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Product Name :

Electromagnetic System

Product Code :

SLE/EAM/13



Description :

Electromagnetic System (Product Code: SLE/EAM/13) is a self-contained unit that lets students find out how the current and the number of turns affect the strength of an electromagnet. Its coil is tapped at 100, 200, 300, 400, 500 and 600 turns, and ordinary paper clips act as the weights, soa whole investigation needs little more than a low-voltage DC supply. This practical piece ofphysics lab equipment is made by **Jain Scientific Equipments Pvt Ltd (ScienceLab)**, Ambala,India.

Specifications

Parameter	Detail
Type	Self-contained electromagnet investigation unit
Coil tappings	100, 200, 300, 400, 500 and 600 turns
Variables studied	Current and number of turns
Strength measurement	Paper clips used as weights
Supply required	Low-voltage DC power supply
Suggested supply	Designed for use with ScienceLab power supplies

Typical Use

The unit is set up for a clean two-part investigation. In the first part the current is held steady while the connection is moved from one tapping to the next, and students count how many paper clips the electromagnet will hold at each number of turns. In the second part the tapping stays fixed while the supply is adjusted, with an ammeter recording the current each time. Plotting paper clips against turns and against current gives two graphs that make the relationship obvious, and it is an equally good basis for a science fair project on electromagnet strength.

For consistent results, use clips of the same size, bring them up to the electromagnet the same way each time, and switch the current off between readings so the coil does not warm up during the run. Groups can share one supply by taking turns, since the tappings allow each reading to be set up in seconds.

Manufacturer

The Electromagnetic System is produced by Jain Scientific Equipments Private Limited, an Ambala, Haryana manufacturer that sells its teaching apparatus under the ScienceLab name and designs units like this one to work alongside its own power supplies. The ScienceLab company profile has more on the business.

Related Electricity and Magnetism Equipment

These items supply, control and measure the current in this investigation:

- Precision Variable Power Supply — a smoothly adjustable low-voltage DC source for the current variation part
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