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(54) **METHOD AND APPARATUS FOR
DETECTION AND MANAGEMENT OF
AIR-IN-LINE**

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(57) **ABSTRACT**

In an infusion pump operable to deliver fluid to a patient at a
programmed therapy flow rate, air-in-line sensing is
improved by commanding the pumping mechanism to deliver
a bolus volume of fluid at a flow rate higher than the therapy
flow rate when an uninterrupted volume of air is detected that
exceeds a first threshold. In many cases, the bolus will be
effective to clear microbubbles from an observation zone of
the air-in-line sensor to avoid an air-in-line alarm condition. If
the uninterrupted volume of air continues to grow beyond a
second threshold in spite of the bolus, then an alarm may be
triggered. The invention reduces false alarms.

16 Claims, 8 Drawing Sheets

