

Title (en)
PRESSURE TRANSDUCER

Title (de)
DRUCKMESSAUFNEHMER

Title (fr)
TRANSDUCTEUR DE PRESSION

Publication
EP 4260034 A1 20231018 (DE)

Application
EP 21820506 A 20211125

Priority
• DE 102020132687 A 20201208
• EP 2021082989 W 20211125

Abstract (en)
[origin: WO2022122397A1] The invention relates to a pressure transducer, in particular an overload-proof pressure transducer, for measuring a pressure (p), which transducer comprises a pressure sensor (5) which is provided in the interior space (3) of a sensor housing (1), can be acted upon through an opening (7) in the sensor housing (1) by a medium under the pressure (p) to be measured, and by which high pressures, in particular even pressures of up to 1000 bar, of a medium under the pressure to be measured, in particular a medium containing hydrogen, can be measured with a high degree of measurement accuracy. This pressure transducer is characterised in that: the pressure sensor (5) is mounted on connector elements (9) which protrude into the interior space (3) and are free-standing in the interior space (3) in such a way that the pressure sensor (5) is exposed on all sides to the pressure (p) prevailing in the interior space (3); the pressure sensor comprises two ceramic measuring elements (13, 15, 13', 15') which are connected to one another, enclosing a pressure chamber (11), and are each deformable by the pressure (p) acting on them; and the pressure sensor comprises an electromechanical transducer which converts a mechanical variable which is dependent on a sum of the pressure-dependent deformations of both measuring elements (13, 15, 13', 15') into a metrologically detectable electrical measurement variable.

IPC 8 full level
G01L 9/00 (2006.01); **G01L 19/00** (2006.01); **G01L 19/14** (2006.01)

CPC (source: EP US)
G01L 9/0075 (2013.01 - EP US); **G01L 19/0069** (2013.01 - EP US); **G01L 19/0084** (2013.01 - EP US); **G01L 19/145** (2013.01 - EP); **G01L 19/147** (2013.01 - EP US)

Citation (search report)
See references of WO 2022122397A1

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

Designated validation state (EPC)
KH MA MD TN

DOCDB simple family (publication)
WO 2022122397 A1 20220616; CN 116670481 A 20230829; DE 102020132687 A1 20220609; EP 4260034 A1 20231018; US 2024019329 A1 20240118

DOCDB simple family (application)
EP 2021082989 W 20211125; CN 202180081693 A 20211125; DE 102020132687 A 20201208; EP 21820506 A 20211125; US 202118256528 A 20211125