

Title (en)

Detector device to operate in an aggressive environment.

Title (de)

Detektor, der in einer aggressiven Umwelt funktionieren kann.

Title (fr)

Dispositif de détection pouvant fonctionner dans un environnement agressif.

Publication

EP 0148046 A1 19850710 (FR)

Application

EP 84402347 A 19841116

Priority

FR 8318410 A 19831118

Abstract (en)

1. A device for detecting at least one given position of a rotary element (2) comprising, disposed in a sealed housing (12, 13), a finger member (21) fixed to said rotary element and carrying at least one magnet (25a, 25b; 31) and at least one switch (17a, 17b; 32, 33) having a flexible blade, controlled by a magnet and having an elongated shape defining two ends, this switch being disposed in a closed casing and arranged to be selectively closed and opened as a function of the position of the magnet, characterised in that the rotary element (2), the finger member (21) and the magnet (25a, 25b; 31) moving in accordance with a given angle (alpha), the switch (17a, 17b; 32, 33) is located mainly outside the angle swept through by the magnet and only an end part of the switch is located in confronting relation to the magnet when the latter occupies a position corresponding to the given position of the rotary element.

Abstract (fr)

Ce dispositif comprend logés dans un boîtier (12, 13) à peu près étanche, un doigt (21) fixé audit organe rotatif et portant au moins un aimant (25) et au moins un interrupteur (17) disposé dans une enceinte fermée et agencé pour être sélectivement fermé et ouvert en fonction de la position de l'aimant. Application notamment à la détection de la position des vannes quart de tour, équipant des systèmes hydrauliques ou aéroliques sur un haut-fourneau.

IPC 1-7

H01H 36/00

IPC 8 full level

H01H 36/00 (2006.01)

CPC (source: EP)

H01H 36/0013 (2013.01)

Citation (search report)

- [Y] US 3308341 A 19670307 - MCLAUGHLIN ROBERT C
- [A] DE 2001188 A1 19700730 - FLIGHT REFUELING LTD
- [A] AUTOMATION, vol. 18, no. 10, octobre 1971, pages 37-39, Penton Publishing Co., Cleveland, Ohio, US; S. BERY: "Consider dry reed switches for low level switching operations"
- [Y] INSTRUMENTS AND EXPERIMENTAL TECHNIQUES, vol. 23, no. 2, partie 2, mars/avril 1980, pages 514-515, Plenum Publishing Corp., New York, US; I.V. NAUMOV: "Angle-code converter using airtight electromagnetic contacts"

Cited by

EP0319264A1; EP0182733A3; FR2961284A1; CN102971564A; US8919375B2; WO2011154620A1

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