AIRDATA™ MULTIMETER ADM-880C

ELECTRONIC MICROMANOMETER FOR DATALOGGING

AIRFLOW • VELOCITY • PRESSURE • TEMPERATURE

- 2000 READING MEMORY WITH DATE & TIME STAMP
- 25 MEMORY GROUPS
- PROGRAMMABLE
  - READ INTERVALS
  - START/STOP
  - NUMBER OF READINGS
- DIRECT DOWNLOAD TO PRINTER OR COMPUTER SOFTWARE INCLUDED
- STANDARD ADM ACCESSORIES

ADM-880C AIRDATA MULTIMETER

The ADM-880C AirData Multimeter stores 2000 readings, along with the time and date of each reading, in up to 25 memory groups. Each reading may be recalled along with the **average, sum, minimum, maximum, and standard deviation** of the readings for each mode within each group. The associated absolute pressure and temperature readings may also be displayed for each airflow or velocity reading stored in memory.

The meter can be easily programmed to store readings at **user-specified intervals**, along with the start and stop time. The meter may also be programmed to store a specified number of automatic readings, halt the reading sequence, and turn itself off to conserve battery power.

The **serial communications port** allows the user to download readings directly to a printer or a computer using the serial communications cable included with the meter. Readings may be automatically inserted into an Excel™ spreadsheet.

Airflow and velocity readings may be displayed as either **standard density** mass flow equivalent, or as **local density** air velocity or volumetric flow, as compensated for variations in barometric pressure and temperature.

The **auto-read** function allows continuous automatic readings for monitoring ongoing changes in a system as it is being adjusted. Auto-read may also be used with the memory function to store up to 2000 readings.

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ELECTRONIC MICROMANOMETER

The multifunction model ADM-880C provides digital display of readings in English and metric units corrected for **local or standard** density. Features include **auto-read**, memory with total and average, display of **associated** pressure and temperature, VelGrid, AirFoil Probe and **serial output to printer or computer**. Measures air velocity, absolute and differential pressure, temperature, and backpressure compensated airflow when used with the series 8400 FlowHood.

FUME HOOD AND CLEAN ROOM TESTING
The **VelGrid** is an accessory designed especially for use in the measurement of general face velocity conditions such as exhaust hoods, HEPA clean room filter outlets, laminar flow work stations, and large filters and coils. Each reading represents the input of 16 velocity points over a one-square-foot area. A 54-inch adjustable extension handle and meter neckstrap allow convenient positioning and use of the VelGrid.

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. Absolutely no zero shift is caused by ranging or line pressure. 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.

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 either standard density (mass flow equivalent) or local density air velocity or flow.

NEW AIR BALANCE ACCURACY
The air delivery of an outlet is reduced when a capture hood is in place. This “backpressure” caused flow reduction varies from one outlet or damper setting to another. The 8400 series **FlowHood** represents a major breakthrough in direct air flow measurement at supply and exhaust outlets. Backpressure compensated and noncompensated readings are recorded separately in memory, with display of average and sum for each function. The AirData Multimeter is easily installed on the FlowHood unit and integrates its instant microprocessor calculating power with the unique flaps feature in the FlowHood base. Each airflow reading may be compensated for the backpressure effect of the FlowHood.

The **FlowHood** kits include the base metering section with velocity averaging grid, various top size combinations and rugged carrying case.

FAST ACCURATE DUCT VELOCITY TRAVERSES
One person can now perform **pitot tube** traverses in half the time previously required by two people. Each reading can be taken and entered into memory in about ten seconds. Each reading can be recalled, along with the sum and average of the readings, when the traverse is complete. The **AirFoil** probe is for general single point air velocity measurement. The straight shaft design permits easier use in ductwork.

STORE AND RECALL READINGS, STATISTICS
The memory feature of the meter can store up to 2000 readings for later recall of each reading. Viewable statistics are the average, sum, minimum, maximum, and standard deviation of a series. This greatly simplifies pitot tube traverses, the averaging of face velocities, temperatures and static pressures, and the recording of outlet readings.

SPECIFICATIONS

AIR VELOCITY: ± 3% of reading ± 7 fpm from 50 to 8000 fpm pitot tube (30,000 fpm FS); 50 to 5000 fpm AirFoil; 50 to 2500 fpm VelGrid.

DIFFERENTIAL PRESSURE: ± 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: ± 0.5°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 ± 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: ± 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.

MEMORY: 2000 readings, sequence labeled, sum and average, minimum, maximum, and standard deviation for each mode.

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.