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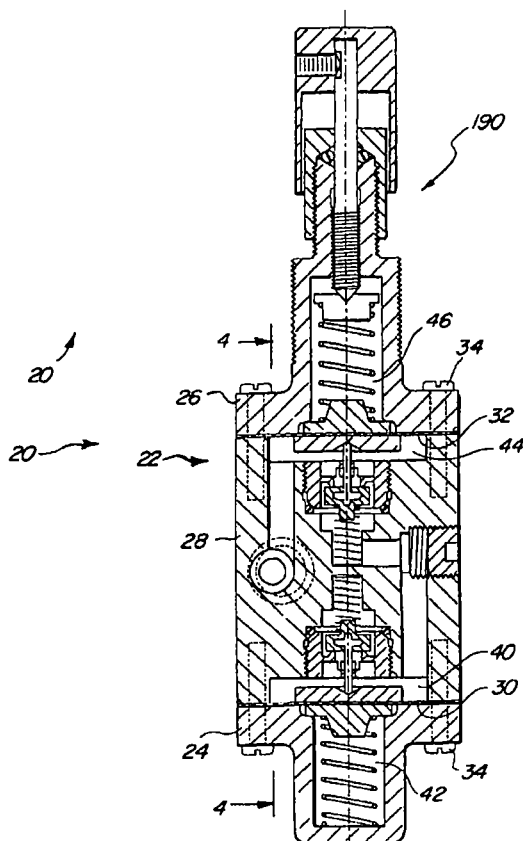
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09/805,708 13 March 2001 (13.03.2001) US(71) Applicant: **FLOWMATRIX, INC.** [US/US]; 2461 Impala Drive, Carlsbad, CA 92008 (US).(72) Inventors: **THORDARSON, Petur**; 2461 Impala Drive, Carlsbad, CA 92008 (US). **LOWERY, Patrick, A.**; 2461 Impala Drive, Carlsbad, CA 92008 (US).(81) Designated States (*national*): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW.(84) Designated States (*regional*): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

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(54) Title: VARIABLE PRESSURE REGULATED FLOW CONTROLLERS

(57) Abstract: A flow controller having a first and second stages of regulation. The first stage is a pressure regulation stage that maintains the pressure within an intermediate chamber (formed by a series of interconnected passageways and cavities) within a predetermined range above the pressure in an outlet port. The second stage maintains the flow rate within a predetermined range about a target flow rate. Both stages sample the pressure in the outlet port and automatically adjust the flow of fluid to ensure that fluctuations in pressure at the inlet and outlet ports do not affect the flow rate. The flow rate is set and controlled by a user determined setpoint. The flow rate is set and controlled by a user determined setpoint. The pressure is regulated by one or more feedback systems. The feedback systems used may be mechanical or electromechanical based on a particular operating environment.



ACTION

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