



Air Volume Instruments



Model EBT721

EBT Balometer® Capture Hood Model EBT721

The EBT721 Balometer® 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

Rugged. Reliable. Professional.





Model EBT720
(Shown with optional accessories)

Applications


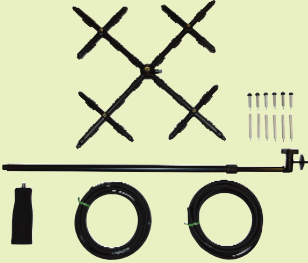


- HVAC commissioning
- Clean room certification
- Troubleshooting HVAC systems
- Testing and balancing HVAC systems

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)

| Optional Accessories | Description / Part Number |
|--|--|
|  | Airflow Probe 800187 18" (46 cm) straight probe that can be used to perform a duct traverse and to measure face velocity measurements in applications such as chemical fume hoods, HEPA filters, or other laminar flow devices. Ideal for small diameter ductwork. |
|  | Velocity Matrix 801090 Used to measure face velocities of HEPA filters, chemical fume hoods, laminar flow benches, filter banks, kitchen exhausts, and other applications where a large surface area needs to be measured. The 16 point grid covers one square foot area and averages the air velocity while minimizing the affects of turbulence to produce a stable reading. |
|  | Temperature Probe 800218 Telescopic probe extends from 9 to 40.5 inches (230 to 1030 mm) and can be inserted into a standard 5/16 in. (8 mm) diameter hole typically used for pitot traverses. |
|  | Temperature and Humidity Probe 800219 Telescopic probe extends from 9 to 39 inches (230 to 990 mm) and is ideal for measuring inside of duct work before and after a coil. Probe can be inserted into a standard 5/16 in. (8 mm) diameter hole typically used for pitot traverses and can be used to calculate wet bulb and dewpoint temperatures. |

Air Volume Instruments

Models EBT720 and EBT721

Specifications

Models EBT720 and EBT721

Velocity Range

Pitot probes 25 to 15,500 ft/min (0.125 to 78 m/s)
Air flow probe 25 to 15,500 ft/min (0.125 to 78 m/s)
Velocity matrix 25 to 5,000 ft/min (0.125 to 25 m/s)
Accuracy $\pm 3\%$ 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. H₂O (± 3735 Pa);
150 in. H₂O (37.5 kPa),
maximum safe operating pressure

Absolute pressure

Accuracy $\pm 2\%$ of reading ± 0.001 in. H₂O (± 0.25 Pa) static and differential; $\pm 2\%$ of reading absolute
Units in. H₂O, in. Hg, Pa, hPa, kPa, mm Hg, cm Hg, mm H₂O, cm H₂O,
Resolution 0.00001 in. H₂O (0.001 Pa) static and differential; 0.01 in. Hg (1 mm Hg) absolute

Volume

Range 25 to 2,500 ft³/min (42 to 4250 m³/h) capture hood
Accuracy $\pm 3\%$ of reading ± 7 ft³/min (± 12 m³/h) at flows > 50 ft³/min (> 85 m³/h)
Units ft³/min, m³/h, m³/min, l/s
Resolution 1 ft³/min (1 m³/h)

RH

Range 0 to 95% RH temperature/RH probe
Accuracy $\pm 3\%$ 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 $\pm 0.5^\circ\text{F}$ ($\pm 0.3^\circ\text{C}$) 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

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

$\frac{1}{4}$ in. (6.35 mm) OD straight ports for use with $\frac{3}{16}$ 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

| | 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 | • | • |

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)
801209 16 in. x 16 in. (406 mm x 406 mm)
801210 5.25 in. x 4 ft (133 mm x 1220 mm)
801211 28 in. x 28 in. (710 mm x 710 mm)
801212 28 in. x 50 in. (710 mm x 1270 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)
800218 Temperature probe
800219 Humidity and temperature probe
801090 Velocity matrix, telescopic handle,
(2) 8 ft. (2.4 m) neoprene tubing sections
634634000 Pitot probe 5/16 in. (8 mm) diameter - 12 in. (30 cm)
634634001 Pitot probe 5/16 in. (8 mm) diameter - 18 in. (46 cm)
634634002 Pitot probe 5/16 in. (8 mm) diameter - 24 in. (61 cm)
634634003 Pitot probe 5/16 in. (8 mm) diameter - 36 in. (91 cm)
634634005 Pitot probe 5/16 in. (8 mm) diameter - 60 in. (152 cm)
634650002 Duct plug, 3/8 in. (9.5 mm) diameter - 1000 pieces
634650003 Duct plug, 3/8 in. (9.5 mm) diameter - 5000 pieces

Specifications subject to change without notice.

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