Title (en)

PILOT-OPERATED DEVICE FOR LOAD-INDEPENDENT FLOW CONTROL

Publication

EP 0041247 A3 19820526 (DE)

Application

EP 81104114 A 19810529

Priority

DE 3020918 A 19800603

Abstract (en)

[origin: EP0041247A2] 1. Pilot-operated device for load-independent flow control comprising a main control valve (6-13) which controls the fluid flow between an inlet (4) and an outlet (5), a pilot valve (25-27) which acts upon a control flow branched off the fluid flow for actuating the main control valve, an activating device (35) which acts upon the valve body (25) of the pilot valve with a force being proportional to an input signal, and a fluid flow sensor (17-23) which is positioned in the flow path between the inlet (4) and the outlet (5) and is designed as a spring-biased seated valve opening in dependency on the differential pressure, the position of the valve body of said fluid flow sensor being fed back by a spring (24) against the force of the activating device (35) to the valve body (25) of the pilot valve, characterized in that the main control valve (6-13) is designed as a seated valve, the valve body (7) of which is impinged in the opening direction by a pressure prevailing in the flow path and in the closing direction by the force of a spring (11) and by the control pressure controlled by the pilot valve (25-27), that the valve body of the pilot valve (25-27) is designed as a pilot piston (25), that the main control valve (6-13), the pilot valve (25-27) and the fluid flow sensor (17-23) are arranged in a common housing (1), with the valve body (18) of the fluid flow sensor and the pilot piston (25) being displaceable coaxially with respect to each other in aligned bores (16, 17; 26), and that the activating device (35) is arranged coaxially with respect to the pilot piston (25) and acts upon said pilot piston (25) through a coaxial transmitting element (37).

IPC 1-7

F15B 11/05; F15B 13/043

IPC 8 full level

F15B 11/05 (2006.01); **F15B 13/04** (2006.01); **F15B 13/043** (2006.01)

CPC (source: EP)

F15B 9/03 (2013.01); **F15B 13/0435** (2013.01)

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