

Exceptional Accuracy Digital Thermometers

Single and Dual Input Models



HOLSTER INCLUDED!

HH-20 Series
Starts at
\$165



The HH-20 series microprocessor-based handheld thermometers offer wide-ranging temperature readings and feature state-of-the-art innovations. The easy-to-read custom 5-digit LCD readout with trend display and self-diagnostics are all standard. The case is drop/splash and dust-proof, and has a built-in tilt stand/handle for bench use or hands-free field measurements.

The HH-21 is a single input unit that accepts J, K and T thermocouple types. From the front panel, the user can select the thermocouple type, display units ($^{\circ}\text{C}$ or $^{\circ}\text{F}$), and display resolution (0.1° or 1°). The HH-21 also has a display hold function. As with all HH-20 series units, the HH-21 features exceptionally high accuracy, 0.1% of reading plus 1°F .

The HH-22 and HH-23 accept dual inputs. The HH-22 accepts either J or K thermocouples, while the HH-23 works with J, K or T types. Both models can display T1 (input 1), T2 (input 2), T1-T2 (difference), or scan between T1, T2 and T1-T2. Standard features for both the HH-22 and HH-23 include display hold, min and max storage, and trend indication. The min and max functions record minimum and maximum values for T1, T2 and T1-T2. Trend indication shows if the displayed input is increasing, decreasing or stable.

When you turn on an HH-20, it remembers what you were doing; the thermocouple type, resolution, and temperature units are stored in non-volatile memory so you don't have to reprogram every time you start up.

HH-21 single J/K/T input, \$165, shown smaller than actual size.

JTSS-HH miniature transition joint probe, sold separately, \$29. See page L-48.

- ✓ Each Unit Comes With a Certificate Stating NIST-Traceability (No Points)
- ✓ Single and Dual Input Models with Display Hold
- ✓ Dual Input Models Feature Trend, Min/Max and Differential Measurements
- ✓ HH-21 and HH-23 Accept J, K and T Inputs
- ✓ HH-22 Accepts J and K Inputs
- ✓ 0.1 Resolution in $^{\circ}\text{F}$ and $^{\circ}\text{C}$ Over Full Range
- ✓ High 0.1% Reading Accuracy
- ✓ Self-Diagnostics and Retention of User Programming



HH-22 dual J/K input, \$215, shown smaller than actual size. Each unit supplied with 2 Type K beaded wire thermocouples, integral tilt stand, wrist strap, 9 V battery, protective rubber holster (HH20-HB), NIST certificate and operator's manual.

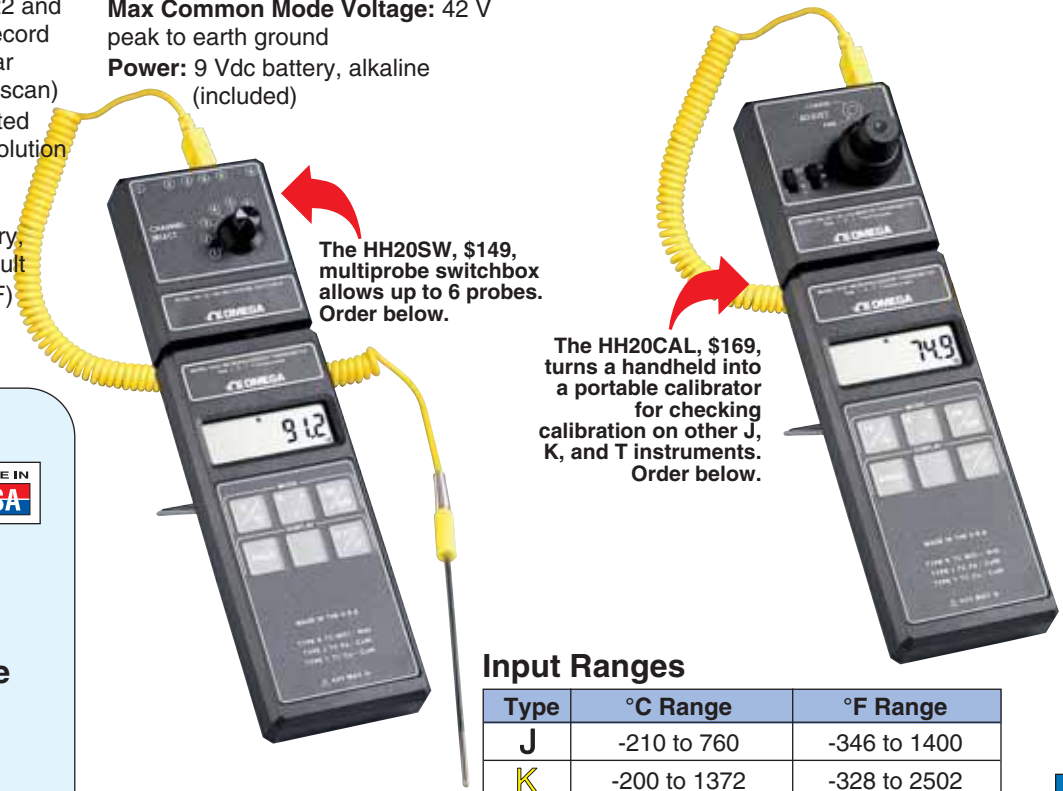
The HH20-HB holster (std) provides additional shock protection and a convenient belt clip. Spare holster (HH20-HB), \$25.

Specifications

Display: 5-digit LCD; custom indicators for thermocouple type °C/°F units, hold and low battery; HH-22 and HH-23 have additional indicators for input (T1, T2, T1-T2, scan), up/down trend arrows and min/max data storage
Keypad: Momentary switches with tactile feedback; on/off, thermocouple type, units, resolution, hold; HH-22 and HH-23 have additional keys for record min/max, view min/max, stop/clear record input type (T1, T2, T1-T2, scan)
Configuration Retention: Selected readout, input type, units and resolution retained on power-off
Diagnostics: Low battery, open thermocouple, invalid keypad entry, out of range, internal hardware fault
Accuracy: 0.1% rdg + 0.5°C (1°F)
Repeatability: 0.2°C for 1 week at constant temperature

Resolution: 0.1° throughout entire range
Temperature Coefficient: (0.02% rdg + 0.1°C) below 64°F (18°C) and over 82°F (28°C); included in accuracy, between 18 and 28°C (64 and 82°F)
Ambient Temperature: 0 to 50°C (32 to 122°F), 0 to 90% RH
Reading Rate: 1 per second
Max Common Mode Voltage: 42 V peak to earth ground
Power: 9 Vdc battery, alkaline (included)

Battery Life: 100 h, typical, alkaline battery
Dimensions: 178 H x 74 W x 28 mm D (7.0 x 2.9 x 1.1")
Weight: 284 g (10 oz)
Accessories Included: 9 Vdc alkaline battery, beaded wire Type K probe (for each input), integral tilt stand/ handle, wrist strap, rubber holster, NIST calibration, and operator's manual



The HH20SW, \$149, multiprobe switchbox allows up to 6 probes. Order below.

The HH20CAL, \$169, turns a handheld into a portable calibrator for checking calibration on other J, K, and T instruments. Order below.

HH20SW
\$149



All Models

- ✓ 6 Inputs with Rotary Selector
- ✓ Works with a Wide Variety of Handheld Meters
- ✓ 2-Position Output Connector for Single and Dual Input Thermometers
- ✓ Available for J, K and T Calibrations

Specifications

Operating Ambient: 0 to 50°C; less than 90% RH to 35°C; reduce RH limit by 3%/°C from 35 to 50°C
Connectors: 1 male, 6 female subminiature thermocouple connectors, type SMP
Dimensions: 127 H x 71 W x 38 D mm (5 x 2.8 x 1.5")
Weight: 341 g (12 oz)

To Order (Specify Model No.)

Model No.	Price	Desc.
HH20SW-(*)	\$149.00	Multiprobe switchbox
SMP-(*)-M	1.75	Mating male connector

Comes with operator's manual.
 * Specify calibration: J, K, or T.
Ordering Example: HH20SW-J, multiprobe switchbox, SMP-J-M, mating male connector, \$149 + 1.75 = \$150.75.

Input Ranges

Type	°C Range	°F Range
J	-210 to 760	-346 to 1400
K	-200 to 1372	-328 to 2502
T	-200 to 400	-328 to 752

ALL MODELS AVAILABLE FOR FAST DELIVERY!

To Order (Specify Model Number)

Model No.	Price	No. of Inputs	Input Types
HH-21	\$165	1	J/K/T
HH-22	215	2	J/K
HH-23	225	2	J/K/T

Comes with beaded wire Type K probe (for each input), integral tilt stand/handle, wrist strap, 9 V battery, shock resistant holster (HH20-HB) and operator's manual.

Ordering Example: HH-22, digital thermometer with Type J/K input, \$215. OCW-2, OMEGACARESM extends standard 3-year warranty to a total of 5 years (\$38), \$215 + 38 = \$253.

Accessories

Model No.	Price	Description
SC-450L	\$12	Soft carrying case
HH20-HB	25	Spare protective rubber holster
HH22-AC	95	9 V NiMH battery with 110 Vac charger for HH22 or HH23
MN1604	3	Extra alkaline battery
CAL-3-HH	75	NIST-traceable calibration with points
(*)TSS-HH	29	General purpose meter probe
HH20CAL	169	Portable calibrator module
HH20SW-(*)	149	Multiprobe switchbox

OMEGACARESM extended warranty program is available for models shown on this page. Ask your sales representative for full details when placing an order. OMEGACARESM covers parts, labor and equivalent loaners.

(*) Specify calibration J, K or T.



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More than 100,000 Products Available!

• Temperature

Calibrators, Connectors, General Test and Measurement Instruments, Glass Bulb Thermometers, Handheld Instruments for Temperature Measurement, Ice Point References, Indicating Labels, Crayons, Cements and Lacquers, Infrared Temperature Measurement Instruments, Recorders Relative Humidity Measurement Instruments, RTD Probes, Elements and Assemblies, Temperature & Process Meters, Timers and Counters, Temperature and Process Controllers and Power Switching Devices, Thermistor Elements, Probes and Assemblies, Thermocouples Thermowells and Head and Well Assemblies, Transmitters, Wire

• Flow and Level

Air Velocity Indicators, Doppler Flowmeters, Level Measurement, Magnetic Flowmeters, Mass Flowmeters, Pitot Tubes, Pumps, Rotameters, Turbine and Paddle Wheel Flowmeters, Ultrasonic Flowmeters, Valves, Variable Area Flowmeters, Vortex Shedding Flowmeters

• pH and Conductivity

Conductivity Instrumentation, Dissolved Oxygen Instrumentation, Environmental Instrumentation, pH Electrodes and Instruments, Water and Soil Analysis Instrumentation

• Data Acquisition

Auto-Dialers and Alarm Monitoring Systems, Communication Products and Converters, Data Acquisition and Analysis Software, Data Loggers Plug-in Cards, Signal Conditioners, USB, RS232, RS485 and Parallel Port Data Acquisition Systems, Wireless Transmitters and Receivers

• Pressure, Strain and Force

Displacement Transducers, Dynamic Measurement Force Sensors, Instrumentation for Pressure and Strain Measurements, Load Cells, Pressure Gauges, Pressure Reference Section, Pressure Switches, Pressure Transducers, Proximity Transducers, Regulators, Strain Gages, Torque Transducers, Valves

• Heaters

Band Heaters, Cartridge Heaters, Circulation Heaters, Comfort Heaters, Controllers, Meters and Switching Devices, Flexible Heaters, General Test and Measurement Instruments, Heater Hook-up Wire, Heating Cable Systems, Immersion Heaters, Process Air and Duct, Heaters, Radiant Heaters, Strip Heaters, Tubular Heaters