

Title (en)  
INERTIAL SENSOR USING SLIDING PLANE PROXIMITY SWITCHES

Title (de)  
TRÄGHEITSSENSOR MIT GLEITEBENEN-NÄHERUNGSSCHALTERN

Title (fr)  
CAPTEUR INERTIEL UTILISANT DES COMMUTATEURS DE PROXIMITÉ À PLAN DE GLISSEMENT

Publication  
**EP 2976597 A4 20161116 (EN)**

Application  
**EP 13879155 A 20131120**

Priority  
• US 201313847539 A 20130320  
• US 2013071076 W 20131120

Abstract (en)  
[origin: WO2014149085A1] A time-domain inertial sensor comprising: a support structure having an electrode plane parallel to an x-y plane of an x-y-z mutually orthogonal coordinate system, wherein the support structure's largest dimension lies within the x-y plane; a proof mass having a first surface parallel to the x-y plane; wherein the proof mass is springedly coupled to the support structure such that the first surface is separated from the electrode plane by a gap; a driver configured to drive the proof mass to oscillate with respect to the support structure in approximately only the x-direction such that, while oscillating, the gap does not vary significantly; and a first, time-domain, proximity switch disposed to switch from an open state to a closed state each time the proof mass is in a first reference position with respect to the support structure.

IPC 8 full level  
**G01P 15/08** (2006.01); **G01C 19/5621** (2012.01); **G01C 19/5656** (2012.01); **G01P 15/093** (2006.01); **G01P 15/125** (2006.01)

CPC (source: EP)  
**G01C 19/5621** (2013.01); **G01C 19/5656** (2013.01); **G01P 15/097** (2013.01); **G01P 15/135** (2013.01); **G01P 2015/0817** (2013.01)

Citation (search report)  
• [XA] WO 2012178086 A1 20121227 - LUMEDYNE TECHNOLOGIES INC [US], et al  
• See references of WO 2014149085A1

Designated contracting state (EPC)  
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DOCDB simple family (publication)  
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**US 2013071076 W 20131120**; CN 201380074890 A 20131120; EP 13879155 A 20131120; JP 2016504286 A 20131120; TW 102142691 A 20131122; TW 105100962 A 20131122