

Title (en)

Electromagnetically driven valve and driving method of the same

Title (de)

Elektromagnetisch angetriebenes Ventil und dessen Ansteuerungsverfahren

Title (fr)

Soupape à commande électromagnétique et son procédé de commande

Publication

**EP 1840341 A2 20071003 (EN)**

Application

**EP 07013997 A 20060726**

Priority

- EP 06015546 A 20060726
- JP 2005229605 A 20050808

Abstract (en)

An electromagnetically driven valve includes a valve element (14) that has a valve stem (12) and moves in reciprocating motion in a direction in which the valve stem (12) extends; a disc (30) that is interlocked with the valve element (14) at a driving end (32), extending to a pivoting end (33), from which a central axis (35) extends and around which the disc (30) oscillates; a coil (62) that oscillates the disc (30); a power supply (200) that supplies electric current to the coil (62); and an ECU (100) that controls the flow of current from the power supply (200) to the coil (62). A permanent magnet (300) is located on the outer side of the oscillating member, apart from the cores (61,161). During the initial period of operation of the disc, the ECU (100) controls the current so that it is supplied from the power supply (200) to the coil (62) in cycles, and in accordance with the voltage and temperature, controls the number of current cycles, the cycle length, and the value of the current.

IPC 8 full level

**F01L 9/20** (2021.01)

CPC (source: EP US)

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Cited by

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DE FR GB

Designated extension state (EPC)

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DOCDB simple family (publication)

**EP 1752624 A1 20070214**; CN 1912357 A 20070214; DE 602006004303 D1 20090129; EP 1840341 A2 20071003; EP 1840341 A3 20071219; EP 1840341 B1 20081217; JP 2007046499 A 20070222; US 2007028873 A1 20070208

DOCDB simple family (application)

**EP 06015546 A 20060726**; CN 200610107572 A 20060726; DE 602006004303 T 20060726; EP 07013997 A 20060726; JP 2005229605 A 20050808; US 49295006 A 20060726