



Europäisches Patentamt  
European Patent Office  
Office européen des brevets



(11) **EP 1 059 696 A3**

(12) **EUROPEAN PATENT APPLICATION**

(88) Date of publication A3:  
**02.05.2001 Bulletin 2001/18**

(51) Int. Cl.<sup>7</sup>: **H01R 13/52**, H01B 17/30,  
H01R 13/74

(43) Date of publication A2:  
**13.12.2000 Bulletin 2000/50**

(21) Application number: **00112025.2**

(22) Date of filing: **02.06.2000**

(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: **08.06.1999 IT TO990493**

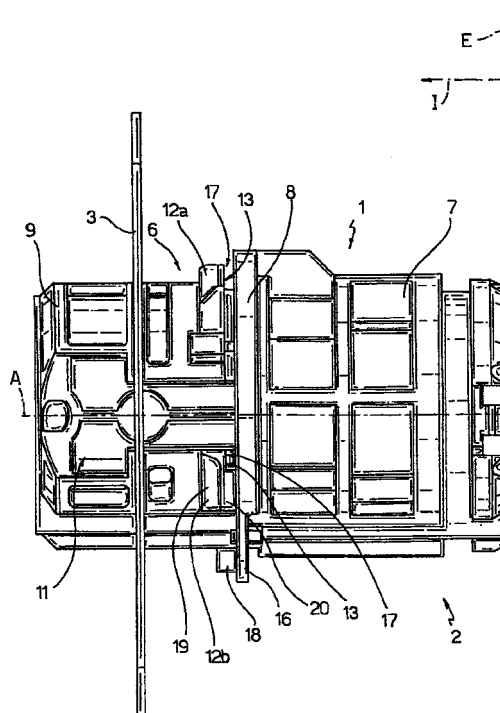
(71) Applicant:  
**FRAMATOME CONNECTORS INTERNATIONAL  
S.A.  
92400 Courbevoie (FR)**

(72) Inventor: **Rampone, Renzo  
10024 Moncalieri (IT)**

(74) Representative:  
**Franzolin, Luigi et al  
STUDIO TORTA S.r.l.,  
Via Viotti, 9  
10121 Torino (IT)**

(54) **Casing for through type electrical connector**

(57) A casing (1) for a through type electrical connector (2), the casing being fitted through a through hole (5) in a panel (3) into a lock position, and having a U-shaped outer peripheral flange (8) resting against the panel (3) in the lock position; a number of outer radial engaging members (12a,12b,12c), which define, with the flange (8), respective U-shaped recesses for receiving the panel (3), and are inserted, in an axial insertion direction (I), inside respective grooves (14) having complementary profiles and formed in a lateral edge (15) of the hole (5); and two flexible retaining members (16) extending in the same plane from respective opposite ends of the flange (8), and having respective end projections (18) cooperating with the lateral edge (15) of the hole (5) on the diametrically opposite side to one (12a) of the engaging members (12a,12b,12c) to fix the casing (1) radially with respect to the panel (3) in the lock position; the recesses (13) having respective openings (17), for insertion of the panel (3), facing in an engaging direction (E) crosswise to the insertion direction (I) to permit translation of the casing (1) in the engaging direction (E) when fitting the casing (1) inside the hole (5).



**Fig.3**

**EP 1 059 696 A3**



European Patent  
Office

# EUROPEAN SEARCH REPORT

Application Number  
EP 00 11 2025

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int.Cl.7)
A	US 5 407 363 A (POLGAR GARY E ET AL) 18 April 1995 (1995-04-18) * column 4, line 33-48 * * figures 1,12 * * column 5, line 35-44 *	1,2,5,6	H01R13/52 H01B17/30 H01R13/74
A	US 4 029 953 A (NATOLI RICHARD A) 14 June 1977 (1977-06-14) * column 3, line 65 - column 4, line 8 * * column 4, line 63 - column 5, line 6; figures 4,6 *	1,3,4,7, 9	
A	US 3 912 355 A (CURADO LEONARD L ET AL) 14 October 1975 (1975-10-14) * column 5, line 29-40 * * column 5, line 52 - column 6, line 4 * * figures 1,3,6 *	1,3,5,7, 9	
A	US 5 403 214 A (TIRRELL PAUL T) 4 April 1995 (1995-04-04) * column 4, line 49-59; figure 3 *	1	
			TECHNICAL FIELDS SEARCHED (Int.Cl.7)
			F21V B60Q H01R
The present search report has been drawn up for all claims			
Place of search <b>MUNICH</b>		Date of completion of the search <b>8 March 2001</b>	Examiner <b>Berg, S</b>
<p><b>CATEGORY OF CITED DOCUMENTS</b></p> <p>X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document</p> <p>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 &amp; : member of the same patent family, corresponding document</p>			

EPO FORM 1500 03-02 (Pct-01)

**ANNEX TO THE EUROPEAN SEARCH REPORT  
ON EUROPEAN PATENT APPLICATION NO.**

EP 00 11 2025

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.

08-03-2001

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
US 5407363 A	18-04-1995	DE 69505439 D	26-11-1998
		DE 69505439 T	15-07-1999
		EP 0671786 A	13-09-1995
		JP 2631281 B	16-07-1997
		JP 7288160 A	31-10-1995
		KR 191740 B	15-06-1999
US 4029953 A	14-06-1977	CA 1065824 A	06-11-1979
US 3912355 A	14-10-1975	NONE	
US 5403214 A	04-04-1995	NONE	

EPO FORM P0488

For more details about this annex : see Official Journal of the European Patent Office, No. 12/82