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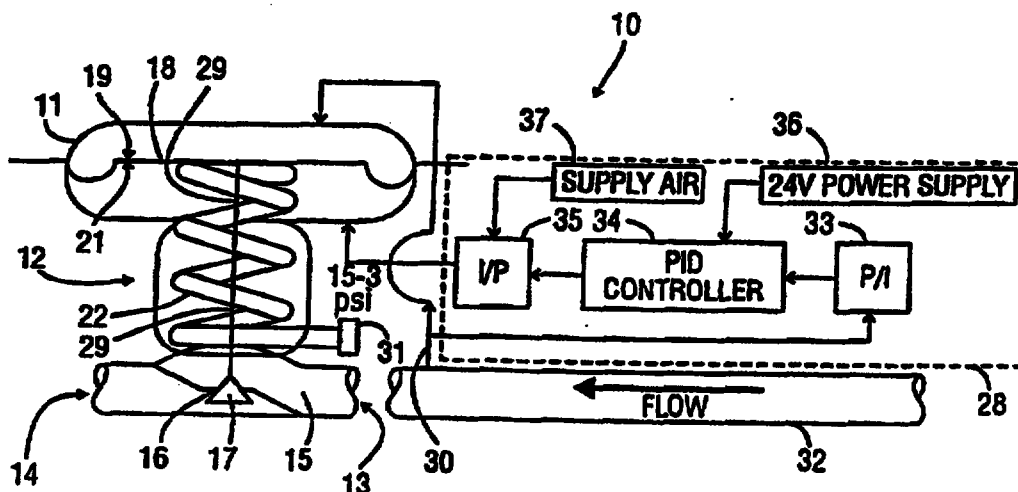
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(21) International Application Number: PCT/US98/18928 (22) International Filing Date: 10 September 1998 (10.09.98) (30) Priority Data: 08/934,943 22 September 1997 (22.09.97) US (71) Applicant: FISHER CONTROLS INTERNATIONAL, INC. [US/US]; 8000 Maryland Avenue, Clayton, MO 63105 (US). (72) Inventors: ADAMS, Paul, R.; 2144 L. Marsh Avenue, Marshalltown, IA 50158 (US). GABEL, Karl, J.; 1905 South 5th Avenue, Marshalltown, IA 50158 (US). ROPER, Daniel, G.; 1515 Holyoak Lane, Lucas, TX 75002 (US). (74) Agent: SCARPELLI, Nate, F.; Marshall, O'Toole, Gerstein, Murray & Borun, 6300 Sears Tower, 233 South Wacker Drive, Chicago, IL 60606-6402 (US).			(81) Designated States: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, HR, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, UZ, VN, YU, ZW, ARIPO patent (GH, GM, KE, LS, MW, SD, SZ, 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), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG). Published With international search report.

(54) Title: INTELLIGENT PRESSURE REGULATOR



(57) Abstract

An intelligent pressure regulator for maintaining a fluid in a process at a predetermined pressure includes an electronic controller which enhances regulator performance and provides self-diagnostics and communications capabilities. The electronic controller includes a pressure sensor which provides a signal indicating the pressure of the fluid being controlled, an adjusting pressure for adjusting the position of a throttling element; and a PID controller which receives the signal indicating the pressure of the fluid being controlled and applies the adjusting pressure to the actuator in response to the signal.