



MITTON

INSTRUMENTS

EARTH TESTING EQUIPMENT



LCI 2000 Current Injector

The LCI 2000 is an off-frequency constant current injector designed to test earthing systems. Up to 10 A at 58 Hz (or 52 Hz for 60 Hz systems) can be continuously injected to enable measurement of earth grid impedance and associated touch, step and transferred voltages.

TVM 1000 and TVM 1000P Tuned Voltmeter

The TVM 1000 is a narrow band tuned voltmeter with high sensitivity and excellent noise rejection. It uses digital signal processing and FFT analysis and can be tuned to any frequency in 1 Hz steps between 45 Hz and 65 Hz. While designed to use with the LCI 2000 the TVM can be used with other off-frequency injection methods. The TVM1000P is a dual channel version which enables the phase angle between voltage and current to be measured.



ET 1000 Earth Tester

The ET 1000 is a 4-terminal earth tester suitable for soil resistivity testing and earth electrode or small grid resistance testing. It is especially suited to soil resistivity measurements due to its resolution and high output voltage (300 V max) which enables testing in difficult ground conditions.

ST 1000 SWERTH Tester

The ST 1000 is designed to measure the earth electrode resistance of SWER systems. It uses the SWER transformer load currents to provide the measurement signals and accepts two CT inputs and one voltage input.



TVM 1000 and TVM 1000P Tuned Voltmeter

Voltage input ranges (auto & manual):
0 - 2.5000 V
0 - 25.000 V
0 - 250.00 V
Current sensor input range (TVM1000P): 0 - 3 V
Phase angle: $\pm 180^\circ$ (TVM1000P)
Accuracy: $\pm 0.1\%$ FSD filter ON;
 $\pm 0.15\%$ filter OFF ± 2 counts
Frequency: 45 Hz - 65 Hz ± 1 Hz (in 1 Hz steps)
Input impedance: 2 M Ω / 1 k Ω
Noise rejection: > 70 dB (> 3,000:1) @ 50 Hz/60 Hz
Display: reflective graphical LCD
Power supply: 4 x AA Alkaline
Battery life: approx 20 hrs
Graphical battery indicator
Weight: 200 g
Dimensions: 195 x 100 x 40 mm

LCI 2000 Current Injector

Power supply: 100 - 265 V ac 50/60 Hz
Output: 1 - 10 A constant current
Output voltage: 220 V max
Output frequency: 52 or 58 Hz sine wave
Protection: shutdown on open circuit (< 3 ms)
Load impedance: 5 Ω - 150 Ω
Weight: 11 kg
Dimensions: 470 mm x 355 mm x 195 mm

ST 1000 SWER Earth Tester

Range: 10 m Ω - 1,999 Ω
Resolution: 1 m Ω
Accuracy: 0.5 % reading ± 2 digits > 1 Ω ; 1 % < 1 Ω
Input impedance on voltage channel: 2 M Ω
Input voltage on voltage channel: 300 V_{rms} max
Input voltage current channels 1 & 2: 3 V_{rms} max
Current channel ranges: 10 mV/A; 100 mV/A; 1 V/A
Operating frequency: 50/60 Hz
Display: reflective graphical LCD
Power supply: 6 V sealed lead acid
Battery life: approx 35 hrs
Graphical battery indicator
Weight: 2 kg
Dimensions: 270 mm x 240 mm x 125 mm

ET 1000 Earth Tester

Range: 1 m Ω - 19,999 k Ω
Resolution: 500 $\mu\Omega$
Accuracy: 0.5 % reading ± 2 digits > 1 Ω ; 1 % < 1 Ω
Voltage probe input impedance: 2 M Ω
Output current: 50 mA max
Output voltage: 300 V max
Display: reflective graphical LCD
Power supply: 12 V sealed lead acid
Battery life: approx 8 hrs
Graphical battery indicator
Weight: 2 kg
Dimensions: 270 mm x 240 mm x 125 mm