

Title (en)

METHOD FOR OPERATING AN ULTRASONIC SENSOR

Title (de)

VERFAHREN ZUM BETRIEB EINES ULTRASCHALLSENSORS

Title (fr)

PROCÉDÉ PERMETTANT DE FAIRE FONCTIONNER UN CAPTEUR À ULTRASONS

Publication

EP 3555661 A1 20191023 (DE)

Application

EP 17791685 A 20171030

Priority

- DE 102016224928 A 20161214
- EP 2017077787 W 20171030

Abstract (en)

[origin: WO2018108379A1] The invention relates to a method for operating an ultrasonic sensor (1, 2, 3, 4, 5, 6), in which a plurality of measuring cycles are run in succession. In each measuring cycle: - an electroacoustic transducer of said ultrasonic sensor is excited, by means of an exciting pulse, to mechanically vibrate, as a result of which a measurement signal (11) is sent by the transducer; - an echo signal (12) is received by the transducer; and - an item of object information is determined from said echo signal. The frequency response curve of the exciting pulse differentiates itself, according to the invention, into two measuring cycles run in temporal succession, at least at the end of said frequency response curve. According to the invention, the items of objection information determined from at least two measuring cycles are compared to one another and an interference is identified on the basis of the result of this comparison. An interference is considered to be, in particular, a measuring error caused by a parasitic oscillation which might itself result from manufacturing tolerances and/or the installation of the ultrasonic sensor (1, 2, 3, 4, 5, 6) in a retainer.

IPC 8 full level

G01S 7/52 (2006.01); **G01S 7/527** (2006.01); **G01S 15/10** (2006.01); **G01S 15/32** (2006.01); **G01S 15/87** (2006.01); **G01S 15/931** (2020.01)

CPC (source: EP KR US)

G01S 7/52001 (2013.01 - KR US); **G01S 7/527** (2013.01 - EP KR US); **G01S 15/104** (2013.01 - EP KR US); **G01S 15/107** (2013.01 - EP KR); **G01S 15/325** (2013.01 - EP KR); **G01S 15/87** (2013.01 - EP KR); **G01S 15/931** (2013.01 - EP KR US); **G01S 7/52001** (2013.01 - EP)

Citation (search report)

See references of WO 2018108379A1

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 102016224928 A1 20180614; CN 110073241 A 20190730; CN 110073241 B 20230808; EP 3555661 A1 20191023; JP 2020502499 A 20200123; JP 6816279 B2 20210120; KR 102353624 B1 20220121; KR 20190093637 A 20190809; US 11366207 B2 20220621; US 2021286058 A1 20210916; WO 2018108379 A1 20180621

DOCDB simple family (application)

DE 102016224928 A 20161214; CN 201780077520 A 20171030; EP 17791685 A 20171030; EP 2017077787 W 20171030; JP 2019528622 A 20171030; KR 20197019982 A 20171030; US 201716468369 A 20171030