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ACCESSORIES FOR CONNECTORS, MICROMINIATURE, 3401/029 AND CONNECTOR SAVERS 3401/041 ESCC Detail Specification No. 3401/032

ISSUE 1 October 2002



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ACCESSORIES FOR CONNECTORS, MICROMINIATURE, 3401/029

AND CONNECTOR SAVERS 3401/041

ESA/SCC Detail Specification No. 3401/032

space components coordination group

	Date	Approved by		
Issue/Rev.		SCCG Chairman	ESA Director General or his Deputy	
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Revision 'A'	August 1991	Tommens	t. tub	
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DOCUMENTATION CHANGE NOTICE

Rev. Letter	Rev. Date	CHANGE Reference Item	Approved DCR No.
		This Issue supersedes Issue 1 and incorporates all modifications defined in Revision 'A' to Issue 1 and the following DCR's:- Cover Page : Title amended DCN Para. 1.1 : New Specification added Table 1 : No. 3, torque value for male and female screws amended Figure 2 : Variants 01 and 02, torque values amended : Variant 03, Figure title amended to incorporate Variant 04 and Table below Figure amended : New Variant 05 added Para. 2 : New Item (c) added	22669 None 22669 23387 23387 23387 22669 22669 22669
'Α'	Aug. 1991	P1. Cover Page P2. DCN P3. Table of Contents : Amended P9A. Figure 2 : Page added	None None 22894 22894
'В'	Apr. '97	 P1. Cover Page P2. DCN P6. Figure 2 Variant 01 : Items on drawings identified "5.2 Min" and "3.5 Min" added to screwlock "2.0 Min" added to screw	None 23838

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- Variant 05 - Screw Lock Assembly for Connector Savers - Variant 06 - Screw Lock Female for Connector FR 136/139

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APPENDICES (Applicable to specific Manufacturers only) None.



1. <u>GENERAL</u>

1.1 <u>SCOPE</u>

This specification details the ratings, physical and electrical characteristics, test and inspection data of Accessories for Microminiature Connectors 3401/029 (Type MDM) and Connector Savers 3401/041.

It shall be read in conjunction with:

- ESA/SCC Generic Specification No. 3401, Connectors, Electrical, Circular and Rectangular.
- ESA/SCC Detail Specification No. 3401/029, Connectors, Electrical, Rectangular, Microminiature, based on Type MDM.
- ESA/SCC Detail Specification No. 3401/041, Connector Savers, Electrical, Rectangular, Microminiature, based on Type MDM.

the requirements of which are supplemented herein.

1.2 <u>TYPE VARIANTS</u>

The different type variants of accessories specified herein are detailed in Figure 2.

1.3 MAXIMUM RATINGS

The maximum ratings, which shall not be exceeded at any time during use or storage, applicable to the accessories specified herein, are scheduled in Table 1.

1.4 PARAMETER DERATING INFORMATION

Not applicable.

1.5 PHYSICAL DIMENSIONS

The physical dimensions of the accessories specified herein are shown in Figure 2.

1.6 FUNCTIONAL DIAGRAM

Not applicable.



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TABLE 1 - MAXIMUM RATINGS

NO.	CHARACTERISTICS	SYMBOL	MAXIMUM RATING	UNIT
1	Operating Temperature Range	T _{op}	-55 to +125	°C
2	Storage Temperature Range	T _{stg}	-55 to +125	°C
3	Torque Value for: - Female Screw - Male Screw	Т	0.44 0.28	Nm Nm

FIGURE 1 Not applicable

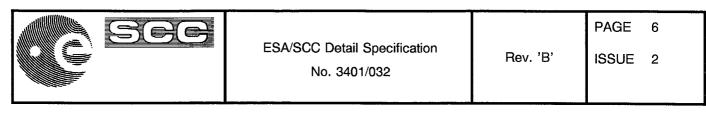
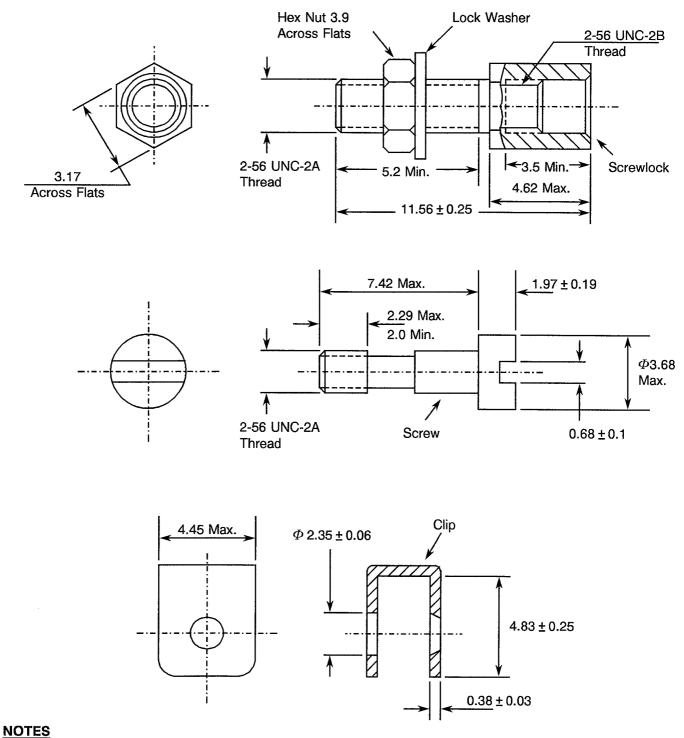


FIGURE 2 - PHYSICAL DIMENSIONS

VARIANT 01 - SCREWLOCK ASSEMBLY (FRONT PANEL MOUNTING)

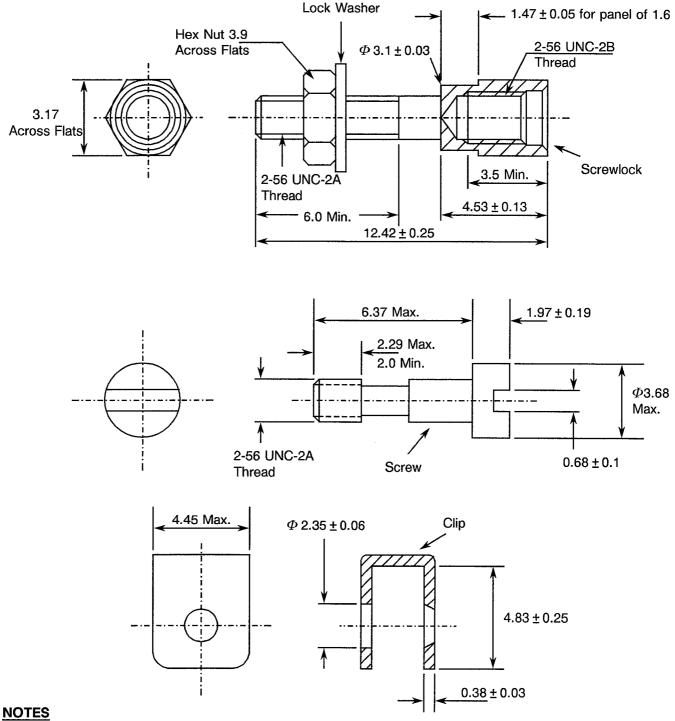


- 1. All dimensions in millimetres.
- 2. Weight: 1.8gm.
- 3. Maximum torque value for screwlock:
 - 0.44Nm on male side.
 - 0.28Nm on female side.
- 4. Maximum torque value for screw: 0.28Nm.



FIGURE 2 - PHYSICAL DIMENSIONS (CONTINUED)

VARIANT 02 - SCREWLOCK ASSEMBLY (REAR PANEL MOUNTING)

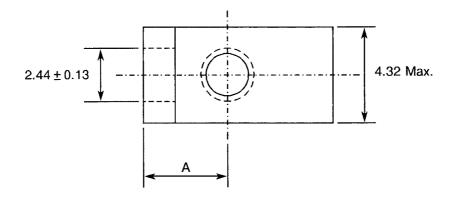


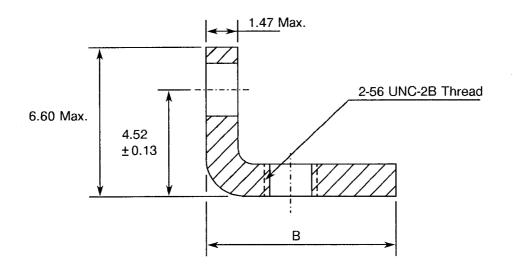
- 1. All dimensions in millimetres.
- 2. Weight: 1.8gm.
- 3. Maximum torque value for screwlock:
 - 0.44Nm on male side
 - 0.28Nm on female side
- 4. Maximum torque value for screw: 0.28Nm.



FIGURE 2 - PHYSICAL DIMENSIONS (CONTINUED)

VARIANTS 03 AND 04 - 90° MOUNTING BRACKET





VARIANT	SIZES	A ±0.13	B MAX.
03	9 to 37	3.73	7.82
04	51	4.29	8.89

NOTES

- 1. All dimensions in millimetres.
- 2. Weight: 0.4gm.

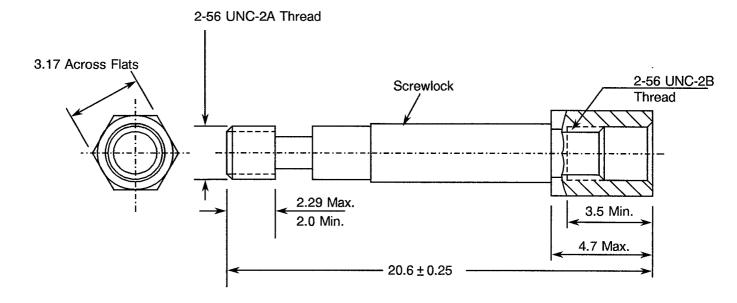


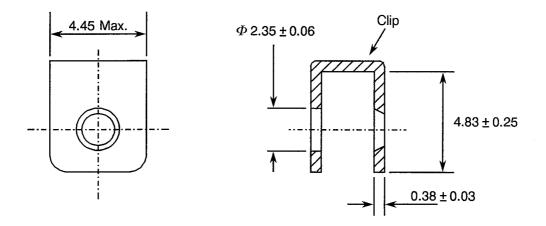
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FIGURE 2 - PHYSICAL DIMENSIONS (CONTINUED)

VARIANT 05 - SCREWLOCK ASSEMBLY FOR CONNECTOR SAVERS





NOTES

- 1. All dimensions are in millimetres.
- 2. Weight: 2gm.
- 3. Maximum torque value for screwlock:
 - 0.36Nm on male side
 - 0.28Nm on female side

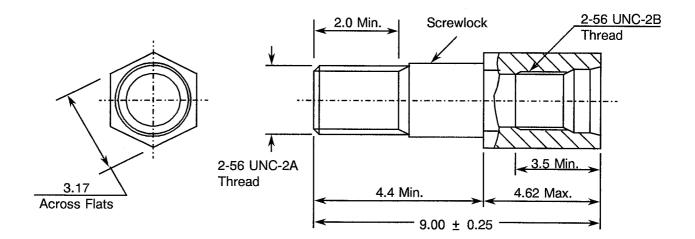


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FIGURE 2 - PHYSICAL DIMENSIONS (CONTINUED)

VARIANT 06 - SCREWLOCK FEMALE FOR CONNECTORS FR 136/139



NOTES

- 1. All dimensions in millimetres.
- 2. Weight: 0.6gm.
- 3. Maximum torque value for female screwlock: 0.44Nm.
 - 0.44Nm on male side.
 - 0.28Nm on female side.



2. APPLICABLE DOCUMENTS

The following documents form part of this specification and shall be read in conjunction with it:-

- (a) ESA/SCC Generic Specification No. 3401, Connectors, Electrical, Circular and Rectangular.
- (b) ESA/SCC Detail Specification No. 3401/029, Connectors, Electrical, Rectangular, Microminiature, based on Type MDM.
- (c) ESA/SCC Detail Specification No. 3401/041, Connector Savers, Electrical, Rectangular, Microminiature based on Type MDM.

3. TERMS, DEFINITIONS, ABBREVIATIONS, SYMBOLS AND UNITS

For the purpose of this specification, the terms, definitions, abbreviations, symbols and units specified in ESA/SCC Basic Specification No. 21300 shall apply.

4. **REQUIREMENTS**

4.1 <u>GENERAL</u>

The complete requirements for procurement of the accessories specified herein are stated in this specification and ESA/SCC Generic Specification No. 3401. Deviations from the Generic Specification, applicable to this specification only, are listed in Para. 4.2.

Deviations from the applicable Generic Specification and this Detail Specification, formally agreed with specific Manufacturers on the basis that the alternative requirements are equivalent to the ESA/SCC requirements and do not affect the components' reliability, are listed in the appendices attached to this specification.

4.2 DEVIATIONS FROM GENERIC SPECIFICATION

4.2.1 Deviations from Special In-Process Controls

Not applicable.

4.2.2 Deviations from Final Production Tests (Chart II)

Para. 9.5, "External Visual Inspection" and Para. 9.11, "Dimension Check": shall be performed. The following details shall apply:-

Magnification to be used for visual inspection shall be X3.

The other tests are not applicable.

- 4.2.3 <u>Deviations from Burn-In and Electrical Measurements (Chart III)</u> Not applicable.
- 4.2.4 <u>Deviations from Qualification, Environmental and Endurance Tests (Chart IV)</u> Chart IV is not applicable.
- 4.2.5 <u>Deviations from Lot Acceptance Tests (Chart V)</u> Chart V is not applicable.



4.3 MECHANICAL REQUIREMENTS

4.3.1 Dimension Check

The dimensions of the accessories specified herein shall be verified in accordance with the requirements set out in Para. 9.11 of ESA/SCC Generic Specification No. 3401 and Para. 4.2.2 of this specification; they shall conform to those shown in Figure 2.

4.3.2 Weight

The maximum weights of the accessories specified herein shall be as specified in Figure 2.

4.3.3 Torque Value

The torque value to be used for tightening the screws of the accessories specified herein shall be as specified in Table 1.

4.4 MATERIALS AND FINISHES

The materials and finishes shall be as specified herein. Where a definite material is not specified, a material which will enable the accessories specified herein to meet the performance requirements of this specification shall be used. Acceptance or approval of any constituent material does not guarantee acceptance of the finished product.

4.4.1 Screw Lock Assemblies and Brackets

These shall be made of passivated stainless steel, Type 303.

4.5 MARKING

4.5.1 General

The marking of all components delivered to this specification shall be in accordance with the requirements of ESA/SCC Basic Specification No. 21700 and the following subparagraphs. Each component shall be marked in respect of:-

- (a) The SCC Component Number.
- (b) Traceability Information.

These components being too small to accommodate the marking as specified above, the SCC marking information shall accompany each component in its primary package.

4.5.2 The SCC Component Number

The SCC Component Number shall be constituted and marked as follows:-

	<u>340103201</u> B
Detail Specification number	
Type Variant (see Figure 2)	I
Testing Level	

4.5.3 Traceability Information

Traceability information shall be marked in accordance with ESA/SCC Basic Specification No. 21700.

4.6 ELECTRICAL MEASUREMENTS

Not applicable.



- 4.7 <u>SCREENING TESTS (TABLES 4 AND 5)</u> Not applicable.
- 4.8 ENVIRONMENTAL AND ENDURANCE TESTS Not applicable.