



METER
ENVIRONMENT



TEMPOS

Takes compliance to a whole new level

The ASTM 5334- and IEEE 442-compliant TEMPOS is engineered using ISO 2008 standards. It takes accurate readings of thermal conductivity, thermal resistivity, thermal diffusivity, and specific heat in many material types across multiple disciplines, from soil and concrete to food, plastics, lubricating oil, and even human tissue.

Each needle produces only a discrete amount of heat, virtually eliminating the moisture movement (or free convection in liquids) that could alter a reading. Short heating times mean you can use the TEMPOS to measure frozen materials and even fluids.

Features

- Improved algorithms increase accuracy
- One-minute read times
- ASTM 5334- and IEEE 442-compliant
- Controlled, consistent heating
- Updated interface
- Straightforward menu navigation
- Interactive color screen
- Extended battery life
- Rugged, ergonomic case
- Portable: use in the field or in the lab
- Measure solid or liquid samples
- Short heating times
- No moisture movement/drying
- Robust sensor needles limit breakage
- Resolves temperature to ± 0.001 °C

Specifications

CONTROLLER:

Operational Temperature Range: 0–50 °C

Power: 5 AA batteries

Battery life: More than 250 high-power measurements

Data Storage: 2,048 measurements in flash memory (both raw and processed data are stored for download)

Read modes: Manual and unattended modes

SENSORS:

Operational Temperature Range: –50 to 150 °C

Sensor Specifications:

KS-3 (6 cm [small] single needle)

Range:

- Conductivity: 0.02–2.00 W/(m • K)
- Resistivity: 50–5,000 °C • cm/W

Accuracy:

- Conductivity: ±10% from 0.2–2.0 W/(m • K)

Size: 1.3 mm diameter × 60 mm length



TR-3 (10 cm [large] single needle)

Range:

- Conductivity: 0.1–4.0 W/(m • K)
- Resistivity: 25–1,000 °C • cm/W

Accuracy:

- Conductivity: ±10% from 0.1–4.0 W/(m • K)

Size: 2.4 mm diameter × 100 mm length



SH-3 (3 cm dual-needle)

Range:

- Conductivity: 0.02–2.00 W/(m • K)
- Resistivity: 50–5,000 °C • cm/W
- Diffusivity: 0.1–1.0 mm²/s
- Volumetric specific heat capacity: 0.5–4.2 MJ/m³

Accuracy:

- Conductivity: ±10% from 0.2–2.0 W/(m • K)
- Diffusivity: ±10% at conductivity above 0.2 W/(m • K)
- ±0.02 W/(m • K) from 0.10–0.20 W/(m • K)
- Volumetric specific heat capacity: ±10% at conductivities above 0.1 W/(m • K)

Size: 1.3 mm diameter × 30 mm length, 6 mm spacing



RK-3 (6 cm [thick] single needle)

Range:

- Conductivity: 0.1–6.0 W/(m • K)
- Resistivity: 17–1,000 °C • cm/W

Accuracy:

- Conductivity: ±10% from 0.1–6.0 W/(m • K)

Size: 3.9 mm diameter × 60 mm length



COMPLIANCE

Manufactured under ISO 9001:2015

EN 61326-1:2013

EN 55022/CISPR 22

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