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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**

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		SCCG Chairman	ESA Director General or his Deputy
Issue 2	July 1990		
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**DOCUMENTATION CHANGE NOTICE**

Rev. Letter	Rev. Date	Reference	CHANGE 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	22669
		DCN		None
		Para. 1.1	: New Specification added	22669
		Table 1	: No. 3, torque value for male and female screws amended	23387
		Figure 2	: Variants 01 and 02, torque values amended	23387
			: Variant 03, Figure title amended to incorporate Variant 04 and Table below Figure amended	22669
		Para. 2	: New Variant 05 added	22669
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'A'	Aug. 1991	P1. Cover Page		None
		P2. DCN		None
		P3. Table of Contents	: Amended	22894
		P9A. Figure 2	: Page added	22894
'B'	Apr. '97	P1. Cover Page		None
		P2. DCN		None
		P6. Figure 2 Variant 01	: Items on drawings identified	23838
			: "5.2 Min" and "3.5 Min" added to screwlock	23838
			: "2.0 Min" added to screw	23838
			: Notes 3 and 4 amended	23838
		P7. Figure 2 Variant 02	: Items on drawings identified	23838
			: "6.0 Min" added to screwlock	23838
			: "2.0 Min" added to screw	23838
		P9. Figure 2 Variant 05	: Notes 3 and 4 amended	23838
			: Items on drawings identified	23838
			: Screwlock drawing amended and dimensions added	23838
		P9A. Figure 2 Variant 06	: Clip drawing amended and dimensions added	23838
			: Note 3 added	23838
			: "2.0 Min", "3.5 Min" added	23838
			: "3.9 Max" amended to "4.4 Min"	23838
			: "8.27" amended to "9.00"	23838
			: Note 3 amended	23838


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TABLES

1	Maximum Ratings	5
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FIGURES

1	Not applicable	
2	Physical Dimensions:	
	- Variant 01 - Screw Lock Assembly (Front Panel Mounting)	6
	- Variant 02 - Screw Lock Assembly (Rear Panel Mounting)	7
	- Variants 03 and 04 - 90° Mounting Bracket	8
	- Variant 05 - Screw Lock Assembly for Connector Savers	9
	- Variant 06 - Screw Lock Female for Connector FR 136/139	9A

APPENDICES (Applicable to specific Manufacturers only)

None.

**1. GENERAL****1.1 SCOPE**

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 TYPE VARIANTS

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

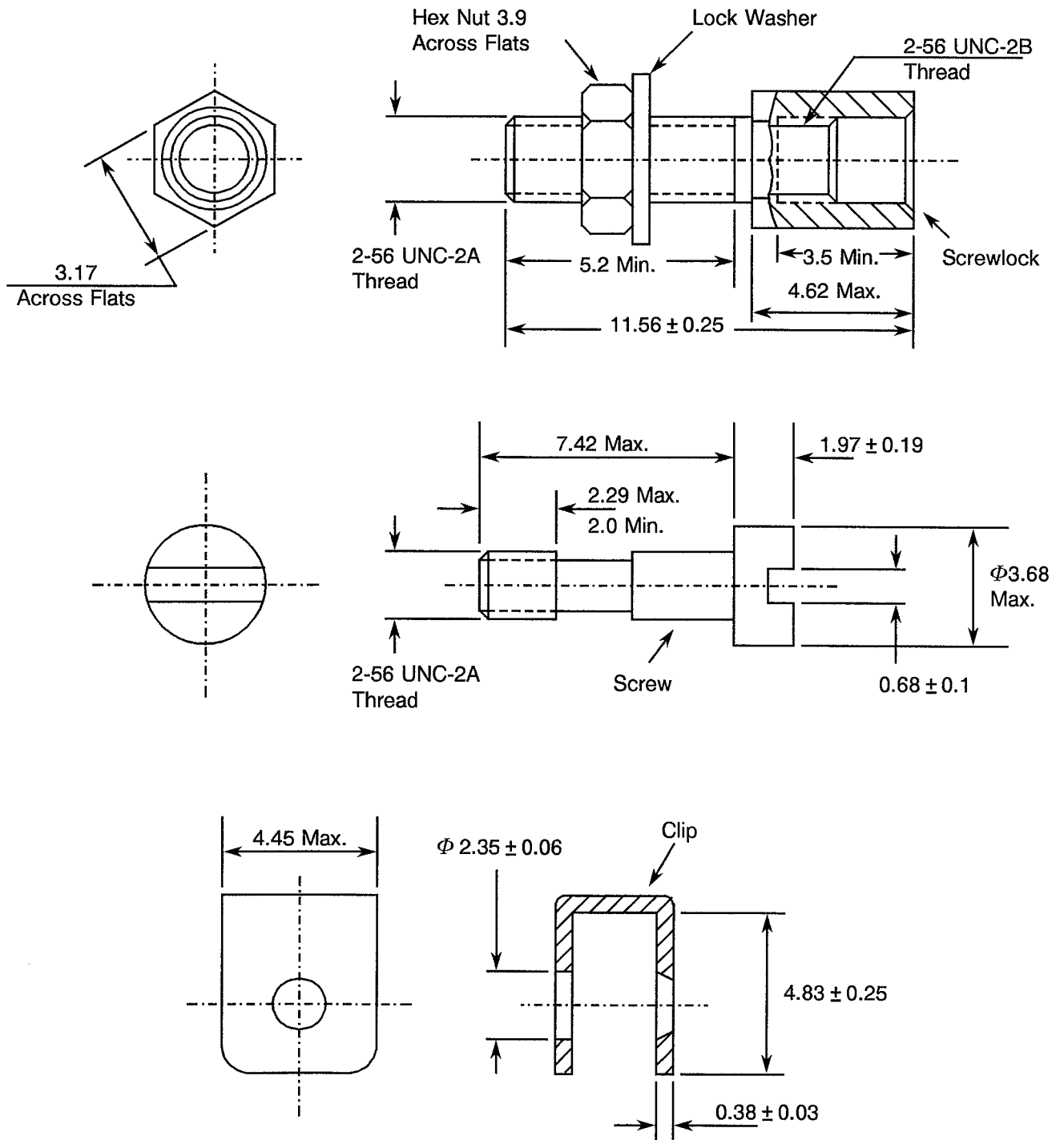
NO.	CHARACTERISTICS	SYMBOL	MAXIMUM RATING	UNIT
1	Operating Temperature Range	T_{op}	-55 to +125	°C
2	Storage Temperature Range	T_{stg}	-55 to +125	°C
3	Torque Value for: - Female Screw - Male Screw	T	0.44 0.28	Nm Nm

FIGURE 1
Not applicable



FIGURE 2 - PHYSICAL DIMENSIONS

VARIANT 01 - SCREWLOCK ASSEMBLY (FRONT PANEL MOUNTING)



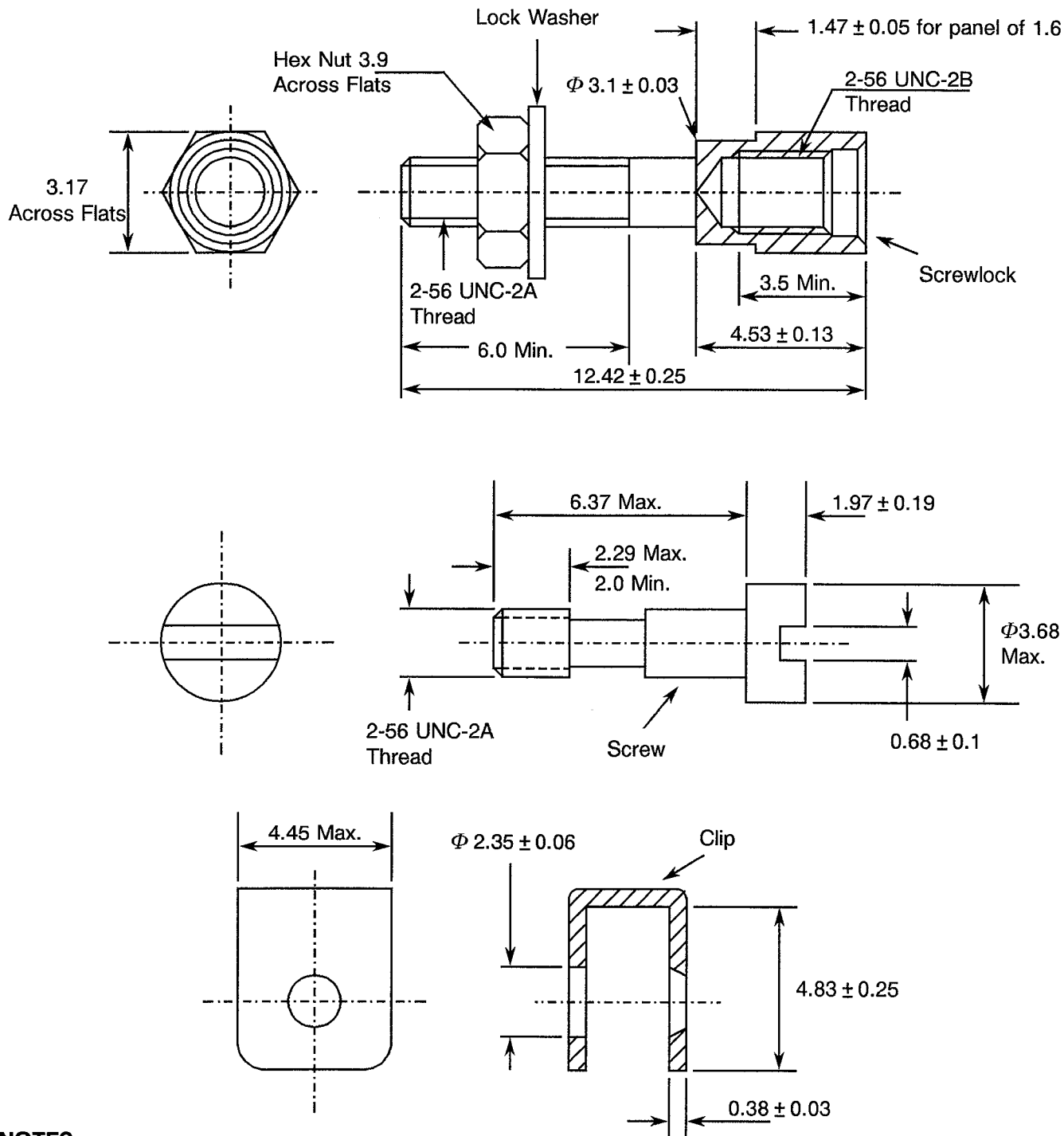
NOTES

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)



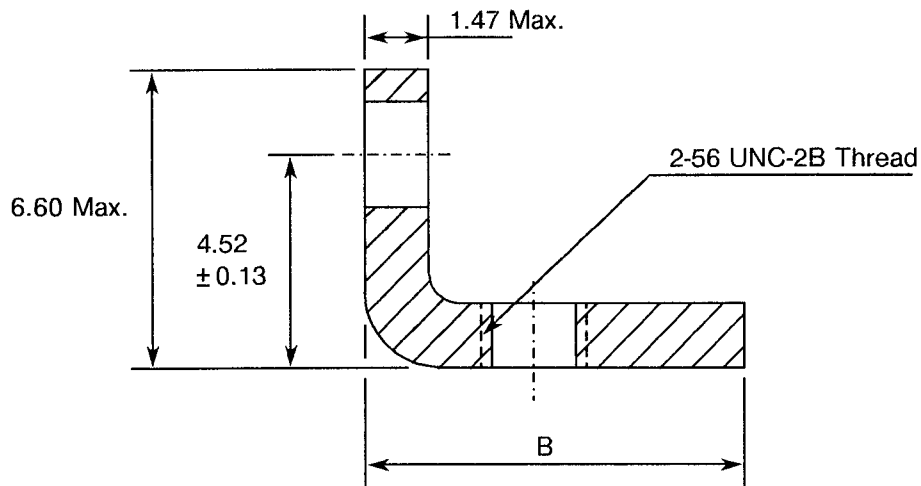
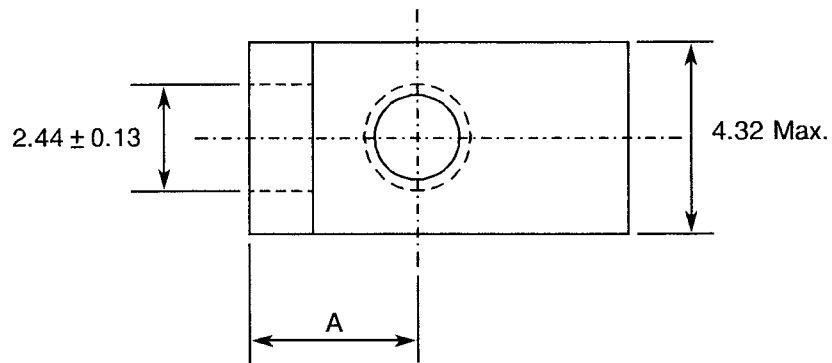
NOTES

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

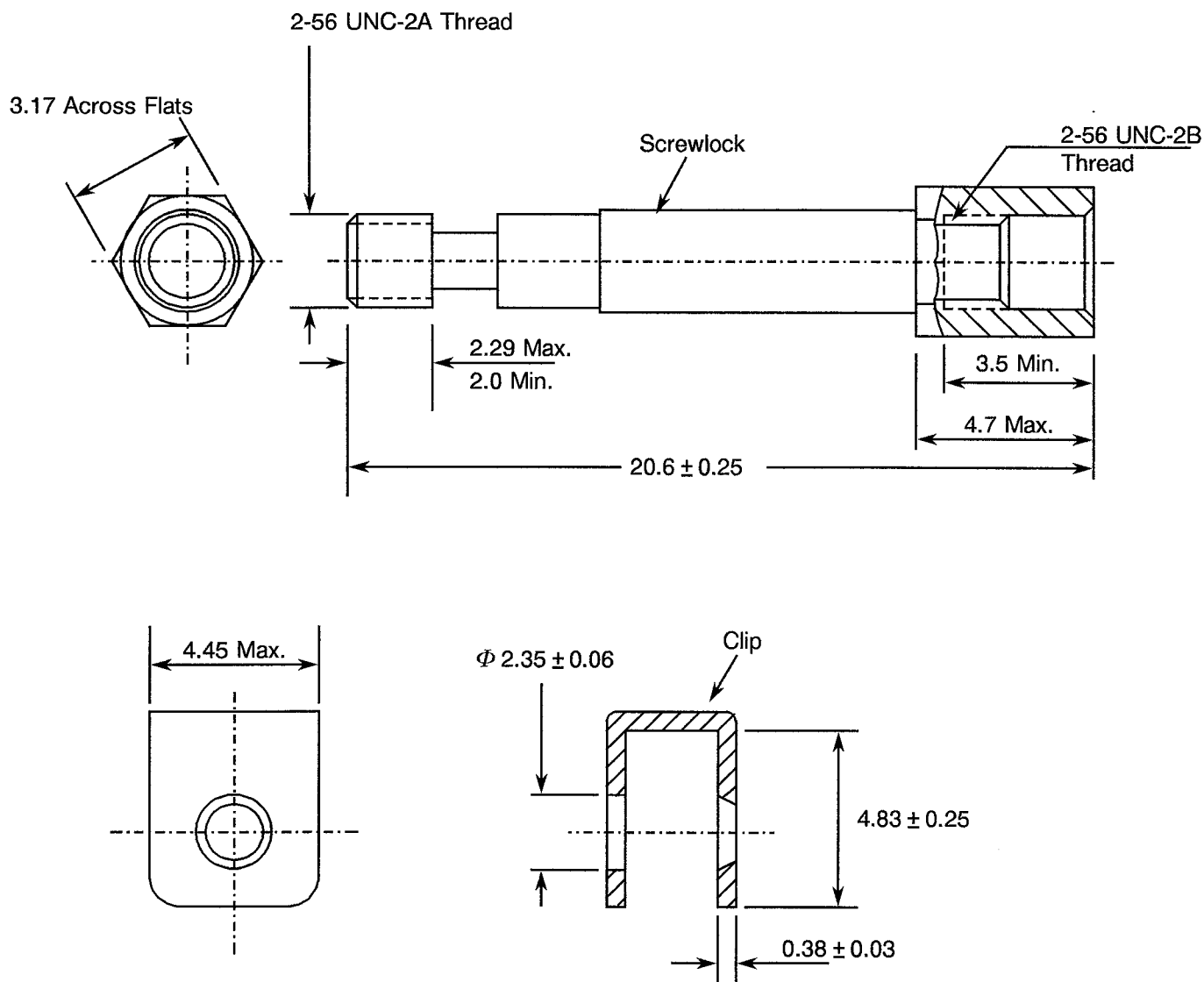
NOTES

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



FIGURE 2 - PHYSICAL DIMENSIONS (CONTINUED)

VARIANT 05 - SCREWLOCK ASSEMBLY FOR CONNECTOR SAVERS

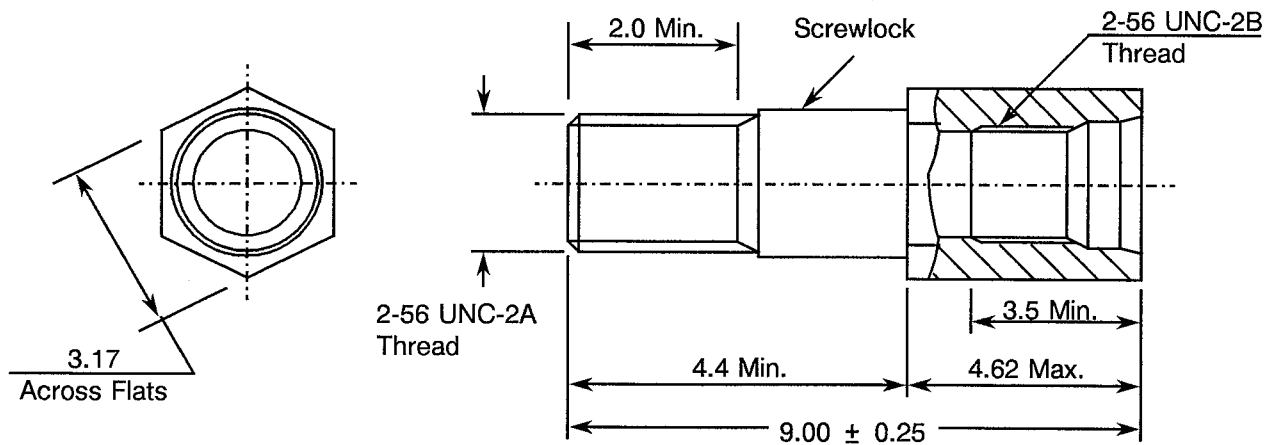


NOTES

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



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.

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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 GENERAL

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 Deviations from Burn-In and Electrical Measurements (Chart III)

Not applicable.

4.2.4 Deviations from Qualification, Environmental and Endurance Tests (Chart IV)

Chart IV is not applicable.

4.2.5 Deviations from Lot Acceptance Tests (Chart V)

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

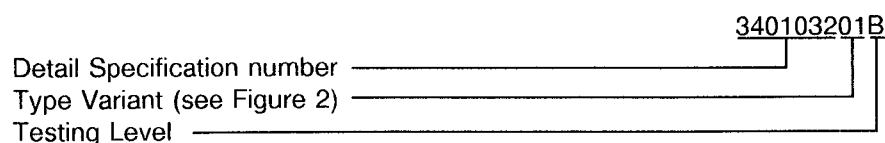
The marking of all components delivered to this specification shall be in accordance with the requirements of ESA/SCC Basic Specification No. 21700 and the following subparagraphs. Each component shall be marked in respect of:-

- (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:-



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.



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4.7 SCREENING TESTS (TABLES 4 AND 5)

Not applicable.

4.8 ENVIRONMENTAL AND ENDURANCE TESTS

Not applicable.