

S HYDRODATA™ MULTIMETER HDM-250

1 ELECTRONIC PRESSURE GAGE

• GAGE PRESSURE • DIFFERENTIAL PRESSURE • TEMPERATURE •



- COMPLETE KIT WITH VALVE NETWORK PANEL & HOSES
- PRESSURES DISPLAYED IN PSI, FT HD, IN WC AND IN HG KPA, MHD, MMH₂O, & MMHG
- TEMPERATURES DISPLAYED IN °F AND °C
- AUTO RANGE
- ENGLISH AND METRIC
- BROAD RANGE: 0-250 PSI
- 100 READING MEMORY
- WATER AND AIR

THREE READINGS IN ONE

The versatile electronic **HydroData Multimeter** combines the functions and ranges of several gages into a single broad range meter. This meter functions as a compound pressure gage, simultaneously measuring the high side and low side gage pressures along with the differential pressure, and displays each of the readings in sequence. Any reading may be alternately displayed in English or metric units and may be directly converted to other units immediately following display of the reading. Any mix of readings or units can be stored for later recall.

EXTREMELY SENSITIVE OVER BROAD RANGE

The **HydroData Multimeter** is accurate across an extremely broad range of fluid gage pressures and differential pressures. The high pressures existing at pumps, chillers, cooling towers, and high rise building conditions can be measured up to 250 psi. The meter will also measure very low pressures, such as reheat coil pressure drops, and low flow conditions on flow measuring orifice plates, or pitot probes down to 0.1 in wc differential and gage pressures. Additional low

pressure applications include negative pump suction head and air side pressures of fans, coils and filters.

DESIGNED WITH CONVENIENCE IN MIND

The HydroData Multimeter comes complete with a shutoff, bypass, and blow down valve network mounted on a portable meter panel. The valve network panel facilitates meter zero procedure, bleed-off of air, venting of pressures, or draining of water. The valves are quarter turn, brass body, stainless steel ball, teflon seat design.

The HydroData Multimeter may also be removed from the valve network panel and used independently.

The rugged carrying case is designed with storage compartments for accessories, hoses, tools and reports or paperwork. The meter and valve network panel are easily removed from the carrying case and conveniently carried to various project locations.

Shortridge Instruments, Inc.

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HDM-250

AUTOMATIC RANGE AND MANUAL ZERO

This meter automatically selects the proper range and compensates for internal temperature. A combination valve setting and keypad sequence is used to zero the meter, providing unusually accurate low gage and differential pressure readings down to 0.1 in wc.

MEMORY STORAGE AND RECALL

The memory function of the meter will store up to 100 sets of pressures and/or temperatures with selectively variable units. All readings are tagged and recalled in sequential order. Memory is particularly useful for comparing previous setpoints to final conditions during the hydronic balancing process.

SLOW READING MODE

The slow mode averages multiple measurements over a four to eight second sample time to improve repeatability and reading accuracy of fluctuating pressures.

AUTOMATIC READINGS

The auto-read setting allows continuous automatic readings for monitoring ongoing changes in a system as it is being adjusted. This function can be used with the memory mode for later recall and analysis.

TEMPERATURE READINGS

This meter is ideally suited for temperature efficiency testing of boilers, chillers, cooling towers, coils, and all types of heat transfer and energy recovery systems. The 1/8" or 1/16" diameter, stainless steel TemProbe is uniquely suited for measuring air wet bulb, dry bulb, and water line temperatures. The optional AirData MultiTemp may be used with the HydroData Multimeter to measure temperatures at eight remote locations in

very rapid sequence. Kit includes six insertion and two surface probes.

THE STANDARD HDM-250 KIT INCLUDES:

HydroData Multimeter Model 250 pressure gage.

Portable Meter Panel with Valve Network.

Compartmented, high impact carrying case.

Battery charger: 120 V, 60Hz, 8 W to 24 VAC, 170mA.

Two 6' x 1/2" OD reinforced pressure hoses rated for 500 psi working pressure with 1/4" flare ends. Kit also includes two 8' x 1/4" OD polyurethane drain/vent hoses.

Set of 1/4" flare adapters and pipe thread fittings from 3/4" through 1/8" MPT and FPT.

Instruction Manual and Certificate of Calibration.

STANDARD KIT

OPTIONAL ACCESSORIES:

ADT-442 TemProbe: temperature probe, 1/8" diameter x 4" long, stainless steel.

ADT-446 TemProbe: temperature probe, 1/16" diameter x 4" long, stainless steel.

TRC-16 Temperature retractile cord, 6' long.

GAP-125 "Sisco" gage probe for 1/8" test ports

GAP-062 "Sisco" probe with guard for 1/16" test ports.

MT-440K AirData MultiTemp kit with 8-position switch, 2 surface probes, 6 insertion probes and case (see MT-440K brochure).

SPECIFICATIONS

DIFFERENTIAL and GAGE PRESSURE – WATER OR AIR:

Accuracy is $\pm 2\%$ of reading $\pm$ last digit from 0.1 to 250.0 psi. 400 psi maximum safe pressure. Reads in wc, ft head, in Hg.

TEMPERATURE: Measurement range is -67.0° to 250.0° F. Accuracy is $\pm 0.5^{\circ}$ F from 32° to 158° with a resolution of 0.1° F using the ADT 400 Series TemProbes. Safe exposure range for the TemProbe is -100° F to 250° F.

AMBIENT RANGE: Full range internal temperature compensation for meter exposure from 40° F to 140° F.

MEMORY: 100 sequence labeled, reading sets of pressures and/or temperatures in any selected units.

CALIBRATION: Each meter certified, NIST traceable.

READOUT: 8 digit, 0.5", high contrast, liquid crystal display.

RESPONSE TIME: Two to four seconds standard and up to eight seconds per reading in "SLOW" mode.

METER: Dimensions 6.0" x 6.4" x 2.7" high impact ABS. Meter weight 2.2 lbs. Meter and valve panel weight 5.2 lbs. Standard kit shipping weight 21 lbs (9.5 kg); dimensions 19" x 15" x 6" (48 x 38 x 15 cm).

CONNECTIONS: Meter; two quick disconnect fittings, 1/8" brass. Valve Network Panel; two 1/4" 45° male flare fittings for pressure hoses.

BATTERY LIFE: Up to 20 hours per charge, 500 recharge cycles.

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