

Title (en)
VALVE DEVICE, INTANK VALVE AND GAS PRESSURE ACCUMULATOR SYSTEM, IN PARTICULAR FOR FUEL CELL SYSTEMS, AND METHOD FOR DETECTING A LEAKAGE

Title (de)
VENTILEINRICHTUNG, INTANKVENTIL UND GASDRUCKSPEICHERSYSTEM, INSBESONDERE FÜR BRENNSTOFFZELLENSYSTEME, SOWIE VERFAHREN ZUM DETEKTIEREN EINER LECKAGE

Title (fr)
ENSEMBLE SOUPAPE, SOUPAPE IMMERGÉE ET SYSTÈME DE RÉSERVOIR DE GAZ SOUS PRESSION, EN PARTICULIER POUR DES SYSTÈMES DE PILES À COMBUSTIBLE, ET PROCÉDÉ POUR DÉTECTER UNE FUITE

Publication
EP 4085217 A2 20221109 (DE)

Application
EP 21736517 A 20210610

Priority

- DE 102020207253 A 20200610
- EP 2021065626 W 20210610

Abstract (en)
[origin: CN113775925A] The present invention relates to a valve device (100) for a fuel supply system which is preferably configured to supply a fuel cell system with fuel, comprising: at least one temperature detection unit (101), at least one pressure detection unit (102), and a safety valve (104) which is incorporated into a line section (13), wherein the safety valve (104) can be adjusted between an open position, in which gas can flow through the line section (103), and a closed position, in which no gas can flow through the line section (103), wherein the temperature detection unit (101) and the pressure detection unit (102) are arranged in such a manner that they can detect a temperature and a pressure of the gas flowing through the line section (103) in a state in which the gas pressurizes the closed safety valve (104). Furthermore, the present invention relates to an in-tank valve (200) which can have all of the features described with respect to the valve device (100) and which differs from the valve device (100) only in that it can be mounted directly on a gas pressure accumulator (300). Furthermore, the present invention relates to a gas pressure accumulator system for storing fuel, comprising: at least one gas pressure accumulator (300) and a valve device (100). Finally, the present invention relates to a method for detecting a possible leakage in a fuel supply system, and to a valve arrangement (500).

IPC 8 full level
F17C 13/04 (2006.01); **F17C 13/12** (2006.01)

CPC (source: CN EP US)
F17C 13/025 (2013.01 - CN US); **F17C 13/026** (2013.01 - CN US); **F17C 13/04** (2013.01 - CN EP US); **F17C 13/12** (2013.01 - EP); **H01M 8/04089** (2013.01 - CN); **H01M 8/04201** (2013.01 - CN US); **F17C 13/123** (2013.01 - EP); **F17C 2205/0323** (2013.01 - EP); **F17C 2205/0326** (2013.01 - EP US); **F17C 2205/0329** (2013.01 - EP US); **F17C 2205/0332** (2013.01 - EP US); **F17C 2205/0335** (2013.01 - EP US); **F17C 2205/0338** (2013.01 - EP US); **F17C 2205/0341** (2013.01 - EP US); **F17C 2205/0385** (2013.01 - EP US); **F17C 2205/0391** (2013.01 - EP); **F17C 2205/0394** (2013.01 - US); **F17C 2221/012** (2013.01 - EP US); **F17C 2221/033** (2013.01 - EP); **F17C 2223/0123** (2013.01 - EP); **F17C 2223/036** (2013.01 - EP US); **F17C 2250/03** (2013.01 - EP); **F17C 2250/034** (2013.01 - EP US); **F17C 2250/0626** (2013.01 - EP US); **F17C 2250/0631** (2013.01 - EP US); **F17C 2250/0678** (2013.01 - EP US); **F17C 2250/0684** (2013.01 - EP US); **F17C 2260/036** (2013.01 - EP US); **F17C 2260/042** (2013.01 - EP); **F17C 2270/0178** (2013.01 - EP US); **F17C 2270/0184** (2013.01 - EP US); **F17C 2270/0754** (2013.01 - EP US); **Y02E 60/32** (2013.01 - EP); **Y02E 60/50** (2013.01 - EP); **Y02T 90/40** (2013.01 - EP)

Citation (search report)
See references of WO 2021250171A2

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 102020207253 A1 20211216; AU 2021287288 A1 20230209; BR 112022025368 A2 20230509; CN 113775925 A 20211210; CN 215418248 U 20220104; CN 215807878 U 20220211; EP 4085217 A2 20221109; JP 2023529222 A 20230707; KR 20230038472 A 20230320; US 2023228381 A1 20230720; WO 2021250171 A2 20211216; WO 2021250171 A3 20220310

DOCDB simple family (application)
DE 102020207253 A 20200610; AU 2021287288 A 20210610; BR 112022025368 A 20210610; CN 202011510632 A 20201218; CN 202023081380 U 20201218; CN 202023082581 U 20201218; EP 2021065626 W 20210610; EP 21736517 A 20210610; JP 2022576831 A 20210610; KR 20237001111 A 20210610; US 202118001227 A 20210610