SPD 1000 Block Diagram

An oscillating circuit constructed of a coil 24 with a core and capacitors 26 and 28, generate with the microprocessors internal clocking circuitry 22 a clocking signal for the microprocessor. This clock signal is substantially affected by inductance change of the coil 24. For example a magnet 32 in the proximity of the coil 24 will affect the working point of the coil core and change the coil inductance. As a result the frequency of the clock signal of the microprocessor will vary. The sensor is based on measuring and analyzing this frequency change in conjunction with a change of displacement of a constant magnet 32 in the proximity of the coil 24.
Circuit 40 supplies the time base for conducting calculations as for the temporal variations in frequency.

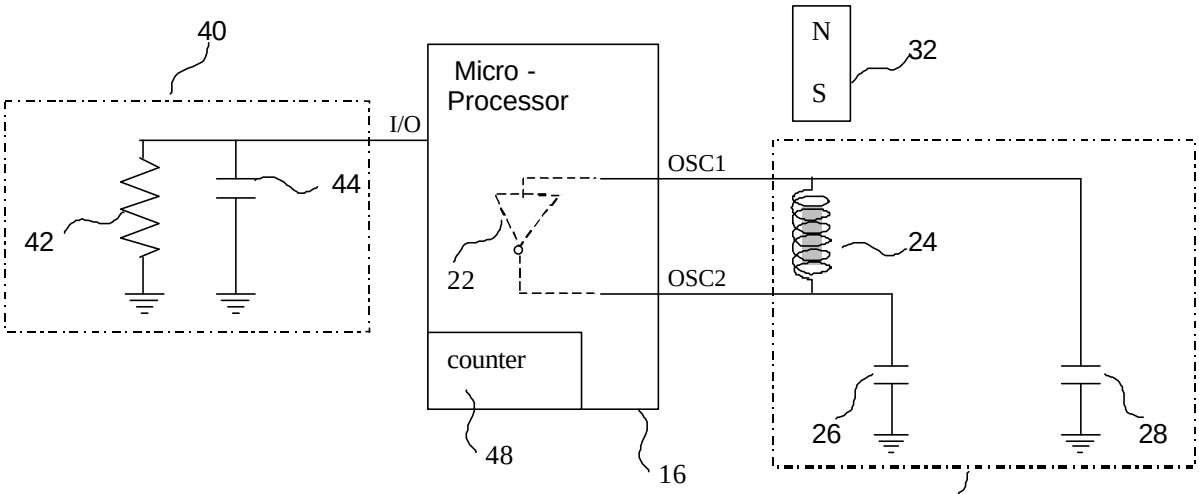

Fig. 2