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

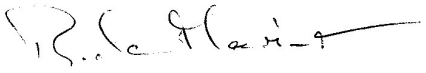
Attachments:

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 & 22.H 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:



Date signed:
2009-07-06

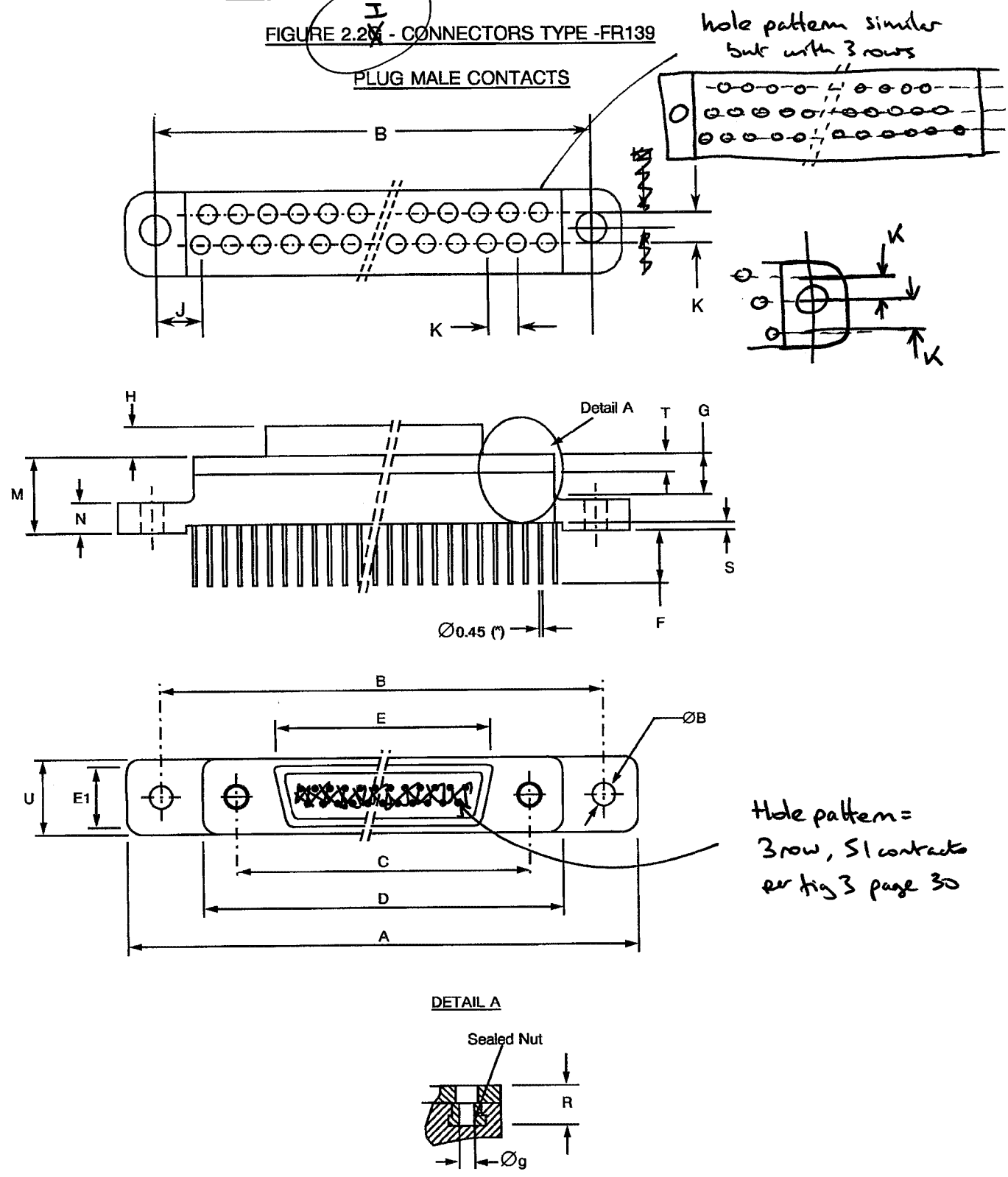
DCR 529 MARKUP.
S.T — 13/7/9.

27

FIGURE 2 - PHYSICAL DIMENSIONS (CONTINUED)

FIGURE 2.2~~6~~I - CONNECTORS TYPE -FR139

PLUG MALE CONTACTS



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

DETAIL A

FIGURE 2 - PHYSICAL DIMENSIONS (CONTINUED)

FIGURE 2.2G - CONNECTOR TYPE - FR139 (CONTINUED)

PLUG MALE CONTACTS (CONTINUED)

51 59.44 53.16 53.52 2.31 2.59 30.73 30.99 36.5 24.97 5.78 4.15 4.85 4 4.72 3.81

Shell Size	A	B		ØB (4)(3)		C		D	E	E1	F		G	H	J
	Max.	Min.	Max.	Min.	Max.	Min.	Max.	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	8.53
15	35.31	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	3.81

Shell Size	K	K1	M		N		R	S		T		U
	Typ.	Typ.	Min.	Max.	Min.	Max.	Min.	Min.	Max.	Min.	Max.	Max.
9	2.54	1.27	8.62	9.02	4.0	4.2	4.6	0.9	1.1	2.23	2.49	7.82
15	2.54	1.27	8.62	9.02	4.0	4.2	4.6	0.9	1.1	2.23	2.49	7.82
21	2.54	1.27	8.62	9.02	4.0	4.2	4.6	0.9	1.1	2.23	2.49	7.82
25	2.54	1.27	8.62	9.02	4.0	4.2	4.6	0.9	1.1	2.23	2.49	7.82
31	2.54	1.27	8.62	9.02	4.0	4.2	4.6	0.9	1.1	2.23	2.49	7.82
37	2.54	1.27	8.62	9.02	4.0	4.2	4.6	0.9	1.1	2.23	2.49	7.82

51 2.54 1.27 8.62 9.02 4 4.2 4 0.9 1.1 2.23 2.49 9

NOTES

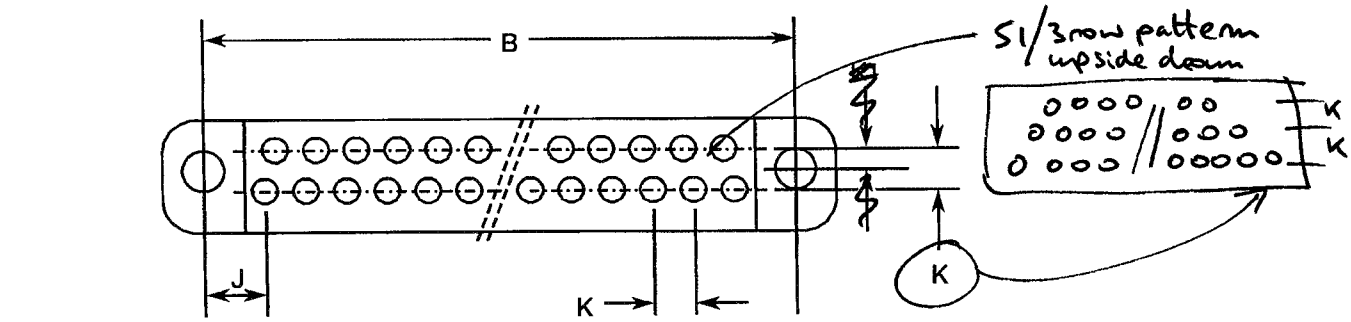
1. All dimensions are in millimetres.
~~2. For ØA refer to Para. 4.5.3.3 of this specification.~~
2 3. Øg: 2-56-UNC-2B.
3 4. Maximum torque 0.44Nm.

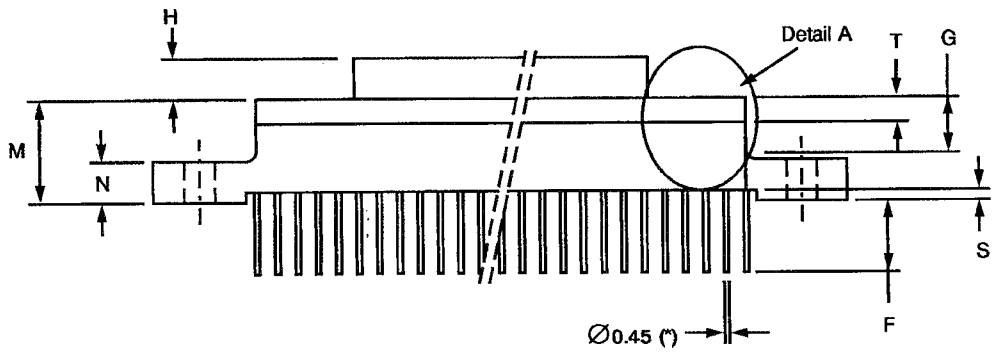
delete K1

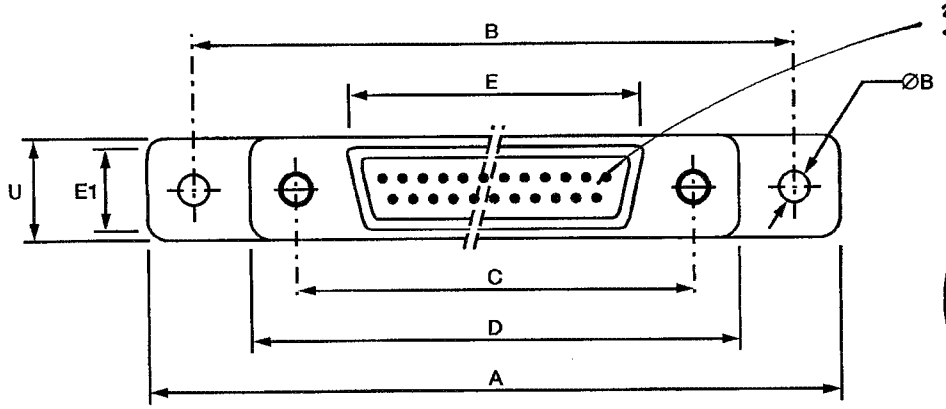
FIGURE 2 - PHYSICAL DIMENSIONS (CONTINUED)

FIGURE 2.2H - CONNECTORS TYPE -FR139

RECEPTACLE FEMALE CONTACTS







Same drawing as for page 27

DETAIL A

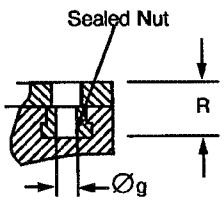


FIGURE 2 - PHYSICAL DIMENSIONS (CONTINUED)

FIGURE 2.2H - CONNECTOR TYPE - FR139 (CONTINUED)

RECEPTACLE FEMALE CONTACTS (CONTINUED)

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

Shell Size	A	B		ØB (4)(3)		C		D	E	E1	F		G	H	J	K
	Max.	Min.	Max.	Min.	Max.	Min.	Max.	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	23.35	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	~~K1~~	M		N		R	S		T		U
	~~Min.~~	Min.	Max.	Min.	Max.	Min.	Min.	Max.	Min.	Max.	Max.
9	1.27	8.62	9.02	4.0	4.2	4.6	0.9	1.1	2.23	2.49	7.82
15	1.27	8.62	9.02	4.0	4.2	4.6	0.9	1.1	2.23	2.49	7.82
21	1.27	8.62	9.02	4.0	4.2	4.6	0.9	1.1	2.23	2.49	7.82
25	1.27	8.62	9.02	4.0	4.2	4.6	0.9	1.1	2.23	2.49	7.82
31	1.27	8.62	9.02	4.0	4.2	4.6	0.9	1.1	2.23	2.49	7.82
37	1.27	8.62	9.02	4.0	4.2	4.6	0.9	1.1	2.23	2.49	7.82

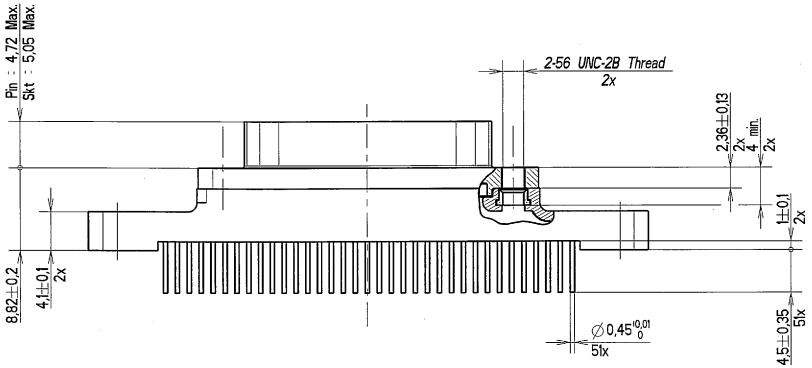
51 8.62 9.02 4 4.2 4 0.9 1.1 2.23 2.49 9.

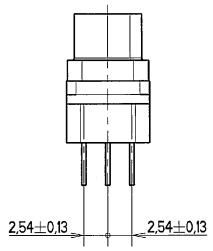
NOTES

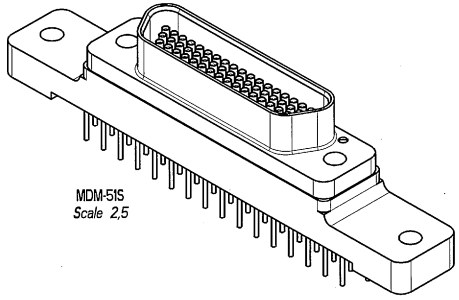
1. All dimensions are in millimetres.
2. ~~For ØA refer to Para. 4.5.3.3 of this specification.~~
2 3. Øg: 2-56-UNC-2B.
3 4. Maximum torque 0.44Nm.

delete K1

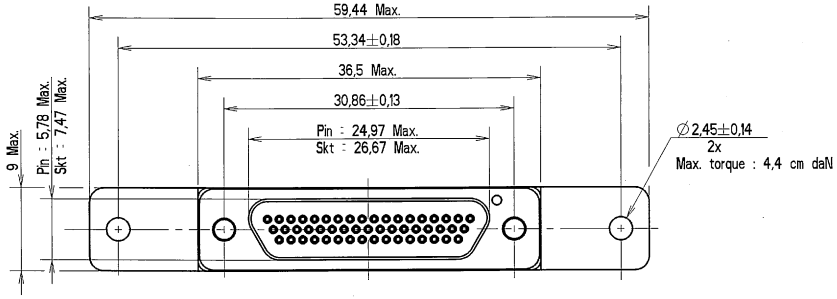
REV.	N° DCR	NATURE DE LA MODIFICATION	DATE	VISA





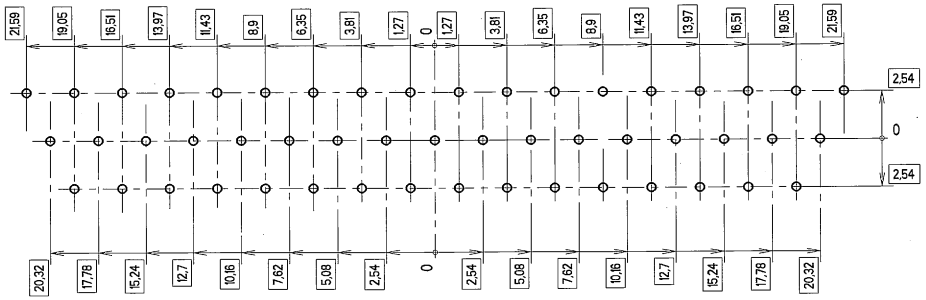


SYSTEM CONFIDENTIAL



CONTACT TYPE	REFERENCES ACCORDING TO CANNON FR022 SPECIFICATION 3a 4				REFERENCES ACCORDING TO ESA/ESCC 3401 029 SPECIFICATION 3b 5			
	FR022 (plating A174)		FR022 (plating FR172)		ESA / ESCC 3401 (plating A174)		ESA / ESCC 3401 (plating FR172)	
	Part-Number	Description	Part-Number	Description	Part-Number	Description	Part-Number	Description
PIN	115288-6157	MDM-51PFR139-A174-FR022	115288-6159	MDM-51PFR139-FR172-FR022	115366-9042	340102901B 51PFR139	115366-8554	340102902B 51PFR139
SKT	115288-6158	MDM-51SFR139-A174-FR022	115288-6160	MDM-51SFR139-FR172-FR022	115366-9043	340102901B 51SFR139	115366-8555	340102902B 51SFR139

RECOMMENDED PCB HOLE PATTERN
Scale 5



NOTES :
- 1 - Materials and finish :

PARTS-LIST	MATERIALS	PLATING
SHELL (A174 code)	ALUMINIUM ALLOY 6061-T6	CHEMICAL NICKEL
SHELL (FR172 Code)	ALUMINIUM ALLOY 6061-T6	GOLD OVER CHEMICAL NICKEL
INSULATOR	THERMOPLASTIC LCP	-
HOUSING	THERMOPLASTIC LCP	-
CONTACTS	COPPER ALLOY	GOLD OVER COPPER
PIGTAILS	COPPER	GOLD OVER SILVER
CAPTIVE NUT	STAINLESS STEEL	PASSIVATED

- 2 - Insulation with epoxy resin.
- 3 - Marking : Year Week / CK / FR (example : 0806 CK FR)
  - 3a - Description (see tabulation)
  - 3b - 34010290xB 51xFR139 (see tabulation)
- 4 - Controls according to CANNON FR022 specification.
- 5 - Controls according to ESA-ESCC 3401 029 specification.
- 6 - Packaging : Individual plastic bag with identification label.
- 7 - For cavities identification, refer to drawing CU030243Y0009.

MATIERE	TRAITEMENT	PROTECTION
SAUF INDIQUE : -COTES DONNEES AVANT PROTECTION -BAVURES ET ARETES VIVES SUPPRIMEES	TOL. LINEAIRE ± 0,2	TOL. ANGULAIRE ± 2 °
	ETAT DE SURFACE Ra . Ll	DIMENSIONS CRITIQUES ▼ .
		DIMENSIONS SPC ⓥ .

DESSINE	P.DAUBIGNEY	DATE 04-02-08	ANALYSE N	TAB. FAM. Y	PRO/E Y
VERIFIE	O.MASSON	DATE 04-02-08	LANGAGE E		
APPROUVE	L.KUBAT	DATE 04-02-08	REMPLACE		

C&K Components
BP 359 - 39105 Dole - FRANCE -

PROJECTION 1ER DIEDRE
ECHELLE 2,500

DESIGNATION
MDM-51P/S-FR139 CONNECTORS

TAILLE	FEUILLE	NUMERO	REV
A2	1 / 1	CU 030243Y0039	.