

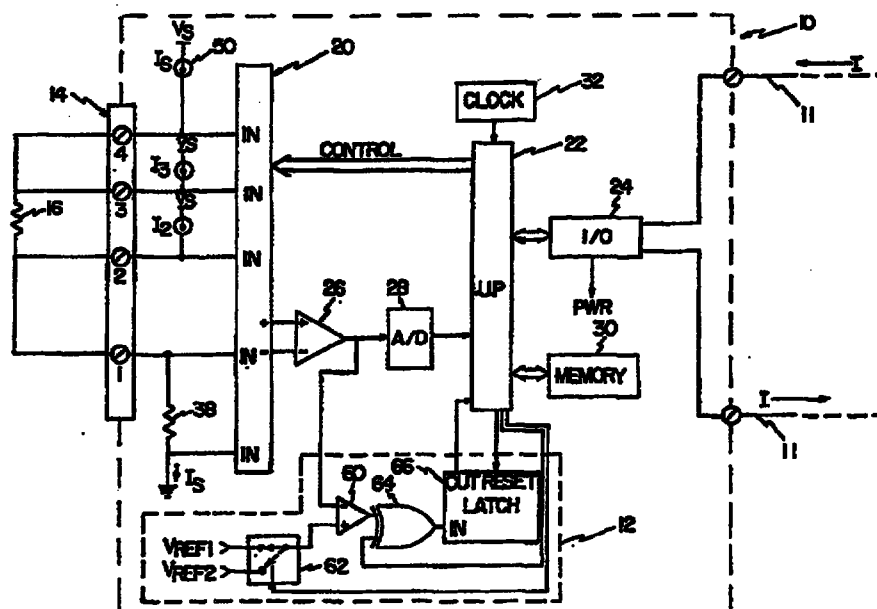
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(54) Title: OPEN SENSOR DIAGNOSTIC SYSTEM FOR TEMPERATURE TRANSMITTER IN A PROCESS CONTROL SYSTEM



(57) Abstract

A temperature transmitter (10) in a process control system includes a temperature sensor (16, 18) which senses temperature and provides a sensor output related to sensed temperature. An analog-to-digital converter (28) coupled to the sensor output provides a digitized output related to the sensor output. A microprocessor (22) receives the digitized output, compensates the digitized output and provides a temperature output. Comparison circuitry (12) compares the sensor output to a first threshold V_{REF1} and provides an inhibit signal to the microprocessor (22) if the sensor is outside of the first threshold V_{REF1} .