

Operation steps

- 1) Connect to the oscilloscope: Set the oscilloscope input impedance to $1M\Omega$, connect the probe BNC end to oscilloscope (make sure the oscilloscope is properly grounded);
- 2) Power the probe: Use standard adapter to power the probe. Indicator light turns green after power on;
- 3) Connect the DUT: make sure that the coil plug is inserted in place and the wire or pin under test passes through the appropriate position of the coil.
- 4) Power up the DUT.
- 5) After test, disconnect the circuit first, then unplug the coil.
- 6) Disconnect probe power.

Warranty

- 1) Micsig warrants the main body of this current probe for 1 year. During the warranty period, Micsig will be responsible for free maintenance for any failure caused by the quality of the product under normal use.
- 2) Under the following circumstances, Micsig will refuse to provide maintenance services or charge for a fee:
 - a.No packaging or anti-counterfeiting label.
 - b.Anti-counterfeit label has been altered or blurred beyond recognition.
 - c.Unauthorized disassembly, such as: changing wires, dismantling internal components, etc.
 - d. No sales voucher or the content of sales voucher does not match the product.

Safety Precautions

- ※ Please use within safe voltage range.
- ※ The equipment connected to the probe must be reliably grounded.
- ※ The outer skin of the Rogowski coil should be inspected before use. If it is damaged, stop using it.
- ※ Before connecting the probe to the circuit under test, make sure the circuit under test is turned off.
- ※ Please use the adapter that comes standard with the probe.

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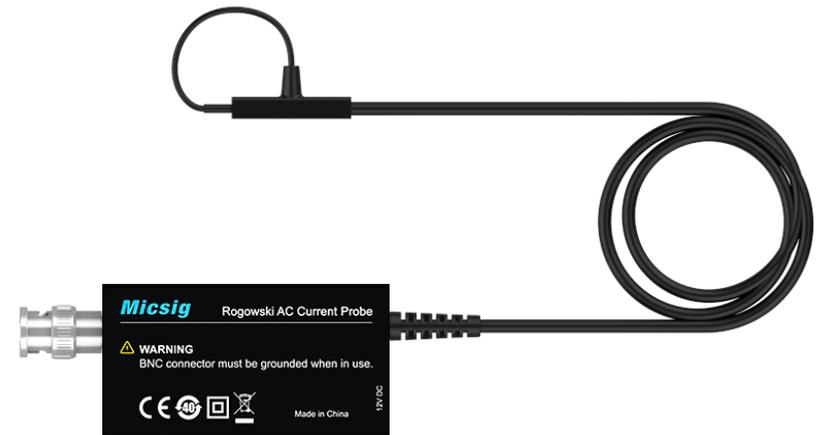
Quick Guide

Rogowski AC Current Probe -- RCP series

Overview

Micsig RCP series Rogowski current probe measures AC currents up to 6000A_{pk}, max. bandwidth up to 30 MHz, withstand voltage is up to 1kV_{rms}, nearly zero insertion impedance, greatly minimized the interference to the DUT. A 1.6mm thin, flexible, clip-around Rogowski coil allow user easily pass through pin leg of TO-220 semiconductor devices. With 2% accuracy (typical), accurately measures high-frequency and high-current signals like double-pulse dynamic test, monitor semiconductor switch current.

Standard BNC interface to use on any oscilloscope, most compact flexible design easily solved the hard-to-reach part issue, coil diameter support customized made to meet more test requirements.

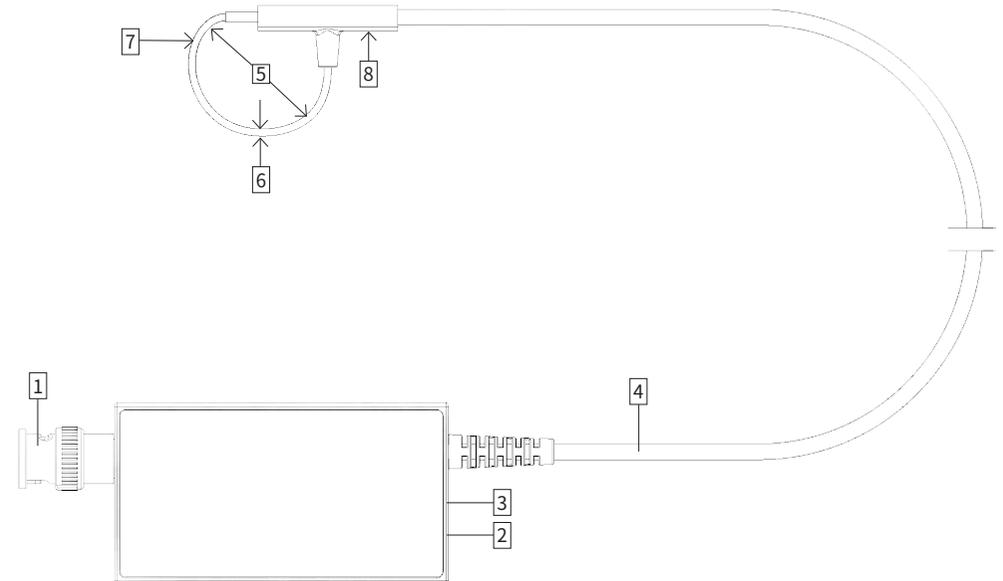


Specifications

Model	RCP60XS	RCP300XS	RCP600XS	RCP1200XS	RCP3000XS	RCP6000XS
Bandwidth	85Hz - 30MHz	10Hz-30MHz	10Hz-30MHz	12Hz - 30MHz	3Hz - 30MHz	2Hz - 30MHz
Rise time	≤ 11.6ns	≤ 11.6ns	≤ 11.6ns	≤ 11.6ns	≤ 11.6ns	≤ 11.6ns
Peak current	60Apk	300Apk	600Apk	1200Apk	3000Apk	6000Apk
Output sensitivity	100mV/A(10x)	20mV/A(50X)	10mV/A(100X)	5mV/A(200X)	2mV/A(500X)	1mV/A (1000X)
Accuracy (typical)	2%	2%	2%	2%	2%	2%
Output noise	< 20mVpp	< 18mVpp	< 12mVpp	< 5mVpp	< 5mVpp	< 5mVpp
Peak di/dt	4kA/μs	20kA/μs	40kA/μs	70kA/μs	70kA/μs	70kA/μs
Droop	65%/ms	9%/ms	6%/ms	3%/ms	2%/ms	2%/ms
Effect of conductor position	Within ±1% (deviation from center part)					
Offset voltage	< ±1mV					
Peak coil isolation voltage	AC 1kVrms (1 min) (50Hz/60Hz) (Rogowski coil part only)					
Measurable conductor diameter	≤ 20mm					
Power supply	DC 12V					
Integrator size	70*40*17mm					
Wire length (integrator to Rogowski coil)	1.5m (customizable)					
Coil inner diameter	25mm (customizable)					
Coil circumference	80mm (customizable)					
Coil cross-section diameter	Appx. 1.6mm					
Output impedance	1MΩ					
Interface	Universal BNC					
Environment						
Working temperature	Base unit: 0°C - 55°C Coil: -20°C - 125°C					
Storage temperature	-30°C - 70°C					
Working humidity	≤ 85%RH					
Storage humidity	≤ 90%RH					

Appearance

The RCP series current probe are composed of two parts: Integrator and Rogowski coil.



- Output:** Standard BNC, compatible with all BNC oscilloscopes.
- Power supply:** DC 12V, adapter
- Power indicator:** Turn Green after powered on.
- Cable length:** 1.5m, from integrator to coil, customizable.
- Rogowski coil inner diameter:** 25mm, measures wires within 20mm in diameter.
- Rogowski coil cross-section diameter:** 1.6mm
- Rogowski coil circumference:** 80mm, customizable.
- Current direction:** When the current flows in the marked direction, the output is positive, otherwise it is negative.

Precautions

- ※ to ensure accuracy, the wire being measured should be positioned as much as possible between X and Y in the right diagram, where X is the center of coil and Y is the midpoint of the coil circumference.
- ※ to ensure accuracy, the wire should avoid the coil junction as much as possible during measurement (shadow area).
- ※ try to stay away from strong magnetic field interference sources as much as possible to avoid measurement errors.
- ※ the coil can be placed around the wire being measured to measure the interference signals in the surrounding area, to determine whether there is strong interference nearby.

