

Title (en)
VOLUMETRIC INFUSION PUMP WITH SERVO VALVE CONTROL

Title (de)
VOLUMETRISCHE INFUSIONSPUMPE MIT SERVOVENTIL-REGELUNG

Title (fr)
POMPE VOLUMETRIQUE A PERFUSION AVEC COMMANDE PAR SERVOPOMPE

Publication
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Application
EP 00942820 A 20000615

Priority

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- US 41067699 A 19991001

Abstract (en)

[origin: WO0103758A1] An infusion pump (10) includes a reservoir (18) containing a therapeutic liquid to be infused. The reservoir (18) includes an outlet (36) for the liquid. A volumetric air pump (24) is operatively associated with the reservoir (18) to pressurize the reservoir and thus drive liquid out the outlet (36). A valve (12) is operatively associated with the outlet (36) and prevents the flow of liquid through the outlet until a select threshold pressure is obtained in the outlet. The valve thereafter maintains an opening in the outlet that keeps the pressure in the reservoir (18) at substantially the select threshold pressure, whereby the volumetric flow rate of liquid through the outlet (36) is proportional to the volumetric flow rate of air from the volumetric air pump (24). The valve (12) varies the opening in the outlet to maintain the select pressure. The outlet preferably consists of a flexible conduit (36) having a select undeformed inner cross-sectional area and the valve (12) variably restricts the flow of liquid through the outlet by pinching a segment of the conduit to vary the inner cross-sectional area of the segment of the conduit. A method of infusing therapeutic liquid to a patient includes providing a reservoir (18) containing a therapeutic liquid, providing a volumetric air pump (24) to pressurize the reservoir to flow liquid out the liquid reservoir through an outlet (36) and maintaining a select pressure in the reservoir so that liquid through the liquid outlet is proportional to the volumetric flow rate of the volumetric air pump.

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Citation (search report)
See references of WO 0103758A1

Cited by
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DE ES FR

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