CONTACTS, ELECTRICAL, CRIMP, WIRE-WRAP, SOLDER AND SAVER FOR 3401/016 CONNECTORS

ESCC Detail Specification No. 3401/017

Issue 7	April 2025

Document Custodian: European Space Agency – see https://escies.org

LEGAL DISCLAIMER AND COPYRIGHT

DOCUMENTATION CHANGE NOTICE

(Refer to https://escies.org for ESCC DCR content)

DCR No.	CHANGE DESCRIPTION
1700	Specification upissued to incorporate changes per DCR.

TABLE OF CONTENTS

1 GENERAL

1.1 SCOPE

This specification details the ratings, physical and electrical characteristics, test and inspection data for Contacts, Electrical, Crimp, Wire-Wrap, Solder and Saver, Gauge 0.6mm, for 3401/016 Connectors.

This specification shall be read in conjunction with:

- ESCC Generic Specification No. 3401, Connectors, Electrical, Non-Filtered Circular and Rectangular
- ESCC Detail Specification No. 3401/016, Connectors, Electrical, Electrical, Printed Circuit Board, Removable Contacts, Crimp, Wire-Wrap, Solder and Saver, based on Type HE801

the requirements of which are supplemented herein.

1.2 COMPONENT TYPE VARIANTS

The different sizes of contacts specified herein, which are also covered by this specification, are scheduled in Table 1(a).

1.3 MAXIMUM RATINGS

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

1.4 PARAMETER DERATING INFORMATION (FIGURE 1)

Not applicable.

1.5 PHYSICAL DIMENSIONS

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

2 APPLICABLE DOCUMENTS

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

(a) ESCC Generic Specification No. 3401, Connectors, Electrical, Non-Filtered, Circular and Rectangular.

(b) ESCC Detail Specification No. 3401/016, Connectors, Electrical, Electrical, Printed Circuit Board, Removable Contacts, Crimp, Wire-Wrap, Solder and Saver, based on Type HE801.

3 TERMS, DEFINITIONS, ABBREVIATIONS, SYMBOLS AND UNITS

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

TABLE 1(a) – TYPE VARIANTS

Variant	Contact Type Codes (1)		Mating End Size Ø mm	Barrel Size	Rated Current Max A	Accept Wire AWG	Max Weight g	Engagement & Separation				Contact Capability		Contact Retent. Force Max N	Contact Insert. Withdr. Forces Max N	Probe Damage			Oversize Pin Excl.		
								Engag. Forces N (2)	Separ. Forces N (2)	Test Pins DIA mm		Weight				Moment N.cm	Probe DIA mm		Force Max N	Test Pin DIA mm	
										Min	Max	Pick-up (3) g	Drop (4) g				Min	Max		Min	Max
01 (7)	MC	MA	0.6	N/A	5	N/A	0.18	-	-	-	-	-	-	40 (5) 25 (6)	20	-	-	-	-	-	-
02 (7)	MC	MA	0.6	N/A	5	N/A	0.21	-	-	-	-	-	-	40 (5) 25 (6)	20	-	-	-	-	-	-
03 (7)	MC	MA	0.6	N/A	5	N/A	0.22	-	-	-	-	-	-	40 (5) 25 (6)	20	-	-	-	-	-	-
04	MR		0.6	22	5	22-24 26	0.2	-	-	-	-	-	-	40 (5) 25 (6)	20	-	-	-	-	-	-
06 (8)	MD		0.6	N/A	5	N/A	0.18	-	-	-	-	-	-	40 (5) 25 (6)	20	-	-	-	-	-	-
07 (7)	MD	ME	0.6	N/A	5	N/A	0.18	-	-	-	-	-	-	40 (5) 25 (6)	20	-	-	-	-	-	-
08 (7)	MS		0.6	22	5	22 24	0.22	-	-	-	-	-	-	40 (5) 25 (6)	20	-	-	-	-	-	-
10 (8)	MY		0.6	N/A	5	26-28 30	0.29	-	-	-	-	-	-	40 (5) 25 (6)	20	-	-	-	-	-	-
11 (7)	MY		0.6	N/A	5	26-28 30	0.21	-	-	-	-	-	-	40 (5) 25 (6)	20	-	-	-	-	-	-
12 (7)	FC	FA	0.6	N/A	5	N/A	0.125	0.9 -	0.9 0.14	0.62 0.575	0.625 0.58	- 14	90 -	40 (5) 25 (6)	20	0.5	0.59	0.61	0.9	0.758	0.762
13 (7)	FC	FA	0.6	N/A	5	N/A	0.15	0.9 -	0.9 0.14	0.62 0.575	0.625 0.58	- 14	90 -	40 (5) 25 (6)	20	0.5	0.59	0.61	0.9	0.758	0.762
14 (7)	FC	FA	0.6	N/A	5	N/A	0.155	0.9 -	0.9 0.14	0.62 0.575	0.625 0.58	- 14	90 -	40 (5) 25 (6)	20	0.5	0.59	0.61	0.9	0.758	0.762
15	FR		0.6	22	5	22-24 26	0.145	0.9 -	0.9 0.14	0.62 0.575	0.625 0.58	- 14	90 -	40 (5) 25 (6)	20	0.5	0.59	0.61	0.9	0.758	0.762

Variant	Contact Type Codes (1)		Mating End Size Ø mm	Barrel Size	Rated Current Max A	Accept Wire AWG	Max Weight g	Engagement & Separation				Contact Capability		Contact Retent. Force Max N	Contact Insert. Withdr. Forces Max N	Probe Damage			Oversize Pin Excl.		
								Engag. Forces N (2)	Separ. Forces N (2)	Test Pins DIA mm		Weight				Moment N.cm	Probe DIA mm		Force Max N	Test Pin DIA mm	
										Min	Max	Pick-up (3) g	Drop (4) g				Min	Max		Min	Max
17 (8)	FD		0.6	N/A	5	N/A	0.12	0.9 -	0.9 0.14	0.62 0.575	0.625 0.58	- 14	90 -	40 (5) 25 (6)	20	0.5	0.59	0.61	0.9	0.758	0.762
18 (7)	FD	FE	0.6	N/A	5	N/A	0.12	0.9 -	0.9 0.14	0.62 0.575	0.625 0.58	- 14	90 -	40 (5) 25 (6)	20	0.5	0.59	0.61	0.9	0.758	0.762
19 (7)	FS		0.6	22	5	22 24	0.165	0.9 -	0.9 0.14	0.62 0.575	0.625 0.58	- 14	90 -	40 (5) 25 (6)	20	0.5	0.59	0.61	0.9	0.758	0.762
21 (8)	FY		0.6	N/A	5	26-28 30	0.16	0.9 -	0.9 0.14	0.62 0.575	0.625 0.58	- 14	90 -	40 (5) 25 (6)	20	0.5	0.59	0.61	0.9	0.758	0.762
22 (7)	FY		0.6	N/A	5	26-28 30	0.155	0.9 -	0.9 0.14	0.62 0.575	0.625 0.58	- 14	90 -	40 (5) 25 (6)	20	0.5	0.59	0.61	0.9	0.758	0.762
64 (7)	ML	MG	0.6	N/A	5	N/A	0.19	0.9 -	0.9 0.14	0.62 0.575	0.625 0.58	- 14	90 -	40 (5) 25 (6)	20	0.5	0.59	0.61	0.9	0.758	0.762
65 (7)	ML	MG	0.6	N/A	5	N/A	0.21	0.9 -	0.9 0.14	0.62 0.575	0.625 0.58	- 14	90 -	40 (5) 25 (6)	20	0.5	0.59	0.61	0.9	0.758	0.762
66 (7)	ML	MG	0.6	N/A	5	N/A	0.24	-	-	-	-	-	-	40 (5) 25 (6)	20	-	-	-	-	-	-
67 (7)	FM		0.6	N/A	5	N/A	0.12	0.9 -	0.9 0.14	0.62 0.575	0.625 0.58	- 14	90 -	40 (5) 25 (6)	20	0.5	0.59	0.61	0.9	0.758	0.762
68 (7)	FL	FG	0.6	N/A	5	N/A	0.125	0.9 -	0.9 0.14	0.62 0.575	0.625 0.58	- 14	90 -	40 (4) 25 (5)	20	0.5	0.59	0.61	0.9	0.758	0.762
69 (7)	FL	FG	0.6	N/A	5	N/A	0.135	0.9 -	0.9 0.14	0.62 0.575	0.625 0.58	- 14	90 -	40 (5) 25 (6)	20	0.5	0.59	0.61	0.9	0.758	0.762
70 (7)	FL	FG	0.6	N/A	5	N/A	0.16	0.9 -	0.9 0.14	0.62 0.575	0.625 0.58	- 14	90 -	40 (5) 25 (6)	20	0.5	0.59	0.61	0.9	0.758	0.762

NOTES:

1. The Contact Type Codes are described in the table below:

Male Contact Code	Female Contact Code	Contact Description
MC	FC	Solderable, Right-angle, untinned
MA	FA	Solderable, Right-angle, pre-tinned with SnPb
MR	FR	Crimp
MD	FD	Solderable, Straight, untinned
ME	FE	Solderable, Straight, pre-tinned with SnPb
MS	FS	Solder Bucket
MY	FY	Wire-Wrap
ML	FL	Solderable, Right-angle, long termination, untinned
MG	FG	Solderable, Right-angle, long termination, pre-tinned with SnPb
FM		Saver

2. 1st line, maximum values with maximum diameter test pin; 2nd line, minimum values with minimum diameter test pin.
3. With minimum diameter test pin and minimum insertion depth of 5mm.
4. With maximum diameter test pin and minimum insertion depth of 5mm.
5. Tension.
6. Compression.
7. These variants are delivered mounted in the inserts, and dimensions of the rear part are given in ESCC Detail Specification No. 3401/016.
8. Not to be used for new design. See ESCC Detail Specification No. 3401/016, Table 1(a).

TABLE 1(b) - MAXIMUM RATINGS

No.	Characteristics	Symbol	Maximum Rating	Unit	Remarks
1	Rated Current	I_{CR}	See Table 1(a)	A	
2	Operating Temperature Range	T_{op}	-55 to +125	°C	
3	Storage Temperature Range	T_{stg}	-55 to +125	°C	
4	Soldering Temperature	T_{sol}	+260	°C	Note 1

NOTES:

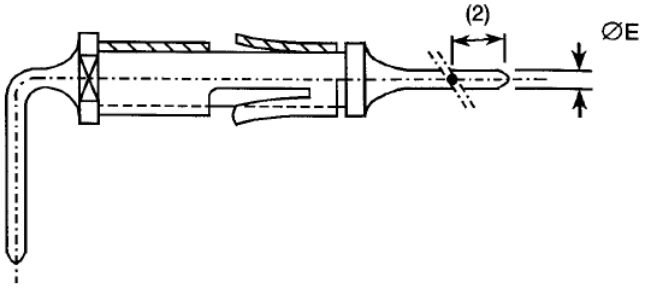
1. Duration 10 seconds maximum and the same contact shall not be resoldered until 3 minutes have elapsed.

FIGURE 1 - PARAMETER DERATING INFORMATION

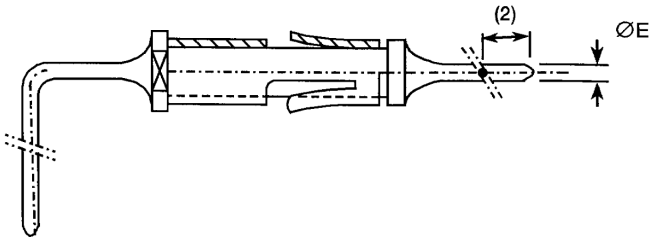
Not Applicable.

FIGURE 2 – PHYSICAL DIMENSIONS

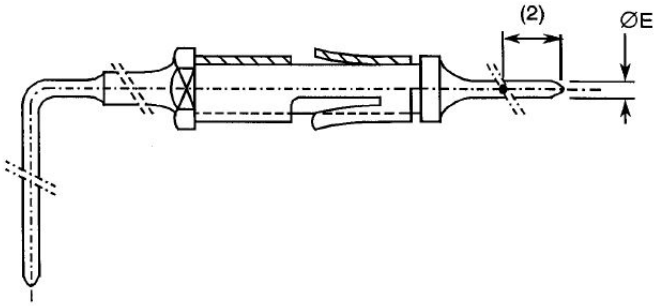
VARIANT 01 - MALE CONTACT, SOLDERABLE, RIGHT-ANGLE



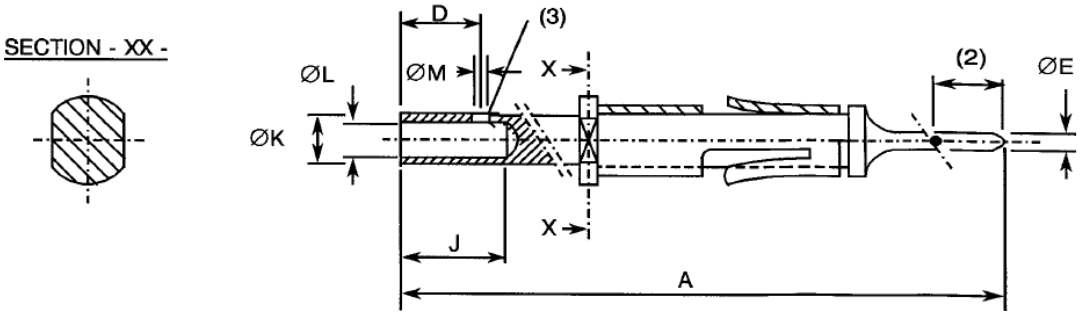
VARIANT 02 - MALE CONTACT, SOLDERABLE, RIGHT-ANGLE



VARIANT 03 - MALE CONTACT, SOLDERABLE, RIGHT-ANGLE

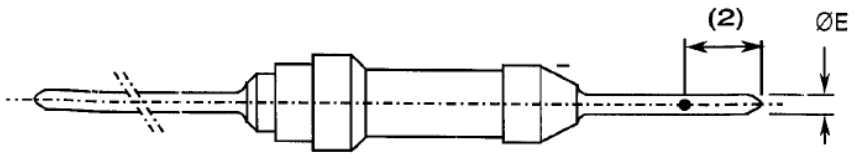


VARIANT 04 - MALE CONTACT, CRIMP

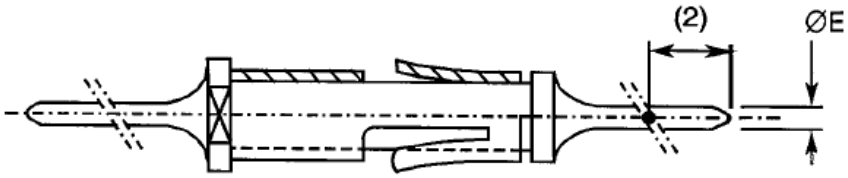


VARIANT 06 - MALE CONTACT, SOLDERABLE, STRAIGHT-THROUGH

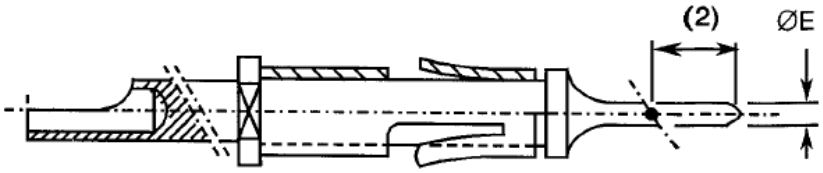
(Not to be used for new design)



VARIANT 07 - MALE CONTACT, SOLDERABLE, STRAIGHT-THROUGH

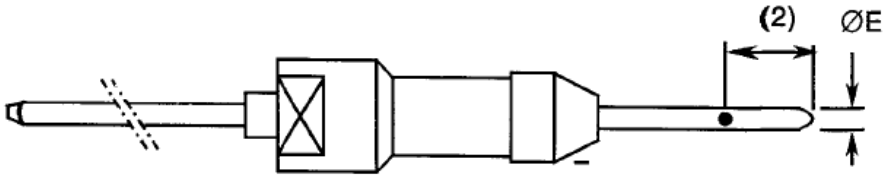


VARIANT 08 - MALE CONTACT, SOLDER BUCKET

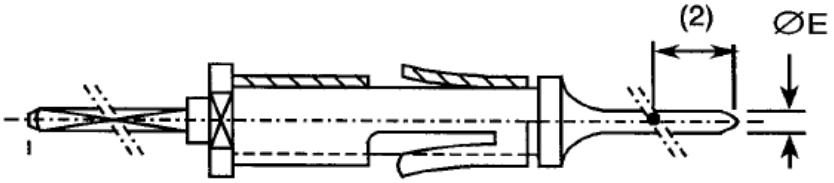


VARIANT 10 - MALE CONTACT, WIRE-WRAP

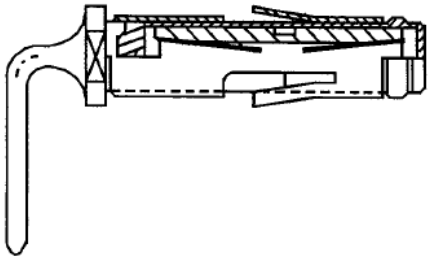
(Not to be used for new design)



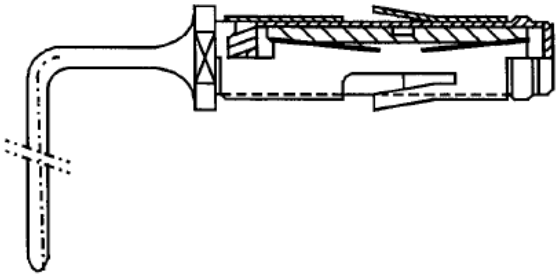
VARIANT 11 - MALE CONTACT, WIRE-WRAP



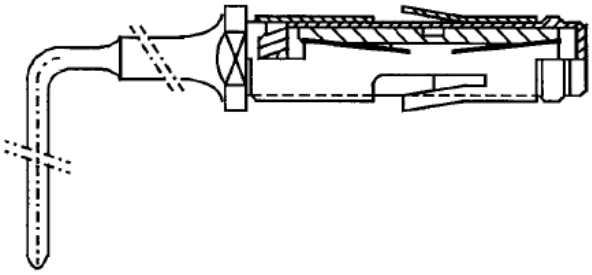
VARIANT 12 - FEMALE CONTACT, SOLDERABLE, RIGHT-ANGLE



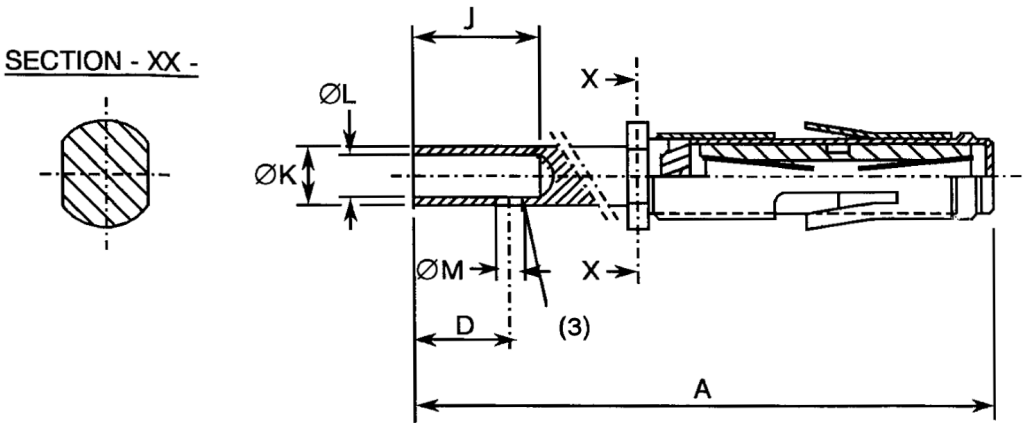
VARIANT 13 - FEMALE CONTACT, SOLDERABLE, RIGHT-ANGLE



VARIANT 14 - FEMALE CONTACT, SOLDERABLE, RIGHT-ANGLE

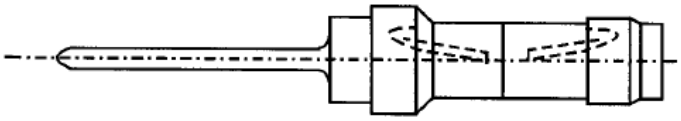


VARIANT 15 - FEMALE CONTACT, CRIMP

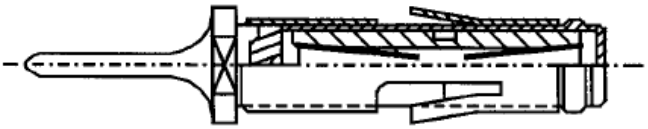


VARIANT 17- FEMALE CONTACT, SOLDERABLE, STRAIGHT-THROUGH

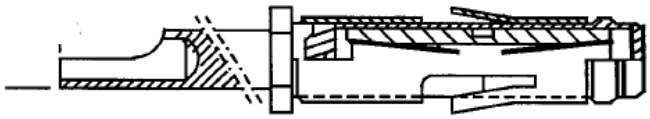
(Not to be used for new design)



VARIANT 18 - FEMALE CONTACT, SOLDERABLE, STRAIGHT-THROUGH

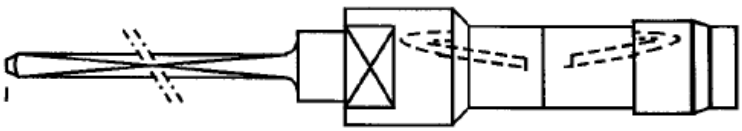


VARIANT 19 - FEMALE CONTACT, SOLDER BUCKET

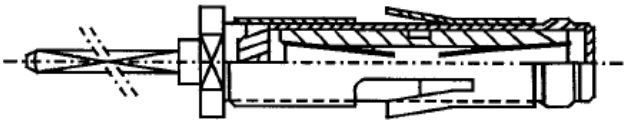


VARIANT 21 - FEMALE CONTACT, WIRE-WRAP

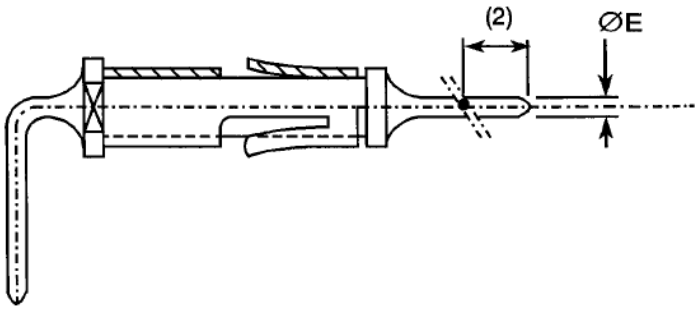
(Not to be used for new design)



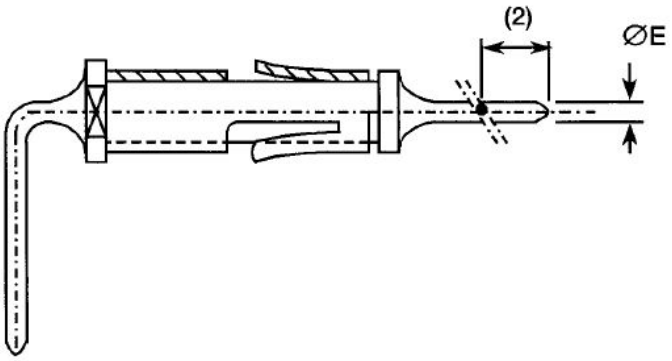
VARIANT 22 - FEMALE CONTACT, WIRE-WRAP



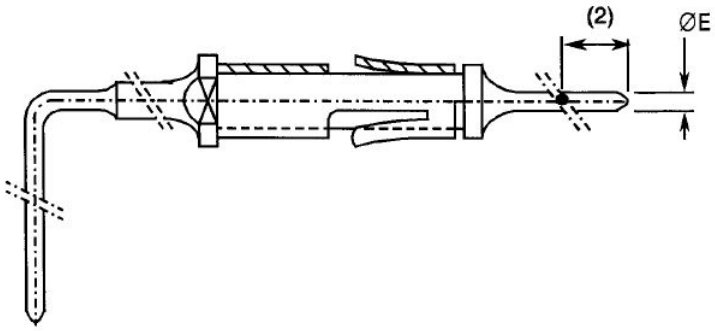
VARIANT 64 - MALE CONTACT, SOLDERABLE, RIGHT-ANGLE (LONG TERMINATION)



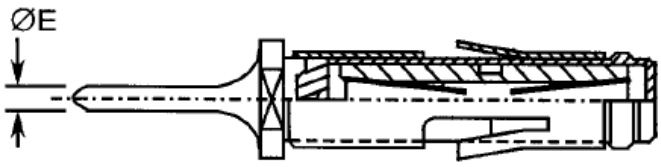
VARIANT 65 - MALE CONTACT, SOLDERABLE, RIGHT-ANGLE (LONG TERMINATION)



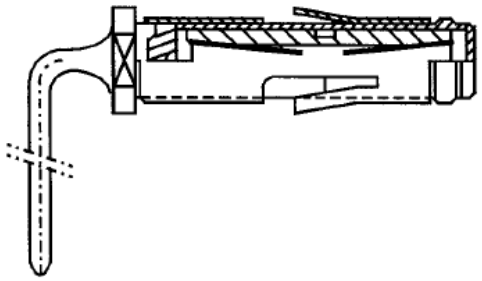
VARIANT 66 - MALE CONTACT, SOLDERABLE, RIGHT-ANGLE (LONG TERMINATION)



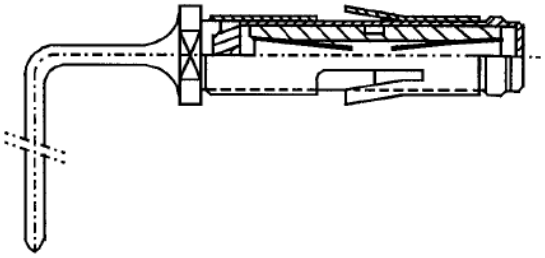
VARIANT 67 - SAVER (FEMALE-MALE) CONTACT



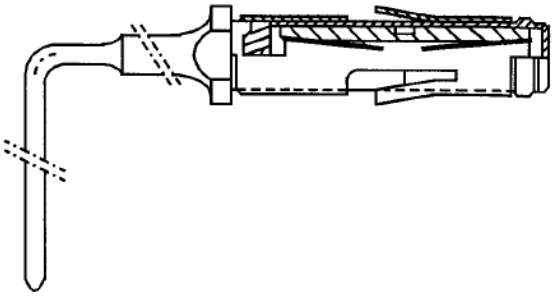
VARIANT 68 - FEMALE CONTACT, SOLDERABLE, RIGHT-ANGLE (LONG TERMINATION)



VARIANT 69 - FEMALE CONTACT, SOLDERABLE, RIGHT-ANGLE (LONG TERMINATION)



VARIANT 70 - FEMALE CONTACT, SOLDERABLE, RIGHT-ANGLE (LONG TERMINATION)



NOTES TO FIGURE 2:

1. All dimensions are in millimetres:

Symbols	Dimensions					
	Variants 01, 02, 03, 06, 07, 08, 10, 11, 64, 65, 66, 67		Variant 04		Variant 15	
	Min	Max	Min	Max	Min	Max
A	-	-	16.3	17.1	11.4	12.2
D	-	-	3.2	4.1	3.2	4.1
ØE	0.575	0.62	0.575	0.62	-	-
J	-	-	3.8	-	3.8	-
ØK	-	-	1.23	1.5	1.23	1.5
ØL	-	-	0.85	0.95	0.85	0.95
ØM	-	-	0.4	0.6	0.4	0.6

2. Measurement point for Plating Thickness test: 2 ±1mm.
3. Inspection hole shall only penetrate one wall of the crimp barrel.

4 REQUIREMENTS

4.1 GENERAL

The complete requirements for procurement of the contacts specified herein are stated in this specification and ESCC 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 ESCC 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

None.

4.2.2 Deviations from Final Production Tests - Chart II

(a) Para. 9.4, Contact Capability: Sampling in accordance with Para. 9.6 of ESCC 3401.

4.2.3 Deviations from Burn-in and Electrical Measurements - Chart III

Not applicable.

4.2.4 Deviations from Qualification Tests - Chart IV

(a) Para. 9.22, Corrosion: Not applicable.

(b) Para. 9.31, Solderability: Not applicable to Variants 04, 10, 11, 15, 21 and 22.

4.2.5 Deviations from Lot Acceptance Tests - Chart V

(a) Para. 9.22, Corrosion: Not applicable.

(b) Para. 9.31, Solderability: Not applicable to Variants 04, 10, 11, 15, 21 and 22.

4.3 MECHANICAL REQUIREMENTS

4.3.1 Dimension Check
The dimensions of the contacts specified herein shall be verified in accordance with the requirements set out in Para. 9.6 of ESCC Generic Specification No. 3401 and shall conform to those shown in Figure 2 of this specification. Overall dimensions are specified with compatible inserts in ESCC Detail specification No. 3401/016.

4.3.2 Weight
The maximum weight of the contacts specified herein, without contacts, shall be as specified in Table 1(a).

4.3.3 Contact Capability
For the purpose of this test, the pick-up and drop weights shall be as specified in Table 1(a).

4.3.4 Contact Retention (In Insert)
The contact retention force shall be as specified in Table 1(a).

4.3.5 Mating and Unmating Forces
As specified in ESCC Detail Specification No. 3401/016.

4.3.6 Insert Retention (In Shell)
As specified in ESCC Detail Specification No. 3401/016.

4.3.7 Jackscrew Retention
As specified in ESCC Detail Specification No. 3401/016.

4.3.8 Contact Insertion and Withdrawal Forces
The contact insertion and withdrawal forces shall be as specified in Table 1(a).

4.3.9 Engagement and Separation Forces
The diameter of the test pin and the engagement and separation forces of the female contacts shall be as specified in Table 1(a).

4.3.10 Oversize Pin Exclusion
The diameter of the test pin and the force applied to it shall be as specified in Table 1(a).

4.3.11 Probe Damage
The probe diameter and the moment at the end of the probe shall be as specified in Table 1(a).

4.3.12 Solderability
Not applicable to Variants 04, 10, 11, 15, 21 and 22. For all other variants, size B soldering iron shall be used.

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 contacts 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 Shells
As specified in ESCC Detail Specification No. 3401/016.

4.4.2 Inserts
As specified in ESCC Detail Specification No. 3401/016.

4.4.3 Contacts

4.4.3.1 Body
The contact body shall be made of copper alloy.

Male Contact and Saver: The plating shall be 1.27µm minimum gold over 1.27µm minimum nickel.

Female Contact: The plating shall be 0.25µm minimum gold over 1.27µm minimum nickel.

4.4.3.2 Female Contact Wire
The wire shall be made of copper alloy. The plating shall be 1.27µm minimum gold over 0.2µm minimum nickel.

4.4.3.3 Female Contact Sleeve
The sleeve shall be made of copper alloy. The plating shall be 0.25µm minimum gold over 0.8µm minimum nickel.

4.4.3.4 Pre-tinned Terminations
The terminations of Contact Type Codes MA, ME, MG, FA, FE and FG (see Table 1(a)) shall be solder dipped (tin/lead, 63/37). The thickness of the solder shall be 0.1µm minimum.

For Variants 01, 02, 03, 12, 13, 14, 64, 65, 66, 68, 69 and 70, the tinning must, as a minimum, cover each termination from the tip to the connector mounting plane (insert-pcb interface).

For Variants 07 and 18, part of any termination may remain untinned, but the untinned portion must not exceed 0.7mm when measured from the insert.

4.4.4 Contact Retaining Clip
The clip shall be made of a beryllium copper alloy.

4.4.5 Guiding and Locking Devices
As specified in ESCC Detail Specification No. 3401/016.

4.4.6 Magnetism Level
As specified in ESCC Detail Specification No. 3401/016.

4.5 MARKING

4.5.1 General
The marking of all components delivered to this specification shall be in accordance with the requirements of ESCC Basic Specification No. 21700 and the following paragraphs.

These components being too small to accommodate the marking as specified hereafter, the full marking information shall accompany each lot of components in its primary package. Such marking shall comprise:

(a) The ESCC qualified components symbol (for ESCC qualified components only).
(b) The ESCC Component Number.
(c) Traceability information.

4.5.2 The ESCC Component Number
The ESCC Component Number shall be constituted and marked as follows:

Example: 340101701BMC

- Detail Specification Number: 3401017
- Type Variant (see Table 1(a)): 01
- Testing Level: B
- Contact Type Code (See Table 1(a)): MC (as required)

4.5.3 Traceability Information
Traceability information shall be marked in accordance with ESCC Basic Specification No. 21700.

4.6 ELECTRICAL MEASUREMENTS

4.6.1 Electrical Measurements at Room Temperature
The parameters to be measured in respect of electrical characteristics are scheduled in Table 2. Unless otherwise specified, the measurements shall be performed at T_{amb} = +22 ±3°C.

4.6.2 Electrical Measurements at High and Low Temperatures (Table 3)
Not applicable.

4.6.3 Circuits for Electrical Measurements (Figure 4)
Not applicable.

4.7 BURN-IN AND ELECTRICAL MEASUREMENTS
Not applicable.

4.8 ENVIRONMENTAL AND ENDURANCE TESTS (CHARTS IV AND V OF ESCC GENERIC SPECIFICATION NO. 3401)

4.8.1 Measurements and Inspections on Completion of Environmental Tests
The parameters to be measured and inspections to be performed on completion of environmental testing shall be those specified in Table 6. Unless otherwise specified, the measurements shall be performed at T_{amb} = +22 ±3°C.

4.8.2 Measurements and Inspections at Intermediate Points during Endurance Tests
Not applicable.

4.8.3 Measurements and Inspections on Completion of Endurance Tests
The parameters to be measured and inspections to be performed on completion of endurance tests shall be those specified in Table 6. Unless otherwise specified, the measurements shall be performed at T_{amb} = +22 ±3°C.

4.8.4 Conditions for Operating Life Test (Part of Endurance Testing)
Not applicable.

4.8.5 Electrical Circuit for Operating Life Tests (Figure 5)
Not applicable.

4.8.6 Conditions for High Temperature Storage Test (Part of Endurance Testing)
The requirements for the high temperature storage test are specified in Section 9 of ESCC Generic Specification No. 3401. The conditions for high temperature storage testing shall be the maximum storage temperature specified in Table 1(b) of this specification.

TABLE 2 – ELECTRICAL MEASUREMENTS AT ROOM TEMPERATURE

No.	Characteristics	Symbol	Spec. and/or Test Method	Test Condition	Variants	Limits		Unit
						Min	Max	
1	Contact Resistance (Low Level Current) (1)	Rcl	ESCC No. 3401 Para 9.1.1.3	Para 9.1.1.3	All	-	8	mΩ
2	Contact Resistance (Rated Current) (1)	Rcr	ESCC No. 3401 Para 9.1.1.3	Para 9.1.1.3 5.0A	All	-	8	mΩ

NOTES:
1. Contact Resistance at Low Level Current and at Rated Current is guaranteed but not tested during Final Production Tests (Chart II).

TABLES 3, 4 AND 5

Not applicable

TABLE 6 – MEASUREMENTS AND INSPECTIONS ON COMPLETION OF ENVIRONMENTAL AND ENDURANCE TESTING

No.	ESCC Generic Spec. No. 3401		Measurements and Inspections		Symbol	Limits		Unit
	Environmental and Endurance Tests (1)	Test Method and Conditions	Identification	Conditions		Min	Max	
01	Seal Test	Para. 9.9	ESCC 3401/016	-	-	-	-	
02	Wiring	Para. 9.10 & Table 1(a) of this spec.	Low Level Contact Resistance	Table 2 Item 1	Rcl	Table 2 Item 1		
03	Vibration	Para. 9.11	ESCC 3401/016	-	-	-	-	
04	Shock or Bump	Para. 9.12	ESCC 3401/016	-	-	-	-	
05	Climatic Sequence	Para. 9.13	ESCC 3401/016	-	-	-	-	
06	Plating Thickness	Para. 9.14	Thickness	-	-	Para. 4.4.3 of this spec.		

No.	ESCC Generic Spec. No. 3401		Measurements and Inspections		Symbol	Limits		Unit
	Environmental and Endurance Tests (1)	Test Method and Conditions	Identification	Conditions		Min	Max	
07	Joint Strength	Para. 9.15	ESCC 3401 Para. 9.15	-	-	-	-	
08	Rapid Change of Temperature	Para. 9.16	ESCC 3401/016	-	-	-	-	
09	Contact Retention (In Insert)	Para. 9.17 & Para. 4.3.4 of this spec.	Contact Displacement	-	-	ESCC 3401 Para. 9.17		
10	Endurance	Para. 9.18	**Initial Measurements** Low Level Contact Resistance	Table 2 Item 1	Rcl	Record Values		
			Final Measurements Low Level Contact Resistance Drift	Table 2 Item 1	ΔRcl	-	4	mΩ
11	Permanence of Marking	Para. 9.19	As applicable	-	-	-	-	
12	Mating/Unmating Forces	Para. 9.20	ESCC 3401/016	-	-	-	-	
13	High Temperature Storage	Para. 9.21	**Initial Measurements** Low Level Contact Resistance	Table 2 Item 1	Rcl	Record Values		
			Final Measurements Low Level Contact Resistance Drift	Table 2 Item 1	ΔRcl	-	4	mΩ
			Rated Current Contact Resistance	Table 2 Item 2	Rcr	Table 2 Item 2		
			Contact Retention (In Insert)	Para. 4.3.4 of this spec.		ESCC 3401 Para 9.17		
14	Corrosion	Para. 9.22	Visual Examination	-	-	-	-	
15	Insert Retention (In Shell)	Para. 9.23 & Para. 4.3.6 of this spec.	ESCC 3401/016	-	-	-	-	
16	Jackscrew Retention	Para. 9.24 & Para. 4.3.7 of this spec.	ESCC 3401/016	-	-	-	-	
17	High Temperature Measurements	Para. 9.25	ESCC 3401/016	-	-	-	-	
18	Overload Test	Para. 9.26	Rated Current Contact Resistance	Table 2 Item 2	Rcr	Table 2 Item 2		
19	Maintenance Aging	Para. 9.27	Visual Examination	-	-	-	-	
			Contact Retention (In Insert)	Para. 4.3.4 of this spec.		ESCC 3401 Para. 9.17		
			Contact Insertion & Withdrawal Forces	Para. 4.3.8 of this spec.		Para. 4.3.8 of this spec.		
20	Engage/Separation Forces	Para. 9.28 & Para. 4.3.9 of this spec.	Force	-	-	Para. 4.3.9 of this spec.		

No.	ESCC Generic Spec. No. 3401		Measurements and Inspections		Symbol	Limits		Unit
	Environmental and Endurance Tests (1)	Test Method and Conditions	Identification	Conditions		Min	Max	
21	Oversize Pin Exclusion	Para. 9.29 & Para. 4.3.10 of this spec.	-	-	-	ESCC 3401 Para. 9.29		
22	Probe Damage	Para. 9.30 & Para. 4.3.11 of this spec.	Contact Separation Force	Para. 4.3.9 of this spec.	-	Para. 4.3.9 of this spec.		
23	Solderability	Para. 9.31 & Para. 4.3.12 of this spec.	-	-	-	ESCC 3401 Para. 9.31		

NOTES:

1. The tests in this Table refer to either Chart IV or V and shall be used as applicable.

APPENDIX 'A'

AGREED DEVIATIONS FOR SMITHS INTERCONNECT (F)

ITEMS AFFECTED	DESCRIPTION OF DEVIATIONS
Para. 4.2.4 Deviations from Qualification Tests - Chart IV	Para. 9.27, Maintenance Aging, (a) Procedure, number of cycles: The number of cycles may be reduced from 9 to 5.
Para. 4.2.5 Deviations from Lot Acceptance Tests - Chart V	Para. 9.27, Maintenance Aging, (a) Procedure, number of cycles: The number of cycles may be reduced from 9 to 5.