

Title (en)  
LIQUID CONTROL VALVE

Title (de)  
VENTIL ZUM STEUERN VON FLÜSSIGKEITEN

Title (fr)  
SOUPAPE DE COMMANDE DE LIQUIDES

Publication  
**EP 0941400 A1 19990915 (DE)**

Application  
**EP 98941236 A 19980627**

Priority  
• DE 9801763 W 19980627  
• DE 19743668 A 19971002

Abstract (en)  
[origin: DE19743668A1] The valve is provided with a liquid filled coupling chamber (30) which is arranged between an actuator piston (31) of a piezo actuator (32) and a piston (25) operating a valve element. To compensate for liquid losses, when the coupling chamber stands under a high pressure for a short time, the pressure difference existing between the coupling chamber and both sides of the actuator piston (31) facing away from the coupling chamber and the piston (25) operating the valve element (22) is used.

IPC 1-7  
**F02M 59/46**; **F02M 59/36**

IPC 8 full level  
**F02M 47/00** (2006.01); **F02M 47/02** (2006.01); **F02M 51/00** (2006.01); **F02M 59/36** (2006.01); **F02M 59/46** (2006.01); **F02M 63/00** (2006.01); **F02M 63/02** (2006.01)

CPC (source: EP KR US)  
**F02M 47/027** (2013.01 - EP US); **F02M 59/02** (2013.01 - KR); **F02M 63/0026** (2013.01 - EP US); **F02M 63/0035** (2013.01 - EP US); **F02M 63/0043** (2013.01 - EP US); **F02M 63/0057** (2013.01 - EP US); **F02M 63/0225** (2013.01 - EP US); **F02M 2200/704** (2013.01 - EP US); **F02M 2200/705** (2013.01 - EP US); **F02M 2547/003** (2013.01 - EP US)

Citation (search report)  
See references of WO 9918347A1

Designated contracting state (EPC)  
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**DE 19743668 A1 19990408**; CN 1102996 C 20030312; CN 1241243 A 20000112; DE 59807065 D1 20030306; EP 0941400 A1 19990915; EP 0941400 B1 20030129; JP 2001512547 A 20010821; KR 20000069205 A 20001125; US 6168133 B1 20010102; WO 9918347 A1 19990415

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