

Title (en)

MODULAR ACTUATOR UNIT FOR A FUEL INJECTION VALVE

Title (de)

MODULARE AKTUATOREINHEIT FÜR EIN EINSPRITZVENTIL

Title (fr)

UNITÉ MODULAIRE D'ACTIONNEMENT POUR UNE SOUPAPE D'INJECTION

Publication

**EP 2948672 A1 20151202 (DE)**

Application

**EP 14721245 A 20140416**

Priority

- DE 102013206933 A 20130417
- EP 2014057802 W 20140416

Abstract (en)

[origin: WO2014170399A1] The invention relates to an actuator unit for a fuel injection valve of an internal combustion engine of a vehicle. The actuator unit comprises an electronic component (10) formed as a stack. Said component (10) comprises a plurality of electrode layers and a plurality of material layers which react to the application of an electric field, the material and electrode layers being arranged alternately. The component (10) also comprises two outer electrodes (11, 12) which are electrically connected to respective electrode layers on at least one circumferential side of the component (10). In addition, the actuator unit comprises a piezoelectric sensor (20) that is coupled to the component (10) in a force-fitting manner, in the stroke direction of the component (10). When the component (10) is in operation, the sensor (20) detects a force (F) generated by the component, which can be detected as a voltage or charge between two electrodes (24, 25) arranged on opposing end faces (22, 23) of a sensor element (21). The electrodes (24, 25) are deposited from an electrically conductive material directly onto at least the end faces (22, 23) of said sensor element (21).

IPC 8 full level

**F02M 57/00** (2006.01)

CPC (source: EP US)

**F02M 57/005** (2013.01 - EP US); **F16K 7/12** (2013.01 - US); **F16K 31/007** (2013.01 - US); **F16K 31/008** (2013.01 - US);  
**F02M 2200/244** (2013.01 - EP US)

Citation (search report)

See references of WO 2014170399A1

Citation (examination)

- US 5281888 A 19940125 - TAKEUCHI YUKIHISA [JP], et al
- DE 102011078905 A1 20130117 - BOSCH GMBH ROBERT [DE]

Designated contracting state (EPC)

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DOCDB simple family (publication)

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