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Data Sheet

August 15, 2026

AGILENT / KEYSIGHT

Agilent/Keysight 6181B DC Power Supply

HP Agilent Keysight 6181B DC Current Source 100 V 250 mA The HP 6181B is a constant-current DC source with voltage limiting for applications needing tightly regulated low-noise current. OEM product literature rates 100 V / 250 mA maximum with selectable 2.5 mA, 25 mA, and 250 mA ranges and 10-turn current control resolving down to 0.5 μ A. Precision bias of sensors, semiconductors, and metrology loads requiring constant current with an adjustable voltage ceiling. Constant current with adjustable voltage limit The HP 6181B is a constant-current DC source with voltage limiting for applications needing tightly regulated low-noise current. OEM product literature rates 100 V / 250 mA maximum with selectable 2.5 mA, 25 mA, and 250 mA ranges and 10-turn current control resolving down to 0.5 μ A. Precision bias of sensors, semiconductors, and metrology loads requiring constant current with an adjustable voltage ceiling. Constant current with adjustable voltage limit 10-turn current control for fine resolution



MODEL

**Agilent / Keysight
6181B**

CALIBRATION

**Available on
request**

CONDITION

Used

STATUS

In stock

RFQ / SKU

6181B

LISTING

<https://aumictechlabs.com/products/6181b-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 · 811210 · 541380

This unit

The Agilent/Keysight 6181B is a precision DC current source engineered for applications requiring stable, accurate current delivery with minimal ripple. This manually operated instrument provides 0 to 250 mA full-scale current output with voltage compliance to 100 V, making it suitable for demanding measurement and characterization tasks across semiconductor, electrochemical, and resistivity testing environments. Technical Specifications Output current: 0 to 250 mA full-scale

Voltage compliance: Up to 100 V Output impedance: High Current control: 10-turn graduated decadal (Option 014 / 015) AC input: 230 VAC operation available (Option 028) Output capacitor: None Regulation and stability: Exceptional with very low ripple characteristics

Key Features Manual current source operation with precision control High output impedance for stable current delivery into varying load conditions Decadal control knob enables fine adjustment of output current No output capacitor eliminates charge storage effects Safety Class I design with protective earth terminal Internal fuse protection (non-customer accessible)

Typical Applications Resistivity measurements Semiconductor characterization Electrochemistry Electromagnetics Component testing and sensor calibration Research requiring precision DC current injection

Compatibility & Integration The 6181B operates as a standalone precision current source with manual control. It requires connection to AC mains via a grounded power cable. Operation in hazardous atmospheres containing flammable gases or fumes is prohibited. Service access and internal inspection are restricted to qualified, service-trained personnel.

6181B Characteristics / Specifications

PARAMETER	VALUE
Model	6181B
Instrument Type	DC current source with voltage limiting
Output Voltage Maximum	100 V
Output Current Maximum	250 mA
Current Range Low	2.5 mA
Current Range Mid	25 mA
Current Range High	250 mA
Current Resolution Class	down to 0.5 μ A with 10-turn control
Regulation Stability Class	high regulation and stability per OEM description
Ripple Class	very low ripple characteristics per OEM description
Line Power	115/230 Vac
Form Factor	low-profile tabletop metal case
Dimensions Width	198 mm
Dimensions Height	76 mm
Dimensions Depth	279 mm
Output Binding Posts	GND Plus Minus and Guard Sense
Metering	switchable current/voltage display
Control Current	10-turn potentiometer
Control Voltage Limit	front-panel voltage ceiling control
Operation Mode	constant current / voltage limiting
Related Model Class	6181C in same current-source family
Brand Lineage	HP / Agilent / Keysight

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	
From Hewlett-Packard 6181B DC Current Source published product descriptions and OEM summary ratings. Detailed regulation ppm figures belong on the operating and service manual performance table.	

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.