

ORIFICE AND VENTURI FLOW MEASUREMENT MODULE HB100C



1 study

Features

- Clear Venturi Section with 3 Pressure tapings
- 15.3mm Orifice
- 12.5mm Orifice

Description

The unit uses water filled manometer tubes to determine the pressure at each point across a Venturi and an orifice plate. The water flows through one end and as the cross sectional area changes so does the pressure and velocity in accordance with Bernoulli's equation. A horizontal venturi enclosed in a clear plastic cylinder, has 3 pressure point tapings that connect to water manometers. The orifice plate also has 3 manometer tubes that, via quick release connections, connect to pressure tapings across the meter. The manometers connect to a common manifold that incorporates an air pressure control valve and a hand actuated pump. There is a flow control valve on the outlet portion of the Venturi. The manometers have a graduated scale placed behind them to allow for ease of measurement of the water level. The test section is arranged so the characteristics of the flow through the converging and diverging venturi and the orifice plate can be investigated. The water is fed from the HB100 base unit into each flow meter, and the flow can be measured using the optional HB100K (if ordered).

Related Laws/Applications

- Bernoulli's
- Venturi
- Divergent/Convergent
- Orifice Plate
- Aeronautical
- Aerodynamics
- Plumbing
- Hydraulics

Learning capabilities

- Directly comparing flow measurement using a Venturi meter, variable area meter *(with optional HB100K) and orifice plate.
- Comparing pressure drops across each device

Technical Specification

- Flow rate control tap
- Vertical tube manometers
- Max flow rate: 30 l/min (approx.).
- Inlet and Outlet inside diameter: Ø25mm
- Throat inside diameter: Ø15.6mm
- 15.3mm Orifice
- 12.5mm Orifice

Essential Ancillaries

- HB100/230
- or
- HB100/115
- HB100K

What's in the Box?

- Experimental Module
- Clear Venturi Section with 3 Pressure tapings
- Air Pump
- Throttle
- 15.3mm Orifice
- 12.5mm Orifice

Weights & Dimensions

- Weight: 5 kg Weight: 5 kg
- Length: 600mm
- Width: 400mm
- Height: 625mm

Essential Services

- HB100/230
- or
- HB100/115
- HB100K

Ordering information

To order this product, please call PA Hilton quoting the following code: HB100C

All brand and/or product names are trademarks of their respective owners. Specifications and external appearance are subject to change without notice. The colour of the actual product may vary from the colour shown in the brochure.

Copyright © 2018 P.A. Hilton Limited. All rights reserved. This technical leaflet, its contents and/or layout may not be modified and/or adapted, copied in part or in whole and/or incorporated into other works without the prior written permission of P. A. Hilton Limited. Hi-Tech Education is a registered trade mark of P. A. Hilton Limited.

COUNTRY OF ORIGIN - UK WARRANTY PERIOD - 5 YEARS