

Title (en)

FLUID INJECTION PUMP, IN PARTICULAR A MICROPUMP USABLE FOR DELIVERING A PREDETERMINED DOSIS

Title (de)

FLUIDINJEKTIONSPUMPE, INSBESONDERE EINE MIKROPUMPE ZUR FÖRDERUNG EINER VORSTIMMBAREN DOSIERUNG

Title (fr)

POMPE D'INJECTION D'UN FLUIDE, ET NOTAMMENT MICROPOMPE UTILISABLE POUR DÉLIVRER UNE DOSE DÉTERMINÉE

Publication

EP 2758664 A1 20140730 (FR)

Application

EP 12762286 A 20120921

Priority

- FR 1158458 A 20110922
- EP 2012068693 W 20120921

Abstract (en)

[origin: WO2013041700A1] The pump is provided with mobile mechanical parts and comprises a tank (1) with a fluid dispensing sleeve (3) which remains fully open, but whereof the inner capillary is too narrow for fluid to be dispensed therethrough when idle. A resonator device (2) with a piezoelectric driver (4a, 4b, 5) is therefore used, which produces vibrations, in particular flexural vibrations, in the sleeve (3), to force the fluid to travel therethrough at a determined flow rate depending on the features of the pump and the excitation. The assembly can be miniaturised and used as an implantable device, in particular for the treatment of hearing disorders, for delivering a drug, or, in certain embodiments, to take samples of ambient fluid. A remote power supply is possible.

IPC 8 full level

F04B 19/00 (2006.01); **A61M 5/142** (2006.01); **A61M 37/00** (2006.01); **A61N 7/00** (2006.01); **B06B 1/06** (2006.01); **F04B 43/04** (2006.01);
F04F 7/00 (2006.01)

CPC (source: EP US)

A61M 5/14212 (2013.01 - EP US); **F04B 19/006** (2013.01 - EP US); **F04B 43/046** (2013.01 - EP US); **F04B 43/095** (2013.01 - US);
F04F 7/00 (2013.01 - EP US); **F16K 31/005** (2013.01 - US); **A61M 37/0092** (2013.01 - EP US); **A61M 2037/0007** (2013.01 - EP US)

Citation (search report)

See references of WO 2013041700A1

Designated contracting state (EPC)

AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

DOCDB simple family (publication)

WO 2013041700 A1 20130328; EP 2758664 A1 20140730; FR 2980535 A1 20130329; FR 2980535 B1 20180309; US 2014377091 A1 20141225

DOCDB simple family (application)

EP 2012068693 W 20120921; EP 12762286 A 20120921; FR 1158458 A 20110922; US 201214345510 A 20120921