

Title (en)

COMPACT CRASH SENSING SWITCH WITH AIR CHANNELS AND DIAGNOSTIC SYSTEM

Publication

EP 0379574 A4 19910417 (EN)

Application

EP 89909340 A 19890628

Priority

- US 21891788 A 19880714
- US 26273288 A 19881026
- US 36464089 A 19890612

Abstract (en)

[origin: WO9000482A1] A crash sensor (12) for automobiles of the type including a ball (20) moving against viscous damping in a closed tube (24, 124, 224) has a power transistor (150) to switch power in the firing circuit (14, 19, 219). A resistance sensing circuit (220, 228) enables the crash sensor to monitor a change in the resistance of the firing circuit. In one embodiment a simple message pattern eliminates need for more than two wires (158, 232) to the crash sensor. A latching circuit (170) maintains the switch in its closed state after initial closing. The small size of the ball enables use of a plastic or aluminium tube. The tube may have fluted walls that form air channels (66, 166, 266) that viscously conduct much of the air displaced when the ball moves. The small ball and electronic components allow simple contacts (20, 32, 34). The combination of these elements provides a crash sensing and diagnostic system (40) costing much less than known systems.

IPC 1-7

B60Q 1/00

IPC 8 full level

B60Q 11/00 (2006.01); **B60R 21/01** (2006.01); **G01P 15/135** (2006.01); **G01P 21/00** (2006.01); **H01H 35/14** (2006.01)

CPC (source: EP)

B60R 21/0173 (2013.01); **G01P 15/135** (2013.01); **G01P 21/00** (2013.01); **B60R 2021/01027** (2013.01)

Citation (search report)

- [E] EP 0323022 A1 19890705 - FORD MOTOR CO [GB], et al
- [A] US 3889130 A 19750610 - BREED DAVID S
- See references of WO 9000482A1

Designated contracting state (EPC)

AT BE CH DE FR GB IT LI LU NL SE

DOCDB simple family (publication)

WO 9000482 A1 19900125; EP 0379574 A1 19900801; EP 0379574 A4 19910417; JP H03500348 A 19910124

DOCDB simple family (application)

US 8902819 W 19890628; EP 89909340 A 19890628; JP 50877389 A 19890628