Title (en)

SOUND TRANSDUCER

Title (de)

SCHALLWANDLER

Title (fr)

TRANSDUCTEUR ACOUSTIQUE

Publication

EP 3688748 A1 20200805 (DE)

Application

EP 18749336 A 20180730

Priority

- DE 102017216868 A 20170925
- EP 2018070547 W 20180730

Abstract (en)

[origin: WO2019057375A1] The invention relates to a sound transducer (1), in particular for an ultrasound sensor, having a housing (5), at least one decoupling element (9a), and a functional group (2). The functional group (2) has a diaphragm cup (7) and at least one electroacoustic converter element (3). The diaphragm cup (7) comprises a diaphragm (8) which is capable of vibrating, a surrounding wall (6), and at least one electroacoustic converter element (3), said converter element (3) being designed to excite the diaphragm (8) so as to vibrate and/or convert vibrations of the diaphragm (8) into electric signals. The diaphragm cup (7) and at least one part of the housing (5) are made of a plastic material. The decoupling element (9a) is designed to decouple the diaphragm cup (7) and/or the at least one part of the housing (5) from an outer surrounding area of the sound transducer (1) in terms of mechanical vibrations. According to the invention, the decoupling element (9a) is integrated into the diaphragm cup (7), in particular into the wall (6) of the diaphragm cup (7) and/or into the at least one part of the housing (5).

IPC 8 full level

G10K 9/122 (2006.01); **G01S 7/521** (2006.01); **G10K 9/22** (2006.01); **G10K 11/00** (2006.01)

CPC (source: EP US)

B60R 19/02 (2013.01 - US); **G01S 7/521** (2013.01 - EP); **G01S 15/931** (2013.01 - EP US); **G10K 9/12** (2013.01 - US); **G10K 9/122** (2013.01 - EP); **G10K 9/22** (2013.01 - EP US); **G10K 11/002** (2013.01 - US); **G10K 11/004** (2013.01 - EP US); G01S 2015/938 (2013.01 - EP US)

Citation (search report)

See references of WO 2019057375A1

Designated contracting state (EPC)

AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

Designated extension state (EPC)

BA ME

DOCDB simple family (publication)

WO 2019057375 A1 20190328; CN 111133502 A 20200508; DE 102017216868 A1 20190328; EP 3688748 A1 20200805; JP 2020535710 A 20201203; JP 6984009 B2 20211217; US 2020294481 A1 20200917

DOCDB simple family (application)

EP 2018070547 W 20180730; CN 201880062203 A 20180730; DE 102017216868 A 20170925; EP 18749336 A 20180730; JP 2020517155 A 20180730; US 201816645245 A 20180730