TH2516 Series

DC Low-Resistance Meter

A touchscreen DC resistance meter family for testing relay contacts, interconnects, solder joints and welded connections — with resistance measurement down to 1 µΩ and up to 0.05% basic accuracy. Four-wire Kelvin terminals, offset voltage compensation and thermal-EMF elimination keep readings stable on low-resistance DUTs. Three models span a full 1 µΩ–2 MΩ flagship down to an economy variant for production testing.

Rack mount: 215(W) × 88(H) × 335(D) mm · Bench: 235(W) × 105(H) × 360(D) mm · 3.6 kg



- **0.05% basic accuracy**, minimum resolution down to **1 µΩ**
- 4.3" TFT colour touchscreen, 480×272 resolution, clear English UI
- Four-wire (Kelvin) test terminals with R, LPR and T measurement modes
- Low-voltage test mode (open-circuit ≤40 mV) protects sensitive DUTs
- Offset voltage compensation (OVC) and thermal-EMF elimination
- Temperature compensation (TC) and temperature conversion (Δt) on TH2516
- Built-in comparator with 3-bin sorting (HI/IN/LO), audible pass/fail
- Statistics function: AVG, MAX, MIN, standard deviation, Cp, CpK
- User self-calibration (0 ADJ), 30 stored setting groups, USB screen capture
- RS232, USB Host/Device, HANDLER standard; SCPI & MODBUS; LXI Class C compliant

Three models, one platform

TH2516

Full-range flagship with temperature measurement

Range	1 µΩ – 2 MΩ
Basic accuracy	0.05%
Max current	1 A
Temperature meas.	Yes

TH2516A

Mid-range, 0.05% accuracy, no temperature option

Range	10 µΩ – 200 kΩ
Basic accuracy	0.05%
Max current	100 mA
Temperature meas.	—

TH2516B

Entry-level, same current range at lower accuracy

Range	1 µΩ – 20 kΩ
Basic accuracy	0.1 – 0.2%
Max current	1 A
Temperature meas.	—

TH2516 is the only model with temperature measurement (PT500 sensor input and 0–2 V analog input) and ships with a PT500 probe as standard. Low-voltage test mode and thermal-EMF elimination are available on TH2516 and TH2516A; TH2516B omits both to reach its lower price point. All three models share the same 4-wire Kelvin terminals, comparator, statistics function and SCPI/MODBUS-capable interface set.

Applications

Components

Resistors, inductors, transformers, motors, relays, circuit solder joints and capacitor riveting points.

Cables & connectors

Multi-strand wire, connectors and switches of all types.

Materials & new energy

Heat-sensitive materials (fuses, thermistor sensors) and conductive metal foils; EV battery-pack connecting bridges and cell connection resistance.

Technical specifications

Parameter	TH2516	TH2516A	TH2516B
Display	4.3" colour TFT LCD, 480 × 272, touchscreen		
Reading digits	4½ digits		
Measurement range	1 µΩ – 2 MΩ	10 µΩ – 200 kΩ	1 µΩ – 20 kΩ
Basic accuracy[1]	0.05% (typ.)	0.05% (typ.)	0.1% (typ.)
Test current	up to 1 A	up to 100 mA	up to 1 A
Test functions	R, LPR, T		
Test terminal	4-wire (Kelvin)		
Measurement speed	FAST 10 ms · MED 25 ms · SLOW1 115 ms · SLOW2 455 ms		
Max sample rate	50 samples/sec		
Averaging	1 – 255 readings		
Range switching	Auto, Manual		
Trigger mode	Internal, Manual, External, Bus		
Low-voltage test mode	≤40 mV open-circuit; 2Ω/20Ω/200Ω/2kΩ	≤40 mV open-circuit; 2Ω/20Ω/200Ω/2kΩ	—
Thermal-EMF elimination	√	√	—
Offset voltage compensation	√ (OVC)		
Zero adjustment	√ (0 ADJ, user self-calibration)		
Temperature sensor input	PT500, −99.9 to 250 °C	—	—
Temperature analog input	0–2 V, −99.9 to 999.9 °C	—	—
Temperature compensation / Δt	√	—	—
Comparator output	HI/IN/LO signal output		
Comparator beep	OFF, IN, HI/LO		
Limit setup	3 bins — absolute high/low limit or percentage high/low limit + nominal value		
Statistics function	AVG, MAX, MIN, overall/sample std. deviation, Cp, CpK		
Setting storage	30 groups		
Data & screen capture	Screenshot and data logging to USB		
Interfaces	RS232, USB Host, USB Device, HANDLER (all standard); SCPI, MODBUS		
Compliance	CE; LXI Class C		
Working / storage condition	0–40 °C / −10–50 °C, ≤80% / ≤90% RH		
Power supply	99–121 V AC / 198–242 V AC, 47.5–63 Hz, 30 VA		
Dimensions (rack / bench)	215×88×335 mm / 235×105×360 mm		
Weight	3.6 kg		

[1] Accuracy is range-dependent; the lowest range (20 mΩ) and, on TH2516, the highest range (2 MΩ) carry relaxed specifications — ask your Techmize contact for the full per-range accuracy table.

Interfaces

RS232	USB Host	USB Device	Handler	SCPI / MODBUS
standard	standard	standard	standard	standard

All interfaces are standard across TH2516, TH2516A and TH2516B.

Standard accessories

Item	Description
—	EU power cable (Schuko, CEE 7/7)
TH26050S	Four-terminal Kelvin test cable
PT500	Temperature sensor (TH2516 only)

Model notes

Model	Notes
TH2516	Full 1 µΩ–2 MΩ range; ships with PT500 probe for temperature measurement
TH2516A	0.05% accuracy, 10 µΩ–200 kΩ; no temperature measurement
TH2516B	Economy model, 1 µΩ–20 kΩ; no low-voltage mode or temperature measurement

Contact your Techmize representative or authorized distributor for test fixtures and cabling for specific DUT geometries.

Techmize Electronic GmbH
Office 125–126, Regus
Carl-Zeiss-Ring 15a, 85737 Ismaning, Germany
An international subsidiary of Changzhou Tonghui Electronic Co., Ltd. (China)

Contact
Mobile: +49 171 4981898
Email: dx.han@tonghui.com.cn
Web: en.tonghui.com.cn

Registration
Managing Director: Haohua Zhao
Register Court: Amtsgericht München
HRB 312530
VAT ID DE463170824

Website LinkedIn YouTube

© 2026 Techmize Electronic GmbH · Specifications subject to change without notice