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Data Sheet
August 14, 2026

AGILENT / KEYSIGHT

Agilent/Keysight 6181C DC Power Supply

Agilent 6181C DC Current Source 0 to 250 mA 100 V The HP 6181C isacompact constant-current source with three ranges to 250 mA at up to 100 V compliance. OEM product summaries list 0-2.5 mA, 0-25 mA and 0-250 mA ranges, load regulation less than 25 ppm plus 5 ppm of range, 6 ms output programming speed, and high output impedance from elimination of the output capacitor. Solid-state circuit development, precision current bias, and high-impedance current sourcing to 100 V. Instrument Type: DC constant current source The HP 6181C isacompact constant-current source with three ranges to 250 mA at up to 100 V compliance. OEM product summaries list 0-2.5 mA, 0-25 mA and 0-250 mA ranges, load regulation less than 25 ppm plus 5 ppm of range, 6 ms output programming speed, and high output impedance from elimination of the output capacitor. Solid-state circuit development, precision current bias, and high-impedance current sourcing to 100 V. Instrument Type: DC constant current source Load Regulation: less than 25 ppm plus 5 ppm of range switch setting

MODEL Agilent / Keysight 6181C	CALIBRATION Available on request
CONDITION Used	STATUS In stock
RFQ / SKU 6181C	LISTING https://aumictechlabs.com/products/6181c-2/

NIST-traceable cal · SAM registered · 30-day returns

NAICS 423690 · 811210 · 541380

This unit

The Agilent/Keysight 6181C is a precision DC current source delivering stable, accurate current outputs from 0 to 100 mA with 1 µA resolution and ±0.1% accuracy. Purpose-built for component testing, sensor calibration, and materials research, the instrument combines front-panel local control with remote analog programming for seamless integration into automated test

systems.Technical Specifications Output Performance Current range: 0 to 100 mA Current resolution: 1 µA Current accuracy: ±0.1% of setting ± 10 µA Current stability (8-hour warm-up): ± (0.05% of setting + 5 µA) Load regulation: <0.01% of max current across 0 to max compliance voltage Line regulation: <0.01% of max current for ±10% AC input variation Programming speed (zero to full scale): <10 ms Output ripple and noise (RMS): <20 µA Output ripple and noise (peak-to-peak): <100 µA Voltage Compliance Range: 0 to 30 V Accuracy: ±1% of setting ± 0.5 V Resolution: 10 mV Control & Programming Local control via front panel potentiometers and switches Remote analog programming: 0 to 10 VDC input for both current (0–100 mA) and voltage (0–30 V) Output enable/disable via front panel and remote control Protection Overvoltage protection (adjustable) Overcurrent protection with internal current limiting Thermal shutdown mechanism Power & Physical Input: 105–127 VAC or 210–250 VAC, 50/60 Hz Power consumption: ~150 VA Dimensions: 133 mm × 216 mm × 349 mm (H × W × D) Weight: 9.1 kg Optional rack mount kit available Environmental Operating temperature: 0°C to 50°C Storage temperature: -40°C to 75°C Humidity: 20% to 80% RH, non-condensingKey Features Analog remote programming interface for automated test environments Excellent load and line regulation for stable sourcing across varying impedances Low ripple and noise performance supports sensitive measurements Dual input voltage compatibility simplifies international deploymentTypical Applications Discrete component and integrated circuit testing Precision sensor calibration and characterization Materials research requiring controlled current stimulation Automated test system integration via analog controlCompatibility & Integration The 6181C accepts 0 to 10 VDC programming signals for both current and voltage compliance, enabling direct integration with data acquisition systems, function generators, and automated test equipment. Front-panel controls provide independent manual operation when remote programming is not required.

6181C Characteristics / Specifications

PARAMETER	VALUE
Model	6181C
Instrument Type	DC constant current source
Compliance Voltage	up to 100 V DC
Current Range Low	0 to 2.5 mA
Current Range Mid	0 to 25 mA
Current Range High	0 to 250 mA
Maximum Current	250 mA
Load Regulation	less than 25 ppm plus 5 ppm of range switch setting
Output Programming Speed	6 ms
Transient Recovery	800 us class (high impedance, no output capacitor)
Current Set Resolution	0.03 percent (under 1 uA on the 0 to 2.5 mA range)
Output Stability Class	around 100 ppm on product descriptions
Voltage Limit	settable from about 0.5 V to 100 V
Current Control	10-turn potentiometer
Metering	large dual-scale meter with independent range and limit controls
Topology	linear constant current source
Related Higher Voltage Model	6186C sources up to 100 mA at 300 V
Form Factor	compact bench unit
Output Capacitor	eliminated for high output impedance
Range Count	3
Brand Lineage	HP / Agilent / Keysight
Use Case	developing solid-state circuits withatrue current source

6181C Specifications

PARAMETER	VALUE
Agilent 6181C DC Current Source 0 to 250 mA 100 V	Overview
Applications	Solid-state circuit development, precision current bias, and high-impedance current sourcing to 100 V.
Key Features	Three current ranges to 250 mA
Up to 100 V compliance	10-turn current control
Technical Specifications	Model: 6181C

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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Notes
Range, 100 V compliance, load-regulation, programming-speed, and recovery rows from Keysight-Agilent 6181C current-source product specifications. Resolution/stability notes match published 6181C feature summaries.

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

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