

AC Current Probes PR1200 ACI / PR1200 ACV PR1201 ACI / PR1201 ACV

- Unique safety feature for short circuit protection - SIAC™ - Easy access in space restricted areas
- Up to 54 mm diameter primary conductor size
- Wide dynamic range 0.1 A to 1200 A
- Accuracy class 0.5 % (IEC 185)
- 1500 A Overload capability, 50 / 60 Hz for 1 hr (33% duty cycle)
- Frequency range of 30 Hz to 10 kHz (-3dB)
- Designed to meet EN 61010-2-032 600 V Cat III, Pollution degree 2 for input and output circuits



Description

The PR1200 range of current probes has been designed for use with multimeters, recorders and power analysers for accurate non intrusive measurement of AC current.

Using the latest transformer technology, the PR1200 range can measure currents from 100 mA to 1200 A and are available with current or voltage outputs.

The probes comply with the safety standards EN 61010-2-032 for input and output circuits, ensuring safe protection when using equipment with floating inputs.

Applications

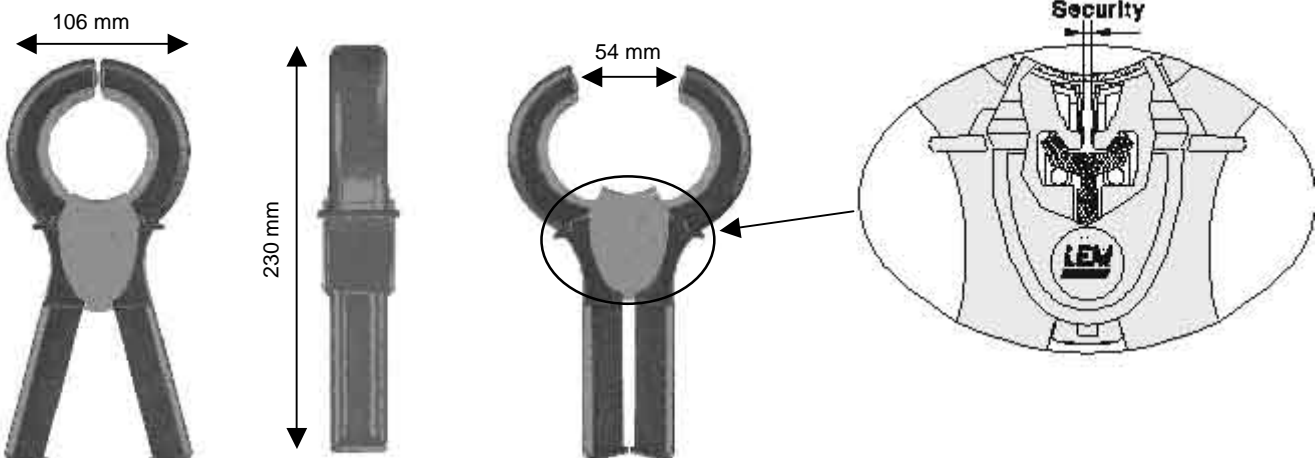
All AC current measurement applications up to 1200 A_{RMS} continuous and on uninsulated conductors up to 600 V_{RMS} (see safety section)

Enhanced protection against short circuits

- The "cover" over the jaw opening mechanism totally protects the jaws avoiding all accidental contact with the uninsulated conductors, as well as added protection against mechanical damage.

- A second patented safety feature called "SIAC™" (Safety Internal Anti Short Circuit), which is for internal safety against short-circuits. This system maintains a safety space on the lower internal aperture of the jaws during their closing to prevent potential short circuits.

With SIAC™ system there is no need for the usual protection at the tip of the jaws. This provides easy access for the current probe where space is restricted and ensures the jaw faces are kept clean and free of debris for accurate measurements.



Specifications

Electrical Data

Common characteristics

Primary nominal current	1000 A _{RMS}
Measuring range	0.1 A to 1200 A
Overload capability, for 1 hr, 33 % duty cycle	1500 A, 50 / 60 Hz
Turns ratio	1000 / 1
Accuracy at 100 A, 2 kHz	1% of reading
Phase shift at 2 kHz	1 °
Frequency range	30 Hz to 10 kHz (-3 dB)

Typical accuracy and phase shift

Primary current	Accuracy (of reading)	Phase shift (degrees)
0.1 A to 10 A	± 3.0 %	Not specified
10 A	± 3.0 %	3.0°
50 A	± 1.5 %	1.5°
200 A	± 0.8 %	0.75°
1000 A - 1200 A	± 0.5 %	0.5°

	PR1200ACI	PR1200ACV
Output signal	1 mA / A	1 mV / A
External load impedance	≤ 20 Ω	≥ 100 kΩ
Accuracy class(IEC 185)	0.5 %, ≤ 10 Ω 1.0 %, > 10 Ω	0.5%
Output connection	4 mm safety socket	

	PR1201ACI	PR1201ACV
Output signal	1 mA / A	1 mV / A
External load impedance	≤ 20 Ω	≥ 100 kΩ
Accuracy class(IEC 185)	0.5 %, ≤ 10 Ω 1.0 %, > 10 Ω	0.5%
Output connection	2 m flying lead with 4 mm safety plugs	

Ordering codes – Scope of delivery	Order no.
PR1200 ACV 1200 A voltage output	60.95.62.000.0
PR1200 ACI 1200 A current output	60.95.62.001.0
PR1201 ACV 1200 A voltage output	60.95.62.002.0
PR1201 ACI 1200 A current output	60.95.62.003.0

General Data

Dielectric withstand	5.5 kV / 50 Hz / 1min
Operating temperature	-10°C to +55°C
Storage temperature	-40°C to +70°C
Maximum relative humidity	85 %
Maximum altitude	2000 m
Environment	Indoor use only
Case material	UL 94 V0
Overall dimensions	230 x 106 x 44 mm
Weight	650 g
Jaw opening	54 mm
Conductor diameter	54 mm max. or 1 bar 50 x 5 mm

Standards

Safety	European Low voltage Directives 72/23/EEC and 93/68/EEC European EMC Directives 89/336/EEC and 93/68/EEC IEC61010-1 : 1993 IEC61010-2-032: 1994 IEC61010-2-031: 1993 600 V RMS or DC, over voltage Cat. III, Pollution degree 2
EMC RF Susceptibility	EN 50082-1: 1992 3V/m Residential, Commercial and Light Industry
EMC RF Emissions	EN 50081-1: 1992 Residential, Commercial and Light Industry
Protection	FCC Part 15 Class B IP40 with jaws closed IP30 with jaws opened