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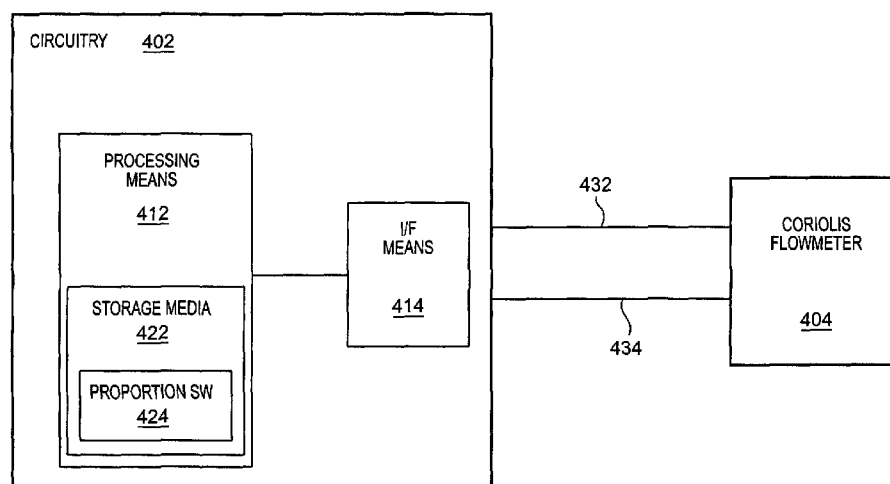
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(54) Title: A MAJORITY COMPONENT PROPORTION DETERMINATION OF A FLUID USING A CORIOLIS FLOWMETER



(57) **Abstract:** A system, method, and software are disclosed that determine a proportion of a majority component of a fluid that is flowing through a Coriolis flowmeter (404). Circuitry (402) receives pickoff signals (432) and a temperature signal (434) from the Coriolis flowmeter responsive to the fluid being flowed through the Coriolis flowmeter. The circuitry processes the pickoff signals and the temperature signal to determine a proportion of the majority component relative to the fluid. To determine the proportion of the majority component in one example, the circuitry determines a first volumetric flow rate based on a measured mass flow rate of the fluid and a reference density of the majority component. The circuitry then determines a second volumetric flow rate based on a measured volumetric flow rate, a temperature-varying density, and the reference density. The circuitry determines the proportion of the majority component based on the first volumetric flow rate and the second volumetric flow rate.



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