

Title (en)
Micro-pump or micro-discharge device.

Title (de)
Mikropumpe oder Mikrodurchflussmenge.

Title (fr)
Micro-pompe ou dispositif à microdébit.

Publication
EP 0424087 A1 19910424 (EN)

Application
EP 90311316 A 19901016

Priority
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• JP 26950289 A 19891017
• JP 26950389 A 19891017
• JP 26950489 A 19891017
• JP 26950589 A 19891017
• JP 26950689 A 19891017
• JP 26950789 A 19891017

Abstract (en)
A micro-pump or micro-discharge device comprising piezo-electric means (201) which form part of wall means (201-203) of a liquid reservoir (211), the piezo-electric means (201) being deformable by voltage signals in first and second directions so as respectively to draw liquid into and expel it from the liquid reservoir (211).

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IPC 8 full level
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F04B 43/0054 (2013.01 - EP KR); **F04B 43/028** (2013.01 - KR); **F04B 43/046** (2013.01 - EP KR US); **F04B 49/065** (2013.01 - EP KR); **F04B 53/10** (2013.01 - KR); **F04B 53/1002** (2013.01 - EP); **F04B 53/1032** (2013.01 - EP); **F04B 53/104** (2013.01 - EP); **F04B 53/1047** (2013.01 - EP US); **F05B 2210/11** (2013.01 - KR); **F05B 2260/60** (2013.01 - KR); **Y10S 417/00** (2013.01 - KR)

Citation (search report)
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• [X] PATENT ABSTRACTS OF JAPAN vol. 011, no. 392 (M-653) 22 December 1987, & JP-A-62 159778 (FUJI ELECTRIC CO LTD) 15 July 1987,
• [X] SENSOR AND ACTUATORS. vol. 15, no. 2, 15 October 1988, LAUSANNE CH pages 153 - 167; VAN LINTEL: "A PIEZOELECTRIC MICROPUMP BASED ON MICROMACHINING OF SILICON"

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