

## Title (en)

Electric switch for a rear door or tailgate of an automobile

## Title (de)

Elektrischer Umschalter für Tür oder Heckklappe eines Kraftfahrzeugs

## Title (fr)

Commutateur électrique pour portière ou haillon arrière de véhicule automobile

## Publication

**EP 2282316 A1 20110209 (FR)**

## Application

**EP 09382126 A 20090729**

## Priority

EP 09382126 A 20090729

## Abstract (en)

The electrical switch comprises a micro-switch (5), an actuating lever of the micro-switch, and a gasket to seal between the micro-switch and the lever. The actuating lever is moved between two positions including a rest position and a switching position in which it operates the micro-switch. The gasket has an elastic peripheral end cooperating with a complementary extension of the lever in the resting and switching positions of the lever. The elastic peripheral end has a tubular shape, and forms a bulge protruding at the opening of the tube. The electrical switch comprises a micro-switch (5), an actuating lever of the micro-switch, and a gasket to seal between the micro-switch and the lever. The actuating lever is moved between two positions including a rest position and a switching position in which it operates the micro-switch. The gasket has an elastic peripheral end cooperating with a complementary extension of the lever in the resting and switching positions of the lever. The elastic peripheral end has a tubular shape, and forms a bulge protruding at the opening of the tube towards the complementary extension. The extension has a complementary cylindrical form inserted in an opening of the tube, and comprises a unit for guiding and holding the peripheral end. The opening of the tube has a diameter less than the diameter of complementary extension. The unit for guiding and holding comprises an annular groove receiving the peripheral end. The gasket is partially overmolded, and comprises a thermoplastic elastomer, a cover for the micro-switch and a side chimney to connect the cover to the elastic peripheral end.

## Abstract (fr)

L'invention concerne un commutateur électrique pour portière ou haillon arrière de véhicule automobile comprenant : - un micro-interrupteur (5) et, - un levier d'actionnement (8) dudit micro-interrupteur (5), ledit levier d'actionnement (8) pouvant être déplacé entre deux positions, une position de repos et une position de commutation dans laquelle il actionne ledit micro-interrupteur (5), caractérisé en ce qu'il comporte en outre un joint d'étanchéité (15) entre ledit micro-interrupteur (5) et ledit levier d'actionnement (8), ledit joint d'étanchéité (15) étant configuré pour assurer l'étanchéité entre ledit micro-interrupteur (5) et ledit levier d'actionnement (8) dans les deux positions dudit levier d'actionnement (8).

## IPC 8 full level

**H01H 13/06** (2006.01); **E05B 81/76** (2014.01)

## CPC (source: BR EP KR)

**E05B 81/76** (2013.01 - EP KR); **E05B 83/18** (2013.01 - KR); **H01H 3/122** (2013.01 - KR); **H01H 13/063** (2013.01 - BR EP KR); **E05B 81/76** (2013.01 - BR); **H01H 3/122** (2013.01 - BR EP); **H01H 2231/026** (2013.01 - KR)

## Citation (search report)

- [X] US 2005224329 A1 20051013 - MILO THOMAS K [US]
- [XY] DE 3346296 A1 19850704 - SIEMENS AG [DE]
- [X] DE 9011110 U1 19901004
- [X] JP 2002014735 A 20020118 - NIPPON SEIKI CO LTD
- [X] US 6626473 B1 20030930 - KLEIN HELMUT [DE], et al
- [Y] FR 2734944 A3 19961206 - BTICINO SPA [IT]
- [A] EP 1768142 A1 20070328 - MICRO PNEUMATIC LOGIC INC [US]
- [A] US 2006279095 A1 20061214 - ISHIGURO KATSUYUKI [JP]

## Cited by

CN109074981A; EP2963667A1; CN106463308A; US10438758B2; US10199191B2; US11195676B2; WO2015035981A1; WO2016001399A1; WO2017184107A1

## Designated contracting state (EPC)

AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO SE SI SK SM TR

## Designated extension state (EPC)

AL BA RS

## DOCDB simple family (publication)

**EP 2282316 A1 20110209**; **EP 2282316 B1 20170726**; BR 112012000347 A2 20160322; BR 112012000347 B1 20201013; IN 1211DEN2012 A 20150410; JP 2013500561 A 20130107; KR 101779219 B1 20170918; KR 20120079460 A 20120712; WO 2011012556 A1 20110203

## DOCDB simple family (application)

**EP 09382126 A 20090729**; BR 112012000347 A 20100723; EP 2010060751 W 20100723; IN 1211DEN2012 A 20120209; JP 2012522122 A 20100723; KR 20127002241 A 20100723