

The "DewK" Thermo-Hygrometer





Each DewK ships with one probe, with additional probes available from Hart. Spare probes may also be purchased as a kit, which includes a case for the probe, a wall mounting bracket, and a 25-foot extension cable.

Accuracy

Two types of probes are available from Hart, and the DewK may be originally purchased with either one.

The standard accuracy probe ("S" model) reads temperature to $\pm 0.25^{\circ}\text{C}$ over its calibrated range of 15°C to 35°C . Relative humidity readings are to $\pm 2\%$ RH from 20% to 70% RH.

The high accuracy probe ("H" model) reads temperature to $\pm 0.125^{\circ}\text{C}$ over a calibrated range of 16°C to 24°C . Relative humidity readings are to $\pm 1.5\%$ RH from 20% RH to 70% RH.

Both probes can also measure temperature below their respective calibrated ranges to 0°C and above their respective calibrated ranges to 50°C with typical accuracy of $\pm 0.5^{\circ}\text{C}$. And RH readings from 0% to 20% RH and from 70% to 100% RH are typically within $\pm 3\%$.

Statistics

In addition to temperature and humidity, the DewK calculates dew point, heat index, and rates of change for both temperature and humidity. Min, max, and a variety of other statistics are also calculated and can be shown on-screen. Daily summary statistics, including min, max, and maximum rates of change are stored for the most recent sixty days.

Memory and PC Interface

The DewK has enough on-board memory to store up to 400,000 date- and time-stamped data points. (That's two years worth of data for both measurements from two sensors if readings are taken every ten minutes!) A PC Card slot (PCMCIA) can be used for additional storage and for transferring collected data to a PC. The DewK also includes RS-232 and IrDa communications ports. Measurements can be taken by the DewK in user-selectable intervals ranging from every second to every hour.

Data transferred to a PC (whether in real-time or as a historical record) can be easily viewed and analyzed using Hart's

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Model 1620

- Two channels measure ambient temperature to $\pm 0.125^{\circ}\text{C}$ and % RH to $\pm 1.5\%$
- On-board memory holds up to 400,000 time/date-stamped readings; PC card holds millions more!
- Visual and audio alarms for numerous alarm or fault conditions
- Detachable probes contain their own calibration data for easy recalibrations
- Optional software logs in real-time or shows graphical/statistical data from PC Card

Environmental conditions matter. They affect critical processes and are a vital variable in many measurement and quality control systems. So when you depend on accurate measurements and reliable records of ambient conditions, why compromise on your tools?

Most environmental data loggers don't display the data they're logging. Most instruments with digital displays lack accuracy. And old-fashioned strip-chart recorders are always running out of ink and just add to an already excessive amount of paperwork.

Think we're building up to something here? You better believe it. We've got the crème de la crème of environmental measuring instruments and we know you're going to love it! Please meet... the DewK.

Multiple Sensors

The DewK has two inputs for sensing probes, with each probe measuring both temperature and relative humidity. Both probes can be run via extension cables to remote locations up to 50 feet away, or one probe can be directly mounted to the top of the DewK.

Each probe is calibrated for both temperature and humidity at Hart Scientific. The calibration constants assigned to the sensors reside in a memory chip located inside the probe housing, so probes may be used interchangeably between different DewKs and the recalibration of probes doesn't require an accompanying DewK. Probes may also be assigned a unique identifier (up to 16 characters) to facilitate record-keeping by matching the probe identifier with the collected data.

optional LogWare III software (Model 9936). Likewise, stored data can be loaded back into the DewK through the PC card for statistical and graphical analysis in the DewK itself.

Data can also be sent to a printer in real-time via the RS-232 connection.

Alarms

Alarm settings can be quickly set up in the DewK based on temperature, the rate of change in temperature, RH, the rate of change in RH, and instrument fault conditions. Alarms can be both visual (flashing display) and aural (beeping). Likewise, alarm settings can be set up and events triggered in LogWare III.

A backup battery shuts down the DewK's display but maintains measurements for up to sixteen hours in the event of a power failure.

One Very Cool Display

Want to view data from across the room? Want to view data from two temperature and two humidity inputs simultaneously? Want to view data graphically, statistically, or both? At the same time?! The DewK does everything you could want—or at least everything we could think of. Up to sixteen different display setups can be stored and recalled at the touch of a single button. And all sixteen can be easily modified, so you get exactly what you want.

Confidence

Hart Scientific supplies the world's finest measurement laboratories with world-class temperature standards. We not only measure temperature better than anybody, we make temperature measurements functional and productive. It's only logical that we extend that capability to include humidity and environmental monitoring.

Don't compromise on your lab standards. Buy with confidence. Measure with confidence. Record, analyze, and store data with confidence. Partner with Hart Scientific.



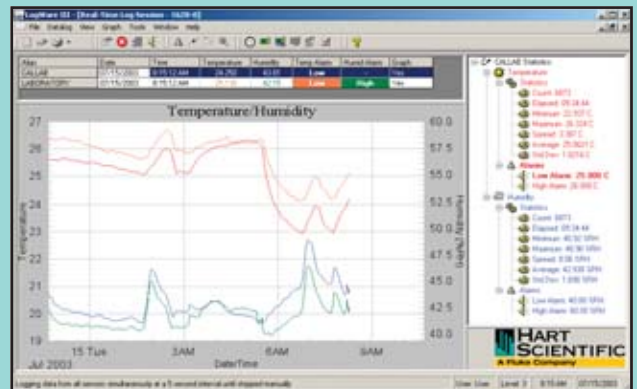
The DewK lets you view data just about any way you like it. Both graphical data and statistical data can be shown for temperature and humidity from one or two inputs. Modifying any of the standard screens is easily done, so you see exactly what you want—no more, no less.

By itself, the DewK is amazing. With LogWare III, it's... well... even amazing!

LogWare III is a Windows® application that retrieves, stores, and analyzes data from the DewK. LogWare can import data batches from PC cards or directly from the DewK's memory. In addition, LogWare can read data in real time via an RS-232 cable. Real-time data may be logged from one or both of a DewK's sensors, providing up to two temperature and two humidity inputs.

All data is stored in a single database and is easily retrievable based on date and time ranges and sensor identifiers (which can be modified to indicate locations). Configurable user accounts and access levels can ensure appropriate security and integrity of all stored data.

Real-time data may be viewed in customizable graphic and statistical formats. Graphs can be displayed for both temperature and humidity for one or both sensor inputs in user-selectable time-increments. A variety of critical statistical functions can also be shown for each input, including min, max, average, and standard deviation. Alarm settings



accompany downloaded or real-time data and can be highlighted in the graphs and in the displayed statistics. Alarm events can also be triggered from the software.

For previously stored data, LogWare allows onscreen viewing of raw data. It also exports data easily to file formats that can be viewed in Excel or other common spreadsheet and database programs. It's hard to say which is more versatile: the DewK or LogWare III. This could well be the *amazingest* combination we've ever produced!

Specifications

Temperature Range	0°C to 50°C
Temperature Accuracy ("H" Model)	16°C to 24°C: ±0.125°C (calibrated) 0°C to 16°C, 24°C to 50°C: ±0.5°C (uncalibrated typical)
Temperature Accuracy ("S" Model)	15°C to 35°C: ±0.25°C (calibrated) 0°C to 15°C, 35°C to 50°C: ±0.5°C (uncalibrated typical)
Delta Temperature Accuracy	±0.025°C for ±1°C changes within 15°C to 35°C
Temperature Resolution	User selectable up to 0.001°C
RH Range	0% to 100% RH
RH Accuracy ("H" Model)	20% to 70% RH: ±1.5% RH (calibrated) 0% to 20% RH, 70% to 100% RH: ±3% RH (uncalibrated, typical)
RH Accuracy ("S" Model)	20% to 70% RH: ±2% RH (calibrated) 0% to 20% RH, 70% to 100% RH: ±3% RH (uncalibrated, typical)
Delta Humidity Accuracy	±1.0% for ±5% changes within 20% to 70% RH
RH Resolution	User selectable up to 0.01%
Inputs	Two sensors, each measuring temperature and relative humidity; each is detachable, cable-extendable, and interchangeable, with self-contained calibration; each may be assigned a unique 16-character identification
Display	240 x 128 graphics monochrome LCD, displays temperature and humidity data graphically, numerically, and statistically; 16 pre-defined, user-changeable screen set-ups are included
Memory	400,000 typical individual time-stamped readings (excluding PC card storage)
Alarms	Visual and audio alarms for temperature, temperature rate, RH, RH rate, and fault conditions
Communications	RS-232 and IrDA
PC Card Interface	64-MB flash memory for downloading data to a PC; data can likewise be uploaded from a PC card into the DewK for graphical and statistical display
Enclosure	The DewK may be wall-mounted (hardware included) or set on a benchtop
Power	12V DC from external 100-240 VAC power supply
Operating Range	0°C to 50°C
Size (DewK)	4.9" H x 8.3" W x 2.0" D (125 x 211 x 51 mm)
Size (Probes)	3.1" H x 0.75" dia. (79 x 19 mm)
Weight	1.5 lb. (0.7 kg)
Calibration	Certificate of NIST-traceable temperature and humidity calibration included; supplied data includes three each temperature and humidity points

Ordering Information

1620-S	The "DewK" Thermo-Hygrometer (includes standard-accuracy DewK probe, wall mount bracket, and RS-232 cable)
2626-S	Spare Probe, 1620-S DewK
2627-S	Spare Probe Kit, 1620-S (includes standard-accuracy DewK probe, probe case, probe wall mount bracket, and 25-foot [7.6 m] extension cable)
1620-H	The "DewK" Thermo-Hygrometer, High Accuracy (includes high-accuracy DewK probe, wall mount bracket, and RS-232 cable)
2626-H	Spare Probe, 1620-H DewK
2627-H	Spare Probe Kit, 1620-H (includes high-accuracy DewK probe, probe case, probe wall mount bracket, and 25-foot [7.6 m] extension cable)
2628	Cable, 25-foot (7.6 m) extension cable
2629	Cable, 50-foot (15.2 m) extension cable
2632-64	PC Card (PCMCIA), 64 MB
2607	Protective Case, Spare Probe
9328	Protective Case, 1620 (includes space for the DewK, two probes, an extra PC Card, RS-232 cable, and power cord)
2361	Spare Power Supply, 100–240 VAC to 12 VDC
9936-S	LogWare III, single-PC license
LIC-9936	LogWare III License (for additional PCs)

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