Monogramming Equipment

PRODUCT
SS400 Hall effect sensor and others

APPLICATION DESCRIPTION
One important aspect of a quality monogram is close control of stitch width. An SS400 Hall effect sensor, mounted on the sewing head's linkage, is used for this purpose. It calibrates the machine's zig-zag mechanism, and serves as a near perfect zero reference to make sure stitches are consistent from monogram to monogram.

Two other Hall effect sensors are used in the sewing head's subassembly. One senses needle position, and helps increase the machines productivity. When the machine has just completed a letter or design, the sewing head slows to 200 revolutions per minute. At that point, the sensor signals the mechanical brake to automatically stop the head in the needle-up position. the machine then moves the fabric and is ready to start a new letter or design. This "fast-brake" feature has been improved by more than 50% from an average of two seconds to less than one second, with the help of the Hall effect sensor.

The other solid state sensor is used as a sewing speed control, and helps ensure the machine is operating reliably. It provides pulses to the circuit board which measures time intervals and calculates sewing speed to verify the controller is properly adjusted. It also detects other problems helping make the equipment "self-diagnostic". With this feature, operators quickly know if there is a problem and can try to solve it before a mistake is made.