

4300E Programmable Digital Micro-Ohmmeter

Precision Resistance Measurement — Built for Inductive Loads



Measure What Others Can't

The 4300E is engineered for accurate, repeatable measurement of ultra-low resistance in demanding applications. From transformers and motors to bonding and high-current connections, it delivers fast, stable results—even on highly inductive loads.

With advanced measurement control, high current capability, and built-in protection, the 4300E is equally suited for laboratory use and high-throughput production environments.

Key Capabilities

- Fast Inductive Testing — Charging Inductor Mode reduces settling time on large inductive loads
- Precision Measurement — 4-wire Kelvin measurement eliminates lead resistance errors
- Automated Testing — Timed Current Mode ensures repeatable measurements
- Temperature Stability — TCM compensates readings to a reference temperature

Key Features

- 0.1 mA to 10 A test current
- 18 measurement ranges
- 4-wire Kelvin connections
- Charging Inductor Mode
- Timed Current Mode (NEW)
- Hi-Lo Comparator (GO / LO / HI)
- 500 A peak protection
- RS-232 & USB (Ethernet optional)

Test Current Control

The 4300E supports both continuous and timed test current operations. In Timed Mode, apply test current for a defined duration and automatically capture the final measurement. The 4300E ensures consistent timing for each test cycle, improving repeatability and reducing operator variability.

Advanced Measurement Features

Charging Inductor Mode

Provides elevated compliance voltage to rapidly drive current through highly inductive loads, reducing settling time.

Temperature Compensated Measurement (TCM)

Compensates readings to a reference temperature for consistent results.

Hi-Lo Comparator (HLC)

Enables pass/fail testing with user-defined limits.

Test Current Timer

Applies current for a programmed duration and captures the final reading automatically.

Measurement Performance

Test Current Range: 0.1 mA to 10 A

Resistance Range: 100nΩ to 20kΩ

Measurement Method: 4-wire Kelvin

Measurement Ranges: 18 selectable (2mΩ to 20kΩ)

Accuracy: $\pm 0.04\%$ of reading with additional range-dependent offset

Compliance Voltage: 7.5 V standard, >20 V inductive mode

Protection: up to 500 A induced current

Applications

The 4300E is ideal for measuring ultra-low resistance in applications such as transformers, motors, circuit breakers, bonding connections, and welds, making it well suited for aerospace, industrial, and production test environments.

Built for Integration

RS-232 and USB standard

Optional Ethernet

External control via foot

switch or CET

Remote operation support



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