

Product Name :
Astra Scientific Cam Analysis Apparatus

Product Code :
DynamicsLab0006



Description :

Astra Scientific Cam Analysis Apparatus

Technical Specification :

The experimental unit clearly demonstrates the fundamentals needed to deal with free and forced vibrations. The differences between the two main types of excitation for forced vibrations can be shown on a simple vibration model.

The central element of the experimental unit is a sturdy aluminum profile frame to which the different experimental setups are attached. A bar-type oscillator is used as the vibration system.

This offers easy and flexible configuration. The spring, damper and vibration exciter can be mounted in any position. An imbalance exciter and a displacement exciter are available for spring base-point excitation.

The excitation frequency is set and displayed on a control unit. An oil hydraulic damper allows damped vibrations with adjustable damping level. A mechanical drum recorder offers the option of recording the vibrations. The measured values can be displayed and analyzed on a PC using the optional unit for data acquisition.

FEATURES:

- Demonstration of basic fundamentals of mechanical vibration theory
- Free vibrations
- Damped vibrations
- Inertia force and displacement excitation
- Forced vibrations
- Resonance
- Amplitude response and phase response

SPECIFICATION:

- Fundamentals of mechanical vibration theory; free, damped and forced
- Bar-type oscillator: LxWxH: 700x25x12mm, 1,6kg
- Coil springs

0,75N/mm

1,5N/mm

3,0N/mm

- Exciter

Frequency: 0...50Hz, electronically controlled

Imbalance of the imbalance exciter: 0...1000mmg

Stroke of the displacement exciter: 20mm

- Damper constant: 5...15Ns/m, oil-filled
- Mechanical drum recorder

Feed: 20mm/s

Paper width: 100mm

- Required for operation

230V, 50Hz, 1 phase

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



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