

Title (en)  
VALVE FOR CONTROLLING LIQUIDS

Title (de)  
VENTIL ZUM STEUERN VON FLÜSSIGKEITEN

Title (fr)  
SOUPAPE PERMETTANT DE COMMANDER LE PASSAGE DE LIQUIDES

Publication  
**EP 1636483 A1 20060322 (DE)**

Application  
**EP 04721823 A 20040319**

Priority  
• DE 2004000566 W 20040319  
• DE 10322672 A 20030520

Abstract (en)  
[origin: WO2004104403A1] Disclosed is a valve for controlling liquids, comprising a retaining member (31) that is provided with an accommodating space (32) inside which an especially piezoelectric actuator unit and a hydraulic coupling module (34) are arranged. Said coupling module (34) encompasses at least one positioning piston (37) and at least one actuating piston (39) that is effectively connected to the positioning piston (37) via a hydraulic coupler (38) and actuates a valve-closing member (27) which cooperates with at least one valve seat (29, 30) and blocks a fluid from flowing from a valve chamber (25) to a backflow duct (45) in the closed position. The positioning piston (37) is directed within the accommodating space (32) by means of a seal (50).

IPC 1-7  
**F02M 47/02**; **F02M 51/06**; **F02M 59/46**

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

CPC (source: EP KR US)  
**F02M 47/027** (2013.01 - EP KR US); **F02M 63/0026** (2013.01 - EP KR US); **F02M 57/024** (2013.01 - EP KR US);  
**F02M 2200/215** (2013.01 - EP KR US); **F02M 2200/703** (2013.01 - EP KR US)

Citation (search report)  
See references of WO 2004104403A1

Designated contracting state (EPC)  
DE FR GB IT

DOCDB simple family (publication)  
**WO 2004104403 A1 20041202**; CN 1791744 A 20060621; DE 10322672 A1 20041209; DE 502004004377 D1 20070830;  
EP 1636483 A1 20060322; EP 1636483 B1 20070718; JP 2006529012 A 20061228; KR 20060006969 A 20060120;  
US 2006033062 A1 20060216

DOCDB simple family (application)  
**DE 2004000566 W 20040319**; CN 200480013617 A 20040319; DE 10322672 A 20030520; DE 502004004377 T 20040319;  
EP 04721823 A 20040319; JP 2006529572 A 20040319; KR 20057021967 A 20051118; US 53737005 A 20050603