

Title (en)

SENSOR ARRANGEMENT WITH A PIEZOELECTRIC SENSOR AND A MEASURING AMPLIFIER

Title (de)

SENSORANORDNUNG MIT EINEM PIEZOELEKTRISCHEN SENSOR UND MIT EINEM MESSVERSTÄRKER

Title (fr)

DISPOSITIF CAPTEUR PRÉSENTANT UN CAPTEUR PIÉZOÉLECTRIQUE ET UN AMPLIFICATEUR DE MESURE

Publication

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Application

**EP 19813912 A 20191211**

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- EP 2019084687 W 20191211

Abstract (en)

[origin: WO2020120593A1] The invention relates to a sensor arrangement (0) with a piezoelectric sensor (1) and a measuring amplifier (3), the piezoelectric sensor (1) being electrically connected to the measuring amplifier (3), the piezoelectric sensor (1) providing electrical polarisation charges (Q, Q'), and the measuring amplifier (3) amplifying the electrical polarisation charges (Q, Q') of the piezoelectric sensor (1). The measuring amplifier (3) has at least one operational amplifier (33, 33') with two operational amplifier inputs (331, 331', 332, 332') and one operational amplifier output (333, 333'). The electrical polarisation charges (Q, Q') are present at a first operational amplifier input (331, 331') and an electric voltage (US, US', UK, UK') is present at both operational amplifier inputs (331, 331', 332, 332'), the electrical voltage (US, US', UK, UK') being not equal to a ground potential (U0) of the measuring amplifier (3). The electrical voltage (US, US') present at the first operational amplifier input (331, 331') is an electrical interference voltage (US, US'), the electrical interference voltage (US, US') coming from an electrical thermocurrent (IT, IT') generated in the piezoelectric sensor (1).

IPC 8 full level

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