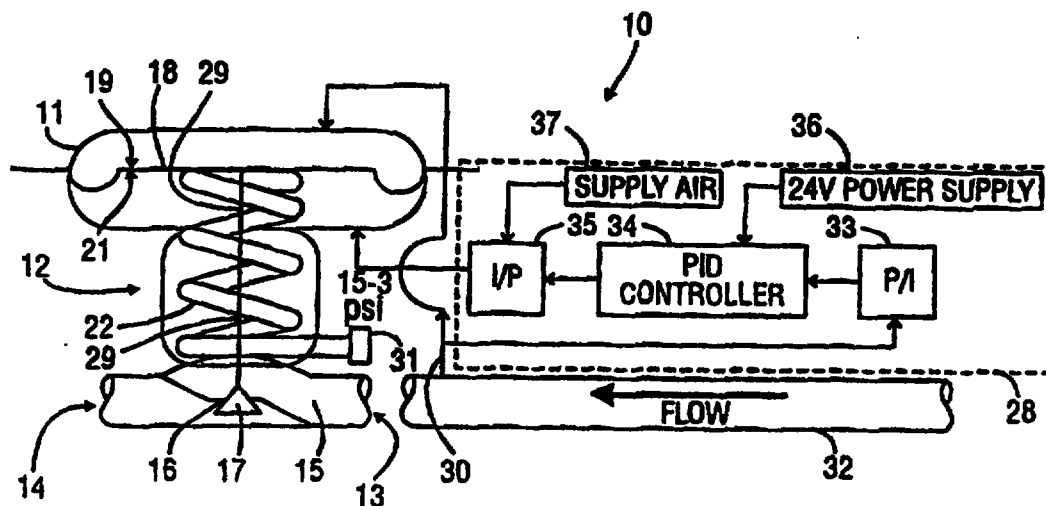


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(54) Title: DIAGNOSTIC DEVICE AND METHOD FOR PRESSURE REGULATOR



(57) Abstract

A diagnostic device and method for an intelligent pressure regulator which maintains a fluid in a process at a predetermined pressure. The regulator 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.