

**Aumictech**

Test & measurement • bought, sold, repaired, calibrated

Data Sheet

August 12, 2026

FLUKE

Fluke 742A-100 Resistance Standard

The Fluke 742A-100 is a precision 100 Ω resistance standard engineered for calibration and verification of resistance measuring instruments in metrology labs and production environments. Built from hermetically-sealed wirewound resistor arrays with no adjustable components, it delivers calibration uncertainty of ± 1.0 ppm at 23°C and six-month stability of ≤ 2.5 ppm. The unit requires no temperature-controlled air or oil baths and arrives with NIST-traceable calibration documentation including temperature characterization data in 0.5°C increments. Compatibility & Integration Connects directly to four-terminal resistance measurement systems via standard binding posts. Temperature correction data provided on calibration certificate enables operation across 18°C to 28°C with minimal uncertainty. Aumictech offers NIST-traceable calibration and repair for the Fluke 742A-100. All calibration



MODEL

Fluke 742A-100

CALIBRATION

Available on request

CONDITION

Used

STATUS

In stock

RFQ / SKU

742A-100

LISTING

<https://aumictechlabs.com/products/742a-100-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 • 811210 • 541380

This unit

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documentation including temperature characterization data in 0.5°C increments. Technical Specifications Resistance & Accuracy Nominal resistance: 100 Ω Initial trim: ± 2 ppm of nominal Calibration uncertainty (23°C): ± 1.0 ppm Six-month stability: ≤ 2.5 ppm One-year stability: ≤ 4 ppm Temperature Performance Operating range: 18°C to 28°C Storage range: 0°C to 40°C Temperature coefficient: Near zero at 23°C Maximum deviation (18°C to 28°C): ≤ 3.0 ppm Retrace error (0°C to 40°C cycles): Typically < 2 ppm Electrical Ratings Maximum current: 20 mA Maximum voltage: 2 V Connectors Five-way tellurium-copper binding posts (current HI/LO, sense HI/LO, chassis ground) Low-thermal emf construction Physical Dimensions: 8.6 cm H $\times$ 10.5 cm W $\times$ 12.7 cm D Weight: 0.68 kg to 0.91 kg Key Features No oil or air bath required Hermetically-sealed construction minimizes thermal and mechanical shock effects Temperature characterization table in 0.5°C increments supplied with calibration report Four-terminal configuration supports precision kelvin resistance measurement NIST-traceable calibration from Fluke Primary Standards Lab Typical Applications Resistance meter and multimeter calibration Data acquisition system validation Production test equipment traceability Metrology laboratory reference standards Temperature-corrected measurement verification Compatibility & Integration Connects directly to four-terminal resistance measurement systems via standard binding posts. Temperature correction data provided on calibration certificate enables operation across 18°C to 28°C with minimal uncertainty.

Features & description

From manufacturer datasheet

Features

- Fixed precision resistance standard
- 100 ohm nominal value
- Calibration-laboratory artifact class

Applications

- Resistance calibration artifact
- Verification of calibrators and ohmmeters at 100 ohm
- Standards-lab resistance reference

742A100 Characteristics / Specifications

PARAMETER	VALUE
Model	742A-100
Manufacturer	Fluke
Instrument Type	Resistance Standard
Alias	742A-100; Fluke 742A-100
Nominal resistance	100 ohm
Series	Fluke 742A Notes Confirm tolerance, temperature coefficient, and calibration certificate values on the standard and its latest cal report—those override catalog nominals for metrology use.

Full OEM specifications

Complete technical content extracted from the manufacturer datasheet. Sparse OEM tables are reconstructed as tables below; other text is preserved as paragraphs.

Specifications

Specifications

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Model	742A-100
Manufacturer	Fluke
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Nominal resistance: 100 ohm

Series: Fluke 742A

Notes

Confirm tolerance, temperature coefficient, and calibration certificate values on the standard and its latest cal report-those override catalog nominals for metrology use.

Available from Aumictech

Used and refurbished unit evaluated in-house. Calibration: Available on request. Used · In stock.

Request a quote: sales@aumictech.com · +1 (484) 841-9341

Aumictech

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Technical content from manufacturer specifications. Unit photo/stock from Aumictech listing when available. Specifications subject to OEM documentation and unit condition.