

S | AIRDATA™ MULTIMETER 1® | ELECTRONIC MICROMANOMETER

ADM-850L

AIRFLOW • VELOCITY • PRESSURE • TEMPERATURE



ECONOMICAL PRECISION MULTIMETER

The ADM-850L Multimeter offers the **unequaled accuracy** and flexibility of the Shortridge Instruments AirData Multimeters in a **simplified model**, at a reduced cost. This meter may be ordered in the ADM-850L Multimeter kit, complete with accessories for measuring air velocity, pressure, and temperature, or as part of the CFM-850L FlowHood kit.



DIFFERENTIAL PRESSURE MEASUREMENT

The AirData Multimeter measures an extremely wide range of pressures from 0.0001 in wc to 60.00 in wc with very high accuracy. Despite its sensitivity, this meter can endure 20 psi differential pressure with no adverse effects. Although designed for hand-held field use, this meter is as sensitive as some laboratory micromanometers.

ACCURATE TEMPERATURE READINGS

The ADT440 **TemProbe** series is uniquely suited for wet bulb, dry bulb, and water line temperatures. The optional eight-point **AirData MultiTemp** is ideal for efficiency testing of air conditioning units and heat exchangers.

FAST ACCURATE DUCT VELOCITY TRAVERSES

One person can now perform **pitot tube** traverses in half the time previously required by two people. Each reading takes less than ten seconds, with specified accuracy from 50 to 8,000 fpm.

AUTOMATIC ZERO AND RANGE SELECTION

Internal calibration, temperature compensation, range selection and zeroing are fully automatic with each reading. No external adjustments are ever needed.

AIR DENSITY CORRECTED FLOW AND VELOCITY

Airflow and velocity readings are automatically corrected for the density effect of barometric pressure and temperature. Readings are displayed as local density air velocity or flow.

NEW AIR BALANCE ACCURACY

When a capture hood is in place, the air delivery of an outlet is reduced. This backpressure caused flow reduction varies from one outlet or damper setting to another. The 8400 series **FlowHood** represents a major breakthrough in direct airflow measurement at supply and exhaust outlets. Each reading is automatically compensated for the backpressure effect of the FlowHood. Also, the FlowHood virtually eliminates A_K correction factors and the calculations necessary to convert average velocity to airflow.

OPTIONS

The ADM-850L Multimeter kit includes the meter, carrying case, and accessories for measuring air velocity, differential pressure and temperature.

The series 8400 **FlowHood** kit may be ordered separately for direct airflow measurement.

The ADM-850L meter is also available without accessories as part of the FlowHood model CFM-850L. This model includes the meter, the base metering section, various top sizes and carrying case. The accessories for measuring air velocity, pressure, and temperature may be ordered as needed.



SPECIFICATIONS

AIR VELOCITY: $\pm 3\%$ of reading ± 7 fpm from 50 to 8000 fpm pitot tube (30,000 fpm FS); 50 to 5000 fpm AirFoil.

DIFFERENTIAL PRESSURE: $\pm 2\%$ of reading ± 0.001 in wc from 0.0500 to 50.00 in wc, (0.0001 to 60 in wc FS); 20 psid safe pressure.

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.

AIRFLOW: Accuracy is $\pm 3\%$ of reading ± 7 cfm from 100 to 2000 cfm; range is 25 to 2500 supply, 25 to 1500 exhaust with 8400 **FlowHood**.

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

OPERATIONAL TEMPERATURE LIMITS: 40°F to 140°F .

AIR DENSITY CORRECTION: Local or standard (mass flow) air density correction range is 14 to 40 in Hg and 32°F to 158°F .

POSITION SENSITIVITY: Unaffected by position.

CALIBRATION: Calibration certified NIST traceable.

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

METER HOUSING: 6.0" x 6.4" x 2.7" high impact ABS. 36 oz.

CONNECTIONS: 1/4" OD slip-on for 3/16" ID soft tubing.

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

Shortridge Instruments, Inc.