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Data Sheet

August 13, 2026

KEITHLEY

Keithley 6103C High Voltage Probe

Keithley 6103C High Voltage Divider Probe The Keithley 6103C is a shielded high-voltage divider probe accessory for Keithley electrometers. It provides a 1000:1 division ratio for DC voltage measurements to 30 kV with a very high input resistance of 3.8×10^{11} ohms so electrometer loading remains low. The probe uses a needle-point tip, low-noise shielded cable about 0.8 m (30 in) long, and a UHF male plug; adapters are required for triax-input instruments. High-voltage DC measurements with electrometers; insulation and resistivity setups requiring reduced loading; extending electrometer voltage range to tens of kilovolts. The Keithley 6103C is a shielded high-voltage divider probe accessory for Keithley electrometers. It provides a 1000:1 division ratio for DC voltage measurements to 30 kV with a very high input resistance of 3.8×10^{11} ohms so electrometer loading remains low. The probe uses a needle-point tip, low-noise shielded cable about 0.8 m (30 in) long, and a UHF male plug; adapters are required for triax-input instruments. High-voltage DC measurements with electrometers; insulation and resistivity setups requiring reduced loading; extending electrometer voltage range to tens of kilovolts.



MODEL

Keithley 6103C

CALIBRATION

Available on request

CONDITION

Used

STATUS

In stock

RFQ / SKU

6103C

LISTING

<https://aumictechlabs.com/products/6103c-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 · 811210 · 541380

This unit

The Keithley 6103C High Voltage Probe is a precision DC measurement instrument for voltmeters and electrometers requiring accurate readings up to 30,000 V. With a 1000:1 division ratio and 380

GΩ input resistance, it delivers minimal loading effects on high-impedance measurement instruments. The probe connects via UHF connector and includes a 30-inch (0.8 m) cable with a 4-foot ground lead terminated in alligator clip and banana plug. Designed for demanding applications in electronics testing, research, and equipment maintenance where high-voltage DC measurements demand accuracy and stability.

Technical Specifications

Voltage Range: 0 to 30,000 V DC
Division Ratio: 1000:1
Ratio Accuracy: $\pm 5\%$
Input Resistance: $3.8 \times 10^{11} \Omega$ (380 GΩ)
Internal Divider Resistor: 375 MΩ
Cable Length: 30 inches (0.8 m)
Physical Dimensions: 76 mm diameter × 387 mm length
Net Weight: 341 g (12 oz)

Key Features

- UHF connector interface for direct integration with electrometer and voltmeter inputs
- High input impedance minimizes circuit loading; less than 0.5% loading error when paired with 10 GΩ input resistance instruments
- Integrated ground lead assembly with alligator clip and banana plug connector
- Compact form factor suitable for bench and field measurements
- Operating restriction: avoid use above 60% relative humidity

Typical Applications

- High-voltage DC testing in power electronics and equipment development
- Electrostatic discharge (ESD) monitoring and verification
- Equipment maintenance and troubleshooting at voltages to 30 kV
- Research environments requiring precision DC high-voltage measurement

Compatibility & Integration

The probe is engineered for use with electrometers or DC voltmeters having nominal input impedance of 10 GΩ or greater. Connection requires the voltmeter's low terminal connected to safety ground, the probe's UHF connector to the voltmeter's high input, and the ground lead between the voltmeter's low terminal and the source low. When measuring 30 kV, the voltmeter must be set to 100 V full-range; each 1 V increment displays as 1 kV measured. Always inspect probe body, cables, and connectors for damage before use.

Features & description

From manufacturer datasheet

Features

- 1000:1 voltage divider for electrometer readout scaling

6103C Characteristics / Specifications

PARAMETER	VALUE
Model	6103C
Manufacturer	Keithley Instruments
Instrument Type	High-voltage voltage-divider probe accessory
Alias	6103C; Keithley 6103C; 6103-C
Division ratio	1000:1
Voltage measurement range	0 to 30000 V DC (30 kV)
Ratio accuracy	+/-5% of reading
Input resistance	3.8×10^{11} ohms
Cable length	0.8 m (30 in)
Cable type	Low-noise shielded
Probe tip	Needle point
Output connector	UHF male plug
Compatible electrometers	610C; 617; 6517A
Adapter for 617 / 6517A	Model 6012 Triax-to-UHF
Additional adapter for 6517A	Model 6171
Host input resistance guidance	greater than about 10^{11} ohms
Measurement domain	High-voltage DC with electrometer
Form	Handheld shielded probe accessory
Accessory class	Electrometer voltage-divider probe Notes Specs from Keithley electrometer accessory tables and 610C instruction manual descriptions. Confirm adapter set for the host electrometer connector (UHF vs triax). Do not invent finer accuracy vs voltage curves beyond the published +/-5% of reading.
1000	1 voltage divider for electrometer readout scaling

6103C Specifications

PARAMETER	VALUE
Keithley 6103C High Voltage Divider Probe	Overview
Key Features	- 1000:1 voltage divider for electrometer readout scaling
Technical Specifications	Model: 6103C

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	
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Alias	6103C; Keithley 6103C; 6103-C
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Voltage measurement range	0 to 30000 V DC (30 kV)
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PARAMETER	VALUE
Ratio accuracy	+/-5% of reading
Input resistance	3.8 x 10^11 ohms
Cable length	0.8 m (30 in)
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Cable type	Low-noise shielded
Probe tip	Needle point
Output connector	UHF male plug
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Compatible electrometers	610C; 617; 6517A
Adapter for 617 / 6517A	Model 6012 Triax-to-UHF
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Specifications

PARAMETER	VALUE
Host input resistance guidance	greater than about 10^11 ohms
Measurement domain	High-voltage DC with electrometer
Form	Handheld shielded probe accessory

Accessory class: Electrometer voltage-divider probe

Notes

Specs from Keithley electrometer accessory tables and 610C instruction manual descriptions. Confirm adapter set for the host electrometer connector (UHF vs triax). Do not invent finer accuracy vs voltage curves beyond the published +/-5% of reading.

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.