

# Current Probe Model M4.U 20A 200A /2V output Cable

The M4.U 20A 200A/2V output cable 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 M4.U 20A 200A /2V output cable can measure currents from 100mA to 300A over a frequency range of 40Hz to 10kHz.



## PRELIMINARY

### Electrical Characteristics

Current Ranges $I_N$ .....	: 20 / 200 A AC <sub>RMS</sub>
Measuring Ranges .....	: 0.1 – 30 A <sub>RMS</sub> / 0.5 – 300 A <sub>RMS</sub>
Output Sensitivity .....	: 100 mV / 10mV/A
Load Impedance .....	: $\geq 100 \text{ k}\Omega$
Conductor Position Sensitivity.....	: < 0.5% @ 50/60Hz
Error due to adjacent conductor.....	: $\leq 15 \text{ mA / A}$ @ 50Hz
Phase Shift at 2 kHz @ 10A .....	: $\pm 1$ degree
Frequency Range.....	: 40 Hz to 10 kHz (- 3 dB)
Temperature Coefficient.....	: 0.015% / °C
Working Voltage (see Safety Standards section) .....	: 600 V AC <sub>RMS</sub> or DC

### Accuracy

	20A	200A		
Primary Current	0.1 to 30 A	0.5 to 10 A	10 to 50 A	50 to 100 A
Accuracy (% of rdg)	$\pm 1\% + 50 \text{ mV}$	$\pm 3\% + 5 \text{ mV}$	$\pm 2.5\% + 5 \text{ mV}$	$\pm 2\% + 5 \text{ mV}$
Phase Error	Not specified	Not specified	5°	3.5°

### General Characteristics

Maximum Conductor Size .....	: 15 mm diameter, bus bar 15 x 17mm
Output Connection.....	: 4 mm safety plugs
Cable length.....	: 2 meters
Operating Temperature Range .....	: -10 to +55 °C
Storage Temperature Range .....	: -20 to +70 °C
Operating Humidity .....	: 15% to 85% (non condensing)
Weight.....	: 188 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, alternative magnetic field: none, proximity of external conductor: none, primary conductor: centred in the aperture, load impedance:  $\geq 1\text{M}\Omega$ , <100pF for voltage output.

## Safety Standards

BSEN61010-1: 1993 and Amendment A2: July 1995

BSEN61010-2-032: 1995

BSEN61010-2-031: 1995

600 V<sub>RMS</sub>, Category III, Pollution Degree 2

Use of the probe on **uninsulated conductors** is limited to 600 V AC<sub>RMS</sub> or DC and frequencies below 1 kHz.

## EMC Standards

EN 61326 :1998

## Dimensions

