

Title (en)

ROTATION ANGLE CAPTURE WITH A 3-D SENSOR AND AN AXIS OF ROTATION PARALLEL TO A PRINTED CIRCUIT BOARD

Title (de)

DREHWINKEL-ERFASSUNG MIT 3-D-SENSOR UND LEITERPLATTEN-PARALLELER DREHACHSE

Title (fr)

SYSTÈME DE DÉTECTION D'ANGLE DE ROTATION À CAPTEUR 3D ET AXE DE ROTATION PARALLÈLE À CARTES DE CIRCUITS IMPRIMÉS

Publication

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Application

EP 19816227 A 20191127

Priority

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- EP 2019082743 W 20191127

Abstract (en)

[origin: WO2020109384A1] In a sensor arrangement (8) for determining a rotation angle (WE) of a magnet (6) about an axis of rotation (12), with a sensor (18) for capturing a radial component (KR) and a tangential component (KT) of the measuring field (16) of the magnet (6) and for determining the rotation angle (WE) on the basis of an atan function, the sensor (18) is mounted, at a radial distance (AR) from the axis of rotation (12), on a printed circuit board (20) parallel to the axis of rotation (12) and is offset with respect to the magnet (6) by an axial distance (AA). In a design method for the sensor arrangement (8), an initial axial distance (AA) and radial distance (RA) are selected, the profile (26) is determined, and the axial distance (AA) and/or the radial distance (RA) is/are iteratively optimized. In a selector lever arrangement (2) for a vehicle, a selector lever (4) is coupled in terms of movement to the magnet (6) of the sensor arrangement (8). In a production method for the selector lever arrangement (2), the sensor arrangement (8) is optimized, is installed with the selector lever arrangement (2), and a compensation arrangement (28) is adjusted as part of an end-of-line adjustment.

IPC 8 full level

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CPC (source: EP US)

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Citation (search report)

See references of WO 2020109384A1

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