

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
8 July 2004 (08.07.2004)

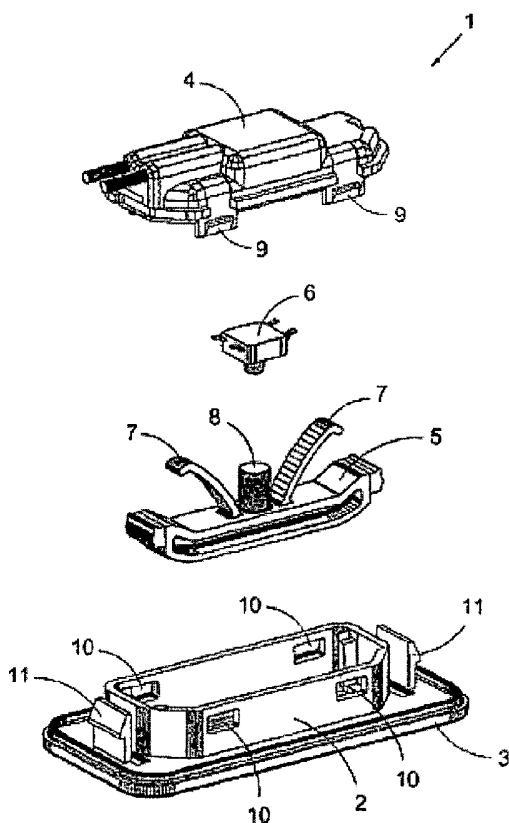
PCT

(10) International Publication Number
WO 2004/057135 A3

- (51) International Patent Classification⁷: E05B 65/20, H01H 3/16
- (21) International Application Number: PCT/EP2003/051064
- (22) International Filing Date: 18 December 2003 (18.12.2003)
- (25) Filing Language: English
- (26) Publication Language: English
- (30) Priority Data: P200202981 23 December 2002 (23.12.2002) ES
- (71) Applicant (for all designated States except US): VALEO SISTEMAS DE SEGURIDAD Y DE CIERRE, S.A [ES/ES]; C. Olesa a Martorell Km1, E-08640 Olesa de Monserrat (ES).
- (72) Inventors; and
- (75) Inventors/Applicants (for US only): HERRERO PELLICER, José-Antonio [ES/ES]; Avenida Timon 12-B-7, E-08860 BARCELONA (Castelldefels) (ES). PLANA BAGUE, Miquel [ES/ES]; Calle Ramon TURRO 13, 13, 4a, E-08005 Barcelona (ES).
- (74) Agent: HERVOUET, Sylvie; VALEO Sécurité Habitacle, SPI, 42 Rue le Corbusier, F-94042 Créteil (FR).
- (81) Designated States (national): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.
- (84) Designated States (regional): ARIPO patent (BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW),

[Continued on next page]

(54) Title: SWITCH WITH ELASTIC RETURN MEANS FOR VEHICLE DOORS OR TRUNKS



(57) Abstract: The invention relates to an opening switch (1) for the doors or rear hatches of a vehicle which comprises a lever (5) operating a microswitch (6) which can be moved between two positions, a first open position in which it is separate from the said microswitch (6) and a second enclosed position in which it is in contact with the said microswitch (6), and elastic means for returning the operating lever (5) from the said second position to the said first position. According to the invention, the elastic return means comprise at least two flexible spring members (7) of plastics material incorporated with the operating lever as a single part.

WO 2004/057135 A3



Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM),
European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE,
ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE,
SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA,
GN, GQ, GW, ML, MR, NE, SN, TD, TG).

(88) Date of publication of the international search report:
19 August 2004

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

Published:

- *with international search report*
- *before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments*

INTERNATIONAL SEARCH REPORT

International Application No
PCT/EP 03/51064

A. CLASSIFICATION OF SUBJECT MATTER
IPC 7 E05B65/20 H01H3/16

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
IPC 7 E05B H01H

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)
EPO-Internal, PAJ, WPI Data

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	DE 100 20 172 A (VALEO SIST S DE SEGURIDAD S A) 11 January 2001 (2001-01-11)	1
Y	the whole document	2-11,17,18
Y	WO 00/34604 A (HUF HUELSBECK & FUERST GMBH ; KLEIN HELMUT (DE); MUELLER ULRICH (DE)) 15 June 2000 (2000-06-15)	1-11,17,18
Y	US 6 002 093 A (CURLEE JAMES D ET AL) 14 December 1999 (1999-12-14)	1,2
Y	EP 0 924 726 A (THOMAS & BETTS INT) 23 June 1999 (1999-06-23)	1,3
	-/--	

Further documents are listed in the continuation of box C. Patent family members are listed in annex.

° Special categories of cited documents :

- *A* document defining the general state of the art which is not considered to be of particular relevance
- *E* earlier document but published on or after the international filing date
- *L* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- *O* document referring to an oral disclosure, use, exhibition or other means
- *P* document published prior to the international filing date but later than the priority date claimed
- *T* later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- *X* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- *Y* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.
- *Z* document member of the same patent family

Date of the actual completion of the international search 17 June 2004	Date of mailing of the international search report 28/06/2004
--	---

Name and mailing address of the ISA European Patent Office, P.B. 5818 Patentlaan 2 NL - 2280 HV Rijswijk Tel. (+31-70) 340-2040, Tx. 31 651 epo nl, Fax: (+31-70) 340-3016	Authorized officer Desmet, W
--	--

INTERNATIONAL SEARCH REPORT

International Application No

PCT/EP 03/51064

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT		
Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	DE 91 11 790 U (TA TRIUMPH ADLER) 2 January 1992 (1992-01-02) the whole document	1, 4
Y	EP 0 999 323 A (VALEO SICUREZZA ABITACOLO S P) 10 May 2000 (2000-05-10) the whole document	1-11, 17, 18
A	PATENT ABSTRACTS OF JAPAN vol. 1996, no. 07, 31 July 1996 (1996-07-31) & JP 8 083530 A (FUJITSU LTD), 26 March 1996 (1996-03-26) abstract	
A	US 5 358 344 A (SPENCE KENNY R) 25 October 1994 (1994-10-25) abstract; figures	

INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/EP 03/51064

Patent document cited in search report	A	Publication date	Patent family member(s)	Publication date
DE 10020172	A	11-01-2001	ES 2166658 A1 DE 10020172 A1	16-04-2002 11-01-2001
WO 0034604	A	15-06-2000	DE 19856902 A1 AU 757165 B2 AU 1265600 A BR 9916116 A CN 1354815 T WO 0034604 A1 EP 1137860 A1 JP 2002531735 T US 6626473 B1	21-06-2000 06-02-2003 26-06-2000 04-09-2001 19-06-2002 15-06-2000 04-10-2001 24-09-2002 30-09-2003
US 6002093	A	14-12-1999	NONE	
EP 0924726	A	23-06-1999	US 5990433 A CA 2255982 A1 EP 0924726 A2	23-11-1999 17-06-1999 23-06-1999
DE 9111790	U	02-01-1992	DE 9111790 U1 JP 5059724 U	02-01-1992 06-08-1993
EP 0999323	A	10-05-2000	IT T0980924 A1 EP 0999323 A2	03-05-2000 10-05-2000
JP 8083530	A	26-03-1996	NONE	
US 5358344	A	25-10-1994	AU 673197 B2 AU 5007893 A BR 9306982 A CA 2143649 A1 CZ 9500510 A3 EP 0658273 A1 JP 8504051 T SK 25895 A3 WO 9406139 A1 US 5422447 A	31-10-1996 29-03-1994 12-01-1999 17-03-1994 15-11-1995 21-06-1995 30-04-1996 11-07-1995 17-03-1994 06-06-1995