

High Accuracy Handheld Thermometers

Series 450
\$315
 All Models

- ✓ Models Read Thermocouples, RTD's and Thermistors
- ✓ 0.1° Resolution on Lower Range
- ✓ Auto-Ranging



Optional*

MOST POPULAR MODELS HIGHLIGHTED!



450-AET, \$315, shown smaller than actual size.



450-APT, \$315, shown smaller than actual size.

Model 450-AJT			
Input Type	Range	Res	Accuracy
J Iron-Constantan	-179.4 to 398.3°F	0.1°F	± (0.45° F + 0.1% rdg)
	- 318 to 1858°F	1°F	± (1.8° F + 0.1% rdg)
	-117.4 to 203.5°C	0.1°C	±(0.25°C + 0.1% rdg)
	-194 to 1014°C	1°C	± (1 °C + 0.1% rdg)
Model 450-AKT			
Input Type	Range	Res	Accuracy
K CHROMEQA®-ALOMEGA®	-219.7 to 398.7°F	0.1°F	± (0.45°F + 0.1% rdg)
	-308 to 2501°F	1°F	± (1.8°F + 0.1% rdg)
	-139.8 to 203.7°C	0.1 °C	± (0.25°C + 0.1% rdg)
	-189 to 1372°C	1°C	±(1°C + 0.1% rdg)
Model 450-AET			
Input Type	Range	Res	Accuracy
E CHROMEQA®-Constantan	-215.0 to 398.4°F	0.1°F	± (0.5°F + 0.1% rdg)
	-351 to 1844°F	1°F	± (1.5°F + 0.1% rdg)
	-137.2 to 203.5°C	0.1°C	± (0.3°C + 0.1% rdg)
	-212 to 1006°C	1°C	± (0.8°C + 0.1% rdg)
Model 450-ATT			
Input Type	Range	Res	Accuracy
T Copper-Constantan	-234.8 to 399.0°F	0.1°F	± (0.45°F + 0.1% rdg)
	-360 to 758°F	1.0°F	± (1.5°F + 0.1% rdg)
	-148.2 to 203.9°C	0.1°C	± (0.25°C + 0.1% rdg)
	-217 to 403°C	1.0°C	± (0.8°C + 0.1% rdg)
Model 450-APT			
Input Type	Range	Res	Accuracy
RTD 100Ω Pt RTD α = 0.00385	-153.2 to 398.3°F	0.1°F	± (0.5°F + 0.1% rdg)
	-388 to 1660°F	1°F	± (1.5°F + 0.1% rdg)
	-102.9 to 203.5°C	0.1°C	± (0.3°C + 0.1% rdg)
	-233 to 904°C	1°C	± (0.8°C + 0.1% rdg)
Model 450-ATH			
Input Type	Range	Res	Accuracy
OMEGA® 400 Thermistor	-14.4 to 217.8°F	0.1°F	± (0.45°F + 0.1% rdg)
	-25.7 to 103.2°C	0.1°C	± (0.25°C + 0.1% rdg)

* Refer to footnotes on page L-34 for NIST calibration ordering information.

General purpose meter probes start at \$29, see page L-48.

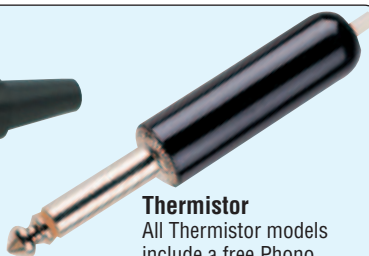


Included!



RTD

All RTD models include a free TA3F connector
Order a Spare! Model TA3F, \$10



Thermistor

All Thermistor models include a free Phono connector. **Order a Spare! Model PPM-2, \$2.50**



Thermocouple

Thermocouple models include a free 1 m (40") beaded wire thermocouple with subminiature connector and wire spool caddy (1 per channel). **Order a Spare! Model SC-GG-(*)-30-36, \$15.**
 * Insert thermocouple Type, J, K, T, E.



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.

Specifications

Display: 7.62 mm (0.3") LCD

Indication: °F/°C selectable

Operating Range: 0 to 50°C (32 to 122°F) ambient

Accuracy Over Time: 90 days: add ±0.05% rdg; 1 year: add 0.1% rdg

Temperature Drift: Zero: +2 µV/°C; Span: ±0.02%/°C

Input Connections: Standard OMEGA[®] subminiature connector (thermocouple); ¼" phone plug (thermistor); TA3F (RTD), mating connector supplied with RTD and thermistor units

Storage Temperature: -20 to 70°C (-4 to 158°F)

Normal Mode Rejection: 50 dB at 50 or 60 Hz

Common Mode Rejection: 140 dB at 50 or 60 Hz

Maximum Common Mode Voltage: 1000 Vac, +2000V peak

Measurement Technique: Dual-slope A/D conversion

Linearization: 100% digital; typically 100 segments, depending on range selected

Reference Junction Stability with Temperature: ±0.7°C from 5 to 45°C; (±1.3°F from 41°F to 113°F) (thermocouple)

Input Resistance: Thermocouple: 13 MΩ;

Thermistor: 698; RTD: 21.2 kΩ

Update Rate: 2 readings/sec typical

Battery: 9V alkaline (included)

Battery Life: 2000 hours, thermocouple; 1200 hours, thermistor; 500 hours, RTD

Dimensions: 178 H x 84 W x 46 mm D (7.0 x 3.3 x 1.8")

Weight: 255 g (9 oz)

Accessories

Model No.	Price	Description
SC-450S	\$10.00	Small soft case—a protective soft case for the Model 450; dimensions: 51 H x 89 W 152 mm D (2.0 x 3.5 x 6.9")
SC-450L	18.00	Large soft case—a protective soft case with room for the Model 450, probes up to 200 mm L (9") and other accessories; dim: 51 H x 102 W x 254 mm D (2.0 x 4.0 x 10")
CAL-3-HH*	75.00	NIST-traceable calibration with points
HH-NIST*	55.00	NIST-traceable calibration, no points
PPM-2	2.50	Additional phone plug mating connector for 450-ATH (1 supplied with unit)
TA3F	10.00	Additional T-series mating connector for 450-APT (1 supplied with unit)
SMPW-J-M SMPW-K-M SMPW-T-M SMPW-E-M	1.75	Thermocouple connectors
EXPP-J-20-50	22.00	Thermocouple extension wire, 20 gage polyvinyl insulation, 15 m (50') spool
EXPP-K-20-50	44.00	
EXPP-T-20-50	23.00	
EXPP-E-20-50	34.00	
OT-201-2	25.00	57 g (2 oz) jar of high-thermal conductivity paste for fast surface measurements

Ordering Example: 450-AJT, handheld thermometer with Type J thermocouple input, SC-450S, carrying case, \$315 + 10 = \$325.
 OCV-3, OMEGACARESM extends standard 2-year warranty to a total of 5 years (\$79), \$315 + 79 = \$394.



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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

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• 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