



Current Probe SM.U 10 100 1000A / 1V

The SM.U 10 100 1000A / 1V current probe has been designed for use with multimeters, recorders, power analysers, safety testers etc. for accurate non intrusive measurement of AC current. Using the latest transformer technology, the SM.U 10 100 1000A / 1V can measure currents from 1A to 1200A over a frequency range of 30Hz to 10kHz.



Electrical Characteristics

Current Range	: 10 / 100 / 1000 A _{RMS}
Continuous Measuring Range	: 0.5 A to 1200 A
Output Sensitivity	: 100 mV / A (10 A)
.....	: 10 mV / A (100 A)
.....	: 1 mV / A (1000 A)
Load Impedance (ohm).....	: ≥ 1 MOhm
Conductor Position Sensitivity.....	: 0.5% @ 50Hz
Error due to adjacent conductor	: ≤ 1mA / A @ 50 Hz
Frequency Range	: 30 Hz to 10 kHz
Temperature coefficient.....	: 0.01% / °C
Working Voltage (see Safety Standards section)	: 600 V AC _{RMS} or DC

Accuracy

10A

Primary current	0.5 to 5A	5 to 12A
Accuracy (of rdg)	3%+3 mV	2%+2 mV
Phase shift (typ)	10°	8°

100A

Primary current	1 to 5A	5 to 10A	10 to 120A
Accuracy (of rdg)	2.5%	1.5%	1%
Phase shift (typ)	4°	2.5°	2°

1000A

Primary current	10 to 50A	50 to 100A	100 to 500A	500 to 1200A
Accuracy (of rdg)	2% +1mV	1.5%	1%	0.5%
Phase shift (typ)	3°	2°	1°	0.5°

General Characteristics

Maximum Conductor Size : 54 mm diameter
Output Connection : 4mm safety sockets
Operating Temperature Range : -10 to +55 °C
Storage Temperature Range : -40 to +70 °C
Operating Humidity : 15% to 85% (non condensing)
Weight..... : 650 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, alternating magnetic field: none, proximity of external conductor: none, primary conductor: centred in the aperture, load impedance: $\geq 1M\Omega$, <100pF for voltage output.

Safety Standards

IEC61010-1: 2010
IEC61010-2-032: 2012
IEC61010-2-031: 2008

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

