

# Server Room Remote Environmental Monitoring

## APPLICATION

Monitoring temperature and relative humidity conditions in a server room is essential to maintaining the operating efficiency of this critical infrastructure. Spikes in temperature or humidity can cause damage to equipment and lead to unexpected server downtime.

## REQUIREMENTS

Environmental parameters including temperature and humidity need to be monitored in mission critical server room environments to prevent equipment from overheating and avoid moisture condensation on surfaces and corrosion buildup. Server administration personnel need to be able to review real-time environmental data from a remote location. They also need to be alerted when extremes in temperature and/or relative humidity conditions occur so that corrective actions can be taken.



Server Room

## 3 MAJOR CHALLENGES

### Monitor Data in Real-Time

A solution is needed to provide remote access to real-time server room environmental data. In the past circular chart recorders have been used to monitor temperature and relative humidity in server rooms, however these recorders only provide a local indication of the conditions.

### Connectivity

The server room monitor should be able to connect to the plant Ethernet network or the Internet and be easy to setup without the need for custom software or special programming.

### Alarm Notification

Server administration personnel need to receive alerts for out-of-range environmental conditions.

## OUR SOLUTION

### View Temperature + Humidity with a Web Browser

The OMEGA® iTHX-SD 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.



iTHX-SD  
*(Virtual chart recorder,  
 view temperature + humidity  
 with a web browser)*  
<http://www.omega.com/pptst/iTHX-SD.html>

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

### Award-Winning Technology

The iTHX-SD 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-SD 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 their IP address or an easy to remember name such as "Cleanroom5" or "ServerRoom" in any Web Browser, and the iTHX-SD serves a Web Page with the current readings.

### Email Alarms

All iTHX-SD models that are on a LAN that is 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 text messages to cell phones and PDAs.

### Link to Web CAM or IP Camera

If you get a message about an alarm condition, you can quickly view the real-time scene over the Internet. Simply go to the OMEGA® iTHX-SD web page and click the live readings button to access a page that is connected to your own "Web Cam" or "IP camera".