



BACKPRESSURE COMPENSATED
AIR BALANCE SYSTEM

ELECTRONIC CFM-88L

FOR AIRFLOW ONLY

- FAST, ACCURATE, EASY
- AUTO RANGE AND ZERO
- 25 TO 2000 CFM RANGE
- SUPPLY AND EXHAUST
- ELIMINATES A_K FACTORS
- READINGS CORRECTED FOR AIR DENSITY



Featuring the
AIRDATA™ FlowMeter
Electronic Micromanometer

- DIRECT DIGITAL READOUT IN ENGLISH AND METRIC UNITS •



Shortridge Instruments, Inc.

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BACKPRESSURE COMPENSATED AIR BALANCE SYSTEM

AIRFLOW ONLY

The FlowHood CFM-88L is designed for airflow measurement only. If you need a multi-function instrument, see the brochures for the ADM-850L, 860C, 870C, and 880C AirData Multimeters, which also measure velocity, pressure, and temperature, and include memory, average and other functions.

DIGITAL READOUT

The FlowHood CFM-88L uses the electronic, digital AirData Flowmeter for direct readout at supply, return, or exhaust outlets, in cfm or liters/sec. This rugged, shock resistant meter automatically selects the proper range and corrects for local barometric pressure and temperature. These features eliminate several error factors and the calculations necessary to convert airflow readings to local density results. Internal calibration and zeroing are fully automatic. No adjustments are ever needed.

NO A_k FACTORS REQUIRED

The FlowHood unit captures the airflow from an outlet or inlet and directs it across the highly sensitive flow sensing manifold within the FlowHood base. The sensed total pressure and static pressures are combined to a single velocity pressure, which is transmitted to the meter for conversion to direct airflow readout. The FlowHood is a much faster and more accurate alternative to time consuming multiple velocity readings across air diffusers. This instrument virtually eliminates the use of A_k factors, and the calculations required to convert the average velocity into airflow.

BACKPRESSURE COMPENSATED

The air delivery of an air outlet or inlet is always reduced to some degree when a capture hood is in place. The flow reduction depends on the ratio of the outlet resistance to the FlowHood resistance. This "backpressure" caused flow reduction is unpredictable from one outlet or damper setting to another.

The electronic FlowHood combines an innovative design concept with state of the art microprocessor technology to calculate the backpressure effect of the FlowHood. The displayed reading indicates the calculated airflow through the outlet that exists when the FlowHood is not in place.

AIR DENSITY CORRECTED

Airflow readings are automatically corrected for the density effect of barometric pressure and temperature.

COMPLETE AIR BALANCE SYSTEM

The CFM-88L FlowHood includes the CFM-88L FlowMeter, the base metering section with 16 point velocity grid, various top sizes and rugged carrying case. See our factory price sheet for available FlowHood top combinations. Special order top sizes are available.



MULTIFUNCTION CFM-850L

The FlowHood air balance system may also be ordered as a model CFM-850L with the multipurpose ADM-850L AirData Multimeter. This meter measures pitot tube velocity, static pressure and temperature, in addition to airflow. Refer to the ADM-850L brochure.

UPGRADE LATER

When more functionality is required, such as velocity, memory or auto-read, the CFM-88L meter may be converted into an ADM-850L, ADM-860C, or ADM-870C.

SPECIFICATIONS

AIRFLOW: Measured in cubic feet per minute (cfm) or liters per second (L/s) corrected for local air density. The measurement range is 25-2500 cfm supply and 25-1500 cfm exhaust. Accuracy is $\pm 3\%$ of reading ± 7 cfm from 100 to 2000 cfm.

TEMPERATURE: $\pm 0.5^\circ\text{F}$ accuracy from 32°F to 158°F using ADT440 Series TemProbes (-67°F to 250°F FS); 0.1°F resolution.

ABSOLUTE PRESSURE: $\pm 2\%$ of reading ± 0.1 in Hg from 14 to 40 in Hg referenced to vacuum. 60 psia maximum safe pressure.

AIR DENSITY CORRECTION: The air density correction range is 14-40 in Hg and 32°F to 158°F for air flow measurement. The readings represent local density air flow (cfm or L/s) corrected for barometric pressure.

CALIBRATION: Calibration certified NIST traceable.

RESPONSE TIME: Five seconds for airflows greater than 180 cfm, and up to eight seconds at less than 70 cfm.

POSITION SENSITIVITY: Unaffected by position.

READOUT: 10 digit, 0.4" high contrast, liquid crystal display (LCD).

WEIGHT: FlowHood unit with meter and 2' x 2' top, 9.7 lbs.

UNIT DIMENSIONS: Height 40"; top 24" x 24"; base 18" x 18".

BATTERY LIFE: 3000 readings per charge, 500 recharge cycles.

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