

S I AIRDATA™ MULTIMETER

ELECTRONIC MICROMANOMETER

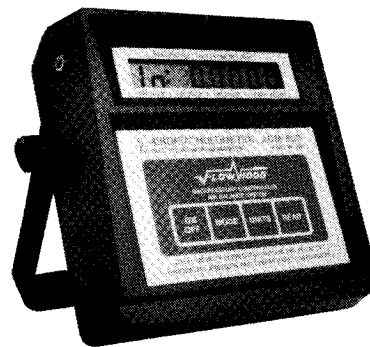
ADM-850

AIR FLOW • VELOCITY • PRESSURE • TEMPERATURE



ECONOMICAL PRECISION MULTIMETER

The ADM-850 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-850 Multimeter kit, complete with accessories for measuring air velocity, pressure and temperature, or as part of the CFM-850 FlowHood kit.



STATIC PRESSURE MEASUREMENT

The AIRDATA Multimeter measures an extremely wide range of pressures from 0.0001 in wc to over 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 1/8" diameter, stainless steel **TemProbe** 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 for 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

Air flow 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 new 8400 series **FlowHood** represents a major breakthrough in direct air flow 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 air flow.

OPTIONS

The ADM-850 Multimeter kit includes the meter, carrying case, and accessories for measuring air velocity, static pressure and temperature. The series 8400 FlowHood kit may be ordered separately for direct air flow measurement.

The ADM-850 meter is also available without accessories as part of the **FlowHood** model CFM-850. 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: Accuracy with standard pitot tube is $\pm 3\%$ of reading ± 7 fpm with 1 fpm resolution from 50 to 8,000 fpm. (30,000 fpm FS)

DIFFERENTIAL PRESSURE: $\pm 2\%$ of reading ± 0.001 in wc from 0.0500 to 50.00 in wc (0.0001 to 60.00 in wc FS); 20 psid safe pressure.

TEMPERATURE: $\pm 0.5^\circ\text{F}$ accuracy from 32°F to 158°F ; typically $\pm 1.0^\circ$ from -67° to 32°F and from 158° to 250°F ; 0.1° resolution.

AIR FLOW: 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 ± 0.01 in Hg from 14 to 40 in Hg referenced to vacuum. 60 psia maximum safe pressure.

AMBIENT RANGE: Full range compensation from 40°F to 140°F .

AIR DENSITY CORRECTION: Local air density correction range is 14 to 40 in Hg and -67°F to 250°F .

POSITION SENSITIVITY: Unaffected by position or motion.

CALIBRATION: Each meter certified, NIST traceable standards.

READOUT: 8 digit, 0.5", 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: 2000 readings per charge, 500 recharge cycles.

Specifications subject to change without notice

Shortridge Instruments, Inc.