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Data Sheet

August 5, 2026

KEITHLEY

Keithley 6105 Resistivity Chamber

The Keithley 6105 is a guarded resistivity adapter/chamber for measuring volume and surface resistivity of insulating materials per ASTM D257 when used with a regulated voltage supply and an electrometer. Spring-loaded guarded electrode and fixed test-weight assembly apply uniform pressure; guard ring minimizes leakage. Shielded fixture reduces stray pickup. Material volume and surface resistivity; insulating plastics/films; ASTM D257-style lab measurements. Manufacturer: Keithley Instruments (Tektronix) Instrument Type: Resistivity Adapter / Chamber Sample size and voltage as above; accuracy dominated by source and electrometer Prefer Keithley Model 6105 instruction manual 31415. Pair with Keithley electrometer and HV supply.



MODEL

Keithley 6105

CALIBRATION

Available on request

CONDITION

Used

STATUS

In stock

RFQ / SKU

6105

LISTING

<https://aumictechlabs.com/products/6105-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 • 811210 • 541380

This unit

The Keithley 6105 Resistivity Chamber is a guarded test fixture for precision measurement of volume and surface resistivities across a wide range of insulating materials. Operating with regulated power supplies and electrometers, it delivers accurate characterization from extremely low to extremely high resistance values while adhering to ASTM standards. Technical Specifications Measurement Ranges: Volume resistivity: $10 \Omega\text{-cm}$ to $3 \times 10^{19} \Omega\text{-cm}$ Surface resistivity: $10^3 \Omega$ to $5 \times 10^{18} \Omega$ Test voltage: 1 V to 1000 V (maximum 1000 V) Sample Dimensions: Diameter: 0.25 inches (0.635 cm) to 4 inches (10.2 cm) Thickness: 1/16 inch (0.159 cm) to 0.25

inches (0.635 cm) Physical Characteristics: Dimensions: 6 inches wide × 4.5 inches deep × 4 inches high Weight: 3 pounds Connectors: Teflon-insulated UHF-type power receptacle; BNC-type electrometer receptacle Key Features Guarded electrode design minimizes leakage currents and stray pickup Spring-loaded, guarded electrode with test weight assembly applies uniform pressure to samples Electrodes conform to ASTM recommendations Shielded construction for measurement integrity across the full resistance range Compatible with Keithley high voltage supplies and electrometers Typical Applications The 6105 characterizes volume and surface resistivity of insulators, semiconductors, and resistance-critical materials in research, quality assurance, and production environments where ASTM-compliant measurements are required. Compatibility & Integration Recommended for use with Keithley Model 240A and Model 610C instruments. Also compatible with Model 614 electrometer. System integration with related Keithley high voltage and measurement equipment is supported through standard connectors.

Features & description

From manufacturer datasheet

Features

- Guarded test fixture for volume and surface resistivity
- Sample diameter: 2.5 to 4 inches (6.3 to 10.2 cm)
- Sample thickness: 1/16 to 1/4 inch (0.159 to 0.635 cm)
- Test voltage: 1 V to 1000 V (max 1000 V)
- System volume resistivity capability: about 10 to $3 \times 10^{19} \Omega \cdot \text{cm}$ (with suitable electrometer/supply)
- System surface resistivity capability: about 10^3 to $5 \times 10^{18} \Omega$
- Connectors: UHF-type power receptacle; BNC electrometer
- Dimensions: 6 × 4.5 × 4 inches; net weight ~3 lb
- Electrode geometry: $D_o = 2\text{-}1/8$ inches (5.40 cm) for ASTM calculations

6105 Characteristics / Specifications

PARAMETER	VALUE
Model	6105
Manufacturer	Keithley Instruments (Tektronix)
Instrument Type	Resistivity Adapter / Chamber
Alias	6105; Keithley 6105 Mechanical / Electrical Sample size and voltage as above; accuracy dominated by source and electrometer Operational Notes Prefer Keithley Model 6105 instruction manual 31415. Pair with Keithley electrometer and HV supply.
Sample diameter	2.5 to 4 inches (6.3 to 10.2 cm)
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Dimensions	6 × 4.5 × 4 inches; net weight ~3 lb
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6105 Specifications

PARAMETER	VALUE
Keithley 6105 Resistivity Chamber	Overview
Applications	Material volume and surface resistivity; insulating plastics/films; ASTM D257-style lab measurements.
Technical Specifications	Model: 6105
Mechanical / Electrical	Sample size and voltage as above; accuracy dominated by source and electrometer
Operational Notes	Prefer Keithley Model 6105 instruction manual 31415. Pair with Keithley electrometer and HV supply.

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	6105
Manufacturer	Keithley Instruments (Tektronix)
Instrument Type	Resistivity Adapter / Chamber
Alias	6105; Keithley 6105

Mechanical / Electrical

Sample size and voltage as above; accuracy dominated by source and electrometer

Operational Notes

Prefer Keithley Model 6105 instruction manual 31415. Pair with Keithley electrometer and HV supply.

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.