Environmental Surveillance Over the Internet

Web-Based Remote Surveillance of Temperature + Humidity
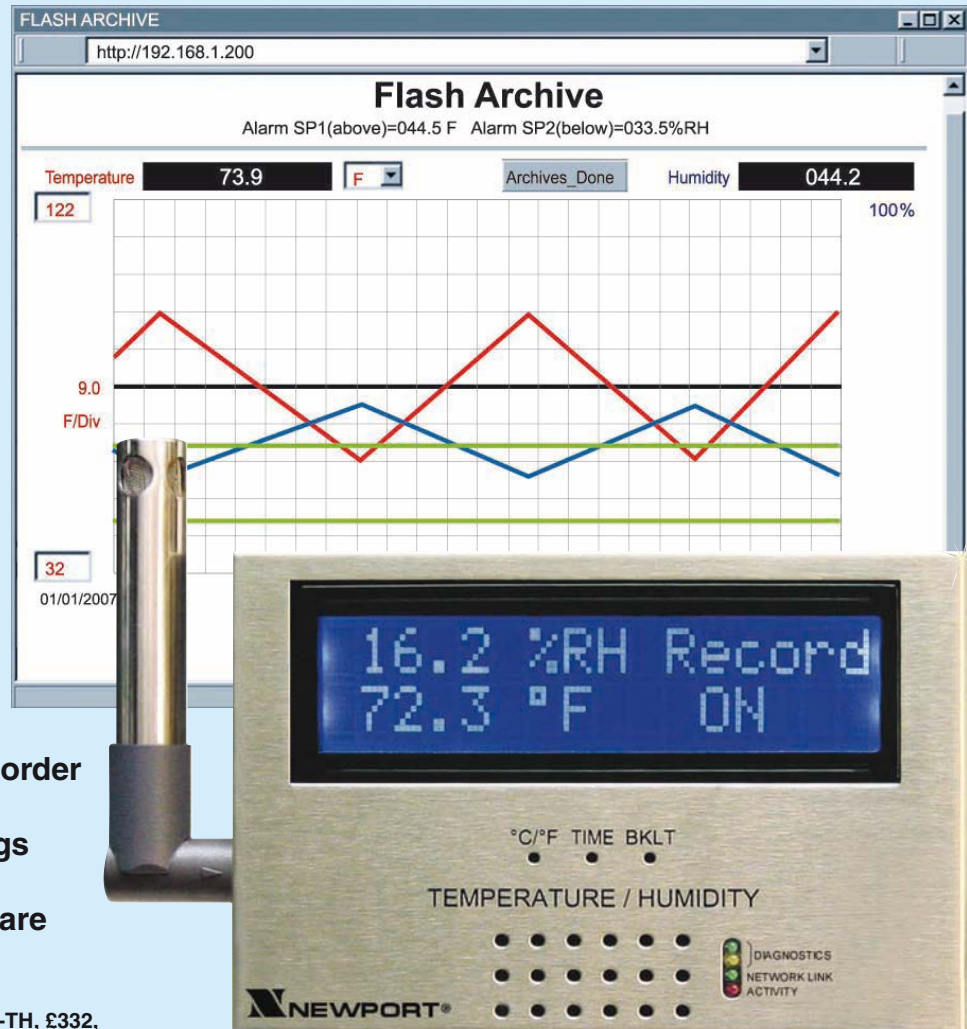
NEW

iSE

iSE Series Starts at
£332

1 YEAR WARRANTY   CE   FCC-B

Flash Archive
http://192.168.1.200
Alarm SP1(above)=044.5 F   Alarm SP2(below)=033.5%RH
Temperature 73.9 F Archives_Done Humidity 044.2 100%
122 9.0 F/Div 32 01/01/2007

16.2 %RH Record
72.3 °F   ON

°C/°F TIME BKLT
TEMPERATURE / HUMIDITY
DIAGNOSTICS
NETWORK LINK
ACTIVITY
NEWPORT®

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

iSE-TH, £332, 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 mobiles and PDAs.

The OMEGA iSE includes screw terminals for two contact closures that work with common burglar 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.
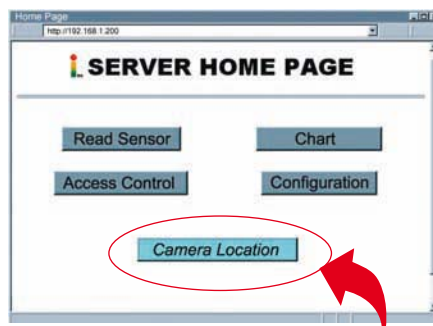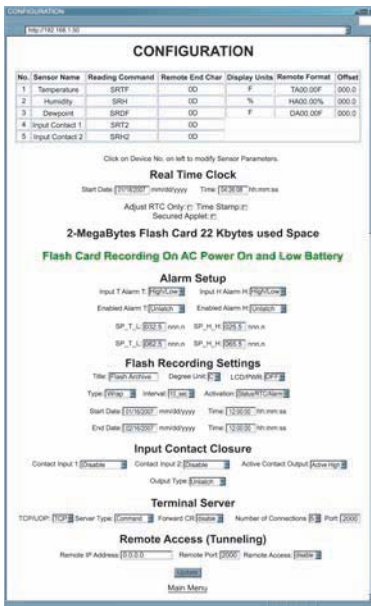
Power Failure

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.

Local Alarms

The NEWPORT 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 NEWPORT 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 NEWPORT 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 NEWPORT 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 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 NEWPORT 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.
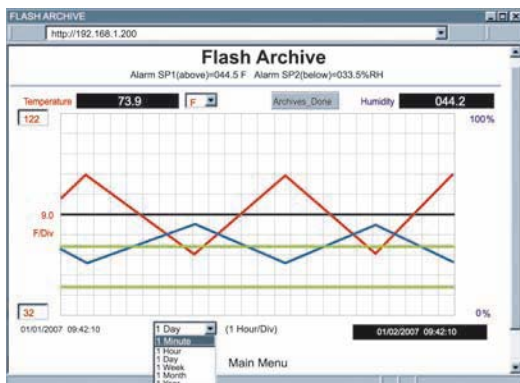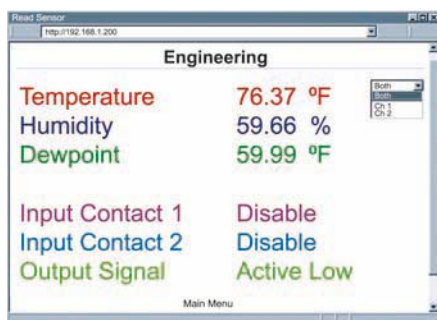
Award-Winning Technology

The NEWPORT 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 "Server Room" in any Web Browser, and the iSE serves a Web Page with the current readings.

Typical Applications

The NEWPORT 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,

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
Range*: 0 to 70°C (32 to 158°F)

Accuracy*: ±0.5°C ±0.5°C (±1°F) for ±1°C (±2°F) for -40 to 0°C and 80 to 124°C (-40 to 32°F and 176 to 254°F)

Note: Extended temperature range is for probe only, the iServer's operating temperature is 0-70°C

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

Repeatability: ±0.1°C

Resolution: 0.01°C, 14bit

Probe
Dimensions: Ø13 x 83.8 mm L (Ø 0.5 x 3.3" L)

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 Kbytes flash, 16 Kbytes 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

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 @ 0.5A included
  Consumption: 2.5 W max
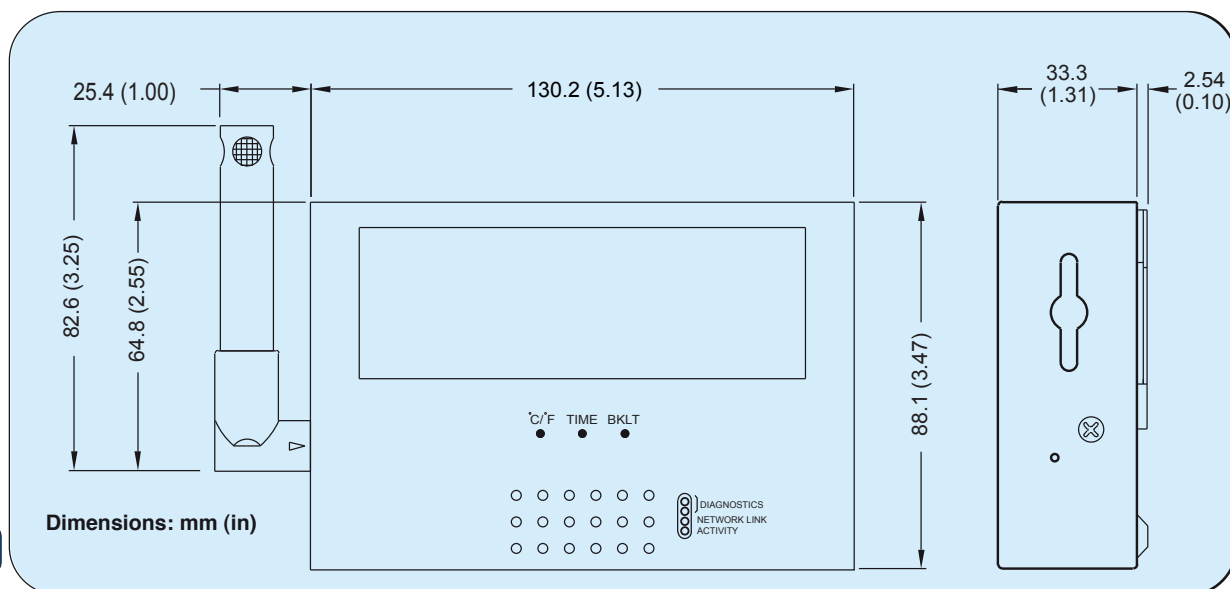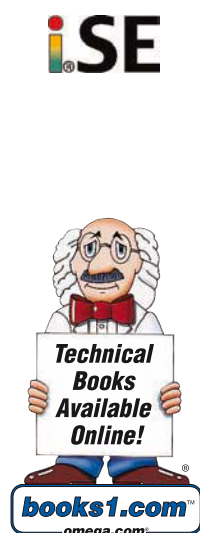 **Battery:** 9 Vdc, Alkaline (included)

Environmental
Operating Temperature: 0 to 70°C (32 to 158°F)

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

Packaging
Material: 304 SS case with wall mount bracket

Dimensions: mm (in)

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To Order *(Specify Model Number)*

Model No.	Price	Description
iSE-TH	**£332**	iSE monitor for temperature + humidity
iTH-MC2	Call	Memory data flash card, 2 Mbyte/1 year @ 1 minute intervals
iTH-MC4	Call	Memory data flash card, 4 Mbyte/2 years @ 1 minutei intervals
iTH-MC8	20.00	Memory data flash card, 8 Mbyte/4 years @ 1 minute intervals
UNIV-AC-100/240	16.75	Replacement universal ac power adaptor
CALIBRATION	90.00	Traceable calibration certificate [3 humidity points: 25%, 50%, 75%. Temp 25°C (for new iSE-TH)]
CT485B-CAL-KIT	50.00	Calibration kit, 33% and 75% RH standards (for iSE-TH)

Comes with LCD display, 2 Mbytes flash memory card, 2 relay alarms, battery back-up, universal (100 to 240 Vac) power adapter and 1.8 m extension cable.
Ordering Example: iSE-TH, £332

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