

Title (en)  
DEVICE AND PROCESS FOR THE SIMULTANEOUS MEASUREMENT OF A RATE OF ROTATION AND TRANSVERSE ACCELERATION

Title (de)  
VORRICHTUNG UND VERFAHREN ZUR GLEICHZEITIGEN MESSUNG EINER DREHRATE UND EINER TRANSVERSALEN  
BESCHLEUNIGUNG

Title (fr)  
PROCEDE ET DISPOSITIF PERMETTANT DE MESURER SIMULTANEMENT UNE VITESSE DE ROTATION ET UNE ACCELERATION  
TRANSVERSALE

Publication  
**EP 0786073 A1 19970730 (DE)**

Application  
**EP 95930398 A 19950915**

Priority  
• DE 9501270 W 19950915  
• DE 4436396 A 19941012

Abstract (en)  
[origin: DE4436396A1] The proposal is for a device and a process for the simultaneous determination of a rate of rotation  $W$  and an acceleration  $a_{tr}$  transverse to the axis of rotation. Said device has at least one acceleration sensor (1, 2) on each of at least two sections (3, 4) fitted in such a way that its axis ( $Z_1$ ,  $Z_2$ ) sensitive to accelerations ( $a_{c1}$ ,  $a_{c2}$ ,  $a_{tr}$ ) does not lie in the plane formed by the axis of rotation ( $D$ ) and the velocity component ( $v$ ) of the oscillation. In implementing the process, the device is rotated about the axis ( $D$ ) at a rotation speed corresponding to the speed  $W$  to be determined, and simultaneously the device is caused to oscillate at at least two sections (3, 4) with a velocity component ( $v_1$ ,  $v_2$ ) perpendicular to the axis of rotation ( $D$ ). With the symmetrical fitting of identical acceleration sensors (1, 2) to the device, the rate of rotation  $W$  and the transverse acceleration  $a_{tr}$  can be obtained in a simple manner by adding or subtracting the measurement signals detected in the acceleration sensors (1, 2).

IPC 1-7  
**G01C 19/56**; **G01P 15/14**

IPC 8 full level  
**G01C 19/5607** (2012.01); **G01P 15/00** (2006.01); **G01P 15/14** (2013.01)

CPC (source: EP KR)  
**G01C 19/56** (2013.01 - KR); **G01C 19/5607** (2013.01 - EP); **G01P 15/14** (2013.01 - EP)

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