Gyroscope Apparatus

(EDC-TM-119)

EXPERIMENTAL DATA:

- Investigational verification of the gyroscopic laws.
- Accommodation with the three gyro axes.
- Intention of gyroscopic moments.

DESCRIPTION:

A gyroscope is a device used for measuring or maintaining orientation and angular velocity. It is a spinning wheel or disc in which the axis of rotation (spin axis) is free to assume any orientation by itself. The gyroscope is composed of a flywheel mass that is driven at high speed by an electric motor. The gyro wheel is mounted on a frame. The frame can be rotated about the vertical axis by a second electric motor. This causes the precession of the gyroscope. Precession means by, the gyroscope exerts a moment, the gyroscopic moment about the horizontal axis.
Optional Software is available for Data Acquisition and Control Function.

SPECIFICATIONS:

- Protective cover for safe operation.
- Study of a gyroscope.
- Examine a guided gyro.
- Change of the speed along the rotation axis.
- Change of the speed along the precession axis.
- Regulate the gyroscopic moment.

TECHNICAL DATA:

- Gyro:
  - Drive motor power: 5W.
  - Moment of inertia of the gyroscope: 375gcm^2.
  - Speed of the rotation axis: 1000 to 6000 RPM.
  - Gyroscopic moment: 0 to 60 Nmm.
- Precession:
  - Drive motor power: 25W.
  - Speed of precession axis: 5 to 63 RPM.
- 230V, 50Hz, 1 phase.

DIMENSIONS AND WEIGHT:

- L x W x H (mm): 450 X 400 X 350 approx.
- Weight: 25 kg approx.

SCOPE OF DELIVERY:

- 1 x EDC-TM-119.
- 1 x Instructional Manual.