

Title (en)

LIQUID FLOW CONTROLLER HAVING PRESSURE BALANCED PISTON FOR DELIVERING CONSTANT FLOW.

Title (de)

REGLER DES FLÜSSIGKEITSDEBITS MIT DRUCKAUSGLEICHKOLBEN ZUR VERABREICHUNG KONSTANTEN DEBITS.

Title (fr)

REGULATEUR DE DEBIT A PISTON EQUILIBRE PAR LA PRESSION POUR FOURNIR UN DEBIT CONSTANT.

Publication

**EP 0188461 A4 19870706 (EN)**

Application

**EP 85903131 A 19850610**

Priority

US 62833384 A 19840706

Abstract (en)

[origin: WO8600731A1] A small, lightweight, simple, and highly reliable flow controller (2) utilizing two moving parts (6, 48), for apportioning inlet fluid flow between an orifice outlet (26, 16) and inlet. Constant outlet flow over a substantial inlet flow and pressure range is achieved through the use of a flow balanced flow control piston (6) reciprocating internally of a housing (4). The balanced piston is biased to a predetermined proportioning range through an internal spring (48). The unit is normally operated with inlet port and outlet pressure sensing port in fluid communication with an external orifice (24). A bypass port (14) communicating with the controller inlet adjacent the control piston returns excess fluid to the reservoir (22) of a pumped fluid system. Increases in inlet flow to the regulator/orifice combination act to adjust the balanced piston position and initiate or increase flow across an integral piston/seat control orifice. The downstream or outlet pressure of the external orifice is sensed by an equal piston area distal the cylinder seat and/or inlet side of the piston. A damping piston (50) abuts said inlet pressure sensing portion of the piston in order to minimize transient piston motion or chatter.

IPC 1-7

**G05D 7/01**; **G05D 11/03**

IPC 8 full level

**G05D 7/00** (2006.01); **G05D 7/01** (2006.01)

CPC (source: EP)

**G05D 7/00** (2013.01); **G05D 7/01** (2013.01)

Citation (search report)

- No relevant documents have been disclosed.
- See references of WO 8600731A1

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DOCDB simple family (publication)

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DOCDB simple family (application)

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