

Laws of gyroscopes / cardanic gyroscope 1.3.20-00

What you can learn about ...

- Moment of inertia
- Torque
- Angular momentum
- Nutation
- Precession

Principle:

If the axis of rotation of the forcefree gyroscope is displaced slightly, a nutation is produced. The relationship between precession frequency or nutation frequency and gyro-frequency is examined for different moments of inertia.

Additional weights are applied to a gyroscope mounted on gimbals, so causing a precession.



What you need:

Gyro, Magnus type, incl. Handb.	02550.00	1
Stopwatch, digital, 1/100 sec.	03071.01	1
Digital stroboscope	21809.93	1

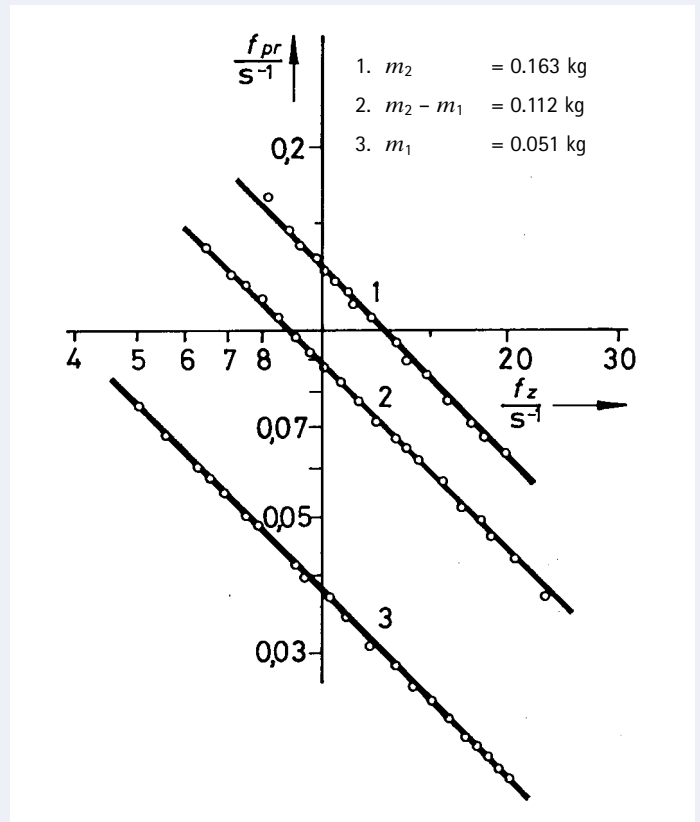
Complete Equipment Set, Manual on CD-ROM included
 Laws of gyroscopes / cardanic gyroscope P2132000

Tasks:

1. To determine the precession frequency as a function of the torque and the angular velocity of the gyroscope.
2. To determine the nutational frequency as a function of the angular velocity and the moment of inertia.

Note:

A detailed handbook (128 pages) containing additional experiments is included, free of charge, in the equipment.



Precession frequency as a function of the gyro frequency for different additional masses.