



Governor Apparatus (SMT-TM-12)

Governor Apparatus is designed to study the operating characteristics, kinematics, and kinetics of different centrifugal governors, including Porter, Proell, and Hartnell types. It enables the measurement of governor characteristic and setting curves, along with the study of structural design and speed regulation principles. The apparatus includes adjustable centrifugal masses, spring preload settings, and a variable-speed DC motor with an LCD display for real-time monitoring. Ideal for mechanical and automotive engineering studies, it provides a comprehensive understanding of speed control mechanisms in rotating systems.

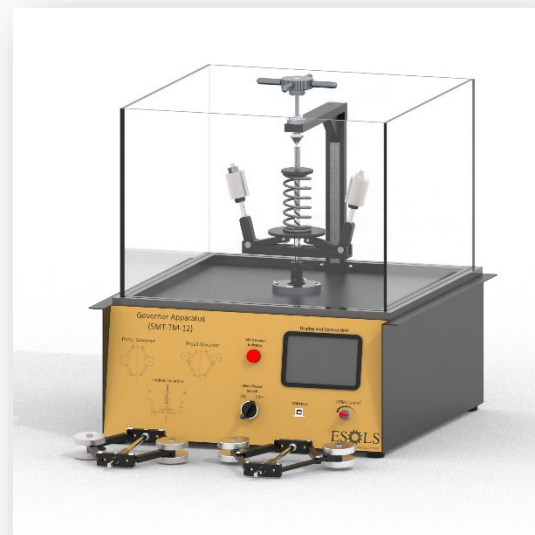
TECHNICAL SPECIFICATIONS

Specifications:

- Adjustment of centrifugal mass and spring preload
- Continuous manual variation of rotational speed with digital RPM display
- DC motor drive
- Demonstration of the principle of operation of various types of centrifugal force governors
- Protective cover to ensure safe operation

Technical Data:

- Governor types:
 - Proell
 - Porter
 - Hartnell
- DC Motor:
 - 100W
 - 550 rpm (Max.)
- Proell Governor Masses:
 - Sleeve: 100g, Qty 3.
 - Centrifugal: 150g, Qty 2.
- Porter Governor Masses:
 - Sleeve: 100g, Qty 3.
 - Centrifugal: 350g, Qty 2.
- Hartnell Governor Masses:
 - Centrifugal: 400g, Qty 2.
 - Compression Springs: Qty 2.
- AC Power Supply:
 - 230V, 50Hz, 1-Phase



Experiments:

- Measuring characteristic and setting curves of different types of centrifugal governors.
- Kinetics and kinematics of the following centrifugal governors:
- Proell governor
- Porter governor
- Hartnell governor
- Mechanical performance and control behavior of provided governors