



VPS105D

DIGITAL AIR FLOW PROBE

DESCRIPTION

The measurement of air velocity is an integral part of setting up any smoking machine to meet the required ISO standard 3308. This standard requires the air velocity in the extraction hood of the smoking machine to be adjusted to $200 \text{ mm/s} \pm 20 \text{ mm/s}$.

Since the behaviour of the flow around the cigarette is transitional, that is between laminar and turbulent, it is therefore necessary to quantify the flow around the cigarette using an omni-directional velocity probe.

Some methods for flow measurement can have two major drawbacks; the probe positioning can be prone to operator error, and probes can be easily damaged whilst being positioned. The VPS105D overcomes drawbacks experienced with other such devices and provides a more robust and accurate unit.

The probe is positioned directly into any one of the Cambridge Filter Holder eccentric adjusters, which correctly positions it for measurement automatically, reducing the set-up and measurement times.

The measurement probe is enclosed in a 'cage' which minimises the risks of damage without obstructing the natural flow of air around the digital probe.

The VPS105D bench top unit operates using an internal easy to replace 2 x 9v PP3 batteries.

The large screen displays the air velocity, ensuring clear and immediate visibility for accurate monitoring and analysis.

BENEFITS

- Compliance with ISO measurement system
- Suitable for measuring very small flow rates
- Large display
- One button press activation
- Robust Probe

TECHNICAL SPECIFICATIONS

Electrical:	2x 9v PP3 batteries
Operating Conditions: (Temp / Humidity)	0 to 40°C (calibrated at 22°C)
Case Dimensions: (L x W x H)	400 mm x 300 mm x 168 mm
Product Dimensions: (L x W x H)	144 mm x 144 mm x 109 mm

MEASUREMENT SPECIFICATIONS

Flow Range / Temperature Range:	0.01 - 1.0 m/s / 0 - 40°C
Flow Accuracy: (at 22°C / 960 hPa)	± 2% reading + 0.5% full-scale
Display:	215 x 200 pixel
Output signal:	0 to 1 V linearized
Load resistance:	10 KΩ
Manual Temperature Compensation:	-20°C to 0°C

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