

High Accuracy Handheld Thermometers



450-AET shown smaller than actual size.



450-APT shown smaller than actual size.

Series 450



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

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 CHROMEOMEGA®-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 CHROMEOMEGA®-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)

For general purpose meter probes, see omega.com



Included!



RTD

All RTD models include a free TA3F connector
Order a Spare!
Model TA3F



Thermistor

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



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-TT-(*)-30-36**
** Insert thermocouple Type, J, K, T, E.*

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.	Description
SC-450S	Small soft case—a protective soft case for the Model 450; dimensions: 51 H x 89 W x 152 mm D (2.0 x 3.5 x 6.9")
SC-450L	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	NIST-traceable calibration with points
HH-NIST	NIST-traceable calibration, no points
PPM-2	Additional phone plug mating connector for 450-ATH (1 supplied with unit)
TA3F	Additional T-series mating connector for 450-APT (1 supplied with unit)
SMPW-J-M SMPW-K-M SMPW-T-M SMPW-E-M	Thermocouple connectors
EXPP-J-20-50 EXPP-K-20-50 EXPP-T-20-50 EXPP-E-20-50	Thermocouple extension wire, 20 gage polyvinyl insulation, 15 m (50') spool
OT-201-2	57 g (2 oz) jar of high-thermal conductivity paste for fast surface measurements



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.

Ordering Example: 450-AJT, handheld thermometer with Type J thermocouple input, SC-450S, carrying case.

OCW-3, OMEGACARESM extends standard 2-year warranty to a total of 5 years.