



PENDULUM MODULE

HVT12A



1
study

Features

- Simple/Compound pendulum
- Bifilar/Trifilar Suspension
- Quick and easy setup
- Additional module for HVT12

Description

This experimental module fits into the HVT12F Vibrations Frame (not supplied) making up part of the HVT12 Universal Vibration Apparatus. This module is designed to teach students about simple and compound pendulums. The compound pendulum consists of a 1m long bar with a sliding mass. The bar can be suspended in a variety of positions along its length using the integral suspension holes. A frame-mounted knife-edge is provided for mounting both pendulum types. The compound pendulum can be used to test the effective length of a simple pendulum. These results can then be compared against the actual simple pendulum. Bifilar/Trifilar apparatus consists of an upper and lower suspension plate for both the Bifilar (two wires) and Trifilar (three wire) joined using flexible cables or cord. Onto the lower suspension plate is attached the 3 different steel specimens. Each arrangement oscillates and timed using the stopwatch provided.

Related Laws/Applications

- Physics
- Vibration
- Structural engineering

Learning capabilities

- Bifilar/Trifilar Suspension: Moment of Inertia
- Compound Pendulum: Radius of Gyration
- Effect of Fulcrum position
- Periodic time

Technical Specification

- Compound Pendulum: Pendulum Bar: 928(L) x 25(W)mm; Seven(7) suspension holes Pendulum Bob Slotted: Ø60 x 25(t)mm Pendulum Bob: Ø28 x 31(L)mm
- Bifilar/Trifilar: Rectangular Bar: 400(L) x 32(W) x 32(H)mm; 3.1kg (approx) Solid Cylinder: Ø100 x 70(L)mm; 3.0kg (approx) Ring: Ø152 O.D x Ø75 I.D x 25(t)mm; 2.7kg (approx)

Essential Ancillaries

- Requires HVT12F for operation

What's in the Box?

- Compound Pendulum: 1 x Knife Edge assembly
- 1 x Pendulum Bar
- 1 x Pendulum Bob Slotted
- 1 x Pendulum Bob
- Cord
- Stopwatch
- Tape measure
- Bifilar/Trifilar: 1 x Frame plate
- 1 x Lower suspension plate
- 1 x Rectangular bar
- 1 x Cylinder
- 1 x Ring

Weights & Dimensions

- Weight: 17kg
- Length: 950mm
- Width: 120mm
- Height: 60mm

Essential Services

- HVT12F

Ordering information

To order this product, please call PA Hilton quoting the following code:
HVT12A

All brand and/or product names are trademarks of their respective owners. Specifications and external appearance are subject to change without notice. The colour of the actual product may vary from the colour shown in the brochure.

Copyright © 2018 P.A. Hilton Limited. All rights reserved. This technical leaflet, its contents and/or layout may not be modified and/or adapted, copied in part or in whole and/or incorporated into other works without the prior written permission of P. A. Hilton Limited. Hi-Tech Education is a registered trade mark of P. A. Hilton Limited.

COUNTRY OF ORIGIN - UK WARRANTY PERIOD - 5 YEARS