Air Volume Instruments

Model EBT721

Balometer
Model EBT721

The EBT721 Capture Hood is a multipurpose electronic air balancing instrument for reading air volume flow at diffusers and grilles. It is ideally suited for commissioning agents, test and balance contractors, facilities managers, health and safety specialists, and ventilation installers. This light weight, ergonomically designed kit saves time and money while helping to create a healthy and energy efficient environment.

Features and Benefits

- Ergonomic design and ultra light weight for easy one person operation
- Detachable digital manometer for use in other applications
- Use with Pitot, air flow, temperature, velocity matrix, or relative humidity probes
- Back pressure compensation
- Bio-Safety hood kit available

Manometer
Model EBT720

The EBT720 is one of the most advanced, versatile, and easy to use manometers on the market today. Auto-zeroing allows you to make measurements throughout the day. The velocity matrix accessory is useful in measuring face velocity through filters, coils, and other specialized spaces.

Features and Benefits

- Accurately measures pressure, velocity (Pitot), and flow
- Large, easy to read display
- Data logging and downloading software included
- Automatic density correction

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Air Volume Instruments

Models EBT720 and EBT721

Model EBT720
(Shown with optional accessories)

Applications

- HVAC commissioning
- Clean room certification
- Troubleshooting HVAC systems
- Testing and balancing HVAC systems

Optional Accessories for EBT720 AND EBT721

- Pitot tubes
- 16-point velocity matrix with telescoping handle
- Air flow probe
- Temperature probe
- Temperature/humidity probe
- Multiple hood sizes available
- Bio-safety cabinet hood kit

Model EBT721
(Shown with optional accessories)

Specifications

Balometer Models EBT720 and EBT721

Velocity Range

Pitot probes	25 to 8,000 ft/min (0.125 to 40 m/s)
Air flow probe	25 to 5,000 ft/min (0.125 to 25 m/s)
Velocity matrix	25 to 2,500 ft/min (0.125 to 12.5 m/s)
Accuracy	±3% of reading ±7 ft/min (±0.04 m/s) at velocities >50 ft/min (>0.25 m/s)
Units	ft/min, m/s
Resolution	1 ft/min (0.01 m/s)

Pressure

Differential pressure	±15 in. H_2O (±3735 Pa); 150 in. H_2O (37.5 kPa), maximum safe operating pressure
Absolute pressure	15 to 40 in. Hg (356 to 1016 mm Hg)
Accuracy	±2% of reading ±0.001 in. H_2O (±0.25 Pa) static and differential; ±2% of reading absolute
Units	in. H_2O, in. Hg, Pa, hPa, kPa, mm Hg, cm Hg, mm H_2O, cm H_2O,
Resolution	0.00001 in. H_2O (0.001 Pa) static and differential; 0.01 in. Hg (1 mm Hg) absolute

Volume

Range	25 to 2,500 ft^3/min (42 to 4250 m^3/h) capture hood
Accuracy	±3% of reading ±7 ft^3/min (±12 m^3/h) at flows >50 ft^3/min (>85 m^3/h)
Units	ft^3/min, m^3/h, m^3/min, l/s
Resolution	1 ft^3/min (1 m^3/h)

RH

Range	0 to 95% RH temperature/RH probe
Accuracy	±3% RH
Resolution	0.1% RH

Temperature

Sensor in base	40 to 140°F (4.4 to 60°C)
Temperature probe	-40 to 250°F (-40 to 121°C)
Temperature/RH probe	14 to 140°F (-10 to 60°C)
Accuracy	±0.5°F (±0.3°C) from 32 to 160°F (0 to 71°C)
Units	°F, °C
Resolution	0.1°F (0.1°C)

Instrument Temperature Range

Operating	40 to 140°F (4.4 to 60°C)
Storage	-4 to 160°F (-20 to 71°C)

Statistics

min, max, average up to 1000 readings

Data Storage

1,000 readings, time and date stamped

Air Volume Instruments

Models EBT720 and EBT721

Logging Interval
User selectable

Response Time
2 to 8 seconds

Display
6 digit, 0.75 in. (19 mm) character height, multi-line, sectored, multiple symbolic icons, high-contrast backlit LCD

Dimensions (manometer only)
7.4 in. x 4.5 in. x 2.3 in. (18.8 cm x 11.4 cm x 5.8 cm)

Pressure Connection
¼ in. (6.35 mm) OD straight ports for use with 3/16 in. (4.76 mm) ID flexible tubing

Weight with Batteries

EBT720	17 oz (0.5 kg)
EBT721	7.4 lb (3.4 kg)

Power Requirements
Four AA-size cells or AC adapter

Hood Sizes Available (EBT721)

Standard	2 ft x 2 ft (610 mm x 610 mm)
Optional	2 ft x 4 ft (610 mm x 1220 mm)
	1 ft x 4 ft (305 mm x 1220 mm)
	1 ft x 5 ft (305 mm x 1525 mm)
	3 ft x 3 ft (915 mm x 915 mm)
BSC Hood Kit	8 in. x 22 in. (205 mm x 560 mm)
	10 in. x 22 in. (255 mm x 560 mm)

The BSC hood kits are used to certify Class II bio-safety cabinets by taking direct in-flow measurements for NSF compliance.

	EBT720	EBT721
Air capture hood, frame and base		•
Measures air volume/flow rate	•	•
Static/Differential Pressure (air)	•	•
Air velocity, temperature, relative humidity probes (optional)	•	•
Pressure sensor	•	•
Automatic density correction	•	•
Backpressure compensation		•
Data logging (download/recall)	•	•
Field calibration	•	•
Statistics (minimum, maximum, average)	•	•
Certificate of Calibration	•	•

Specifications subject to change without notice.

Ordering Information

EBT720	Manometer with carrying case, 4 AA size rechargeable NiMH batteries, multi-country AC adapter, 18" Pitot probe, 2 Static Pressure probes, 16 ft Neoprene tubing, downloading software, RS-232 interface cable, NIST-traceable calibration certificate, and manual.
EBT721	2' x 2' air capture hood/frame/base, manometer with carrying case, 4 AA size rechargeable NiMH batteries, multi-country AC adapter, 18" Pitot probe, 2 Static Pressure probes, 16 ft Neoprene tubing, wheeled luggage-style carrying case, NIST-traceable calibration certification, downloading software, RS-232 interface cable, and manual.

Hood Sizes Available (EBT721)
Standard Hood Kits

801097	2 ft x 2 ft (610 mm x 610 mm)

Optional Hood Kits

801201	2 ft x 4 ft (610 mm x 1220 mm)
801200	1 ft x 4 ft (305 mm x 1220 mm)
801202	1 ft x 5 ft (305 mm x 1525 mm)
801203	3 ft x 3 ft (915 mm x 915 mm)

BSC Hood Kit

801204	8 in. x 22 in. (205 mm x 560 mm)
801205	10 in. x 22 in. (255 mm x 560 mm)

The BSC hood kits are used to certify Class II bio-safety cabinets by taking direct in-flow measurements for NSF compliance.

Recommended Accessories

800187	Air flow probe, 18 in. (46 cm)
800188	Temperature probe
800189	Humidity and temperature probe
800190	Velocity matrix, telescopic handle, (2) 8 ft. (2.4 m) neoprene tubing sections