

Title (en)

SELF-LEARNING DEVICE FOR MEASURING PRESSURE, GAS AND/OR HUMIDITY ON THE BASIS OF AMBIENT HUMIDITY

Title (de)

SELBSTLERNENDE BELEGUNGSVORRICHTUNG ZUR MESSUNG VON DRUCK, GAS UND/ODER FEUCHTIGKEIT AUF BASIS EINER UMGEBUNGSFEUCHTIGKEIT

Title (fr)

DISPOSITIF D'AUTO-APPRENTISSAGE POUR MESURER LA PRESSION, LE GAZ ET/OU L'HUMIDITÉ SUR LA BASE DE L'HUMIDITÉ AMBIANTE

Publication

EP 4090230 A1 20221123 (DE)

Application

EP 21700717 A 20210114

Priority

- DE 102020100810 A 20200115
- EP 2021050659 W 20210114

Abstract (en)

[origin: WO2021144349A1] The invention relates to a self-learning device for measuring pressure, gas and/or humidity, and to a method for measuring pressure, gas and/or humidity. The device comprises at least one sensor for measuring pressure, gas and/or humidity, wherein the sensor comprises at least one capacitor with at least two electrodes which are arranged relative to each other in particular in a horizontal direction along and on an in particular flexible substrate material. At least one dielectric layer is arranged between the electrodes. The invention is characterized in that at least one at least partially humidity-permeable and/or humidity-absorbing and/or gas-permeable and/or gas-absorbing humidity layer is arranged in at least some locations on a side of at least one electrode and/or the dielectric layer facing away from a substrate material. In a transverse direction, the at least one electrode and/or the dielectric layer is/are thus arranged between the substrate material and the humidity layer. In this way, a capacitance changes at least partially as a result of at least some of the humidity coming into contact with the dielectric layer, a processing unit being configured and intended for measuring and/or storing this change, so that a capacitive humidity sensor is created.

IPC 8 full level

A61B 5/00 (2006.01); **B60N 2/58** (2006.01); **B60R 16/037** (2006.01); **G01D 5/24** (2006.01); **G01L 1/12** (2006.01); **G01N 27/22** (2006.01)

CPC (source: EP)

B60N 2/002 (2013.01); **B60N 2/58** (2013.01); **G01L 11/00** (2013.01); **G01N 27/225** (2013.01); **B60R 21/01532** (2014.10)

Citation (search report)

See references of WO 2021144349A1

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)

DE 102020100810 A1 20210715; EP 4090230 A1 20221123; WO 2021144349 A1 20210722

DOCDB simple family (application)

DE 102020100810 A 20200115; EP 2021050659 W 20210114; EP 21700717 A 20210114