

DRAFT MARK-UP
FOR DCR 362

S. Thacker, 22/1/08.
6/2/2008
(change pages
only).



Pages 1 to 16

**CONTACTS, ELECTRICAL, TRIAX, CRIMP
FOR 3401/056 CONNECTORS**

ESCC Detail Specification No. 3401/066

3

ISSUE 2

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TABLE 1(a) - TYPE VARIANTS

VARIANTS	TYPE	MAX. WEIGHT (g)	ACCEPTED CABLES
01	Male	4.6	M17-176-00002
02	Female	7.2	SSQ-21655 (NDBC-TFE-2452SJ-75-1 P512296-C)

NOTES

- Contacts fitted in 09-01 arrangement shall be used only with backshells ESCC No. 3401/062, Variants 65 to 67, *without sealing sleeves*
- Contacts fitted in other triax arrangements shall be used only with backshells ESCC No. 3401/062, Variants 41 to 45 *with straight sealing sleeves* or with backshells ESCC No. 3401/062, Variants 50 to 50 *with elbow sealing sleeves*
- Weight includes the weight of both the contact and the sealing sleeve as applicable.

TABLE 1(b) - MAXIMUM RATINGS

No.	CHARACTERISTICS	SYMBOL	MAXIMUM RATINGS	UNIT	REMARKS
1	Working Voltage Sea Level	U_R	500	V	
2	Rated Current	I_{cr}	1.0	A	
3	Frequency Range	f	0 to 20	MHz	Note 1
4	Operating Temperature Range	T_{op}	- 65 to +200	°C	
5	Storage Temperature Range	T_{stg}	- 65 to +200	°C	

NOTES

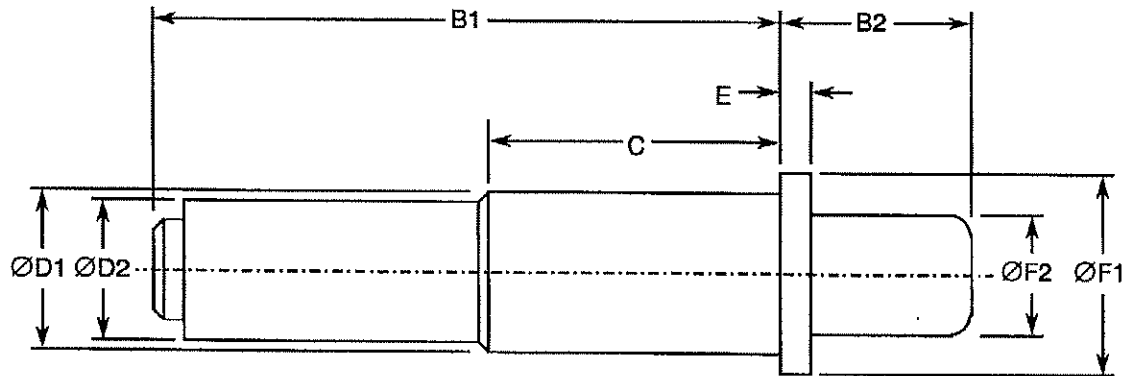
- Compatible with 1553 Bus Line.

VARIANT	CONTACT TYPE	SEALING SLEEVE TYPE	MAX. WEIGHT (g) (Notes)	ACCEPTED CABLES	REMARKS
01	MALE	NO SLEEVE (Code 0)	4.6	M17-176-00002 SSQ-21655 (NDBC-TFE-2452SJ-75-1P512296-C)	Note 1
		STRAIGHT (Code 1)	6.6		Note 2
		ELBOW (Code 2)	6.6		Note 2
02	FEMALE	NO SLEEVE (Code 0)	7.2		Note 1
		STRAIGHT (Code 1)	9.2		Note 2
		ELBOW (Code 2)	9.2		Note 2

FIGURE 2 - PHYSICAL DIMENSIONS

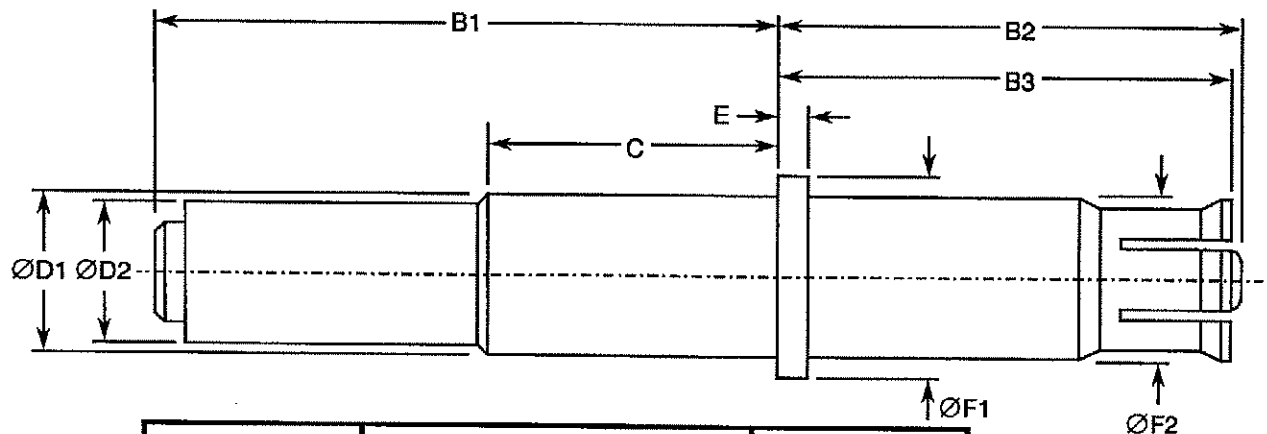
FIGURE 2(a) - CONTACTS

VARIANT 01, MALE CONTACT



SYMBOL	MILLIMETRES		REMARKS
	MIN.	MAX.	
B1	21.34	22.86	
B2	7.49	7.74	
C	10.00	11.00	
ØD1	6.93	7.01	
ØD2	-	6.53	After crimping
E	0.74	0.84	
ØF1	7.95	8.03	
ØF2	5.515	5.565	

VARIANT 02, FEMALE CONTACT

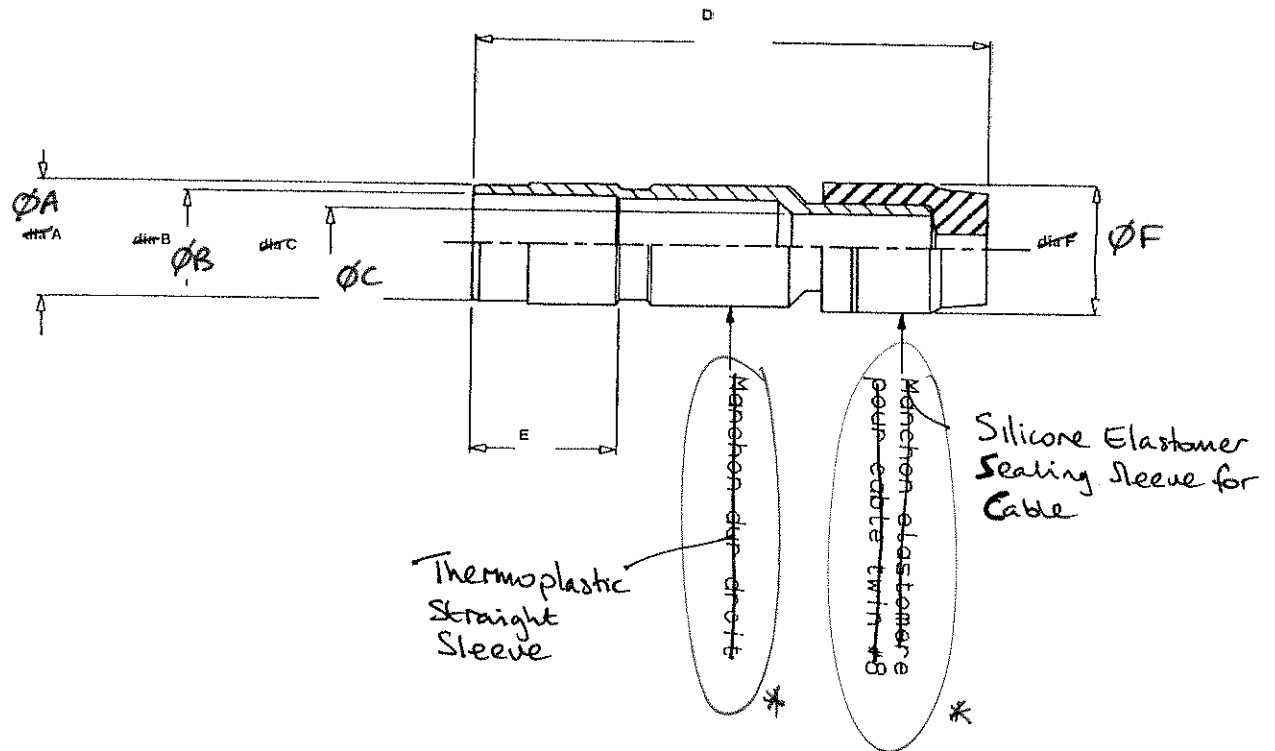


SYMBOL	MILLIMETRES		REMARKS
	MIN.	MAX.	
B1	21.34	22.86	
B2	15.80	16.43	
B3	15.88	16.03	
C	10.00	11.00	
ØD1	6.93	7.01	
ØD2	-	6.53	After crimping
E	0.74	0.84	
ØF1	7.95	8.03	
ØF2	7.22	7.32	

FIGURE 2 - PHYSICAL DIMENSIONS

FIGURE 2(b) - SEALING SLEEVES

~~VARIANT 2m~~ STRAIGHT SLEEVE (Code 1)



SYMBOL	MILLIMETRES		REMARKS
	MIN.	MAX.	
Ø A	8.30	8.40	
Ø B	7.05	7.15	
Ø C	4.80	4.90	
D	35.40	36.50	
E	10.30	10.50	
Ø F	9.2	9.5	

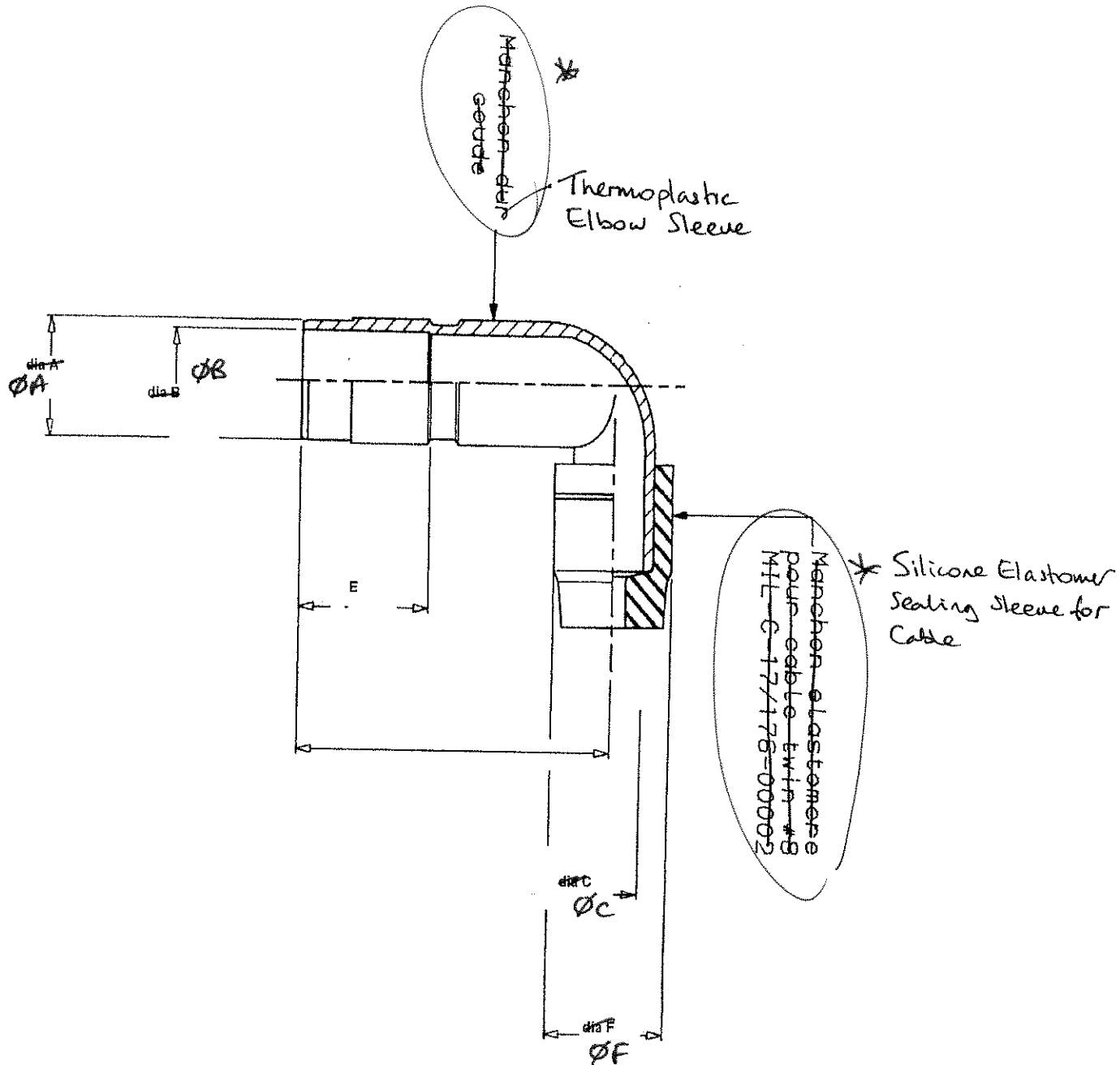
ENGLISH DRAWING
REQUIRED

No. 3401/066

FIGURE 2 - PHYSICAL DIMENSIONS

FIGURE 2(b) - SEALING SLEEVES

VARIANT 01 ELBOW SLEEVE (Code 2)



SYMBOL	MILLIMETRES		REMARKS
	MIN.	MAX.	
ϕA	8.30	8.40	
ϕB	7.05	7.15	
ϕC	4.80	4.90	
D	25.00	25.20	
E	10.30	10.50	
ϕF	9.20	9.50	

* ENGLISH DRAWING
REQUIRED

	ESCC Detail Specification No. 3401/066	PAGE 9 ISSUE <i>X</i> <i>3</i>
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4. REQUIREMENTS

4.1 GENERAL

The complete requirements for procurement of the contacts specified herein shall be as 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

None.

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. 9.15, Joint Strength: Shall be performed as specified in Para. 4.3.13 of this specification.
- (b) Para. 9.26, Overload Test: Not applicable.
- (c) Para. 9.29, Oversize Pin Exclusion: Not applicable.
- (d) Para. 9.30, Probe Damage: Not applicable.
- (e) Para. 9.31, Solderability: Not applicable.

4.2.5 Deviations from Lot Acceptance Tests (Chart V)

- (a) Para. 9.15, Joint Strength: Shall be performed as specified in Para. 4.3.13 of this specification.
- (b) Para. 9.29, Oversize Pin Exclusion: Not applicable.
- (c) Para. 9.30, Probe Damage: Not applicable.

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.

4.3.2 Weight

The maximum weight of the contacts specified herein shall be as given in Table 1(a).

, including sealing sleeve if applicable,

	ESCC Detail Specification No. 3401/066		PAGE 12 ISSUE 1/3
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4.4.1 Insert

Teflon.

4.4.2 Inner, Intermediate and Outer Contacts

The contacts shall be made of copper base alloy selected from raw materials with a minimum of impurities. The contacts shall be plated as follows:

- 2.0µm ± 20% nickel underplate.
- 1.27µm minimum gold plate over 3.0µm minimum of copper.

4.5 MARKING

4.5.1 General

The marking of all components delivered to this specification shall be in accordance with with the requirements of ESCC Basic Specification No. 21700 and the following paragraphs. These components being too small to accommodate the marking, the marking requirements, in full, shall accompany each lot of components in its primary package.

Such marking shall comprise:-

- (a) The ESCC Component Number.
- (b) Traceability Information.
- (c) Quantity of Components.

4.5.2 The ESCC Component Number

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

Detail Specification Number _____ 340106601BQ
 Type Variant (see Table 1(a)) _____
 Testing Level _____
 Sealing Sleeve Code (see Para. 4.5.2.1) _____

4.5.3 Traceability Information

Traceability information shall be marked in accordance with the requirements of 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 listed in Table 2. Unless otherwise specified, the measurements shall be performed at $T_{amb} = +22 \pm 3$ °C.

Contact resistance shall be measured on the engaged outer, intermediate and inner conductor contacts.

4.6.2 Electrical Measurements at High and Low Temperatures (Table 3)

Not applicable.

4.6.3 Circuits for Electrical Measurements

A circuit for measuring Contact Resistance is shown in Figure 4 of this specification.

4.7 SCREENING TESTS (TABLES 4 AND 5)

Not applicable.

4.4.3
Sealing Sleeve

As per
Advised

4.4.3 Sealing Sleeve
Silicone elastomer and thermoplastic

4.5.2.1 →
see
attached

4.S.2.1 Sealing Sleeve Code

The sealing sleeve code ~~is~~ to be marked as part of the ESCC Component Number shall be as follows:

Code 0 indicates contacts supplied without sealing sleeves

Code 1 indicates contacts supplied with straight sealing sleeves

Code 2 indicates contacts supplied with elbow sealing sleeves