

Title (en)
Injection valve

Title (de)
Einspritzventil

Title (fr)
Soupape d'injection

Publication
EP 2863042 A1 20150422 (EN)

Application
EP 13188648 A 20131015

Priority
EP 13188648 A 20131015

Abstract (en)
Injection valve (1) for an automotive engine comprising: - a valve body (14) comprising a cavity (18) and a fluid outlet portion (40), - a valve needle (20) axially movable in the cavity (18), the valve needle (20) preventing a fluid flow through the fluid outlet portion (40) in a closing position and displaceable in an opening direction (62) along a longitudinal axis (60) to other positions for releasing the fluid flow through the fluid outlet portion (40), - an electro-magnetic actuator unit (30) being configured to actuate the valve needle (20), wherein the actuator unit (30) comprises - an armature (32) which is arranged in the cavity (18) and being axially moveable relative to the valve needle (20), the armature (32) being operable to move the valve needle (20), - an acceleration device (50) comprising a pole piece (34) which is arranged in the cavity (18) subsequent to the armature (32) in the opening direction (62), the acceleration device (50) being fixed to the cavity (18) and being operable to move the armature (32) by applying a magnetic force, - a deceleration device (35) being arranged in the cavity (18), the deceleration device (35) being configured to dampen or to avoid an impact of the armature (32) onto the pole piece (34).

IPC 8 full level
F02M 51/06 (2006.01)

CPC (source: EP)
F02M 51/066 (2013.01); **F02M 51/0685** (2013.01); **F02M 51/0692** (2013.01); **F02M 2200/20** (2013.01); **F02M 2200/9038** (2013.01)

Citation (search report)
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• [Y] DE 102009045174 A1 20110407 - BOSCH GMBH ROBERT [DE]
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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

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