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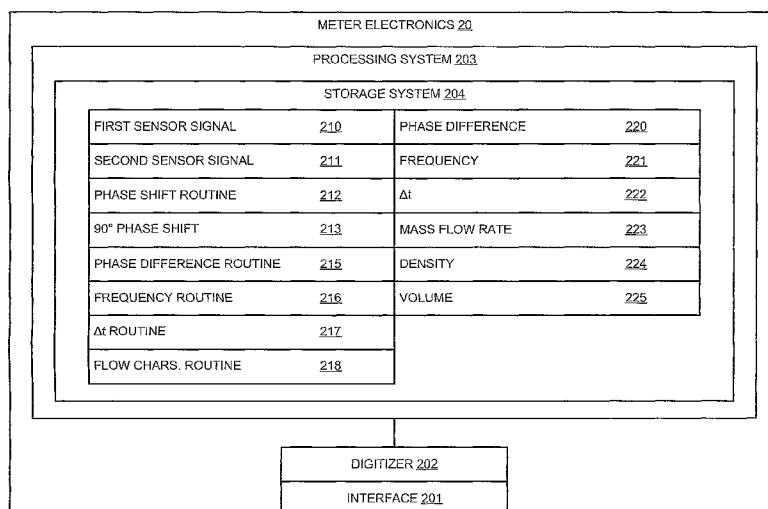
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(54) Title: METER ELECTRONICS AND METHODS FOR DETERMINING A PHASE DIFFERENCE BETWEEN A FIRST SENSOR SIGNAL AND A SECOND SENSOR SIGNAL OF A FLOW METER



(57) Abstract: Meter electronics (20) for processing sensor signals in a flow meter is provided according to an embodiment of the invention. The meter electronics (20) includes an interface (201) for receiving a first sensor signal and a second sensor signal and a processing system (203) in communication with the interface (201) and configured to receive the first sensor signal and the second sensor signal, generate a ninety degree phase shift from the first sensor signal, and compute a frequency from the first sensor signal and the ninety degree phase shift. The processing system (203) is further configured to generate sine and cosine signals using the frequency, and quadrature demodulate the first sensor signal and the second sensor signal using the sine and cosine signals in order to determine the phase difference.

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