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Product Name :

G By Freefall Apparatus and Timer

Product Code :

SLE/PHY/122



Science Lab
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Description :

G By Freefall Apparatus and Timer (Product Code: SLE/PHY/122) is an electromagnetic release apparatus used to measure the acceleration due to gravity, g, by timing a falling steel ball in school and college physics laboratories. An electromagnet in a plastic moulded case holds a heavy steel sphere, and a platform unit containing a microswitch has terminals for an external timer, so the fall time is captured electrically. It is made by **Jain Scientific Equipments Pvt Ltd (ScienceLab)**, an OEM manufacturer of physics lab equipment in India, at its own factory in Ambala.

Key Details

Parameter	Detail
Release unit	Electromagnet housed in a plastic moulded case, with connections for an external timer
Falling mass	Heavy steel sphere, supplied
Landing unit	Platform unit containing a microswitch and terminals for the external timer
Timing start	Timer is triggered as soon as the ball release button is pressed
Priming	Electromagnet is primed when the stopping plate and solenoid are connected with the leads provided
Timer	External timer connected through the terminals — confirm with us whether a timer is part of your quotation
Product code	SLE/PHY/122
Manufacturer	Jain Scientific Equipments Pvt Ltd (ScienceLab) — OEM
Country of origin	India (made in Ambala, Haryana)

What Is the G By Freefall Apparatus Used For?

The G By Freefall Apparatus gives students a direct measurement of g. With the sphere held on the electromagnet, pressing the release button drops the ball and starts the timer at the same instant; the ball striking the platform operates the microswitch and ends the timing. Measuring the drop height and the fall time lets students apply $h = \frac{1}{2}gt^2$ to calculate g.

Repeating the drop from several heights and plotting height against the square of the time gives a straight line whose gradient is half of g, a standard mechanics practical. Measure the height from the bottom of the sphere to the platform, take several readings at each height, and stand the platform on a firm, level surface so the microswitch responds cleanly.

What to Specify When Ordering

- Timer — the apparatus connects to an external timer; state whether you need a timer quoted with it.
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OEM

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