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Data Sheet

August 14, 2026

AGILENT / KEYSIGHT

Agilent/Keysight N7042A 300 A 30 MHz Current Probe

Agilent Keysight N7042A Rogowski AC Current Probe 300 A 30 MHz The Keysight N7042A is a clip-around Rogowski AC current probe for 1 MOhm BNC oscilloscope inputs. OEM N7040A/1A/2A user's guide N7040-97000 lists 9.2 Hz to 30 MHz bandwidth, 300 A peak current, 20 mV/A (50:1) sensitivity, 1.2 kV peak coil insulation, and positional accuracy typically plus or minus 2 percent. Power-converter diagnostics, MOSFET/IGBT switching, capacitor ripple on large DC, motor-drive harmonics, and confined-space AC current with a flexible coil. The Keysight N7042A is a clip-around Rogowski AC current probe for 1 MOhm BNC oscilloscope inputs. OEM N7040A/1A/2A user's guide N7040-97000 lists 9.2 Hz to 30 MHz bandwidth, 300 A peak current, 20 mV/A (50:1) sensitivity, 1.2 kV peak coil insulation, and positional accuracy typically plus or minus 2 percent. Power-converter diagnostics, MOSFET/IGBT switching, capacitor ripple on large DC, motor-drive harmonics, and confined-space AC current with a flexible coil. Measures AC in the presence of large DC current



MODEL

**Agilent / Keysight
N7042A**

CALIBRATION

**Available on
request**

CONDITION

Used

STATUS

In stock

RFQ / SKU

N7042A

LISTING

<https://aumictechlabs.com/products/n7042a-3/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 · 811210 · 541380

This unit

The Agilent/Keysight N7042A power rail probe is engineered to meet the demanding requirements of power integrity analysis. With its high bandwidth, it captures fast transient events, while its low noise floor ensures accurate measurement of small signal variations. The probe is compatible with a range of oscilloscopes and offers a user-friendly interface for easy setup and operation. It is an essential tool for engineers working on power supply design, verification, and troubleshooting.

N7042A Characteristics / Specifications

PARAMETER	VALUE
Instrument Type	Rogowski AC current probe
Series Family	Keysight N7040A / N7041A / N7042A
Lf Bandwidth	9.2 Hz (minus 3 dB)
Hf Bandwidth	30 MHz (minus 3 dB)
Peak Current	300 A
Droop	9 percent/ms
Peak Di Dt	20 kA/us
Absolute Max Di Dt Peak	70 kA/us peak
Absolute Max Di Dt Rms	1.2 kA/us
Sensitivity	20 mV/A (50:1)
Output Load	greater than or equal to 100 kOhm (1 MOhm scope input)
Calibration	plus or minus 0.2 percent of reading with conductor central in the coil
Positional Accuracy	plus or minus 2 percent variation
Linearity	plus or minus 0.05 percent of reading
Max Noise	15 mVpp
Coil Insulation	1.2 kV peak
Dc Offset	plus or minus 3 mV maximum at 25 C
Dc Supply Voltage	12 Vdc plus or minus 10 percent
Dc Quiescent Current	60 mA at 12 Vdc
Adapter Mains	100 to 240 VAC, 50 to 60 Hz, 450 mA max at 100 VAC
Coil Length Circumference	80 mm
Coil Thickness	1.7 mm
Coil To Integrator Cable	2.5 m
Output Bnc Cable	0.5 m
Weight Without Batteries	272 g (9.6 oz)

PARAMETER	VALUE
Minimum Bend Radius	10 mm
Battery Life Typical	25 hours (four 1.5 V AA alkaline)
Literature	Keysight N7040-97000 user's guide and N7040A/41A/42A one-pager
Bandwidth	9.2 Hz (minus 3 dB)

General Specifications & Supplementary Characteristics

PARAMETER	VALUE
Operating temperature	minus 40 C to plus 125 C
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Absolute Max Di Dt Peak	70 kA/us peak
Absolute Max Di Dt Rms	1.2 kA/us
Sensitivity	20 mV/A (50:1)
Output Load	greater than or equal to 100 kOhm (1 MOhm scope input)
Calibration	plus or minus 0.2 percent of reading with conductor central in the coil
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Literature	Keysight N7040-97000 user's guide and N7040A/41A/42A one-pager Notes Electrical, mechanical, and power rows from Keysight N7040A/1A/2A Rogowski AC Current Probes User's Guide N7040-97000 model column N7042A. One-pager 3 Hz-24 MHz wording for N7040A is rounded versus the user's-guide 3.0 Hz to 23 MHz table used here.

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

Electrical, mechanical, and power rows from Keysight N7040A/1A/2A Rogowski AC Current Probes User's Guide N7040-97000 model column N7042A. One-pager 3 Hz-24 MHz wording for N7040A is rounded versus the user's-guide 3.0 Hz to 23 MHz table used here.

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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<https://aumictechlabs.com>

NIST-traceable calibration · SAM registered ·
30-day returns
NAICS 423690 · 811210 · 541380
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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.