



ohmic instruments co.

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INDUSTRIAL & ENVIRONMENTAL SENSORS, INSTRUMENTS & CONTROLS SINCE 1969

**PORTABLE REFERENCE THERMO-HYGROMETER MODEL DM-509 SERIES
FOR PORTABLE AND DEPENDABLE HUMIDITY & TEMPERATURE MEASUREMENT**



- DIRECT DIGITAL DISPLAY OF %RH & °F/°C
- LOW DRIFT HUMIDITY SENSOR
- SENSOR RECOVERS FROM CONDENSATION
- 200 HOUR OPERATION ON A 9V BATTERY
- RAPID RESPONSE
- ELECTRONICALLY CALIBRATED
- AUTOMATIC POWER OFF
- CE APPROVED

IDEAL FOR VERIFYING & DOCUMENTING ENVIRONMENTAL CONDITIONS

DM-509 Series Thermo-Hygrometers are compact and portable reference Relative Humidity and Temperature meters. A thin-film polymer humidity sensor, precision RTD (Resistance Temperature Detector), and state of the art digital circuitry are utilized to provide readings with high repeatability and accuracy.

DM-509s are available with fixed or remote probes connected to the readout unit via a coiled 1-Meter (3.3Ft) cable. The units operate on a 9 Vdc transistor battery for 200 continuous hours. They feature an "auto-off" function to conserve battery power and "low-battery" indication. A 10mm high contrast LCD gives direct readout of %RH from 0-95% (or 10-95% with M-sensor) with $\pm 2\%$ accuracy and temperature from -4 to +140°F or -20 to +60°C with $\pm 0.4^\circ\text{F}/\pm 0.2^\circ\text{C}$ accuracy. Membrane "touch-pads" turn the unit on and off and switch the display between the %RH and temperature

readouts. The response time is 60 seconds for a 90% change, resulting in a meter that provides easy and rapid documentation of environmental conditions.

The DM-509 Series meters are ideal for the monitoring, servicing, commissioning, and calibration of test chambers, clean rooms, computer rooms, greenhouses, warehouses, museums, critical production and storage areas. They are indispensable instruments for monitoring the performance of HVAC equipment and measuring outdoor climatic conditions.

Options include a leather carrying case, Teflon or sintered steel filters for dusty environments and humidity reference salts for verifying operation.

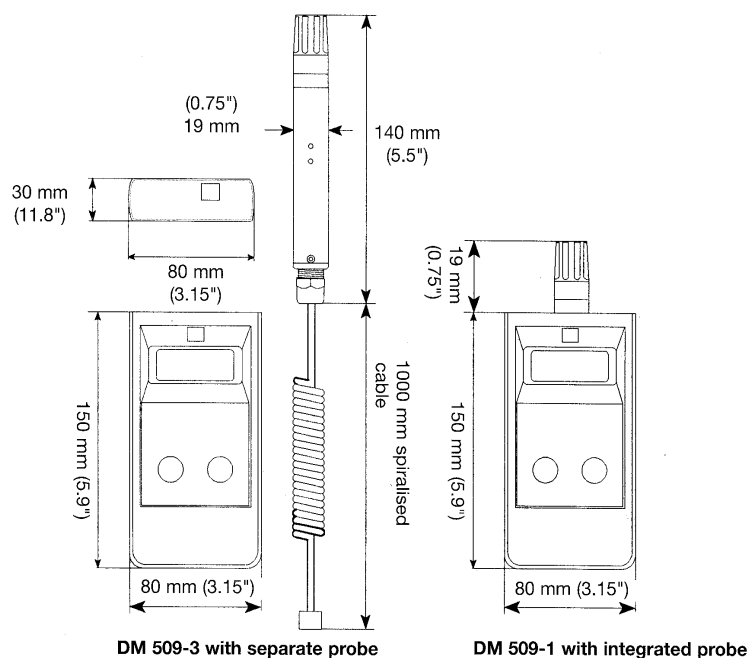
Each Model DM-509 is CE approved and electronically calibrated for superior accuracy.

WARRANTY: All products manufactured by OHMIC Co. are warranted to be free of defects in material and workmanship for one year after delivery. Any equipment found to be defective within this period will be repaired or replaced free of charge.

SPECIFICATIONS - DM-509 SERIES

Measurement Range:	0-100%RH
Temperature Range:	-4 to +140°F or -20 to +60°C
Resolution:	0.1%RH, 0.1°F or 0.1°C
Accuracy	±2% RH (10– 95% @25°C for M-sensor) ±2% RH (0– 95% @25°C for T-sensor)
Temperature Accuracy:	± 0.2°C +1 digit°C
Temperature Influence:	0.05% RH per °C
Response Time:	60 Seconds/90% Change
Long Term Drift:	1% RH/Year, typical (depending on environ.)
Power Supply:	9 Vdc, Alkaline Battery
Battery Life:	200 Hours Continuous
Auto-Power Off:	12 Minutes
Low-Battery:	LCD Indication
Display:	10mm High, 3-1/2 Digit LCD
Weight	0.45Lbs/0.2Kg Net
Size:	80 x 150 x 30 mm (excluding probe)

DIMENSIONS



ORDERING INFORMATION

Description	Model No
Thermo-Hygrometer with Fixed Probe & Temperature in °C. "M" sensor.	DM-509-M-01
Thermo-Hygrometer with Fixed Probe & Temperature in °F. "M" sensor.	DM-509-M-02
Thermo-Hygrometer with Remote Probe & Temperature in °C. "T" sensor.	DM-509-T-03
Thermo-Hygrometer with Remote Probe & Temperature in °F. "T" sensor.	DM-509-T-04
Accessories	
Leather Carrying Case	A-000160
Teflon Filter	A-000010
Sintered Steel Filter	A-000020
Humidity Reference Vial 12%RH	A-000050
Humidity Reference Vial 33%RH	A-000060
Humidity Reference Vial 55%RH	A-000070
Humidity Reference Vial 75%RH	A-000080
Humidity Reference Vial 90%RH	A-000090

ENGINEERING SUPPORT: OHMIC Instruments Co. designs and manufactures a full line of environmental and bio-medical sensors, instruments and controls. Many of our products are custom designed to meet specific requirements. Our engineers will be pleased to discuss your application.



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