

Thermometers

Logging on Selected Models

HH2000 Series



- ✓ **Speed Read Feature for Quicker Indicative Readings**
- ✓ **Logging Mode for Storage, Retrieval and Output of Readings**
- ✓ **Long Battery Life: Typically 500 Hours**
- ✓ **Wide Temperature Ranges: -250 to 1750°C (-418 to 3182°F)**
- ✓ **Accurate Performance**
- ✓ **For Type K, T, J, N, R, and S Thermocouples, Pt100 and Thermistor Sensors**
- ✓ **Robust Case for Long Life in Harsh Environments**
- ✓ **Selectable Auto Switch-Off**
- ✓ **Automatic Zero Calibration for Added Accuracy**
- ✓ **Last Settings Memorized**



HH2001KC shown actual size, outside of protective rubber boot.



A New Range of Handheld Contact Thermometers

In response to today's ever increasing demand for speed, accuracy and performance, OMEGA has introduced the HH2000 Series of handheld digital thermometers. Models available range from simple on, off and hold versions to instruments with advanced measurement and datalogging functions.

Built To Last

With its ergonomic design, positive action key pad and magnified display, the HH2000 Series is a pleasure to operate. To maximize the instrument's useful life, the series features IP65 or IP67 protection, silicone rubber key pads with hard plastic coated on/off buttons and a fully isolated battery compartment. Representing a new standard in

HHP-2000-RB protective rubber boot shown smaller than actual size. This high-impact protective rubber boot is included to even further enhance the durability of these instruments.

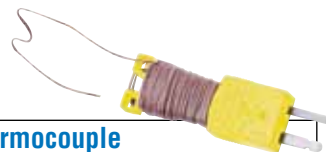
industrial temperature measurement, the HH2000 Series provides precise, stable readings, even in demanding environments. Furthermore, the HH2000 Series features a number of new, innovative functions specifically designed for today's industrial temperature applications.

Readings in Seconds Rather Than Minutes!

Some measurements take minutes using standard thermometers due to poor thermal conductivity in the item being measured. Often, a highly

Free Thermocouple Included!

Thermocouple models include a free 1 m (40") Type K or appropriate insulated beaded wire thermocouple with subminiature connector and wire spool caddy (1 per channel). Order a Spare! Model No. SC-TT-(*)-30-36
*K, J, T, E.



accurate answer is not required and an indicative answer showing that the reading is above or below a desired threshold will suffice. The speed read function will offer an answer in 14 seconds, or, if such a prediction cannot be made, the instrument reverts back to a standard accuracy thermometer automatically.

Data Collection at the Touch of a Button

Say goodbye to the clipboard and those hours spent keying data into your PC. The HH2000 Series' logging functions, on demand or at pre-set intervals, enable readings to be stored, retrieved and output to a printer or PC, all at the touch of a button. This permits error-free and fully traceable records to be maintained.

Performance You Can Rely On

Over 30 years experience, combined with extensive customer research, has given OMEGA a thorough understanding of industrial applications and has enabled us to design instruments that meet real needs. The HH2000 Series is probably the fastest, most accurate range of handheld thermometers available; we are sure there is a model to suit you and your business requirements.

All Models Feature

- **Backlight**
Enables reading to be taken in the dark
- **Display Hold**
Freezes the reading (for when watching the probe is more important than watching the instrument)
- **Auto Switch-Off**
Auto switch-off after 12 minutes extends battery life (auto switch-off does not operate in max/min or logging modes. This feature can also be turned off by the user if not required)
- **Set-up Retention**
The instrument switches on with the last settings used

Other Selected Models Feature

- **Speed Read>>**
Enables an indicative reading to be shown in 14 seconds, saving operator time
- **A/B, A-B**
Enables the operator to select input channel A, channel B on the difference between them
- **Celsius/Fahrenheit Selection**
- **Range Lock**
Enables the operator to set the instrumentation to 1° resolution only
- **Thermocouple Selection**
Enables use with most common thermocouple types
- **Max/Min Recorder**
Stores maximum, minimum and average temperatures. Averaging is also available on some models within this mode
- **Logging on Demand**
Allows readings to be stored as and when required
- **Pre-Set Internal Logging**
Allows readings to be stored automatically at a pre-set interval



Instrument Accuracies

(All ± 1 Digit Except HH2001PL)

Models HH2001K, HH2002K, HH2001KL, HH2001A, HH2002A, HH2002AL:

0.1% rdg $\pm 0.2^{\circ}\text{C}/0.4^{\circ}\text{F}$ above $-100^{\circ}\text{C}/-148^{\circ}\text{F}$

0.5% rdg $\pm 0.2^{\circ}\text{C}/0.4^{\circ}\text{F}$ below $-100^{\circ}\text{C}/-148^{\circ}\text{F}$

Models HH2001T, HH2001LT:

$\pm 0.2^{\circ}\text{C}/0.4^{\circ}\text{F}$ over range

-20 to $70^{\circ}\text{C}/-4$ to 158°F

$\pm 0.1\%$ rdg $\pm 0.2^{\circ}\text{C}/0.4^{\circ}\text{F}$ elsewhere

Models: HH2001P(L) 4-Wire 0.00385/0.00392

$\pm 0.2\%$ rdg $\pm 0.1^{\circ}\text{C}/0.2^{\circ}\text{F}$ over range -150 to $800^{\circ}\text{C}/-238$ to 1472°

Specifications

Resolution: 0.1° from -199.9 to 199.9°

Operating Temperature:

0 to $50^{\circ}\text{C}/32$ to 122°F (ambient)

Battery Type: 2 "AA" (included) or equivalent cells

Battery Life: Typically 500 hours

Low Battery Check: " " symbol appears on display

Display: 12.7 mm (0.5") custom LCD

Sensor Open Circuit:

Indicated by 'O-C' on display

Overrange/Underrange:

'Out' flashes on display

Cold Junction Compensation: Yes

Environmental Specifications:

IP65 (IP67 optional)

Auto Switch-Off Time: 12 minutes

Dimensions:

$155 \times 67 \times 40$ mm ($6.1 \times 2.6 \times 1.6$ ")

Weight: 180 g (6.4 oz)

Simple Data Collection and Analysis

The HH2000 Series models HH2001P, HH2001LT, HH2001KL, HH2002AL and RH-202L feature special logging functions that enable readings to be

taken, stored, retrieved and downloaded in the shortest possible time. This reduces the risk of clerical errors and saves writing and keying-in time when analysis is needed.

Logging on Demand

Logging on demand allows readings to be stored when required, with the ability to add a four-digit reference number (including decimal point) to each reading and record the date and time each reading is taken. This function is excellent for helping cut down on paperwork and clerical errors. It is ideally suited to tasks where you wish to maintain a record of the time and date a temperature was taken.

Preset Interval Logging

Preset interval logging lets you determine the frequency at which readings are taken. Once the instrument has been set, readings are taken automatically at the interval you decide (from once every minute to once every 24 hours), providing an excellent means of troubleshooting and examining trends over a given period of time. With preset interval logging, you really can "set it and forget it," as the instrument will continue logging until a maximum of 250 readings is taken or your data is downloaded.

Data Analysis

Data can be viewed and analyzed directly from the magnified display. By simply pressing a few keys, you can scroll through your readings with ease. You can then download the data to a PC or Epson compatible printer via OMEGA's HHP-2000-DL (see next page). Data can then be analyzed using our OM-MLWIN.

Data Download with the HHP-2000-DL

Access to stored information is gained via OMEGA's infrared HHP-2000-DL, which is designed to give users a quick and simple means of retrieving and downloading data. Information can be output direct to either an Epson compatible printer for immediate study or downloaded to a PC* for more detailed analysis.

* Minimum PC requirements:
386, 4 Mb RAM running with either Windows 3.1X or Windows 95.

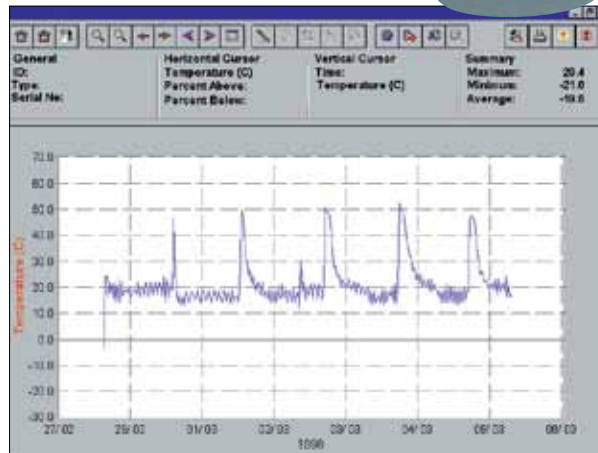
Data Analysis with OM-MLWIN for Windows

OMEGA has created a Windows software package enabling information to be put into spreadsheets and charts for incorporating into reports and other documents. Even separate reports from different units can be merged to produce one report.

PC analysis really couldn't be any simpler. By following the software's simple menu instructions, you will find it easy to view and manipulate information to your individual requirements. For example, once a logging session is complete, all you need to do in order to gain access to the information stored within the instrument is position the PC's cursor over the "Retrieve Data"

menu icon, click once and press a button on the instrument. Information is then automatically transferred via the infrared link and is stored within the computer.

You can display the retrieved information in graph format by positioning the cursor over the "Display As Graphical Data" menu icon and click again. You can access the graph produced to highlight certain areas or key data points, prior to printing or exporting the graph into other software packages. Furthermore, all graphs show the identification number of the instrument used, enabling data to be cross-checked against calibration records helping to ensure full traceability.



HH2001 shown smaller than actual size.



RH-202L shown smaller than actual size. See omega.com



HH2001KL shown smaller than actual size.



These models are part of a new family of handheld instruments. See the companion HH200 Series at omega.com

With the HH2000 Series you can download your data to a PC or directly to a compatible printer.

To Order Visit omega.com/hh2000 for Pricing and Details

Model Number	HH2001KC HH2001KF	HH2001TC HH2001TF	HH2002K	HH2001P	HH2001K	HH2001LTC HH2001LTF	HH2001PL	HH2001KL	HH2001A	HH2002A	HH2002AL
Sensor Type	K	T	K	Pt100	K	T	Pt100	K	K, T, J, N, R, S	K, T, J, N, R, S	K, T, J, N, R, S
2 Input			✓								✓
Speed Read			✓	✓	✓		✓	✓	✓	✓	✓
C/F° Function			✓	✓	✓		✓	✓	✓	✓	✓
Hold	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Range Lock				✓	✓		✓	✓	✓	✓	✓
Maximum/ Minimum			✓	✓	✓	✓	✓	✓	✓	✓	✓
Averaging							✓			✓	
Logging						✓	✓	✓			✓
Range	-200 to 1350°C (-328 to 2462°F)	-250 to 400°C (-418 to 752°F)	-200 to 1350°C (-328 to 2462°F)	-150 to 800°C (-238 to 1472°F)	-200 to 1350°C (-328 to 2462°F)	-250 to 400°C (-418 to 752°F)	-150 to 800°C (-238 to 1472°F)	-200 to 1350°C (-328 to 2462°F)	Type K: -200 to 1350°C (-328 to 2462°F) Type T: -250 to 400°C (-418 to 752°F) Type J: -180 to 750°C (-292 to 1382°F) Type N: -200 to 1300°C (-328 to 2372°F) Type R: 0 to 1750°C (32 to 3182°F) Type S: 0 to 1750°C (32 to 3182°F)		

Accessories

Model No.	Description
HHP-2000-DL	Infrared download box and data link
OM-MLWIN	Windows software (requires 4 MB RAM and Windows 3.1 or higher)
HHP-2000-RB	Spare rubber boot
CAL-3-HH	NIST-traceable calibration with points
HH-NIST	NIST-traceable calibration, no points

Comes complete with 2 "AA" batteries, rubber boot, and operator's manual. Thermocouple models include beaded wire thermocouple. RTD models include TA4F connector.

Ordering Examples: HH2001PL and HHP-2000-DL, handheld thermometer, sensor Type PT100 with infrared download box and data link. HH2001KF, handheld data logger.