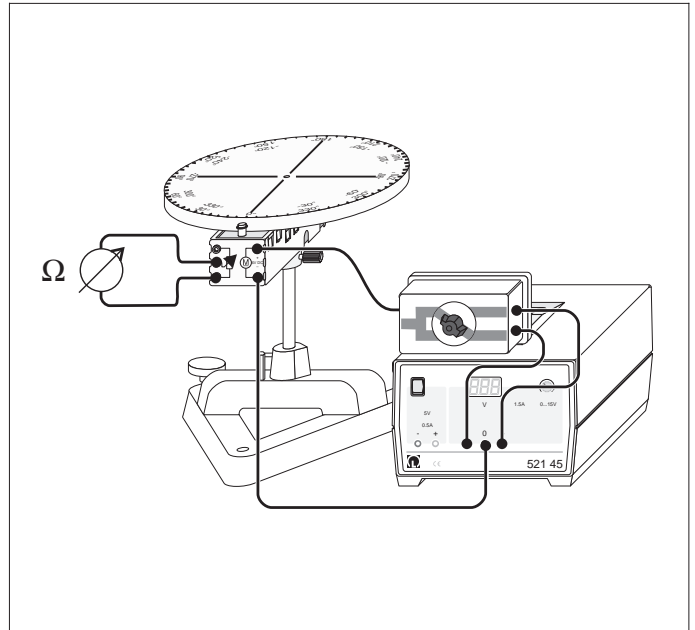


Additionally required:

- | | |
|---------------------|--------|
| 1 Stand base, 28 cm | 300 01 |
| 1 Stand rod, 25 cm | 300 41 |

3.2 Electrical connections

Here: for clockwise rotation (right to left)



Additionally recommended:

- | | |
|------------------------------|--------------|
| 1 DC power supply 0 to ±15 V | 521 45 |
| 1 Two-way switch | 504 48 |
| 1 Ohmmeter | e.g. 531 711 |