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PRODUCT DATA SHEET
Catalogue reference for product evaluation

Phone: +91 7015865225 **Email:** info@scienticoindia.com **Web:** scienticoindia.com **Address:** #71, Industrial Area, Ambala Cantt, Haryana, India

Bifilar & Trifilar Apparatus | ProDynami - 1302

Category: Theory Of Machines · **Country of Origin:** India

Product Overview

The Bifilar & Trifilar Apparatus ProDynami - 1302 studies pendulum oscillations using bifilar and trifilar suspension methods. This Bifilar And Trifilar Apparatus tests a stainless steel bar, disk cylinder, and hollow disk cylinder, each with quick-action clamped suspension cords up to 2000mm. It demonstrates both translational and rotary pendulum behavior for determining center of inertia. A full accessory set including stopwatch and measuring scale is included.

View this product online: https://scienticoindia.com/product/bifilar-trifilar-apparatus-prodynami-1302/



Request a model-specific quotation
Include quantity and delivery country.

Technical Specifications

Bifilar & Trifilar Apparatus ProDynami - 1302, Technical Specifications

Specification	Detail
Experiment Type	Rotary and pendulum oscillation experiments with 3 different bodies on bifilar / trifilar pendulums
Suspension Clamp	Quick-action clamp for the suspension cords
Bar Material	Stainless Steel
Disk Cylinder Material	Stainless Steel
Hollow Disk Cylinder Material	Stainless Steel
Suspension Cord Length	Up to 2000mm possible

Technical Data

Disk Cylinder

Parameter	Value
D x h	160 x 19mm
Inner diameter	100mm
Mass	3kg
Height	41mm

Hollow Disk Cylinder

Parameter	Value
Outer diameter	160mm
Mass	4kg

Key Features

Key Features

- **Suspension Types:** bifilar and trifilar pendulum suspension
- **Test Bodies:** rectangle bar, disk cylinder, and hollow disk cylinder, all stainless steel
- **Suspension Cord Length:** up to 2000mm
- **Clamping System:** quick-action clamp for suspension cords
- **Attachment:** strong steel hooks on bodies for suspension cord attachment
- **Oscillation Modes:** translational (mathematical pendulum) for the beam, rotary pendulum for cylinder and ring
- **Disk Cylinder:** 160 x 19mm (D x h), 100mm inner diameter, 3kg mass
- **Hollow Disk Cylinder:** 160mm outer diameter, 4kg mass
- **Mounting:** wall mounted plate, central to how this Bifilar And Trifilar Apparatus is set up

Experiments

- Oscillation experiments on a mathematical pendulum
- Determination of the center of inertia of a beam, a disk cylinder, and a hollow disk cylinder in a rotary pendulum experiment

Construction and Design

The Bifilar & Trifilar Apparatus ProDynami - 1302 hangs a rectangle bar, a disk cylinder, or a hollow disk cylinder, all made of stainless steel, from a wall mounted plate. Each body has strong steel hooks for attachment to the suspension cords. Suspension cord length can be rapidly changed and securely fixed using clamping screws, with a quick-action clamp supporting lengths up to 2000mm. The disk cylinder measures 160 x 19mm (D x h), with an inner diameter of 100mm, a mass of 3kg, and a height of 41mm. The hollow disk cylinder has an outer diameter of 160mm and a mass of 4kg. The beam oscillates by translation in the plane of suspension like an ideal mathematical pendulum, while the cylinder and circular ring work as rotary pendulums.

Scope of Delivery

- 1 Experimental module
- 1 Bar pendulum
- 1 Disc pendulum
- 1 Ring pendulum
- 1 Thread
- 1 Measuring scale
- 1 Stopwatch
- 1 Instruction manual

Ordering & Delivery

- Send the product name, quantity, delivery country and destination with your enquiry.
- Production schedule, freight, payment terms and export documents are confirmed in the written quotation.

Frequently Asked Questions

Q: What is the Bifilar & Trifilar Apparatus ProDynami - 1302 used for?
A: It is used to study oscillations on pendulums with bifilar and trifilar suspension, including mathematical pendulum and rotary pendulum experiments.

Q: What test bodies are used with this apparatus?
A: The apparatus uses a rectangle bar, a disk cylinder, and a hollow disk cylinder, all made of stainless steel.

Q: What is the maximum suspension cord length?
A: Suspension cord length can be extended up to 2000mm.

Q: What are the dimensions of the disk cylinder and hollow disk cylinder?
A: The disk cylinder measures 160 x 19mm (D x h) with a 100mm inner diameter and a mass of 3kg. The hollow disk cylinder has an outer diameter of 160mm and a mass of 4kg.

Q: How does the beam behave differently from the cylinder and ring during oscillation?
A: The beam oscillates by translation like an ideal mathematical pendulum, while the cylinder and circular ring work as rotary pendulums.

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