Environmental Monitoring and Recording Over the Internet
Temperature + Humidity and Dew Point

The OMEGA® iSD 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 cell phones and PDA’s.

Physical Threats
The OMEGA iSD includes screw terminals for two contact closures that work with common alarm sensors. You can instruct the iSD monitor to send an alarm if a door is opened, a window is broken, or a fire sprinkler goes off.

Power Failure
The iSD monitor can trigger an alarm if the AC power fails. The iSD monitor will continue to collect data for two days powered by a standard 9 Volt alkaline battery (included). A failure on the Ethernet network will not interrupt data recording.

Local Alarms
The OMEGA iSD 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 iSD 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.

SD Flash Memory Card

The iSD comes complete with a removable 2 GB SD Flash Memory card that can store up to seven years of readings taken at ten second intervals.

Records on SD Flash Cards

The data is recorded on widely available SD (Secure Digital) flash cards. The format is a simple "txt" text file that is easily imported to spreadsheet and other programs. It can be read directly on a PC or MAC with a USB card reader. You can also download the data remotely over an Ethernet network or the Internet.

Sensor and Calibration

The iSD monitors come complete with a plug-in temperature and humidity probe that mounts on the instrument or separately with the six foot extension cable (included). It is not necessary to take the iSD monitor out of service for routine calibration. The temperature/humidity sensors are interchangeable and can be replaced for about the same cost as a typical calibration. OMEGA offers replacement sensors with optional 3-point NIST traceable calibration certificates.

Installation and operation of the OMEGA iSD 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 240 Vac.

Award-Winning Technology

The OMEGA iSD is simple to install and use, and features OMEGA’s award-winning iServer technology that requires no special software except a Web Browser.

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Typical Applications

The OMEGA iSD 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 5 to 10% and 90 to 95%; ±4% for 0 to 5% and 95 to 100%
Non-linearity: ±3%
Hysteresis: ±1% RH
Response Time: 8 seconds, 82.6 (3.25)
Repeatability: ±0.1%
Resolution: 0.1%, 12 bit

TEMPERATURE SENSOR
Accuracy/Range
Wand Probe: ±0.5°C (±1°F) for 5 to 45°C (41 to 113°F); up to ±1°C (up to ±2°F) for 0 to 5°C and 45 to 60°C (32 to 41°F and 113 to 140°F)
Industrial Probe: (see chart in manual) ±0.5°C (±1°F) for 5 to 45°C (41 to 113°F); up to ±1.5°C (up to ±2.7°F) for -40 to 5°C and 45 to 124°C (±40 to 140°F and 113 to 255°F)
*Note: extended temperature range is for Ind. probe only, the iServer’s operating temperature is 0 to 60°C
Response Time: 5 to 30 secs, 88.1 (3.47)
Repeatability: ±0.1°C
Resolution: 0.1°C, 14 bit

Standard Probe Dimensions: Ø13 x 83.8 mm L (Ø 0.5 x 3.3” L)
INDUSTRIAL PROBE ISD-THP-5
Probes: Ø16 x 137 mm L (0.63 x 5”)
Housing Material: SS 304
Cable Length: 3 m (10’)

To Order Visit omega.com/isd-th for Pricing and Details

Model No. | Description
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iSD-TH | iSD monitor for temperature + humidity, standard probe, 1.8 m (6’) extension cable
iSD-TH-5 | iSD monitor for temperature + humidity, 137 mm (5”) industrial probe with 3 m (10’) cable

Accessories

iSDTHP | Replacement standard right angle probe
iSDTHP-5 | Replacement industrial 137 mm (5”) probe, cable 3 m (10’)
iPCW-10P | Porous polyethylene right angle probe cap, for wet environments, 10 pack
IP-PCI-10P | Porous polyethylene industrial probe cap, for wet environments, 10 pack
iP-SC | Porous stainless steel probe cap, 5 µm porosity, for dusty and pressurized (<35 psi) environments

Calibration for New Units

CAL-3-HU | NIST traceable calibration certificate. Three humidity points: 25%, 50%, 75%, one temperature 25°C, for new units.
CT485B-CAL-KIT | Calibration kit, 33% and 75% RH standards

For Calibrated Replacement Probes, Including Calibration Certificate

iSDTHP-CAL-3-HU | Standard right angle probe and NIST traceable calibration certificate
iSDTHP-5-CAL-3-HU | Industrial probe and NIST traceable calibration certificate

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

Ordering Examples: iSD-TH, monitor for temperature plus humidity with a right angle probe and 1.8 m (6’) extension cable.
iSD-TH-5, monitor for temperature plus humidity with 137 mm (5”) probe and 3 m (10’) cable.