

Title (en)

OPTICAL MECHANICAL ACCELERATION SENSOR AND PASSIVE SAFETY DEVICE, ESPECIALLY AN AIRBAG SYSTEM

Title (de)

OPTISCH-MECHANISCHER BESCHLEUNIGUNGSSENSOR UND PASSIVE SICHERHEITSEINRICHTUNG, INSBESONDERE AIRBAG-SYSTEM

Title (fr)

CAPTEUR D'ACCELERATION OPTO-MECANIQUE ET SYSTEME DE SECURITE PASSIF, NOTAMMENT SYSTEME D'AIRBAG

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Application

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Abstract (en)

[origin: WO9912042A1] The invention relates to an optical mechanical acceleration sensor, comprising a light transmitter (6), a light receiver (7), and a light relay device (8) for relaying the incident light (9) from said light transmitter (6) to said light receiver (7). The light relay device (8) has a light deflection unit (10) which moves when there is acceleration, the light (9) of the light transmitter (6) striking said light deflection unit (10) before being reflected back into the light receiver (7). When there is no effective acceleration, the light deflection unit (10) is in a starting position and/or is conveyed into this position. Said light deflection unit (10) comprises an optical reflection element with a predetermined overall reflection surface, the light (16) which strikes the light deflection unit (10) being expanded with a predetermined effective cross-section. The reflection surface which acts upon the incident light (16) and consequently the proportion of light (9) which is reflected back and fed back into the light receiver (7), according to the movement of the light deflection unit (10), are a measure of the effective acceleration.

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