Title (en)

METHOD FOR DETERMINING AN EXCITER CONDUCTOR DISTANCE, METHOD FOR CALIBRATING A MAGNETIC FIELD SENSOR, CALIBRATABLE MAGNETIC FIELD SENSOR AND USE OF AN EXCITER CONDCUTOR STRUCTURE TO DETERMINE AN EXCITER CONDUCTOR DISTANCE BETWEEN AN EXCITER CONDUCTOR AND A MAGNETIC FIELD SENSOR

Title (de)

VERFAHREN ZUR BESTIMMUNG EINES ERREGERLEITERABSTANDES, VERFAHREN ZUM KALIBRIEREN EINES MAGNETFELDSENSORS, KALIBRIERBARER MAGNETFELDSENSOR UND VERWENDUNG EINER ERREGERLEITERSTRUKTUR ZUR BESTIMMUNG EINES ERREGERLEITERABSTANDES ZWISCHEN EINEM ERREGERLEITER UND EINEM MAGNETFELDSENSOR

Title (fr)

PROCÉDÉ DE DÉTERMINATION DE LA DISTANCE D'UN CONDUCTEUR D'EXCITATION, PROCÉDÉ D'ÉTALONNAGE D'UN CAPTEUR DE CHAMP MAGNÉTIQUE, CAPTEUR DE CHAMP MAGNÉTIQUE ÉTALONNABLE ET UTILISATION D'UNE STRUCTURE DE CONDUCTEURS D'EXCITATION POUR LA DÉTERMINATION D'UNE DISTANCE ENTRE UN CONDUCTEUR D'EXCITATION ET UN CAPTEUR DE CHAMP MAGNÉTIQUE

Publication

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Application

EP 11713740 A 20110404

Priority

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Abstract (en)

[origin: CA2797574A1] Exemplary embodiments describe a method for determining an exciter conductor distance between an exciter conductor 15, 16 of an exciter conductor structure 14 and a sensor element 20a of a calibratable magnetic field sensor 10, wherein the exciter conductor structure 14 has a first exciter conductor 15 and a second exciter conductor 16 at a distance from the latter, and wherein the sensor element 20a can be calibrated using the first exciter conductor 15 or the second exciter conductor 16. The method has a step of injecting 100 a first electrical current I0 into the first exciter conductor 15 of the exciter conductor structure 14 in order to produce a first magnetic field component B0,X in the sensor element 20a of the magnetic field sensor 10 and a step of determining 110 a variable, which depends on the first magnetic field component B0,X, using the sensor element 20a. The method also has a step of injecting 120 a second electrical current I1 into the second exciter conductor 16 of the exciter conductor structure 14 in order to produce a second magnetic field component B1,X in the sensor element 20a of the magnetic field sensor 10 and a step of determining 130 a variable, which depends on the second magnetic field component B1,X, using the sensor element 20a. The method also comprises a step of determining 140 the exciter conductor distance between the exciter conductor 15, 16 and the sensor element 20a of the magnetic field sensor 10 on the basis of an exciter conductor intermediate distance between the first exciter conductor 15 and the second exciter conductor 16 at a distance from the latter and the variables which depend on the first and second magnetic field components B0,X and B1,X.

IPC 8 full level

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CPC (source: EP US)

G01R 33/0005 (2013.01 - EP US); **G01R 33/0035** (2013.01 - EP US); **G01R 33/07** (2013.01 - EP US)

Citation (examination)

- EP 2131205 A1 20091209 - ASAHI KASEI EMD CORP [JP]
- EP 2063229 A1 20090527 - MICRONAS GMBH [DE]
- See also references of WO 2011134748A1

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DOCDB simple family (publication)

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