Temperature and Humidity MicroServer™

iTHX Series Starts at
$295

✔ **Virtual Chart Recorder**
✔ **Web Server**
✔ **Accurate Readings**
✔ **Email Alarms**
✔ **Data Logging**
✔ **No Special Software Required**

iTHX

RAIL-35-2 DIN Rail, 2 m (19.5"), sold separately, $15.

ETHERNET   RESET
● ACTIVITY
● NETWORK LINK
● TX-TRANSMIT
● RX-RECEIVE

ΩEOMEGA

TEMPERATURE
HUMIDITY
DEW POINT

i.Server MicroServer™

omega.com®
ΩEOMEGA®

9-12 Vdc

ΩEOMEGA

50.8 %RH
108.2 °F

°C/°F TIME STBY BKLT

TEMPERATURE / HUMIDITY

i.Server MicroServer™

omega.com®
ΩEOMEGA®

9-12 Vdc

iTHX-W, $295, shown smaller than actual size.

iServer

PROBE INCLUDED!

iTHX-2 iServer MicroServer™ shown with industrial temperature/humidity probe (included), $295.

View Temperature and 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, 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.

The virtual chart viewed on the Web page is a JAVA™ Applet that records a chart over the LAN or Internet in real time. With the OMEGA iTHX, there is no need to invest time and money learning a proprietary software program to log or chart the data.

Adjustable Charts

Chart scales are fully adjustable on the fly. For example, the chart can display 1 minute, 1 hour, 1 day, 1 week, 1 month, or 1 year. Temperature and humidity can be charted across the full span [0 to 70°C (32 to 15°F), and 0 to 100% RH] or within any narrow range, such as 20 to 30°C (68 to 86°F). When a second sensor is added, users can select a chart that records channel-1, channel-2, or the difference of the 2 channels.

Display and Chart Two Channels (Models iTHX-W and iTHX-2 only)

The iTHX transmitters come complete with a temperature and humidity probe for measurement of a single location. With the addition of a second probe, the iTHX transmitter can measure and display temperature, humidity, and dew point in a second location up to 20' away.

The transmitter can display and chart absolute measurements 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.
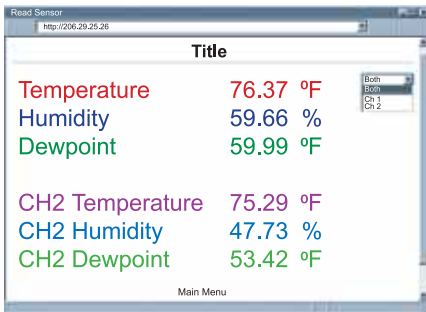
Web page displaying data received from the sensor.

A second probe can be added at the time of purchase or in the future. OMEGA offers a choice of industrial probes in 2 and 5" lengths, and a wand style for ambient indoor applications. A simple DB-9 "Y" connector is available for adding a second probe to model iTHX-W. No connector is required to add a second probe to the DIN rail mounted iTHX-2.

Dual channel measurement is available on model iTHX-W and iTHX-2 only; it is not available on model iTHX-M.

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.

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.

View temperature and humidity over Ethernet or the Internet.
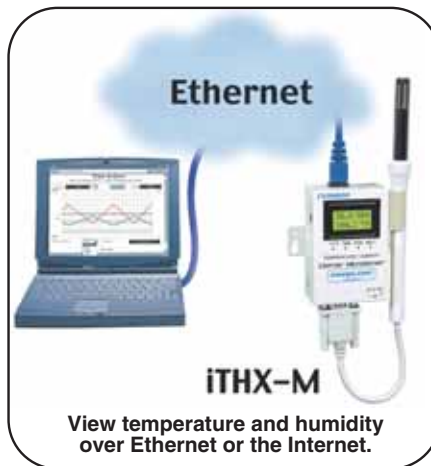
Typical Applications

The OMEGA iTHX is great for monitoring temperature and humidity in applications such as: clean rooms, computer rooms, HVAC systems, pharmaceutical and food processing and storage, hospitals, laboratories, semiconductor labs, electronic assembly, warehousing, museums, manufacturing, greenhouses and, farm animal shelters.

Industrial Probes shown smaller than actual size.

iTHP-5, $125.

iTHP-2, $115.
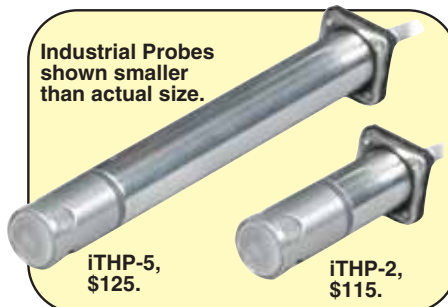
NEW iTHX-M with Flash Memory and LCD Display

The OMEGA model iTHX-M with LCD display adds several valuable features in addition to the backlit local display of temperature and humidity.

The "memory" model comes complete with a removable 2 MB flash memory card that can store 1 full year of readings taken at 1minute intervals (or 2 months of readings taken at 10 second intervals).

Up to four4 years of temperature and humidity readings can be stored on the 8 MB card.

With data being recorded in the built-in non-volatile flash memory, a failure on the Ethernet network will not interrupt the data record.

Alarm Relays

The OMEGA iTHX-M features two 1.5 Amp relays. With the easy Web-based setup page, the 2 relays can be programmed for any combination of temperature and humidity, and high or low set points. The relays can also be programmed to remain latched and require a manual reset if a limit is exceeded.

Email Alarms

In addition to the mechanical alarm relays, all OMEGA iTHX models that are on a LAN connected to the Internet can trigger an alarm that can be sent by email to a user or a distribution list anywhere in the world, including an Internet-enabled pager or cell phone.

Battery Backup

The iTHX-M comes with an AC adaptor. A standard 9 V alkaline battery (also included) allows the device to log data for up to 10 days without external AC power. In locations without power or network accessibility, the iTHX-M continues logging data to its flash memory. The stored data can later be downloaded over the Ethernet.

OMEGA iServer products are designed and manufactured in the USA.

R

NIST-Traceable Calibration Certificate available. In compliance with ISO9001:2000, ISO10012-1.1992(E), ANSI/NCSL Z540-1.1994 and MIL-STD-45662A.

Sensor Specifications

Relative Humidity (RH)
Accuracy/Range:
  10 to 90%: ±2%
  0 to 10% and 90 to 100%: ±3%
Non-Linearity: ±3%
Hysteresis: ±1% RH
Response Time: 4 seconds
(63% slowly moving air)
Repeatability: ±0.1%
Resolution: 0.03%, 12 bit

Temperature (T)
Accuracy*: ±0.5°C (±1°F)
Range*: 0 to 70°C (32 to 158°F) ±0.5°C
(±1°F) for 0 to 80°C (32 to 176°F); ±1°C
(±2°F) for -40 to 0°C and 80 to 124°C
(-40 to 32°F and 176 to 255°F)
*Note: Extended temperature range is
for industrial probe only; the iServer's
operating temperature is 0 to 70°C
(32 to 158°F).
Response Time: 5 seconds
(63% slowly moving air)
Repeatability: ±0.1°C (±1°F)
Resolution: 0.01°C (32°F), 14 bit

Probe Physical Dimensions
Wand Probe iTHX-W, iTHX-M:
Ø19.1 x 198.1 mm (0.75 x 7.8")
Industrial Probe iTHX-2:
Ø16 x 137 mm (0.63 x 5")

iServer Specifications

Interfaces
Ethernet: 10 Base-T (RJ45)
Sensor: Digital 4-wire
  iTHX-W and iTHX-M: DB-9
  iTHX-2: 8 pos screw terminal
Supported Protocols: TCP/IP,
UDP/IP, ARP, ICMP, DHCP, DNS,
HTTP, and Telnet
Indicators (LEDs): Network activity,
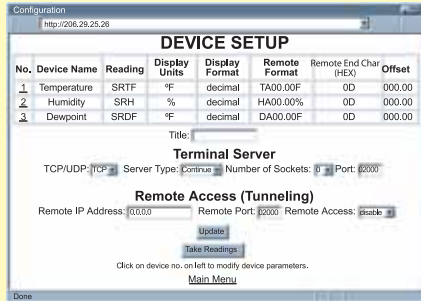network link, transmit, and
receive/diagnostics
LCD Display (iTHX-M): 16 digits,
6 mm (0.23")
Memory: 512 K flash, 16 K SRAM
Memory Data Flash Card: 2 MB
(2 months of data storage at 10-second
logging intervals or 1 year at 1-minute
intervals for iTHX-M)
Relay Outputs: 2 relays 1.5 A @
30 Vdc iTHX-M
Management: Device configuration and
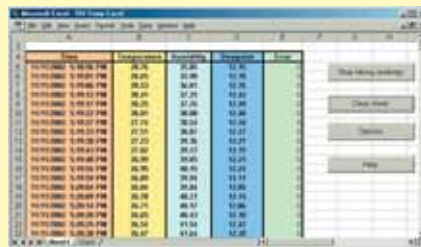monitoring through embedded Web server.

**iTHX-W and iTHX-2 device configuration
through embedded Web server.**

**iTHX-M device configuration
through embedded Web server.**

Software: Firmware upgradable,
including an Excel program for
automatic data logging within definable
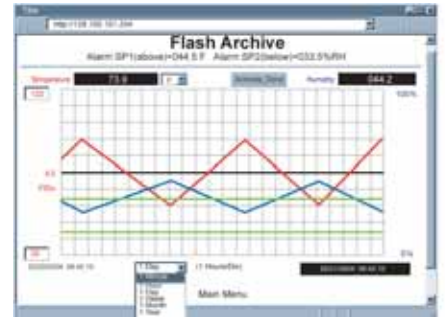time intervals, compatible with all
Windows operating systems.

**iTHX
datalogging spreadsheet.**

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

**iTHX-W and iTHX-2
adjustable chart Web page.**

iTHX-M adjustable chart Web page.

Power
Input:
  iTHX-W and iTHX-M: 9 to 12 Vdc
  iTHX-2: 10 to 32 Vdc
Safety qualified AC power adaptor
Nominal Output:
  iTHX-W, iTHX-M: 9 Vdc @ 0.5 A
  (included)
  iTHX-2: Switching power supply
  (sold separately)
Consumption: 2.5 W max
Battery (iTHX-M): 9 Vdc, alkaline
(included)

Environmental
Operating Temperature: 0 to 70°C
(32 to 158°F)
Storage Temperature: -40 to 125°C
(-40 to 257°F)

Packaging
Material:
  iTHX-W, iTHX-M: Metal case with
  flange mount
  iTHX-2: Polycarbonate case with
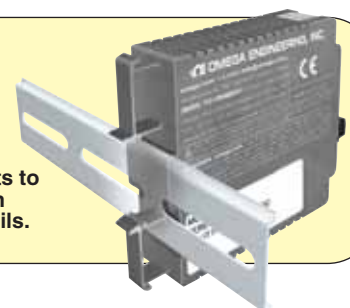 DIN rail mount
Dimensions: See page Hu-10

iDRN-PS-1000
$150

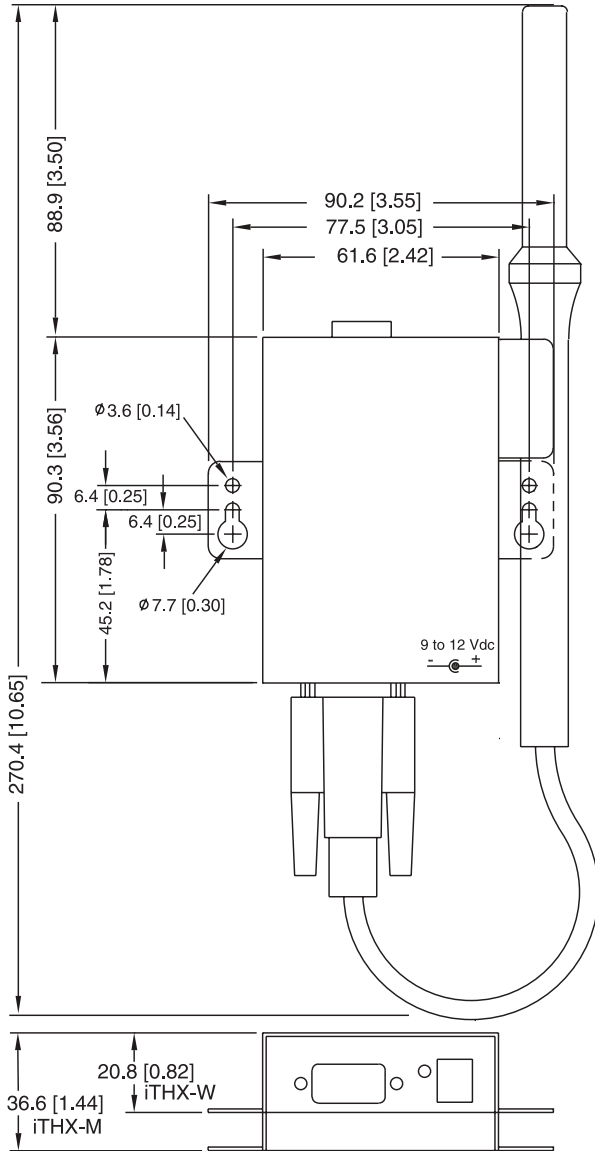✔ 24 Vdc Supply
✔ Switching Power
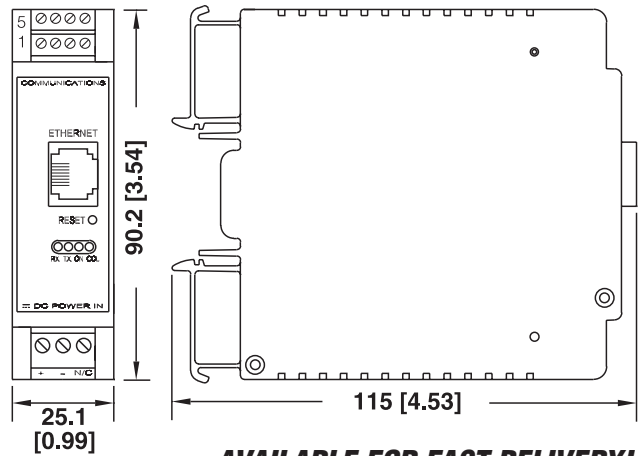 Supply Powers
  Up to 7 Units

**Mounts to
35 mm
DIN rails.**

Mechanical Specifications

iTHX-W: 180 g (0.4 lbs)
iTHX-M: 298 g (0.8 lbs)

iTHX-2: 113g (0.25 lbs)

AVAILABLE FOR FAST DELIVERY!

To Order *(Specify Model Number)*

Model No.		Description	Price
iTHX-2		iServer MicroServer™ for temperature and humidity and dew point (2-channel capability)	$295
	*	Standard industrial probe 127 mm (5"), 6.1 m (20') cable, stripped wire leads (no entry required)	N/C
	-2	Industrial probe 51 mm (2"), 0.9 m (3') cable with stripped wire leads [substitution for 127 mm (5") probe]	N/C
Accessories			
iTHP-2		Industrial probe 51 mm (2"), 0.9 m (3') cable with stripped wire leads	$115
iTHP-5		Industrial probe 137 mm (5"), 6.1 m (20') cable with stripped wire leads	125
iDRN-PS-1000		Power supply (switching), 95 to 240 Vac input, 24 Vdc output @ 850 mA (powers up to 7 units)	150
CAL-3-HU		NIST-traceable calibration certificate, 3 humidity points: 25%, 50%, 75%. Temperature 25°C (77°C) for new units	125
CT485B-CAL-KIT		Calibration kit, 33% and 75% RH standards	75

Model No.		Description	Price
iTHX-W		iServer MicroServer™ for temperature and humidity and dew point, 2-channel capability	$295
iTHX-M		iServer MicroServer™ for temperature and humidity, LCD display, 2 MB flash memory card, 2-relay alarm, and battery back-up (single channel only)	395
	*	Standard 203 mm (8") wand probe,152 mm (6") cable with DB9 connector (no entry required)	N/C
	-2	Industrial 51 mm (2") probe, 0.9 m (3') cable with DB9 connector (substitution for wand probe)	15
	-5	Industrial 137 mm (5") probe, 6.1 m (20') cable with DB9 connector (substitution for wand probe)	25
Accessories			
iTHP-W-6		Replacement 203 mm (8") wand probe, 152 mm (6") cable with DB9 connector	$100
iTHP-2-DB9		Industrial 51 mm (2") probe, 0.9 m (3') cable with DB9 connector	115
iTHP-5-DB9		Industrial 137 mm (5") probe, 6.1 m (20') with DB9 connector	125
DB9-Y		DB9 "Y" connector adapter for 2 probes with DB9 connector (iTHX-W)	25
DB9-CA-3		Extension cable 0.9 m (3') with DB9 connector	15
iTH-MC2		Memory data flash card, 2 MB / 1 year @ 1 minute intervals (iTHX-M)	10
iTH-MC4		Memory data flash card, 4 MB / 2 years @ 1 minute intervals (iTHX-M)	20
iTH-MC8		Memory data flash card, 8 MB / 4 years @ 1 minute intervals (iTHX-M)	30
CAL-3-HU		NIST-traceable calibration certificate, 3 points: 25%, 50%, 75%, temperature 25°C (77°C) for new units	125
CT485B-CAL-KIT		Calibration kit, 33% and 75% RH standards	75

* Volume discounts available.

Ordering Example: iTHX-2** iServer MicroServer™ with temp and humidity and dew point, 127 mm (5") industrial probe, **$295.

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- ## Temperature

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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

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