Title (en)
NONRETURN VALVE, IN PARTICULAR FOR INCORPORATION IN DRINKING WATER PIPES

Publication
EP 0353266 B1 19920304 (DE)

Application
EP 89900218 A 19881130

Priority
DE 3742207 A 19871212

Abstract (en)
[origin: EP0320700A1] A nonreturn valve comprises a flow housing (3) containing an inlet and an outlet pipe (1', 2') in which are lodged a spring-loaded inlet valve (4), an outlet valve (5) and an intermediate central chamber (6). The latter is connected to the outside atmosphere by a drain valve (7), the valve body (25) of which is connected to a control membrane (20, 20'). One side of said membrane is in hydraulic communication with the inlet pipe (1') and the other side is in hydraulic communication with the central chamber (6). In addition, the membrane (20, 20') is controlled by a drain valve spring (28) which maintains a minimal pressure differential between the inlet pipe (1') and the central chamber (6). In order to achieve a compact structure with negligible flow resistance, the flow housing (3) is cylindrical, the inlet and outlet valves (4 and 5) together with their control springs (11, 15) are lodged axially in said housing and the drain valve (7), its valve body (25) and the control membrane (20, 20') are located outside the tubular housing (3). The drain valve body (25) is advantageously provided with two control membranes (20, 20') separated from each other by an intermediate space (26) in communication with the outside atmosphere. The control membrane (20') facing the drain valve body (25) can be actuated by the liquid pressure prevailing in the central chamber (6), while the other control membrane (20) is actuated by the liquid pressure prevailing in the inlet pipe (1').

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