

**Aumictech**

Test & measurement • bought, sold, repaired, calibrated

Data Sheet

August 13, 2026

KEITHLEY

Keithley 248 HV DC Power Supply, 5 kV, 5 mA

Keithley 248 High Voltage DC Power Supply, 5 kV / 5 mA The Keithley 248 is a programmable high-voltage DC supply for laboratory and test applications requiring up to ± 5000 V at up to 5 mA (25 W class) with reversible polarity, low ripple, and excellent regulation. Output is set from the front panel, via remote analog voltage, or over the standard IEEE-488 interface. Two selectable output filters trade slew rate for lower ripple; SHV male output and monitor BNCs support safe HV interconnection. High-voltage resistivity and insulation resistance testing; high-voltage component characterization; breakdown and I-V measurements; precision HV bias for electrometer-based measurements. The Keithley 248 is a programmable high-voltage DC supply for laboratory and test applications requiring up to ± 5000 V at up to 5 mA (25 W class) with reversible polarity, low ripple, and excellent regulation. Output is set from the front panel, via remote analog voltage, or over the standard IEEE-488 interface. Two selectable output filters trade slew rate for lower ripple; SHV male output and monitor BNCs support safe HV interconnection. High-voltage resistivity and insulation resistance testing; high-voltage component characterization; breakdown and I-V measurements; precision HV bias for electrometer-based measurements.



MODEL

Keithley 248

CALIBRATION

Available on request

CONDITION

Used

STATUS

In stock

RFQ / SKU

248

LISTING

<https://aumictechlabs.com/products/248-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 • 811210 • 541380

This unit

The Keithley 248 is a programmable high-voltage DC power supply engineered for precision sourcing in research, component testing, and material characterization. It delivers 0 to ± 5000 V DC at up to 5.000 mA DC with 25 W maximum power and exceptional output stability. The supply features reversible polarity, voltage set accuracy of $\pm(0.01\% \text{ of setting} + 2.5 \text{ V})$, and load regulation of 0.005% typical across a 100% load change. Output ripple is held to $<0.002\%$ of full scale without filtering, with two selectable filter options available to further reduce noise. Filter 1 supports operation to 3000 V DC at 5 mA, while Filter 2 extends to the full 5000 V DC at 3 mA. Voltage settles to 99.9% of programmed value within 3 seconds, and complete discharge occurs within 6 seconds. Current compliance is programmable with $0.01\% + 2.5 \mu\text{A}$ accuracy and $1 \mu\text{A}$ resolution. The compact half-rack design measures 89 mm $\times$ 206 mm $\times$ 406 mm and weighs 3.7 kg, featuring an SHV male output connector on the rear panel. GPIB (IEEE-488.1) remote interface enables automated control, while external voltage setting and analog monitor outputs (both 0 to +10 V for full-range scaling) support integration with external measurement systems. Operating temperature range is 0°C to 50°C with 1-hour warm-up time. Input power requirement is 55 watts at 100, 120, 220, or 240 V AC $\pm 10\%$, 50 or 60 Hz.

Technical Specifications

Output voltage: 0 to ± 5000 V DC
Maximum output current: 5.000 mA DC
Maximum power: 25 W
Voltage set accuracy: $\pm(0.01\% \text{ of setting} + 2.5 \text{ V})$
Voltage display accuracy: $\pm 1 \text{ V}$ typical, $\pm 2 \text{ V}$ maximum
Voltage resolution: 1 V
Line regulation: 0.001% for $\pm 10\%$ line voltage change
Load regulation: 0.005% typical for 100% load change
Output ripple (10 Hz–100 kHz): $<0.002\%$ of full scale maximum without filter
Settling time (0 to programmed voltage): Within 3 seconds to 99.9% final value
Discharge time (to within 50 V of zero): Within 6 seconds, no load
Current limit accuracy: $0.01\% + 2.5 \mu\text{A}$
Current resolution: $1 \mu\text{A}$
Current display accuracy: $\pm 1 \mu\text{A}$ typical, $\pm 2 \mu\text{A}$ maximum

Key Features

- Reversible polarity (positive or negative output)
- Dual selectable output filters for ripple reduction
- GPIB (IEEE-488.1) remote control interface
- External voltage set input (0 to +10 V, $1 \text{ M}\Omega$ impedance, $\pm 0.2\%$ accuracy at 16 Hz update)
- Monitor output (0 to +10 V, $<1 \Omega$ impedance, $\pm 0.2\%$ accuracy at 8 Hz update)
- Programmable current trip
- SHV male rear-panel connector
- Compact half-rack form factor

Typical Applications

High-voltage research, semiconductor component testing, material characterization, and precision voltage sourcing requiring low ripple and excellent regulation.

Compatibility & Integration

GPIB interface enables integration with automated test systems and measurement suites. Analog monitor and external set inputs accommodate analog control loops and direct measurement integration. Operating range 0°C to 50°C supports laboratory and controlled industrial environments.

Features & description

From manufacturer datasheet

Features

- Output 0 to +/-5000 V DC; up to 5 mA (filter-dependent)
- Reversible polarity; programmable voltage and current limits/trips
- Output ripple as low as 0.002% of full scale VRMS (no filter)
- Two selectable filters (high-current / high-voltage filter modes)
- IEEE-488 (GPIB) programmable; remote analog set/monitor
- Dual digital displays for voltage and current; separate setting display
- Arc and short-circuit protected; compact half-rack form
- SHV male HV output; optional 248-SHV / 248-MHV cables

248 Characteristics / Specifications

PARAMETER	VALUE
Model	248
Manufacturer	Keithley Instruments
Instrument Type	Programmable high-voltage DC power supply
Alias	248; Keithley 248
Output voltage (no filter)	0 to +/-5000 V DC at 5.000 mA DC
Output voltage (Filter 1)	0 to +/-3000 V DC at 5.000 mA DC
Output voltage (Filter 2)	0 to +/-5000 V DC at 3.000 mA DC
Voltage set accuracy	+/- (0.01% of setting + 0.05% of range)
Voltage resolution	1 V (set and display)
Voltage display accuracy	Voltage set accuracy +/-1 V typical (+/-2 V max)
Voltage limit range	0 to 100% of full scale
Line regulation	0.001% for +/-10% line change
Load regulation	0.005% for 100% load change, typical
Output ripple (no filter)	0.002% of full scale VRMS max (10 Hz-100 kHz)
Current resolution	1 uA
Current limit accuracy	0.01% + 2.5 uA
Stability	+/-0.02% per hour typical (ambient within 2 C)
Temperature drift	50 ppm/C, 0 to 50 C, typical
HV connector	SHV male (Kings Type 1704-1 or equivalent)
Remote interface	GPIB (IEEE-488.1 / required IEEE-488.2 common commands)
Monitor outputs	0-10 V full-scaleVandImonitors; <1 Ohm; +/-0.2% FS; 8 Hz update
Settling time (0 to programmed V)	within 99.9% of final value in 3 s Notes Specs from Keithley Model 248 High Voltage Supply Instruction Manual. Observe HV safety practices; confirm filter setting when citing maximum current at 5 kV.

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	248
Manufacturer	Keithley Instruments
Instrument Type	Programmable high-voltage DC power supply
Alias	248; Keithley 248
Output voltage (no filter)	0 to +/-5000 V DC at 5.000 mA DC
Output voltage (Filter 1)	0 to +/-3000 V DC at 5.000 mA DC
Output voltage (Filter 2)	0 to +/-5000 V DC at 3.000 mA DC
Voltage set accuracy	+/- (0.01% of setting + 0.05% of range)
Voltage resolution	1 V (set and display)
Voltage display accuracy	Voltage set accuracy +/-1 V typical (+/-2 V max)
Voltage limit range	0 to 100% of full scale
Line regulation	0.001% for +/-10% line change
Load regulation	0.005% for 100% load change, typical
Output ripple (no filter)	0.002% of full scale VRMS max (10 Hz-100 kHz)
Output ripple (Filter 1 or 2 @ 1 kV): 1.0 mV RMS	
Output ripple (Filter 1 or 2 @ 3 kV): 2.0 mV RMS	
Output ripple (Filter 2 @ 5 kV): 3.0 mV RMS	
Specifications	
PARAMETER	VALUE
Current resolution	1 uA
Current limit accuracy	0.01% + 2.5 uA
Stability	+/-0.02% per hour typical (ambient within 2 C)
Temperature drift	50 ppm/C, 0 to 50 C, typical
HV connector	SHV male (Kings Type 1704-1 or equivalent)
Remote interface	GPIB (IEEE-488.1 / required IEEE-488.2 common commands)
Monitor outputs	0-10 V full-scaleVandImonitors; <1 Ohm; +/-0.2% FS; 8 Hz update

PARAMETER	VALUE
-----------	-------

Settling time (0 to programmed V)	within 99.9% of final value in 3 s
-----------------------------------	------------------------------------

Notes

Specs from Keithley Model 248 High Voltage Supply Instruction Manual. Observe HV safety practices; confirm filter setting when citing maximum current at 5 kV.

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

788 S 500 E, Pleasant Grove, UT 84062
sales@aumictech.com · +1 (484) 841-9341
<https://aumictechlabs.com>

NIST-traceable calibration · SAM registered ·
30-day returns
NAICS 423690 · 811210 · 541380
Generated August 13, 2026

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