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Data Sheet

August 13, 2026

RIGOL

Rigol Rp1002C Current Probe, Dc-1 Mhz,100A Peak

Rigol RP1002C Current Probe DC to 1 MHz 100 A Peak The RP1002C is an AC/DC current probe that lets a general-purpose oscilloscope display current to 100 A peak (70 A RMS). Bandwidth is DC to 1 MHz (minus 3 dB). Two sensitivities are 50 mV/A and 500 mV/A. Non-continuous peak is 140 A. Power is a 9 V battery (NEDA 1604A / IEC 6LR61, typically 8 hours) or the specified external adaptor. BNC output; a BNC-to-banana adapter supports DMM use. Sibling RP1001C is DC to 300 kHz. Power electronics and motor-drive current debug The RP1002C is an AC/DC current probe that lets a general-purpose oscilloscope display current to 100 A peak (70 A RMS). Bandwidth is DC to 1 MHz (minus 3 dB). Two sensitivities are 50 mV/A and 500 mV/A. Non-continuous peak is 140 A. Power is a 9 V battery (NEDA 1604A / IEC 6LR61, typically 8 hours) or the specified external adaptor. BNC output; a BNC-to-banana adapter supports DMM use. Sibling RP1001C is DC to 300 kHz. Power electronics and motor-drive current debug Oscilloscope capture of AC/DC current to 100 A peak



MODEL

Rigol RP1002C

CALIBRATION

Available on request

CONDITION

Used

STATUS

In stock

RFQ / SKU

RP1002C

LISTING

<https://aumictechlabs.com/products/rp1002c-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 · 811210 · 541380

This unit

The Rigol RP1002C is a current probe designed for oscilloscope and multimeter current measurement applications. It captures AC and DC current signals up to 100A peak across a DC to 1 MHz bandwidth, with dual sensitivity ranges of 50mV/A and 500mV/A. The probe supports maximum DC measurements of $\pm 70\text{A}$ and AC measurements up to 70A RMS or 140A peak-to-peak. Powered by an internal 9V alkaline battery or external AC adapter, the probe features overload indication, battery status monitoring via green LED, and gain accuracy of $\pm 3\%$ at 50mV/A (50mA to 10A peak) and $\pm 4\%$ at 10mV/A. The clamp accommodates conductors up to 11mm diameter, and sensitivity can be increased by looping the wire under test multiple times through the clamp. Safety rating is CAT II 600V / CAT III 300V.

Technical Specifications
Bandwidth: DC to 1 MHz (-3dB)
Peak Current Measurement: 100A
Maximum DC Current: $\pm 70\text{A}$
Maximum AC Current: 70A RMS / 140A peak-to-peak
Sensitivity Ranges: 50mV/A, 500mV/A
Gain Accuracy: $\pm 3\%$ at 50mV/A (50mA–10A peak); $\pm 4\%$ at 10mV/A (50mA–10A peak)
Maximum Conductor Size: 11mm
Power Supply: Internal 9V battery (alkaline) or external AC adapter
Battery Indicator: Green LED, triggers at 6.5V low-voltage threshold
Safety Rating: CAT II 600V / CAT III 300V
Dimensions: 10.32 × 3.18 × 1.42 inches

Key Features
Dual-range sensitivity for flexible measurement resolution
Overload indication protects against transient damage
BNC output connector compatible with standard oscilloscope inputs
Included BNC-to-banana plug adapter enables multimeter operation
Adjustable sensitivity via multi-turn wire loops through clamp
Low-noise design for high-speed signal acquisition
Power supply and battery status indicators

Compatibility & Integration
The probe connects directly to any oscilloscope via standard BNC connector and integrates with all Rigol oscilloscope models. Multimeter connectivity is enabled through the supplied BNC-to-banana adapter. External PSU socket accommodates AC mains adapter (230V AC supplied for EU/UK regions). For accurate DC measurements, maintain fixed probe position to minimize drift.

RP1002C Characteristics / Specifications

PARAMETER	VALUE
Model	RP1002C
Manufacturer	Rigol
Instrument Type	AC/DC current probe
Alias	RP 1002C; RIGOL RP1002C
Bandwidth	DC to 1 MHz (minus 3 dB)
Current Ranges	50 mV/A and 500 mV/A
Max Continuous Current	100 A peak (70 A RMS)
Max Noncontinuous Peak	140 A
DC Accuracy 500 mV per A	plus/minus 3 percent plus 20 mA (20 mA to 14 A peak)
DC Accuracy 50 mV perAMid	plus/minus 4 percent plus 200 mA (200 mA to 100 A peak)
DC Accuracy 50 mV perAHigh	plus/minus 15 percent maximum (100 A peak to 140 A peak)
Working Current 50 mV perADC	70 A (frequency derating in Appendix 2)
Working Current 500 mV perADC	7 A
Max Working Voltage	600 V
Max Floating Voltage	600 V
AC Peak to Peak 50 mV per A	140 A
AC Peak to Peak 500 mV per A	14 A
RMS CAT III	50 A at 50 mV/A; 5 A at 500 mV/A; 600 V
RMS CAT II	50 A / 5 A; 600 V
RMS CAT I	50 A / 5 A; 600 V
Battery Type	9 V NEDA 1604A, IEC 6LR61
Battery Life Typical	8 hours
Output Connector	BNC
DMM Use	BNC to banana plug adapter
External Power	specified adaptor socket

PARAMETER	VALUE
Sibling RP1001C Bandwidth	DC to 300 kHz
Sibling RP1001C Ranges	10 mV/A, 100 mV/A
Safety	IEC rating table CAT I/II/III as printed
Using Environment	indoor per user guide
Gain Versus Frequency	typical curve at 1 A peak in Appendix 1
Phase Versus Frequency	typical curve in user-guide appendix Notes Specs from Rigol RP1002C Current Probe User Guide. Confirm range switch, battery versus adaptor, and frequency derating above DC. Do not confuse with RP1003C/RP1004C which require RP1000P.

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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AC Peak to Peak 50 mV per A: 140 A
AC Peak to Peak 500 mV per A: 14 A

Specifications

PARAMETER	VALUE
RMS CAT III	50 A at 50 mV/A; 5 A at 500 mV/A; 600 V
RMS CAT II	50 A / 5 A; 600 V
RMS CAT I	50 A / 5 A; 600 V

Specifications

PARAMETER	VALUE
Battery Type	9 V NEDA 1604A, IEC 6LR61
Battery Life Typical	8 hours
Output Connector	BNC

Specifications

PARAMETER	VALUE
DMM Use	BNC to banana plug adapter
External Power	specified adaptor socket
Sibling RP1001C Bandwidth	DC to 300 kHz

Specifications

PARAMETER	VALUE
Sibling RP1001C Ranges	10 mV/A, 100 mV/A
Safety	IEC rating table CAT I/II/III as printed
Using Environment	indoor per user guide

Gain Versus Frequency: typical curve at 1 A peak in Appendix 1

Phase Versus Frequency: typical curve in user-guide appendix

Notes

Specs from Rigol RP1002C Current Probe User Guide. Confirm range switch, battery versus adaptor, and frequency derating above DC. Do not confuse with RP1003C/RP1004C which require RP1000P.

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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NIST-traceable calibration · SAM registered ·
30-day returns
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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.