

Sensors for Automotive Engineering

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Determination of the relative position, velocity and acceleration of a body by means of linear accelerator sensors

This new method for determining the relative position, velocity and acceleration of a body which can be moved in a three-dimensional space is based on linear accelerator sensors. The invention finds its application for example as a part of inertial navigation systems (INS), e.g. if the GPS position is disrupted temporarily, but also in medical technology, in an air- and/or watercraft and all other applications where the measurement of the position and movement of a body in space is important.

Micromechanical rotation rate sensor

This micromechanical rotation rate sensor with decoupled excitation and read-out unit is used to measure the rotation speed of bodies.

For this purpose two connected prongs, forming a so-called tuning fork structure, are encouraged to oscillations parallel to the drawing plane by electrostatic forces. Since micromechanical rotation rate sensors are used, for example, for the Electronic Stability Program ESP and for navigation devices, the automotive industry is the most important market segment for these sensors.

Radar sensor

This invention relates to a method for producing a radar sensor, which is particularly suitable for the manufacture of highly integrated, yet highly sensitive radar sensors.

The corresponding sensors have got several different controllable antennas and a distribution network to control the antennas. Radar sensors can be used for the aviation and the automotive industry.

signo

Hochschulen

Schutz von Ideen für die
gewerbliche Nutzung



**Mass sensitive
thick layer resona-
tor**

The present invention allows a high-resolution thickness measurement and concentration determination of analytes in gaseous and liquid media by using a piezoelectric sensor array, which has got a mass sensitive thick layer resonator. This sensor system is suitable for applications in the automotive sector.



contact: INNOVECTIS Gesellschaft für Innovations-Dienstleistungen mbH
Altenhöferallee 3
D-60438 Frankfurt am Main
Tel.: (069) 2561632-17, Fax: (069) 2561632-29