(11) **EP 0 991 142 A3**

(12)

EUROPEAN PATENT APPLICATION

(88) Date of publication A3: **09.08.2000 Bulletin 2000/32**

(51) Int CI.⁷: **H01R 13/187**

(43) Date of publication A2: **05.04.2000 Bulletin 2000/14**

(21) Application number: 99117996.1

(22) Date of filing: 17.09.1999

(84) Designated Contracting States:

AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE

Designated Extension States:

AL LT LV MK RO SI

(30) Priority: 30.09.1998 DE 19844863

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(54) Socket contact element

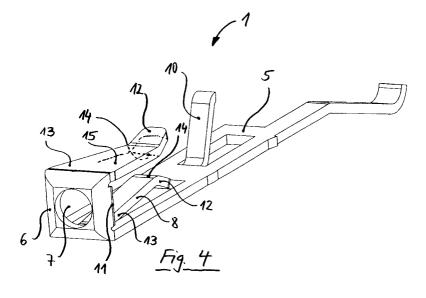
(57) The invention relates to a socket contact element (1) for receiving a pin contact element (4) having a small diameter, in particular a contact pin of a PCMCIA plug element, having an elongated, substantially flat lower basic element (5),

- from which there extends upwards, at the front narrow side, a first spacing element (6) which has an opening (7) for introducing the pin contact element (4) into the socket contact element (1),
- in which, behind the first spacing element (6) there

is formed a spring tongue (8) which presses the pin contact element (4) introduced from below against a contact area (9) which is formed on the first spacing element (6) above the opening (7), and

- from which a second spacing element (10) extends upwards behind the spring tongue (8).

In order to develop such a socket contact element (1) so that greater clamping forces can be exerted on a pin contact element (4) introduced, the invention proposes that the first spacing element (6) has reinforcing elements.





EUROPEAN SEARCH REPORT

Application Number EP 99 11 7996

Category	Citation of document with indic of relevant passag		Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int.CI.7)	
Α	WO 95 04388 A (LITTOM 9 February 1995 (1995 * abstract; figures 1 * page 3, line 27 - p * page 5, line 20 - p	5-02-09) -3 * bage 4, line 19 *	1,5,6,8	H01R13/187	
Α	US 5 342 219 A (ONODE 30 August 1994 (1994- * abstract; figure 1A * column 3, line 7 -	-08-30) \ *	1,2,5		
Α	US 5 586 920 A (BROWN 24 December 1996 (199 * abstract; figure 1 * column 5, line 5 -	06-12-24) *	2		
Α	US 4 400 051 A (STENZ 23 August 1983 (1983- * abstract; figure 5 * column 2, line 44 -	-08-23) *	* 1	TECHNICAL DELPO	
A	DE 37 00 304 A (SIEME 21 July 1988 (1988-07 * abstract; figures 1 * column 2, line 35 -	(-21) ,,2 *	* 1	TECHNICAL FIELDS SEARCHED (Int.Cl.7) H01R	
Α	US 3 711 819 A (MATTH 16 January 1973 (1973 * abstract; figures 1 * column 3, line 3 - * column 4, line 14 -	-01-16) ,2 * line 20 *	1		
	The present search report has been Place of search	·			
THE HAGUE		Date of completion of the search 16 June 2000		Examiner Serrano Funcia, J	
CATEGORY OF CITED DOCUMENTS X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background		E : earlier pater after the filin D : document c	T: theory or principle underlying the invention E: earlier patent document, but published on, or after the filing date D: document cited in the application L: document cited for other reasons		

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This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report. The members are as contained in the European Patent Office EDP file on The European Patent Office is in no way liable for these particulars which are merely given for the purpose of information.

16-06-2000

	nt document n search repor	t	Publication date		Patent family member(s)	,	Publication date
WO 95	04388	Α	09-02-1995	NONE			
US 53	342219	Α	30-08-1994	NONE			
US 55	86920	Α	24-12-1996	US	5888105	Α	30-03-19
US 44	 100051	Α	23-08-1983	DE	3014706	Α	22-10-19
				CA	1155193	Α	11-10-19
				CH	652865	Α	29-11-19
				FR	2481008		23-10-19
				GB	2079545		20-01-19
				ΙT	1146018	В	12-11-19
DE 37	700304	Α	21-07-1988	NONE			
US 37	711819	Α	16-01-1973	BE	793445	A	16-04-1
				CA	970858	Α	08-07-1
				DE	2259358	Α	16-08-1
				FR	2171088	Α	21-09-1
				GB	1383146	Α	05-02-1
				ΙL	40823	Α	31-12-1
				ΙT	975859	В	10-08-1
				JP	1036219	C	26-02-1
				JP	48092894	Α	01-12-1
				JP	00020151	В	25-07-1
				NL	7300051	Α	10-08-1

FORM P0459

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