EXTENSION OF SPRINGS APPARATUS

HSM7



Year 1
study

Features

- Sturdy Wall mounted apparatus
- Can be mounted to HST1, HST100, HAC10, HAC14, HVT12f frames
- Demonstrates Hooke's Law
- Customer specific springs can be tested
- Four extension springs supplied
- Integral displacement scale
- Full set of weights and hanger supplied

Description

A steel, powder coated wall housing has a spring support at its top and a through hole at its lower end. A loop ended extension spring is hooked over the spring support and its remaining loop secured to a Load hanger. Attached to the shaft of the Load hanger is an extension indicator. This has a small horizontal mark inscribed which reads up against the extension scale on the wall housing. The indicator can be moved up or down the Load hanger shaft to accurately adjust the start position of extension measurements and to cater for different length springs. The Load hanger has a solid base onto which the set of calibrated weights supplied is suspended.

Related Laws/Applications

- Hooke's Law
- Spring rate
- Wire
- Extension

Learning capabilities

- To test the relationship between the load applied and the change in length of a spring (Hooke's Law)
- To determine spring stiffness using measured spring data and load versus extension graphs.
- The dependence of spring stiffness on the wire diameter, spring diameter, length, number of turns and material can be calculated
- Comparison with theoretical estimates and manufacturers data
- Working with springs
- Creating load versus extension graphs and extracting key elements

Technical Specification

- Steel, powder coated wall housing
- Zinc plated carbon steel extension springs
- - 1 x O.D = Ø22.23mm; wire = Ø2.33mm; Spring Rate = 0.79N/mm
- - 1 x O.D = Ø15.88mm; wire = Ø1.63mm; Spring Rate = 0.31N/mm
- - 1 x O.D = Ø19.05mm; wire = Ø1.83mm; Spring Rate = 0.58N/mm
- - 1 x O.D = Ø25.4mm; wire = Ø2.64mm; Spring Rate = 1.04N/mm
- Load hanger
- Movable extension indicator
- Extension scale calibrated in mm, resolution 1mm

Essential Ancillaries

- HST1
- HST100
- HAC10
- HAC14
- HVT12f

What's in the Box?

- 1 x HSM7
- 4 x Extension spring
- 1 x 5N; 1 x 10N; 2 x 20N
- Instruction manual
- Packing list
- Test sheet

You might also like

- HSM56
- HSM8
- HSM6

Weights & Dimensions

- Weight: 10 kg
- Length: 500mm
- Width: 130mm
- Height: 90mm

Essential Services

- Sturdy vertical support

Ordering information

To order this product, please call PA Hilton quoting the following code:
HSM7

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