

Title (en)
METHOD AND DEVICE FOR CONTROLLING A VALVE

Title (de)
VERFAHREN UND VORRICHTUNG ZUM STEUERN EINES VENTILS

Title (fr)
PROCÉDÉ ET DISPOSITIF DE COMMANDE D'UNE SOUPAPE

Publication
EP 2705235 A2 20140312 (DE)

Application
EP 12718664 A 20120503

Priority
• DE 102011075270 A 20110504
• EP 2012058151 W 20120503

Abstract (en)
[origin: WO2012150308A2] The invention relates to a valve (20) that comprises a spring (32) having a spring force (F₁), an actuator (42) having an actuator force (F₂) that acts against the spring force (F₁), and a tappet (34) that can be actuated by means of the actuator (42). Furthermore, the valve (20) comprises a sealing element (36), which is or can be coupled to the tappet (34), and a sealing seat (38), such that the valve (20) is closed when the sealing element (36) lies against the sealing seat (38). A current having a specified curve is applied, proceeding from an initial value (I₀) of the current to a specified final value (I_{END}) of the current, during a specified time interval of the actuator after a closing phase of the valve (20) for a normally open valve or after an opening phase for a normally closed valve. The initial value (I₀) of the current is less than the final value (I_{END}).

IPC 8 full level
F02D 41/20 (2006.01); **F02D 41/24** (2006.01)

CPC (source: EP KR US)
F02D 41/20 (2013.01 - EP KR US); **F02D 41/24** (2013.01 - KR); **F02D 41/2464** (2013.01 - EP US); **F02D 41/401** (2013.01 - US); **F02M 59/36** (2013.01 - KR); **F02M 59/46** (2013.01 - KR); **F02D 2041/2044** (2013.01 - EP US)

Citation (search report)
See references of WO 2012150308A2

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

DOCDB simple family (publication)
DE 102011075270 A1 20121108; CN 103620197 A 20140305; CN 103620197 B 20180522; EP 2705235 A2 20140312; EP 2705235 B1 20161019; KR 101871299 B1 20180627; KR 20140027385 A 20140306; US 2014196691 A1 20140717; US 9382860 B2 20160705; WO 2012150308 A2 20121108; WO 2012150308 A3 20130117

DOCDB simple family (application)
DE 102011075270 A 20110504; CN 201280033196 A 20120503; EP 12718664 A 20120503; EP 2012058151 W 20120503; KR 20137032116 A 20120503; US 201214115469 A 20120503