

Product Datasheet - Technical Specifications



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High Frequency AC / DC Current Probe

CP Series



CP5005 / CP3005 / CP3008 / CP1510

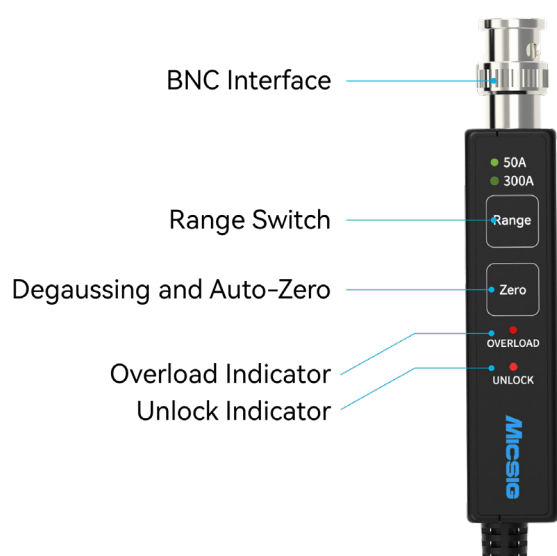


CP1503B / CP1003B / CP503B

Product Overview

With up to 150 MHz bandwidth and 500 Arms continuous current, the Micsig CP Series features 1% accuracy and 1 mA resolution for precise waveform capture and reliable measurements. A dual-range design covers both small-signal detection and high-current transient analysis, helping engineers optimize their designs. Featuring 5 mm and 20 mm jaw options, one-button degauss/auto-zero, and a built-in overcurrent alarm, the CP Series ensures easy operation and safety. The standard BNC interface is compatible with most oscilloscope brands, making it ideal for new energy and industrial electronics testing.

Product Features



Dual Range Selection

Dual range design, both small and large current testing.

Standard BNC Interface

BNC interface design, applicable to most of oscilloscopes.

Overload Indicator

The overload indicator will flash when the current is overloaded.

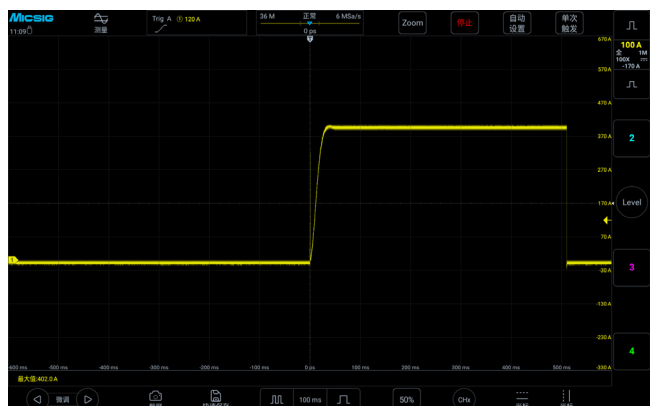
Jaw Status Indicator

Flashes when the clamp is not fully closed.

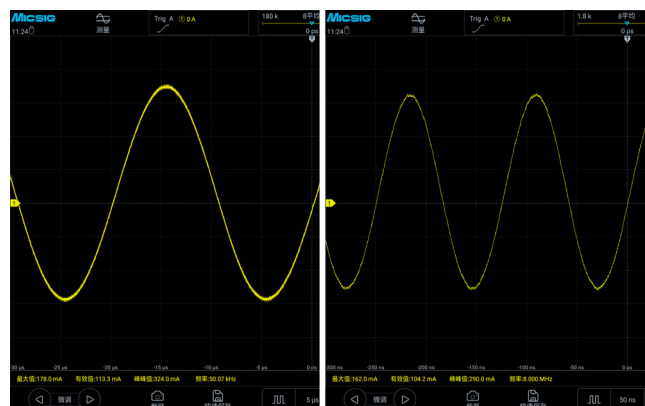
*Only CP5005, CP3008, CP3005, and CP1510 models are equipped with OVERLOAD and UNLOCK indicators.

Wide Range and High Precision

From milliamps to 500 A rms, the CP Series delivers true-to-form signal reproduction with outstanding transient response — capturing every spike and waveform detail with precision.

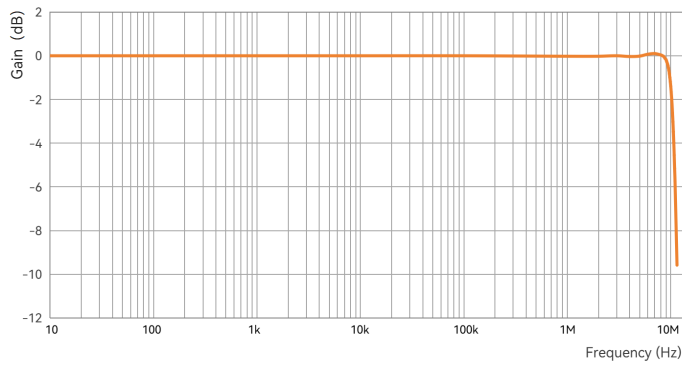


CP3008: Accurate transient capture for 400 A high-current signals.



CP3008: Maintains 92% of the original current value when adjusting a 113 mV signal from 50 kHz to 8 MHz, ensuring accuracy in high-frequency measurements.

Amplitude-frequency characteristic curve - CP1510



Excellent Frequency Characteristics

CP Series features exceptional bandwidth flatness with wide frequency response, preserving pulse current with no attenuation in low frequencies and smooth transition at high-frequency cutoffs.

Product Specifications

Model	CP5005	CP3008	CP3005	CP1510
Bandwidth	5MHz	8MHz	5MHz	10MHz
Rise time	≤ 70ns	≤ 53ns	≤ 70ns	≤ 46ns
Max. Current Input	500Arms, 750Apk	300Arms, 500Apk	300Arms, 500Apk	150Arms, 300Apk
Range	75Arms(75A) 500Arms (500A)	50Arms (50A) 300Arms (300A)	50Arms (50A) 300Arms (300A)	30Arms (30A) 150Arms (150A)
Accuracy (Max continuous current @ DC and 45-66Hz)	±1% ±10mA (75A) ±1% ±100mA (500A)	±1% ±10mA (50A) ±1% ±100mA (300A)	±1% ±10mA (50A) ±1% ±100mA (300A)	±1% ±10mA (30A) ±1% ±100mA (150A)
Lowest measurable current	10mA (75A) 100mA (500A)	10mA (50A) 100mA (300A)	10mA (50A) 100mA (300A)	10mA (30A) 100mA (150A)
Noise (20 MHz limitation)	<2.2mArms (75A) <20mArms (500A)	<1.5mArms (50A) <12mArms (300A)	<1.5mArms (50A) <12mArms (300A)	<1.5mArms (30A) <10mArms (150A)
Output Sensitivity	1V / 10A (75A, 10X) 1V / 100A (500A, 100X)	1V / 10A (50A, 10X) 1V / 100A (300A, 100X)		1V / 10A (30A, 10X) 1V / 100A (150A, 100X)
Power Supply	DC 12V			
Max. Conductor Diameter	20mm			
Cable length	2m			
Interface	Standard BNC Interface			

Product Specifications

Model	CP1503B	CP1003B	CP503B
Bandwidth	150MHz	100MHz	50MHz
Rise time	$\leq 2.67\text{ns}$	$\leq 3.5\text{ns}$	$\leq 7\text{ns}$
Max. Current Input	50Apk, 30Arms	30Arms, 50Apk	30Arms, 50Apk
Range	5Arms (5A) 30Arms (30A)	5Arms (5A) 30Arms (30A)	5Arms (5A) 30Arms (30A)
Accuracy (Max continuous current @ DC and 45-66Hz)	$\pm 1\% \pm 1\text{mA}$ (5A) $\pm 1\% \pm 10\text{mA}$ (30A)	$\pm 1\% \pm 1\text{mA}$ (5A) $\pm 1\% \pm 10\text{mA}$ (30A)	$\pm 1\% \pm 1\text{mA}$ (5A) $\pm 1\% \pm 10\text{mA}$ (30A)
Lowest measurable current	1mA (5A) 10mA (30A)	1mA (5A) 10mA (30A)	1mA (5A) 10mA (30A)
Noise (20 MHz limitation)	$\leq 400\mu\text{Arms}$ (5A) $\leq 120\mu\text{Arms}$ (30A)	$< 4\text{mApp}$ (5A) $< 30\text{mApp}$ (30A)	$< 4\text{mApp}$ (5A) $< 30\text{mApp}$ (30A)
Output Sensitivity	1V / 1A (5A, 1X) 1V / 10A (30A, 10X)	1V / 1A (5A, 1X) 1V / 10A (30A, 10X)	1V / 1A (5A, 1X) 1V / 10A (30A, 10X)
Power Supply	DC 12V		
Max. Conductor Diameter	5mm	5mm	5mm
Cable length	1.5m	1m	1m
Interface	Standard BNC Interface		