

Title (en)

METHOD AND DEVICE FOR MEASURING AND REGULATING THE CLOSING AND OPENING PERIOD OF A PIEZO CONTROL VALVE

Title (de)

VERFAHREN UND VORRICHTUNG ZUM MESSEN UND REGELN DER SCHLIESS- UND ÖFFNUNGSZEIT EINES PIEZO-STEUERVENTILS

Title (fr)

PROCEDE ET DISPOSITIF POUR MESURER ET REGLER LES TEMPS D'OUVERTURE ET DE FERMETURE D'UNE SOUPAPE DE DISTRIBUTION PIEZOELECTRIQUE

Publication

EP 1511928 A1 20050309 (DE)

Application

EP 03756964 A 20030603

Priority

- DE 0301858 W 20030603
- DE 10225911 A 20020611

Abstract (en)

[origin: WO03104633A1] The invention relates to a method and a device for measuring the time period required by the valve needle (50) of a control valve (21) of a piezo unit injector system to move from a first end position (64) into a second end position (65). According to the invention, the time period is determined in accordance with the voltage ($u(t)$) that is applied to the control valve (21) and/or the applied current ($i(t)$) and the actuating signal is generated at a time, which guarantees that the pressure in the control valve (21) during the measurement substantially corresponds to the pressure in the low-pressure fuel region (31).

IPC 1-7

F02D 41/20; F02M 57/02

IPC 8 full level

F02D 41/20 (2006.01); **F02M 57/02** (2006.01); **F02M 63/00** (2006.01)

CPC (source: EP)

F02D 41/2096 (2013.01); **F02M 57/023** (2013.01); **F02D 2041/2055** (2013.01); **F02M 2200/21** (2013.01)

Citation (search report)

See references of WO 03104633A1

Designated contracting state (EPC)

DE FR GB IT

DOCDB simple family (publication)

WO 03104633 A1 20031218; DE 10225911 B3 20040212; EP 1511928 A1 20050309

DOCDB simple family (application)

DE 0301858 W 20030603; DE 10225911 A 20020611; EP 03756964 A 20030603