FLUID FLOW MEASURING AND PROPORTIONAL FLUID FLOW CONTROL DEVICE

ABSTRACT

A fluid flow measuring and control device for measuring a flow rate based on a pressure drop created by a restrictive flow element (15). The device includes a proportional flow valve (10) having a fluid inlet and a fluid outlet and an actuator (17) for modulating the proportional flow valve (10). The restrictive flow element (15) includes a fluid inlet and a fluid outlet in communication with the proportional flow valve (10) and creates a pressure drop between the restrictive flow element fluid inlet and outlet. The device also includes means (24, 25) for measuring the pressure drop, means (16) for calculating the flow rate based on the pressure drop, and control means (not shown) that communicates with the pressure drop measuring means (24, 25) and the actuator (17) for controlling the flow of fluid through a proportional flow valve (10) in response to the measured pressure drop.

FIG.1