High Accuracy Handheld Thermometers

450-AET shown smaller than actual size.

450-APT shown smaller than actual size.

Series 450

MADE IN USA 2 YEAR WARRANTY NIST Optional

✔ **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 CHROMEGA®-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 CHROMEGA®-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
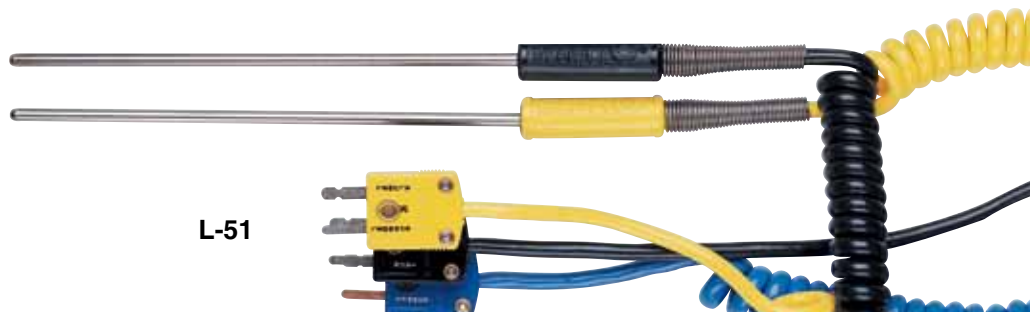
Specifications

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 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

Ordering Example: 450-AJT, handheld thermometer with Type J thermocouple input, SC-450S, carrying case.
OCW-3, OMEGACARE℠ extends standard 2-year warranty to a total of 5 years.

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