

Title (en)  
VALVE FOR CONTROLLING LIQUIDS

Title (de)  
VENTIL ZUM STEUERN VON FLÜSSIGKEITEN

Title (fr)  
SOUPAPE SERVANT A DIRIGER DES LIQUIDES

Publication  
**EP 1276983 B1 20050706 (DE)**

Application  
**EP 01921223 A 20010321**

Priority  
• DE 0101074 W 20010321  
• DE 10019767 A 20000420

Abstract (en)  
[origin: WO0181751A1] The invention relates to a valve for controlling liquids, comprising a piezoelectric unit (3) for actuating a valve member (2) displaceably disposed in the bore (8) of a valve body (9) with at least one adjusting piston (7) and at least one actuating piston (10) for actuating a valve-closing member (9). A hydraulic compartment (11) is provided between the adjusting piston (7) and the actuating piston (10) and functions as a hydraulic coupler. The actuating piston (10) limits the hydraulic compartment (11) and is displaceably mounted in a blind bore (12) of the adjusting piston (7) that is open in the direction of the valve seat. A cross-sectional area (A0) of the adjusting piston (7) neighboring the hydraulic compartment (11) and a smaller cross-sectional area (A1) of the actuating piston (10) and a cross-sectional area (A2) of at least one reducing element (14) determine a translation for the travel of the actuating piston (10) while the at least one reducing element (14) is supported by a stop (15) in the bore (8).

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

IPC 8 full level  
**F02M 47/00** (2006.01); **F02M 47/02** (2006.01); **F02M 51/06** (2006.01); **F02M 59/46** (2006.01)

CPC (source: EP US)  
**F02M 47/025** (2013.01 - EP US); **F02M 47/027** (2013.01 - EP US); **F02M 61/167** (2013.01 - EP US); **F02M 63/0026** (2013.01 - EP US); **F02M 2200/704** (2013.01 - EP US)

Citation (examination)  
WO 0123754 A1 20010405 - BOSCH GMBH ROBERT [DE], et al

Designated contracting state (EPC)  
AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE TR

DOCDB simple family (publication)  
**WO 0181751 A1 20011101**; AT E299239 T1 20050715; CZ 20014520 A3 20030312; DE 10019767 A1 20011031; DE 50106694 D1 20050811; EP 1276983 A1 20030122; EP 1276983 B1 20050706; JP 2003532000 A 20031028; US 2003098429 A1 20030529; US 6651950 B2 20031125

DOCDB simple family (application)  
**DE 0101074 W 20010321**; AT 01921223 T 20010321; CZ 20014520 A 20010321; DE 10019767 A 20000420; DE 50106694 T 20010321; EP 01921223 A 20010321; JP 2001578809 A 20010321; US 1865502 A 20020311