CALIBRATION APPARATUS AND METHODS FOR A THERMAL PROXIMITY SENSOR

ABSTRACT

Apparatus and methods for calibrating a thermal proximity sensor are disclosed. Thermal responses from a thermal proximity sensor are used to sense the instantaneous distance between the sensor and a medium over which the sensor is moved, in a data storage system. Sensing the instantaneous distance results in detection of topographical variations (80) on the medium. Calibration techniques (60) for the sensor are disclosed herein and involve, in one aspect, using primarily electrical measurements to calibrate the sensor; and in another aspect, varying the distance between the sensor and the medium, obtaining actual thermal responses from the sensor, and using the actual responses (via direct comparison or curve fitting) to calibrate the sensor.

Fig. 2

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