specifications

Alnor® EBT720 and EBT721

range	DIFFERENTIAL PRESSURE	±15 in. H_2O, (3735 Pa) 150 in. H_2O maximum safe operating pressure
	ABSOLUTE PRESSURE	15–40 in. Hg (356 to 1016 Hg)
	VELOCITY	25–8,000 ft/min (0.125–40 m/s) pitot probes; 25–5,000 ft/min (0.125–25 m/s) air flow probe; 25–2,500 ft/min (0.125–12.5 m/s) velocity matrix;
	VOLUME	25–2,500 ft^3/m (42–4250 m^3/h) capture hood
	RH	0–95% RH (optional probe)
	TEMPERATURE	-40 to 250°F (-40–121°C) probe dependent
resolution	PRESSURE	0.00001 in. H_2O (0.001 Pa) Static & Differential Pressure 0.001 in. Hg (1 mm Hg) Absolute Pressure
	VELOCITY	0.1 ft/min (0.1 m/s)
	VOLUME	0.1 ft^3/min (0.1 m^3/h)
	RH	0.1% RH
	TEMPERATURE	0.1 °F (0.1°C)
accuracy	PRESSURE	±2% of reading ±0.001 in. H_2O, (0.025 mm H_2O; ±2% of reading ±0.001 in. Hg) Absolute
	VELOCITY	±3% of reading ±7 ft/min (0.04 m/s) 25–8,000 ft/min (all velocity probes) > 50 ft/min
	VOLUME	±3% of reading ±7 ft^3 /min 25–2,500 ft^3/min > 50 ft/min
	RH	±3% RH
	TEMPERATURE	±0.5°F (0.3°C) from 32–160°F (0–71°C) typically ±1.0°F (0.6°C) from -40–32°F (-40–0°C) and from 160 to 250°F (71–121°C)
units	PRESSURE	in. H_2O, Pa, mm Hg, in. Hg
	VELOCITY	ft/min, m/s, m/h
	VOLUME	ft^3/min, m^3/h, m^3/m, l/s
	TEMPERATURE	°F, °C

[Air Velocity Measurement Techniques from Alnor

Thermo-Anemometer—A heated element is placed in an air stream and as air velocity increases, the element loses heat. Circuitry compensates for this loss by applying more power to maintain the initial temperature. The power difference is translated into a velocity reading.

Rotating Vane Anemometer—Low friction bearings allow fan blades to rotate at speeds directly proportional to true air flow. Electronic models available.

Swinging Vane Anemometer—With this mechanical instrument, velocity pressure deflects a vane connected to a needle. Movement displays velocity or pressure readings on an analog scale. Calibration to a reference standard is achieved by regulating the air flow passing through the instrument.

Pitot Probe/Manometer—Pitot probe ports are connected across differential inputs of a manometer which measures pressure.

	CompuFlow Thermo-Anemometers (CF)				9800 Series Thermo-Anemometers		Rotating Vane Anemometers		Velometers (deflecting vane)	Velometer Jr.	Micromanometers		Electronic Balancing Tool	CompuFlow CO_2 Meters (CF)		CompuFlow Thermo-Hygrometers (CF)	
	8585	8586	8570	8571	9870	9880	RVA+	RVD	6000AP	8100 Series	AXD540	AXD560	EBT720	8610	8650	8612	8652
Static Pressure (air)									●		●	●	●				
Differential Pressure (air)											●	●	●				
Air Velocity	●	●	●	●	●	●	●	●	●	●	●*	●*	•				
Temperature (˚F or ˚C)	●	●	●	●	●		●	●					•		●	●	●
Flowrate (air volume)	●	●	●	●			●	●				●	•				
Relative Humidity	●	●											•		●	●	●
Carbon Dioxide														●	●		
Density Correction	●	●										●	●		●		●
Data Logging (download/recall)	●	●						●				●	●		●		●
Telescopic / Straight Probe		●		●	●												
Telescopic / Articulated Probe	●		●														
Variable Time Constant	●	●	●	●	●	●		●			●	●					
Field Calibration	●	●	●	●				●			●	●	●	●	●	●	●
Intrinsically Safe						●			●	●							
Output to Printer	●	●	●	●				●			●	●	●		●		●
Statistics (min, max, avg)	●	●	●	●			●	●			●	●	●	●	●	●	●
% of Outside Air Calculation															●		●

● = Standard Feature ●* = with optional pitot probe and hoses • = Optional accessory

[CompuFlow® 8585 and 8586 Thermo-Anemometers

These advanced thermo-anemometers measure velocity, volume, temperature, humidity, dew point, and wet bulb. They store more than 1500 readings and log data at various intervals between two seconds and one hour. The model 8585 also can print in real-time to an Alnor MicroPrinter and download stored data to a computer using CompuDAT™ software (included). The model 8585 has a 42-in. (1070 mm) telescopic articulating probe and the Model 8586 has a 42-in. (1070 mm) telescopic straight probe.

model

CF8585	CF8586
CF8585M (metric)	CF8586M (metric)
CompuFlow 8585 Articulated probe	CompuFlow 8586 Straight probe

specifications

range	VELOCITY	20–9999 fpm (0.1–50 m/s)
	VOLUME	actual range is a function of maximum velocity and duct size
	TEMPERATURE	0–140°F (-17.8–60°C)
	HUMIDITY	0–95% RH
resolution	VELOCITY	1 fpm (0.01 m/s), 5 fpm above 500 fpm (0.05 m/s above 5.00 m/s)
	TEMPERATURE	0.1°F (0.1°C)
	HUMIDITY	0.1% RH
accuracy	VELOCITY	±3% of reading or ±3 fpm (0.015 m/s), whichever is greater
	VOLUME	±3% of reading
	TEMPERATURE	±0.5°F (0.3°C)
	HUMIDITY	±3% RH
display		4-digit LCD with backlight
instrument weight		1.9 lb (0.86 kg)
batteries		four C-size; average 24 hours continuous use

[CompuFlow® 8570 and 8571 Thermo-Anemometers

An easy-to-use velocity, volume, and temperature instrument, the model 8570 takes readings quickly and can average them automatically. This versatile, accurate instrument comes with a standard 42-inch (1070-mm) articulated probe. The model 8571 has a 42-inch (1070-mm) telescopic straight probe.

8570

see your average readings with the push of a button

articulated 42-in. (1070-mm) probe allows easy velocity measurements

model

CF8570	CF8571
CF8570M (metric)	CF8571M (metric)
CompuFlow 8570 Articulated probe	CompuFlow 8571 Straight probe

specifications

range	VELOCITY	20–9999 fpm (0.1–50 m/s)
	VOLUME	actual range is function of maximum velocity and duct size
	TEMPERATURE	0–200°F (-17.8–93.3°C)
resolution	VELOCITY	1 fpm (0.01 m/s), 5 fpm above 500 fpm (0.05 m/s above 5.00 m/s)
	TEMPERATURE	0.1°F (0.1°C)
accuracy	VELOCITY	±3% of reading or ±3 fpm (0.015 m/s), whichever is greater
	VOLUME	±3% of reading
	TEMPERATURE	±0.5°F (0.3°C)
display		4-digit LCD with backlight
instrument weight		1.9 lb (0.86 kg)
batteries		four C-size; average 24 hours continuous use

[Series 9800 Thermo-Anemometers

These pocket-sized meters require minimal training. Technicians will find them ideal instruments for face velocity measurements in fume hoods, spray booths, and ventilation systems or for IAQ checks. The model 9880 has a 3.1-inch (79-mm) retractable, 180-degree rotating probe and is UL-listed for intrinsic safety. The model 9870 incorporates a 37-inch (940-mm) attached telescoping probe.

9870

9880

model

U.S.	9870D	9880D
metric	9870E	9880E

specifications

		9870	9880
range	VELOCITY	0–4000 fpm (0–20 m/s)	0–2000 fpm (0–10 m/s)
	TEMPERATURE	0–200°F (-17.8–93.3°C)	NA
resolution	VELOCITY	1 fpm (0.01 m/s)	1 fpm (0.01 m/s)
	TEMPERATURE	1°F (1°C)	NA
accuracy	VELOCITY	±5% of reading or ±5 fpm (0.025 m/s), whichever is greater	±5% of reading or ±5 fpm (0.025 m/s), whichever is greater
	TEMPERATURE	±1°F (1°C)	NA
display		4-digit, 0.4 in. (10 mm) high LCD	4-digit, 0.4 in. (10 mm) high LCD
batteries		four AA-size alkaline; minimum 10 hr at 100 fpm (0.5 m/s)	four AA-size alkaline; minimum 10 hr at 100 fpm (0.5 m/s)

RVD and RVA+ Rotating Vane Anemometers

Rotating vane instruments measure true air velocity and do not require density correction factors to be applied to readings. RVA+ users can achieve area-averaged flow by pushing the single side button and "sweeping" or traversing the area being measured. The RVD provides extended reach, data logging, recall and downloading capabilities.

RVD

RVA+

model

RVD RVA+

specifications

		RVD*	RVA+
range	VELOCITY	50–6000 fpm (0.25–30 m/s)	50–6000 fpm (0.25–30 m/s)
	VOLUME	0–2600 x 1000 cfm (0–4360 x 1000 m^3/hr, 0–1230 x 1000 l/s)	4–5400 x 1000 cfm (6.8–9174 x 1000 m^3/hr, 1.9–2548 x 1000 l/s)
	AREA	0.007–434 ft^2 (0.0001–40 m^2)	0.08–900 ft^2 (0.007–83.6 m^2)
	TEMP.	32–140°F (0–60°C)	32–140°F (0–60°C)
resolution	VELOCITY	1 fpm (0.01 m/s)	1 fpm (0.001 m/s under 10.00 m/s, 0.01 m/s otherwise)
	TEMP.	0.1°F (0.1°C)	1°F (1°C)
accuracy	VELOCITY	±1% of reading or ±3 fpm (±0.015 m/s), whichever is greater	± 1% of reading +4 fpm (0.02 m/s)
	TEMP.	±1.0°F (±0.5°C)	±2°F (±1°C)
display		4-digit, 0.6 in. (15 mm) high LCD	4-digit, 0.45 in. (11 mm) high LCD with 2.5-digit, 0.15 in. (4 mm) high temperature indicator
instrument weight		1.5 lb (0.68 kg)	0.82 lb (0.37 kg)
batteries		four AA-size alkaline or optional AC adapter; approx. 24 hours continuous use	four AA-size alkaline or NiCd; approx. 24 hours continuous use

Velometer® 6000AP and Velometer Jr.® 8100 Series Anemometers

Contractors, balancers, plant engineers, and industrial hygienists have preferred Alnor Velometer instruments for decades. They are used for HVAC balancing, static pressure measurements, energy audits, and more. Using a swinging vane technique, these instruments do not require a power source or batteries.

6000AP

Velometer Jr. 8100 Series

model

U.S.	6000AP	8100-8 0–200, 0–800 fpm	8100A-16 0–400, 0–1600 fpm	8100B-25 0–500, 0–2500 fpm
metric	6000APM Velometer	8100C 0–1.0, 0–4.0 m/s Velometer Jr.	8100D 0–2.0, 0–8.0 m/s Velometer Jr.	8100E 0–2.5, 0–12.5 m/s Velometer Jr.

specifications

		Velometer 6000AP/APM	Velometer Jr.
range	VELOCITY	0–300, 1250, 2500, 5000, 10,000 fpm (0–1.5, 6.25, 12.5, 25, 50 m/s)	0–200, 800 fpm or 0–400, 1600 fpm or 0–500, 2500 fpm (0–1.0, 4.0 m/s or 0–2.0, 8.0 m/s or 0–2.5, 12.5 m/s)
	STATIC PRESSURE	0–1 in., 0–10 in. H_2O (0–25 mm, 0–250 mm H_2O)	NA
accuracy	VELOCITY	±2% of full scale, all ranges	±5% of full scale
	STATIC PRESSURE	±5% of full scale, all ranges	NA
instrument weight		1.75 lb (0.8 kg)	0.5 lb (0.24 kg)