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**Product Name :**  
Air Humidity Measurement

**Product Code :**  
LBNY-0005-12500050



#### **Description :**

The trainer enables the measurement of air humidity with four different instruments which can be directly compared to each other: two different hygrometers, a capacitive hygrometer and a psychrometer. There are different measuring methods to determine humidity. Psychrometers operate based on the principle of evaporation cooling and compare the ambient temperature with the wet bulb temperature to determine the humidity. The measurement of the air humidity plays an important role in many branches of industry, e.g. during drying or in the air conditioning of buildings and vehicles. Hygrometers utilise the property of specific fibres, e.g. hair, to expand with increasing air humidity. The core element of the trainer is a climatic chamber with transparent door. In the capacitive sensor the dielectricity constant of a layer and with it its capacity changes due to the water molecules absorbed. This chamber can be humidified and dehumidified and contains the four instruments.

#### **Technical Specification :**

Humidification via ultrasonic atomiser  
Dehumidification via Peltier cooling element  
Different measuring methods for measuring humidity  
Climatic chamber with adjustable humidity and transparent door  
Fan for air recirculation  
2 electronic instruments: capacitive sensor, hygrometer with synthetic fibre and combined temperature sensor  
2 mechanical instruments: psychrometer, hair hygrometer.



**Laboratory Instrument India**