

RC-SR704

AC Current Probe Series

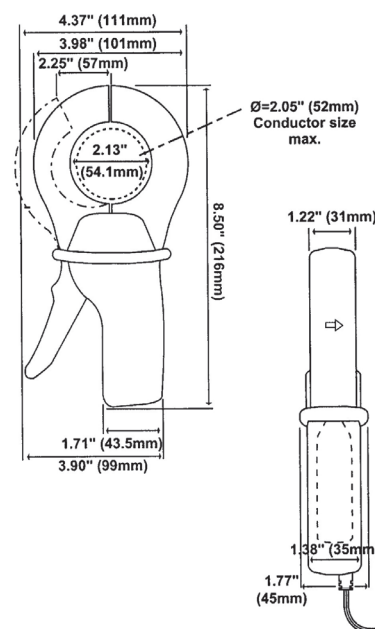
Overview

PRODUCT HIGHLIGHTS: The RC-SR704 series of current probes are designed for AC current measurements up to 800 Amps. The RC-SR704 series is available in three accuracy ranges designed to meet your measurement requirement. Models range from RC-SR704 (3% - 0.03%), RC-SR704A (3% - 0.5%) and RC-SR704B (0.05%). The ergonomic design of the RC-SR704 series makes them an ideal current probe to easily clamp onto cables or small bus bars. The RC-SR704 series, with its excellent transformation, low phase shift, and broad frequency response characteristics provides for accurate measurements of current for power and power quality testing applications. The RC-SR704 series works as a traditional current transformer with a transformation ratio of 1000:1. Radian Research has terminated the RC-SR704 series with a seven-pin Redel connector to provide for direct connection to Radian Research RD reference standards. Additionally, the RC-SR704A and RC-SR704B are characterized and calibrated to achieve high accuracy.



Technical Specifications

MODEL RC-SR704, RC-SR704A, RC-SR704B	
Electrical	
Measurement Range	10mA to 800A
Transformation Ratio	1000:1
Output Signal	1mA/A (800mA @ 800A)
Load Impedance	5 ohms max
Working/Common Mode Voltage	600Vrms, Cat. III
Output Termination	5 ft. Lead w/7 pin Redel Connector
Mechanical	
Operating Temperature	14° F to 122° F (- 10° C to 50° C)
Storage Temperature	- 4° F to 158° F (- 20° C to 70° C)
Operating Relative Humidity	0% to 85% @ 35° C
Jaw Opening	2.25" (57mm) max
Maximum Conductor Size	2.05" (52mm) max
Dimensions	4.37" x 8.50" x 1.77" (111mm x 216mm x 45mm)
Weight	1.475 lbs (669g)
Body Material	Polycarbonate, UL94 V0



Additional specifications are available on the back page of this bulletin.

The RC-SR704 is a SR704 AC current probe manufactured by AEMC[®] Instruments then modified by Radian Research, Inc.

Available in Three Accuracy Ranges

Technical Specifications

Model RC-SR704, Part No. 100129

Amplitude Accuracy @ 45 to 65Hz	10 mA to 100 mA	< 3% of reading
	100 mA to 1 A	< 2% of reading
	1 A to 10 A	< 1% of reading
	10 A to 100 A	< 0.5% of reading
	100 A to 800 A	< 0.3% of reading
Phase Error @ 45 to 65Hz	1 A to 10 A	< 2°
	10 A to 100 A	< 1°
	100 A to 800 A	< 0.7°
Frequency Range		30 Hz to 5 kHz

Model RC-SR704A, Part No. 100149

Amplitude Accuracy @ 45 to 65Hz	10 mA to 100 mA	< 3% of reading
	100 mA to 1 A	< 2% of reading
	1 A to 10 A	< 0.5% of reading
	10 A to 800 A	< 0.1% of reading
Phase Error @ 45 to 65Hz	1 A to 10 A	< 2°
	10 A to 100 A	< 1°
	100 A to 800 A	< 0.7°
Frequency Range		45 Hz to 65 Hz

Model RC-SR704B, Part No. 100148

Amplitude Accuracy @ 23°, 50 or 60Hz	500 mA to 800 A	< 0.05% of reading*
Phase Error @ 23°, 50 or 60Hz	500 mA to 800 A	< 0.05°
Frequency Range		50 Hz or 60 Hz

* Assumes conductor is centered in clamp and jaws are completely closed