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(54) Title: AIR DETECTOR

(57) Abstract

The present invention provides an apparatus for detecting excessive air in a liquid flow-through tube. The apparatus includes an ultrasonic transmitter for transmitting ultrasonic signals and an ultrasonic receiver for receiving ultrasonic signals. The ultrasonic transmitter and ultrasonic receiver are separated by the IV tube. The apparatus further provides circuit means for generating at least two transmitting signals to actuate the ultrasonic transmitter and circuit means for detecting received signals. Means are provided for determining whether the received signal is indicative of air or liquid in the IV tube. The apparatus further relies on logarithmic detection of air in fluids rather than linear detection which provides a larger safety factor in prediction of air embolus.

