

Model 1000 Toroidal Turns Analyzer



FEATURES

- Continuity, Polarity, Test-In-Progress LED indicators
- Auto Core Permeability Compensation, Calibrated / Relative Modes
- .5% Basic Accuracy, .1% Repeatability within .1%, Turn Counts to 5,000

The Model 1000 tests for actual turns wound on toroidal cores. It automatically compensates for core permeability and is able to test for single as well as multiple windings.

A Mode switch allows the unit to be used with internal calibration or to be adjusted to an external standard. When used in the Relative Mode, it can measure toroids with

“square loop” core materials. Several versions of the Model 1000 are available.

The 1000-A offers a micro-processor controlled display that allows the use of an internal reference coil. This reduces temperature drift to less than .1%. The -A unit also auto-ranges to 5,000 turns and averages measurements for a more stable reading.

The 1000-B is configured to test silicon steel cores as used in power transformers. It counts to 20,000 turns and is mounted in a larger case to allow for heavier transformer cores. The -C and -CA units offers two separate test frequencies, 400 Hz and 10 KHz, making them suitable for both ferrite or steel core windings.

SPECIFICATIONS

Dimensions: 9" W x 11" L x 4 1/2" H, Wt. 6 lbs.
23 cm x 28 cm x 12 cm, 3 kg.

Power: 3 Watts, 110V / 60 Hz or 220V / 50 Hz AC (specify)

Controls: On/Off, Calibrated/Relative Mode, Turns Adjust, Range

Test Frequency: 10 KHz standard, 400 Hz available

Test Voltage: 1 mV / turn



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Standard Configurations

<u>Model</u>	<u>Features</u>	<u>Frequency</u>	<u>Ranges</u>
1000 mk iii	Available in frequency to 60 KHz	10 kHz standard	200; 5,000
1000-A	Micro-processor controlled	10 kHz std., 400 Hz avail.	5,000
1000-B	Larger case size for power cores	400 Hz standard	200; 2,000; 20,000
1000-C	Selectable frequency and range	400 Hz, 10 kHz	200; 5,000
1000-CA	Selectable frequency, auto-ranging	400 Hz, 10 kHz	200; 5,000

The Model 1000 is available in 4 basic configurations. The 1000 mk III version is designed for ferrite cores as used in low power and signal transformers and chokes. It can also measure toroids with permalloy cores. Several new features have been added. Overall accuracy is improved by offering individual calibration ranges for 200 and 5,000 turns. Temperature drift is reduced to less than .1% per 5°C.

The 1000-A uses the SDT-400 microprocessor to auto-range to 5,000 turns. It also incorporates an internal reference coil for improved temperature stability. It offers a measurement repeatability of 1 turn in 2,000 (.05%).

The 1000-B is designed to test larger silicon steel cores. It uses a larger case that will accept up to a 10" (25 cm) diameter toroid. The -B tests at 400 Hz and uses higher drive levels to magnetize steel cores. Three range counts are provided: 200; 2,000 and 20,000.

The 1000-C offers two test frequencies that are selected by a front panel control. A high/low range switch is provided to select 200 or 5,000 turn ranges. By offering two test frequencies, the 1000-C allows both laminated and powdered core materials to be measured accurately. It is necessary to select the proper frequency and range scale in order to achieve maximum accuracy for a given core type. The -CA version includes auto-ranging and measurement averaging for greater stability and ease of use.

IEM offers a number of standard and customized test systems. We will be happy to discuss your specialized coil testing requirements.



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