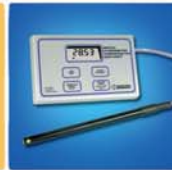


CONTROL COMPANY



CONTROL COMPANY



Traceable® Humidity, Weather, Pressure, Anemometer, and Barometer Guide

----- ISO 17025 ACCREDITED (A2LA)

----- ISO 9001 QUALITY-CERTIFIED (DNV)

Traceable® Hygrometers, Thermometers, and Barometers

All Traceable® products are provided with a Traceable® Calibration Certificate from our ISO 17025 calibration laboratory. All hygrometer, thermometer, and barometer certificates are accredited by the American Association for Laboratory Accreditation (A2LA).

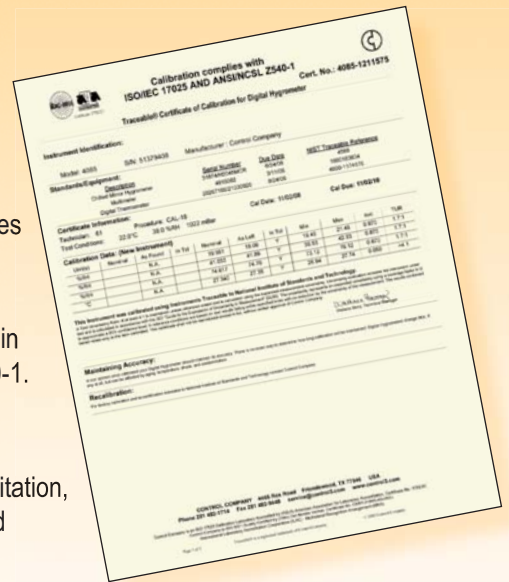
Traceable® Certificate indicates the product is traceable to standards provided by the National Institute of Standards and Technology (NIST), a U.S. Government agency within the Commerce Department. The Traceable® Certificate complies with ANSI/NCSL Z540-1.

A2LA is widely recognized internationally through bilateral and multilateral agreements and through its participation in the International Laboratory Accreditation (ILAC) and Multilateral Recognition Arrangement (MRA). Through Control Company's A2LA Accreditation, our Traceable® Certificates are internationally recognized by accreditation agencies and governments in over 75 countries.

A Traceable® Certificate includes all of the information to meet today's stringent accreditation demands, CLIA requirements, government specifications, and ISO 9000 certifications.

Control Company is an ISO 9001 Quality Certified Company

This quality certification provides users with the assurance that they receive only the finest and most reliable products. It is worldwide recognition of superb quality for innovative electronic products. ISO 9001 Certification insures that every product is checked and rechecked to provide for absolutely the highest quality. In addition, ISO 9001, in contrast to other ISO 9000 certifications, requires that the design phase of every product be included in the quality requirements. The 9001 certification insures that quality is designed into every product beginning with the first drawing. Control Company is ISO 9001 certified by DNV (Det Norske Veritas).



Dial Hygrometer/Thermometer

Dial provides humidity and temperature readings in an easy-to-read dial format. It is ideal for constantly monitoring labs, fume hoods, walk-ins, plant areas, and storage facilities. Large, analog readout displays 0 to 100% relative humidity and temperatures from -40 to 122°F (-40 to 50°C). Resolution is 1%RH and 1°. Accuracy is ±2.5%RH at 50%RH and ±1.5°C.

No maintenance required

Self-contained, stable, and accurate unit requires no adjustment, maintenance, or battery. Supplied complete with screw for wall mounting. Size is 6-inch diameter x 1 inch. Weight is 8 ounces.

Cat. No. 4186 Dial Hygrometer/Thermometer



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Traceable® Humidity/Temperature/ Dew Point Meter reads 0.01%RH

Use for QC, ISO 9000, and R/D

Traceable® Digital Hygrometer/Thermometer/Dew Point instrument, by using a special breed of artificial intelligence, provides a response time of under 10 seconds with a resolution of 0.01%RH, 0.01°F/°C, and 0.01° dew point °F/°C. It samples one-and-a-half times per second. "Fuzzy logic" algorithm pinpoints the exact answer almost instantly.

Fast response with high accuracy

Direct-reading instrument has an accuracy of $\pm 1.5\%$ RH and $\pm 0.4^\circ\text{C}$. Results are reported in both °F and °C from -40.00 to 220.0°F (-40.00 to 104.0°C) temperature, and from -40.00 to 140.0°F (-40.00 to 60.00°C) dew point. To assure accuracy an individually serial-numbered Traceable® Certificate is provided from our ISO 17025 calibration laboratory accredited by A2LA. It indicates traceability to standards provided by NIST (National Institute of Standards and Technology).

Clean room and food applications

Fulfills federal CLIA requirements and is ideal for hoods, clean rooms, food storage, process control, incubators, desiccators, drug manufacturing, environmental chambers, corrosion analysis, and inside/outside air monitoring. Four-digit LCD can be read from 10 feet. Rugged handheld unit is designed for years of service. Memory recalls both highest and lowest readings in dew point, temperature, and humidity at any time. High and low alarms can be programmed in dew point, temperature, and humidity. When an out-of-range condition is sensed, an alarm sounds and the display flashes. Computer output through the accessory Data Cable permits data to be captured, transferred, stored, and printed. Size is $5\frac{1}{2} \times 3\frac{1}{2} \times 1\frac{1}{4}$ inches. Weight is 12 ounces. Probe length is 7 inches. Cable length is 54 inches. Supplied with 9-volt battery for 1-year intermittent usage or 100 continuous hours. AC adapter (not supplied) is available. Complete with Traceable® Certificate and ABS plastic carrying case.



Computer Output

Cat. No. 4085 Traceable® Humidity/Temperature/ Dew Point Meter Fast response Model. Range: 5.00 to 95.00%RH, with response time of 10 seconds, and probe diameter of 0.4 inches.

Cat. No. 4080 Traceable® Humidity/Temperature/ Dew Point Meter Universal Model. Range: 10.00 to 95.00%RH, with response time of 30 seconds to 3½ minutes, and probe diameter of 0.7 inches.

Cat. No. 4097 Data Cable—
Allows real-time exporting of readings to a PC or external storage device. Requires 4098.

Cat. No. 4098 Parallel-to-Serial Converter—
Converts parallel signal from the Data Cable to serial. Requires 4097.

Cat. No. 4099 Cables, Converter, and Communication Software
Captures readings into a PC Computer for 4085 and 4080.

Cat. No. 1023 Easy-Use™ Adaptor 115 VAC

Traceable® Memory Hygrometer/Thermometer

Maintain accuracy with do-it-yourself calibration

Traceable® Memory Hygrometer/Thermometer measures from 10.0 to 95.0% relative humidity and temperature from 0.0 to 199.9°F and -18.0 to 93.0°C. Simultaneously displays both temperature and relative humidity on its dual 1½-inch LCD. Precision thermistor offers a temperature accuracy of ±1°C between 0 to 40°C, otherwise ±2°C, and a resolution of 0.1°. Reads Fahrenheit and Celsius. An audible click confirms each key entry. See Cat. No. 4385 for dew point model specifications.

Microprocessor-based design provides unparalleled accuracy

Resistive polymer film sensor provides humidity readings with an accuracy of ±2% mid-range to ±4% elsewhere. Humidity resolution is 0.1% relative humidity. To assure accuracy an individually serial-numbered Traceable® Certificate is provided from our ISO 17025 calibration laboratory accredited by A2LA. It indicates traceability to standards provided by NIST (National Institute of Standards and Technology). At the touch of a button, recall the minimum and maximum humidity and temperature readings captured during any time period. A special HOLD button permits freezing the display to capture readings. Features an auto-off battery saving function which may be turned off.

RS-232 output

Unit is equipped with an RS-232 output socket for transferring data to a computer. Use to monitor conditions in clean rooms, computer rooms, storage facilities—virtually anywhere temperature and RH affect vital components and tests. Handsome, dual-tone ABS plastic case is both lightweight (10¾ ounces) and rugged for extreme field or lab use. Supplied with probe/cable, Traceable® Certificate, hard plastic carrying case, and 9-volt battery for 100 hours of continuous use. Size is 7½ x 2¾ x 1¼ inches. Probe is 8½ inches long with ⅝-inch diameter and a 3-foot cable.

Cat. No. 4185 Traceable® Memory Hygrometer/Thermometer

Cat. No. 4385 Traceable® Memory Hygrometer/Thermometer

(Identical to the above unit with accuracy of ±2.0%RH; with Dew Point Display (Range 0.0 to 50.0°C with a resolution of 0.1° and an accuracy of ±2°C; and with programmable audible alarm).

Cat. No. 8045 Data Acquisition System—

Data Acquisition System captures, displays, and stores readings on any IBM-compatible PC. Information can be imported into databases. CD and 79-inch serial cable with D9F plug.

Cat. No. 4394 33% Calibration Standard with calibration instructions.

Cat. No. 4395 75% Calibration Standard with calibration instructions and an accuracy of ±2°C; and with programmable audible alarm.



Computer Output



Computer Output

Traceable® Humidity/Thermometer reads 0.01%RH

Unit simultaneously displays humidity or dew point and temperature. One of the newest and fastest humidity sensors ever developed displays full-range humidity changes in 5-30 seconds. It records wide humidity variations on a second-to-second basis. Monitor labs, clean rooms, food processing, and all humidity-sensitive manufacturing areas with this high-resolution unit.

Resolution 0.01%RH, 0.01°

Relative humidity resolution is 0.01%, accuracy is $\pm 3\%$ RH, and range is 10.00 to 95.00%RH. Dew point is a calculated measurement, resolution is 0.01°, accuracy is sum accuracy of humidity and temperature, range is -13.50 to 120.1°F and -25.30 to 48.90°C . Temperature resolution is 0.01°, accuracy is $\pm 1^\circ\text{C}$, and range is 32.00 to 122.0°F and 0.00 to 50.00°C .

Memories, data logger, computer output

Memory recalls maximum/minimum readings. HOLD button freezes display for reading later. Data logger captures 1000 readings manually at the push of a button or automatically when set between 1 to 3600 seconds. Serial RS-232 output allows unit to be connected to a computer for downloading data logger results or constant monitoring. To assure accuracy an individually serial-numbered Traceable® Certificate is provided from our ISO 17025 calibration laboratory accredited by A2LA. It indicates traceability to standards provided by NIST (National Institute of Standards and Technology). Jumbo-size display is 1 $\frac{3}{8}$ -inch-high. Case is impact-resistant ABS plastic. Supplied with probe ($\frac{3}{8}$ -inch diameter x 8 inches length), 40-inch cable, 9-volt alkaline battery, and Traceable® Certificate. Size is 7 x 2 $\frac{3}{4}$ x 1 $\frac{1}{2}$ inches. Weight is 9 $\frac{1}{2}$ ounces.

Cat. No. 4189 Traceable® Humidity/Thermometer

Traceable® Printing Hygrometer/Thermometer

Printing Hygrometer/Thermometer provides permanent hard-copy results

Provides a permanent record by printing current humidity/temperature/time/date and maximum/minimum readings, plus the time/date they occurred. Triple display with $\frac{3}{8}$ -inch-high LCD digits continuously and simultaneously shows humidity, temperature 1, and temperature 2. Perfect dependable and reliable unit to monitor relative humidity and temperature in the lab, plant, and field. Meets federal requirements for CLIA specification 93.1207. Printer provides hard copy for today's stringent QC documentation. Ideal for use in hoods, clean rooms, food storage areas, drug manufacturing, all air analysis, and environmental chambers. Automatically prints the current humidity/temperature 1, temperature 2, dew point, date, and time of day at any programmed interval or at the press of a button. The printer may be programmed to automatically and repeatedly print in any increment from 6 seconds to 59 minutes, 59 seconds.

Answers in less than 10 seconds

Fast-response, solid-state sensors detect changes in less than 10 seconds. Relative humidity range is 10 to 95% with a resolution is 0.1% and an accuracy of $\pm 2\%$ RH mid-range to $\pm 5\%$ RH elsewhere. T1 temperature range is from -20 to 60°C (-4 to 140°F), resolution of 0.1°, accuracy $\pm 1^\circ\text{C}$ ($\pm 1.8^\circ\text{F}$). T2 type K thermocouple temperature range is from -200 to 1333°C (-328 to 2431°F), accuracy $\pm (0.2\%$ of the reading plus $1.8^\circ\text{C})$, resolution of 0.1°C (from -200°C to 999.9°C) and 0.1°F (from -328°F to 999.9°F) otherwise 1°.

Time is displayed in 24-hour military time to the minute. To assure accuracy an individually serial-numbered Traceable® Certificate is provided from our ISO 17025 calibration laboratory accredited by A2LA. It indicates traceability to standards provided by NIST (National Institute of Standards and Technology). Supplied with Humidity/T1 temperature probe, T2 type K probe, paper, probe holder/stand, carrying case, and six AAA batteries. Accessory adaptor for continuous AC operation is available. Tough ABS plastic case is chemical- and shock-resistant. Humidity/T1 probe is $\frac{3}{4}$ -inch diameter x 6 $\frac{1}{4}$ inches, cable length is 4 feet, T2 probe is 0.06-inch-diameter, cable length of 4 feet. Unit is 7 $\frac{1}{2}$ x 3 x 1 $\frac{1}{2}$ inches. Weight is 10 ounces.



Cat. No. 4181 Traceable® Printing Hygrometer/Thermometer

Cat. No. 8182 Printing Paper (pack of 2 rolls)

Cat. No. 8183 Accessory Adaptor (for AC operation)

Traceable® Radio-Signal Remote Humidity/Thermometer



Read humidity and temperature from 100 feet away

Traceable® Radio-Signal Remote Humidity Meter/Thermometer receives a radio signal from the remote wireless sensors. It eliminates the cable. Place the main unit at your desk or bench. Place the remote sensor module in labs, ducts, and storage facilities— even outdoors. Remote sensor sends humidity and temperature signals to the main digital display. Transmits on a frequency of 433 MHz. Range is 65 to 100 feet, depending on the location or number of walls.

Relative humidity range is 25 to 90% with a resolution of 1% and an accuracy of $\pm 2\%$ RH mid-range to $\pm 4\%$ RH elsewhere. Switchable thermometer range is -4 to 140°F and -20 to 60°C , with a resolution of 0.1° and an accuracy of $\pm 1^\circ\text{C}$. To assure accuracy an individually serial-numbered Traceable® Certificate is provided from our ISO 17025 calibration laboratory accredited by A2LA. It indicates traceability to standards provided by NIST (National Institute of Standards and Technology).

Read up to three modules

Main unit can receive and display data from up to three different remote sensor modules. Data is transmitted every 30 seconds. Display's trend indicators show if humidity and temperature are rising or falling. Minimum and maximum memory display allows monitoring of conditions over short or long periods, including overnight or weekends.

An alarm may be set in increments of 1%RH and 1° . The alarm sounds when the humidity or temperature exceeds the high and low set points. Jumbo digits (1 $\frac{3}{8}$ -inches-high) may be read from 25 feet. Cases are high-impact, chemical-resistant ABS plastic. Furnished with a flip-open stand, wall brackets, and Velcro® to attach to any surface. Batteries operate continuously for eight months. Supplied complete with Traceable® Certificate, one main unit (4 $\frac{1}{4}$ x 4 $\frac{1}{2}$ x $\frac{3}{4}$ inches, weight is 6 ounces), one remote sensor module (2 $\frac{1}{8}$ x 3 $\frac{1}{2}$ x $\frac{3}{4}$ inches, weight is 3 ounces), internal humidity sensor, internal temperature sensor, and alkaline batteries.

Cat. No. 4380 Traceable® Radio-Signal Remote Humidity Meter/Thermometer

Cat. No. 4381 Additional Traceable® Humidity/Thermometer Remote Sensor Module

May be set to channel 1, 2, or 3. Total of three modules may be used with main unit.



Traceable® General-Purpose Hygrometer/Thermometer

Perfect quality-control unit displays accurate answers for every air measurement. Self-contained, the humidity and temperature sensors are built into the case. Features a separate data hold switch so that readings may be captured and noted.

Traceable to NIST for accuracy

General-purpose unit has a relative humidity range of 5.00 to 95.00%, with a resolution of 0.01% and an accuracy of $\pm 1.5\%$ RH. Temperature range is 32.0 to 122.0°F or 0 to 50°C with a resolution of 0.01° and an accuracy of $\pm 0.4^\circ\text{C}$. Response time is 30 seconds to 3 $\frac{1}{2}$ minutes. To assure accuracy an individually serial-numbered Traceable® Certificate is provided from our ISO 17025 calibration laboratory accredited by A2LA. It indicates traceability to standards provided by NIST (National Institute of Standards and Technology). Supplied with 9-volt alkaline battery for 6 months of intermittent readings or 100 continuous hours, Traceable® Certificate, and handy carrying case. High-impact ABS plastic unit measures 2 $\frac{3}{4}$ x 8 x 1 $\frac{1}{2}$ inches. Weight is 8 ounces.

Cat. No. 4087 Traceable® General-Purpose Hygrometer/Thermometer



Traceable® Humidity/Temperature Meter

Digital display permits instant readings of relative humidity and temperature (°F/°C). It is ideal to monitor conditions in chambers, clean rooms, food processing, scientific labs, and all humidity-sensitive manufacturing operations. Memory captures 99 data points which can be recalled on command.

Traceable to NIST

To assure accuracy an individually serial-numbered Traceable® Certificate is provided from our ISO 17025 calibration laboratory accredited by A2LA. It indicates traceability to standards provided by NIST (National Institute of Standards and Technology). Humidity range is 10.0 to 95.0%RH and temperature range is -4.0 to 140.0°F (-20.0 to 60.0°C). Resolution is 0.1 for both readings. Accuracy is ±2.5%RH mid-range to ±5%RH elsewhere. Response time is 30 seconds to 5 minutes. Data hold switch freezes the display to capture a reading. Large, bright, ½-inch-high four-digit liquid crystal display can be read from 10 feet away. Rugged handheld unit is completely portable and designed for years of dependable and reliable service.

Instantly updates readings

Battery powers the unit for 1 year of intermittent use or 100 hours of continuous readings. Precision thin-film capacitance sensor updates the display three times per second. Supplied complete with Traceable® Certificate, 9-volt alkaline battery, and carrying case. Size is 2½ x 10½ x 1 inches. Weight is 7 ounces.

Cat. No. 4187 Traceable® Humidity/Temperature Meter

Cat. No. 4138 Easy-Use™ Accessory Adaptor 115 VAC

Traceable® Humidity/Temperature Pen

Humidity/Temperature Pen with memory makes it easy to monitor any location

Pen continuously and simultaneously displays both RH and °F/°C with dual-recall memories. Handy pocket clip makes it easy to carry. Memory displays highest and lowest humidity/temperature readings achieved overnight or during any time period. Three-quarter-inch-high LCD can be read at a glance. Meets Federal Government CLIA requirement 493.1252.

Fast response

Pocket pen has solid-state sensors which respond in less than 30 seconds. Display is updated every second. Temperature range is 32.0 to 122.0°F (0.0 to 50.0°C) with a resolution of 0.1° and an accuracy of ±1°C. Relative humidity display is 2 to 98% with the usable range of 25 to 98%. Resolution is 1% and accuracy is ±3.5%RH midrange to ±5.5%RH in the usable range. To assure accuracy an individually serial-numbered Traceable® Certificate is provided from our ISO 17025 calibration laboratory accredited by A2LA. It indicates traceability to standards provided by NIST (National Institute of Standards and Technology).

Lightweight and compact

Supplied with a 1.5V battery for continuous, always-on monitoring for half a year. Case is high-impact, chemical-resistant ABS plastic. Size is 6⅝ x 1¼ x ½ inches. Weight is 1¾ ounces.

Cat. No. 4093 Traceable® Humidity/Temperature Pen





Traceable® Pocket Hygrometer/ Dew Point/Thermometer

Compact design features an electronic capacitance polymer film sensor not affected by condensation, may be used in 100% humidity

Relative humidity range is 0 to 100.0%RH with a resolution of 0.1% and an accuracy of $\pm 3\%$ RH mid-range to $\pm 5\%$ RH elsewhere. Both dew point and temperature ranges are -20.0 to 50.0°C and -4.0 to 122°F with a resolution of 0.1° and an accuracy of $\pm 1^{\circ}\text{C}$. Full range response is 30 to 60 seconds.

Traceable to NIST

To assure accuracy an individually serial-numbered Traceable® Certificate is provided from our ISO 17025 calibration laboratory accredited by A2LA. It indicates traceability to standards provided by NIST (National Institute of Standards and Technology). At the press of a button, unit recalls minimum/maximum readings. HOLD button freezes the display to record a reading. Dual display shows relative humidity with either dew point or temperature on a $\frac{3}{4}$ -inch-high LCD. Rugged ABS plastic case is $6\frac{1}{2} \times 2 \times \frac{3}{8}$ inches; weight is 3 ounces. Supplied with a Traceable® Certificate and two AAA batteries.

Cat. No. 4392 Traceable® Pocket Dew Point/Hygrometer/Thermometer

Traceable® Digital Humidity/Temperature Meter

Digital Relative Humidity/Temperature Meter with Minimum/Maximum Memory

Routine measurements, monitoring round-the-clock, quality-control needs, and critical experimental requirements are features of this humidity/temperature meter. Unique instrument shows the exact air conditions in labs, hoods, clean rooms, coolers, stockrooms, incubators, environmental chambers, and chemical storage areas.

Memories store min/max readings

Continuously and simultaneously displays relative humidity and temperature in $^{\circ}\text{F}/^{\circ}\text{C}$ with dual-recall memories. Minimum and maximum memories may be displayed or cleared at any time with the touch of a button. Monitors conditions overnight, on weekends, or for any time period. Temperature range is 32 to 122°F and 0 to 50°C with a resolution of 1° and accuracy of $\pm 1^{\circ}\text{C}$. Humidity range is 25 to 95%, resolution is 1%RH, and accuracy is $\pm 2\%$ RH mid-range to $\pm 4\%$ RH elsewhere. Fast-response solid-state sensors show changes in less than 30 seconds. Display is updated once per second.

Fulfills CLIA requirement

To assure accuracy an individually serial-numbered Traceable® Certificate is provided from our ISO 17025 calibration laboratory accredited by A2LA. It indicates traceability to standards provided by NIST (National Institute of Standards and Technology). Extra-large, easy-to-view $\frac{5}{8}$ -inch-high digits can be read at a glance from as far away as 20 feet. Meets federal requirements for CLIA specification 493.1252 for monitoring temperature and humidity. Self-contained, stable, and accurate unit requires no adjustment or maintenance. Case is chemical- and shock-resistant ABS plastic. Supplied with Traceable® Certificate, wall mount, bench stand, switch to read $^{\circ}\text{F}/^{\circ}\text{C}$, fast-response solid-state sensors, and two AAA batteries. Size is $2\frac{5}{8} \times 3\frac{7}{8} \times \frac{5}{8}$ inches. Weight is 2½ ounces.

Cat. No. 4096 Traceable® Humidity/Temperature Meter with Dual Min/Max Memories

Cat. No. 4094 Traceable® Digital Humidity Meter

Cat. No. 4095 Traceable® Digital Humidity/Temperature Meter

Features identical to Cat. No. 4096 but without memories. Size is $3\frac{3}{4} \times 7 \times \frac{3}{4}$ inches. Displays temperature to 0.1° .





Traceable® Hygrometer/Thermometer

RH/Temperature at a glance

Traceable® Hygrometer/Thermometer provides readings instantly. It is ideal for constantly monitoring labs, fume hoods, walk-ins, plant areas, and storage facilities. Large, easy-to-read ½-inch-high LCD digits can be read from 15 feet.

Traceable to NIST

Unit reads 25 to 95% relative humidity and temperature from 32 to 122°F and 0 to 50°C. Resolution is 1%RH and 0.1°. Accuracy is ±2%RH mid-range otherwise ±4%RH. Temperature accuracy is ±1°C (0 to 40°C) otherwise 2°C. To assure accuracy an individually serial-numbered Traceable® Certificate is provided from our ISO 17025 calibration laboratory accredited by A2LA. It indicates traceability to standards provided by NIST (National Institute of Standards and Technology).

Bench stand and wall mount

Self-contained, stable, and accurate unit requires no adjustment or maintenance. Complete with screw for wall mounting and a plastic stand for placing on the bench. Modern design is housed in a rugged ABS plastic case. Supplied with AA battery for 1½ years of always-on operation. Size is 3½ x 5 x ¾ inches. Weight is 6 ounces.

Cat. No. 4088 Traceable® Hygrometer/Thermometer

Traceable® Jumbo Humidity/Temperature Meter

Ambient and probe temperatures

Unit continuously and simultaneously displays ambient relative humidity and (ambient sensor and external probe) temperatures in °F or °C, with dual-recall memories. External thermometer probe is supplied with a 10-foot cable. Both sensor and cable perform accurately when under water.

Quick-response sensor

External probe range is -58 to 158°F and -50 to 70°C. Ambient sensor range is 23 to 122°F and -5 to 50°C. Resolution is 1° and accuracy is ±1°C. Humidity range is 25 to 95%, resolution is 1%RH, and accuracy is ±2%RH mid-range to ±4%RH elsewhere. Fast-response, solid-state sensors show changes in less than 30 seconds. Display is updated once per second. Minimum and maximum memories may be displayed or cleared at any time with the touch of a button. They permit monitoring conditions overnight, on weekends, or for any time period. Jumbo 1½-inch display may be read from as far away as 35 feet.

Fulfills CLIA requirements

To assure accuracy an individually serial-numbered Traceable® Certificate is provided from our ISO 17025 calibration laboratory accredited by A2LA. It indicates traceability to standards provided by NIST (National Institute of Standards and Technology). Meets federal requirements for CLIA specification 493.1207 for monitoring temperature and humidity. Self-contained, stable, and accurate unit requires no adjustment or maintenance. Case is chemical- and shock-resistant ABS plastic. Supplied with flip-open stand, wall mount, and AAA batteries. Size is 4¼ x 4 x ¾ inches. Weight is 5¾ ounces.

Cat. No. 4184 Traceable® Jumbo Humidity/Temperature Meter





Traceable® Memory Humidity/ Temperature Meter

Memory Humidity/Temperature Monitor with Temperature Probe

Memory unit constantly monitors and remembers high and low readings. Always-on instrument (there is no off switch) makes continuous readings. Unit is supplied with an ambient humidity/temperature sensor inside the unit and an external temperature probe with a 10-foot cable. Probe and cable may be placed under water.

Remembers high/low readings

Display simultaneously shows probe temperature, ambient temperature, and ambient humidity. Minimum and maximum memory readings may be recalled or cleared with the touch of a button. Humidity range is 25 to 95%RH with a resolution of 1% and an accuracy of $\pm 2\%$ RH mid-range to $\pm 4\%$ RH elsewhere.

Traceable to NIST

Ambient temperature range is 32 to 122°F and 0 to 50°C with a resolution of 1°. External temperature sensor displays from -58.0 to 158.0°F and -50.0 to 70.0°C with a resolution of 0.1°. Temperature accuracy is $\pm 1^\circ\text{C}$. To assure accuracy an individually serial-numbered Traceable® Certificate is provided from our ISO 17025 calibration laboratory accredited by A2LA. It indicates traceability to standards provided by NIST (National Institute of Standards and Technology).

Displays ambient and probe temperatures

Use it to record standard lab conditions every day. Memory unit is ideal to constantly monitor an area or dedicate to one test. Bright LCD digits are ½-inch-high. Handsome design is housed in a rugged ABS plastic case. Supplied with a handy plastic stand, internal humidity sensor, external/internal temperature sensors, 10-foot cable, and two AA batteries (1-year continuous operation). Size is 6 x 3¼ x ½ inches. Weight is 6 ounces.

Cat. No. 4082 Traceable® Memory Humidity/Temperature Meter

Traceable® Remote Alarm RH/Temperature Monitor



Unique instrument features a remote temperature/humidity sensor with a 7 foot cable. Ideal for routine measurements, monitoring round-the-clock, all quality-control needs, and critical experimental requirements. Place the sensor in hoods, clean rooms, coolers, stockrooms, incubators, environmental chambers, desiccators, and chemical storage areas. To assure accuracy an individually serial-numbered Traceable® Certificate is provided from our ISO 17025 calibration laboratory accredited by A2LA. It indicates traceability to standards provided by NIST (National Institute of Standards and Technology).

Minimum and maximum memory

Triple display simultaneously shows high, low, and current humidity or high, low, and current temperature. Minimum and maximum memory feature for both temperature and humidity permits monitoring conditions overnight, on weekends, or any time period. External sensor on 7 foot cable reads temperature and humidity. Humidity range is 20 to 99% with a resolution of 1%. Accuracy is $\pm 3\%$ RH midrange to $\pm 5\%$. Temperature range is from -58.0 to 158.0°F and -50.0 to 70.0°C. Resolution is 0.1°. Accuracy is $\pm 1^\circ\text{C}$.

High and low alarm

Alarm may be set in 1%RH and 1° increments. Alarm sounds when reading rises above or falls below set points. Unit is supplied with a flip-open stand for lab bench and slot for wall mounting. Easy-view, ½-inch-high digits may be read from 10-feet. Supplied with a AAA battery for continuous, 1-year always-on monitoring, and external humidity/temperature sensor. Case is high-impact, chemical-resistant ABS plastic. Unit measures 4¼ x 2¾ x ¾ inches and weight is 4 ounces.

Cat. No. 4154 Traceable® Remote Alarm RH/Temperature Monitor

Traceable® Dew point/Wet-Bulb/ Humidity/Thermometer

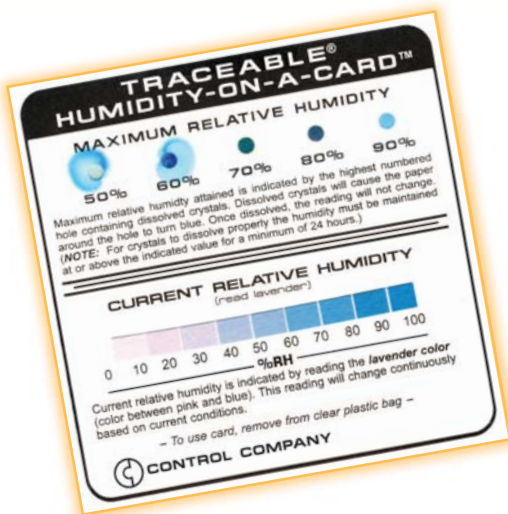
Traceable® monitor shows current, minimum, and maximum displays and includes a settable high/low alarm for all four readings (dew point, wet-bulb, humidity, temperature). Alarm may be set in 0.1 increments, it sounds for one minute and red LED flashes until readings return to non-alarm condition.

Range is 1 to 99% relative humidity with a resolution of 0.1% and an accuracy of $\pm 4\%$ between 20 to 80%RH. Temperature range is -40 to 70°C and -40 to 158°F with a resolution of 0.1° (below 100) and an accuracy of $\pm 1^\circ\text{C}$.

To assure accuracy an individually serial-numbered Traceable® Certificate is provided from our ISO 17025 calibration laboratory accredited by A2LA. It indicates traceability to standards provided by NIST (National Institute of Standards and Technology). Meets federal requirements for CLIA specification 493.1207 for monitoring temperature and humidity.

Supplied with two AA alkaline batteries for continuous, 1-year always-on monitoring, and Traceable® Certificate. LCD digits are 1-inch-high. Case is high-impact, chemical-resistant ABS plastic. Size is $4\frac{1}{2} \times 4\frac{1}{2} \times 1$ inches. Weight is $4\frac{1}{4}$ ounces.

Cat. No. 4410 Traceable® Dew point/Wet-Bulb/Humidity/Temperature Alarm



Traceable® Humidity-On-A-Card

Unique humidity card indicates both the current humidity and the maximum humidity attained. Easy-to-read cards are ideal for use with bottles, chemicals, plastic bags, electronics, desiccators, and storage containers. Easily monitor humidity levels in shipments, optics, and packaging.

Watch colors change as humidity rises/falls

Dual ranges are Current and Maximum. Current range is 0 to 100% relative humidity. Color changes from blue to lavender in increments of 10%RH. Reversible indicator changes color as the humidity increases and decreases. Readable to an accuracy of $\pm 5\%$ RH at 75°F (24°C).

View maximum RH% reached

Maximum relative humidity attained is indicated by the highest numbered hole containing dissolved crystals. Dissolved crystals will cause the paper around the hole to turn blue. Once dissolved, the reading will not change. (NOTE: for crystals to dissolve properly, the humidity must be maintained at or above the indicated value for a minimum of 24 hours).

Arrives ready for use

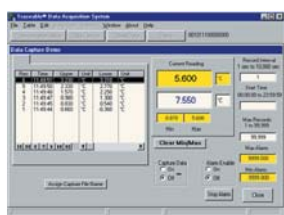
Each card is individually sealed in a clear moisture-barrier bag with a Humidity Sponge™ desiccant to keep the card dry and provide for an extended shelf life. To assure accuracy an individually serial-numbered Traceable® Certificate is provided from our ISO 17025 calibration laboratory accredited by A2LA. It indicates traceability to standards provided by NIST (National Institute of Standards and Technology). Card size is 4 x 4 inches.

Cat. No. 4192 Traceable® Humidity-On-A-Card

Pack of six cards.

HUMIDITY CHART

Page No.	Cat. No.	Traceable® A2LA NIST Certificate Supplied	Relative Humidity Range	Resolution	Accuracy	Temperature Range	Resolution	Accuracy	Features
2	4186	No	0 to 100%RH	1%RH	±2.5%RH	-40 to 122°F	1°	±1.5°C	No maintenance required
3	4085	Yes	5.00 to 95.00%RH	0.01%RH	±1.5%RH	-40.00 to 220.0°F	0.01°	±0.4°C	Response time of 10 seconds
3	4080	Yes	10.00 to 95.00%RH	0.01%RH	±1.5%RH	-40.00 to 220.0°F	0.01°	±0.4°C	Also reads dew point
4	4185	Yes	10.0 to 95.0%RH	0.1%RH	±2%RH	0.0 to 199.9°F	0.1°	±1°C	Computer-output
4	4385	Yes	10.0 to 95.0%RH	0.1%RH	±2.0%RH	0.0 to 199.9°F	0.1°	±1°C	Dew point and alarm
5	4181	Yes	10 to 95%RH	0.1%RH	±2%RH	-328 to 2431°F	0.1°	±1°C	Printing hygrometer for hard-copy results
5	4189	Yes	10.0 to 95.0%RH	0.01%RH	±3%RH	32.0 to 122.0°F	0.01°	±1°C	Computer-output
6	4380	Yes	25 to 90%RH	1%RH	±2%RH	-4 to 140°F	0.1°	±1°C	Receives radio-signal from remote wireless sensors
6	4087	Yes	10.0 to 95.0%RH	0.1%RH	±1.5%RH	32.0 to 122.0°F	0.01°	±0.4°C	Simple point-and-read technology
7	4093	Yes	2 to 98%RH	1%RH	±3.5%RH	32.0 to 122.0°F	0.1°	±1°C	Pen shape
7	4187	Yes	10.0 to 95.0%RH	0.1%RH	±2.5%RH	-4.0 to 140.0°F	0.1°	±1°C	Recorder output
8	4392	Yes	0 to 100.0%RH	0.1%RH	±3%RH	-4.0 to 122°F	0.1°	±1°C	Dew point, min/max
8	4096	Yes	25 to 95%RH	1%RH	±2%RH	32 to 122°F	1°	±1°C	Dual min/max memories
8	4094	Yes	25 to 95%RH	1%RH	±2%RH	32 to 122°F	1°	±1°C	Compact Size
8	4095	Yes	25 to 95%RH	1%RH	±2%RH	32 to 122°F	0.1°	±1°C	Sharp display
9	4088	Yes	25 to 95%RH	1%RH	±2%RH	32 to 122°F	0.1°	±1°C	RH/Temperature at a glance
9	4184	Yes	25 to 95%RH	1%RH	±2%RH	-58 to 158°F	1°	±1°C	Big digits
10	4154	Yes	20 to 99%RH	1%RH	±3%RH	-58.0 to 158.0°F	0.1°	±1°C	Remote humidity sensor
10	4082	Yes	25 to 95%RH	1%RH	±2%RH	-58 to 158°F	0.1°	±1°C	External temperature probe
11	4410	Yes	1 to 99%RH	0.1%RH	±4%RH	-40 to 158°F	0.1°	±1°C	Dew point and wet-bulb monitor
11	4192	Yes	0 to 100%RH	10%RH	±5%RH	n/a	n/a	n/a	Humidity card (pack of six)
13	4040	Yes	20 to 90%RH	1%RH	±4%RH	32.0 to 122.0°F	0.1°	±1°C	Simultaneously displays RH, temperature, and time
13	1071	Yes	0 to 100%RH	2%RH	±5%RH	10 to 130°F	1°	±2°C	Clock accuracy is 0.01%
13	1079	Yes	8 to 92%RH	2%RH	±5%RH	-34 to 116°F	2°	±1.5°C	Analog display



Computer Output

Data Acquisition System

Powerful and easy to use data capture/data logging program works with Traceable® Instruments with RS-232 output. It records in user defined intervals from 1 to 10,000 seconds; displays minimum/maximum readings; and alarms at any setpoint. Comma-delimited and fixed-column data files captures may be imported into Word, WordPerfect, Lotus, Excel, scientific programs, and similar software. It is designed to work with Windows®. Includes diskette and 36-inch cable that plugs into instrument and computer.

Cat. No. 4136 Data Acquisition System



Traceable® Thermometer/Clock/ Humidity Monitor

Unique unit simultaneously displays time of day, temperature, and humidity. Clock displays A.M./P.M. or 24-hour military time to the exact minute with 0.01% accuracy. Noting changes is easy with triple display. Internal sensors make it ideal for use in hoods, storerooms, clean rooms, incubators, drying chambers, and environmental cabinets.

Place on desk or lab bench

Temperature range is 32.0 to 122.0°F and 0.0 to 50.0°C. Resolution is 0.1° and accuracy is $\pm 1^\circ\text{C}$. Relative humidity range is 20 to 90%. Resolution is 1%RH and accuracy is $\pm 4\%$. At the touch of a button, memory recalls highest and lowest temperature and humidity readings. Permits monitoring conditions overnight, on weekends, or any time period.

Traceable to NIST for accuracy

To assure accuracy an individually serial-numbered Traceable® Certificate is provided from our ISO 17025 calibration laboratory accredited by A2LA. It indicates traceability to standards provided by NIST (National Institute of Standards and Technology). Supplied with Traceable® Certificate, 1-year AAA battery, built-in stand, and wall mount. Size is $4\frac{1}{4} \times 2\frac{1}{4} \times \frac{1}{2}$ inches and weight is 2½ ounces. Replacement battery Cat. No. 1105.

Cat. No. 4040 Traceable® Thermometer/Clock/Humidity Monitor

Traceable® Clock/ Thermometer/Humidity

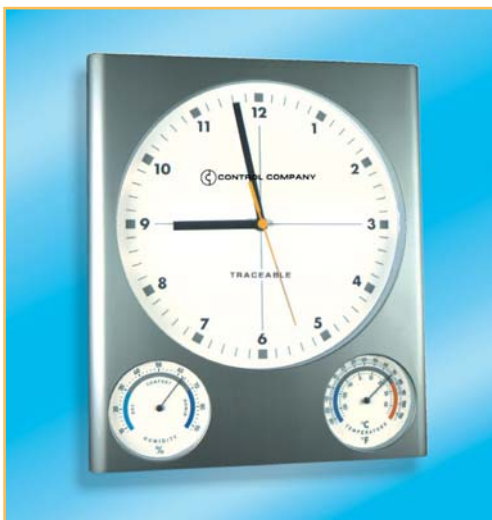
At a glance tell time, temperature, and humidity in the lab. Clock displays quartz-crystal timing with 0.01% accuracy, temperatures from -20 to 55°C and 10 to 130°F , accuracy is $\pm 1.5^\circ\text{C}$. Humidity range is 0 to 100% with $\pm 5\%$ accuracy.

Bright red, sweeping second hand provides superior visibility. To assure accuracy an individually serial-numbered Traceable® Certificate is provided from our ISO 17025 calibration laboratory accredited by A2LA. It indicates traceability, for time only, to standards provided by NIST (National Institute of Standards and Technology). AA battery and wall-mount screw included. Diameter is $12\frac{1}{2}$ inches. Weight is 1 pound.

Cat. No. 1071 Traceable® Clock/Thermometer/Humidity



Traceable® Clock/Thermometer/Humidity



Ultra-modern, state-of-the-art clock is high-tech in appearance. Shows crisp readable dials with a low profile case. It's the prestige clock to place on any wall. At twenty feet view time, temperature, and humidity. Triple display shows precise quartz-crystal timing with 0.01% accuracy, temperatures from -34 to 116°F and -37 to 47°C with $\pm 1.5^\circ\text{C}$ accuracy, and relative humidity from 8 to 92% with $\pm 5\%$ accuracy.

Bright orange, sweeping second hand provides superior visibility. To assure accuracy an individually serial-numbered Traceable® Certificate is provided from our ISO 17025 calibration laboratory accredited by A2LA. It indicates traceability, for time only, to standards provided by NIST (National Institute of Standards and Technology). Low-profile ABS plastic impact-resistant case is $12\frac{1}{2} \times 11 \times 1$ -inch and weight is 1½ pounds. Clock dial diameter is 9 inches, temperature and humidity dial diameters are 3 inches. AA battery, wall-mount, and screw are included.

Cat. No. 1079 Traceable® Clock/Thermometer/Humidity

Humidity Sponge™ Regenerable/Indicator



Humidity Sponges™ meet all drying requirements

The latest in drying technology turns any container into a desiccator. Indicator bag colored particles show when moisture capacity has been reached.

Nontoxic and ideal for clean rooms

Humidity Sponges™ meet FDA (Food and Drug Administration) requirements for use in direct contact with food and drugs. Desiccant (sodium calcium aluminosilicate hydrate) is nontoxic and is a GRAS (Generally Recognized as Safe) material. Ideal for storing food/ pharmaceutical samples, electronics, PC boards, optics, chemicals, and equipment. Outer material is made of DuPont Tyvek® breathable, high-density polyethylene. Zero-Dust bags are certified as Class M3.5 (formerly Class 100) clean room compatible.

Retains 16% moisture, guaranteed

Drying capability depends on volume, temperature, and moisture. As a benchmark, one bag will maintain dry conditions in a container with a volume of two gallons (476 cubic inches/7800 cubic centimeters). Bags are guaranteed to retain 16% moisture by weight; typical results are 37% moisture absorption. Each bag measures 3 x 3 ¼ inches and weight is ⅜ ounce.

Indicator Humidity Sponges™

Indicator Sponge has one side of clear film and one of white Tyvek®. It contains blue particles which turn pink when the desiccant has reached its moisture capacity and needs to be replaced. Indicator Humidity Sponge™ cannot be regenerated.

Regenerable Humidity Sponges™

Regenerable Sponge has white Tyvek® on both sides and may be regenerated and reused continuously. Regeneration requires heating in an oven at 220°F (104°C). Included in each pack is a Relative Humidity Card which changes from blue to pink to show when bags need to be regenerated.

Tyvek® is a registered trademark of DuPont.

Cat. No. 3151 Humidity Sponge™ Regenerable (40/pack)

Cat. No. 3150 Humidity Sponge™ Indicator (40/pack)



Cat. No.	Diameter	Height	Volume
3160	4 ¼ inches	4 ¾ inches	37 in ³ 600 cc
3161	4 ½ inches	5 ½ inches	52 in ³ 850 cc
3162	4 ¾ inches	7 ½ inches	67 in ³ 1100 cc

Desi-Vac™ Containers

Plastic container with a vacuum pump is ideal for drying, preserving, storing, and even shipping samples. Vacuum pump built into the top removes air with manual strokes. Rubber O-ring-sealed cover maintains vacuum. Achieves a vacuum of better than 200 inches of water (15 inches of mercury). A release button on top allows air into the container to remove the lid.

Keep your powder dry

Use desiccants to keep material dry—ideal for storing chemicals, powders, sample tissues, plant sections, and for weighing samples.



Desi-Vac™ Containers

Plastic container with a vacuum pump is ideal for drying, preserving, storing, and even shipping samples. Vacuum pump built into the top removes air with manual strokes. Rubber O-ring-sealed cover maintains vacuum. Achieves a vacuum of better than 200 inches of water (15 inches of mercury). A release button on top allows air into the container to remove the lid. Sample Humidity Sponges™ desiccant drying packets are included.

Keep your powder dry

Ideal for storing chemicals, powders, tissues, plant sections, electronics, and weighing samples. Vacuum and desiccants keep material dry. Supplied with a vacuum indicating button that confirms interior vacuum and a dial hygrometer that displays 0 to 100% relative humidity with a resolution of 2%RH.

Cat. No.	Size	Volume
3163	8 ½ x 7 x 6 ½ inches	183 in ³ 3,000 cc
3164	11 ¼ x 9 x 10 inches	702 in ³ 11,500 cc

Traceable[®] Manometer/Pressure/Vacuum Gauge

Manometer displays gauge and differential pressure/vacuum in eleven different units. Response time is 0.5 second. Simple hose fittings on the unit permit using hose/tubing with inside diameters from 1/16 to 3/16 inches. Large 5/8-inch-high digits are visible from six feet.

At the touch of a button unit may be zeroed or any pressure may set to zero. Differential feature permits reading the difference of the pressure or vacuum between two different sources. Memory feature recalls highest and lowest reading over any time period. A count up timer displays up to 99 hours, 59 minutes, 59 seconds. A DATA HOLD key freezes the display to capture readings. Brilliant backlighting permits reading even in dark areas. RS-232 serial computer output permits the units to be connected to a computer for monitoring and storing results.

Accuracy is $\pm 0.3\%$ of full scale between 0 to 50°C. To assure accuracy an individually serial-numbered Traceable[®] Certificate is provided from our ISO 17025 calibration laboratory accredited by A2LA. It indicates traceability to standards provided by NIST (National Institute of Standards and Technology). Supplied with Traceable[®] Certificate, hose/tubing, 9-volt battery, RS-232 serial computer output, and ABS plastic carrying case. Size is 2 3/4 x 7 1/8 x 1 1/8 inches and weight is 5 ounces.



Computer Output

Cat. No.	3460	3461	3462	3463
Maximum Allowed PSI	20	30	60	150
PSI Range	-5.000 to 5.000	-15.00 to 15.00	-30.00 to 30.00	-100.0 to 100.0
PSI Resolution	0.003	0.01	0.02	0.1
mbar Range	-345.0 to 345.0	-1034 to 1034	-2068 to 2068	-6895 to 6895
mbar Resolution	0.2	1	2	4
bar Range	-0.3450 to 0.3450	-1.034 to 1.034	-2.068 to 2.068	-6.895 to 6.895
bar Resolution	0.001	0.001	0.002	0.004
cm/H ₂ O Range	-351.0 to 351.0	-1055 to 1055	-2109 to 2109	-7031 to 7031
cm/H ₂ O Resolution	0.2	1	2	4
inch/H ₂ O Range	-138.0 to 138.0	-415.0 to 415.0	-830.0 to 830.0	-2768 to 2768
inch/H ₂ O Resolution	0.1	0.3	0.5	2
feet/H ₂ O Range	-12.00 to 12.00	-35.00 to 35.00	-69.00 to 69.00	-231.0 to 231.0
feet/H ₂ O Resolution	0.01	0.02	0.04	0.2
mm/Hg Range	-259.0 to 259.0	-776.0 to 776.0	-1551 to 1551	-5171 to 5171
mm/Hg Resolution	0.2	0.5	1	3
inch/Hg Range	-10.00 to 10.00	-31.00 to 31.00	-61.00 to 61.00	-204.00 to 204.00
inch/Hg Resolution	0.01	0.03	0.1	1.0
kg/cm ² Range	-0.350 to 0.350	-1.060 to 1.060	-2.110 to 2.110	-7.030 to 7.030
kg/cm ² Resolution	0.001	0.001	0.002	0.004
oz/inch ² Range	-80.00 to 80.00	-240.0 to 240.0	-480.0 to 480.0	-1600 to 1600
oz/inch ² Resolution	0.05	0.2	0.3	1
kPa Range	-34.50 to 34.50	-103.0 to 103.0	-207.0 to 207.0	-690.0 to 690.0
kPa Resolution	0.02	0.1	0.2	0.4<

Traceable® Pressure/Vacuum Gauges



Computer Output

Displays answer in eight different units. Meter is accurate to 1% full-scale plus 1 digit. Jumbo-size digits are 3/8-inch-high. Serial RS-232 output allows it to be connected to a computer or data logger for monitoring and keeping results. To assure accuracy an individually serial-numbered Traceable® Certificate is provided from our ISO 17025 calibration laboratory accredited by A2LA. It indicates traceability to standards provided by NIST (National Institute of Standards and Technology).

At the touch of a button the unit may be zeroed. Memory key recalls highest and lowest readings. A DATA HOLD button freezes the display to capture readings. Transducer has 1/4-inch NPT male-threaded stainless-steel end. It may be used with all gases and liquids compatible with 316 stainless steel. Cable is 40 inches. Supplied with Traceable® Certificate, transducer sensor, 9-volt alkaline battery, and serial computer output. Size is 7 x 3 x 1 1/2 inches and weight is 9 1/2 ounces.

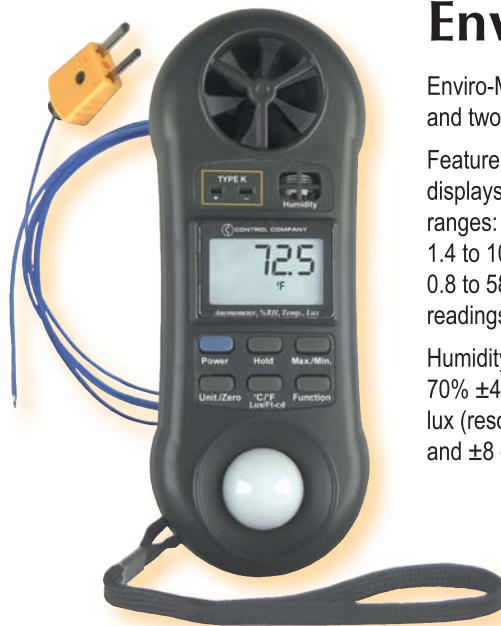
Cat. No.	3165	3166
psi range (resolution)	-14.7 to 725 (1)	-14.70 to 29.0 (0.02)
bar range (resolution)	-1.0 to 50 (0.05)	-1.000 to 2.000 (0.002)
Meter/H ₂ O (resolution)	-10 to 509.5 (0.5)	-10.00 to 20.40 (0.02)
Atmospheres range (resolution)	-1.0 to 49.35 (0.05)	-1.000 to 1.974 (0.002)
mm/Hg range (resolution)	-736 to 37500 (50)	-736 to 1500 (2)
inch/Hg range (resolution)	-29 to 1476 (1)	-29 to 59.05 (0.05)
inch/H ₂ O range (resolution)	-394 to 20050 (20)	-394 to 802 (1)
Kg/cm ² range (resolution)	-1 to 50.95 (0.05)	-1.000 to 2.040 (0.002)

Cat. No. 4138 Easy-Use™ Accessory Adapter 115 VAC

Cat. No. 4136 Data Acquisition System (complete description on page 12)

Cat. No. 4325 Data Logger (complete description on page 17)

Enviro-Meter™



Enviro-Meter™ provides in a single handheld package an anemometer, humidity meter, light meter, and two thermometers. Lightweight and compact case permits one-handed operation.

Features a HOLD button that captures a reading for ease in recording a result. MAX/MIN button displays highest and lowest reading over any time period. Anemometer displays air velocity ranges: 80 to 5910 feet per minute (resolution 1), 0.4 to 30.0 meters per second (resolution 0.1), 1.4 to 108.0 kilometers per hour (resolution 0.1), 0.9 to 67.0 miles per hour (resolution 0.1), and 0.8 to 58.3 knots (resolution 0.1). Accuracy is: under 20 meters per second ±3% of full scale readings and over 20 meters per second ±4% full scale reading.

Humidity range is 10.0 to 95.0% relative humidity (resolution 0.1%RH). Accuracy is: under 70% ±4%RH and over 70% ±(4% of the reading plus 1.2%RH). Light ranges are 0 to 20,000 lux (resolution 1) and 0 to 2000 foot candles (resolution 1). Accuracy is ±5% of the reading and ±8 digits.

Internal ambient thermometer sensor range is 32.0 to 122° Fahrenheit and 0.0 to 50.0° Celsius (resolution 0.1°). Accuracy is ±1.2° C. External thermometer range is -148.0 to 2372° Fahrenheit and -100.0 to 1300° Celsius (resolution 0.1°). Accuracy is ±(1% of the reading plus 1°C). Comes ready to use with fast-response, type K beaded external thermometer probe with cable length of 4 feet, wrist strap, and 9-volt battery. Size is 6 1/2 x 2 1/4 x 1 1/4 inches and weight is 6 ounces.

Cat. No. 4332 Enviro-Meter™

Data Logger

Accessory Data Logger-

Complete DAS-4™ System captures and stores up to 8000 bytes (over 1000 readings). Readings may be taken at intervals from 1 second to 99 hours. Stored readings may be downloaded to any PC and viewed. Can be read as-is or imported to spreadsheets, databases, and statistical programs. Supplied complete with 36-inch serial cable with D9F computer plug, 3½ inches diskette Windows®, and four AA alkaline batteries. Size is 5 x 3 x 1 inches. Weight is 7 ounces. For use with Traceable® meters featuring RS-232 output. Replacement battery Cat. No. 1111.

Cat. No. 4325 Data Logger



Traceable® Digital Anemometer/Memory

Digital Anemometer with Memory

Four-digit LCD reads airflow from 40 to 7800 feet per minute and 0.20 to 40.00 meters per second. Resolution is 1 foot or 0.01 meter. Readings are reproducible to within 1 digit, accuracy is ±1% of the reading.

To assure accuracy an individually serial-numbered Traceable® Certificate is supplied to indicate traceability to standards provided by NIST (National Institute of Standards and Technology).

Press a button to select 2- or 16-second averaging. Memory recalls highest/lowest readings for any time period, and a HOLD switch freezes the display to capture a reading. Battery life is 1 year when used intermittently or 300 continuous hours. Display shows the percent of battery power remaining. The sensing probe can be handheld or used with the supplied extension wands to increase reach by 5 feet. Vane is aluminum and case is ABS plastic. Supplied with two AAA alkaline batteries. Size is 3 x 7 x ¾ inches. Weight is 8 ounces.

Cat. No. 4090 Traceable® Digital Anemometer/Memory



Traceable® Anemometer/Thermometer

One-hand operation anemometer displays air velocity and temperature simultaneously. Ease of operation in hoods or outdoors makes this an ideal instrument. Unit is engineered for years of reliable service even in severe lab, harsh plant, or outdoor environments.

Ranges are: 0.40 to 30.00 meters per second with a resolution of 0.01 meter, 1.4 to 108.0 kilometers per hour with a resolution of 0.1 kilometer, 80 to 5900 feet per minute with a resolution of 1 foot, 0.9 to 67.0 miles per hour with a resolution of 0.1 mile, 0.8 to 58.0 knots (nautical miles per hour) with a resolution of 0.1 knot, and -10.0 to 50.0°C and 14.0 to 122°F with a resolution of 0.1 degree. Anemometer accuracy is ±3% of full scale and thermometer accuracy is ±1°C. To assure accuracy an individually serial-numbered Traceable® Certificate is supplied to indicate traceability to standards provided by NIST (National Institute of Standards and Technology).

Reading is updated instantaneously. A memory key allows the unit to recall the highest and lowest readings achieved. A HOLD key freezes the display at the current reading, it's ideal for capturing a reading in a difficult location. An AVERAGE key allows from 2 to 8 readings to be averaged automatically. Supplied with RS-232 serial output computer jack. Rugged case is chemical/shock resistant ABS plastic. Extra-large LCD digits are ½-inch-high and can be read from 10 feet. Supplied with Traceable® Certificate, 9-volt alkaline battery (400 hours of typical use), carrying case, and instructions. Unit is 7¼ x 3 x 1¼ inches and weight is 7½ ounces.

Cat. No 4331 Traceable® Anemometer/Thermometer





Traceable® Hot Wire Anemometer/ Thermometer

Hot Wire Anemometer with two miniature glass-bead thermistors provides greater precision at low air velocities. Telescope probe expands from 9½ inches to 3 feet for use in hard-to-reach places. No moving-parts unit eliminates friction errors caused by rotating vanes. It's ideal for clean rooms and environmental tests.



Computer Output

Displays air speed in five ranges

Features five measuring ranges in air velocity: 0.2 to 20.0 meters per second (resolution 0.1), 0.7 to 72.0 kilometers per hour (resolution 0.1), 40 to 3940 feet per minute (resolution 1), 0.5 to 44.7 miles per hour (resolution 0.1), and 0.4 to 38.8 knots (nautical miles per hour) (resolution 0.1). Accuracy is $\pm(1\%$ full scale plus 1 digit). Unit also displays temperature in °F and °C from 32.0 to 122.0°F and 0.0 to 50.0°C with a resolution of 0.1°. Accuracy is $\pm 0.8^\circ\text{C}$ (1.5°F).

Download data to computer or data logger

Serial RS-232 output allows anemometer to be connected to a computer or data logger for monitoring results. Traceable® Certificate is provided to indicate instrument traceability to NIST (National Institute of Standards and Technology). Memory function recalls the highest and lowest readings. A Data HOLD button freezes the display to capture readings.

Comes ready to use

To assure accuracy an individually serial-numbered Traceable® Certificate is supplied to indicate traceability to standards provided by NIST (National Institute of Standards and Technology). Unit is supplied complete with dual thermistors probe, 40-inch cable, Traceable® Certificate, 6 AAA batteries, and serial computer output. Size is 7 x 3 x 1¼ inches and weight is 9½ ounces.

Cat. No. 4330 Traceable® Hot Wire Anemometer/Thermometer

Cat. No. 4138 Easy-Use™ Accessory Adapter 115 VAC

Cat. No. 4136 Data Acquisition System
(complete description on page 12)

Cat. No. 4325 Data Logger
(complete description on page 17)



Traceable® Digital Anemometer/ Thermometer

Traceable® Anemometer measures air velocity/temperature in hoods and outside environments with ease and accuracy. Use it to display even slight gas movement in ducts. Designed for heavy use in lab, plant, and field. Unit is built to take a beating and still give years of reliable readings. Ease-of-operation ensures that everyone using the instrument reports identical results.

Precise air speed reporting

Ranges are: 0.4 to 30.0 meters per second with a resolution of 0.1 m, 1.4 to 108.0 kilometers per hour with a resolution of 0.1 km, 80 to 5910 feet per minute with a resolution of 10 ft, and 0.8 to 53.3 knots (nautical miles per hour) with a resolution of 0.1 knots, and 0.0 to 60.0°C and 32.0 to 140.0°F with a resolution of 0.1°. Anemometer accuracy is $\pm(2\% + 1\text{-digit})$ and temperature accuracy is $\pm 1^\circ\text{C}$. The extraordinary low-friction, precision, ball bearing design provides a vane which rotates freely in both low and high velocities. To assure accuracy a serial-numbered Traceable® Certificate is supplied to indicate traceability to standards provided by NIST (National Institute of Standards and Technology).

Built to last

Reading is updated instantaneously. A HOLD switch freezes the display at the current reading. It's ideal for capturing a reading in a difficult location. Engineered for years of reliable service even in severe lab or harsh plant environments. Rugged case is chemical-/shock-resistant ABS plastic and has a handy built-in, flip-open bench stand for easy monitoring. Extra-large LCD is ¾-inch-high and can be read from 15 feet. Supplied with Traceable® Certificate, 9-volt alkaline battery, carrying case, and instructions. Handle is 2½ inches in length, wind vane diameter is 2¾ inches, and cable length is 4 feet. Unit is 6¼ x 3 x 1¼ inches and overall weight is 1 pound.

Cat. No. 4091
Traceable® Digital Anemometer with Thermometer

Traceable® Handheld Barometer



Handheld Digital Barometer measures altitude, temperature, and barometric pressure. Also has a stopwatch/time of day clock and graphically displays the barometric pressure trend. To assure accuracy an individually serial-numbered Traceable® Certificate is provided from our ISO 17025 calibration laboratory accredited by A2LA. It indicates traceability to standards provided by NIST (National Institute of Standards and Technology).

Barometer and Altimeter

Measures barometric pressure from 15.90 to 31.01 in inches of mercury (inHg) with a resolution of 0.03 inHg and from 400 to 1070 millibars (mbar) with a resolution of 1 mbar. Accuracy is ± 0.1477 inHg (± 8 mbar). Barometric pressure trend shows current reading and previous 2-, 4-, 6-, 8-, 10-, and 12-hour readings in bar-chart format. Barometric pressure reading is updated every 15 minutes. Measures altitude from -500 to 7000 meters (-1640 to 22,965 feet), with a resolution of 1 meter or 1 foot. Altitude is displayed in meters or feet. Reading is updated every 2 seconds. Features a minimum/maximum memory for the altitudes reached during any time period, and the altitude trend shows present reading and previous 2-, 4-, 6-, 8-, 10-, and 12-hour readings in bar-chart format.

Thermometer

Thermometer displays from -40.0 to 158.0°F and -40.0 to 70.0°C with a resolution of 0.1°. Accuracy is $\pm 1^\circ\text{C}$. Temperature display is updated every 10 seconds.

Stopwatch and clock

Stopwatch times events from 1 second to 99 hours, 59 minutes, 59 seconds. Resolution is 1 second and accuracy is 0.01%. Clock displays the time of day to the minute and shows the date and month. The clock also features a format of 12-/24-hour timing and an alarm. Rugged shock-resistant case, compact size (4 x 2½ x ¾ inches), and light weight (3½ oz.) make this the perfect portable unit. Supplied complete with lanyard, 2 batteries, and instructions.

Cat. No. 4198 Traceable® Handheld Barometer

Electronic digital barometers measure atmospheric pressure, graphically display the barometric trend, and report relative humidity and temperature. Ideal for recording ambient changes in the lab, monitoring conditions affecting sample analysis, and assisting in the prediction of weather changes.

Traceable to NIST for accuracy

To assure accuracy an individually serial-numbered Traceable® Certificate is provided from our ISO 17025 calibration laboratory accredited by A2LA. It indicates traceability to standards provided by NIST (National Institute of Standards and Technology).

Memory stores barometric readings

Graphic barometric trend shows present reading and previous 1-, 3-, 6-, 12-, and 24-hour readings in a bar chart format. Hourly digital barometric readings are stored in memory and can be recalled and displayed for each of the past 24 hours.

Adjustable altitude compensation is from -100 to 2500 meters. Barometer measures pressure from 23.45 to 31.01 inches of mercury (inHg) with a resolution of 0.03 inHg and from 794 to 1050 millibars (mbar) with a resolution of 1 mbar. Accuracy is ± 0.1477 inHg (± 5 mbar).

Weather forecasting

Units display relative humidity with a resolution of 1%RH. Accuracy is $\pm 5\%$ RH. Temperature range is 32 to 131°F and 0 to 55°C. Accuracy is $\pm 1^\circ\text{C}$. Accurate forecasting indicators show weather conditions for the next 24-hours using symbols for sunny, cloudy, rainy, and partly cloudy. Temperature and humidity are updated every 9 seconds, barometric pressure every 15 minutes. Switches permit setting in Fahrenheit/Celsius and inHg/mbars. Units are supplied with stand, wall-mount, and batteries.

Cat. No. 4195 Traceable® Digital Barometer (pictured left)

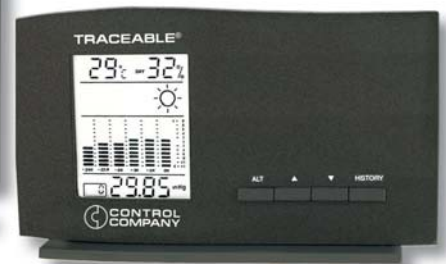
Features include tall design and temperature displayed to 0.1 degree. Humidity range is 25 to 95%RH. A clock displays the time to the minute in either A.M./P.M. or 24-hour time. Calendar shows month and date. Unit is 7¼ x 5¼ x 1 inches. Weight is 10 oz.

Cat. No. 4197 Traceable® Compact Digital Barometer (pictured right)

Features include low-profile design and temperature displayed to 1 degree. Humidity range is 25 to 95%RH. Size is 3¼ x 7 x 1 inches. Weight is 7 ounces.



Traceable® Digital Barometers





Traceable® Digital Barometer Module



Computer Output

Digital Barometer Module is the perfect unit for plants, labs, and all other environments where there is a need to monitor conditions, check environmental air parameters, and forecast weather. A four-line LCD continuously and simultaneously shows barometric pressure, temperature, relative humidity, barometric pressure trend, weather forecast, and humidity comfort range. Weather forecast display indicator shows sunny, cloudy, rainy, or partly cloudy.

To assure accuracy an individually serial-numbered Traceable® Certificate is provided from our ISO 17025 calibration laboratory accredited by A2LA. It indicates traceability to standards provided by NIST (National Institute of Standards and Technology).

Module displays barometric pressure from 795 to 1050 millibars (mbar) with a resolution of 1 mbar, and from 23.45 to 31.01 inches of mercury (inHg) with a resolution of 0.03 inHg. Accuracy is ± 5 mbar (± 0.15 inHg). Barometric pressure trend shows in bar chart format the current and past 1-, 3-, 6-, 12- and 24-hour readings. Barometric readings for every hour of last 24 hours are stored continuously and are available for recall at the touch of a button.

Temperature and relative humidity

Temperature range is 32 to 131°F and 0 to 55°C. Resolution is 1° and accuracy is ± 1 °C. Humidity range is 25 to 95%RH. Resolution is 1%RH and accuracy is ± 5 %RH.

Makes a permanent database

Data output allows module to be connected to a computer or data logger using the Accessory Data Acquisition System to capture readings of barometric pressure, temperature, and relative humidity. Switching permits setting in Fahrenheit/Celsius and mbar/inHg. Altitude compensation is -100 to 2500 meters. Supplied complete with instructions and AAA batteries. Size is 4 x 3 x 1 inches. Weight is 7 ounces.

Cat. No. 1870 Traceable® Digital Barometer Module

Cat. No. 1871 Data Acquisition System Accessory

Data Acquisition System captures, displays, and stores readings on any PC with Windows®. Data files can be read as-is or imported into spreadsheets, databases, and statistical programs. Supplied with 3½-inch diskette, 5-foot cable that plugs into barometer and computer serial port, and an AC power adapter.



Traceable® Workstation Digital Barometer

Innovative barometer stands on the bench

Workstation digital barometer measures atmospheric pressure, graphically displays the barometric trend, and reports temperature and time. Ideal for recording ambient changes in the lab, monitoring conditions affecting sample analysis, and assisting in the prediction of weather changes.

Barometer measures pressure from 23.62 to 31.01 inches of mercury (inHg) with a resolution of 0.03 inHg, and from 800 to 1050 millibars (mbar) with a resolution of 1 mbar. Accuracy is ± 0.2 inHg (± 6 mbars between 900 to 1050 mbar). Graphic barometric trend shows present reading and previous 1-, 3-, 6-, and 12-hour readings in a bar chart format. Adjustable altitude compensation is from -300 to 1200 meters and -900 to 3600 feet.

Temperature range is 15 to 158°F and -9.5 to 70°C with a resolution 0.5° and an accuracy of ± 1 °C between 0 and 50°C. Clock shows time in A.M./P.M. and 24-hour formats. To assure accuracy an individually serial-numbered Traceable® Certificate is provided from our ISO 17025 calibration laboratory accredited by A2LA. It indicates traceability to standards provided by NIST (National Institute of Standards and Technology). Surprisingly accurate forecasting indicators show weather conditions for the next 12-hours using symbols for sunny, cloudy, rainy, and partly cloudy. Supplied with two AAA alkaline batteries. Size is 4 x 4 x 2¼ inches. Weight is 4 ounces.

Cat. No. 4245

Traceable® Workstation Digital Barometer

Traceable® Precision Dial Barometer

Traceable® Precision Barometer's triple scales provide a sensitive measure of atmospheric pressure from 954 to 1073 millibars, 28.1 to 31.7 inches of mercury, and 715 to 805 millimeters of mercury with a resolution of 0.5 mbar, 0.05 inHg, and 0.5 mmHg. Accuracy is $\pm 0.5\%$ of reading.

Traceable to NIST for accuracy

To assure accuracy an individually serial-numbered Traceable® Certificate is provided from our ISO 17025 calibration laboratory accredited by A2LA. It indicates traceability to standards provided by NIST (National Institute of Standards and Technology).

Housing is rugged corrosion-proof, nickel-chrome. Adjustable pointer may be set to indicate changes. Complete with altitude adjustment screw (use at locations as high as 1000 meters), notched desk stand, and wall mount. Size is 4¼ inches diameter by 1½ inches. Weight is 1 pound.

Cat. No. 4199 Traceable® Precision Dial Barometer



Traceable® Humidity Controller

Humidity outlet switch turns any piece of equipment on or off. Program "higher-ON/lower-OFF" or "lower-ON/higher-OFF" switching at any set point from 30 to 90% RH in 1% RH increments. Use for turning humidifiers, dehumidifiers, or alarms on or off. Three-button operation is extremely easy and fast.

Battery backup

A manual override permits equipment to be switched on or off instantly without disturbing the program. Rechargeable nicad battery maintains operation for days in the event of an electrical outage. To assure accuracy an individually serial-numbered Traceable® Certificate is provided from our ISO 17025 calibration laboratory accredited by A2LA. It indicates traceability to standards provided by NIST (National Institute of Standards and Technology).

LCD (½-inch-high) displays relative humidity and ON/OFF message to show status of attached equipment. Accuracy is $\pm 5\%$ RH. Three-pronged grounded receptacle, turns apparatus on/off to 125 VAC, 15 amps, 1800 watts, ⅓ horsepower. High-impact ABS plastic case is 4¼ x 2¾ x 1½ inches. Weight is 4½ ounces.

Cat. No. 4190 Traceable® Humidity Controller



Wireless Weather System

Weather System is a complete professional weather station. Perfect for industrial plants, labs, schools, and others needing to monitor conditions, forecast weather, and check environmental air parameters.

Displays temperature, humidity, dew point, barometric pressure/pressure trend, weather forecast, wind direction/speed, windchill, rainfall amount, and clock/calendar. Programmable alarms for all measurements signal out-of-range conditions. Serial data output permits linking to a computer for storing all information, making a permanent weather database, generating analysis, and studying trends. The main unit receives a radio signal from the remote wireless sensors. System eliminates all cables. Place the main unit anywhere.

Unit size is 8 x 7 x 5½ x 1 inches, display is 6¾ x 3¾ inches. Supplied complete with instructions, all equipment, all sensors, AC adapter, and 4 AA backup batteries (eliminates concerns about power outages).

Cat. No. 4250 Wireless Weather System

WEATHER SYSTEM SOFTWARE

- Cat. No. 4451 Computer Software Basic Edition**
- Cat. No. 4452 Computer Software General Use Edition**
- Cat. No. 4453 Computer Software Standard Edition**
- Cat. No. 4454 Computer Software Professional Internet Edition**



SPECIFICATIONS			
RANGES		RESOLUTION	FEATURE
CLOCK	24-hours	1 minute	Shows date and set alarm
TEMPERATURE	Indoor range: 23.0 to 122.0°F and -5 to 50.0°C	0.1°C	Min/max memories, high/low alarms
	Outdoor range: -4 to 140°F, -20 to 60°C		
HUMIDITY	Indoor/Outdoor range: 2 to 98%	1%RH	Min/max memories, high/low alarms
DEW POINT	Indoor range: 32 to 120°F and 0 to 49°C	1°C	Min/max memories, high/low alarms
	Outdoor range: 14 to 140°F, 10 to 60°C		
BAROMETER ABSOLUTE PRESSURE	795 to 1050 mb and 23.48 to 31.01 inHg	1 mb, 0.03 inHg	Min/max memories, high/low alarms, sea level reference, pressure trend indicator, weather forecasting with symbols (sunny, cloudy, rainy)
WIND SPEED	0.0 to 56.0 m/sec, 0.0 to 125.3 mph	0.2 m/sec, .04 mph	Displays wind direction and bearing

Traceable® Certificate assures accurate lab tests

How to achieve absolute accurate results—

Order Traceable® products today. Each one is serial numbered, each one is supplied with an individual Traceable® Certificate.

Accredited by A2LA (The American Association for Laboratory Accreditation) dedicated to "one test accepted everywhere, one accreditation accepted everywhere". A2LA is your assurance of **internationally recognized technical laboratory competence**.

Traceable® Certificates are recognized by ILAC and MRA.

Displays **catalog number** for complete product reference

Calls out the **test equipment** used for calibration

Reports **environmental conditions** at the time of measurement

Spells out **test uncertainty ratio** and **confidence level**

Lists **specific conditions** that may affect product's accuracy

Supplied by our **ISO 9001** quality certified facility

Calibration complies with ISO/IEC 17025 AND ANSI/NCSL Z540-1

Traceable® Certificate of Calibration for Digital Thermometer

Instrument Identification: Model: 4000, SN: 61464451, Manufacturer: Control Company

Standards/Equipment: Description: Temperature Probe, Thermistor Module, Temperature Calibration Bath TC105, Temperature Calibration Bath TC191, Temperature Probe, Thermistor Module

Certificate Information: Technician: 68, Procedure: CAL-06, Test Conditions: 23.0°C, 41.0 %RH, 1010 mbar

Units	Nominal	As Found	In Tol	Nominal	As Left	In Tol	Min	Max	Unc	TUR
°C	N.A.	N.A.	Y	25.001	-0.004	Y	-0.049	0.051	0.013	3.8:1
°C	N.A.	N.A.	Y	60.001	24.998	Y	24.951	25.051	0.013	3.8:1
°C	N.A.	N.A.	Y	100.001	60.001	Y	59.951	60.051	0.013	3.8:1
°C	N.A.	N.A.	Y	100.001	99.993	Y	99.951	100.051	0.013	3.8:1

Cal Date: 10/10/08, Cal Due: 10/10/10

Signature: D. J. Mack, Technical Manager

Conforms to universally recognized **ISO 17025 Standard**, a requirement for all serious ISO 9000 facilities

Establishes with reference numbers the **"unbroken chain"** of traceability to NIST

Displays **serial number** for total product identification

Indicates **Calibration Due Date**, a benchmark for continued instrument accuracy

Specifies **Calibration Date** when the unit was tested

Spells out **test uncertainty ratio** and **confidence level**

Signed by the **Technical Manager**

Provides **measurement test results** for your specific unit

How to make measurements with absolute accuracy

Your lab's test results are important. That's why accurate instrument performance is our top priority. Before it's shipped to you, every Traceable® product is calibrated by our ISO 17025 calibration laboratory accredited by A2LA. Every product is supplied from our ISO 9001, DNV quality-certified facility.

The Traceable® Certificate is included with every Traceable® product. Precise accuracy is provided from the moment you open the box. Every Traceable® product is supplied with a Traceable® Certificate indicating accreditation by A2LA (The American Association for Laboratory Accreditation).

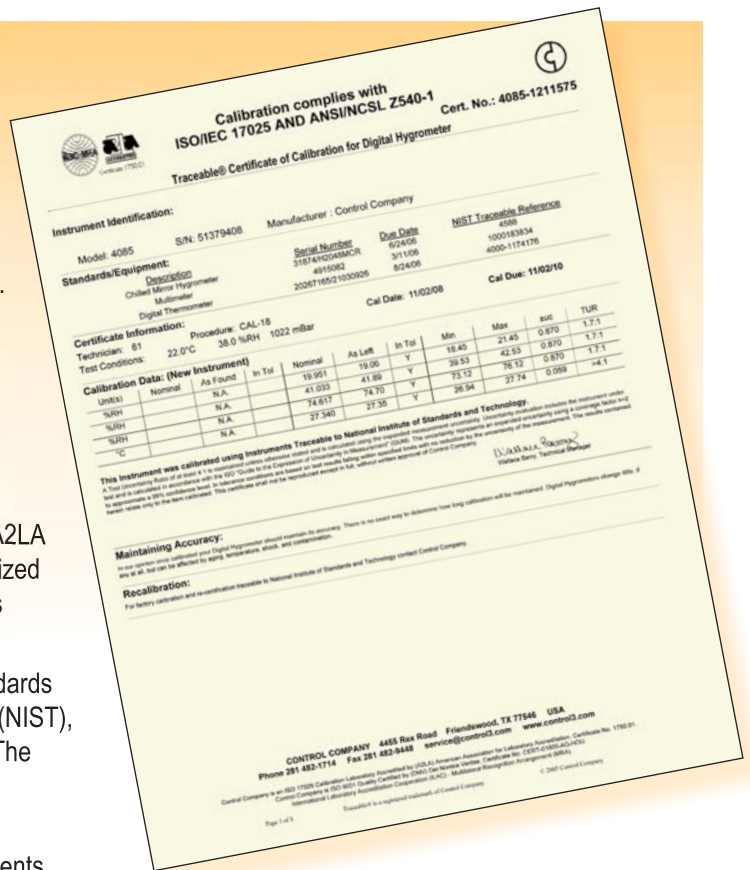
Traceable® Hygrometers Thermometers and Barometers

All Traceable® products are provided with a Traceable® Calibration Certificate from our ISO 17025 calibration laboratory. Barometer, clock, controller, hygrometer, and temperature certificates are accredited by the American Association for Laboratory Accreditation (A2LA).

A2LA is widely recognized internationally through bilateral and multilateral agreements and through its participation in the International Laboratory Accreditation (ILAC) and Multilateral Recognition Arrangement (MRA). Through Control Company's A2LA Accreditation, Traceable® Certificates are internationally recognized by accreditation agencies and governments in over 75 countries throughout the world.

Traceable® Certificate indicates the product is traceable to standards provided by the National Institute of Standards and Technology (NIST), a U.S. Government agency within the Commerce Department. The Traceable® Certificate complies with ANSI/NC SL Z540-1.

A Traceable® Certificate includes all of the information to meet today's stringent accreditation demands, CLIA requirements, government specifications, and ISO 9000 certifications.



ISO 9001 Quality-Certified

Control Company is our ISO 9001 Quality-Certified company. This provides you with the assurance that you are supplied with only the finest and most reliable products. Control Company is recognized worldwide for superb quality and innovative products. We are one of the world's market leaders for digital equipment. Control Company is pleased to offer you the extra confidence that ISO 9001 Certification brings to every Control product. (DNV Certificate No. CERT-01805-2000-AQ-HOU-RAB).

ISO 17025 Calibration Laboratory Accredited

Control Company is our ISO 17025 calibration laboratory accredited by The American Association for Laboratory Accreditation (A2LA) meeting the requirements of ISO/IEC 17025 and ANSI/NC SL Z540-1. This ensures that you are supplied accurate instruments, individually tested to be traceable to NIST, and a Traceable® Certificate (A2LA Certificate No. 1750.01).



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