

ENVIRONMENTAL SURVEILLANCE OVER THE INTERNET

Web-Based Remote Surveillance of temperature + Humidity

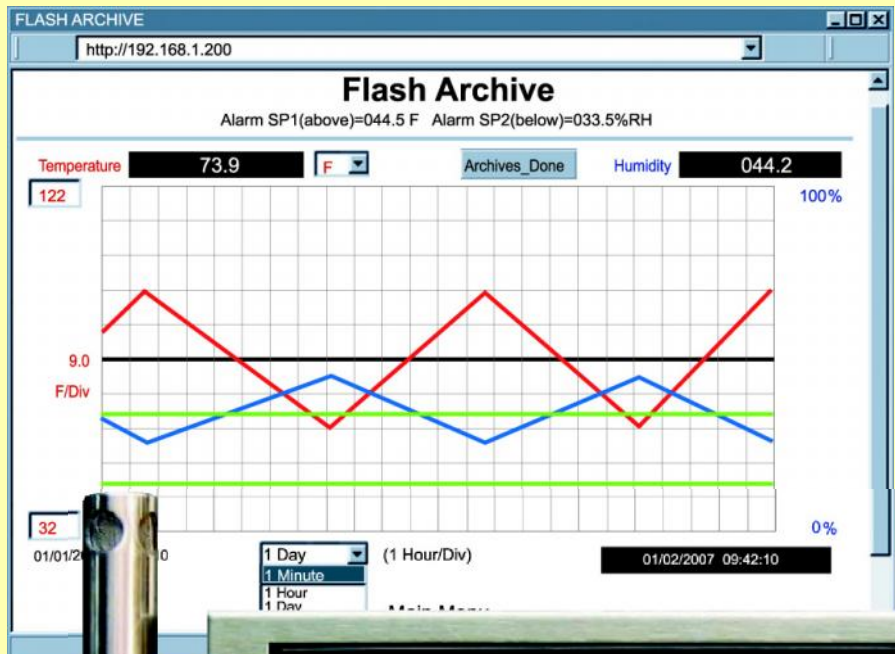
iSE

iSE Series
Starts at
\$990



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

iSE-TH, \$990, shown
smaller than actual size.



The OMEGA® iSE environmental monitor provides Web-based remote surveillance of environmental conditions in critical HVAC applications such as computer server rooms, clean rooms, laboratories, museums, warehouses, or any remote facility.

View and record Temperature, Relative Humidity and Dew Point over an Ethernet network or the Internet with no special software—just a Web browser.

Email Alarms

The device can trigger an alarm if temperature or humidity goes above or below a set point that you determine. Your alarm can be sent by email to a single user or to a group distribution list, including text messages to Internet enabled cell phones and PDAs. The OMEGA iSE includes screw terminals for two

contact closures that work with common alarm sensors. You can instruct the iSE monitor to send an alarm if a door is opened, a window is broken, or a fire sprinkler goes off.

Power Failure

The iSE monitor can trigger an alarm if the AC power fails. The iSE monitor will continue to collect data for ten days powered by a standard 9 Volt alkaline battery (included). The data is stored in nonvolatile flash memory and can later be downloaded over the Ethernet.

Also available: the **iSE-TC** environmental monitor with two independent thermocouple channels provides Web-based remote surveillance of temperature conditions in any remote facility.



Local Alarms

The OMEGA iSE monitor includes two 1.5 Amp output relays that are controlled by the alarm conditions you select. The relays can trigger flashing lights and a siren for example to alert personnel near the scene.



With the easy Web-based setup page, the two relays can be programmed for any combination of temperature or humidity, and high or low set points, as well as alarm conditions triggered by contact closures. The relays can also be programmed to turn off when conditions return to normal, or programmed to remain latched and require a manual reset.

View Charts and Graphs on the Web

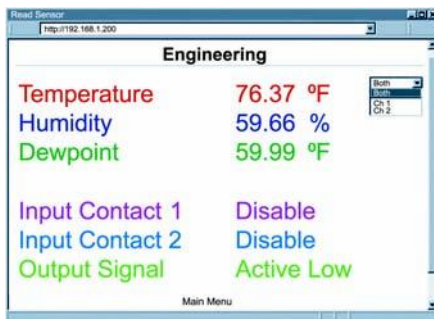
The OMEGA iSE serves

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.

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 iSE, there is no need to invest time and money learning a proprietary software program to log or chart the data.

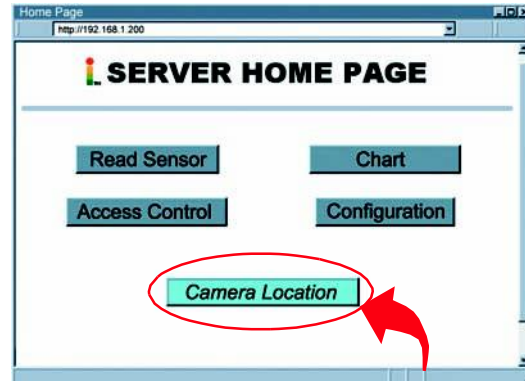
Chart scales are fully adjustable on the fly. For example, the chart can display one minute, one hour, one day, one week, one month or one year.

Temperature and humidity can be charted across the full span (-40 to 124°C, and 0 to 100% RH) or within any narrow range such as (20 to 30°C).



Link to Web CAM or IP Camera

The Web page includes a link to a “Web Cam” or “IP camera” (not included). If you get a message about an alarm condition, you can quickly click on the link to view the actual scene over the Internet.



Flash Memory

The OMEGA iSE records data on a removable 2-MByte Flash Memory card (included) that can store one full year of readings taken at one-minute intervals (or two months of readings taken at ten second intervals).

Up to 4 years of temperature + humidity readings can be stored on the optional 8 MByte card. Even if the Ethernet network fails, data will continuously record on the built-in nonvolatile flash memory.

The iSE monitors come complete with a plug-in temperature and humidity probe that mounts on the instrument or separately with the 1.8 m (6') extension cable (included).

The temperature/ humidity sensors are interchangeable and do not require routine calibration. And if a replacement sensor is ever needed, the instrument does not require calibration.

Installation and operation of the OMEGA iSE monitor requires no special training, tools, or software. The device connects to any Ethernet network with standard cable and plugs and is powered by any AC outlet supplying 110 to 230 Vac.

Award-Winning Technology

The OMEGA iSE is simple to install and use, and features award-winning iServer technology that requires no special software except a Web Browser. The iSE 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 its IP address or an easy to remember name such as “Cleanroom 5” or “Midwest Server Room” in any Web Browser, and the iSE serves a Web Page with the current readings.

Typical Applications

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



Specifications Relative Humidity Sensor

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

Non-Linearity: ±3%

Hysteresis: ±1%RH

Response Time: 4 seconds
(63% slowly moving air)

Repeatability: ±0.1%

Resolution: 0.03%, 12 bit

Temperature Sensor

Accuracy/Range*:

Standard Probe: ±0.5°C (±1°F)
for 0 to 70°C (32 to 158°F)

Industrial Probe: ±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 and 254°F)

*Note: Extended temperature range is for probe only, the iServer's operating temperature is 0 to 60°C

Response Time:

5 seconds (63% slowly moving air)

Repeatability: ±0.1°C

Resolution: 0.01°C, 14 bit

Probe

Standard Probe Dimensions:

Ø13 x 83.8 mm L (Ø 0.5 x 3.3" L)

Industrial Probe Dimensions:

Ø16 x 137 mm L (Ø 0.63 x 5" L)

Note: Ø = diameter

Cable: 3 m (10') L

Cable Operating Temp: -40 to 125°C
(-40 to 257°F)

Housing Material: 316 SS

Interfaces

Ethernet: 10Base-T (RJ45)

Supported Protocols: TCP/IP, UDP/IP,
ARP, ICMP, DHCP, DNS, HTTP, and Telnet

Indicators (LED's): Network Activity,
Network Link, Transmit and Receive/
Diagnostics

LCD Display: 32 Digits 4.8 x 9.7 mm
(0.19 x 0.38")

Memory: 512 Kb flash, 16 Kb SRAM

Memory Data Flash Card:

2 M bytes: 2 months of data storage at
10 second logging intervals or 1 year at
1 minute intervals

Relay Outputs: Two relays 1.5A @ 30 Vdc

Alarm I/O: Two contact outputs, one
open collector output 150 mA @ 30 Vdc

Management: Device configuration
and monitoring through embedded
WEB server

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

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

Power

Input: 9 to 12 Vdc

Safety Qualified AC Power Adaptor:

Input: 100 to 240 Vac, 50/60Hz

Nominal Output: 9 Vdc @ 0.5 A
included

Consumption: 2.5 W max

Battery: 9 Vdc, Alkaline (included)

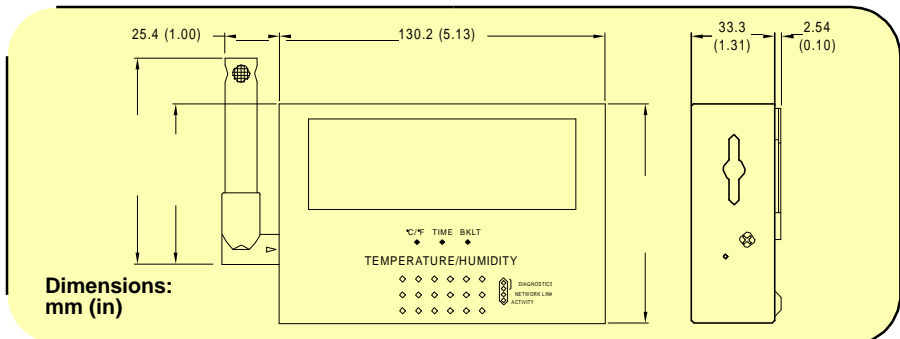
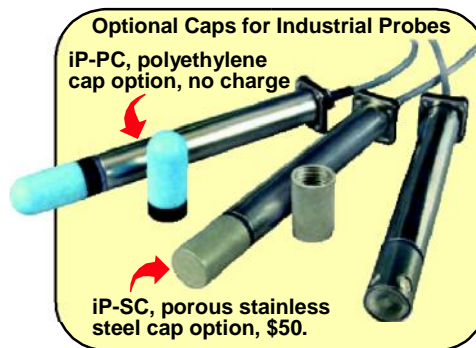
Environmental

Operating Temperature: 0 to 60°C
(32 to 140°F)

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

Packaging

Material: 304 SS case with
wall mount bracket



AVAILABLE FOR FAST DELIVERY!

To Order (Specify Model Number)

Model No.	Price	Description
iSE-TH	\$990	iSE monitor for temperature + humidity, standard probe, 1.8 m (6') extension cable
iSE-TH-5	1040	iSE monitor for temperature + humidity, 137 mm (5") industrial probe with 3 m (10') cable
Accessories		
iSETHP	\$200	Replacement standard right angle probe
iSETHP-5	250	Replacement industrial 137 mm (5") probe, cable 3 m (10')
iSE-iTH-MC2	20	Memory data flash card, 2 Mbyte/1 year @ 1 minute intervals
iSE-iTH-MC4	40	Memory data flash card, 4 Mbyte/2 years @ 1 minute intervals
iSE-iTH-MC8	60	Memory data flash card, 8 Mbyte/4 years @ 1 minute intervals
UNIV-AC-100/240	50	Replacement universal ac power adaptor
iP-PC	N/C	Polyethylene probe cap for wet environments
iP-SC	50	Porous stainless steel probe cap, 5 µm porosity, for dusty and pressurized (<35 psi) environments
Calibration		
CAL-3-HU	\$250	NIST traceable calibration certificate [3 humidity points: 25%, 50%, 75%. Temp 25°C (for new iSE-TH)]
CT485B-CAL-KIT	150	Calibration kit, 33% and 75% RH standards (for iSE-TH)

Comes complete with LCD display, 2 MB flash memory card, 2 relay alarms, battery back-up, 100 to 240 Vac power adaptor and operator's manual.