

Introduction

Lake Shore Vibrating Sample Magnetometers Model 7410 is capable of characterizing a variety of particulate and continuous magnetic media materials, including audio, video, and digital data tapes; flexible media; magneto-optical materials; and sputtered and plated thin film materials, including multilayer GMR, CMR, exchange-bias, and spin valve materials.

Figure 1. Lakeshore 7410
Vibrating Sample Magnetometer



Technical Specifications

Moment measurement range:	0.1×10^{-6} emu to 1000 emu
Time constants (TC):	0.1 s, 0.3 s, 1.0 s, 3.0 s, or 10.0 s
Field accuracy in gauss:	1% of reading or $\pm 0.05\%$ of full scale

Model 74035 single-stage variable temperature option: The single stage variable temperature assembly enables measurements from 100 K to 1000 K using nitrogen, liquid nitrogen, and argon gas.

Model 74046 magnetoresistance (MR) probe option: The MR probe option performs fast and accurate measurements of MR, GMR spin-valve, CMR and other magnetoresistive materials as a function of both in-plane magnetic field and temperature.

Vector option (74031 and 74032): In reference to the vector option pick-up coil set, the x-axis measures the magnetic moment parallel to the applied magnet field and the y-axis measures the magnetic moment perpendicular to the applied magnet field.

Rotation option (74030): The model 74030 rotation option allows the user to automatically vary the sample orientation relative to the direction of applied magnetic field. A stepping motor on the VSM drive head controls the motion.





Figure 2. Model 74035 single-stage variable temperature oven



Figure 3. MR probe

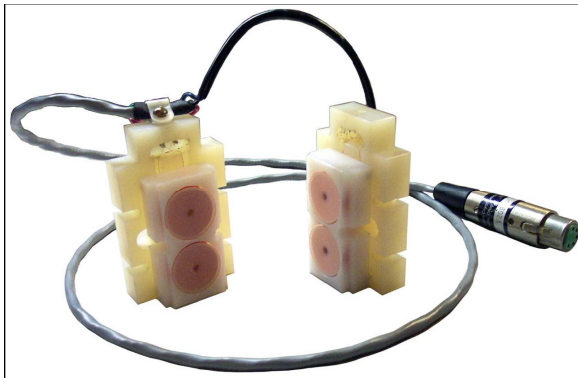


Figure 4. Typical vector coils

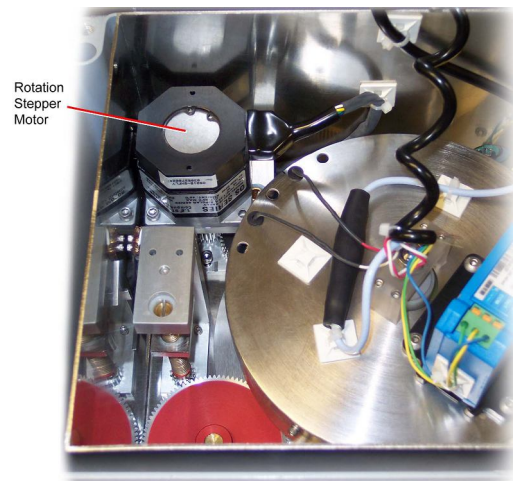


Figure 5. Rotation Option Inside VSM Drive

