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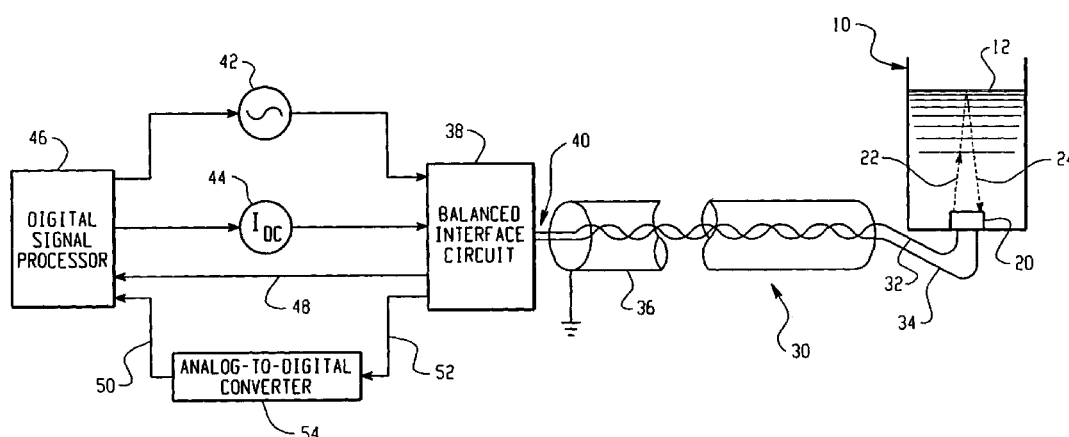
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(54) Title: A LIQUID MEASUREMENT SYSTEM AND SHARED INTERFACE APPARATUS FOR USE THEREIN



(57) Abstract: A liquid measurement system including interface apparatus for sharing the excitation and signal processing of an ultrasonic transducer and temperature measuring device remotely located at a liquid container is disclosed. The interface apparatus includes a common conduction path coupled to both of the ultrasonic transducer and the temperature device for conducting first excitation signals to the ultrasonic transducer and the corresponding echo signals therefrom, and for conducting second excitation signals to the temperature measuring device and the response signals therefrom, and an interface circuit for governing the conduction of the first and second excitation signals over the common conduction path from their generating sources and for providing a balanced interface for receiving both of the echo signals and response signals from the common conduction path. In one embodiment, the liquid measurement signal includes a processor that is coupled to the interface circuit for receiving the echo signals and the response signals therefrom for determining liquid level in the container based on the received signals.