

Title (en)

MICROMECHANICAL SPEED SENSOR AND A METHOD FOR THE PRODUCTION THEREOF

Title (de)

MIKROMECHANISCHER DREHRATENSOR UND VERFAHREN ZU SEINER HERSTELLUNG

Title (fr)

DETECTEUR DE VITESSE DE ROTATION MICROMECHANIQUE ET SON PROCEDE DE PRODUCTION

Publication

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Application

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Abstract (en)

[origin: WO0214787A1] The invention relates to a micromechanical rotational speed sensor comprising a cardanic structure, capable of oscillation. Said sensor consists of two oscillating elements (4, 5), which are mounted so that they can pivot about two axes (A, B) that are aligned in a perpendicular manner in relation to one another. An excitation unit in the form of an electrode (7) causes the first oscillating element (4) to oscillate about the first rotational axis (A). A readout unit in the form of a readout electrode (8) registers a tilting or oscillation of the second oscillating element (5) about the second rotational axis (B) and uses said movement as a measure for the rotational speed of the sensor. Additional elements of mass (6a, 6b), which are symmetrically aligned, are located on the upper face (2a) and the lower face (2b) of the first oscillating element (4), said element forming a rocker. The sensor is produced from at least three individually machined wafers, which are subsequently combined to form a cover section (1), a central section (2) and a base section (3).

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