
URNS RATIO

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The turns ratio is normally measured as a voltage ratio. Using a suitable oscilloscope with high impedance probes, the ratio may be determined by applying a Sine Wave to one of the windings and measuring the ratio of the corresponding voltage amplitude appearing on the opposite winding(s).

Care should be taken to use a frequency which minimizes the effects of the transformer's stray capacitance and leakage inductance. Also the input signal level applied should be kept sufficiently low so that the wave shape distortion caused by core saturation is minimized. When this is done, the difference between the turns ratio and the voltage ratio will be negligible.

The above "Scope Method" is used by Rhombus Industries for large volume testing. In addition to Turns Ratio; Polarity and Continuity of windings are also being tested simultaneously.

Other methods can be employed. The use of volt meters can be utilized. However care must be taken to insure the both meters used correlate with each other, and the frequency selected for measurement is within the operating range of the meters.

For highly accurate measurements, equipment such as the Wayne Kerr 3245 can be used.