



# Server MicroServer™ Temperature + Humidity



- ✓ Temperature
- ✓ Relative Humidity
- ✓ Dew Point
- ✓ Web Server
- ✓ Accurate Readings

- ✓ Password Protection
- ✓ Email Alarms
- ✓ Data Logging
- ✓ Virtual Chart Recorder

## View Temperature + Humidity with a Web Browser

The OMEGA® iTHX transmitter lets you monitor and record Temperature, Relative Humidity and Dew Point over an Ethernet network or the Internet with no special software except a Web browser.

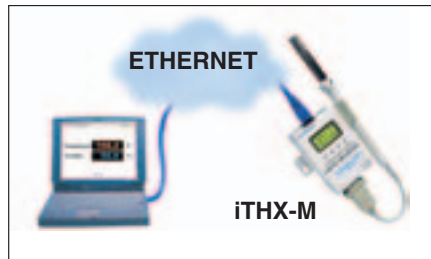
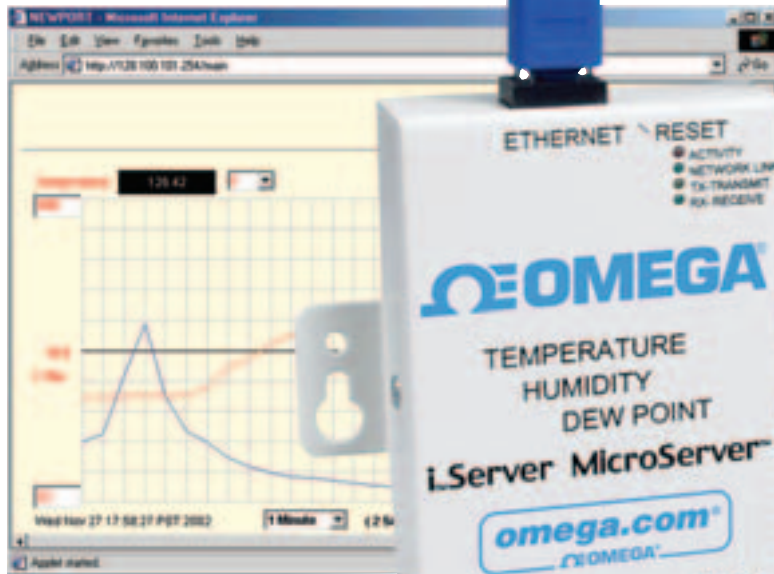
The OMEGA® iTHX serves Active Web Pages to display real time readings, display charts of temperature and humidity, or log data in standard data formats for use in a spreadsheet or data acquisition program such as Excel or Visual Basic.

## Adjustable Charts

The JAVA™ Applet chart scales are fully adjustable on the fly. For example, the chart can display one hour, one day, one week, one month or one year. Users can select channel 1, channel 2 or the difference of the two channels. Temperature and humidity can be charted across the full span (0 to 70°C [32 to 158°F], and 0 to 100% RH) or within any narrow range such as 20 to 30°C (68 to 86°F).

## Award-Winning Technology

The OMEGA® iTHX is simple to install and use, and features OMEGA's award-winning iServer technology that requires no special software except a Web browser. The iTHX connects to an Ethernet Network with a standard RJ45 connector and sends data in standard TCP/IP packets. It is easily configured with a simple menu using a Web browser and can be password protected.



**iTHX-2 with DIN Rail Case and 5" Industrial Probe**

*Java™ is a registered trademark of Sun Microsystems, Inc.*

From within an Ethernet LAN or over the Internet, the user simply types the IP address or an easy-to-remember name such as "Cleanroom 5" or "Midwest Server Room" in any Web Browser, and the iTHX serves a Web Page with the current readings.

## Alarms and Email

If temperature or humidity exceed a set limit, the iTHX can trigger an alarm that can be sent by email to an Internet enabled pager or cell phone.

## Customer Service

The OMEGA® iTHX comes complete with full documentation, and firmware.

OMEGA® iServer products are designed and manufactured in the U.S.A. OMEGA provides generous technical support.

# Temperature + Humidity



## Sensor Specifications

### RELATIVE HUMIDITY (RH)

**Accuracy/Range:** ±2% for 10 to 90%; ±3% for 0 to 10% and 90 to 100%

**Non-linearity:** ±3%

**Response Time:** 4 sec.

(63% slowly moving air)

**Repeatability:** ±0.1%

**Resolution:** 0.03%, 12 bit

### TEMPERATURE (T)

**Range:** 0 to 70°C (32 to 158°F)

**Accuracy:** ±0.5°C @ 25°C

**Response Time:** 5 sec.

(63% slowly moving air)

**Repeatability:** ±0.1°C

**Resolution:** 0.01°C, 14 bit

### Probe Physical Dimensions:

Wand Probe 198.1 L x 19.1 mm D (7.8 x 0.75")

Single Probe (standard) for Channel 1,

Dual Probes for 2 Channels

## iServer Specifications

### INTERFACES

**Ethernet:** 10Base-T (RJ45)

**Sensor:** Digital 4-wire (DB-9)

### Supported Protocols:

TCP/IP, UDP/IDP, ARP, ICMP, DHCP, DNS, HTTP, and Telnet

### Indicators (LED's):

Power, Network Activity, Network Link, Serial Transmit and Receive

Display: 16 Digits 6 mm (0.23") for iTHX-M

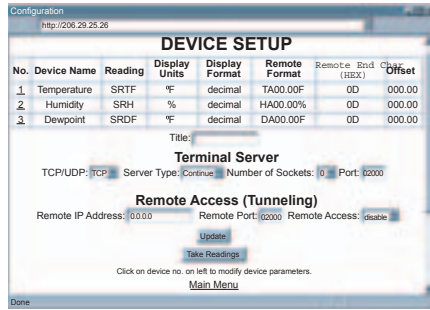
**Processor:** Enhanced 8051, 22 MHz

**Memory:** 512 Kbytes Flash,

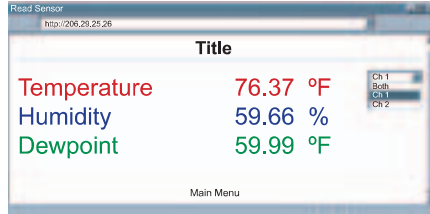
16 Kbytes SRAM Memory Data Flash

Card, 2M bit for iTHX-M

**Management:** Device configuration and monitoring through embedded WEB server



**Embedded WEB Server:** Serves WEB pages containing real-time data and live updated charts within definable time intervals.



### SOFTWARE

Firmware upgradeable. Including an Excel program for automatic data logging within definable time intervals, compatible with all Windows operating systems.

**Agency Approvals:** FCC-B, C/UL, CE

### POWER

**Input:** 9 to 12 Vdc

**iTHX-M with display, flash memory card, one chart measurement and back-up battery**



### Consumption:

2 W max. (ac power adapter included)

### Battery:

9 V, Alkaline for iTHX-M, included

### ENVIRONMENTAL

**Operating Temp:** 0 to 70°C (32 to 158°F)

**Storage Temp:** -40 to 125°C (-40 to 257°F)

### PACKAGING

**Material:** Metal case with flange mount

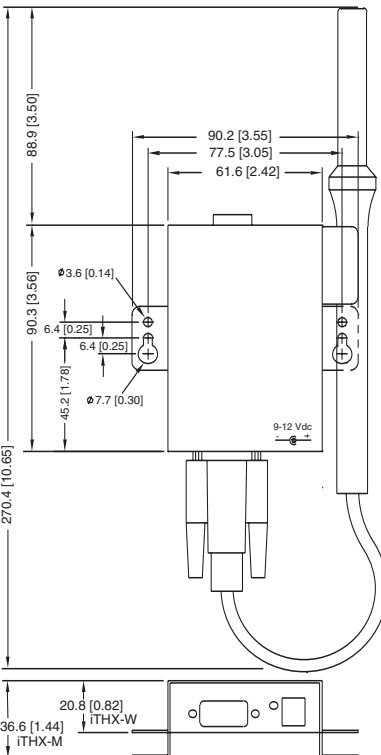
**Dimensions:** 21 H x 62 W x 90 D mm

(0.83 x 2.93 x 3.56") for iTHX-W

36.6 H x 62 W x 90 D mm

(1.44 x 2.93 x 3.56") for iTHX-M

**Weight:** 0.18 kg (0.4 lb)



Dimensions mm (inches)

### Display and Chart Two Channels

The iTHX transmitters come complete with a humidity + temperature probe for measurement of a single location.

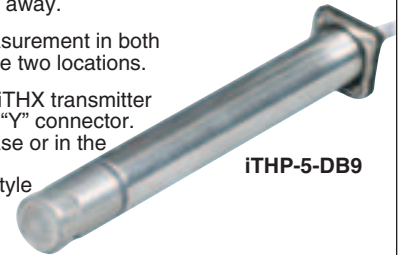
With the addition of a second probe, the transmitter can measure and display humidity + temperature and dewpoint in a second location up to twenty feet away.

The transmitter can display and chart absolute measurement in both locations, or a differential measurement between the two locations.

The second probe requires no change to the basic iTHX transmitter hardware, firmware or software except for a simple "Y" connector. A second probe can be added at the time of purchase or in the future. OMEGA offers a choice of industrial probes in 51 and 137 mm (2 and 5") lengths, and a wand style for ambient indoor applications.



iTHP-2-DB9



iTHP-5-DB9

**ALL MODELS AVAILABLE FOR FAST DELIVERY!**

## To Order (Specify Model Number)

Model No.	Description
iTHX-W	iServer MicroServer™ for Temp + Humidity, with 8" Wand Probe
iTHX-M	iServer MicroServer™ for Temp + Humidity, with 8" Wand Probe, LED Display, 2 M Flash Memory Card, and Backup Battery
<b>Accessories</b>	
iTHP-W	Wand Probe 8" (203 mm), cable 0.9 m (3') with DB9 Connector
iTHP-W-6	Replacement Wand Probe 203 mm (8"), cable 152 mm (6") with DB9 Connector
iTHP-2-DB9	Industrial Probe 51 mm (2"), cable 1 m (3') with DB9 Connector
iTHP-5-DB9	Industrial Probe 127 mm (5"), cable 6 m (20') with DB9 Connector
DB9-Y	DB9 "Y" Connector Adapter for 2 probes with DB9 Connector
DB9-CA-3	Extension Cable, 1 m (3') with DB9 Connector
iTH-MC2	Memory Data Flash Card, 2 M bit
iTH-MC8	Memory Data Flash Card, 8 M bit

\* Volume discounts are available.

**Ordering Example:** iTHX-W iServer MicroServer™ for temp + humidity, with 8" probe,



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### • Flow and Level

Air Velocity Indicators, Doppler Flowmeters, Level Measurement, Magnetic Flowmeters, Mass Flowmeters, Pitot Tubes, Pumps, Rotameters, Turbine and Paddle Wheel Flowmeters, Ultrasonic Flowmeters, Valves, Variable Area Flowmeters, Vortex Shedding Flowmeters

### • pH and Conductivity

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Auto-Dialers and Alarm Monitoring Systems, Communication Products and Converters, Data Acquisition and Analysis Software, Data Loggers Plug-in Cards, Signal Conditioners, USB, RS232, RS485 and Parallel Port Data Acquisition Systems, Wireless Transmitters and Receivers

### • Pressure, Strain and Force

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### • Heaters

Band Heaters, Cartridge Heaters, Circulation Heaters, Comfort Heaters, Controllers, Meters and Switching Devices, Flexible Heaters, General Test and Measurement Instruments, Heater Hook-up Wire, Heating Cable Systems, Immersion Heaters, Process Air and Duct, Heaters, Radiant Heaters, Strip Heaters, Tubular Heaters