

HUMIDITY MEASUREMENT BENCH H814



Year 1
study

Features

- Allows Investigation of Different Methods of Humidity Measurement.
- Fundamental for the Study of Air Conditioning and Plant Engineering (Cooling Towers).
- May Be Used In Conjunction With Hilton H813 Dew Point Hygrometer.
- Optional Electronic Transducer and Optional Data Acquisition.

Description

The Hilton Humidity Measurement Bench H814 allows students to investigate most of the wide variety of methods that are available to measure the humidity of air. This is often a difficult concept for students to understand but it is fundamental for the study of air conditioning and evaporative cooling methods such as cooling towers.

A self contained bench top unit comprising a number of different types of humidity meters and a small air duct with fan for variation of air velocity together with a simple air velocity meter. Students can investigate the use of the standard wet and dry bulb whirling hygrometer in the normal way. Using the air duct the effect of air velocity on wet bulb temperature can be investigated. The wet and dry bulb method can be compared with a direct reading psychrometer, hair hygrometer, a synthetic material hygrometer and an electronic humidity sensor. A small steam humidifier is supplied in order to enable students to simply adjust the humidity seen by the various sensor types.

All of the measured parameters can be related using the large encapsulated psychrometric chart that is supplied and by detailed calculation. The manual supplied, contains suggested experimental procedures, sample test results and detailed calculation examples based

upon the sample results.

Related laws

- Air Conditioning
- Refrigeration
- Chemical Engineering
- Mechanical Engineering
- Plant and Process Engineering
- Physics
- Psychrometric Chart

Learning capabilities

- Investigation Of Different Types Of Humidity Measurement Device.
- Investigation Of The Effects Of Air Velocity On Wet Bulb Temperature
- The Use Of Wet And Dry Bulb Measurement And The Concept Of Relative Humidity, Specific Humidity And Vapour Pressure.
- Investigation Of Electronic Humidity Sensors.

Recommended Ancillaries

- 1 x Digital Wet and Dry bulb sensor
- 1 x Plate Heat Exchanger

What's in the Box?

- 1 x H814
- 1 x DC output power supply
- 2 x Power lead
- 1 x Hand held Hygrometer
- 1 x Humidifier tank
- 1 x Hand held psychrometer
- Instruction manual
- Packing list
- Test sheet

You might also like

- H813

Weights & Dimensions

- Weight: 30 kg

- Length: 900mm
- Width: 300mm
- Height: 650mm

Essential Services

- 220-240 Volts
- Single Phase
- 50Hz (With earth/ground)
- 110-120 Volts
- Single Phase
- 60Hz (With earth/ground)

Ordering information

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

H814/230

H814/115

H814/230/HC

H814/115/HC

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COUNTRY OF ORIGIN - UK WARRANTY PERIOD - 2 YEARS