

Keysight N7040A/41A/42A Rogowski AC Current Probes

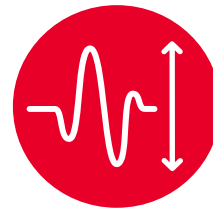
The Perfect Tool for Your Power Measurements and Analysis

The Keysight N7040A Series Rogowski current probe is ideal for measuring AC current (up to 3,000A) in the presence of large DC current and can be used to design, debug, and troubleshoot power semiconductor circuits, power supplies, inverters, and motor drives. The probe is easy to use because it has a thin, lightweight, and flexible clip-around Rogowski coil that lets you make current measurements in the most difficult to reach and confined spaces of your circuit under test. It can also measure large AC current without having to increase the transducer size.



Flexible to Use

- The lightweight clip-around sensor coil is flexible and easy to wrap around a current-carrying conductor
- Coils are small enough to fit between the legs of a TO-220 package IC



Optimized for Large AC Current

- Capable of measuring large AC current without saturating the core
- Wide bandwidth up to 30MHz (AC only)
- Non-intrusive / lossless measurement capability because Rogowski coil draws very little current from the DUT



Safe and Affordable

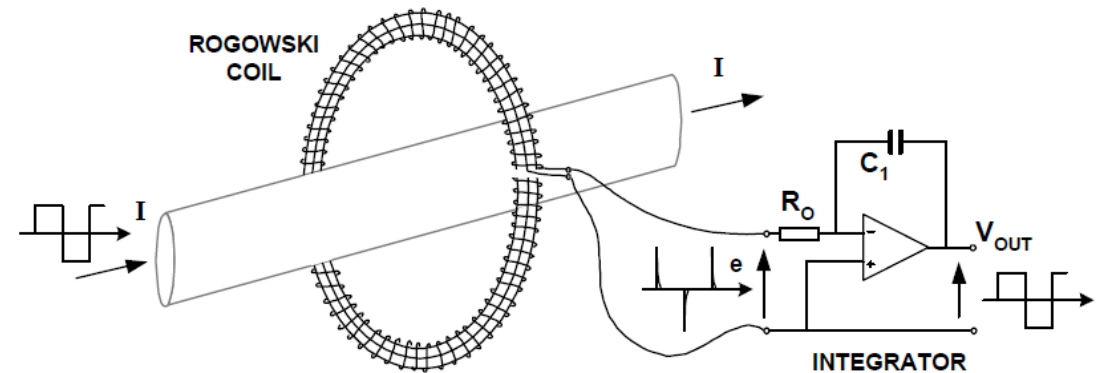
- Rogowski coil is safe to use as there is no danger of an open circuit secondary
- Capable of taking huge overload currents without damage
- Priced cheaper than a hall effect / transformer based current probe

What is a Rogowski Current Probe?

- A Rogowski coil is the best method to measure several kAs of AC current
- The voltage induced in a Rogowski coil is proportional to the rate of change of current enclosed by the coil-loop
- The coil voltage is integrated to produce a voltage proportional to the current
- Because the Rogowski coil uses air core, it can measure large currents without saturation.

Key Specifications

	N7040A	N7041A	N7042A
Bandwidth	3Hz – 24MHz	12Hz – 30MHz	9.2Hz – 30MHz
Peak Current	3,000Apk	600Apk	300Apk
Sensitivity	2mV/A (500:1)	10mV/A (100:1)	20mV/A (50:1)
Max noise (mVpp)	8mVpp	10mVpp	15mVpp
Max voltage	5kVpk	5kVpk	1.2kVpk
Coil length	200 mm	100 mm	80 mm
Total cable length	4.5m	3m	3m
Probe termination	1 MΩ BNC		



Ordering Information

- N7040A 3000A Rogowski Coil Current Probe
- N7041A 600A Rogowski Coil Current Probe
- N7042A 300A Rogowski Coil Current Probe

Oscilloscope Compatibility

	N7040A/41A/42A
InfiniiVision	3000X, 3000TX, 4000X, 6000X and any oscilloscope with 1 Mohm BNC interface
Infiniium	S Series, 9000, 90000A with E2697A, 90000X/V/Q/Z Series with N5449A

For more information, visit www.keysight.com/find/N7040A