



Current Probe M3 100A / 1A

The M3 100A / 1A current probe has been designed for use with multimeters, recorders, safety testers etc. for accurate non intrusive measurement of AC current. Using the latest transformer technology, this probe can measure currents from 5A to 120 A over a frequency range of 30Hz to 10kHz.



Electrical Characteristics

Current Range I_N : 100 A_{RMS}
Measuring Range..... : 5 A to 1 20 A_{RMS}
Output Sensitivity : 10mA / A
Load Impedance : ≤ 0.1 Ohm
Conductor Position Sensitivity..... : < 0.5% @ 50/60Hz
Phase Shift at 2 kHz @ 10A : ± 1 degree
Frequency Range : 30 Hz to 10 kHz
Temperature Coefficient : 0.015% / °C
Working Voltage for input and output circuits : 600V on naked conductors
(see Safety Standards section)

Accuracy

Primary Current (@50 Hz)	5 to 20A	20 to 50A	50 to 120A
Accuracy (of rdg)	$\pm 2\%$	$\pm 1\%$	$\pm 1\%$
Phase Error (typical)	not specified	-3.5°	-3°

General Characteristics

Maximum Conductor Size : 15 mm diameter, bus bar 15 x 17mm
Output Connection : sockets 4mm or cable + connector
Operating Temperature Range : -10 to +55 °C
Storage Temperature Range : -20 to +70 °C
Operating Humidity : 15% to 85% (non condensing)
Weight..... : 165 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: $\leq 1\Omega$ for current 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

in mm

