



P1 Mechanics

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P 1.8 Aerodynamics and hydrodynamics

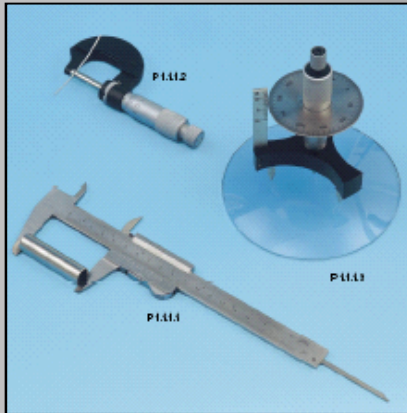
- P 1.8.1 Barometry
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Physics

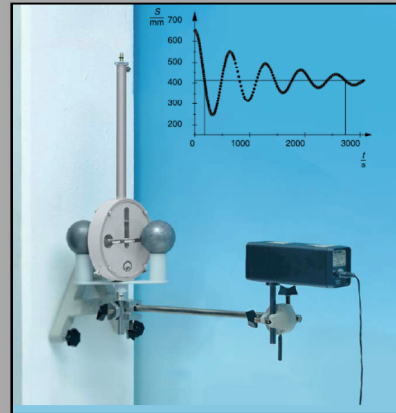


P1 Mechanics

P 1.1 Measuring method



Caliper Gauge, micrometer screw and spherometer



Determining the gravitational constant with the gravitation torsion balance after Cavendish – measuring the excursion with a light pointer

P 1.2 Forces

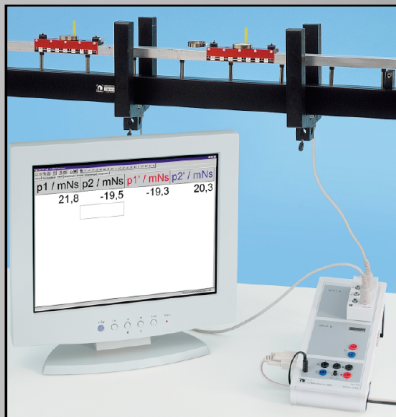


Static effects of forces

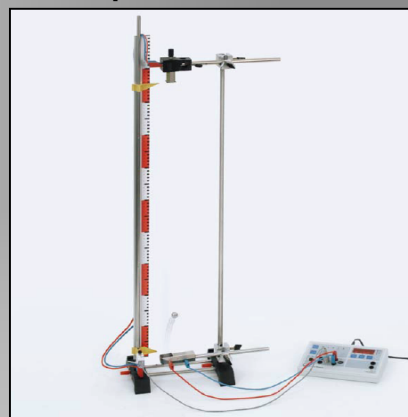


Inclined plane : force along the plane and force normal to the plane

P 1.3 Translational motion of a mass point

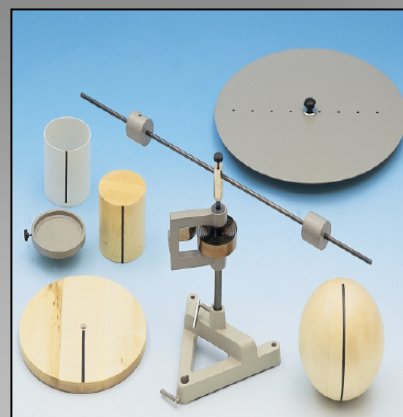


Momentum conservation using an linear air track



Free fall : time measurement with the contact plate and the counter S

P 1.4 Rotational motions of a rigid body



Definition of moment inertia



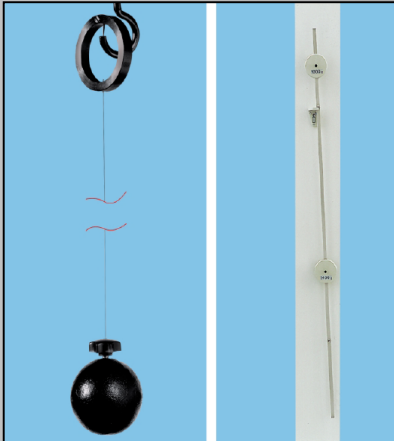
Conservation of angular momentum

Physics

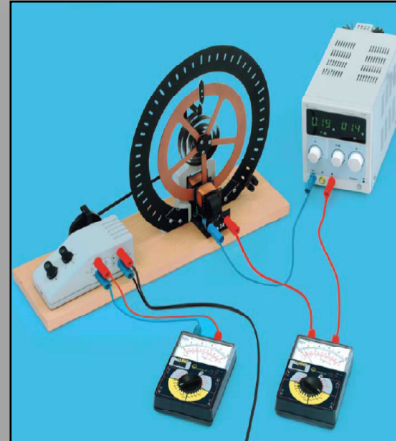


P1 Mechanics

P 1.5 Oscillations



Mathematical and reversible pendulum

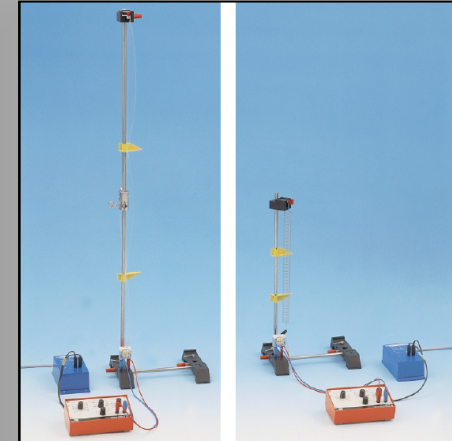


Forced rotational oscillations – measuring with a handheld stopclock

P 1.6 Wave mechanics



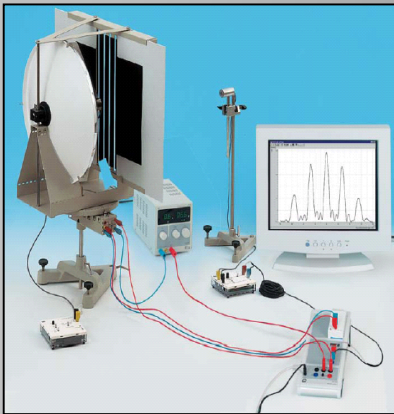
Generating circular water waves



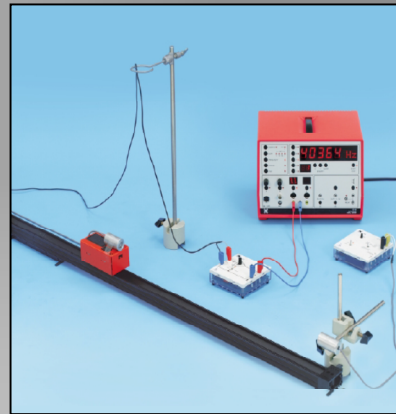
Standing transversal waves on a string

Standing longitudinal waves on a helical spring

P 1.7 Acoustics



Diffraction of ultrasonic waves

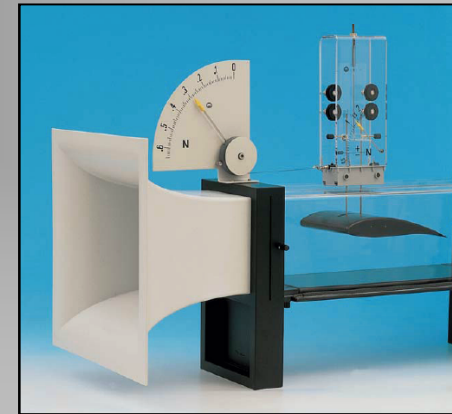


Investigating the Doppler effect with ultrasonic waves

P 1.8 Aerodynamics and hydrodynamics



Confirming Archimedes principle



Recording the airfoil profile polars in a wind tunnel