

Title (en)
Fluid control valve

Title (de)
Ventil zum Steuern von Flüssigkeiten

Title (fr)
Soupape pour réguler des fluides

Publication
EP 0947690 B1 20031001 (DE)

Application
EP 98123744 A 19981214

Priority
DE 19813983 A 19980328

Abstract (en)
[origin: EP0947690A2] A valve to control fluids has a valve member (22) operable via a hydraulic converter (25) and subjected to a pressure spring (23) in the closing direction onto its valve seat. The hydraulic converter has a pressure chamber (26) which on one hand is bounded by a piston (28) of a piezo- actuator (24) through whose movement a pressure change arises in the pressure chamber and on the other hand works on a piston (29) bounding the pressure chamber through which the valve member can be adjusted against the force of the pressure spring in the opening direction. On the back side of at least one piston is formed a control chamber (32,33) which is tightly sealed on the actuator and/or valve side by a membrane (34,35) and is filled with waste oil from the pressure chamber. Into the control chamber opens a throttle hole (36,37) which is connected to a low pressure source.

IPC 1-7
F02M 47/02; **F02M 59/46**

IPC 8 full level
F02M 47/00 (2006.01); **F02M 47/02** (2006.01); **F02M 51/00** (2006.01); **F02M 59/46** (2006.01); **F16K 31/02** (2006.01); **H02N 2/00** (2006.01); **H02N 2/02** (2006.01); **F02M 63/00** (2006.01)

CPC (source: EP US)
F02M 47/027 (2013.01 - EP US); **F02M 63/0026** (2013.01 - EP US); **F02M 2200/28** (2013.01 - EP US); **F02M 2200/703** (2013.01 - EP US)

Cited by
DE10030232A1; CN110312861A

Designated contracting state (EPC)
DE FR GB IT

DOCDB simple family (publication)
DE 19813983 A1 19990930; DE 59809801 D1 20031106; EP 0947690 A2 19991006; EP 0947690 A3 20020612; EP 0947690 B1 20031001; JP 2000046220 A 20000218; US 6089529 A 20000718

DOCDB simple family (application)
DE 19813983 A 19980328; DE 59809801 T 19981214; EP 98123744 A 19981214; JP 8438799 A 19990326; US 28068799 A 19990329