

Title (en)

SENSOR ASSEMBLY FOR DETECTING THE MOVEMENT OF A CONTROLLING ELEMENT, WHICH HAS A SHORT OVERALL LENGTH AND WHICH IS DISPLACED BACK AND FORTH BY AN ACTUATOR

Title (de)

SENSORANORDNUNG ZUR ERFASSUNG DER BEWEGUNG EINES DURCH EINEN AKTUATOR HIN UND HER BEWEGTEN STELLGLIEDES MIT KURZER BAULÄNGE

Title (fr)

SYSTEME DE CAPTEURS DESTINE A DETECTER LE MOUVEMENT DE VA-ET-VIENT D'UN ELEMENT DE REGLAGE DE COURTE LONGUEUR AU TRAVERS D'UN ACTIONNEUR

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Application

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Abstract (en)

[origin: WO2004020797A1] The invention relates to a sensor assembly for detecting a controlling element that can be displaced by an actuator, particularly an electromagnetic actuator for actuating a gas exchange valve on a piston internal combustion engine. The sensor assembly comprises a coil assembly (18) having at least one coil (18.1; 26) which, on its outer periphery, is enclosed by a housing (24) made of a magnetically conductive material that, however, poorly conducts electricity, and which is connected to a power supply and signal recorder (19). The sensor assembly also comprises an axially displaceable rod-shaped sensor part (17) made of a preferably magnetizable material, which is connected to the controlling element that can be axially displaced back and forth, and which is provided with a short-circuit element (23). This short-circuit element is delimited in the longitudinal direction by two end edges (23.1, 23.2), is made of an electrically conductive material having a low ohmic resistance, and the extension thereof in the direction of movement is dimensioned in such a manner that only one end edge (23.1) of the short-circuit element (23) is always located inside the coil assembly (18) during the back-and-forth movement in the stroke area (h).

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