

Title (en)
METHOD FOR DETECTING A FAILED ACTUATION OF A SWITCHABLE SOLENOID VALVE, ELECTRONIC CIRCUIT FOR PERFORMING THE METHOD, PUMP AND MOTOR VEHICLE

Title (de)
VERFAHREN ZUR ERKENNUNG EINER FEHLGESCHLAGENEN BETÄTIGUNG EINES SCHALTBAREN MAGNETVENTILS, ELEKTRONISCHE SCHALTUNG ZUR DURCHFÜHRUNG DES VERFAHRENS, PUMPE UND KRAFTFAHRZEUG

Title (fr)
PROCÉDÉ POUR DÉTECTER UN ÉCHEC D'ACTIONNEMENT D'UNE SOUPE À SOLÉNOÏDE COMMUTABLE, CIRCUIT ÉLECTRONIQUE POUR L'APPLICATION DU PROCÉDÉ, POMPE ET VÉHICULE À MOTEUR

Publication
EP 3385527 A1 20181010 (EN)

Application
EP 17165221 A 20170406

Priority
EP 17165221 A 20170406

Abstract (en)
The invention is concerned with a method for detecting a failed actuation of a switchable solenoid valve (15), wherein in at least one actuation cycle (34) an electric current (I) is driven through the solenoid (18) of the valve (15) for closing the valve (15) with a predefined actuation energy (E) and for holding the valve (15) closed in a subsequent hold phase (37), wherein in the hold phase (37) a current strength value of the electric current (I) is controlled by switching a voltage source (U). The invention is characterized in that a switching frequency (F) at which the controller (17) switches the voltage source (U) is measured and if the switching frequency (F) fulfills a predefined failure criterion (46) in one actuation cycle (34), a signal signals that the current actuation cycle (34) is a failure cycle (43) in which the valve (15) did not close.

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

CPC (source: EP)
F02D 41/20 (2013.01); **F02D 41/2432** (2013.01); **F02D 41/2464** (2013.01); **F02D 2041/2027** (2013.01); **F02D 2041/2055** (2013.01)

Citation (applicant)
• US 2012167993 A1 20120705 - FEDOR III WILLIAM J [US], et al
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• [I] DE 102011076113 A1 20121122 - CONTINENTAL AUTOMOTIVE GMBH [DE]
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EP3712418A1

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)
EP 3385527 A1 20181010; EP 3385527 B1 20200401

DOCDB simple family (application)
EP 17165221 A 20170406