

Product Name :
Astra Scientific Universal Vibration Apparatus

Product Code :
DynamicsLab0014



Description :

Astra Scientific Universal Vibration Apparatus

Technical Specification :

The Universal vibration trainer can be used to study many topics from the field of vibration theory through experimentation. The topics range from simple pendulum swinging forced vibrations with resonance to vibration absorption.

The central element of the vibration trainer is a sturdy profile frame, to which the different experimental setups are easily attached. The extensive accessories are housed in a mobile laboratory table with drawers. In addition to free vibrations, forced vibrations can also be represented by means of an electric motor imbalance exciter. The excitation frequency is set and displayed on a control unit.

An oil damper allows the study of damped vibrations with adjustable damping ratios. Vibration absorbing is demonstrated with a tunable bending oscillator. A mechanical drum and a polar chart recorder make it possible to record vibrations. The measured values can be displayed and analyzed on a PC using the optional unit for data acquisition.

FEATURES

- Detailed, wide-ranging series of experiments on the mechanical vibration theory
- Experiments on various pendulums, bar-type oscillators and spring-mass systems
- Damping, resonance and absorber effects in forced vibrations

SPECIFICATIONS:

- Beam, rigid: LxWxH: 700x25x12mm, 1,6kg

Beam, elastic: LxWxH: 700x25x4mm, 0,6kg

- Tension-pressure springs

0,75N/mm

1,5N/mm

3,0N/mm

- Imbalance exciter

0...50Hz

100cmg

- Oil damper: 5...15Ns/m

- Absorber

Leaf spring: WxH: 20x1, 5mm

- Total mass: approx. 1,1kg
- Tunable: 5...50Hz
- Drum recorder: 20mm/s, width 100mm

Polar chart recorder: Ø 100mm

- Required for operation

230V, 50Hz, 1 phase

230V, 60Hz, 1 phase; 120V, 60Hz, 1 phase

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