

Title (en)
VALVE

Title (de)
VENTIL

Title (fr)
SOUPAPE

Publication
EP 3844374 A1 20210707 (DE)

Application
EP 19725707 A 20190520

Priority
• DE 102018214460 A 20180827
• EP 2019062932 W 20190520

Abstract (en)
[origin: WO2020043329A1] The invention relates to a valve (1) for blocking and releasing a flow path, having: - an electromagnetic actuator unit (5); - an armature (8), which can be axially moved by means of the electromagnetic actuator unit (5), and a closure element (10), which is connected to the armature (8), said closure element (10) being designed to block and release a flow path; - a housing (2), which receives at least the armature (8) and a first closure element (10) axial end (20) connected to the armature (8); and - a housing part (18), which forms a valve seat (16) and against which a second axial end (22) of the closure element (10) is pressed by means of a spring device (17) in a closed position of the valve (1). The spring device (17) has at least one spring (32, 34) which can be compressed at a first spring rate starting from a completely closed position of the valve (1) to a partly open intermediate position of the valve (1) and a spring (32, 34) which can be compressed at a second spring rate starting from a partly open intermediate position of the valve (1) to a completely open position of the valve (1), wherein the first spring rate differs from the second spring rate.

IPC 8 full level
F02B 37/18 (2006.01); **F16K 31/06** (2006.01)

CPC (source: EP KR US)
F02B 37/183 (2013.01 - EP KR); **F02B 37/186** (2013.01 - US); **F16K 31/0655** (2013.01 - EP KR US); **F05D 2220/40** (2013.01 - US); **F05D 2260/606** (2013.01 - US); **F05D 2270/62** (2013.01 - US); **Y02T 10/12** (2013.01 - EP KR)

Citation (search report)
See references of WO 2020043329A1

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 102018214460 A1 20200227; CN 112567122 A 20210326; EP 3844374 A1 20210707; JP 2021535984 A 20211223; KR 20210045481 A 20210426; US 2021317778 A1 20211014; WO 2020043329 A1 20200305

DOCDB simple family (application)
DE 102018214460 A 20180827; CN 201980053561 A 20190520; EP 19725707 A 20190520; EP 2019062932 W 20190520; JP 2021510886 A 20190520; KR 20217009013 A 20190520; US 201917271834 A 20190520