

## 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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**Micsig**

## Rogowski AC Current Probe -- RCP series

### Quick Guide

#### Overview

The RCP series Rogowski current probe measures AC currents up to 600Apk, max. bandwidth up to 30 MHz, delivers 1% typical accuracy, able to measure high-frequency, large current signals easily and accurately.

A 1.6mm thin, flexible, clip-around Rogowski coil allow user to conduct measurements without damaging the conductor and have no interference to the DUT.

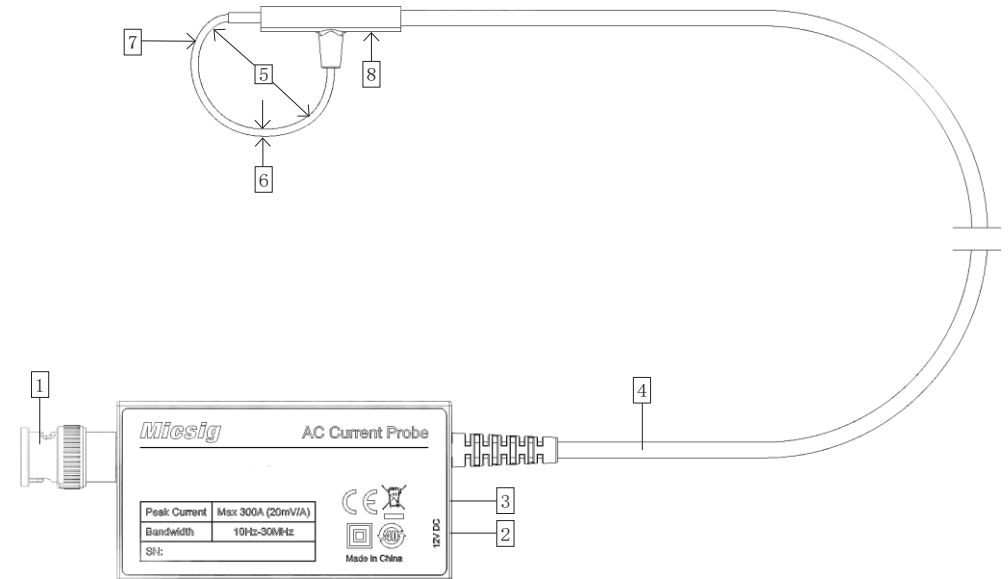


## Specifications

Model	RCP300-XS	RCP600-XS
Bandwidth	10Hz-30MHz	10Hz-30MHz
Measurement range	200mA <sub>pk</sub> -300A <sub>pk</sub>	200mA <sub>pk</sub> -600A <sub>pk</sub>
Output sensitivity	20mV/A (50X)	10mV/A (100X)
Accuracy (typical)	1%	1%
Output noise	< 18mV <sub>pp</sub>	< 12mV <sub>pp</sub>
Output interface	BNC	
Peak di/dt	20kA/μs	40kA/μs
Droop	9%/ms	6%/ms
Effect of conductor position	Within ±1% (deviation from center part)	
Offset voltage	<±1mV	
Peak coil isolation voltage	AC 2kV <sub>rms</sub> (1 min) (50Hz/60Hz) ( Rogowski coil part only )	
Output impedance	High impedance	
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	
Interface	1MΩ BNC	
<b>Environment</b>		
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.

