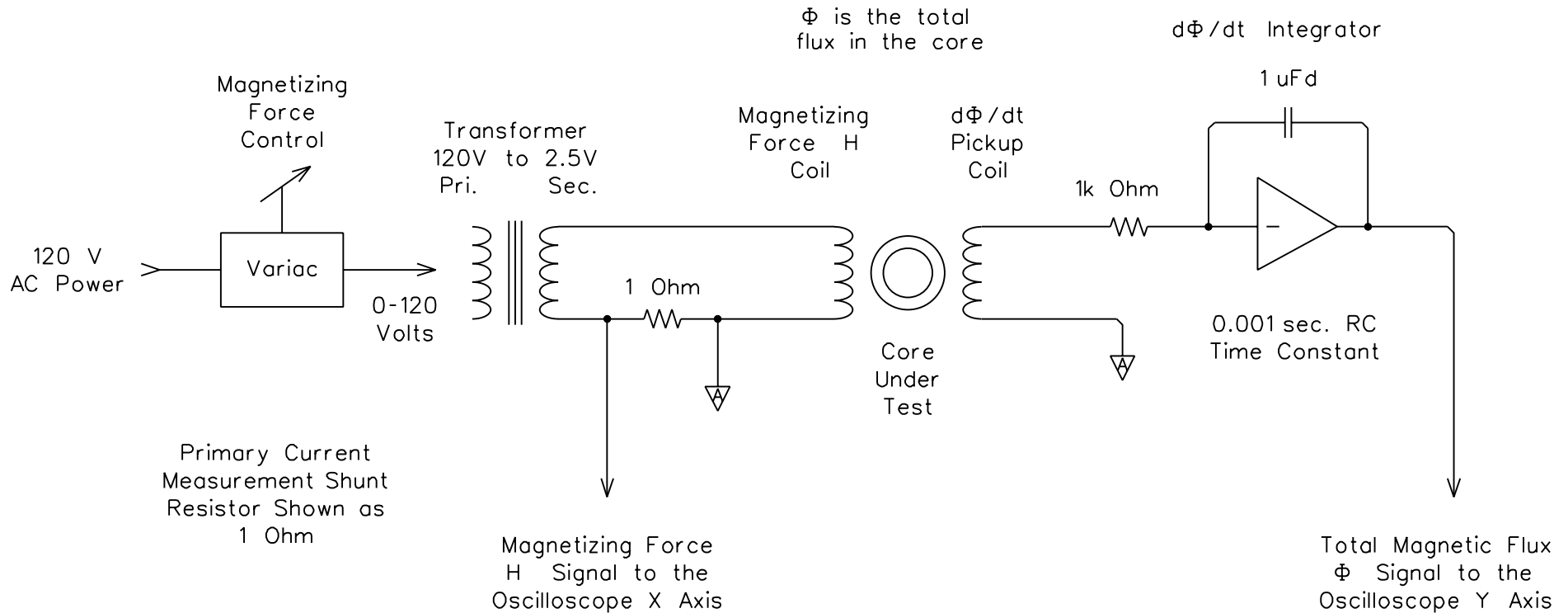


B vs H Curve Tracer Overall Layout



Summary of the H, B, and Permeability Calculation All Done in the SI System

$$H = \frac{\text{Amp-Turns}}{\text{Effective Magnetic Path Length}}$$

$$B = \frac{\text{Total Flux } \Phi}{\text{Effective Magnetic Cross Section}}$$

$$\mu_r = \frac{B}{H \times \mu_0}$$

$$H = \frac{\text{Volts X axis} \times \text{Turns Primary}}{\text{Shunt Resistor} \times \text{Path Length}}$$

$$B = \frac{\text{Volts Y axis} \times \text{Integrator RC}}{\text{Turns Secondary} \times \text{Cross Section}}$$

$$\mu_r = \frac{B}{H \times 4 \pi \times 10E-7}$$

H is in Amp-Turns per meter

B is in Webers per square meter = Tesla

Drw: H-B *2 Rev. 10-Dec-2021