

High Sensitivity AC Current Probe PR1200 X

- Wide dynamic range 0.001 A to 1200 A
- Accuracy class 0.5 % (IEC 185)
- Unique safety feature for short circuit protection - SIAC™ - Easy access in space restricted areas
- Up to 54 mm diameter for residual current measurements on multiple conductors
- Frequency range of 30 Hz to 10 kHz (-3dB)



Description

The PR1200X current probe has been designed for use in low current, leakage current and differential current measurement applications for use with earth leakage detectors, multimeters, recorders and power analysers for accurate non intrusive measurement of AC current.

Using the latest transformer technology, the PR1200X can measure currents from 1 mA to 1200 A for which it give a proportional current output.

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

Applications

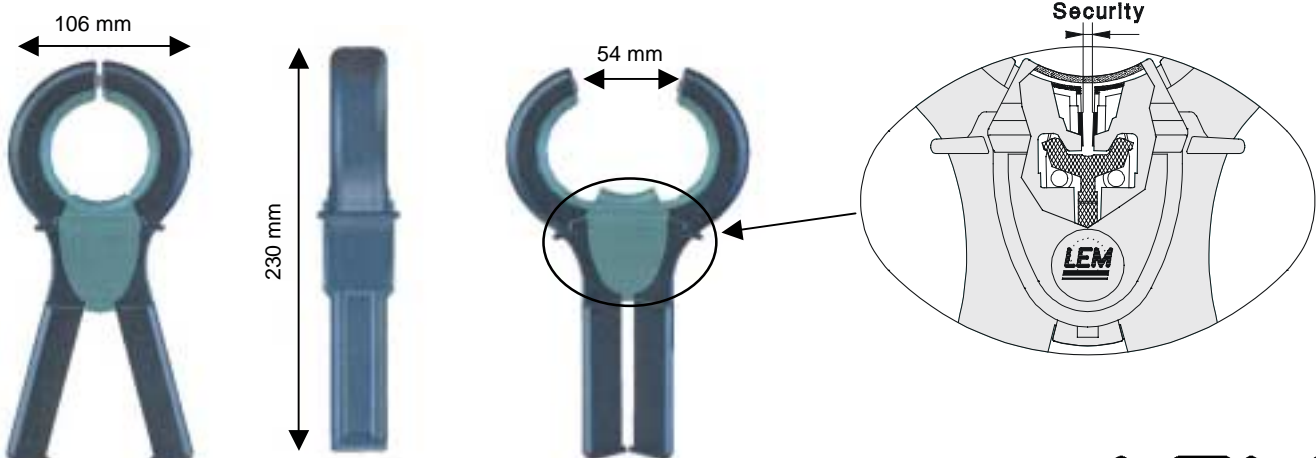
All AC current measurement applications up to 1200 A_{RMS} continuous and on uninsulated conductors up to 600 V_{RMS} (see safety section)

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 | 0.001 A to 1200 A |
| Overload capability, for 1.5 hrs, 33 % duty cycle | 1400 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) |
|-----------------|--------------------------|--------------------------|
| 0.001 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° |

| | PR1200 X |
|-------------------------|--------------------------------|
| Output signal | 1 mA / A |
| External load impedance | ≤ 20 Ω |
| Accuracy class(IEC 185) | 0.5 %, ≤ 10 Ω 1.0 %, > 10 Ω |
| Output connection | 4 mm safety socket |

| Ordering codes – Scope of delivery | Order no. |
|---------------------------------------|----------------|
| PR1200X 1200 A current output | 60.95.62.005.0 |

General Data

| | |
|---------------------------|----------------------------------|
| Dielectric withstand | 5.5 kV / 50 Hz / 1min |
| Operating temperature | -10°C to +50°C |
| Storage temperature | -20°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 |

