

Current Probe Model PR 4010

The PR 4010 current probe has been designed for use with multimeters, recorders, power analysers, safety testers etc. for accurate non intrusive measurement of AC/DC current. Using the latest transformer technology, the PR 4010 can measure currents from 20 A to 4000 A over a frequency range of DC to 3kHz.



Electrical Characteristics

Current Range I_N	: 2000A and 4000A AC/DC
Measuring Range	: 20 A to 4000 AC/DC
Output Sensitivity	: 1 mV / A and 0.5mV / A
Load Impedance	: ≥ 100 kOhm
Conductor Position Sensitivity.. ..	: 0.5% @ 50Hz
Error due to adjacent conductor	: ≤ 10 mA / A @ 50 Hz
Power supply	: 9V alkaline battery 6LR61
Low battery test.....	: Yes
Battery life	: 75 hours
Output zero	: Manual adjust via thumbwheel
Phase Shift at 2 kHz @ 10A.....	: 2°
Frequency Range	: DC Hz to 3 kHz (-3 dB)
Temperature Coefficient.....	: 0.03% / °C
Working Voltage (see Safety Standards section).....	: 600 V AC _{RMS} or DC

Accuracy

2000A

Primary Current	20 to 100A	100 to 500 A	500 to 1000A	1000 to 2000A
Accuracy (of rdg)	2%+ 3mV	1.5%+3mV	1% +3 mV	1% +3 mV
Phase Error	3°	2°	1.5°	1.5°

4000A

Primary Current	40 to 100A	100 to 500 A	500 to 2000 A	2000 to 4000A
Accuracy (of rdg)	2%+ 1mV	1.5%+1mV	1% +1 mV	1% +1 mV
Phase Error	3°	2°	1°	1.5°

General Characteristics

Maximum Conductor Size.....	: 72 mm diameter
Output Connection.....	: 4 mm safety socket
Operating Temperature Range.....	: 0 to +50 °C
Storage Temperature Range.....	: -20 to +70°C
Operating Humidity.....	: ≤ 85%
Weight.....	: 1700 g (without battery)

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, alternating magnetic field: none, proximity of external conductor: none, primary conductor: centred in the aperture, load impedance: ≥1MΩ, <100pF 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

