(12)

EUROPEAN PATENT APPLICATION

(43) Date of publication: **07.11.2018 Bulletin 2018/45**

(21) Application number: 18179780.4

(22) Date of filing: 20.10.2010

(51) Int Cl.:

A61M 5/142 (2006.01) G01P 15/03 (2006.01) A61M 5/172 (2006.01) G01P 15/18 (2013.01) G01P 15/09 (2006.01) G01P 13/00 (2006.01) G01P 15/08 (2006.01)

(84) Designated Contracting States:

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

- (30) Priority: 03.11.2009 US 61134109
- (62) Document number(s) of the earlier application(s) in accordance with Art. 76 EPC: 10771299.4 / 2 496 286
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Remarks:

This application was filed on 26.06.2018 as a divisional application to the application mentioned under INID code 62.

(54) OMNIDIRECTIONAL ACCELEROMETER DEVICE AND MEDICAL DEVICE INCORPORATING SAME

A portable medical device is provided with an internal accelerometer device. The medical device includes a circuit board, the accelerometer device, and a response module coupled to the accelerometer device. The accelerometer device is mechanically and electrically coupled to the circuit board, and it includes a plurality of mass-supporting arms for a plurality of electrically distinct sensor electrodes, piezoelectric material for the mass-supporting arm, and a proof mass supported by the mass-supporting arms. Each of the mass-supporting arms has one of the sensor electrodes located thereon. Acceleration of the proof mass causes deflection of the piezoelectric material, which generates respective sensor signals at one or more of the sensor electrodes. The response module is configured to initiate an acceleration-dependent operation of the portable medical device in response to generated sensor signals present at the sensor electrodes.

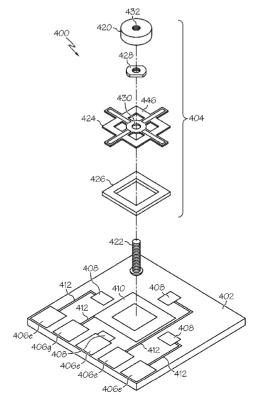


FIG. 5