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Data Sheet

August 6, 2026

KEITHLEY INSTRUMENTS

Keithley Instruments 5155

Keithley Instruments 5155 Megohm Resistance Standards The Keithley 5155 is a set of high-megohm resistance standards for electrometer calibration and high-resistance reference work. Six individually encased resistors in thermally lagged enclosures, BNC-terminated with provision for shielding/guarding. NIST-traceable certificate of actual values. Two casing variants exist historically: gray casing typically 10 MΩ through 1 TΩ decade steps; black casing typically 100 MΩ through 10 TΩ decade steps—confirm labels on the specific set. The Keithley 5155 is a set of high-megohm resistance standards for electrometer calibration and high-resistance reference work. Six individually encased resistors in thermally lagged enclosures, BNC-terminated with provision for shielding/guarding. NIST-traceable certificate of actual values. Two casing variants exist historically: gray casing typically 10 MΩ through 1 TΩ decade steps; black casing typically 100 MΩ through 10 TΩ decade steps—confirm labels on the specific set. Electrometer high-ohms verification; picoammeter/resistance calibration; guarded high-megohm reference.



MODEL

**Keithley
Instruments 5155**

CALIBRATION

**Available on
request**

CONDITION

Used

STATUS

In stock

RFQ / SKU

5155

LISTING

<https://aumictechlabs.com/products/5155-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 · 811210 · 541380

This unit

The Keithley Instruments 5155 is a precision resistance calibration standard that delivers NIST-traceable decade resistors for validating test and measurement instruments across extended resistance ranges. Two configurations address different calibration requirements: the gray-cased

version spans 10 M Ω to 1 T Ω with $\pm 0.1\%$ to $\pm 0.14\%$ accuracy; the black-cased variant extends to 10 T Ω with $\pm 15\%$ nominal tolerance. Each resistor element is individually housed in a thermally lagged enclosure and terminated with BNC connectors for direct interface to calibration systems. Stability performance holds within $\pm 0.1\%$ change per year and per thousand operating hours.

Technical Specifications

Resistance Range (Gray Casing): Six decade values: 10 M Ω , 100 M Ω , 1 G Ω , 10 G Ω , 100 G Ω , 1 T Ω

Accuracy: $\pm 0.1\%$ ($10^7 \Omega$ to $10^{10} \Omega$), $\pm 0.14\%$ ($10^{11} \Omega$ to $10^{12} \Omega$)

Temperature coefficient: $\pm 0.01^\circ\text{C}^{-1}$ (10 M Ω –10 G Ω); -0.1°C^{-1} (100 G Ω –1 T Ω)

Voltage coefficient: $< 5 \text{ ppm/V}$

Resistance Range (Black Casing): Six decade values: 100 M Ω , 1 G Ω , 10 G Ω , 100 G Ω , 1 T Ω , 10 T Ω

Nominal tolerance: $\pm 15\%$

Temperature coefficient: -0.1°C^{-1}

Voltage coefficient: $-0.03\%/V$

nominal Environmental Performance: Stability: $< 0.1\%$ per year; $< 0.1\%$ per 1000 hours

Key Features

Six individually encased resistors in thermal-lag construction

BNC connectors for instrumentation integration

Shielding and guarding provisions included

Calibration certificate with measured values and test conditions supplied

Modular design: individual resistor elements available as separate part numbers (5155-7 through 5155-13)

Physical Characteristics

Per-resistor dimensions: 100 mm $\times$ 25 mm $\times$ 25 mm (4" $\times$ 1" $\times$ 1")

Per-resistor weight: $\sim 170 \text{ g}$ (6 oz)

Complete set weight: $\sim 2.1 \text{ kg}$ (4 lbs 10 oz)

Typical Applications

Calibration laboratory validation of ohmmeters and multimeters

Quality assurance verification of resistance measurement systems

High-resistance reference standards for precision testing

Compatibility & Integration

BNC terminations ensure direct connection to standard calibration equipment and precision measurement instruments requiring decade resistance references.

Features & description

From manufacturer datasheet

Features

- Six discrete high-megohm standards in thermal-lagged cases
- Decade steps spanning tens of $M\Omega$ to $T\Omega$ class (variant dependent)
- BNC terminations; shield/guard capable
- Certificate with measured values and test conditions
- Variants: 5155 gray ($\approx 10 M\Omega$ – $1 T\Omega$); 5155 black ($\approx 100 M\Omega$ – $10 T\Omega$)

5155 Characteristics / Specifications

PARAMETER	VALUE
Model	5155
Manufacturer	Keithley Instruments
Instrument Type	Megohm Resistance Standard Set
Alias	5155; Keithley 5155; 5155-9 calibration fixture class Resistance Six standards; exact values per certificate on the unit Operational Notes Prefer Keithley 5155 datasheet. Do not invent exact ohms beyond decade identity; use certificate.
Variants	5155 gray ($\approx 10\text{ M}\Omega\text{--}1\text{ T}\Omega$); 5155 black ($\approx 100\text{ M}\Omega\text{--}10\text{ T}\Omega$)

5155 Specifications

PARAMETER	VALUE
Keithley Instruments 5155 Megohm Resistance Standards	Overview
Technical Specifications	Model: 5155
Operational Notes	Prefer Keithley 5155 datasheet. Do not invent exact ohms beyond decade identity; use certificate.

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

PARAMETER	VALUE
Model	5155
Manufacturer	Keithley Instruments
Instrument Type	Megohm Resistance Standard Set
Alias	5155; Keithley 5155; 5155-9 calibration fixture class

Resistance

Six standards; exact values per certificate on the unit

Operational Notes

Prefer Keithley 5155 datasheet. Do not invent exact ohms beyond decade identity; use certificate.

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.