

Title (en)

OPTICAL DETECTION CELL AND SENSOR USING ONE SUCH CELL

Title (de)

OPTISCHE DETEKTIONSZELLE UND SENSOR, DER MIT EINER SOLCHEN ZELLE ARBEITET

Title (fr)

CELLULE DE DETECTION OPTIQUE ET CAPTEUR UTILISANT UNE TELLE CELLULE

Publication

**EP 1629260 A2 20060301 (FR)**

Application

**EP 04742617 A 20040430**

Priority

- FR 2004001051 W 20040430
- FR 0305387 A 20030502

Abstract (en)

[origin: WO2004099739A2] The invention relates to a cell for detecting the mechanical vibrations of an object. Said cell comprises a first photoemitter (22) for emitting a light beam towards a side of said object, and two photoreceivers (24, 25). Each photoreceiver (24, 25) has a detection surface which is arranged in such a way as to receive the light beam modulated by the cast shadow of the object. The photoemitter (22) and the photoreceivers (24, 25) are distributed over an inner section of a hollow tube forming the structure of the cell, the object being placed in the vicinity of the centre of said section. The invention also relates to a vibration sensor comprising a plurality of cells according to one of the previous claims, said cells being mechanically associated in order to simultaneously detect the vibrations of a plurality of objects, and to a control module for individually controlling the operation of each cell. The inventive cell can be used in sensors for string instruments, in sensors for measuring the tension of a cable, etc.

IPC 1-7

**G01H 9/00**; **G10H 3/18**

IPC 8 full level

**G01H 9/00** (2006.01); **G10H 3/06** (2006.01); **G10H 3/18** (2006.01)

CPC (source: EP US)

**G01H 9/00** (2013.01 - EP US); **G10H 3/06** (2013.01 - EP US); **G10H 3/181** (2013.01 - EP US); **G10H 2220/165** (2013.01 - EP US); **G10H 2220/461** (2013.01 - EP US)

Citation (search report)

See references of WO 2004099739A2

Designated contracting state (EPC)

AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IT LI LU MC NL PL PT RO SE SI SK TR

DOCDB simple family (publication)

**FR 2854458 A1 20041105**; **FR 2854458 B1 20050610**; EP 1629260 A2 20060301; US 2006207413 A1 20060921; WO 2004099739 A2 20041118; WO 2004099739 A3 20050120; WO 2004099739 B1 20050331

DOCDB simple family (application)

**FR 0305387 A 20030502**; EP 04742617 A 20040430; FR 2004001051 W 20040430; US 55529905 A 20051102