



# DOCUMENT CHANGE REQUEST

DCR number	529	Changes required for:	N/A	Originator:	Olivier Masson Chief
Date:	2009/07/06	Date sent:	2009/07/06	Organisation:	CNES
Status:	IMPLEMENTED				

Title: Connectors Electrical Rectangular Microminiature, based on type MDM

Number: 3401/029 Issue: 5

Other documents affected:

Page:

Variants size 51 FR139 to be added

Paragraph:

Variants size 51 FR139 to be added

Original wording:

Proposed wording:

New variant to be added after page 26 of the 3401/029 issue 5

Justification:

Variants added in the re-qualification programm and tested successfully

Attachments:

DCR529att.pdf, DCR529\_change\_wording.pdf, null

Modifications:

Additional changes required to fully implement this DCR are:

Page 7, Table 1(a), replace "N/A" for Max. Weight (g) for shell size 51 for FR139 by 10.5

Clarify addition of new Pages 27 & 28, new Figures 2.2I & 2.2J based on the drawing provided in DCR529 (with 51 contacts), similar to Figures 2.2G & 2.2H including notes (see attached mark-ups).

i.e.

Figure 2.2I – Connectors Type -FR139

Plug Male Contacts

Figure 2.2J – Connectors Type -FR139

Receptacle Female Contacts

Page 24 & 26, Figures 2.2G & 2.2H, delete note 2 and renumber subsequent notes accordingly.

Approval signature:

*P. C. Fleish*


Date signed:

2009-07-06



DR 529 MARKUP.  
S.I. 13/7/9.

27

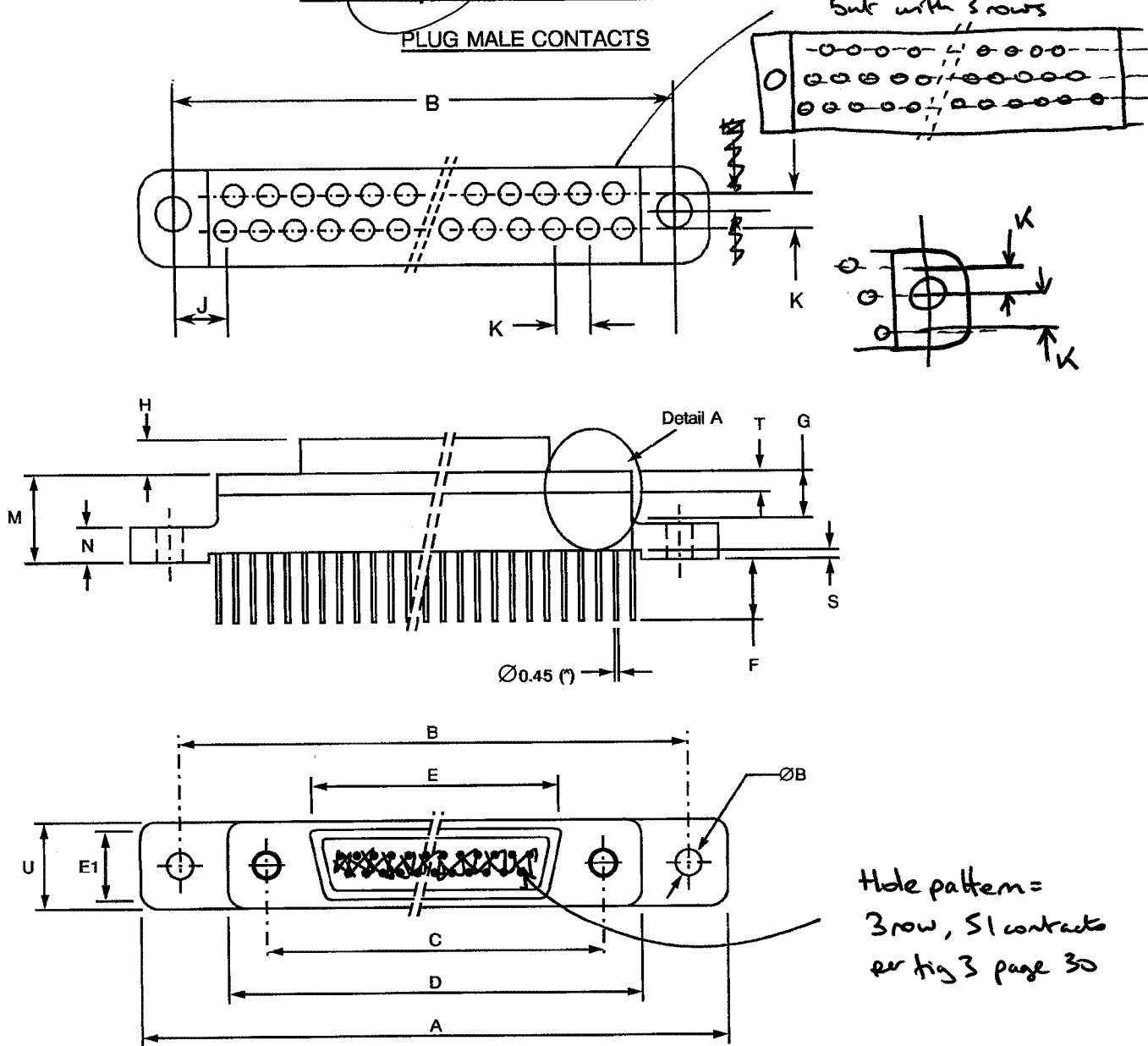
	<p>ESCC Detail Specification No. 3401/029</p>	<p>PAGE <del>28</del> ISSUE 5</p>
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**FIGURE 2 - PHYSICAL DIMENSIONS (CONTINUED)**

**FIGURE 2.2 - CONNECTORS TYPE -FR139**

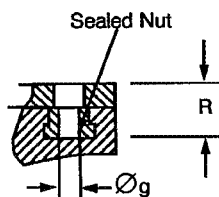
**PLUG MALE CONTACTS**

hole pattern similar but with 3 rows



hole pattern =  
3 row, 51 contacts  
per fig 3 page 30

**DETAIL A**





ESCC Detail Specification  
No. 3401/029

FIGURE 2 - PHYSICAL DIMENSIONS (CONTINUED)

FIGURE 2.2G - CONNECTOR TYPE - FR139 (CONTINUED)

PLUG MALE CONTACTS (CONTINUED)

Shell Size	A		B		ØB (4X3)		C		D	E	E1	F		G	H	J
	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Max.	Max.	Min.	Max.	Min.	Max.	Typ.
9	35.31	29.03	29.39	2.31	2.59	14.22	14.48	19.94	8.46	4.69	4.15	4.85	4.6	4.72	6.53	
15	35.81	29.03	29.39	2.31	2.59	18.08	18.29	23.75	12.27	4.69	4.15	4.85	4.6	4.72	5.72	
21	42.93	36.65	37.01	2.31	2.59	21.84	22.1	27.56	16.08	4.69	4.15	4.85	4.6	4.72	5.72	
25	44.2	37.92	38.28	2.31	2.59	24.38	24.64	30.10	18.62	4.69	4.15	4.85	4.6	4.72	3.81	
31	51.82	45.54	45.9	2.31	2.59	28.19	28.45	33.91	22.43	4.69	4.15	4.85	4.6	4.72	3.81	
37	59.44	53.16	53.52	2.31	2.59	32.0	32.26	37.72	26.24	4.69	4.15	4.85	4.6	4.72	3.87	

Shell Size	K	M		N		R	S		T		U
	Typ.	Min.	Max.	Min.	Max.	Min.	Min.	Max.	Min.	Max.	Max.
9	2.54	8.62	9.02	4.0	4.2	4.6	0.9	1.1	2.23	2.49	7.82
15	2.54	8.62	9.02	4.0	4.2	4.6	0.9	1.1	2.23	2.49	7.82
21	2.54	8.62	9.02	4.0	4.2	4.6	0.9	1.1	2.23	2.49	7.82
25	2.54	8.62	9.02	4.0	4.2	4.6	0.9	1.1	2.23	2.49	7.82
31	2.54	8.62	9.02	4.0	4.2	4.6	0.9	1.1	2.23	2.49	7.82
37	2.54	8.62	9.02	4.0	4.2	4.6	0.9	1.1	2.23	2.49	7.82

NOTES

- All dimensions are in millimetres.
- For reference to Para. A.5.2.3 of this specification.
- Øg: 2.56-UNC-2B.
- Maximum torque 0.44Nm.

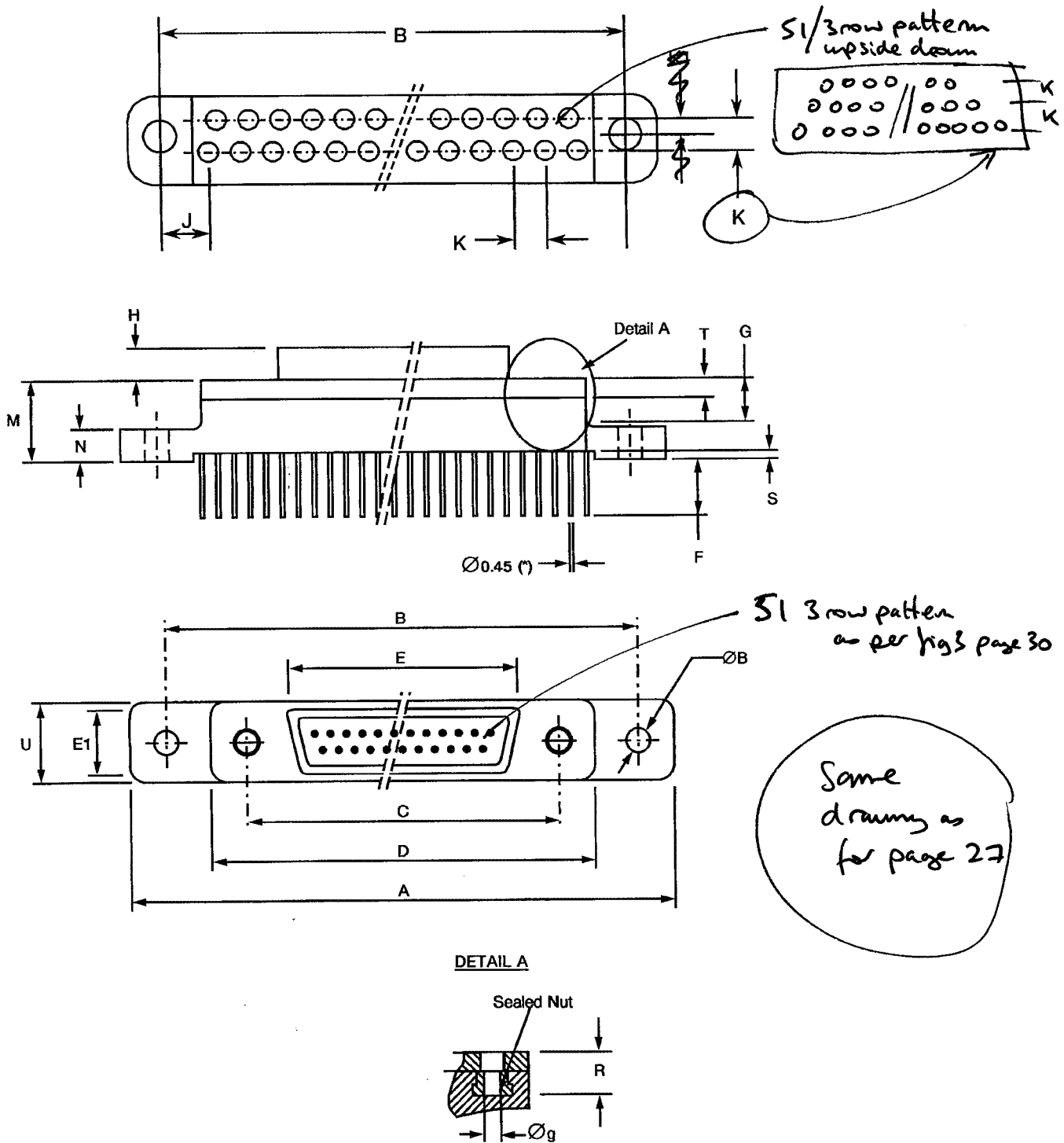
delete K1



FIGURE 2 - PHYSICAL DIMENSIONS (CONTINUED)

FIGURE 2.2H - CONNECTORS TYPE -FR139

RECEPTACLE FEMALE CONTACTS



**FIGURE 2 - PHYSICAL DIMENSIONS (CONTINUED)**

**FIGURE 2.2H - CONNECTOR TYPE - FR139 (CONTINUED)**

**RECEPTACLE FEMALE CONTACTS (CONTINUED)**

Shell Size	A		B		ØB (3)		C		D	E	E1	E		G	H	J	K
	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Max.	Max.	Min.	Max.	Min.	Max.	Typ.	Typ.
9	35.31	29.03	29.39	2.31	2.59	14.22	14.48	19.94	10.16	6.38	4.15	4.85	4.6	5.05	9.53	2.54	
15	35.31	29.03	29.39	2.31	2.59	18.03	18.29	28.35	13.97	6.38	4.15	4.85	4.6	5.05	5.72	2.54	
21	42.93	36.65	37.01	2.31	2.59	21.84	22.1	27.56	17.78	6.38	4.15	4.85	4.6	5.05	5.72	2.54	
25	44.2	37.92	38.28	2.31	2.59	24.38	24.64	30.10	20.32	6.38	4.15	4.85	4.6	5.05	3.81	2.54	
31	51.82	45.54	45.9	2.31	2.59	28.19	28.45	33.91	24.13	6.38	4.15	4.85	4.6	5.05	3.81	2.54	
37	59.44	53.16	53.52	2.31	2.59	32.0	32.26	37.72	27.94	6.38	4.15	4.85	4.6	5.05	3.81	2.54	

Shell Size	Z1		M		N		R	S		T		U
	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Max.	
9	1.27	9.02	8.62	9.02	4.0	4.2	4.6	0.9	1.1	2.23	2.49	7.82
15	1.27	9.02	8.62	9.02	4.0	4.2	4.6	0.9	1.1	2.23	2.49	7.82
21	1.27	9.02	8.62	9.02	4.0	4.2	4.6	0.9	1.1	2.23	2.49	7.82
25	1.27	9.02	8.62	9.02	4.0	4.2	4.6	0.9	1.1	2.23	2.49	7.82
31	1.27	9.02	8.62	9.02	4.0	4.2	4.6	0.9	1.1	2.23	2.49	7.82
37	1.27	9.02	8.62	9.02	4.0	4.2	4.6	0.9	1.1	2.23	2.49	7.82

- NOTES**
1. All dimensions are in millimetres.
  2. ~~Refer to Para 4.5.3 of this specification.~~
  3. Øg: 2-56-UNC-2B.
  4. Maximum torque 0.44Nm.
- delete K1*

51 59.44 53.16 53.52 2.31 2.59 30.73 30.99 36.5 26.67 7.47 4.15 4.85 4 5.05 3.81 2.54

9.62 9.02 4 4.2 4 0.9 1.1 2.23 2.49 9.