

Title (en)

METHOD FOR OPERATING AN ULTRASONIC SENSOR OF A MOTOR VEHICLE, ULTRASONIC SENSOR DEVICE, DRIVER ASSISTANCE SYSTEM AND MOTOR VEHICLE

Title (de)

VERFAHREN ZUM BETREIBEN EINES ULTRASCHALLSENSORS EINES KRAFTFAHRZEUGS, ULTRASCHALLSENSORVORRICHTUNG, FAHRERASSISTENZSYSTEM SOWIE KRAFTFAHRZEUG

Title (fr)

PROCÉDÉ D'EXPLOITATION D'UN DÉTECTEUR À ULTRASONS DE VÉHICULE AUTOMOBILE, DISPOSITIF DE DÉTECTION À ULTRASONS, SYSTÈME D'AIDE À LA CONDUITE, AINSI QUE VÉHICULE AUTOMOBILE

Publication

EP 3146360 A1 20170329 (DE)

Application

EP 15716814 A 20150417

Priority

- DE 102014107311 A 20140523
- EP 2015058394 W 20150417

Abstract (en)

[origin: WO2015176885A1] The invention relates to a method for operating an ultrasonic sensor (2) of a motor vehicle, in which method a transmission signal is emitted with an excitation frequency during a transmission phase by exciting a diaphragm (4) of the ultrasonic sensor (2), subsequently during a damping phase (10) the diaphragm (4) is excited with a damping frequency which is in anti-phase with respect to the excitation frequency, and subsequently during a reception phase (11) mechanical oscillation of the diaphragm (4) is detected, wherein during the damping phase (10) an amplitude of the mechanical oscillation of the diaphragm (4) is detected, wherein during the damping phase (10) it is determined whether the amplitude undershoots (S2) an oscillation threshold value (12) for a duration of a predetermined damping time interval (15).

IPC 8 full level

G01S 15/931 (2020.01); **G01S 7/52** (2006.01); **G01S 7/526** (2006.01); **H04R 3/00** (2006.01)

CPC (source: EP)

B06B 1/0215 (2013.01); **G01S 7/52004** (2013.01); **G01S 7/524** (2013.01); **G01S 7/526** (2013.01); **G01S 15/931** (2013.01);
B06B 2201/30 (2013.01); **G01S 7/52006** (2013.01); **G01S 2015/932** (2013.01)

Citation (search report)

See references of WO 2015176885A1

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)

DE 102014107311 A1 20151126; EP 3146360 A1 20170329; WO 2015176885 A1 20151126

DOCDB simple family (application)

DE 102014107311 A 20140523; EP 15716814 A 20150417; EP 2015058394 W 20150417