IAQ-CALC™ INDOOR AIR QUALITY METERS MODEL 7515, 7525, & 7545

TSI IAQ-Calc™ Meters are outstanding instruments for investigating and monitoring indoor air quality (IAQ). Model 7515 is a cost-effective meter for carbon dioxide (CO_2) measurements. Models 7525 and 7545 simultaneously measure and data log multiple parameters. Model 7525 measures CO_2, temperature, humidity, and calculates dew point, wet bulb temperature, and percentage outside air. Model 7545 adds detection of carbon monoxide (CO).

Applications

+ Conduct IAQ evaluations
+ Verify building HVAC system performance
+ Examine building IAQ conditions to optimize worker productivity
+ Comply with regulations and guidelines

Features and Benefits - All Models

+ Low-drift NDIR CO_2 sensor for stable, accurate readings
+ Sampling function records multiple point measurements
+ Ergonomic, overmolded case design

Models 7525 and 7545

+ Temperature and relative humidity measurements help determine thermal comfort
+ Calculates percentage outside air from either CO_2 or temperature
+ Directly calculates dew point and wet bulb temperatures
+ Electrochemical sensor measures CO (Model 7545)
+ Displays up to three parameters
+ TSI LogDat2™ software permits easy transfer of data to a computer
+ Data can be reviewed on-screen, or downloaded to a computer for easy report generation
+ Statistics function displays average, maximum and minimum values, and the number of recorded samples

UNDERSTANDING, ACCELERATED

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SPECIFICATIONS

IAQ-CALC™ INDOOR AIR QUALITY METERS
MODELS 7515, 7525 & 7545

CO_2

Sensor Type	Dual-wavelength NDIR (non-dispersive infrared)
Range	0 to 5,000 ppm
Accuracy[1]	±3.0% of reading or ±50 ppm, whichever is greater
Resolution	1 ppm
Response Time	20 seconds

Temperature (Models 7525 and 7545)

Sensor Type	Thermistor
Range	32 to 140°F (0 to 60°C)
Accuracy	±1.0°F (±0.5°C)
Resolution	0.1°F (0.1°C)
Response Time	30 seconds (90% of final value, air velocity at 400 ft/min [2 m/s])

Relative Humidity (Models 7525 and 7545)

Sensor Type	Thin-film capacitive
Range	5% to 95% RH
Accuracy[2]	±3.0% RH
Resolution	0.1% RH
Response Time	20 seconds (for 63% of final value)

Percentage Outside Air (Models 7525 and 7545)

Range	0 to 100%
Resolution	0.1%

CO (Model 7545 only)

Sensor Type	Electro-chemical
Range	0 to 500 ppm
Accuracy	±3.0% of reading or ±3 ppm, whichever is greater
Resolution	0.1 ppm
Response Time	<60 seconds to 90% step change

Operating Temperature
40 to 113°F (5 to 45°C)

Storage Temperature
-4 to 140°F (-20 to 60°C)

Logging Capability (Models 7525 and 7545)

Ranges	Model 7525 logs up to 30,300 data points with key (3) measured parameters enabled Model 7545 logs up to 26,900 data points with key (4) measured parameters enabled
Time Constant	1 sec, 5 sec, 10 sec, 20 sec, 30 sec (user selectable)
Log Intervals	1 second up to 1 hour (user selectable)

Meter Dimensions (all models)
3.3 in. x 7.0 in. x 1.8 in. (8.4 cm x 17.8 cm x 4.4 cm)

Probe Dimensions (Model 7515)

Length	2.75 in. (7.0 cm)
Diameter	0.75 in. (1.9 cm)

Probe Dimensions (Models 7525 and 7545)

Length	7.0 in. (17.8 cm)
Diameter	0.75 in. (1.9 cm)

Weight (with batteries)
0.6 lbs (0.27 kg)

Power Requirements

Model 7515	Four AA-size batteries
Models 7525 and 7545	Four AA-size batteries or AC adapter

	7515	7525	7545
CO_2	+	+	+
CO			+
Temperature		+	+
Humidity		+	+
Percentage outside air		+	+
Dew point		+	+
Wet bulb temperature		+	+
Data logging/downloading		+	+
Statistics	+	+	+
Review data		+	+
Certificate of Calibration	+	+	+

[1] Accuracy with probe at 77°F (25°C). Add uncertainty of ±0.2%/°F (±0.36%/°C) away from calibrated temperature.
[2] Accuracy with probe at 77°F (25°C). Add uncertainty of ±0.1% RH/°F (±0.2% RH/°C) away from calibrated temperature.

Specifications are subject to change without notice.

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P/N 2980573 Rev C Printed in U.S.A.

AIR VELOCITY TRANSDUCERS MODELS 8455, 8465, AND 8475


8455


8465


8475

The 8455, 8465, and 8475 Air Velocity Transducers are ideal for both temporary and permanent installations for air velocity measurements in research and development labs, manufacturing processes, and other applications. The full-scale range, signal output, and time constant are user selectable and can be easily changed to meet the needs of your application.

Applications

+ Comfort and draft studies
+ Critical environment installations (e.g., clean rooms and hospitals)
+ Diffuser design analysis
+ Monitoring drying processes
+ Monitoring air flows in tunnels and subways
+ Used as a standard in wind tunnels and calibration facilities
+ Environmental monitoring in greenhouses and IAQ applications
+ General engineering applications

General Purpose (8455)

+ Protected probe tip
+ Rugged ceramic sensor
+ Wide range of measurement applications
+ Fast response time

Windowless (8465)

+ Less flow blockage
+ Ideal for measuring in confined spaces
+ Fast response time

Omnidirectional (8475)

+ Omnidirectional probe tip
+ Accurate at low velocities from 10 to 100 ft/min (0.05 to 0.5 m/s)
+ Ideal for unknown or varying flow direction

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SPECIFICATIONS

AIR VELOCITY TRANSDUCERS
MODELS 8455, 8465, AND 8475

Accuracy

8455	±2.0% of reading[1], ±0.5% of full scale of selected range
8465	±2.0% of reading[1], ±0.5% of full scale of selected range
8475	±3.0% of reading[2], ±1.0% of full scale of selected range

Field Selectable Range

8455 and 8465	25 ft/min to 200, 250, 300, 400, 500, 750, 1,000, 1,250, 1,500, 2,000, 2,500, 3,000, 4,000, 5,000, 7,500, 10,000 ft/min (0.125 m/s to 1.0, 1.25, 1.50, 2.0, 2.5, 3.0, 4.0, 5.0, 7.5, 10.0, 12.5, 15.0, 20.0, 25.0, 30.0, 40.0, 50.0 m/s)
8475	10 ft/min to 100, 125, 150, 200, 250, 300, 400, 500 ft/min (0.05 m/s to 0.5, 0.75, 1.0, 1.25, 1.50, 2.0, 2.5 m/s)

Repeatability

8455 and 8465	<±1.0% of reading[3]
8475	N/A

Response to Flow

8455 and 8465	0.2 sec[4]
8475	5 sec[5]

Temperature Range

Compensation	32 to 140°F (0 to 60°C)
Operating (electronics)	32 to 200°F (0 to 93°C)
Operating (sensor)	32 to 200°F (0 to 93°C)
Storage	32 to 200°F (0 to 93°C)

Resolution (minimum)

0.07% of selected full scale

Input Power

11 to 30 VDC or 18 to 38 VAC, 350 mA max[6]

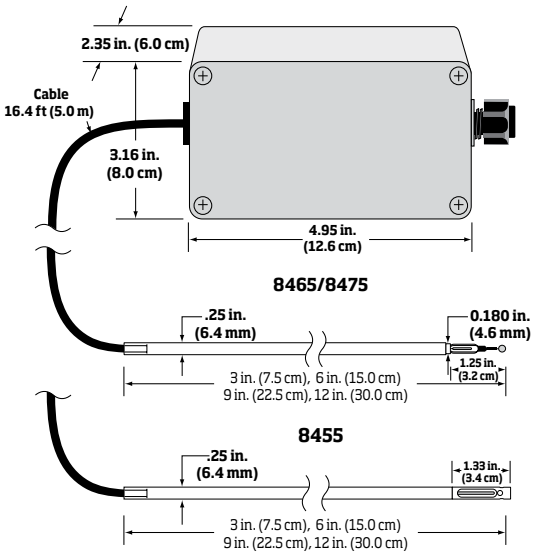
Output

Impedance	Voltage mode: less than 1 ohm, 20 mA max source current
Resistance	Current mode: 500 ohms maximum load
Signal	Field selectable 0 to 5V, 0 to 10V, 0 to 20, 2 to 10V, mA, 4 to 20 mA
Time Constant	Field selectable 0.05 to 10 seconds

Probe length

3 in., 6 in., 9 in., 12 in. (7.5 cm, 15 cm, 22.5 cm, or 30 cm)

All models contain on-board electronics and calibration curves that provide a linear signal output. This linear signal is sent out as either a current (mA) or a voltage (V) signal, allowing output to a variety of data loggers or data acquisition systems. In addition, the current and voltage output ranges are user-selectable for your convenience.



	8455/8465	8475
Range	25 to 10,000 fpm (0.127 to 50.8 m/s), selectable	10 to 500 fpm (0.05 to 2.54 m/s), selectable
Accuracy	±(2% of reading at 64.4 to 82.4°F (18-28°C) +0.5% of full scale of selected range)	±(3% of reading at 68.0-78.8°F (20 to 26°C) +1% of full scale of selected range)
Response time	0.2 seconds	5.0 seconds
Input power	11 to 30 VDC or 18 to 28 VAC, 350 mA maximum	

[1]From 64.4 to 82.4°F (18 to 28°C), outside this range and within temperature compensation range add 0.11% per °F (0.2% per °C).
[2]From 68 to 78.8°F (20 to 26°C), outside this range and within temperature compensation range add 0.28% per °F (0.5% per °C). Directional sensitivity of the Model 8475 is +5%/-20% of reading +0/-10 ft/min (+0/-0.05 m/s) over 270° solid angle regardless of flow direction.
[3]Standard deviation based on one minute average from 100 to 1,000 fpm (0.5 to 5.0 m/s).
[4]For 63% of final value, tested at 1,500 fpm (7.5 m/s).
[5]For 63% of final value, tested at 500 fpm (2.5 m/s).
[6]Input voltage must be maintained within specifications at the transducer.

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HYDRONIC MANOMETERS
MODELS HM675, HM685

The HM675 and HM685 Hydronic Manometers are used to balance hydronic heating and cooling systems, check pump performance and to set balancing valves. They can measure and display differential, high side and low side pressure simultaneously, without having to change hose connections or instrument valve settings. Each model features a backlit display and operates on four alkaline or NiMH rechargeable batteries.

Features and Benefits

+ Measure and display high side, low side, and differential pressure simultaneously
+ Robust, splash-proof case
+ Inputs for two temperature probes

Features and Benefits (HM685 only)

+ Calculates flow using valve manufacturers' Cv (Kv) factors [up to 100 Cv (Kv) can be entered]
+ Calculates heat flow, impeller diameter and brake power
+ Stores up to 4,000 data points to memory for later recall/download to a PC using CompuDat™ USB Software and USB interface cable
+ Intuitive menu structure for easy navigation and instrument set up

Applications

+ Test and balance heating and cooling systems
+ Check pump performance
+ Set balancing valves

HM675 kit includes hard carrying case, (2) 6.7 ft x ¼-in. (2 m x 6 mm) hoses with shut-off valves, (2) B&G readout probes, (2) P/T gauge adapter probes, and power cord.

HM685 kit includes all items in HM675 kit, plus a temperature probe, CompuDat USB downloading software, and USB interface cable.

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SPECIFICATIONS

HYDRONIC MANOMETERS
MODELS HM675 AND HM685

Pressure

Differential Range	-300 to 300 psi (-2,068 to 2,068 kPa)
Gauge Range	-20 to 300 psi (-138 to 2,068 kPa) (-40 to 610 in. Hg)
Resolution (best)	0.001 psi (0.01 kPa) (0.01 in. Hg)
Accuracy[1]	±1% of reading plus .072 psi (0.5 kPa) (0.15 in. Hg)
Units	psi, in. H_2O, ft H_2O, kPa, mm Hg, in. Hg, m H_2O, bar
Pressure Connection	¼" 37° flare fitting, Male

Temperature

Operating (electronics)	40 to 113°F (5 to 45°C)
Storage	-4 to 140°F (-20 to 60°C)
Liquid Media	32 to 180°F (0 to 82°C)
Probe (immersion)	-40 to 250°F (-40 to 121 °C)
Resolution	0.1°F (0.1°C)
Accuracy	±0.5% of reading +1.2°F (0.7 °C)
Units	°F, °C

Flow (HM685 Only)

Range[2]	-22,712 to 22,271 m^3/h, -99,999 to 99,999 USGPM (-6,309 to 6,309 l/s)
Resolution (best)	0.0001 USGPM (0.00001 l/s)
Accuracy	per pressure accuracy + valve deviation
Units	USGPM, UKGPM, m^3/h, l/s, l/m

Time Constant
User selectable (1, 5, 10, 20, and 30 seconds)

Statistics (HM685 only)
min, max, average, sum up to 4,000 readings

Data Storage (HM685 only)
4,000 combined readings, 100 Test IDs

Logging Interval (HM685 only)
User selectable (1 to 3,600 seconds)

External Meter Dimensions
11.1 in. × 4.7 in. × 3.5 in. (28.2 cm × 11.9 cm × 8.8 cm)

Meter Weight with Batteries
2.65 lbs (1.20 kg)

Power Requirements
Four AA-size cells, or AC adapter

[1] Accuracy statement applies from -15 to 250 psi (-103 to 1,724 kPa)
[2] The flow reading is a calculated value determined from the measured Differential pressure, user entered valve flow coefficient (Kv or Cv), and fluid specific gravity

Specifications subject to change without notice.

Product feature comparison	HM675	HM685
Differential, high side, and low side pressures displayed simultaneously	+	+
Reads in in. H_2O, ft H_2O, psi, in. Hg, m H_2O, kPa, mm Hg, bar	+	+
Performs flow calculations		+
Downloading software and USB cable		+
Temperature probe	optional	+
Hard carrying case	+	+
Certificate of Calibration	+	+
Unique Calculations menu for determining:	**HM675**	**HM685**
Brake Power		+
Heat flow		+
Calculate Cv/Kv		+
Pump law impeller diameter		+
Pump law delta P		+
Pump law brake power		+

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P/N 5001534 Rev C

Printed in U.S.A.

EBT BALOMETER®
CAPTURE HOOD
MODEL EBT731

Model EBT731-STA Bundle shown.

The EBT731 Balometer™ Capture Hood is a multipurpose electronic air balancing instrument used for taking accurate, direct air volume measurements at diffusers and grilles. The corresponding detachable micromanometer can be used with an array of optional probes to enable various measurement applications. Compatible with LogDat™ Mobile Remote Reader Software and capture hood stand, the EBT731 maximizes worker productivity and efficiency–saving you valuable time on the jobsite for ultimate profitability.

Applications:

+ Test and balance contractors
+ Commissioning agents
+ Facilities managers
+ Health and safety specialists
+ Ventilation system installers

Features and Benefits

+ Ergonomic, lightweight design enables easy one-person operation
+ Automatic sensing and display of supply or return flows saves time on the job
+ Back pressure compensation ensures accurate readings at high flow rates
+ Detachable digital micromanometer provides additional measurement capability
+ Multiple hood size options enable measurement of different outlet dimensions
+ Compatible LogDat Mobile Remote Reader and Data Logger Software option simplifies documenting of results and emailing of reports
+ Capture hood stand eliminates the need for ladders (reaching diffusers up to 15 ft. (4.5 m)

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DETACHABLE MICROMANOMETER MODEL EBT730

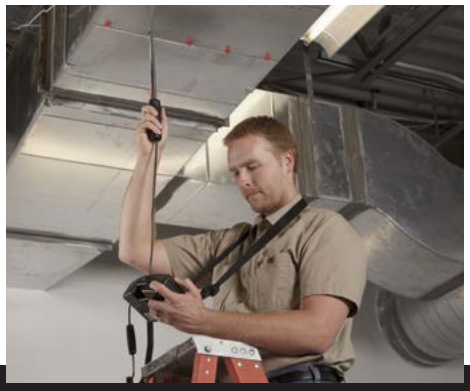
AIR VOLUME INSTRUMENTS

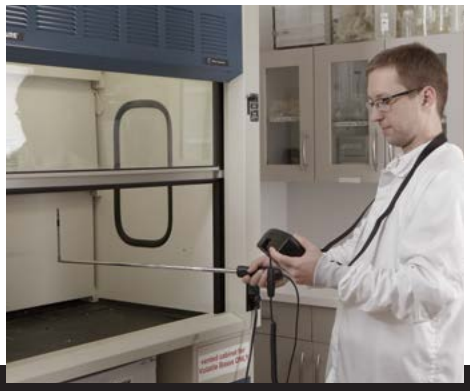
Model EBT730 (Micromanometer shown with standard and optional accessories)

As standard, the EBT731 Balometer Capture Hood includes a detachable EBT730 micromanometer– one of the most advanced, versatile, and easy to use micromanometers on the market today. The EBT730 features an auto-zeroing pressure sensor that increases measurement resolution and accuracy as well as integrates an intuitive menu structure to facilitate simple operation.

Features and Benefits

+ Accurate measurement of pressure, velocity and flow complies with industry standards
+ Auto-zeroing pressure sensor reduces user-steps and saves time
+ Automatic density correction increases reading accuracy
+ Large, backlit graphic display offers easy-to-use interface
  - Up to five simultaneous measurements
  - On-screen messages and instructions
  - Multi-language capability
+ Intuitive menu structure for easy operation
+ Integrated Log-Tchebycheff duct traverse mapping application simplifies calculations
+ Bluetooth bi-directional communication eases data transfer and permits use of LogDat Mobile Remote Reader and Data Logger Software for Android devices
+ Optional pitot, air flow (straight pitot), temperature/relative humidity, velocity matrix, or plug and play thermoanemometer probes enables use in multiple applications





Plug and play thermoanemometer probes enables use in multiple applications.

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SPECIFICATIONS

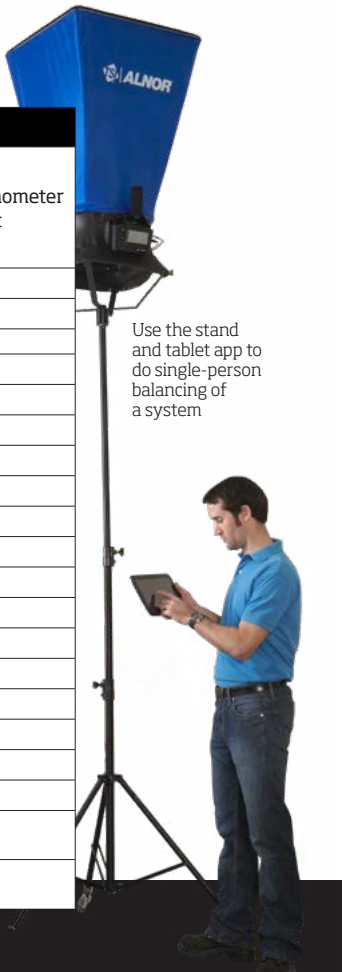
MICROMANOMETER MODEL EBT730 AND CAPTURE HOOD MODEL EBT731

Velocity Range	
Pitot probes	0.125 to 78 m/s (25 to 15,500 ft/min)
Air flow probe	0.125 to 12.5 m/s (25 to 2,500 ft/min)
Velocity matrix	0.125 to 12.5 m/s (25 to 2,500 ft/min)
Accuracy	±3% of reading ±0.04 m/s (±7 ft/min) at velocities >0.25 m/s (50 ft/min)
Units	m/s, ft/min
Resolution	0.01 m/s (1 ft/min)
Pressure	
Differential pressure	±3735 Pa (±15 in. H_2O); 37.5 kPa (150 in. H_2O), maximum safe operating pressure
Absolute pressure	356 to 1016 mm Hg (15 to 40 in. Hg)
Accuracy	±2% of reading ±0.025 Pa H_2O (±0.0001 in.) 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	0.001 Pa H_2O (0.00001 in.) static and differential; 1 mm Hg (0.01 in. Hg) absolute
Volume	
Range	42 to 4250 m^3/h (25 to 2,500 ft^3/min) capture hood, supply and return
Accuracy	±3% of reading ±12 m^3/h (±7 ft^3/min) at flows >85 m^3/h (>50 ft^3/min)
Units	m^3/h, ft^3/min, l/s, m^3/min
Resolution	1 m^3/h (1 ft^3/min)
Temperature	
Sensor in base	4.4 to 60°C (40 to 140°F)
Temperature/RH probe	-10 to 60°C (14 to 140°F)
Accuracy	±0.3°C (±0.5°F)
Units	°C, °F
Resolution	0.1°C (0.1°F)

RH	
Range	5 to 95% RH (temperature/RH probe)
Accuracy	±3% RH
Resolution	0.1% RH
Instrument Temperature Range	
Operating	4.4 to 60°C (40 to 140°F)
Storage	-20 to 71°C (-4 to 160°F)
Statistics	
min, max, average and sum	
Data Storage	
25,500 samples, time and date stamped	
Logging Interval	
User selectable	
Response Time	
2 to 8 seconds, differential pressure sensor	
Power Requirements	
Four AA-size cells or AC adapter	
Physical Characteristics	
Dimensions (micromanometer only)	18.8 cm x 11.4 cm x 5.8 cm (7.4 in. x 4.5 in. x 2.3 in.)
Weight with Batteries	PH730 0.5 kg (17 oz.) PH731 3.4 kg (7.4 lb.)
Pressure Connection	6.35 mm (1/4 in.) OD straight ports with barbed ends for use with 4.76 mm (3/16 in.) ID flexible tubing

Model	EBT731-B*	EBT731	EBT731-STA	EBT730
Description	Basic 2 ft x 2ft (610 mm x 610 mm) EBT Balometer Capture Hood Kit	Standard 2 ft x 2ft (610 mm x 610 mm) EBT Balometer Capture Hood Kit	Bundled 2 ft x 2ft (610 mm x 610 mm) EBT Balometer Capture Hood Kit	Micromanometer Kit
Capture hood base, poles, frame and fabric	+	+	+	
Micromanometer	+	+	+	+
(4) support poles	+			
(6) support poles		+	+	
(4) AA alkaline batteries	+			
(4) AA rechargeable NiMH batteries		+	+	+
(2) battery holders	+	+	+	+
Multi-country AC power adaptor		+	+	+
46 cm (18 in.) pitot probe		+	+	+
5.0 m (16 ft.) tubing		+	+	+
(2) static pressure probes		+	+	+
Neck strap		+	+	+
Capture hood stand			+	
Android Tablet loaded with LogDat Mobile			+	
Wheeled carrying case	+	+	+	
Handheld carrying case				+
LogDat CH downloading software with cable	+	+	+	+
User manual	+	+	+	+
Calibration certificate, pressure: 5-points (differential), 3-points (barometric), 3-points (temperature)	+	+	+	+
Calibration certificate, flow: 7-points (supply), 7-points (return)	+	+	+	

*Not available in North America



Use the stand and tablet app to do single-person balancing of a system

SPECIFICATIONS

EBT BALOMETER® MODEL EBT731
DETACHABLE MICROMANOMETER MODEL EBT730

Recommended Optional Accessories

Hood Kits	
801097 (standard)	2 ft. x 2 ft. (610 mm x 610 mm)
801200	1 ft. x 4 ft. (305 mm x 1220 mm)
801201	2 ft. x 4 ft. (610 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)
801206	1 ft. x 4 ft. (305 mm x 1,220 mm) and 2 ft. x 4 ft. (610 mm x 1,220 mm)
801207	1 ft. x 5 ft. (305 mm x 1,525 mm) and 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)
80215	1 ft. x 3 ft. (305 mm x 915 mm)
801204 (BSC*)	8 in. x 22 in. (205 mm x 560 mm)
801205 (BSC*)	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.

Duct Plugs	
634650002	3/8 in. (9.5 mm) diameter - 1000 pieces
634650003	3/8 in. (9.5 mm) diameter - 5000 pieces

Printer	
8934	Wireless Bluetooth printer

LogDat™ Mobile Software

LogDat Mobile
Remote reader and data logger Android™ Software App available via Google Play™

Capture Hood Stand

CH-Stand
Extends up to 15 ft. (4.5 m with EBT731 attached) to take readings from ceiling diffuser without the use of a ladder. Capture hood is secured onto quad bracket and two extension pole sections can be raised to desired height and locked in place. Hood stand uses wheels for ease of movement and portability.

EBT731 Bundle

EBT731-STA Bundle
Includes: EBT 731 Capture Hood, Capture Hood Stand, Smart Tablet* loaded with LogDat™ Mobile App and instruction videos.
*TSI has the discretion to change the brand and model of tablet at any time.

Probes

Airflow Probe 800187

Straight air flow probe, 18 in. (46 cm). Used to perform a duct traverse and to measure face velocity measurements. Ideal for small diameter ductwork.

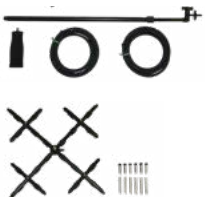
Temperature and Humidity Probe 800220

Telescopic temperature and humidity probe, extends 9-39 in. (230-990 mm). Used for measuring inside of duct work. Can be inserted into a standard 5/16 in. (8 mm) diameter hole typically use for pitot traverses with the ability to calculate wet bulb and dewpoint temperatures.

Thermoanemometer Air Velocity Probes Models 960, 962, 964, and 966

Available in straight or articulating construction, and with or without a relative humidity sensor. Models with a relative humidity sensor can also calculate wet bulb and dewpoint temperature.

Velocity Matrix 801090
16 point Telescopic Velocity Matrix. Used for measuring face velocities of HEPA filters, chemical fume hood, laminar flow benches, filter banks, kitchen exhausts and other applications where a large surface area needs to be measured. Grid covers 1 ft.^{2} (0.09 m^2) and averages the air velocity while minimizing the effects of turbulence to produce a stale reading.



Pitot Probes	
634634000	5/16-12 in. (8 mm - 30 cm) diameter
634634001*	5/16-18 in. (8 mm - 46 cm) diameter
634634002	5/16-24 in. (8 mm - 61 cm) diameter
634634003	5/16-36 in. (8 mm - 91 cm) diameter
634634005	5/16-60 in. (8 mm - 152 cm) diameter

*included in specific bundles. Please refer to model matrix on page 3.

UNDERSTANDING, ACCELERATED

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P/N 5001434 Rev G Printed in U.S.A.

MICROMANOMETERS
MODELS AXD610 AND AXD620

Model AXD620 shown with optional pitot probe

Model AXD610

The AXD610 is an easy to use, handheld digital Micromanometer for fast, accurate and reliable pressure measurement. It can also calculate velocity.

Model AXD620

The AXD620 is a rugged, compact, comprehensive Micromanometer that measures pressure, and calculates velocity and volumetric flow rate. It can be used with Pitot tubes to measure velocity and then calculate flow rates with user-input duct size and shape. Premium features make it ideal for HVAC, environmental safeguards, commissioning, process control and system balancing.

Features and Benefits (Model AXD610)

+ Measure differential and static pressure from -15 to +15 in. H_2O (-3735 to +3735 Pa)
+ Calculate and display velocity when using a Pitot tube

Added Features and Benefits (Model AXD620)

+ Calculates volumetric flow rate in duct from velocity and user-input duct size and shape
+ Preset up to 5 round and rectangular duct sizes
+ Preset up to 5 K factors
+ Record data points
+ Data logging with time and date stamp
+ Includes LogDat2™ downloading software
+ Programmable K factors

Applications

+ HVAC commissioning and troubleshooting
+ Testing and balancing
+ Pitot tube duct traverses
+ Static pressure measurements
+ Differential pressure measurements

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SPECIFICATIONS

MICROMANOMETERS
MODELS AXD610, AXD620

Static/Differential Pressure

Range[1]	-15 to +15 in. H_2O (-28.0 to +28.0 mm Hg, -3735 to +3735 Pa)
Accuracy	±1% of reading ±0.005 in. H_2O (±1 Pa, ±0.01 mm Hg)
Resolution	0.001 in. H_2O (0.1 Pa, 0.01 mm Hg)

Velocity From a Pitot Tube

Range[2]	250 to 15,500 ft/min (1.27 to 78.7 m/s)
Accuracy[3]	±1.5% at 2,000 ft/min (10.16 m/s)
Resolution	1 ft/min (0.1 m/s)

Duct Size (AXD620)

Dimensions	1 to 500 inches in increments of 0.1 in. (2.5 to 1,270 cm in increments of 0.1 cm)

Volumetric Flow Rate (AXD620)

Range	Actual range is a function of velocity, pressure, duct size, and K factor

Instrument Temperature Range

Operating	40 to 113°F (5 to 45°C)
Storage	-4 to 140°F (-20 to 60°C)

Data Storage Capabilities (AXD620 only)

Range	12,700+ samples and 100 test IDs

Logging Interval (AXD620 only)
1 second to I hour

Time Constant (AXD620 only)
User selectable

External Meter Dimensions
3.3 in x 7.0 in x 1.8 in (8.4 cm x 17.8 cm x 4.4 cm)

Meter Weight with Batteries
0.6 lbs. (0.27 kg)

Power Requirements

AXD620	Four AA-size batteries or optional AC adapter
AXD610	Four AA-size batteries

	AXD610	AXD620
Differential and static pressure	+	+
Velocity with pitot tube	+	+
Sample statistics		+
Volumetric flow rate		+
Actual and standard velocity		+
Variable time constant		+
LogDat2 downloading software		+
K factor		+
Certificate of Calibration	+	+

[1] Overpressure range = 190 in. H_2O (7 psi, 360 mmHg, 48 kPa).
[2] Pressure velocity measurements are not recommended below 1,000 ft/min (5 m/s).
[3] Accuracy is a function of converting pressure to velocity. Conversion accuracy improves when actual pressure values increase.

Specifications subject to change without notice.

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ROTATING VANE ANEMOMETERS MODELS RVA501 AND RVA801

Model RVA501

Model RVA501 is a handheld digital Rotating Vane Anemometer used for air velocity and volumetric flow measurements.

Model RVA801

Model RVA801 is a lightweight, robust, and simple to use Rotating Vane Anemometer that provides accurate and reliable readings every time. Ideal for HVAC commissioning at grilles, filters, and kitchen exhausts; the RVA801 displays readings in metric or imperial mode.

Features and Benefits (Model RVA801)

+ Reversible 4-in. (100-mm) head allows readings at supply and exhaust grills
+ Calculates volumetric flow rate
+ Compatible with Aircone Flow Hoods
+ No density correction factors required
+ Automatic averaging of air velocity

Features and Benefits (Model RVA501)

+ Measures velocity and temperature
+ Calculates flow
+ Simultaneous display of up to three measurements
+ Log, store, and recall data
+ Download data to a PC
+ Optional telescopic probe available
+ Compatible with Aircone Flow Hoods

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SPECIFICATIONS

ROTATING VANE ANEMOMETERS
MODELS RVA501 AND RVA801

Velocity
Range 50 to 6,000 ft/min (0.25 to 30 m/s)
Accuracy ±1.0% of reading ±4 ft/min (±0.02 m/s)

Area Size Input
Range
RVA501 0 to 500 ft^2 (0 to 46.45 m^2)
RVA801 0.043 to 900 ft^2 (0.00399 to 90 m^2)

Volumetric Flow Rate
Range Actual range is a function of velocity and area

Temperature
Range 40 to 113°F (5 to 45°C)
Accuracy ±2.0°F (±1.0°C)
Resolution RVA501 0.1°F (0.1°C)
Resolution RVA801 1°F (0.1°C)

Instrument Temperature Range
Operating
(Electronics) 40 to 113°F (5 to 45°C)
Storage -4 to 140°F (-20 to 60°C)

Data Storage Capabilities (RVA501 only)
Range 12,700+ samples and 100 test IDs

Logging Interval (RVA501 only)
From 1 second to 1 hour

Time Constant (RVA501 only)
User selectable

External Meter Dimensions
RVA501 3.3 in. x 7.0 in. x 1.8 in.
(8.4 cm x 17.8 cm x 4.4 cm)
RVA801 4.5 in. x 11 in. x 2.6 in.
(1.2 cm x 28 cm x 6.5 cm)

Meter Weight with Batteries
RVA801 11.6 oz. (329 g)
RVA501 0.6 lbs. (0.27 kg)

Power Requirements
RVA801 9-volt battery
RVA501 Four AA-size batteries or AC adapter

AIRCONE FLOW HOODS

Aircone Flow Hoods are a fast and accurate method of maximizing the usefulness of your 4-in. (100 mm) rotating vane anemometers. For a modest investment, you can enhance the capability of your rotating vane, turning it into an air volume flow balancing tool.

Features and Benefits

+ Rectangular and circular cones available
+ Measures volumetric flow at small grilles and diffusers
+ Reads air volume quickly and accurately

Specifications

Aircone Flow Hoods (P/N 801750)

Range (with RVA501 or RVA801)
0 to 210 cfm (0 to 100 l/s, 0 to 360 m^3/h)

Size
Rectangular Hood 11.2 in. x 9.2 in. (285 mm x 235 mm)
Round Hood 7.1 in. (180 mm) diameter

Weight (includes case)
2.4 lbs (1.1 kg)

	RVA801	RVA501
Temperature	+	+
Velocity	+	+
4-in. (100-mm) reversible head	+	+
Flow	+	+
Telescoping handle (optional)		+
Data logging, recall, review, download		+
Use with Aircone flow hoods	+	+
Certificate of Calibration	+	+

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VELOMETER® THERMAL ANEMOMETERS MODELS AVM410, AVM430, AND AVM440

Model AVM440

Model AVM410

The Model AVM410 is a solid choice for a digital Air Velocity Meter, without compromising accuracy or precision. Excellent for troubleshooting HVAC systems and conducting commissioning work.

Models AVM430 and AVM440

The Model AVM430 and AVM440 are like having multiple meters for the price of one, yet they are simple to operate. Purchase instruments with a straight or articulated probe–all in one compact package.

Features and Benefits (Models AVM410, AVM430 and AVM440)

+ Accurate air velocity measurement
+ Large, easy to read display
+ Calibration certificate included

Features and Benefits (Models AVM430 and AVM440)

+ Simultaneously measures temperature, velocity and flow
+ Displays up to three measurements simultaneously
+ Calculates volumetric flow, and actual/standard velocity
+ Articulated probe versions available
+ Data logging and LogDat2™ downloading software included
+ Measures humidity (AVM440), dewpoint and wet bulb temperature

Applications

+ HVAC system performance
+ Commissioning
+ Plant maintenance
+ Critical environment certification
+ Duct traverses
+ Face velocity measurement

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SPECIFICATIONS

VELOMETER® THERMAL ANEMOMETERS
MODELS AVM410, AVM430 and AVM440

Velocity

Range (AVM410)	0 to 4,000 ft/min (0 to 20 m/s)
Range (AVM430, AVM440)	0 to 6,000 ft/min (0 to 30 m/s)
Accuracy (AVM410)[1&2]	±5% of reading or ±5 ft/min (±0.025 m/s), whichever is greater
Accuracy (AVM430, AVM440)[1&2]	±3% of reading or ±3 ft/min (±0.015 m/s), whichever is greater
Resolution	1 ft/min (0.01 m/s)

Duct Size (AVM430, AVM440)

Dimensions	1 to 250 inches in increments of 0.1 in. (1 to 635 cm in increments of 0.1 cm)

Volumetric Flow Rate (AVM430, AVM440)

Range	Actual range is a function of velocity, and duct size

Temperature

Range (AVM410, AVM430)	0 to 200°F (-18 to 93°C)
Range (AVM440)	14 to 140°F (-10 to 60°C)
Accuracy[3]	±0.5°F (±0.3°C)
Resolution	0.1°F (0.1°C)

Relative Humidity (AVM440 only)

Range	5 to 95% RH
Accuracy[4]	±3% RH
Resolution	0.1% RH

Wet Bulb Temperature (AVM440 only)

Range	40 to 140°F (5 to 60°C)
Resolution	0.1°F (0.1°C)

Dew Point (AVM440 only)

Range	5 to 120°F (-15 to 49°C)
Resolution	0.1°F (0.1°C)

Instrument Temperature Range

Operating (Electronics)	40 to 113°F (5 to 45°C)
AVM410 Operating (Probe)	0 to 200°F (-18 to 93°C)
AVM 430 Operating (Probe)	0 to 200°F (-18 to 93°C)
AVM440 Operating (Probe)	14 to 140°F (-10 to 60°C)
Storage	-4 to 140°F (-20 to 60°C)

Data Storage Capabilities (AVM430, AVM440)

Range	12,700+ samples and 100 test IDs

Logging Interval (AVM430, AVM440)
1 second to 1 hour

Time Constant (AVM430, AVM440)
User selectable

External Meter Dimensions
3.3 in. x 7.0 in. x 1.8 in. (8.4 cm x 17.8 cm x 4.4 cm)

Meter Weight with Batteries
0.6 lbs. (0.27 kg)

Probe Dimensions

Probe Length	40 in. (101.6 cm)
Probe Diameter of Tip	0.28 in. (7.0 mm)
Probe Diameter of Base	0.51 in. (13.0 mm)

Articulating Probe Dimensions

Articulating Section Length	7.8 in. (19.8 cm)
Diameter of Articulating Knuckle	0.38 in. (9.7 mm)

Power Requirements
Four AA-size batteries or AC adapter

	AVM410	AVM430, AVM430-A	AVM440, AVM440-A
Velocity range 0 to 4,000 ft/min (0 to 20.00 m/s)	+		
Velocity range 0 to 6,000 ft/min (0 to 30.00 m/s)		+	+
Temperature	+	+	+
Flow		+	+
Humidity, wet bulb, dew point			+
Probe	Straight	Straight or -A articulated	Straight or -A articulated
Variable time constant		+	+
Manual data logging		+	+
Auto save data logging			+
Statistics		+	+
Review data		+	+
LogDat2 downloading software		+	+
Certificate of Calibration	+	+	+

[1] Temperature compensated over an air temperature range of 40 to 150°F (5 to 65°C).
[2] The accuracy statement begins at 30 ft/min through 4,000 ft/min (0.15 m/s through 20 m/s) for the Model AVM410, and 30 ft/min through 6,000 ft/min (0.15 m/s through 30 m/s) for Models AVM430 and AVM440.
[3] Accuracy with instrument case at 77°F (25°C), add uncertainty of 0.05°F/°F (0.03°C/°C) for change in instrument temperature.
[4] Accuracy with probe at 77°F (25°C). Add uncertainty of 0.1% RH/°F (0.2% RH/°C) for change in probe temperature. Includes 1% hysteresis.

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VELOCICALC® MULTI-FUNCTION VENTILATION METER MODEL 9565

The VelociCalc® Model 9565 series are portable, handheld, Multi-Function Ventilation Test Instruments featuring a menu-driven user interface for easy operation in your local language. On-screen prompts and step-by-step instructions guide the user through instrument setup, operation, and field calibration. The 9565 also features an ergonomic, overmolded case design with probe holder and a keypad lockout to prevent tampering during unattended use. These instruments are available with or without a differential pressure sensor and are designed to work with a wide range of plug-in probes.

Applications

+ HVAC testing and balancing
+ Cleanroom testing
+ Biological safety cabinet and laboratory fume hood testing
+ HVAC commissioning and troubleshooting
+ IAQ investigations
+ Thermal comfort studies
+ Ventilation evaluations
+ Process air flow testing

Features and Benefits

+ Best-in-class air velocity accuracy
+ Optional smart plug-in probes, including VOC, CO_2, and rotating vane probes
+ Accommodates up to two K-alloy thermocouples
+ Large graphic display
  - Displays up to five measurements simultaneously
  - On-screen messages and instructions
  - Program for local language
+ Intuitive menu structure allows for ease of use and setup
+ Multiple data logging formats
+ Bluetooth communications for transferring data or remote polling
+ Includes TrakPro™ and LogDat2™ downloading software with USB cable

UNDERSTANDING, ACCELERATED

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VelociCalc Plug-In Probes

The plug-in probes allow users to make various measurements by simply plugging in a different probe that has the features and functions best suited for a particular application.

Plug-in probes for the VelociCalc series can be ordered at any time and include a data sheet with certificate of traceability. When it's time for servicing, only the probe needs to be returned since all the calibration data is stored within the probe.

Thermoanemometer Air Velocity Probes

TSI offers four models featuring multiple measurements in a compact, robust probe design. These telescopic probes are available in straight or articulating construction, and with or without a relative humidity sensor. Models with a relative humidity sensor can also calculate wet bulb and dewpoint temperature.

Common applications include duct traversing, face velocity testing of chemical fume hoods, biological safety cabinets and HEPA filters. When combined with the 9565, advanced measurement applications can be performed including heat flow, draft rate and turbulence intensity.

Rotating Vane Anemometer Probe

The 4" (100 mm) rotating vane probe measures air velocity and temperature with flow calculation. Measurement applications include face velocity as well as air velocity in turbulent airstreams. An optional telescopic articulating probe and an Aircone kit are also available.

Pitot Probes and Airflow Probe 800187

Pitot probes are used to obtain air velocity and air volume measurements within ductwork by performing a duct traverse. Consult factory for sizes and part numbers.

The Airflow Probe Model 800187 is an 18" (46 cm) straight Pitot probe that can be used to perform duct traverses and are ideally suited for measuring in small diameter ductwork.

LogDat2™ Downloading Software

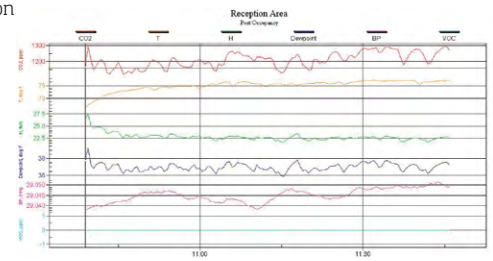
The VelociCalc Model 9565 Series includes downloading software called LogDat2. LogDat2 software transfers the stored data from the Model 9565 to a computer as a spreadsheet file. This software is useful for applications such as duct traverses, fume hood, and filter face velocity testing.

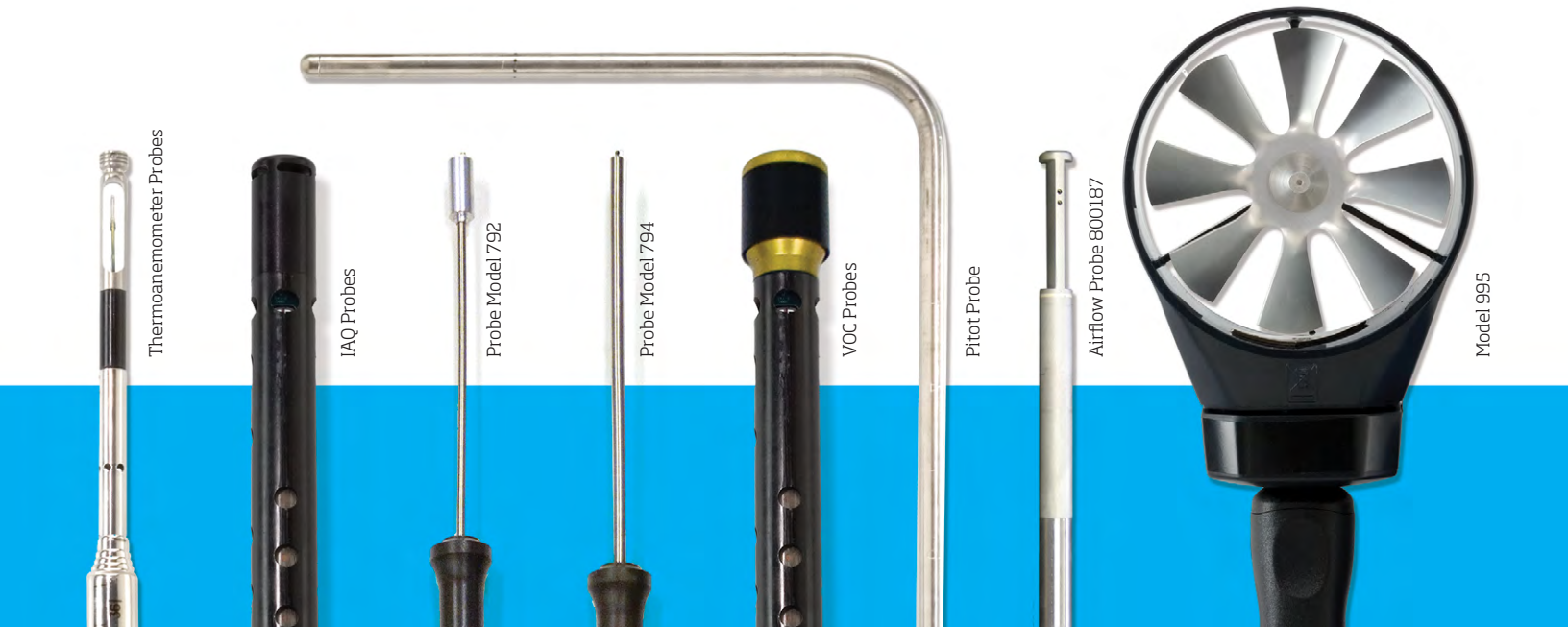
Reading Type	Standard						
	Temperature	70.0deg F					
	Pressure	29.92inHg					
Statistics	Channel:	Vel	T	H	Dewpoint	Wetbulb	
	Units:	ft/min	deg F	%rh	deg F	deg F	
	Average:	827	71.9	22.1	31.3	51.7	
	Minimum:	806	71.9	22.1	31.3	51.6	
Date	Time	Vel	T	H	Dewpoint	Wetbulb	
M/M/dd/yyyy	hh:mm:ss	ft/min	deg F	%rh	deg F	deg F	
3/1/2011	8:41:38	828	71.9	22.1	31.3	51.6	
3/1/2011	8:41:40	842	71.9	22.1	31.3	51.6	
3/1/2011	8:41:42	836	71.9	22.1	31.3	51.6	
3/1/2011	8:41:44	809	71.9	22.1	31.3	51.6	
3/1/2011	8:41:46	806	71.9	22.1	31.3	51.6	
3/1/2011	8:41:48	819	71.9	22.1	31.3	51.7	
3/1/2011	8:41:50	838	71.9	22.1	31.3	51.7	
3/1/2011	8:41:52	837	71.9	22.2	31.3	51.7	

Data Collection and Reporting

Expanded data logging capacity and the inclusion of TrakPro Data Analysis Software provides the capabilities to work more effectively and efficiently. The 9565 can store up to 38.9 days of data collected at one-minute log intervals. The stored data can be recalled, reviewed on screen, and downloaded for easy reporting. This software is usefule for long term, unattended data logging applications such as IAQ and VOC investigations.

+ Log multiple parameters to investigate trends.
+ Store up to 38.9 days of data collected at one-minute log intervals
+ User-selectable logging intervals and start/stop times
+ Download data to TrakPro data analysis software
+ Report generation
+ Instrument programming
+ Graph creation





MODELS 960, 962, 964, 966, 995, 980, 982, 792, 794, 984, 985, 986, AND 987

960 Thermoanemometer Straight Probe Velocity and Temperature

Range	0 to 9,999 ft/min (0 to 50 m/s), 0 to 200°F (-18 to 93°C)
Accuracy	±3% of reading or ±3 ft/min (±0.015 m/s), whichever is greater[4&5]; ±0.5°F (±0.3°C)[6]
Resolution	1 ft/min (0.01 m/s), 0.1°F (0.1°C)

962 Thermoanemometer Articulating Probe Velocity and Temperature

Range	0 to 9,999 ft/min (0 to 50 m/s), 0 to 200°F (-18 to 93°C)
Accuracy	±3% of reading or ±3 ft/min (±0.015 m/s), whichever is greater[4&5]; ±0.5°F (±0.3°C)[6]
Resolution	1 ft/min (0.01 m/s), 0.1°F (0.1°C)

964 Thermoanemometer Straight Probe Velocity, Temperature and Humidity

Range	0 to 9,999 ft/min (0 to 50 m/s), 14 to 140°F (-10 to 60°C), 5 to 95% RH
Accuracy	±3% of reading or ±3 ft/min (±0.015 m/s), whichever is greater[4&5]; ±0.5°F (±0.3°C)[6], ±3% RH[7]
Resolution	1 ft/min (0.01 m/s), 0.1°F (0.1°C), 0.1% RH

966 Thermoanemometer Articulating Probe Velocity, Temperature and Humidity

Range	0 to 9,999 ft/min (0 to 50 m/s), 14 to 140°F (-10 to 60°C), 5 to 95% RH
Accuracy	±3% of reading or ±3 ft/min (±0.015 m/s), whichever is greater[4&5]; ±0.5°F (±0.3°C)[6], ±3% RH[7]
Resolution	1 ft/min (0.01 m/s), 0.1°F (0.1°C), 0.1% RH

995 Rotating Vane 4 in. (100 mm) Probe Velocity and Temperature

Range	50 to 6,000 ft/min (0.25 to 30 m/s), 32 to 140°F (0 to 60°C)
Accuracy	±1% of reading ±4 ft/min (±0.02 m/s), ±2.0°F (±1.0°C)
Resolution	1 ft/min (0.01 m/s), 0.1°F (0.1°C)

980 IAQ Probes CO_2, Temperature and Humidity

Range	0 to 5,000 ppm CO_2, 5 to 95% RH, 14 to 140°F (-10 to 60°C)
Accuracy	±3% of reading or ±50 ppm CO_2, whichever is greater[9]; ±3% RH[7], ±1.0°F (±0.5°C)[6]
Resolution	1 ppm CO_2, 0.1% RH, 0.1°F (0.1°C)

982 IAQ Probes Model CO, CO_2, Temperature and Humidity

Range	0 to 500 ppm CO, 0 to 5000 ppm CO_2 5 to 95% RH, 14 to 140°F (-10 to 60°C)
Accuracy	±3% of reading or ±3 ppm CO, whichever is greater[8]; ±3% of reading or ±50 ppm CO_2, whichever is greater[9]; ±3% RH[7], ±1.0°F (±0.5°C)[6]
Resolution	0.1 ppm CO, 1 ppm CO_2, 0.1% RH, 0.1°F (0.1°C)

792 and 794 Thermocouple Probes Temperature

Range	-40 to 1200°F (-40 to 650°C)
Accuracy	±0.1% of reading +2°F (±0.056% of reading +1.1°C)
Resolution	0.1°F (0.1°C)

984 Low Concentration (ppb) VOC and Temperature

Range	10 to 20,000 ppb, 14 to 140°F (-10 to 60°C)
Accuracy	±1.0°F (±0.5°C)[6]
Resolution	10 ppb[10], 0.1°F (0.1°C)

985 High Concentration (ppm) VOC and Temperature

Range	1 to 2,000 ppm, 14 to 140°F (-10 to 60°C)
Accuracy	±1.0°F (±0.5°C)[6]
Resolution	1 ppm[10], 0.1°F (0.1°C)

986 Low Concentration (ppb) VOC, Temperature, CO_2, and Humidity

Range	10 to 20,000 ppb VOC, 0 to 5,000 ppm CO_2, 14 to 140°F (-10 to 60°C), 5 to 95% RH
Accuracy	±3% of reading or 50 ppm CO_2, whichever is greater, ±1.0°F (±0.5°C)[6], ±3% RH[7]
Resolution	10 ppb[10] VOC, 0.1 ppm CO_2, 0.1°F (0.1°C), 0.1% RH

987 High Concentration (ppm) VOC, Temperature, CO_2, and Humidity

Range	1 to 2,000 ppm VOC, 0 to 5,000 ppm CO_2, 14 to 140°F (-10 to 60°C), 5 to 95% RH
Accuracy	±3% of reading or 50 ppm CO_2, whichever is greater, ±1.0°F (±0.5°C)[6], ±3% RH[7]
Resolution	1 ppm[10] VOC, 0.1 ppm CO_2, 0.1°F (0.1°C), 0.1% RH

SPECIFICATIONS

VELOCICALC® MULTI-FUNCTION VENTILATION METER MODEL 9565

MODELS 9565, 9565-A, 9565-P, 9565-X AND OPTIONAL PROBES

Velocity (Pitot or Airflow probe for Meter Models 9565, 9565-A, 9565-P)

Range[1]	250 to 15,500 ft/min (1.27 to 78.7 m/s)
Accuracy[2]	±1.5% at 2,000 ft/min (10.16 m/s)
Resolution	1 ft/min (0.01 m/s)

Duct Size

Dimensions	1 to 500 inches in increments of 0.1 in. (2.5 to 1,270 cm in increments of 0.1 cm)

Volumetric Flow Rate

Range	Actual range is a function of velocity, pressure, duct size, and K factor

Static/Differential Pressure (Meter Models 9565, 9565-A, 9565-P)

Range[3]	-15 to +15 in. H_2O (-28.0 to +28.0 mm Hg, -3,735 to +3,735 Pa)
Accuracy	±1% of reading ±0.005 in. H_2O (±0.01 mm Hg, ±1 Pa)
Resolution	0.001 in. H_2O (0.1 Pa, 0.01 mm Hg)

Barometric Pressure

Range	20.36 to 36.648 in. Hg (517.15 to 930.87 mm Hg)
Accuracy	±2% of reading

Instrument Temperature Range

Operating (Electronics)	40 to 113°F (5 to 45°C)
Storage	-4 to 140°F (-20 to 60°C)

Data Storage Capabilities

Range	26,500+ samples and 100 test IDs

Logging Interval

1 second to 1 hour

Time Constant

User selectable

External Meter Dimensions

3.8 in. x 8.3 in. x 2.1 in. (9.7 cm x 21.1 cm x 5.3 cm)

Meter Weight with Batteries

0.8 lbs. (0.36 kg)

Power Requirements

Four AA-size batteries or AC adapter

TO ORDER

Multi-Function Ventilation Meter with differential pressure sensor and Thermoanemometer Probe

Specify	Description
9565	Multi-function ventilation meter 9565-P with straight air velocity probe Model 964
9565-A	Multi-function ventilation meter 9565-P with articulated air velocity probe Model 966

Multi-function Ventilation Meter Only. Choose a probe most appropriate for your measurement needs.

Specify	Description
9565-X	Multi-function ventilation meter, no plug-in probes, no differential pressure sensor
9565-P	Multi-function ventilation meter, no plug-in probes, with differential pressure sensor, tubing and static pressure probe

NOTE: All models include: Instrument, hard carrying case, 4 alkaline batteries, USB cable, universal power supply, instruction manual, calibration certificate, LogDat2 and TrakPro downloading software.

Models 9565, 9565-A, and 9565-P also include (1) 8-ft. (2.4-m) rubber tube and (1) static pressure tip.

[1] Pressure velocity measurements are not recommended below 1,000 ft/min (5 m/s) and are best suited to velocities over 2,000 ft/min (10.00 m/s). Range can vary depending on barometric pressure.

[2] Accuracy is a function of converting pressure to velocity. Conversion accuracy improves when actual pressure values increase.

[3] Overpressure range = 190 in. H_2O, 48 kPa (360 mmHg).

[4] Temperature compensated over an air temperature range of 40 to 150°F (5 to 65°C).

[5] The accuracy statement begins at 30 ft/min through 9,999 ft/min (0.15 m/s through 50 m/s).

[6] Accuracy with instrument case at 77°F (25°C), add uncertainty of 0.05°F/°F (0.03°C/°C) for change in instrument temperature.

[7] Accuracy with probe at 77°F (25°C). Add uncertainty of 0.1% RH/°F (0.2% RH/°C) for change in probe temperature. Includes 1% hysteresis.

[8] At 77°F (25°C). Add uncertainty of ±0.2%/°F (0.36%/°C) for change in temperature.

[9] At calibration temperature. Add uncertainty of ±0.28%/°F (0.5%/°C) for change in temperature.

[10] When response factor is set to 1.00.

Specifications are subject to change without notice.

UNDERSTANDING, ACCELERATED

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LOFLO BALOMETER®
CAPTURE HOODS
MODELS 6200, 6200D, 6200E, AND 6200F

Model 6200D with display detail

The LoFlo Balometer® Capture Hood is the ideal way to measure very low volumetric flow. Measure (supply or return flows) confidently and accurately from 10 to 500 cfm (17 to 850 m^3/h). This light weight instrument is great for residential or light commercial use. Easily observed trend values and fast meter response make the LoFlo Balometer® Capture Hood the preferred tool of residential air balancers.

Features and Benefits
(Models 6200, 6200D, 6200E, and 6200F)

+ Uses 4 C-size alkaline batteries
+ Weighs only 6.5 lb (3 kg) with 2 ft x 2 ft (610 mm x 610 mm) hood attached
+ Simulated analog display shows air trends and digital readings
+ Backpressure compensation
+ Use with or without a hood

TSI | ALNOR®

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SPECIFICATIONS

LOFLO BALOMETER® CAPTURE HOODS
MODELS 6200, 6200D, 6200E, and 6200F

Range
10 to 500 cfm (17 to 850 m³/h) (4.7 to 236 l/s)

Accuracy
±(3% + 5 cfm) [±(3% + 8,5 m3/h, 2,4 l/s)]

Height

Model 6200	22 in. (559 mm)
Model 6200D	34.5 in. (876 mm)
Model 6200E or base only	15.5 in. (394 mm)
Model 6200F	32 in. (813 mm)

Weight
About 6 lbs (2.7 kg) with hood
4.6 lbs (2.1 kg) base only

Base Diameter

Opening	13.3 in. (338 mm) diameter
Hood sizes	16 in. x 16 in., 2 ft x 2 ft, or 26 in. x 26 in. (406 mm x 406 mm, 610 mm x 610 mm, or 650 mm x 650 mm)
Display	3.5 digit, .44 in. (11 mm) high, digital display with 26 segment simulated analog display
Resolution	1 cfm from 10 to 500 cfm (0.1 l/s from 4.7 to 9.9) (1 l/s from 10 to 236 l/s)

Power Source
4C 1.5V alkaline batteries

Battery Life
10 hrs. minimum with continuous use

Model Description

Model 6200	with 16 in. x 16 in. (406 mm x 406 mm), 8 in. (200 mm) tall hood
Model 6200D	with 2 ft x 2 ft (610 mm x 610 mm) hood
Model 6200E	with base only, metric
Model 6200F	with 16 in. x 16 in. (406 mm x 406 mm), 18 in. (457 mm) tall hood

Optional Accessories

634620110	2 ft x 2 ft (610 mm x 610 mm) hood and frame kit
634620085	16 in. x 16 in. (406 mm x 406 mm), 18 in. (457 mm) tall hood and frame kit
634620120	16 in. x 16 in. (406 mm x 406 mm), 8 in. (200 mm) tall hood and frame kit
634620130	26 in. x 26 in. (650 mm x 650 mm) hood and frame kit

The LoFlo Balometer® Capture Hood is mainly used in residential or light commercial applications for taking measurements from 10 to 500 cfm (17 to 850 m³/h). The compact size allows them to be used where full size hoods would not fit such as over bathroom stalls or filing cabinets.

Specifications subject to change without notice.

U.S. Patent 4,548,076

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ANALOG BALOMETER®
CAPTURE HOODS
MODELS
ABT701 & ABT711

Model ABT701
and ABT711

The ABT Analog Balometer® Capture Hood continues the long Alnor® tradition of providing accurate and dependable analog instrumentation to the ventilation testing and balancing community. By placing an Alnor® ABT Balometer® Capture Hood over a diffuser or grille, air volume measurements are obtained quickly and easily which maximizes productivity. Fast meter response and easy-to-read indicator over a large scale make the ABT Balometer® Capture Hood an ideal choice for facility engineers, ventilation testing and balancing professionals, and commissioning.

Features and Benefits

+ Simple-to-read analog meter allows for quick measurements
+ Easy-to-carry with one hand using sturdy middle handle
+ Ergonomic design and ultra light weight for easy one-person operation
+ Multiple hood sizes available
+ Measurement hold function
+ Wheeled, luggage-style carrying case

Applications

+ HVAC commissioning
+ Troubleshooting HVAC systems
+ Testing and balancing HVAC systems

Optional Accessories

+ Multiple hood sizes available

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SPECIFICATIONS

ABT ANALOG BALOMETER® CAPTURE HOODS
MODELS ABT701 & ABT711

Supply and Exhaust Ranges
30 to 1,000 CFM (ft³/min), 50 to 2,000 CMH (m³/hr)

Accuracy

ABT701	±3% of full scale selected +5 CFM (ft³/min)
ABT711	±3% of full scale selected +10 CMH (m³/hr)

Units

ABT701	CFM (ft³/min)
ABT711	CMH (m³/hr)

Scale Divisions (Supply/Exhaust)

CFM (ft³/min)	5 from 30 to 250
	10 from 200 to 500
	20 from 400 to 1,000
CMH (m³/hr)	10 from 50 to 500
	20 from 400 to 1,000
	40 from 800 to 2,000

Power Requirements
Four AA-size cells alkaline

Battery life

200 CFM (340 CMH)	29.2 hours
800 CFM (1,360 CMH)	21.3 hours
1,000 CFM (1,700 CMH)	20.4 hours

Weight with Batteries
7.4 lb (3.4 kg)

Operating Temperature Range
32 to 140°F (0 to 60°C)

Storage Temperature Range
-40 to 140°F (-40 to 60°C)

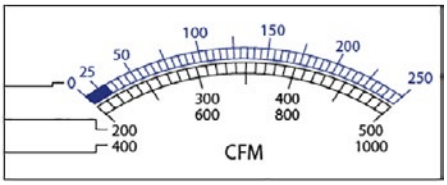
Model Description

ABT701	30 to 1000 CFM (ft³/min) with 2 ft x 2 ft (610 mm x 610 mm) hood
ABT711	50 to 2000 CMH (m³/hr) with 2 ft x 2 ft (610 mm x 610 mm) hood

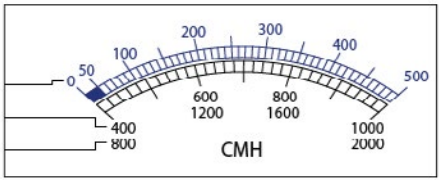
Optional Hood and Frame Kits

801097	2 ft x 2 ft (610 mm x 610 mm)
801201	2 ft x 4 ft (610 mm x 1,220 mm)
801200	1 ft x 4 ft (305 mm x 1,220 mm)
801202	1 ft x 5 ft (305 mm x 1,525 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 48 in (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 1,270 mm)
801215	1 ft x 3 ft (305 mm x 915 mm)

ABT Shown with optional 16in x 16in (406mm x 406mm) hood and frame kit (p/n 801209)



Model ABT701



Model ABT711

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