



INSTRUCTION MANUAL

DTH1

Temperature & Humidity Tester



1-800-547-5740 • Fax: (503) 643-6322
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Introduction

The DTH1 is a process control instrument for measurement of humidity and temperature. The instrument consists of a handheld indicator and a probe with connecting cable.

Features include

- Easy to read 3 1/2 digit LCD display
- Low battery indication
- Humidity range: 20 to 90% RH
- Temperature range: -30° to 200°F
- Cable length: 6'-7"
- Compact size
- Removable test probe
- Resolution: 0.1% RH/0.1°F

Operating Instructions

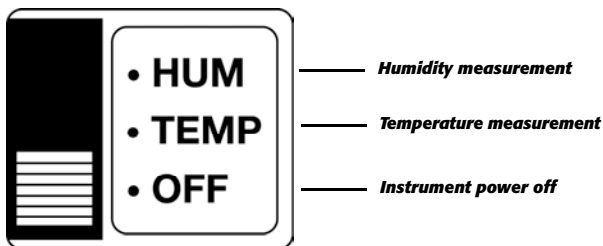
Measuring Principles

The humidity sensor operates according to the resistive principle. The resistance varies according to the ambient humidity. The measurement of the resistive humidity depends on the change in the resistance. The conversion is done electronically by using the most up-to-date highly integrated components.

The relationship between the actual absolute humidity and the maximum absolute humidity possible at the same temperature is called the relative humidity. The relative humidity depends on the temperature. In practice, a change in humidity will be related with a change in temperature. This means that you must pay attention to the temperature when measuring the relative air humidity. The response time is much shorter in moving air because the heat transfer between gases and solid-state material is reduced.

Function Switch

The function switch is on the left side of the instrument. It has the following positions:



Connecting Probe to Instrument

A socket (receptacle) is on the top right hand side of the instrument for connecting the probe.

The connector should always be carefully inserted in place and secured with the lock washer.

Humidity Measurement

To measure relative humidity connect the probe to the socket. Set the function switch to the "HUMIDITY" position. The unit is ready for humidity measurements in the range of 20 t 90% RH.

NOTE: *Temperature equilibrium is one of the biggest problems connected with relative humidity measurements. Even the slightest temperature difference between the measurement point and the sensing element causes an error in the measurement result.*

Maintenance

Service



WARNING!

Repair and service of this instrument is to be performed by qualified personnel only. Improper repair or service could result in physical degradation of the meter. This could alter the protection from electrical shock and personal injury this meter provides to the operator. Perform only those maintenance tasks that you are qualified to do.

Cleaning

Periodically clean your meter's case using a damp cloth. **DO NOT** use abrasive, flammable liquids, cleaning solvents, or strong detergents as they may damage the finish, impair safety, or affect the reliability of the structural components.

Battery Replacement

When the battery voltage decreases below a certain limit "LOBAT" appears in the upper left hand corner of the display. This indicates low voltage and the battery should be replaced with a new one. To replace the battery, remove the battery compartment cover on the back of the instrument.

Specifications

Operating Temperature	41° to 113°F (5° to 45°C)
Measuring Range - Humidity	20 - 90% RH
- Temperature	-30° to 200°F
Resolution	0.1% RH & 0.1°F
System Accuracy	(At 68°F) ±3% RH and ±1% of full scale
Display	3 1/2 digit LCD, 0.5 inch numerals
Measuring Environment	Air
Power Supply	9 volt batter
Battery Duration	About 200 hours of continuous use
Dimensions - Probe	0-13/16 x 7-5/16 inches
- Instrument	5-29/32 (H) x 2-5/16 (W) x 1-0 (D) inches
Cable Length	79 inches (coiled cord)
Weight - Probe	3.5 ounces
- Instrument	5.6 ounces



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Limited Warranty

The DTH1 is warranted to be free from defects in materials and workmanship for a period of one year from the date of purchase. If within the warranty period your instrument should become inoperative from such defects, the unit will be repaired or replaced at UEi's option. This warranty covers normal use and does not cover damage which occurs in shipment or failure which results from alteration, tampering, accident, misuse, abuse, neglect or improper maintenance. Batteries and consequential damage resulting from failed batteries are not covered by warranty.

Any implied warranties, including but not limited to implied warranties of merchantability and fitness for a particular purpose, are limited to the express warranty. UEi shall not be liable for loss of use of the instrument or other incidental or consequential damages, expenses, or economic loss, or for any claim or claims for such damage, expenses or economic loss. A purchase receipt or other proof of original purchase date will be required before warranty repairs will be rendered. Instruments out of warranty will be repaired (when repairable) for a service charge. Return the unit postage paid and insured to:

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This warranty gives you specific legal rights. You may also have other rights which vary from state to state.

