

1/ Géométrie du connecteur

Document en référence :

**CONNECTORS, ELECTRICAL, RECTANGULAR, MICROMINIATURE,
BASED ON TYPE MDM ESCC Detail Specification No. 3401/029
Issue 6 february 2010**

Pages 9 figure 2.1B

Je n'ai pas trouvé d'indication concernant la géométrie arrière du connecteur. L'avant a une forme trapézoïdale, il semblerait que l'arrière soit lui de forme rectangulaire.

La découpe d'un panneau sera alors différente d'un montage face avant à un montage face arrière. Le montage des fixations pourrait s'en trouver compromis.



2/ Cotation

Documents en référence :

**ACCESSORIES FOR CONNECTORS, MICROMINIATURE
3401/029, 3401/077 AND CONNECTOR SAVERS 3401/041**

**ESCC Detail Specification No. 3401/032
Issue 4 March 2010**

**C&K High Reliability Connectors MDM Solder Bucket Contacts
per FR164 C&K Specification
(Process and controls according to ESA/ESCC 3401-029)**

Différences de valeurs entre la cotation relevée sur la spec
ESCC N°3401/032 et la documentation C&K

Rondelle « lock-Washer »

ESCC : Φ 4.52 min / 4.95 max

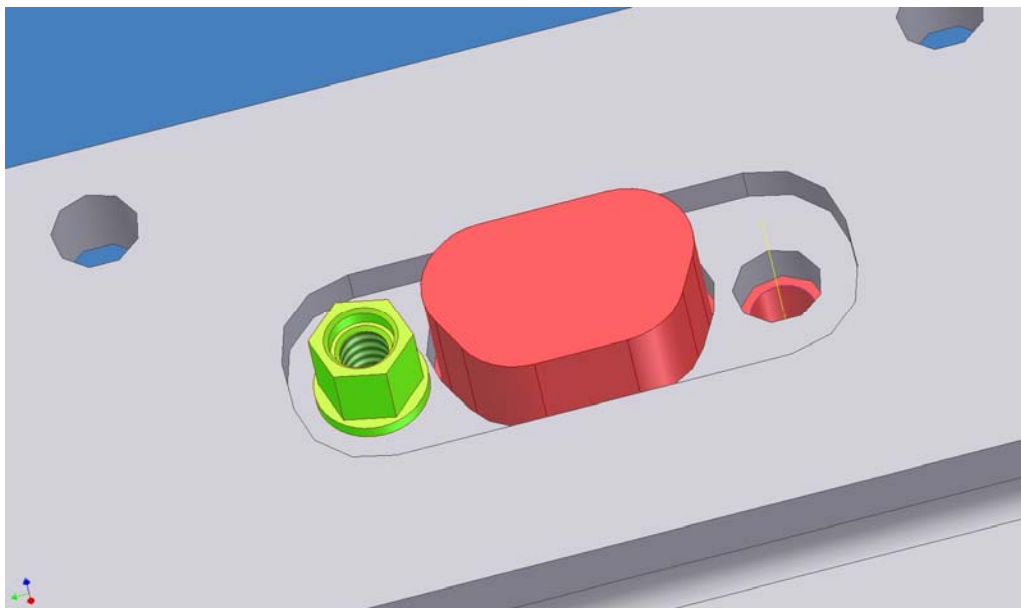
C&K : Φ 4.55 +/- 0.03

ESCC : côte T 1.5 +0.02 / -0.08

C&K : côte t 1.53 - / 0.05

C&K : $\Phi Q = 3.10 +/- 0.03$

ESCC : non spécifié



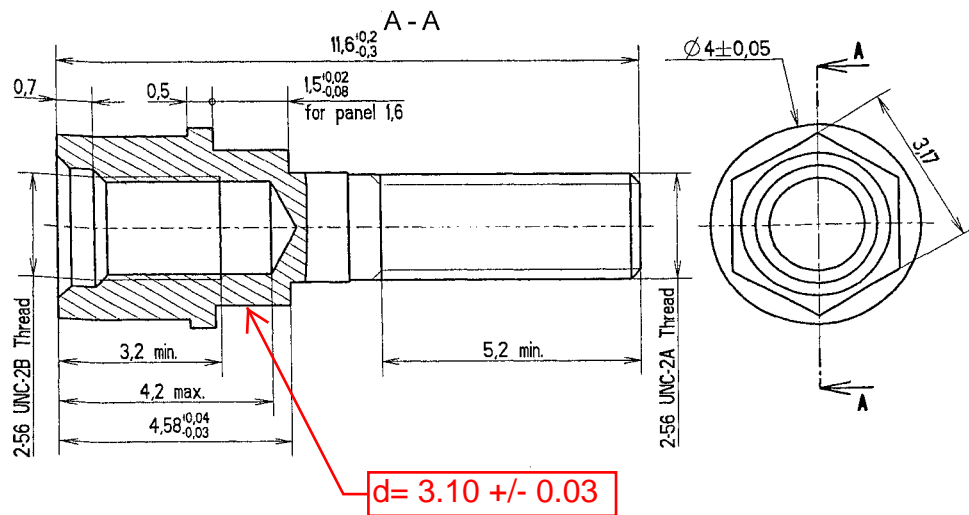
Nut 0.13g
Lock-Washer 0.02g

3.

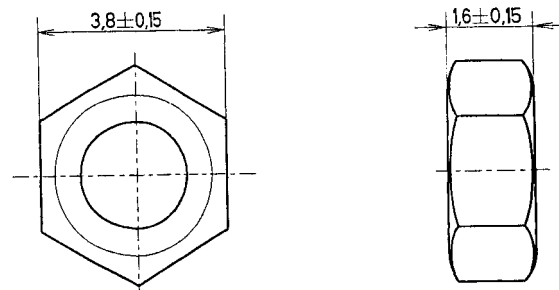
Torque Values	Min (Nm)	Max (Nm)
Screwlock male side	0.44	0.48
Screwlock female side	0.28	0.32
Nut	0.44	0.48

Variant 09 - Screwlock Sub-Assembly (Rear Panel Mounting)

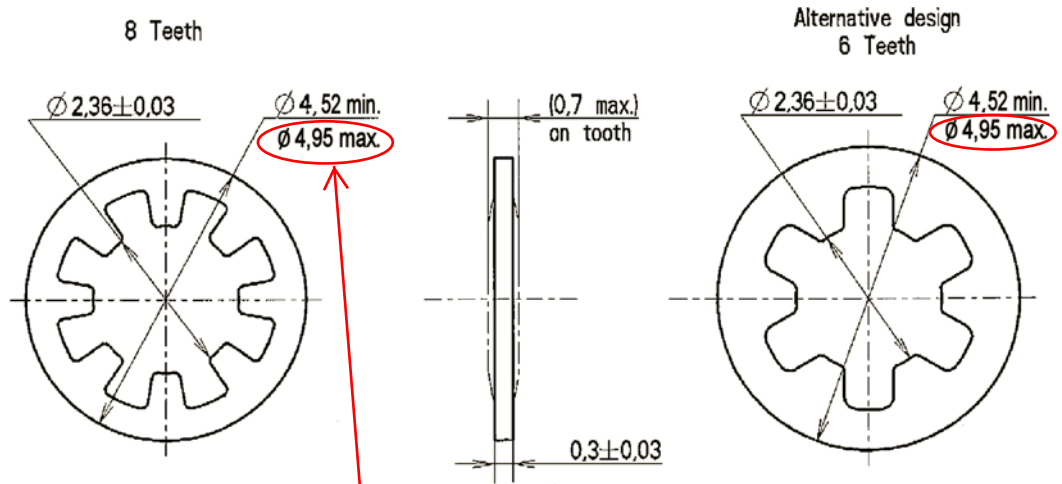
Screwlock



Nut



Lock-Washer



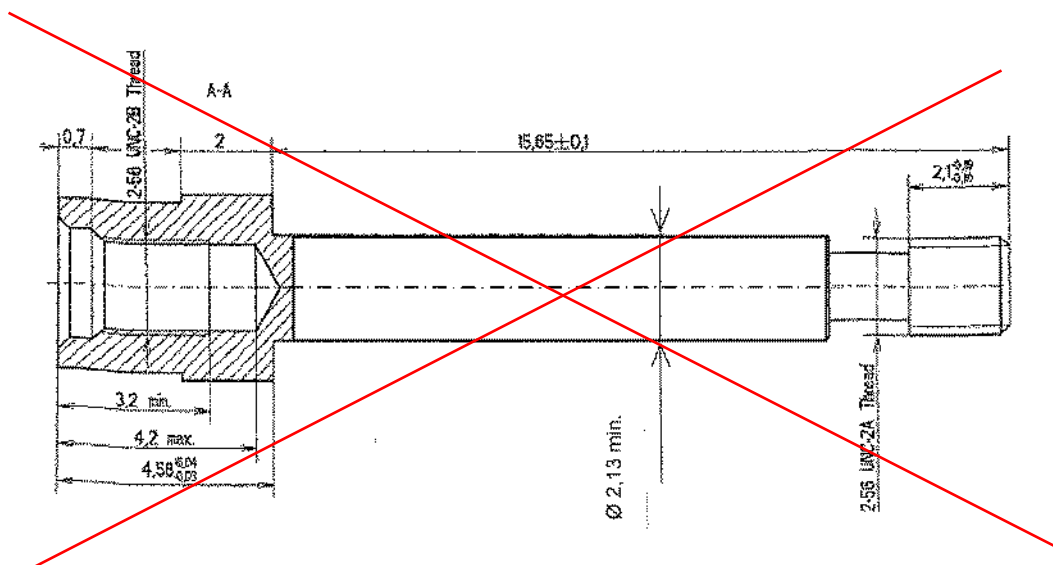
4.55mm +/-0.03
on C&K dataset

NOTES:

1. All dimensions in mm.
2. Weight:
Screwlock 0.45g
Nut 0.13g
Lock-Washer 0.02g
- 3.

Torque Values	Min (Nm)	Max (Nm)
Screwlock male side	0.44	0.48
Screwlock female side	0.28	0.32
Nut	0.44	0.48

Variant 10 - Screwlock Assembly for Connector Savers
Screwlock

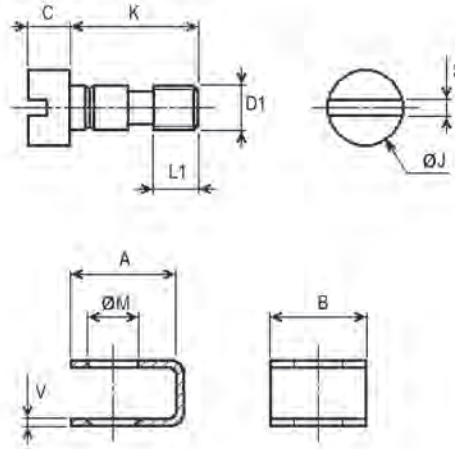


Screwlock assembly, rear panel mounting - New version

Composed of 2 sub-assemblies :

1 - Screw sub-assembly, harness side

Description ESCC : 340103207B
 Description FR022 : MDM-115288-6916-FR022
 Composed of : 2 Screws + 2 Clips
 Total weight for a pair : 0.88 g max.
 Torque value for screw : 0.28 Nm min. / 0.32 Nm max.

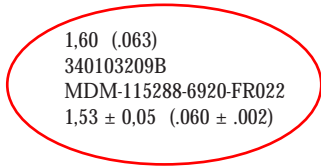


A	4.83 ± 0.25 (.190 ± .010)
B	4.45 max. (.175 max.)
C	2.00 ± 0.15 (.079 ± .006)
D1	2-56 UNC-2A
ØJ	3.68 max. (.145 max.)
K	6.00 ± 0.15 (.236 ± .006)
L1	2.10 + 0.19 / - 0.10 (.083 + .007 / - .004)
ØM	2.35 ± 0.06 (.093 ± .002)
S	0.68 ± 0.10 (.027 ± .004)
V	0.38 ± 0.03 (.015 ± .001)

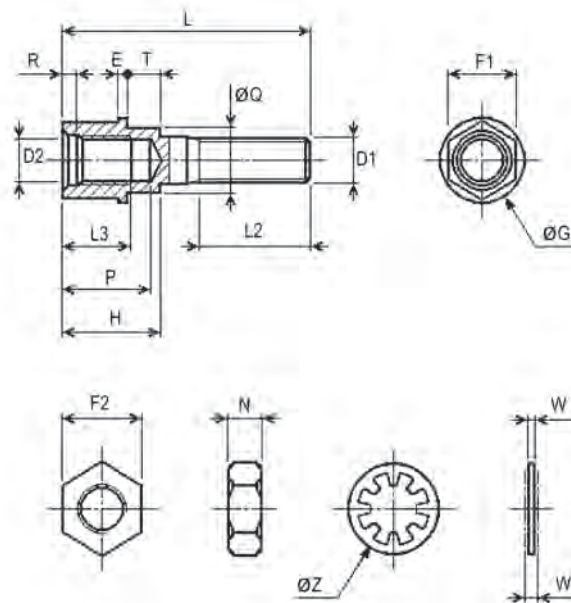
2 - Screwlock sub-assembly, panel side, rear panel mounting - **New version**

Panel thickness : 0.80 (.031)
 Description ESCC or according to ESCC : MDM-115366-9223C
 Description FR022 : MDM-115288-6918-FR022
 Dimension T : 0.73 ± 0.05 (.029 ± .002)
 Composed of : 2 Screwlocks + 2 Washers + 2 Nuts
 Total weight for a pair : 1.20 g max.
 Torque value for screwlock, male side : 0.44 Nm min. / 0.48 Nm max.
 Torque value for screwlock, female side : 0.28 Nm min. / 0.32 Nm max.

0.80 (.031)	1.20 (.047)	1.60 (.063)
MDM-115366-9223C	MDM-115366-9224C	340103209B
MDM-115288-6918-FR022	MDM-115288-6919-FR022	MDM-115288-6920-FR022
0.73 ± 0.05 (.029 ± .002)	1.13 ± 0.05 (.044 ± .002)	1.53 ± 0.05 (.060 ± .002)



D1	2-56 UNC-2A
D2	2-56 UNC-2B
E	0.50 Typ (.020 Typ)
F1	3.17 Typ (.125 Typ)
F2	3.80 ± 0.15 (.150 ± .006)
ØG	4.00 ± 0.05 (.157 ± .002)
H	4.58 + 0.04 / - 0.03 (.180 + .002 / - .001)
L	11.60 + 0.20 / - 0.30 (.457 + .008 / - .012)
L2	5.20 min. (.205 min.)
L3	3.20 min. (.126 min.)
N	1.60 ± 0.15 (.063 ± .006)
P	4.20 max. (.165 max.)
ØQ	3.10 ± 0.03 (.122 ± .001)
R	0.70 Typ (.028 Typ)
W	0.30 ± 0.03 (.012 ± .001)
W1	0.50 Typ overall (.020 Typ overall)
ØZ	4.55 ± 0.03 (.179 ± .001)



ACCESSORIES

3/ Empilage des côtes pour montage

Documents en référence :

ESCC Detail Specification No. 3401/029

Issue 6 february 2010

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Tableau des cotations

Exemple de calcul de découpe et perçage pour :

Receptacle Female Contacts SHELL SIZE 9.

$B = C = 10.16 \text{ mm max}$

$F = 14.22 / 14.48$ (14.22 mm étant le cas le plus défavorable)

Calcul de la distance du bord du connecteur au centre du trou de fixation :

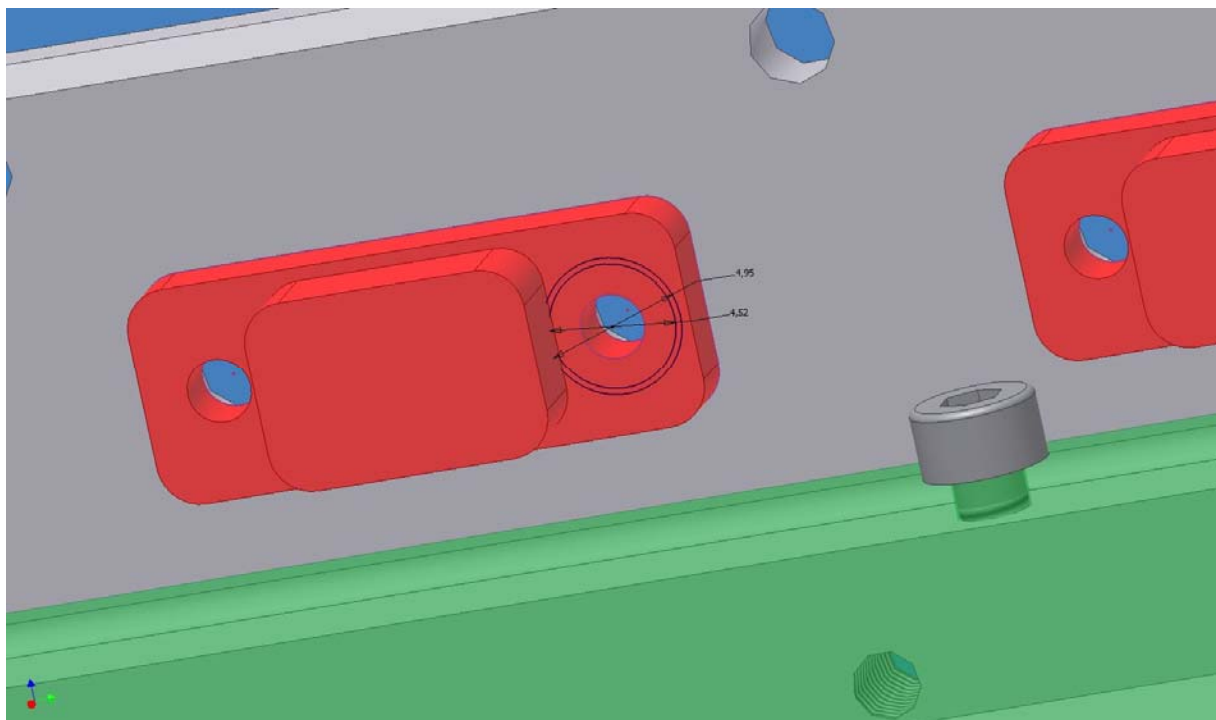
$(14.22 - 10.16) / 2 = 2.03 \text{ mm}$

Montage des colonnettes de fixation : Variant 09 screwlock Sub assembly

Diamètre rondelle (Lock-Washer)

ESCC : $4.95 / 2 = 2.475$ ----- disponible **2.03 mm**

C&K : $4.58 / 2 = 2.29$ ----- disponible **2.03 mm**

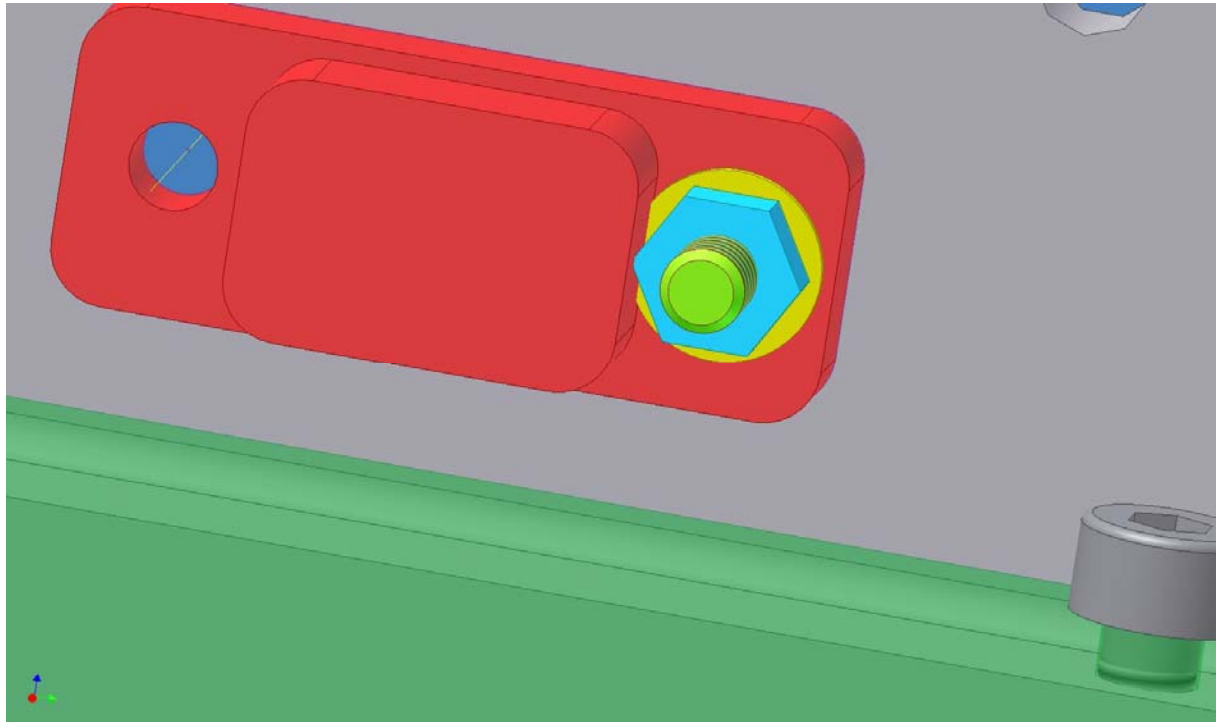


Écrou de fixation (Nut)

Largeur sur plat : 3.95 mm max

Largeur au sommet des angles opposée : 4.39mm

$4.39 / 2 = 2.19$ disponible **2.03 mm**



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