

Current Probe Model PR230 ACV

The PR230 ACV current probe has been designed for use with oscilloscopes for accurate non intrusive measurement of AC current. Using the latest transformer technology, the PR230 ACV can measure currents from 100mA to 300A over a frequency range of 40Hz to 40kHz.



PRELIMINARY

Electrical Characteristics

Current Ranges I_N : 20 / 200 A AC_{RMS}
 Measuring Ranges : 0.1 – 30 A_{RMS} / 0.5 – 300 A_{RMS}
 Output Sensitivity : 100 mV / 10mV / A
 Load Impedance : $\geq 1M\Omega < 100$ pF
 Conductor Position Sensitivity : $< 0.5\%$ @ 50/60Hz
 Frequency Range : 40 Hz to 40 kHz (- 3 dB)
 Temperature Coefficient : 0.015% / °C
 Working Voltage (see Safety Standards section) : 600 V AC_{RMS} or DC

Accuracy

	20A	200A			
Primary Current	0.1 to 30 A	0.5 to 10 A	10 to 50 A	50 to 100 A	100 to 300A
Accuracy (% of rdg)	$\pm 2\% + 50$ mV	$\pm 3.6\% + 5$ mV	$\pm 3\% + 5$ mV	$\pm 2.6\% + 5$ mV	$\pm 1.6\% + 5$ mV
Phase Error	Not specified	Not specified	6°	5°	3.2°

General Characteristics

Maximum Conductor Size : 15 mm diameter, bus bar 15 x 17mm
 Output Connection : safety BNC
 Cable length : 2 meters
 Operating Temperature Range : -10 to +55 °C
 Storage Temperature Range : -20 to +70 °C
 Operating Humidity : 15% to 85% (non condensing)
 Weight : 188 g

Reference conditions: Temperature : +18°C to 26 °C, humidity: 20 to 75% RH, sinusoidal current: 48 to 65Hz, distortion factor: $< 1\%$, DC current: none, DC magnetic field: 40 A/m earth's magnetic field, alternative magnetic field: none, proximity of external conductor: none, primary conductor: centred in the aperture, load impedance: $\geq 1M\Omega$, < 100 pF for voltage output.

Safety Standards

BSEN61010-1: 1993 and Amendment A2: July 1995

BSEN61010-2-032: 1995

BSEN61010-2-031: 1995

600 V_{RMS}, Category III, Pollution Degree 2

Use of the probe on **uninsulated conductors** is limited to 600 V AC_{RMS} or DC and frequencies below 1 kHz.

EMC Standards

EN 61326 :1998

Dimensions

