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Colin Hinson

In the village of Blunham, Bedfordshire, UK.

DEFENCE STANDARD NO 59 - 35(PART 1), ISSUE 1, DATED 1ST MAY 1970
SECTION 6

PLUGS AND SOCKETS, ELECTRICAL
PATTERNS 106, 107, AND 108, FOR
TELEPHONE AND HEADSET APPLICATION

AMENDMENT NO 1

1. Cover

DELETE: 59 - 35(Part 1) Issue 1 1st May 1970
Section 6

INSERT:

59 - 35 (Part 1)

Section 6 / Issue 1

1st May 1970

2. Page 1, top right-hand corner reference

a. After DEF STAN 59 - 35(PART 1)

DELETE: /1

b. After SECTION 6

INSERT: /1

3. Make a note of this amendment on Amendment Record.

19TH JUNE 1970
DIRECTORATE OF STANDARDIZATION
MINISTRY OF DEFENCE
LONDON.

OBSOLESCENT |

Ministry of Defence
Ministry of Technology (Aviation Group)

Defence Standard

59 - 35 (Part 1) / Issue 1 1st May 1970

Section 6

PLUGS AND SOCKETS, ELECTRICAL

PATTERNS 106, 107, AND 108, FOR TELEPHONE AND HEADSET APPLICATIONS

OBSOLESCENT

THIS DEFENCE STANDARD WILL NOT BE UPDATED AND IS
NOT TO BE USED FOR THE PURCHASE OF NEW EQUIPMENT

PLUGS AND SOCKETS, ELECTRICAL

PATTERNS 106, 107, AND 108

FOR TELEPHONE AND HEADSET APPLICATIONS

This section of DEF STAN 59-35 (PART 1) supersedes SSM(L) 9-41, Part 13, dated 1 March 1966, RCL 323, RCS 323, and RCS 324, dated July 1953.

1. This Section of DEF STAN 59-35 (PART 1) specifies the requirement for plugs and sockets, electrical, Patterns 106, 107, and 108, for telephone and headset applications, for use by the Navy, Army, and Air Force Departments of the Ministry of Defence and by the Ministry of Technology (Aviation Group).
2. This Section is to be used in conjunction with DEF STAN 59-35 (PART 1), 'Plugs and sockets, electrical, with soldered terminations (d c and low frequency applications', which is the generic specification.
3. Tables I(A) to I(D) give the details of the standard range of plugs, jacks, and sockets to be used in all future designs of equipments and, where practicable, for the maintenance of existing equipments.
4. This Section, together with DEF STAN 59-35 (PART 1), contains all necessary technical information and it is the definitive specification for these items. It must be invoked for all tender and contract purposes.
5. Departments named in clause 1 are to implement this Section of DEF STAN 59-35 (PART 1) from the date of issue.
6. This Section of DEF STAN 59-35 (PART 1) has been agreed by all authorities concerned. If it should be found unsuitable for a particular requirement, the Director of Standardization should be informed of the circumstances. Any enquiries regarding this Section in relation to an invitation to tender or a contract in which it is invoked should be addressed to the Qualification Approval Authority named in that invitation to tender or contract.

SPECIFICATION FOR PLUGS AND SOCKETS, ELECTRICAL
FOR TELEPHONE AND HEADSET APPLICATIONS

PLUGS AND SOCKETS, ELECTRICAL (PATTERN 106)

PLUGS AND JACKS, TELEPHONE (PATTERN 107 AND 108)

1. SCOPE

This specification relates to a range of plugs and sockets, electrical, unsealed (Pattern 106), plugs and jacks, telephone, unsealed, 3 and 4 contact types (Pattern 107) for audio frequency applications on inter-communication circuits and switchboard operators' headsets, and plugs and jacks, telephone, unsealed, 3, 5 and 8 contact types (Pattern 108) primarily for use on switchboards. Jacks of the Pattern 108 series are available in single units and in strips of 10 or 20. This specification gives details of dimensions, ratings and test values peculiar to the range of standard items defined. It is primarily intended for those concerned with components for use in Service equipment.

2. RELATED SPECIFICATIONS AND DOCUMENTS

These are listed in Defence Standard DEF STAN 59-35 (Part 1)/1.

3. INFORMATION TO BE SUPPLIED BY PURCHASER

a. When ordering components to this Section of the Standard it is essential to quote the relevant NATO Stock Number (where allotted), style reference, and to quote this Section of the Standard.

b. Before using the NATO Stock Numbers given in this Section of the Standard, reference should be made to the Joint Service qualified products list of electronic parts (RCG 4) to ascertain that a Qualification Approval Certificate is extant for the item concerned.

4. ILLUSTRATIONS AND DRAWINGS

a. The essential purpose of the illustrations and drawings which form part of this specification is to ensure mechanical interchangeability. It is essential that equipment designers work to the limits stated and not to the dimensions of individual specimens. Where official drawings are quoted they are mandatory. Copies of such drawings are obtainable from MINISTRY OF TECHNOLOGY, EQD SECTION T 2(d), 'AQUILA', GOLF ROAD, BROMLEY, KENT. BR1 2JB.

b. HM Government drawings referred to are now associated with this Section of the Defence Standard and therefore they must not be altered in any way which will affect function, material, or interchangeability unless the INTERIM Defence Standard itself is amended. Holders of master drawings must endorse them accordingly.

5. STYLE REFERENCES

The style references used in this specification are abbreviations to identify individual plugs, jacks and sockets. A typical style reference is:

<u>Function</u>	<u>Pattern Number</u>	<u>Type</u>	<u>Number of Contacts</u>
P	106	A	3

Function letter P indicates plug, J indicates jack, S indicates socket; numerals 106, 107, and 108 indicate pattern number as appropriate; type letter indicates a variation within the range; figure 3, 4, 5, or 8 indicates number of contacts as appropriate. Where a letter follows the contact figure this denotes the colour of the shell material.

6. QUALIFICATION APPROVAL

a. Provision of samples.

The manufacturer shall submit specimens in accordance with Schedule 1 for which approval is desired.

b. Grouping of specimens.

The specimens shall be grouped as indicated in Schedule 2.

c. Test incidence.

Initial measurements referred to in Table 4 of DEF-5011 and in this specification as Group 0 shall be carried out immediately prior to the commencement of tests on subsequent groups and the results shall be recorded. Each test shall be applied in the order listed in Schedule 8 and where measurements are required the results shall be recorded. Where tests are not applicable this is indicated in Schedule 8.

SCHEDULE 1

PATTERN 106				PATTERN 107				PATTERN 108			
STYLE	QTY	STYLE (MATING ITEM)	QTY	STYLE	QTY	STYLE (MATING ITEM)	QTY	STYLE	QTY	STYLE (MATING ITEM)	QTY
P106A3	20	S106C3	20	P107A4	20	J107B4	20	P108A3	20	J108B3	20
P106B3	20	S106C3	20	P107C4	20	J107D4	20			J108B5	20
				P107E4	20	J107F4	20			J108B8	20
										J108C3	6
										J108C5	6
										J108C8	6
										J108D3	6
										J108D5	6

Note: 3 additional specimens of each style will be submitted in the form of piece-parts for the dimensional examination of 15.1(iii).

DEF STAN 59-35 (PART 1)
SECTION 6

SCHEDULE 2

GROUP	TEST NO	PATTERN 106	PATTERN 107	PATTERN 108	PATTERN 108		
		(MATED PAIRS)	(MATED PAIRS)	(MATED PLUGS/ SINGLE JACKS)	(MATED PLUGS/ JACK STRIPS)		
					PLUGS	10 WAY	20 WAY
0	15.1 except 15.1 (iii)	All	All	See Note Below	All	All	All
	15.2	All	All		All	All	All
	15.3	All	-		-	-	-
	15.4	All	All		All	2	1
	15.5	All	-		-	-	-
	15.6	-	-		-	-	-
	15.7	All	All		All	2	1
	15.8	-	-		-	-	-
	15.9	All	All		All	All	All
	15.10	-	-		-	-	-
	15.11	All	All		All	All	All
	15.36	-	-		-	-	-
1	15.12 to 15.20 except 15.15, 15.16, and 15.20	5	5	5	5	2	2
		-	-		-	-	-
2	15.21	5	5	5	5	1	1
3	15.22	5	5	5	5	1	1
	15.23	5	5	5	5	1	1
	15.24	-	-	-	-	-	-
4	15.25	-	-	-	-	-	-
5	15.26	2	2	2	2	1	1
6	15.27)	-	-	-	-	-	-
	15.28)						
7	15.29	-	-	3	3	1	1
	15.30	3	-	-	-	-	-
	15.31)	-	-	-	-	-	-
	15.32)						
	15.33	3	3	3	3	1	1
8	15.34)	-	-	-	-	-	-
	15.35)						

Note: The 3 additional specimens of each style are to be subjected to Test No 15.1(iii) in Group 0.

7. BATCH ACCEPTANCE TEST PROCEDURE

Components submitted for acceptance shall be tested in accordance with DEF-5001-C, Section 3, and shall be subjected to the following tests:

- a. 100 per cent acceptance tests. (See DEF-5001-C, Section 3.)

SCHEDULE 3

TEST NO DEF STAN 59-35 (PART 1)	TITLE OF TEST
15.1(i) 15.11	Visual examination Voltage proof (as for QA tests)

- b. Sampling tests. (See DEF-5001-C, Section 3.)

- (1) Tests bracketed together within a group are considered as a sequence and must be performed as such, using the same sample throughout.
- (2) Information on the re-submission of rejected batches is given in DEF-131-A.

Group 'A' Tests.

SCHEDULE 4

TEST NO DEF STAN 59-35 (PART 1)	TITLE OF TEST	AQL	INSPECTION LEVEL	TEST CATEGORY
15.2	Compatibility (gauging) or Compatibility Assurance Test (See note below)	1%	II	Non- Destructive
15.4	Engagement and disengagement	1%	II	Non- Destructive
15.5 (Part 1 only)	Contact holding force (without sizing)	1%	II	Non- Destructive

Notes:

1. Where compatibility gauges (Test 15.2) are not available a Compatibility Assurance Test shall be applied. For the Compatibility Assurance Test the manufacturer shall demonstrate to the Inspection Authority that his system of piece-part checking and assembly methods together with final mechanical measurements will ensure that the finished component will meet the compatibility requirements.
2. The Inspection Levels and AQL will be agreed by the Inspection Authority in relation to each particular manufacturer's system.

DEF STAN 59-35 (PART 1)
SECTION 6

Group 'B' Tests.

SCHEDULE 5

TEST NO DEF STAN 59-35 (PART 1)	TITLE OF TEST	AQL	INSPECTION LEVEL	TEST CATEGORY
15.12 15.5 (Patt 106 only)	Soldering) Contact holding) force)	4%	S3	Destructive
15.7 15.9	Contact resistance) Insulation resistance)	4%	S3	Destructive

c. Disposal of samples. (See DEF-5001-C, Section 3)

8. SYSTEMATIC QUALITY ASSURANCE TESTS

a. Tests bracketed together within a group are considered as a sequence and must be performed as such using the same sample throughout.

Group 'C' tests.

SCHEDULE 6

TEST NO DEF STAN 59-35 (PART 1)	TITLE OF TEST	AQL	INSPECTION LEVEL	TEST CATEGORY
15.1(ii)	Dimensions (outline). Additionally, issue number of manufacturer's drawing schedule to be checked against that quoted on Approval Certificate. Any significant changes to be reported to Approval Authority	1%	S3	Non- destructive
15.7 15.17	Contact resistance. Temperature, rapid change 15.17(i), (ii), and (iii) not required	4%	S3	Destructive
15.21	Damp heat, (long term)			
15.21(i)	Working voltage application			
15.21.2(i)	Contact resistance			
15.21.2(iii)	Insulation resistance			
15.21.2(iv)	Visual examination	4%	S3	Destructive
15.21.2(v)	Disengagement and engagement			
15.21.2(viii)	Voltage proof			
15.4	Engagement and disengagement force			
15.7 15.22	Contact resistance Endurance, Mechanical (500 operations)			
15.22(i)	Visual examination	4%	S3	Destructive
15.22(ii)	Engagement and disengagement force			
15.22(iii) (Patt 106 only)	Contact holding force			
15.23.1	Endurance high temperature (500 hours)			
15.23.1(ii)	Insulation resistance (hot)			
15.23.1(iii)	Contact resistance			
15.23.1(v)	Voltage proof			

DEF STAN 59-35 (PART 1)
SECTION 6

Group 'D' tests.

SCHEDULE 7

- (1) The sample size and performance requirements for Group 'D' tests shall be in accordance with the Qualification Approval requirements for the tests specified herein (see clause 6).
- (2) Components for Group 'D' tests shall be selected from batches which have successfully passed the acceptance tests and the batch size from which this selection is made shall be at least three times the required sample quantity.

b. Disposal of samples. (See DEF-5001-C, Section 4)

9. TEST REQUIREMENTS

a. The general test requirements are fully defined in DEF STAN 59-35 (PART 1). The following table contains additional information on test conditions and requirements for the standard range items defined herein.

SCHEDULE 8

TEST NO DEF STAN 59-35 (PART 1)	TITLE	DESCRIPTION	REQUIREMENTS
15.1	GENERAL EXAMINATION		
(i)	Visual examination	As specified	As specified
(ii)	Dimensions (outline)	As specified	As specified
(iii)	Dimensions (detail) and materials	As specified	As specified
(iv)	Weight	As specified	As shown in outline drawings
15.2	COMPATIBILITY ASSURANCE	As specified	As specified
15.3	POLARIZATION (Pattern 106 only)		
(i)	Polarizing device	As specified	As specified
(ii)	Mis-mating	As specified	As specified
(iii)	Orientation	As specified	As specified

TEST NO DEF STAN 59-35 (PART 1)	TITLE	DESCRIPTION	REQUIREMENTS
15.4	ENGAGEMENT AND DISENGAGEMENT FORCE	<u>Engagement</u> All styles <u>Disengagement</u> <u>Pattern 106</u> <u>Pattern 107</u> P107A4, J107B4 P107C4, J107D4 P107E4, J107F4 <u>Pattern 108</u> All styles	NOT APPLICABLE 26.7N(6 lbf approx) max. 13.3N(3 lbf approx) min. 71.2N(16 lbf approx) max. 26.7N(6 lbf approx) min. 44.5N(10 lbf approx) max. 26.7N(6 lbf approx) min. 12.2N(2.75 lbf approx) max. 6.6N(1.5 lbf approx) min. 17.8N(4 lbf approx) max. 6.6N(1.5 lbf approx) min.
15.5	CONTACT HOLDING FORCE (Pattern 106 plugs only)	As specified. For sizing tool and gauge(see page 20)	As specified
15.6	SEALING	NOT APPLICABLE	

DEF STAN 59-35 (PART 1)
SECTION 6

TEST NO DEF STAN 59-35 (PART 1)	TITLE	DESCRIPTION	REQUIREMENTS
15.7	CONTACT RESISTANCE	As specified <u>Pattern 106</u> <u>Contact identity</u> 1) 2) Earth <u>Pattern 107</u> P107A4, J107B4 <u>Contact identity</u> MIC +) MIC) TEL +) TEL) P107C4, J107D4 <u>Contact identity</u> Yellow) Red) Blue) Green) P107E4, J107F4 <u>Contact identity</u> Red) Green) Blue) White) <u>Pattern 108</u> Tip and ring contacts only	Maximum - 5 milliohms Maximum - 10 milliohms Maximum - 5 milliohms Maximum - 10 milliohms Maximum - 12 milliohms Maximum - 5 milliohms Maximum - 20 milliohms Maximum - 5 milliohms Maximum - 15 milliohms
15.8	SHELL CONTINUITY	NOT APPLICABLE	
15.9	INSULATION RESISTANCE (Method A) (Method B)	As specified All styles NOT APPLICABLE	1 000 megohms min.
15.10	IONIZATION	NOT APPLICABLE	

TEST NO DEF STAN 59-35 (PART 1)	TITLE	DESCRIPTION	REQUIREMENTS
15.11	VOLTAGE PROOF (Method A)	As specified for Method A except <u>Pattern 106 and 107</u> (All styles) 1 300 V d.c. or a.c. peak 50 Hz <u>Pattern 108 (Plugs)</u> a. 2 100 V d.c. or a.c. peak 50 Hz between tip and ring and between sleeve and ring b. Plugs will then be subjected to 100 insertions and withdrawals in tracking test jack (page 21) c. Plugs will then be subjected to Insulation resistance test as in 15.9 <u>Pattern 108 (Jacks)</u> 2 100 V d.c. or a.c. peak 50 Hz	There shall be no breakdown or flashover There shall be no breakdown or flashover 1 000 megohms min. There shall be no breakdown or flashover
	(Method B)	NOT APPLICABLE	
15.12	SOLDERING	Soldering iron method. Bit size 3.175 mm ($\frac{1}{8}$ in) dia. Recovery time 1 hour	Satisfactory tinning. No loosening of parts or other damage such as would impair operation
15.13	BUMPING	Mounted on a suitable test jig at normal ambient temperature	Maximum intermittency 10 microseconds
(i)	Contact resistance	As in 15.7	As in 15.7
(ii)	Sealing	NOT APPLICABLE	

DEF STAN 59-35 (PART 1)
SECTION 5

TEST NO DEF STAN 59-35 (PART 1)	TITLE	DESCRIPTION	REQUIREMENTS
15.14	VIBRATION	As specified at normal ambient temperature	Maximum intermittency 10 microseconds
(i)	Contact resistance	As in 15.7	As in 15.7
(ii)	Sealing	NOT APPLICABLE	
15.15	SHOCK	NOT APPLICABLE	
15.16	ACCELERATION	NOT APPLICABLE	
15.17	TEMPERATURE, RAPID CHANGE	As specified. Temperature severity T1	As specified
(i)	Contact resistance	As in 15.7	Maximum - initial reading plus 5 milliohms
(ii)	Shell continuity	NOT APPLICABLE	
(iii)	Sealing	NOT APPLICABLE	

DEF STAN 59-35 (PART 1)
SECTION 6

TEST NO DEF STAN 59-35 (PART 1)	TITLE	DESCRIPTION	REQUIREMENTS
15.18	CLIMATIC	As specified - H3	
15.18.1	Intermediate measurements	As specified	
(i)	Visual examination	As specified	As specified
15.18.2	Temperature, dry heat	As specified	
(i)	Sealing (hot)	NOT APPLICABLE	
15.18.3	Damp heat, accelerated	NOT APPLICABLE	
15.18.4	Temperature, dry cold	As specified	
(i)	Disengagement and engagement (cold)	As specified	As specified
(ii)	Sealing (cold)	NOT APPLICABLE	
15.18.5	Air density low	NOT APPLICABLE	
15.18.6(a)	Damp heat, accelerated, with assisted recovery	As specified	
15.18.6(b)	Damp heat, accelerated, with 24 hour recovery	NOT APPLICABLE	
15.18.6(c)	Damp heat, accelerated	NOT APPLICABLE	
15.18.6(d)	Damp heat, accelerated with temperature, dry cold	NOT APPLICABLE	
15.18.7	Final measurements	As specified	
(i)	Contact resistance	As in 15.7	Maximum - initial reading plus 5 milliohms
(ii)	Shell continuity	NOT APPLICABLE	
(iii)	Insulation resistance	As specified	Minimum - 10 Megohms
(iv)	Visual examination	As specified	As specified
(v)	Disengagement and engagement	As specified	As specified
(vi)	Sealing	NOT APPLICABLE	
(vii)	Insulation resistance	NOT APPLICABLE	
(viii)	Voltage proof	As in 15.11	As specified
15.19	FIRE RISK	As specified	As specified
15.20	FIREPROOFNESS	NOT APPLICABLE	

DEF STAN 59-35 (PART 1)
SECTION 6

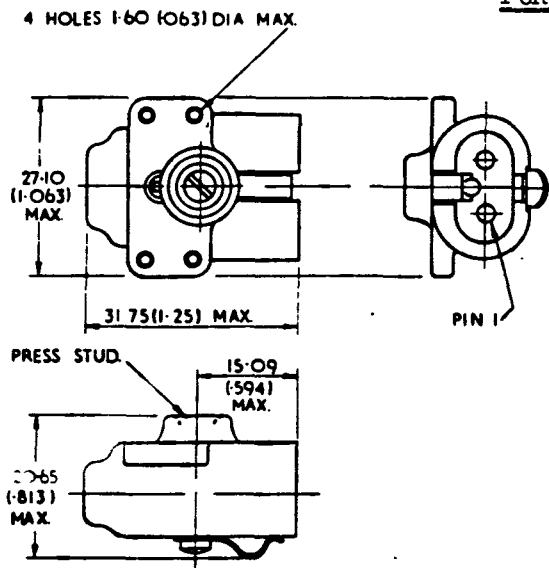
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TEST NO DEF STAN 59-35 (PART 1)	TITLE	DESCRIPTION	REQUIREMENTS
15.22	ENDURANCE, MECHANICAL	As specified. 5 000 insertions and withdrawals	
(i)	Visual examination	As specified	As specified
(ii)	Engagement and disengagement force	As in 15.4	As in 15.4
(iii)	Contact holding force (Pattern 106 plugs only)	As in 15.5	As in 15.5
15.23	ENDURANCE, HIGH TEMPERATURE (long and short term)	As specified except all specimens shall be subjected to 15.23.1 only	
15.23.1	Long term	1 000 hours duration at + 70°C carrying 2A per contact. All contacts to be connected in series with suitable conductor	
(i)	Sealing (hot)	NOT APPLICABLE	
(ii)	Insulation resistance (hot)	As specified	Minimum - 100 Megohms
(iii)	Contact resistance	As in 15.7	Maximum - initial reading plus 5 milliohms
(iv)	Shell continuity	NOT APPLICABLE	
(v)	Voltage proof	As in 15.11	As in 15.11
(vi)	Sealing	NOT APPLICABLE	
15.23.2	Short term	NOT APPLICABLE	
15.24	PLATING PROVING	NOT APPLICABLE	
15.25	SHELF LIFE	NOT APPLICABLE	
15.26	MOULD GROWTH	As specified	
(i)	Insulation resistance	As in 15.9	Minimum - 100 Megohms
(ii)	Visual examination	As specified	As specified

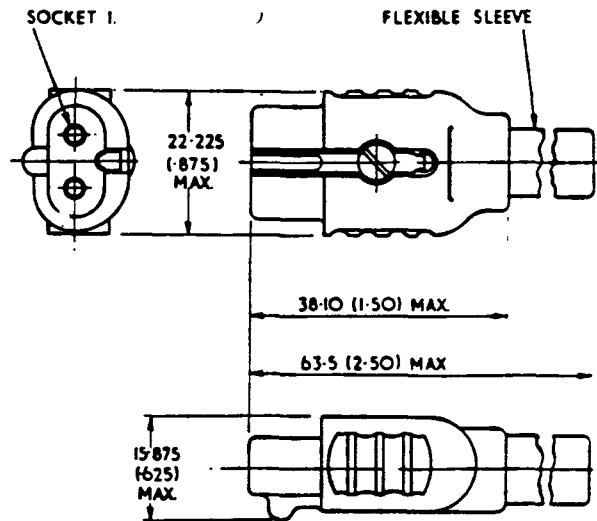
DEF STAN 59-35 (PART 1)
SECTION 6

TEST NO DEF STAN 59-35 (PART 1)	TITLE	DESCRIPTION	REQUIREMENTS
15.27	SALT MIST	NOT APPLICABLE	
15.28	DUST	NOT APPLICABLE	
15.29	ROBUSTNESS OF TERMINATIONS (Pattern 108 jacks only)	As specified 53.4N(12 lbf approx)	As specified
15.30	CONTACT RETENTION (Pattern 106 only)	As specified 222.5N(50 lbf approx)	As specified
15.31	INSERT RETENTION	NOT APPLICABLE	
15.32	TEST PROD DAMAGE	NOT APPLICABLE	
15.33	IMPACT AND RESISTANCE TO STATIC LOAD		
15.33.1	Impact (free specimens only)	As specified. Drop height 1.829M (6 ft) 10 impacts	As specified
15.33.2	Resistance to static load	As specified except <u>Pattern 106</u> NOT APPLICABLE <u>Pattern 107</u> P107E4. J107F4 only 44.5N(10 lbf approx) <u>Pattern 108</u> 35.5N(8 lbf approx)	
15.34	IMMERSION	NOT APPLICABLE	
15.35	SOLVENT RESISTANCE	NOT APPLICABLE	
15.36	CONTACT STRENGTH	NOT APPLICABLE	

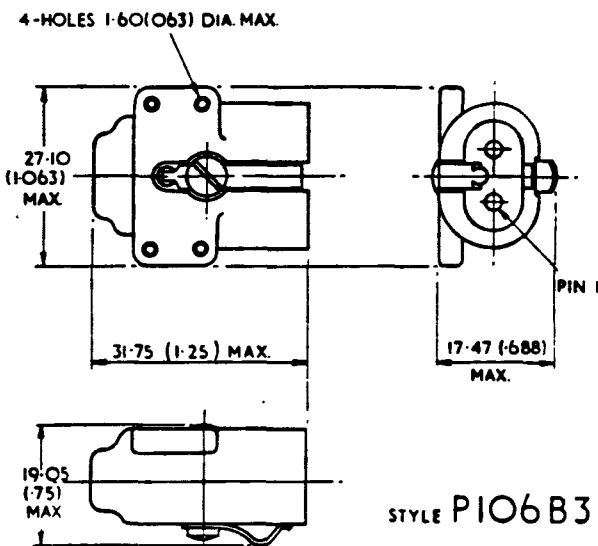
PLUGS AND SOCKETS, ELECTRICAL, PATTERN 106
FOR HEADSET USE



STYLE P106A3



STYLE S106C3



STYLE P106B3

Severity Class

T 1 (-25°/+70°C)
H 3

Classification

GP 1

Weight in grammes (max.)

P106A3 - 12

P106B3 - 12

P106C3 - 12

Rating

Current

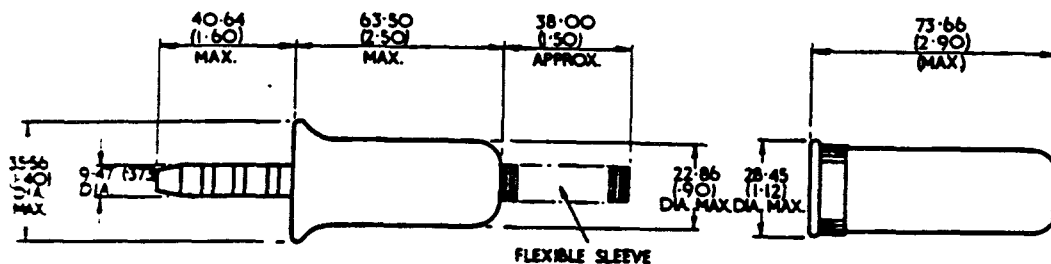
2 amperes at + 70°C

Voltage

Application	Sea level
Working d.c.	150
Working a.c. (r.m.s.)	125
Proof d.c. or a.c. peak 50 Hz	1 300

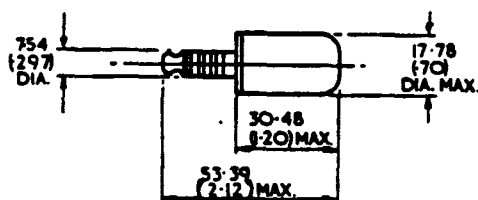
- Notes:
1. When P106A3 and P106B3 mate with S106C3 pin 1 mates with socket 2.
 2. Dimensions are in millimetres with original inch dimensions shown in brackets.
 3. Tolerances: All dimensions are nominal unless otherwise stated.

PLUGS AND JACKS, TELEPHONE, PATTERN 107
FOR SWITCHBOARD AND HEADSET USE

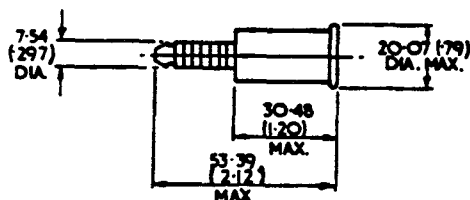


CAP C/W CLICKING RING SUPPLIED AS A
SPARE, TO NATO STOCK No. 5935-99-142-1022.

STYLE P107A4

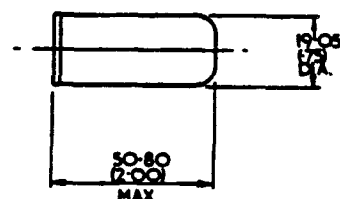


STYLE P107C4

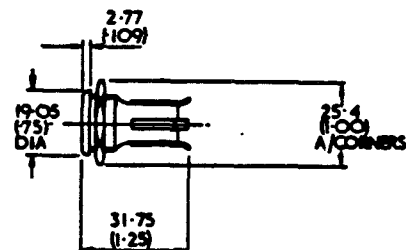


STYLE P107E4

STYLE J107B4



STYLE J107D4



STYLE J107F4

Severity Class

T 1 (- 25°/+ 70°C)
H 3

Classification

GP 1

Weight in grammes (max.)

P107A4 - 60
J107B4 - 60
P107C4 - 12
J107D4 - 14
P107E4 - 13
J107F4 - 12

Rating

Current

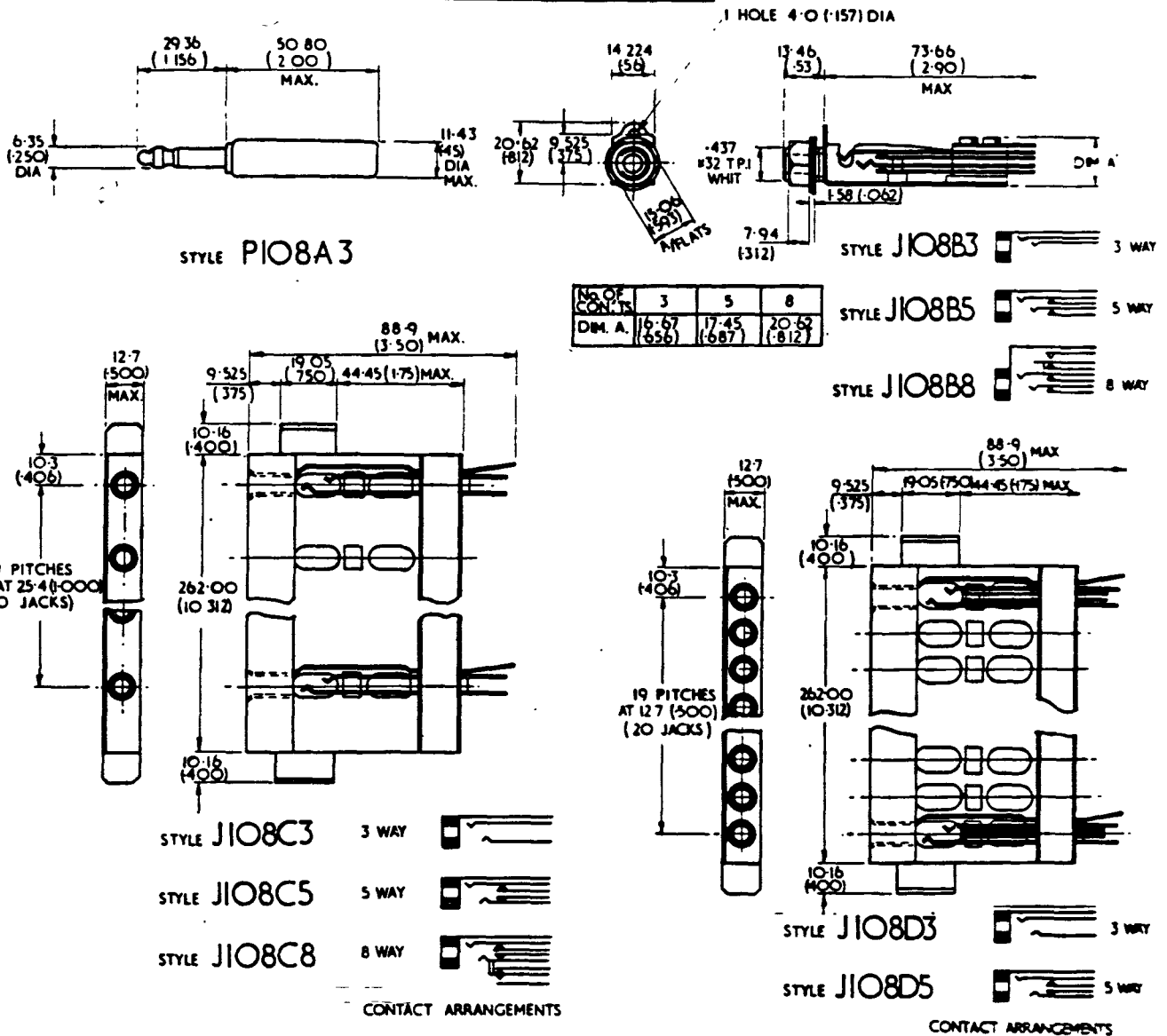
2 amperes at + 70°C

Voltage

Application	Sea level
Working d.c.	150
Working a.c. (r.m.s.)	125
Proof d.c. or a.c. peak 50 Hz	1 300

- Notes:
1. P107E4 and J107F4 are suitable for use on switchboard operator's headsets only.
 2. Dimensions are in millimetres with original inch dimensions shown in brackets.
 3. Tolerances: All dimensions are nominal unless otherwise stated.

PLUGS AND JACKS, TELEPHONE, PATTERN 108
FOR SWITCHBOARD USE



Severity Class

T 1 (- 25°/+ 70°C)
H 3

Classification

GP 1

Weight in grammes (max.)

P108A3 - 19
J108B3 - 18
J108B5 - 20
J108B8 - 25
J108C and J108D styles: Not specified.

Rating

Current
2 amperes at + 70°C

Voltage

Application	Sea level
Working d.c.	250
Working a.c. (peak)	250
Proof d.c. or a.c. peak 50 Hz	2500

- Notes: 1. Dimensions are in millimetres with original inch dimensions shown in brackets.
2. Tolerances: All dimensions are nominal unless otherwise stated.

PLUGS AND SOCKETS, ELECTRICAL, PATTERN 106
SIZING GAUGE AND CONTACT HOLDING GAUGE

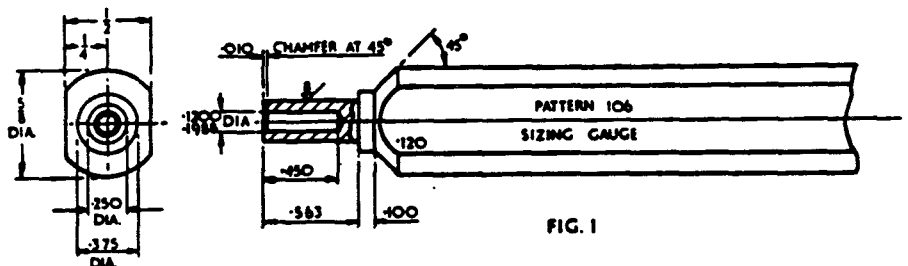


FIG. 1

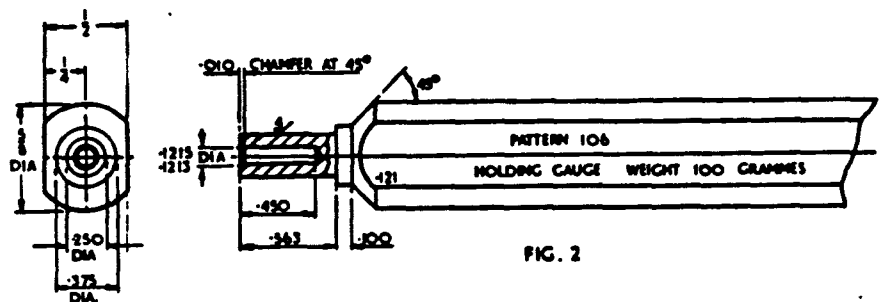
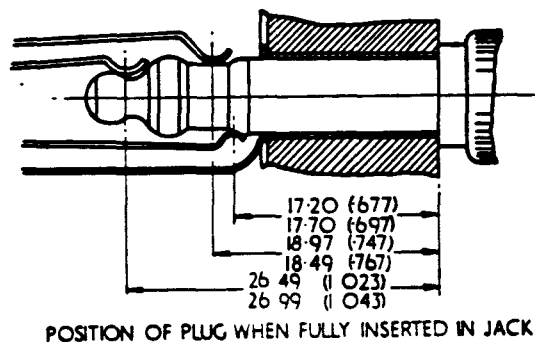
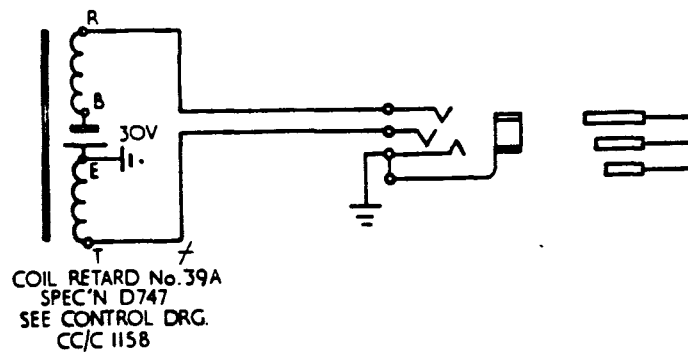


FIG. 2

- Notes:
1. Material - Gauge steel to BS 1407.
 2. Gauging surfaces:
 - (a) Hardened and tempered to 650 HV 20.
 - (b) Ground and lapped to the surface finishes shown above.
 3. These gauges to be used for testing fully assembled components only.
 4. Shank diameter and length to be such as will permit unrestricted access of gauge.
 5. Holding gauge weight tolerance $+ 0.002$
 $- 0.0$
 6. Tolerances: Decimal dimensions ± 0.005
 7. Dimensions are in inches.

PLUGS AND JACKS, TELEPHONE, PATTERN 108
TRACKING TEST CIRCUIT



- Notes:
1. No connections are to be made on the plug during the application of this test.
 2. Dimensions are in millimetres with original inch dimensions shown in brackets.
 3. / copies of the drawing may be obtained from MINTECH, EQD 'AQUILA', GOLF ROAD, BROMLEY, KENT. BR1 2JB.

TABLE X(A)
STANDARD RANGE
PLUGS, TELEPHONE

SERIAL NUMBER	NATO STOCK NUMBER 5935-99-	SERVICE MANAGEMENT CODE			ITEM NAME	ITEM DESCRIPTION												STYLE REFERENCE	
		NAVY	ARMY	AIR FORCE		FIXED OR FREE	OUTLINE SHAPE	SHANK DATA		SHELL DATA		DIMENSIONS				TYPE OF TERMINATIONS	TYPE OF MOUNTING		CONTROL DRAWING NUMBER
								QUANTITY OF SHANKS	QUANTITY OF CONTACTS	MATERIAL	COLOUR	OVERALL LENGTH	LENGTH OF SHANK	DIAMETER OF SHANK	DIMENSIONS OF SHELL				
(001)	+	--	--	--	PLUG, TELEPHONE	Free	Straight	1	3	Insulated	Black	80.16 (3.156)	29.36 (1.156)	6.35 (0.25)	50.8 (2.00) lg x 14.30 (0.45) dia.	Screws	Cable	CC/C 1510	P106A3/B
(002)	+	--	--	--				1	3		Red							CC/C 1510	P106A3/R
(003)	+	--	--	--				1	4		Black	42.14 (5.60)	40.64 (1.60)	9.45 (0.373)	63.5 (2.50) lg x 35.56 (1.4) dia.	Screws		CC/C 1504	P107A4
(004)	+	--	--	--				1	4		Black	53.39 (2.12)	23.37 (0.92)	7.54 (0.297)	30.48 (1.20) lg x 17.78 (0.70) dia.	Screws		CC/C 1506	P107C4
(005)	+	--	--	--				1	4		Black							CC/C 1508	P107E4/B
(006)	+	--	--	--				1	4		Grey	53.39 (2.12)	23.37 (0.92)	7.54 (0.297)	30.48 (1.20) lg x 20.07 (0.79) dia.	Solder tags		CC/C 1508	P107E4/C

TABLE X(B)
STANDARD RANGE
PLUGS, ELECTRICAL

SERIAL NUMBER	NATO STOCK NUMBER 5935-99-	SERVICE MANAGEMENT CODE			ITEM NAME	ITEM DESCRIPTION										STYLE REFERENCE	
		NAVY	ARMY	AIR FORCE		FIXED OR FREE	OUTLINE SHAPE	QUANTITY OF CONTACTS	SHELL DATA		LOCKING OR NON-LOCKING TYPE	OVERALL DIMENSIONS			TYPE OF MOUNTING		CONTROL DRAWING NUMBER
									MATERIAL	COLOUR		LENGTH	WIDTH	HEIGHT			
(007)	•	--	--	--	PLUG, ELECTRICAL	Free	Straight	3	Insulated	Black	Locking	31.75 (1.25)	27.10 (1.063)	20.65 (0.813)	Press stud	CC/C 1501	P106A3
(008)	•	--	--	--								31.75 (1.25)	27.10 (1.063)	17.47 (0.688)	Cable	CC/C 1502	P106B3

- Notes:**
1. + indicates that the NSN has not yet been allocated. The NSN will be allocated as and when the item is introduced into service, pending which the serial number should be quoted.
 2. -- indicates that the item of supply is not held by the Service concerned.
 3. Dimensions are in millimetres. Original inch dimensions are shown in brackets.

REF: AM 59-55 (PART 1)
FIG. 6
TABLE X(A) AND X(B)

TABLE I(C)
STANDARD RANGE
JACKS, TELEPHONES

SERIAL NUMBER	NATO STOCK NUMBER 5935-99-	SERVICE MANAGEMENT CODE			ITEM NAME	ITEM DESCRIPTION															STYLE REFERENCE
		NAVY	ARMY	AIR FORCE		FIXED OR FREE	QUANTITY OF SHANKS	CONTACTS PER SHANK	CONTACT DATA		SHELL DATA		OVERALL DIMENSIONS				INTERNAL SHANK DIAMETER	TYPE OF TERMINATIONS	TYPE OF MOUNTING	CONTROL DRAWING NUMBER	
									TYPE	ACTION	MATERIAL	COLOUR	LENGTH	WIDTH	HEIGHT	DIAMETER					
(009)	+	--	--	--	JACK, TELEPHONE	Free	1	3		3M										CC/C1511/1	J10 E3
(010)	+	--	--	--			1	5		3M2B			87.12 (3.43)	14.22 (0.562)	20.62 (0.812)	-	6.38 (0.251)	Solder tags	Bush	CC/C1511/2	J10BF5
(011)	+	--	--	--			1	8		3M21C										CC/C1511/3	J10BF-
(012)	+	--	--	--			10	3		3M	NS	NS								CC/C1512/1	J10PC5
(013)	+	--	--	--			10	5		3M2P										CC/C1512/2	J10PC5
(014)	+	--	--	--			10	8	Spring leaf	3M21C			88.9 (3.50)	282.32 (11.12)	12.7 (0.50)	-	6.38 (0.251)	Solder tags	Flange	CC/C1512/3	J10PC5
(015)	+	--	--	--			20	3		3M										CC/C1513/1	J10PC5
(016)	+	--	--	--			20	5		3M2B										CC/C1513/2	J10PC5
(017)	+	--	--	--			1	4		4M	Insulated	Black	73.66 (2.90)	-	-	28.45 (1.12)	10.16 (0.40)	Screws	Cable	CC/C 1505	J107H4
(018)	+	--	--	--			1	4		4M	Insulated	Black	50.8 (2.00)	-	-	19.05 (0.75)	7.72 (0.304)	Screws	Cable	CC/C 1507	J107H4
(019)	+	--	--	--			Fixed	1	4		4M	-	-	31.75 (1.25)	-	-	19.05 (0.75)	7.72 (0.304)	Solder tags	Panel	CC/C 1509

TABLE I(D)
STANDARD RANGE
SOCKETS, ELECTRICAL

SERIAL NUM BR	NATO STOCK NUMBER 5935-99-	SERVICE MANAGEMENT CODE			ITEM NAME	ITEM DESCRIPTION										STYLE REF FIVE	
		NAVY	ARMY	AIR FORCE		FIXED OR FREE	OUTLINE SHAPE	QUANTITY OF CONTACTS	SHELL DATA		LOCKING OR NON-LOCKING TYPE	OVERALL DIMENSIONS			TYPE OF MOUNTING		CONTROL DRAWING NUMBER
									MATERIAL	COLOUR		LENGTH	WIDTH	HEIGHT			
(023)	+	--	--	--	SOCKET, ELECTRICAL	Free	Straight	3	Insulated	Black	Non-locking	38.10 (1.50)	22.225 (0.875)	15.875 (0.625)	Cable	CC/C 1503	S10C3

- Notes:**
1. + indicates that the NSN has not yet been allocated. The NSN will be allocated as and when the item is introduced into service, pending which the serial number should be quoted.
 2. -- indicates that the item of supply is not held by the Service concerned.
 3. - indicates that the column heading does not apply.
 4. NS indicates 'not specified'.
 5. Dimensions are in millimetres. Original inch dimensions are shown in brackets.
 6. Contact data abbreviations:
 - 3M - 3 make
 - 2B - 2 break
 - 1C - 1 changeover
 - 4M - 4 make

RECEIVED
1960
10/10/60

OBSOLESCE

Ministry of Defence
Ministry of Technology (Aviation Group)

Defence Standard

59 - 35 (Part 1)

Section 7/ Issue 1

31st July 1970

**PLUGS AND SOCKETS,
ELECTRICAL**

**PATTERN 112
FOR USE WITH
PRIMARY BATTERIES**

OBSOLESCE

THIS DEFENCE STANDARD WILL NOT BE UPDATED AND IS
NOT TO BE USED FOR THE PURCHASE OF NEW EQUIPMENT

AMENDMENT RECORD

AMENDMENT NUMBER	DATE	SIGNATURE

PLUGS AND SOCKETS, ELECTRICAL
PATTERN 112
FOR USE WITH PRIMARY BATTERIES

This Section of DEF STAN 59 - 35 (PART 1)/1
supersedes DEF-5325-7, dated July 1965

1. This Section of DEF STAN 59 - 35 (PART 1) specifies the requirements for electrical plugs and sockets, Pattern 112, for use in conjunction with primary batteries requiring 8 point 'A' socket outlets, or 8 point 'B' socket outlets, for use by the Navy, Army, and Air Force Departments of the Ministry of Defence and by the Ministry of Technology (Aviation Group).
2. This Section is to be used in conjunction with DEF STAN 59 - 35 (PART 1), 'Plugs and sockets, electrical, with soldered terminations (d.c. and low frequency applications)', which is the generic specification.
3. Tables I(A) and I(B) give the details of the standard range of plugs and sockets to be used in all future designs of equipments and, where practicable, for the maintenance of existing equipments.
4. This Section, together with DEF STAN 59 - 35 (PART 1), contains all necessary technical information and it is the definitive specification for these items. It must be invoked for all tender and contract purposes.
5. Departments named in clause 1 are to implement this Section of DEF STAN 59 - 35 (PART 1) from the date of issue.
6. This Section of DEF STAN 59 - 35 (PART 1) has been agreed by all authorities concerned. If it should be found unsuitable for a particular requirement, the Director of Standardization should be informed of the circumstances. Any enquiries regarding this Section in relation to an invitation to tender or a contract in which it is invoked should be addressed to the Inspection Authority named in that invitation to tender or contract.

SPECIFICATION FOR PLUGS AND SOCKETS, ELECTRICAL
FOR USE WITH PRIMARY BATTERIES
PLUGS AND SOCKETS, ELECTRICAL (PATTERN 112)

1. SCOPE

This Specification relates to a range of electrical plugs and sockets, unsealed, for use in conjunction with primary batteries requiring 8 point 'A' socket outlets, or 8 point 'B' socket outlets. This Specification gives details of dimensions, ratings, and test values peculiar to the range of standard items defined. It is primarily intended for those concerned with components for use in Service equipment.

2. RELATED SPECIFICATIONS AND DOCUMENTS

These are listed in Defence Standard DEF STAN 59 - 35 (PART 1).

3. INFORMATION TO BE SUPPLIED BY PURCHASER

- a. When ordering components to this Section of the Standard it is essential to quote the relevant NATO Stock Number, style reference, and to quote this Section of the Standard.
- b. Before using the NATO Stock Numbers given in this Section of the Standard, reference should be made to the Joint Service qualified products list of electronic parts (RCG 4) to ascertain that a Qualification Approval Certificate is extant for the item concerned.

4. ILLUSTRATIONS AND DRAWINGS

- a. The essential purpose of the illustrations and drawings which form part of this Specification is to ensure mechanical interchangeability. It is essential that equipment designers work to the limits stated and not to the dimensions of individual specimens. Where official drawings are quoted they are mandatory. Copies of such drawings are obtainable from MINISTRY OF TECHNOLOGY, EQD, SECTION T2(d), 'AQUILA', GOLF ROAD, BROMLEY, KENT. BR1 2JB.
- b. HM Government drawings referred to are now associated with this Section of the Defence Standard and therefore they must not be altered in any way which will affect function, material, or interchangeability unless the Section of the Defence Standard itself is amended. Holders of master drawings must endorse them accordingly.

5. STYLE REFERENCES

The style references used in this Specification are abbreviations to identify individual plugs and sockets. A Typical style reference is:

<u>Function</u>	<u>Pattern Number</u>	<u>Variant</u>
P	112	A

Function letter P indicates plug, S indicates socket; numerals 112 indicate pattern number; type letter indicates a variation within the range (A or B).

6. QUALIFICATION APPROVAL

a. Provision of samples.

The manufacturer shall submit specimens in accordance with Schedule 1 for which approval is desired.

b. Grouping of specimens.

The specimens shall be grouped as indicated in Schedule 2.

c. Test incidence.

Initial measurements referred to in Table 4 of DEF-5011 and in this Specification as Group 0 shall be carried out immediately prior to the commencement of tests on subsequent groups and the results shall be recorded. Each test shall be applied in the order listed in Schedule 8 and where measurements are required the results shall be recorded. Where tests are not applicable this is indicated in Schedule 8.

SCHEDULE 1

STYLE	QTY	STYLE (MATING ITEM)	QTY
P112A	10	S112A	10
P112B	10	S112B	10

Note: 3 additional specimens of each style will be submitted in the form of piece parts for the dimensional examination of Test No 15.1(iii).

DEF STAN 59 - 35 (PART 1)
SECTION 7

SCHEDULE 2

GROUP	TEST NO	P112A/S112A (MATED PAIRS)	P112B/S112B (MATED PAIRS)
0	15.1 except 15.1(iii) 15.2 15.3 15.4 15.5 15.6 15.7 15.8 15.9 15.10 15.11 15.36	All See note below All All All All All - All - All - All - All	All All All All All All - All - All - All -
1	15.12 to 15.20 except 15.16) and 15.20)	2 -	2 -
2	15.21	2	2
3	15.22 15.23 15.24	2 2 -	2 2 -
4	15.25	-	-
5	15.26	1	1
6	15.27 15.28	2 2	2 2
7	15.29 15.30 15.31) 15.32) 15.33)	1 1 - - -	1 1 - - -
8	15.34) 15.35)	-	-

Note: The 3 additional specimens of each style are to be subjected to Test No 15.1 (iii) in Group 0.

7. BATCH ACCEPTANCE TEST PROCEDURE

Components submitted for acceptance shall be tested in accordance with DEF-5001-C, Section 3, and shall be subjected to the following tests:

- a. 100 per cent acceptance tests. (see DEF-5001-C, Section 3.)

SCHEDULE 3

TEST NO DEF STAN 59-35 (PART 1)	TITLE OF TEST
15.1(i) 15.11	Visual examination Voltage proof (as for QA tests)

- b. Sampling tests. (See DEF-5001-C, Section 3.)

- (1) Tests bracketed together within a group are considered as a sequence and must be performed as such, using the same sample throughout.
- (2) Information on the re-submission of rejected batches is given in BS 9001.

Group 'A' tests.

SCHEDULE 4

TEST NO DEF STAN 59-35 (PART 1)	TITLE OF TEST	AQL	INSPECTION LEVEL	TEST CATEGORY
15.2	Compatibility (gauging) or Compatibility Assurance Test (see Note below)	1%	II	Non-Destructive
15.4	Engagement and disengagement	1%	II	Non-Destructive
15.5	Contact holding force (without sizing)	1%	II	Non-Destructive

Notes:

1. Where compatibility gauges (Test 15.2) are not available a Compatibility Assurance Test shall be applied. For the Compatibility Assurance Test the manufacturer shall demonstrate to the Inspection Authority that his system of piece-part checking and assembly methods together with final mechanical measurements will ensure that the finished component will meet the compatibility requirements.
2. The Inspection Levels and AQL will be agreed by the Inspection Authority in relation to each particular manufacturer's system.

DEF STAN 59 - 35 (PART 1)
SECTION 7

Group 'B' Tests.

SCHEDULE 5

TEST NO DEF STAN 59-35 (PART 1)	TITLE OF TEST	AQL	INSPECTION LEVEL	TEST CATEGORY
15.12 15.5 15.7 15.9 15.30	Soldering Contact holding force Contact resistance Insulation resistance Contact retention (in insert)	4%	S3	Destructive

c. Disposal of samples. (See DEF-5001-C, Section 3.)

8. SYSTEMATIC QUALITY ASSURANCE TESTS

a. Tests bracketed within a group are considered as a sequence and must be performed as such using the same sample throughout.

Group 'C' tests.

SCHEDULE 6

TEST NO DEF STAN 59-35 (PART 1)	TITLE OF TEST	AQL	INSPECTION LEVEL	TEST CATEGORY
15.1(ii)	Dimensions (outline). Additionally, issue number of manufacturer's drawing schedule to be checked against that quoted on approval certificate any significant differences to be reported to the Approving Authority	1%	S3	Non- Destructive
15.7 15.17	Contact resistance Temperature, rapid change 15.17(i), (ii), and (iii) not required	4%	S3	Destructive
15.21	Damp heat, (long term) (21 days)			
15.21(i)	Working voltage application			
15.21.2(i)	Contact resistance			
12.21.2(iii)	Insulation resistance			
15.21.2(iv)	Visual examination			
15.21.2(v)	Disengagement and engagement			
15.21.2(vii)	Voltage proof			
15.4	Engagement and disengagement force	4%	S3	Destructive
15.7	Contact resistance			
15.22	Endurance mechanical (50 operations)			
15.22(i)	Visual examination			
15.22(ii)	Engagement and disengagement force			
15.22(iii)	Contact holding force			
15.23.1	Endurance high temperature (500 hours only)			
15.23.1(ii)	Insulation resistance (hot)	4%	S3	Destructive
15.23.1(iii)	Contact resistance			
15.23.1(v)	Voltage proof			

Group 'D' tests.

SCHEDULE 7

(1) The sample size and performance requirements for Group 'D' tests shall be in accordance with the Qualification Approval requirements for the tests specified herein. (see clause 6.)

(2) Components for Group 'D' tests shall be selected from batches which have successfully passed the acceptance tests and the batch size from which this selection is made shall be at least three times the required sample quantity.

Disposal of samples. (See DEF-5001-C, Section 4.)

DEF STAN 59 - 35 (PART 1)
SECTION 7

9. TEST REQUIREMENTS

a. The general test requirements are fully defined in DEF STAN 59 - 35 (Part 1). The following schedule contains additional information on test conditions and requirements for the standard range of items defined herein.

SCHEDULE 8

TEST NO DEF STAN 59-35 (PART 1)	TITLE	DESCRIPTION	REQUIREMENT
15.1 (i) (ii) (iii) (iv)	GENERAL EXAMINATION Visual examination Dimensions (outline) Dimensions (detail) and materials Weight	As specified As specified As specified As specified	As specified As specified As specified As shown in outline drawings
15.2	COMPATIBILITY ASSURANCE	As specified	As specified
15.3 (i) (ii) (iii)	POLARIZATION Polarizing device Mis-mating Orientation	Using mating component Using mating component NOT APPLICABLE	As specified As specified
15.4	ENGAGEMENT AND DISENGAGEMENT FORCE	As specified	90N (20 lbf approx) max. 40N (9 lbf approx) min.
15.5	CONTACT HOLDING FORCE	As specified. For sizing and contact holding force gauges see page 15	As specified
15.6	SEALING	NOT APPLICABLE	
15.7	CONTACT RESISTANCE	As specified	Maximum - 2 milliohms
15.8	SHELL CONTINUITY	NOT APPLICABLE	
15.9	INSULATION RESISTANCE	As specified Method A	Minimum - 5 000 megohms
15.10	IONIZATION	NOT APPLICABLE	
15.11	VOLTAGE PROOF	As specified for Method A except all specimens shall be tested unmated at 2 000 V d.c. or peak a.c.	As specified

TEST NO DEF STAN 59-35 (PART 1)	TITLE	DESCRIPTION	REQUIREMENT
15.12	SOLDERING	Soldering iron method. Bit size 3 mm ($\frac{1}{8}$ in approx) dia. Recovery time 1 hour	Satisfactory tinning. No loosening of parts or other damage such as would impair operation.
15.13 (i) (ii)	BUMPING Contact resistance Sealing	Mounted on a suitable test jig at normal ambient temperature As in 15.7 NOT APPLICABLE	Maximum intermittency 10 microsecs Maximum - 5 millicms
15.14 (i) (ii)	VIBRATION Contact resistance Sealing	As specified at normal ambient temperature As in 15.7 NOT APPLICABLE	Maximum intermittency 10 microsecs Maximum - 5 millicms
15.15 (i) (ii)	SHOCK Contact resistance Sealing	As specified. Severity S2 As in 15.7 NOT APPLICABLE	Maximum intermittency 10 microsecs Maximum - 5 millicms
15.16	ACCELERATION	NOT APPLICABLE	
15.17 (i) (ii) (iii)	TEMPERATURE, RAPID CHANGE Contact resistance Shell continuity Sealing	As specified. Temperature Severity T3 As in 15.7 NOT APPLICABLE NOT APPLICABLE	As specified Maximum - 5 millicms
15.18 15.18.1 (i) 15.18.2 (i) 15.18.3 15.18.4 (i) (ii)	CLIMATIC Intermediate measurements Visual examination Temperature, dry heat Sealing (hot) Damp heat, accelerated Temperature, dry cold Disengagement and engagement (cold) Sealing (cold)	As specified - H5 As specified As specified As specified As specified As specified NOT APPLICABLE	As specified As specified

DEF STAN 59 - 35 (PART 1)
SECTION 7

TEST NO DEF STAN 59-35 (PART 1)	TITLE	DESCRIPTION	REQUIREMENT
15.18.5 (i)	Air density low Voltage proof	As specified. Severity D1 As in 15.11 Method A. All specimens shall be tested unmated at 750 V d.c. or peak a.c.	As specified
15.18.6(a)	Damp heat, accelerated with assisted recovery	NOT APPLICABLE	
15.18.6(b)	Damp heat, accelerated, with 24 hour recovery	As specified	
(i)	Working voltage application	As specified at 500 V d.c. or peak a.c.	As specified
15.18.6(c)	Damp heat, accelerated	NOT APPLICABLE	
15.18.6(d)	Damp heat, accelerated, with temperature, dry cold	NOT APPLICABLE	
15.18.7 (i)	Final measurements	As specified	
(ii)	Contact resistance	As in 15.7	Maximum - 5 milliohms
(iii)	Shell continuity	NOT APPLICABLE	
(iv)	Insulation resistance	As in 15.9 Method A	Minimum - 10 megohms
(v)	Visual examination	As specified	As specified
(vi)	Disengagement and engagement	As specified	As specified
(vii)	Sealing	NOT APPLICABLE	
(viii)	Insulation resistance	As in 15.9 Method A	Minimum - 100 megohms
(ix)	Voltage proof	As in 15.11	As specified
15.19	FIRE RISK	As specified	As specified
15.20	FIREPROOFNESS	NOT APPLICABLE	
15.21	DAMP HEAT, LONG TERM	As specified - H5 except all specimens shall be tested unmated.	
(i)	Working voltage application	a. As specified at 500 V d.c. b. As specified	As specified
15.21.1(a)	Assisted recovery	As specified	As specified
15.21.1(b)	Recovery	NOT APPLICABLE	
		As specified	

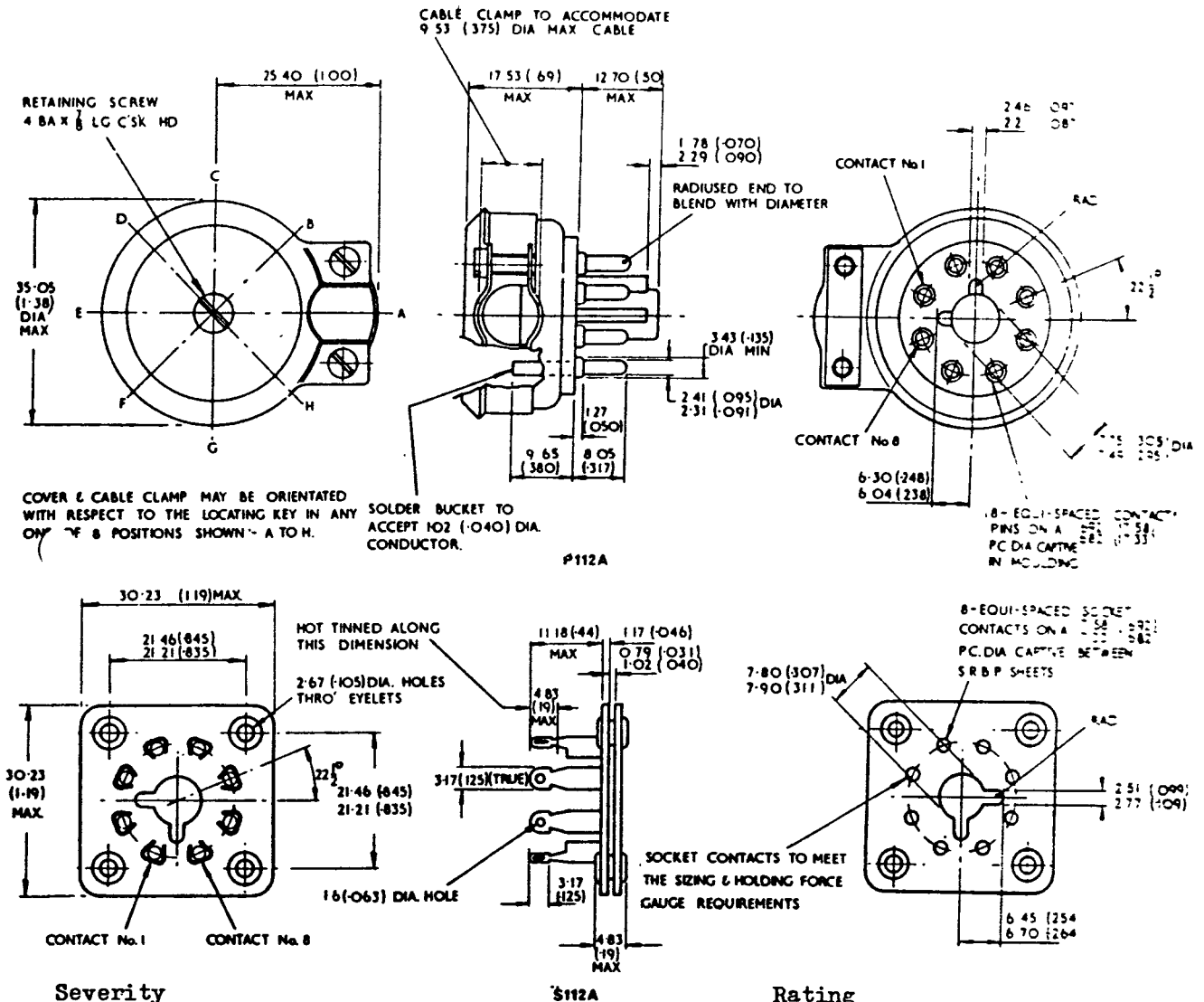
TEST NO DEF STAN 59-35 (PART 1)	TITLE	DESCRIPTION	REQUIREMENT
15.21.1(c) 15.21.2 (i) (ii) (iii) (iv) (v) (vi) (vii) (viii)	Recovery Final measurements Contact resistance Shell continuity Insulation resistance Visual examination Disengagement & engagement Sealing Insulation resistance Voltage proof	NOT APPLICABLE As specified As in 15.7 NOT APPLICABLE As in 15.9 Method A As specified As specified NOT APPLICABLE As in 15.9 Method A As in 15.11	Maximum - 5 milliohms Minimum - 10 megohms As specified As specified Minimum - 100 megohms As specified
15.22 (i) (ii) (iii)	ENDURANCE, MECHANICAL Visual examination Engagement and dis- engagement force Contact holding force	As specified - 500 operations As specified As in 15.4 As in 15.5	As specified As in 15.4 As in 15.5
15.23 15.23.1 (i) (ii) (iii) (iv) (v) (vi) 15.23.2	ENDURANCE HIGH TEMPERATURE (long and short term) Long term Sealing (hot) Insulation resistance (hot) Contact resistance Shell continuity Voltage proof Sealing Short term	As specified except all specimens shall be subjected to 15.23.1 only 1000 hours duration at + 85°C carrying 5A on each of two adjacent contacts and 0.33A on each of the remaining contacts NOT APPLICABLE As in 15.9 Method A As in 15.7 As in 15.11 NOT APPLICABLE NOT APPLICABLE NOT APPLICABLE	Minimum - 100 megohms Maximum - 5 milliohms As specified
15.24	PLATING PROVING	NOT APPLICABLE	
15.25	SHELF LIFE	NOT APPLICABLE	

DEF STAN 59 - 35 (PART 1)
SECTION 7

TEST NO DEF STAN 59-35 (PART 1)	TITLE	DESCRIPTION	REQUIREMENTS
15.26 (i) (ii)	MOULD GROWTH Insulation resistance Visual examination	As specified As in 15.9 Method A As specified	Minimum - 50 megohms As specified
15.27 (i) (ii) (iii) (iv) (v) (vi) (vii) (viii) (ix) (x) (xi)	SALT MIST Contact resistance Shell continuity Engagement and dis- engagement force Insulation resistance Working voltage application Visual examination Disengagement and engagement Insulation resistance Contact resistance Shell continuity Voltage proof	As specified As in 15.7 NOT APPLICABLE As in 15.4 As in 15.9 Method A As specified at 500 V d.c. As specified As specified As in 15.9 Method A As in 15.7 NOT APPLICABLE As in 15.11	Maximum - 10 milliohms As in 15.4 Minimum - 10 megohms As specified As specified As specified Minimum - 100 megohms Maximum - 10 milliohms As specified
15.28 (i) (ii) (iii)	DUST Contact resistance Visual examination Engagement and dis- engagement force	As specified As in 15.7 As specified As in 15.4	Maximum - 5 milliohms As specified As in 15.4
15.29	ROBUSTNESS OF TERMIN- ATIONS (Plugs only)	As specified - force 45N (10 lbf approx)	As specified
15.30	CONTACT RETENTION (Plugs only)	As specified - force increasing at a rate of 4.5N (1 lbf approx) per second to a maximum of 54N (12 lbf approx)	As specified
15.31	INSERT RETENTION	NOT APPLICABLE	
15.32	TEST PROD DAMAGE	NOT APPLICABLE	
15.33	IMPACT AND RESISTANCE TO STATIC LOAD	NOT APPLICABLE	
15.34	IMMERSION	NOT APPLICABLE	
15.35	SOLVENT RESISTANCE	NOT APPLICABLE	
15.36	CONTACT STRENGTH	NOT APPLICABLE	

PLUGS AND SOCKETS, ELECTRICAL, PATTERN 112,

(8 POINT A)



Severity

Temperature T3(-55°/+85°C)
Humidity H5
(air density (low) D1
Shock S2

Classification

SP 1

Weight in grammes (max.)

P112A - 32
S112A - 6

Current

5 amperes per contact
at 85°C. Maximum
12A per plug or
socket

Rating

Voltage

Altitude	Sea Level	D1
Working (d.c. or a.c. peak)	500	250
Proof (d.c. or a.c. peak)	2 000	750

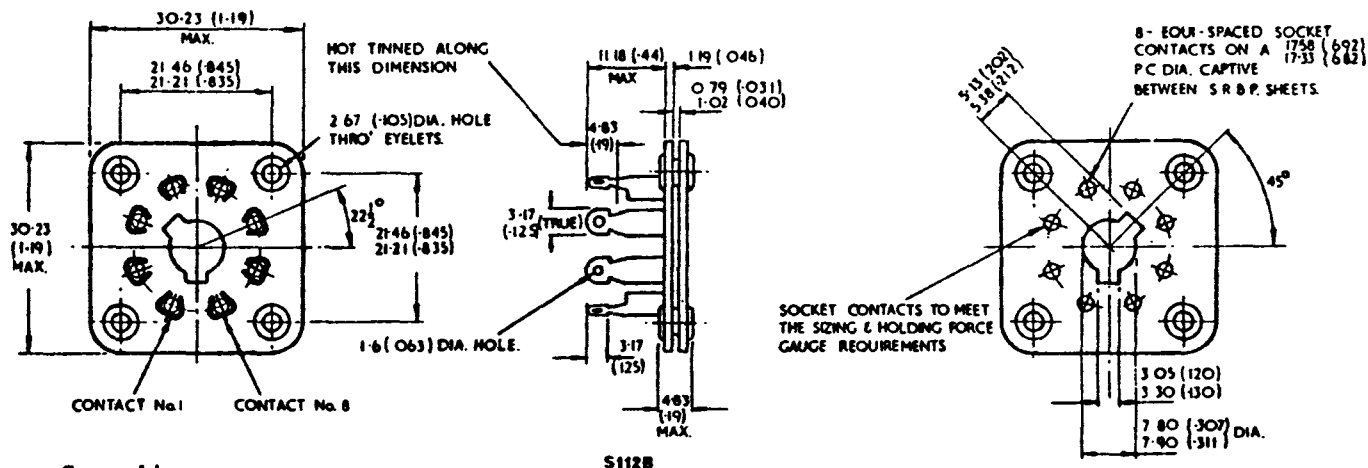
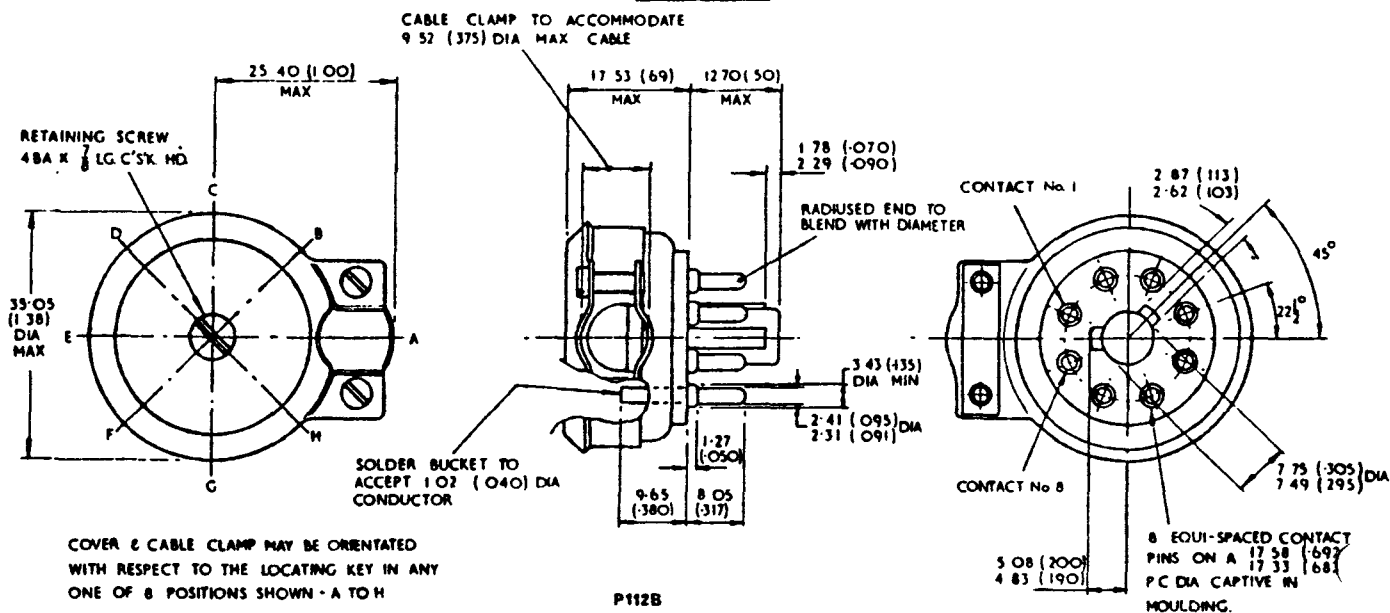
Notes:

- Dimensions are in millimetres with original inch dimensions shown in brackets.
- Tolerances: All dimensions are nominal unless otherwise stated.

DEF STAN 59 - 35 (PART 1)
SECTION 7

PLUGS AND SOCKETS, ELECTRICAL, PATTERN 112,

(8 POINT B)



Severity

Temperature T3(-55°/+85°C)
Humidity H5
Air density (low) D1
Shock S2

Classification

SP 1

Weight in grammes (max.)

P112B - 32
S112B - 6

Current

5 amperes per contact
at 85°C. Maximum
12A per plug or
socket

Rating

Voltage

Altitude	Sea Level	D1
Working (d.c. or a.c. peak)	500	250
Proof (d.c. or a.c. peak)	2 000	750

Notes:

- Dimensions are in millimetres with original inch dimensions shown in brackets.
- Tolerances: All dimensions are nominal unless otherwise stated.

PLUGS AND SOCKETS, ELECTRICAL, PATTERN 112, 8 POINT A AND B
SIZING GAUGE AND CONTACT HOLDING GAUGE

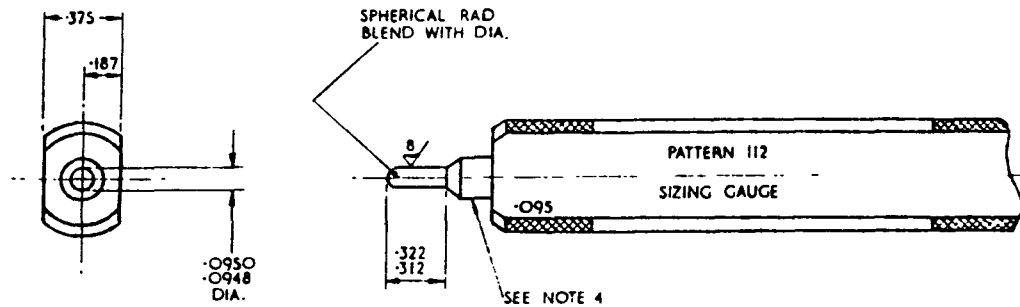


FIG. 1.

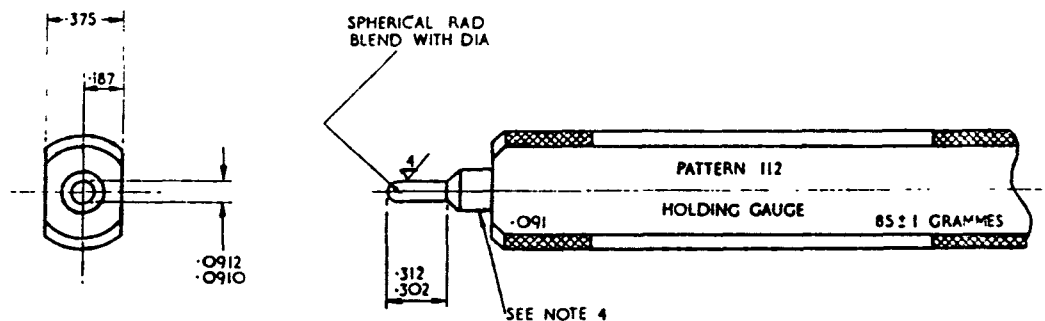


FIG. 2.

- Notes:
1. Material - Gauge steel to BS 1407.
 2. Gauging surfaces:
 - a. Hardened and tempered to 650HV20.
 - b. Ground and lapped to the surface finishes shown above.
 3. These gauges to be used for testing fully assembled components
 4. Shank diameter and length to be such as will permit unrestricted access of gauge.
 5. Dimensions are in inches.

TABLE I(A)

STANDARD RANGE - PLUGS, ELECTRICAL

NATO STOCK NUMBER	ITEM NAME	COMPATIBILITY DRAWING NO	STYLE REFERENCE
5935-99-013-9212	} PLUG, ELECTRICAL {	IEB 67785	P112A
5935-99-013-9214		IEB 67786	P112B

TABLE I(B)

STANDARD RANGE - SOCKETS, ELECTRICAL

NATO STOCK NUMBER	ITEM NAME	COMPATIBILITY DRAWING NO	STYLE REFERENCE
5935-99-013-9213	} SOCKET, ELECTRICAL {	IEB 67773	S112A
5935-99-013-9215		IEB 67779	S112B

OBSOLESCE

Ministry of Defence
Ministry of Technology (Aviation Group)

Defence Standard

59-35(Part 1)
Section 8/Issue 1

23rd October 1970

**PLUGS AND SOCKETS
ELECTRICAL**

PATTERN 121

**FOR d.c. AND LOW
FREQUENCY APPLICATIONS**

OBSOLESCE \

THIS DEFENCE STANDARD WILL NOT BE UPDATED AND IS
NOT TO BE USED FOR THE PURCHASE OF NEW EQUIPMENT

PLUGS AND SOCKETS, ELECTRICAL
PATTERN 121
FOR d.c. AND LOW FREQUENCY
APPLICATIONS

1. This Section of DEF STAN 59 - 35(PART 1) specifies the requirement for plugs and sockets, electrical, Pattern 121, for d.c. and low frequency applications, for use by the Navy, Army, and Air Force Departments of the Ministry of Defence, and by the Ministry of Technology (Aviation Group).
2. This Section is to be used in conjunction with DEF STAN 59 - 35 (PART 1), 'Plugs and sockets, electrical, with soldered terminations (d.c. and low frequency applications)', which is the generic specification.
3. Tables I(A) to I(M) give the details of the standard range of plugs and sockets to be used in all future designs of equipments and, where practicable, for the maintenance of existing equipments.
4. This Section, together with DEF STAN 59 - 35(PART 1) contains all necessary technical information and it is the definitive specification for these items. It must be invoked for all tender and contract purposes.
5. Departments named in clause 1 are to implement this Section of DEF STAN 59 - 35 (PART 1) from the date of issue.
6. This Section of DEF STAN 59 - 35(PART 1) has been agreed by all Authorities concerned. If it should be found unsuitable for a particular requirement, the Director of Standardization should be informed of the circumstances. Any enquiries regarding this Section in relation to an invitation to tender or a contract in which it is invoked should be addressed to the Inspection Authority named in that invitation to tender or contract.

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SPECIFICATION FOR
PLUGS AND SOCKETS,
ELECTRICAL, PATTERN 121, BARRIER SEALED,
WITH BONDED-IN SOLDERED TERMINATIONS
AND THREADED COUPLING, FOR d.c. AND
LOW FREQUENCY APPLICATIONS

1. SCOPE

a. This specification relates to a range of multicontact, circular, barrier (not panel) sealed, plugs and sockets with threaded coupling and bonded-in solder type contacts. Pattern 121 plugs and sockets have aluminium shells with resilient bonded inserts suitable for temperature severity T4 (-55/+100°C).

b. The items specified herein can be used as direct replacements for similar plugs and sockets to U.S. specification MIL-C-5015D. Pattern 121 plugs and sockets are held within tighter tolerance control to increase sealing and reliability. Standardization of the rear end has been made between styles. Coupling nuts are captive but are removable from the front for replacement purposes. This specification gives details of dimensions, ratings, and test values peculiar to the range of standard items defined. It is primarily intended for those concerned with components for use in Service equipment.

2. RELATED SPECIFICATIONS AND DOCUMENTS

These are listed in DEF STAN 59 - 35(PART 1). Reference is also made to MIL-C-5015D 'Connectors, electric, MS(AN) type'.

3. INFORMATION TO BE SUPPLIED BY PURCHASER

a. When ordering components to this Section of the Standard it is essential to quote the relevant NATO Stock Number (where allotted), style reference, and to quote this Section of the Standard.

b. Before using the NATO Stock Number given in this Section of the Standard, reference should be made to the Joint Service qualified products list of electronic parts (RCG4) to ascertain that a Qualification Approval Certificate is extant for the item concerned.

4. ILLUSTRATIONS AND DRAWINGS

a. The essential purpose of the illustrations and drawings which form part of this specification is to ensure mechanical interchangeability. It is essential that equipment designers work to the limits stated and not to the dimensions of individual specimens. Where official drawings are quoted they are mandatory. Copies of such drawings are obtainable from MINISTRY OF TECHNOLOGY, EQD SECTION T2(d), 'AQUILA', GOLF ROAD, BROMLEY, KENT, BR1 2JB.

b. HM Government drawings referred to are now associated with this Section of the Defence Standard and therefore they must not be altered in any way which will affect function, material, or interchangeability unless the Section of the Defence Standard itself is amended. Holders of master drawings must endorse them accordingly.

DEF STAN 59 - 35(PART 1)
SECTION 8

5. STYLE REFERENCES

The style references used in this specification are abbreviations to identify individual plug and socket variants. A typical style reference is:

CC 1331-14S-2PX

CONTROL DRAWING NO	SHELL SIZE	CONTACT ARRANGEMENT	CONTACT	ORIENTATION
CC/C 1331	14S	2	P	X

Coding:

Shell size - 10SL, 12S, 14S etc
Contact arrangement - 1, 2, 3, 4 etc
Contact - P denotes pin; S denotes socket
Orientation - W, X, Y, Z (where orientation is normal
the suffix letter is omitted).

6. QUALIFICATION APPROVAL

a. Provision of samples.

The manufacturer shall submit specimens for which approval is desired in accordance with Schedule 1, or a minimum quantity of specimens if approval for only one shell size is desired, in accordance with Schedule 1.

b. Grouping of specimens.

The specimens shall be grouped as indicated in Schedule 1.

c. Test incidence.

Initial measurements referred to in Table 4 of DEF-5011 and in this specification as Group O, shall be carried out immediately prior to the commencement of tests on subsequent groups and the results shall be recorded. Each test shall be applied in the order listed in Schedule 7 and where measurements are required the results shall be recorded. Where tests are not applicable this is indicated in Schedule 7.

SCHEDULE 1

(specimen quantities for all tests excluding 15.1(iii))

COLUMN NUMBER		1				2		3		4	
Shell size Contact arrangement		10SL-4 16S-1 10SL-3 18-1 12S-3 20-29 14S-4 22-18 14S-9 22-19 14S-7 22-14 14S-2 24-28 14S-5 14S-6				16-9 16-10 20-18 18-11 24-7 20-15 28-20 22-23 28-11 32-7 36-7		20-22 20-14 24-11 22-22		28-22 24-12 32-6 28-10	
Total number of mating pairs of each shell size/ contact arrangement		(a) 42		(b) 32		18		12		27	
GROUP	TEST NO	DISTRIBUTION OF SPECIMENS (MATING PAIRS)									
0	15.1 to 15.11 except 15.1(iii) 15.5 15.36	All		All		All See note 3 below SOCKET CONTACTS ONLY NOT APPLICABLE		All		All	
		TOTAL PER GROUP	TEST DISTRIBUTION	TOTAL PER GROUP	TEST DISTRIBUTION	TOTAL PER GROUP	TEST DISTRIBUTION	TOTAL PER GROUP	TEST DISTRIBUTION	TOTAL PER GROUP	TEST DISTRIBUTION
1	15.12 to 15.18 15.19 15.20	8	All -	4	All 1	6 NOT APPLICABLE	All -	4	All -	6	All -
2	15.21	8	All	4	All	3	All	2	All	6	All
3	15.22 and 15.23 15.24	8	All	4	All	6 NOT APPLICABLE	All	4	All	6	All
4	15.25					NOT APPLICABLE					
5	15.26	2	All	1	All	-	-	-	-	-	-
6	15.27 and 15.28	4	All	2	All	-	-	-	-	3	All
7	15.29 to 15.31 15.32 15.33	8	All All All	4	All All All	3	All All All	2	All - All	6	All - All
8	15.34 15.35	4	All -	13	4 All	-	-	-	-	-	-

Notes:

- (1) Where approval is sought for a range comprising more than three of the shell size/contact arrangements given in column 1, specimens shall be supplied in the maximum, medium, and minimum shell sizes. The quantities shall be in accordance with column 1(b) for the maximum shell size and column 1(a) for each of the medium and minimum shell sizes. Where approval is sought for three or less of the shell size/contact arrangements given in column 1, the quantity submitted shall be in accordance with column 1(b) for the maximum shell size.

NB Test 15.35 (Solvent resistance) is performed on the maximum shell size only for which approval is sought.

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SECTION 8

Notes (Contd)

- b. Where approval is sought for more than one of the shell size/contact arrangements given in column 2, the quantity of specimens submitted shall be in accordance with column 2 for the largest shell size for which approval is sought together with an equal quantity of any other shell size.
- c. Where approval is required for a range which includes a shell/size contact arrangement listed in columns 3 and 4 additional specimens shall be supplied in accordance with columns 3 and 4.
- d. The specimens supplied shall consist of equal numbers of each female shell style with socket contacts and each female shell style with pin contacts, together with the appropriate number of mating shell styles for which approval is sought.
- e. Results of tests on plugs and sockets fitted with accessories listed herein may be accepted as evidence for approval of the accessories in conjunction with the requirement listed in note 4 below.
- f. Any departure from the requirements of Schedule 1 shall be agreed with the Approval Authority.
- (2) Three specimens of each shell size, style, contact arrangement, and orientation for which approval is sought shall be supplied for tests 15.2 and 15.3.
- NB Tests 15.2 and 15.3 are non-destructive. Tested specimens that have passed these tests may therefore be returned to manufacturer's stock.
- (3) Three sets of piece parts covering the range of standards for which approval is sought shall be supplied for test 15.1(iii). Where common piece parts are involved no more than three specimens of each part need be submitted.
- (4) In addition to the test evidence obtained from 1e above, three of each accessory item shall be submitted to test 15.1.

7. BATCH ACCEPTANCE TEST PROCEDURE

Components submitted for acceptance shall be tested in accordance with DEF-5001-C, Section 3, and shall be subjected to the following tests:

- (1) 100 per cent acceptance tests (See DEF-5001-C, Section 3)

SCHEDULE 2

TEST NO DEF STAN 59 - 35(PART 1)	TITLE OF TEST
15.1(i) 15.6 15.11	Visual examination Sealing (Note: The component to be tested in one direction only, using a pressure differential of 1 bar (1 atmosphere)) Voltage proof (As for Acceptance Sampling) Method A

7. (b) Sampling tests. (See DEF-5001-C, Section 3)

- (i) Tests bracketed together within a group are considered as a sequence and must be performed as such, using the same sample throughout.
- (ii) Information on the re-submission of rejected batches is given in DEF-131-A.

Group 'A' Tests

SCHEDULE 3

TEST NO DEF STAN 59 - 35 (PART 1)	TITLE OF TEST	AQL	INSPECTION LEVEL	TEST CATEGORY
15.2	Compatibility (gauging) or Compatibility Assurance Test (See note below)	1%	II	Non- destructive
15.4	Engagement and disengagement	1%	II	Non- destructive
15.5	Contact holding force (without sizing)	1%	II	Non- destructive

Note: Where Compatibility Gauges (Test 15.2) are not available a Compatibility Assurance Test shall be applied.
For the Compatibility Assurance Test the manufacturer shall demonstrate to the Inspection Authority that his system of piece part checking and assembly methods together with final mechanical measurements will ensure that the finished component will meet the compatibility requirements.
The Inspection Levels and AQL will be agreed by the Inspection Authority in relation to each particular manufacturer's system.

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Group 'B' Tests.

TEST NO DEF STAN 59 - 35 (PART 1)	TITLE OF TEST	AQL	INSPECTION LEVEL	TEST CATEGORY
15.12	Solderability (DEF-5011, Section 5. Test 14(c) (ii), or 14(e) (ii) solderability only)	4%	S3	Destructive
15.12	Soldering(resistance to heat) DEF-5011, Section 5, Test 14 (c) (iii), or 14 (e) (ii)	4%	S3	Destructive
15.5	Contact holding force			
15.7†	Contact resistance <u>Note:</u> † This test may be carried out using a test voltage not exceeding 2.5V and a test current not exceeding 1 amp.			
15.9	Insulation resistance	4%	S3	Destructive
15.30	Contact retention (in insert)	4%	S3	Destructive
15.31	Insert retention (in shell)	4%	S3	Destructive

c. Disposal of samples. (see DEF-5001-C, Section 3)

8. SYSTEMATIC QUALITY ASSURANCE TESTS

a. Tests bracketed together within a group are considered as a sequence and must be performed as such using the same sample throughout.

Group 'C' Tests.

SCHEDULE 5

TEST NO DEF STAN 59 - 35(PART 1)	TITLE OF TEST	AQL	INSPECTION LEVEL	TEST CATEGORY
15.1(ii)	Dimensions (outline). Additionally, issue number of manufacturer's drawing schedule to be checked against that quoted on approval certificate; any significant differences to be reported to the Approving Authority	1%	S3	Non-destructive
15.7	Contact resistance	4%	S3	Destructive
15.8	Shell continuity			
15.17	Temperature, rapid change 15.17(i), (ii), and (iii) not required			
15.21	Long term (damp heat)(21 days)			
15.21(i)	Working voltage application			
15.21.2(i)	Contact resistance			
15.21.2(ii)	Shell continuity			
15.21.2(iii)	Insulation resistance			
15.21.2(iv)	Visual examination			
15.21.2(v)	Disengagement and engagement			
15.21.2(vi)	Sealing			
15.21.2(viii)	Voltage proof			
15.4	Engagement and disengagement force			
15.7	Contact resistance			
15.8	Shell continuity			
15.22	Endurance mechanical (50 operations)	4%	S3	Destructive
15.22(i)	Visual examination			
15.22(ii)	Engagement and disengagement force			
15.22(iii)	Contact holding force			
15.23.1	Endurance high temperature (long term) (500 hours only)			
15.23.1(i)	Sealing (hot)			
15.23.(ii)	Insulation resistance (hot)			
15.23.(iii)	Contact resistance			
15.23.1(iv)	Shell continuity			
15.23.1(v)	Voltage proof			
15.23.1(vi)	Sealing			

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Group 'D' Tests.

SCHEDULE 6

- a. The sample size and performance requirements for Group 'D' Tests shall be in accordance with the Qualification Approval requirements for the tests specified herein (see clause 6).
 - b. Components for Group 'D' Tests shall be selected from batches which have successfully passed the acceptance tests and the batch size from which this selection is made shall be at least three-times the required sample quantity.
- b. Disposal of samples. (See DEF-5001-C, Section 4.)

9. TEST REQUIREMENTS

a. The general test requirements are fully defined in DEF STAN 59 - 35 (PART 1). The following table contains additional information on test conditions and requirements for the range of standard items defined herein:

SCHEDULE 7

TEST NO DEF STAN 59 - 35 (PART 1)	TITLE	DESCRIPTION	REQUIREMENTS
15.1	GENERAL EXAMINATION		
(i)	Visual examination	As specified	As specified
(ii)	Dimensions (outline)	As specified	As specified
(iii)	Dimensions (detail) and materials	As specified	As specified
(iv)	Weight	As specified	As shown in Table 1
15.2	COMPATIBILITY ASSURANCE	As specified	As specified
15.3	POLARIZATION		
(i)	Polarizing device	As specified using compatibility gauge	As specified
(ii)	Mis-mating	As specified by hand	As specified
(iii)	Orientation	As specified using a force of 110N (25 lbf approx)	As specified
15.4	ENGAGEMENT AND DISENGAGEMENT FORCE	As specified. Measure- ment of force not required	By hand
15.5	CONTACT HOLDING FORCE	As specified using gauge shown on page 19	As specified
15.6	SEALING	As specified. At a pressure differential of 1 bar (1 atmosphere)	As specified

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TEST NO DEF STAN 59 - 35 (PART 1)	TITLE	DESCRIPTION	REQUIREMENT
15.7	CONTACT RESISTANCE	As specified	Maximum - 5 milliohms
15.8	SHELL CONTINUITY	As specified	Maximum - 5 milliohms
15.9	INSULATION RESISTANCE	As specified. Method A Method B	Minimum - 5000 Megohms. Results to be recorded
15.10	IONIZATION	NOT APPLICABLE	
15.11	VOLTAGE PROOF	As specified. Method B. For proof voltages see Schedule 9	As specified
15.12	SOLDERING	Soldering-iron method. Bit size: 4.75 mm (0.187 in) for size 12 and 16 contacts, 7.62 mm (0.3 in) for larger contacts. Recovery time 1 hour	Satisfactory tinning. No loosening of parts or other damage such as would impair performance
15.13	BUMPING	As specified. Under 'Atmospheric conditions for measurement'	Maximum intermittency - 10 microseconds
(i) (ii)	Contact resistance Sealing	As in 15.7 As in 15.6	Maximum - 5 milliohms As specified
15.14	VIBRATION	As specified. Under 'Atmospheric conditions for measurement'. Severity V2	Maximum intermittency - 10 microseconds
(i) (ii)	Contact resistance Sealing	As in 15.7 As in 15.6	Maximum - 5 milliohms As specified
15.15	SHOCK	As specified. Severity S2	Maximum intermittency - 10 microseconds
(i) (ii)	Contact resistance Sealing	As in 15.7 As in 15.6	Maximum - 5 milliohms As specified
15.16	ACCELERATION	As specified. Severity A1	
(i) (ii)	Contact resistance Sealing	As in 15.7 As in 15.6	Maximum - 5 milliohms As specified

TEST NO DEF STAN 59 - 35 (PART 1)	TITLE	DESCRIPTION	REQUIREMENT
15.17	TEMPERATURE, RAPID CHANGE	As specified. Severity T4	As specified
(i)	Contact resistance	As in 15.7	Maximum - initial reading plus 5 milliohms
(ii)	Screen continuity	As in 15.8	Maximum - initial reading plus 5 milliohms
(iii)	Sealing	As in 15.6	As specified
15.18	CLIMATIC	As specified. Humidity class H6, temperature severity T4	
15.18.1	Intermediate measurements	As specified	
(i)	Visual examination	As specified	As specified
15.18.2	Temperature, dry heat	As specified	
(i)	Sealing (hot)	As specified	As specified
15.18.3	Damp heat, accelerated	As specified	
15.18.4	Temperature, dry cold	As specified	
(i)	Disengagement and engagement (cold)	As specified	By hand
(ii)	Sealing (cold)	As specified	As specified
15.18.5	Air density low	As specified.	
(i)	Voltage proof	Severity D2 As specified. For proof voltages see Schedule 9	As specified
15.18.6			
(a)	Damp heat, accelerated, with assisted recovery (Class H3 only)	NOT	APPLICABLE
(b)	Damp heat, accelerated with 24 hour recovery (Class H5 only)	NOT	APPLICABLE
(c)	Damp heat, accelerated (Class H6 only)	As specified	
(i)	Working voltage application	As specified. For working voltages see Schedule 9	As specified
15.18.6			
(d)	Damp heat, accelerated with temperature, dry cold (Class H7 only)	NOT	APPLICABLE

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TEST NO DEF STAN 59 - 35 (PART 1)	TITLE	DESCRIPTION	REQUIREMENTS
15.18.7 (i)	Final measurements Contact resistance	As specified As in 15.7	Maximum - initial reading plus 5 milliohms Maximum - initial reading plus 5 milliohms Minimum - 100 Megohms As specified By hand As specified NOT APPLICABLE As specified
(ii)	Shell continuity	As in 15.8	
(iii)	Insulation resistance	As in 15.9 within 30 minutes after completion of recovery. Method A	
(iv)	Visual examination	As specified	
(v)	Disengagement and engagement	As specified	
(vi)	Sealing	As in 15.6	
(vii)	Insulation resistance (Class H5 only)	NOT APPLICABLE	
(viii)	Voltage proof	As specified. For proof voltages see Schedule 9	
15.19	FIRE RISK	As specified	As specified
15.20	FIREPROOFNESS	NOT APPLICABLE	
15.21 (i)	DAMP HEAT, (LONG TERM) Working voltage application (omitted for Class H3)	As specified. Severity H6 As specified. For working voltages see Schedule 9	As specified As specified
15.21.1 (a)	Assisted recovery (Class H3 only)	NOT APPLICABLE	
(b)	Recovery (Class H5 only)	NOT APPLICABLE	
(c)	Recovery (Classes H6 and H7 only)	As specified	
15.21.2 (i)	Final measurements Contact resistance	As specified As in 15.7	Maximum - initial reading plus 5 milliohms Maximum - initial reading plus 5 milliohms Minimum - 100 Megohms As specified By hand As specified NOT APPLICABLE As specified
(ii)	Shell continuity	As in 15.8	
(iii)	Insulation resistance	As specified. Method A	
(iv)	Visual examination	As specified	
(v)	Disengagement and engagement	As specified	
(vi)	Sealing	As in 15.6	
(vii)	Insulation resistance (Class H5 only)	NOT APPLICABLE	
(viii)	Voltage proof	As in 15.11. For proof voltages see Schedule 9	

TEST NO DEF STAN 59 - 35 (PART 1)	TITLE	DESCRIPTION	REQUIREMENTS
15.22	ENDURANCE, MECHANICAL	As specified. 500 operations by hand under 'Atmospheric conditions for measurement'	
(i)	Visual examination	As specified	As specified
(ii)	Engagement and dis-engagement force	As in 15.4	By hand
(iii)	Contact holding force	As in 15.5 (without sizing)	As specified
15.23	ENDURANCE, HIGH TEMPERATURE (long and short term)	As specified (all specimens long term only)	
15.23.1	Long term (all specimens)	The specimens shall be subjected to an ambient temperature of 100°C for a period of 1000 hours. During this period all contacts will carry their rated current as shown in Schedule 8. Contacts shall be connected in series using short lengths of suitable conductor	
(i)	Sealing (hot)	As specified	As specified
(ii)	Insulation resistance (hot)	As specified, Method B	Measurements to be recorded
(iii)	Contact resistance	As in 15.7	Maximum - initial reading plus 5 milliohms
(iv)	Shell continuity	As in 15.8	Maximum - initial reading plus 5 milliohms
(v)	Voltage proof	As in 15.11. For proof voltages see Schedule 9	As specified
(vi)	Sealing	As in 15.6	As specified
15.23.2	Short term	NOT APPLICABLE	
15.24	PLATING PROVING	NOT APPLICABLE	
15.25	SHELF LIFE	NOT APPLICABLE	
15.26	MOULD GROWTH	As specified	
(i)	Insulation resistance	As in 15.9. Method A	Minimum - 100 Megohms
(ii)	Visual examination	As specified	As specified

DEF STAN 59 - 35(PART 1)
SECTION 8

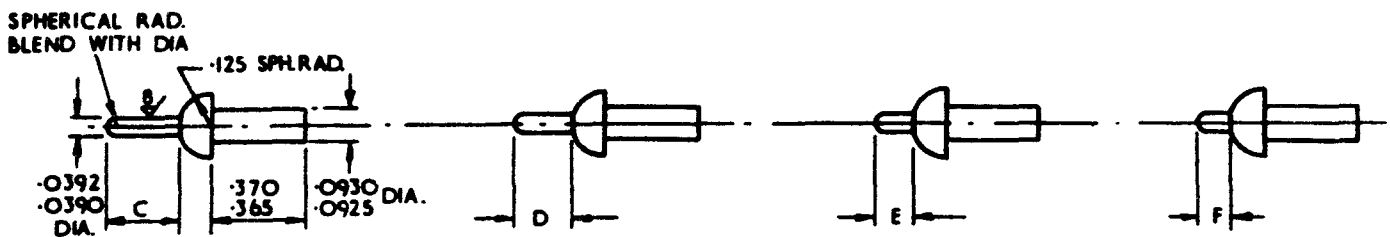
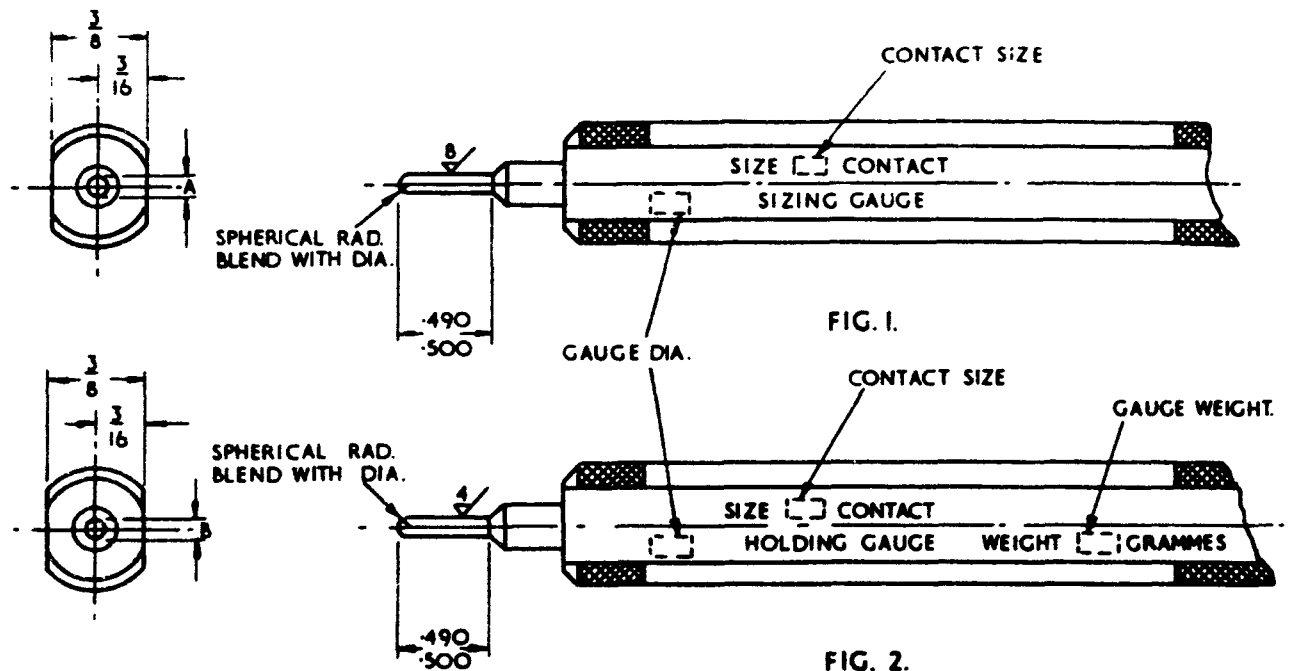
TEST NO DEF STAN 59 - 35 (PART 1)	TITLE	DESCRIPTION	REQUIREMENTS
15.27	SALT MIST	As specified	
(i)	Contact resistance	As in 15.7	Maximum - initial reading plus 5 milliohms
(ii)	Shell continuity	As in 15.8	Maximum - initial reading plus 5 milliohms
(iii)	Engagement and dis- engagement force	As in 15.4	By hand
(iv)	Insulation resistance	As in 15.9. Method A	Minimum - 100 Megohms
(v)	Working voltage application	As specified	As specified
(vi)	Visual examination	As specified	As specified
(vii)	Disengagement and engagement	As specified	By hand
(viii)	Insulation resistance	As in 15.9. Method A	Minimum - 100 Megohms
(ix)	Contact resistance	As in 15.7	Maximum - initial reading plus 5 milliohms
(x)	Shell continuity	As in 15.8	Maximum - initial reading plus 5 milliohms
(xi)	Voltage proof	As in 15.11. For proof voltages see Schedule 9	As specified
15.28	DUST	As specified	
(i)	Contact resistance	As in 15.7	Maximum - initial reading plus 5 milliohms
(ii)	Visual examination	As specified	As specified
(iii)	Engagement and dis- engagement force	As in 15.4	By hand
15.29	ROBUSTNESS OF TERMINATIONS	As specified. Test 50% of the contacts, but not more than 6 <u>CONTACT</u> <u>SIZE</u> <u>FORCE</u> 16 45N(10 lbf approx) 12 67N(15 lbf approx) 8 45N(10 lbf approx) 4 178N(40 lbf approx)	As specified

TEST NO DEF STAN 59 - 35 (PART 1)	TITLE	DESCRIPTION	REQUIREMENTS
15.30	CONTACT RETENTION (in insert)	As specified. Test 50% of the contacts, but not more than 6, different from those used in 15.29 <u>CONTACT</u> <u>SIZE</u> <u>FORCE</u> 16 45N(10 lbf approx) 12 45N(10 lbf approx) 8 67N(15 lbf approx) 4 90N(20 lbf approx)	As specified
15.31	INSERT RETENTION (in shell)	As specified. Force shall be applied by means of air-pressure up to a maximum of 345 ~~km~~ /m ² (50 p.s.i.) As in 15.6	As specified
(i)	Sealing		As specified
15.32	TEST PROD DAMAGE (socket contacts only)	As specified. Sizes 16 and 12 contacts only. Moment 0.225 NM (2 lbf/in)	
(i)	Contact holding force	As in 15.5 (without sizing)	As specified
15.33	IMPACT AND RESISTANCE TO STATIC LOAD		
15.33.1	Impact (free specimens only)	Drop height 1 m (3 ft approx) 5 impacts	As specified
15.33.2	Resistance to static load	NOT APPLICABLE	

DEF STAN 59 - 35(PART 1)
SECTION 8

TEST NO DEF STAN 59 - 35 (PART 1)	TITLE	DESCRIPTION	REQUIREMENTS
15.34	IMMERSION	As specified	
15.34.1	Immersion (normal)	As specified	
(i)	Insulation resistance	As in 15.9. Method A	Minimum - 2000 Megohms
(ii)	Visual examination	As specified	As specified
15.34.2	Immersion, low air density	As specified	
(i)	Insulation resistance	As in 15.9. Method B in mated condition	Value to be recorded
(ii)	Insulation resistance	As in 15.9. Method B in mated condition	Difference from value recorded at 15.34.2(i) not to exceed 10%
(iii)	Insulation resistance	As in 15.9. Method B in mated condition	Difference from value recorded at 15.34.2(i) not to exceed 10%
15.35	SOLVENT RESISTANCE	As specified. Test with all solvents listed in DEF STAN 59 - 35(PART 1) Annex D, Sections 1 and 2 with the exception of 1f. (SKYDROL 500A)	
(i)	Insulation resistance	As specified. Method A	Minimum - 5000 Megohms
15.35.1	Immersion and temperature cycling	As specified	
15.35.1.1	Cycle 1	As specified	
(i)	Engagement and disengagement	As specified	By hand
(ii)	Engagement and disengagement	As specified	By hand
15.35.1.2	Cycles 2 to 5	As specified	
(i)	Insulation resistance	As in 15.9. Method A	Minimum - 100 Megohms
(i)	Cycles 6 to 10	As specified	
(i)	Insulation resistance	As in 15.9. Method A	Minimum - 100 Megohms
15.35.1.3	Cycles 11 to 15	As specified	
(i)	Insulation resistance	As specified. Method A	Minimum - 100 Megohms
15.32.2	Immersion	As specified	
(i)	Engagement and disengagement	As specified	By hand
(ii)	Engagement and disengagement	As specified	By hand
(iii)	Insulation resistance	As specified. Method A	Minimum - 100 Megohms
15.36	CONTACT STRENGTH (Size 20 (1 mm) and smaller male contacts only)	NOT APPLICABLE	

PLUGS AND SOCKETS, ELECTRICAL, PATTERN 121
SIZING GAUGE AND CONTACT HOLDING GAUGE



THE LENGTH OF PROD ONLY VARIES. ALL OTHER DIMENSIONS AS L.H. ILLUSTRATION.

DIMENSIONS IN INCHES

CONTACT SIZE	GAUGE DIMENSIONS						GAUGE MARKINGS		
	GAUGE		TEST PRODS				SIZING GAUGE	HOLDING GAUGE	
	A	B	C	D	E	F	DIA.	DIA.	WEIGHT
16	.0635 .0633	.0617 .0615	.503 .497	.378 .372	.253 .247		.063	.061	100
12	.0950 .0948	.0932 .0930					.095	.093	198
8	.144 .142	.148 .140					.143	.141	283
4	.227 .225	.225 .223					.226	.224	397

NOTES:-

1. MATERIAL -GAUGE STEEL TO B.S 1407.
2. GAUGING SURFACES TO BE-
(a) HARDENED AND TEMPERED TO 650 HV 20.
(b) GROUND AND LAPPED TO THE SURFACE FINISH SHOWN ABOVE
3. THESE GAUGES TO BE USED FOR TESTING FULLY ASSEMBLED COMPONENTS ONLY.
4. SHANK DIAMETER AND LENGTH TO BE SUCH AS WILL PERMIT UNRESTRICTED ACCESS OF GAUGE

10. TECHNICAL NOTES

a. Classifications concerned with temperature severity, humidity severity, and overall performance to DEF-5011 are given in clause 12.

b. Engagement and disengagement of plugs and sockets is achieved by rotation of the threaded coupling nut which is captive on the free shell and is removable from the front. This feature obviates disturbance of the conductors in the event of damage to the coupling nut necessitating replacement.

- (1) Coupling nuts and their 'rings, retaining' are listed on page 72 as interchangeable spares items.

c. Standardization of the rear ends of the three shell styles provides for the incorporation of a common sealing system and means for terminating the braid to ensure screen continuity.

- (1) Screen continuity is maintained by clamping the braid between the grommet follower (Fig 6) and the nut, bushing retainer, electrical plug-socket (Fig 7) or the coupling nut of the adaptor cable to electrical plug-socket (Fig 8).
- (2) Where the shield, electrical (angled outlet) is used the braid is clamped between an integral compressive sleeve and the nut, bushing retainer, electrical plug-socket (Fig 7).
- (3) Sealing is achieved by a bushing rubber sealing directly on the rear face of the shell assembly, which completely shrouds the live area of the solder buckets and the cables. Unused bushing holes should be sealed using the appropriate size plug, protective. Plugs, protective, are listed on page 72 under spares and ancillary parts.

d. The orientations W, X, Y, and Z have been obtained by rotation of the insert in relation to the shell. When viewed from the mating face inserts with pin contacts have been rotated clockwise through the appropriate angle in both male and female shells. Inserts with socket contacts have been rotated counter clockwise through the corresponding angle in both male and female shells.

e. For each shell size, the free male shell plug mates with either of the female shell sockets. The free male shell socket mates with either of the female shell plugs.

- (1) The free female shell is provided for cable coupling applications.

f. The fixed female shell is panel mounted by means of four flange fixing screws. Recommended panel piercing details are given for each shell size in the drawings (Fig 4) in the list of standards in clause 13. To improve panel sealing a gasket shall be used. Suitable gaskets are listed under spares and ancillary parts on page 72.

g. Provision is made for wire locking the clamping screws of the adaptor, cable to electrical plug/socket (Fig 8) and the retaining screws of the inspection cover for the shield, electrical, plug/socket (angle) (Fig 9).

h. Protective covers, electrical for both male and female shells are listed on page 71 under spares and ancillary parts.

11. RATINGS

a. Current ratings are given in Schedule 8 below. The current values shown for each arrangement against the appropriate contact sizes are continuous ratings that will produce the maximum permissible conductor temperature (105°C) when bunched nyvin cables (BS G.177) are used and all contacts are carrying their rated currents.

SCHEDULE 8

SHELL SIZE	CONTACT ARRANGEMENT	TOTAL NO OF CONTACTS	NUMBER OF CONTACTS OF EACH SIZE				INSERT ORIENT-ATION	CURRENT RATINGS IN AMPS FOR CONTACT SIZES AND AMBIENT TEMPERATURE								SERVICE RATING	
			SIZE NO 4	SIZE NO 8	SIZE NO 12	SIZE NO 16		SIZE 4		SIZE 8		SIZE 12		SIZE 16			
								50°C	100°C	50°C	100°C	50°C	100°C	50°C	100°C		
10SL	4	2				2	N								18.5	16	A
10SL	3	3				3	N								15	13	A
12S	3	2				2	N,W,X,Y,Z								18.5	16	A
14S	4	1				1	N								18.5	16	D
14S	9	2				2	N,W,X,Y,Z								18.5	16	A
14S	7	3				3	N,W,X,Y								15	13	A
14S	2	7				4	N,X,Y								14	12	INST
14S	5	2				5	N,X								13	11.5	INST
14S	6	5				6	N								11.5	10	INST
16S	1	7				7	N,W,Z								11	9.5	A
16	10	2			3		N,W,X,Y					29	26				A
16	9	3			2	2	N,W,X,Y,Z					26.5	23	13	11.5		A
18	11	2			5		N,X,Y					24	21				A
18	-	10				10	N,W,X,Y,Z							7.5	6.5	A & INST	
20	11	5		2	3		N,W,X,Y,Z			50.5	44	23	20	11	9.5		A
20	23	6		7	3		N,W,X,Y,Z			43	42						A
20	15	7			7		N,W,Z					21	18				A
20	18	9			3	6	N,W,X,Y,Z					22	19	11	9.5		A
20	29	17				17	N,W,Z							7	6		A
22	22	4		4			N,X,Y			56	48						A
22	23	8			8		N,W,Y					20	17.5				A & D
22	18	8				8	N,W,X,Y,Z							11	9.5		A & D
22	19	14				14	N,W,X,Y,Z							7	6		A
22	14	19				19	N,W,Z							5.5	5		A
24	12	5	2		3		N,W,X,Y,Z	92	80			11.5	10.0				A
24	11	6		3	6		N,W,X,Y,Z			34.5	30	15.5	13.5				A
24	7	16			2	14	N,W,X,Y,Z					11.5	10				A
24	28	24				24	N,W,X,Y,Z							6.5	5		INST
28	22	6	3			3	N,W,X,Y,Z	92	80					14.5	10		D
28	10	7	2	2	3		N,W,X,Y,Z	53	46	29	25	13	11.5				A & D
28	20	14			10	4	N,W,X,Y,Z					15	13	7.5	6.5		A
28	11	22			4	18	N,W,X,Y,Z					10	9	6	4.5		A
28	21	37				37	N,W,X,Y,Z							4	4.5		A
32	6	23	2	3	2	16	N,W,X,Y,Z	41	36	23	20	10	9	5	4.5		INST & A
32	7	35			7	28	N,W,X,Y,Z					9	8	4.5	4		A
36	7	40			7	40	N,W,X,Y,Z					9	8	4.5	4		A

18-1 Contacts B, F, C, and G have A service rating. Balance have INST.
 22-23 Contact H has D service rating. Balance have A.
 22-18 Contacts C, D, and E have A service rating. Balance have D.
 28-10 Contact G has D service rating. Balance has A.
 32-7 Contacts A, B, H, and J have INST service rating. Balance has A.

b. Voltage ratings applicable to air densities at sea level and at 30 480 m (100 000 ft) are given in Schedule 9 below. Values given are potentials between contacts and between contacts and shells.

SCHEDULE 9

	SEA LEVEL			10.67 mb AT 20°C 30 480 m(100 000 ft) (D2)		
SERVICE RATING	INST	A	D	INST	A	D
Working voltage d.c. or a.c. peak	350	500	750	100	200	250
Proof voltage d.c. or a.c. peak	800	1400	2000	200	350	450

12. CLASSIFICATION

Temperature severity - T4 (-55/100°C)
Humidity severity - H6
Shock severity - S2
Air density (low) - D2
Vibration - V2
Acceleration - A1
DEF-5011 - GP3

13. LIST OF STANDARD PLUGS AND SOCKETS, ELECTRICAL, AND ACCESSORIES

CONTENTS	TABLE NUMBER	PAGE NUMBER
Size 10SL Standard range	I(A)	25
Size 10SL shell and accessory outline drawings		26
Arrangement 10SL-4		73
Arrangement 10SL-3		73
Size 10SL accessories		28
Size 12S Standard range	I(B)	28
Size 12S shell and accessory outline drawings		29
Arrangement 12S-3		73
Size 12S accessories		
Size 14S Standard range	I(C)	31, 32, 33, 34
Size 14S shell and accessory outline drawings		35
Arrangement 14S-4		73
Arrangement 14S-9		
Arrangement 14S-7		
Arrangement 14S-2		
Arrangement 14S-5		
Arrangement 14S-6		
Size 14S accessories		31

CONTENTS	TABLE NUMBER	PAGE NUMBER
Size 16S Standard range	I(D)	37
Size 16S shell and accessory outline drawings		38
Arrangement 16S-1		73
Size 16S accessories		39
Size 16 Standard range	I(E)	40
Size 16 shell and accessory outline drawings		41
Arrangement 16 - 10		73
Arrangement 16 - 9		73
Size 16 accessories		42
Size 18 Standard range	I(F)	43
Size 18 shell and accessory outline drawings		44
Arrangement 18 - 11		73
Arrangement 18 - 1		73
Size 18 accessories		45
Size 20 Standard range	I(G)	46, 47, 48
Size 20 shell and accessory outline drawings		49
Arrangement 20 - 14		73
Arrangement 20 - 22		
Arrangement 20 - 15		
Arrangement 20 - 18		
Arrangement 20 - 29		
Size 20 accessories		50
Size 22 Standard range	I(H)	51, 52, 53
Size 22 shell and accessory outline drawings		54
Arrangement 22 - 22		74
Arrangement 22 - 18		
Arrangement 22 - 23		
Arrangement 22 - 19		
Arrangement 22 - 14		
Size 22 accessories		55
Size 24 Standard range	I(J)	56, 57
Size 24 shell and accessory outline drawings		58
Arrangement 24-12		74
Arrangement 24-11		
Arrangement 24-7		
Arrangement 24-28		
Size 24 accessories		59

DEF STAN 59 - 35(PART 1)
SECTION 8

CONTENTS	TABLE NUMBER	PAGE NUMBER
Size 28 Standard range	I(K)	60, 61, 62
Size 28 shell and accessory outline drawings		63
Arrangement 28-22		74
Arrangement 28-10		
Arrangement 28-20		
Arrangement 28-11		
Arrangement 28-21		
Size 28 accessories		64
Size 32 Standard range	I(L)	65
Size 32 shell and accessory outline drawings		66
Arrangement 32-6		74
Arrangement 32-7		74
Size 32 accessories		67
Size 36 Standard range	I(M)	68
Size 36 shell and accessory outline drawings		69
Arrangement 36-7		74
Size 36 accessories		70
Spares and ancillary parts for all shell sizes	-	
The following items are listed:		
Cover, electrical (protective cap)		71
Rings, retaining (circlips)		
Nuts, outer, electrical (coupling nuts)		72
Gaskets		
Plugs, protective		

TABLE I(A)

STANDARD RANGE

SHELL SIZE 10SL

ORDERING DATA	ORIENTATIONS					SHELL DETAILS (SEE PAGE 26)		MAX. WEIGHT 'g'	CONTROL DRAWING NUMBER	CONTACT DETAILS					
	NORMAL	W	X	Y	Z	TYPE	FIG			FUNCTION	ARRANGEMENT (SEE PAGE 73)	NUMBER OFF			
												SIZE 4	SIZE 8	SIZE 12	SIZE 16
		NOT TO BE PROVIDED	NOT TO BE PROVIDED	NOT TO BE PROVIDED	NOT TO BE PROVIDED										
STYLE REF CC1331-10SL-3P NATO STOCK NO 5935-99-	014-6184					Free male	2	20	CC/C1331	Socket	10SL-3	-	-	-	3
STYLE REF CC1330-10SL-3P NATO STOCK NO 5935-99-	014-6185					Fixed female	1	12	CC/C1330	Plug	10SL-3	-	-	-	3
STYLE REF CC1332-10SL-3P NATO STOCK NO 5935-99-	014-6186					Free female (coupler)	3	12	CC/C1332	Plug	10SL-3	-	-	-	3
STYLE REF CC1331-10SL-4S NATO STOCK NO 5935-99-	014-6187					Free male	2	19	CC/C1331	Socket	10SL-4	-	-	-	2
STYLE REF CC1330-10SL-4P NATO STOCK NO 5935-99-	014-6188					Fixed female	1	11	CC/C1330	Plug	10SL-4	-	-	-	2
STYLE REF CC1332-10SL-4P NATO STOCK NO 5935-99-	014-6189	Free female (coupler)	3	11	CC/C1332	Plug	10SL-4	-	-	-	2				

SIZE 10SL

SHELL AND ACCESSORY OUTLINE DRAWINGS

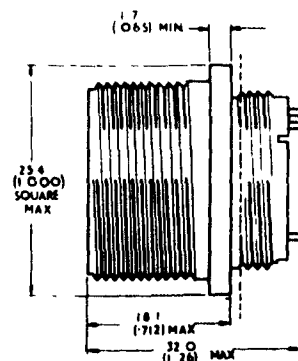


FIG 1 FIXED FEMALE SHELL

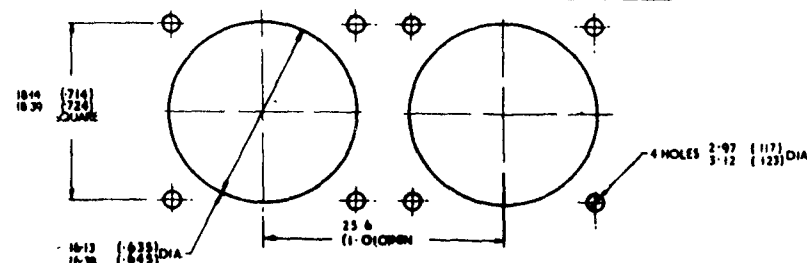


FIG 4 PANEL PIERCING DETAILS FOR FRONT MOUNTING.
(WHEN CABLE ACCESSORIES ARE USED MAXIMUM PANEL THICKNESS 3.3 (0.130))

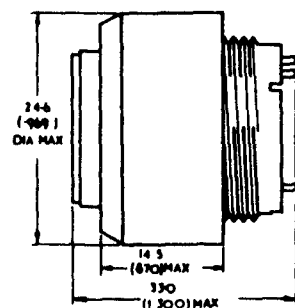


FIG 2 FREE MALE SHELL

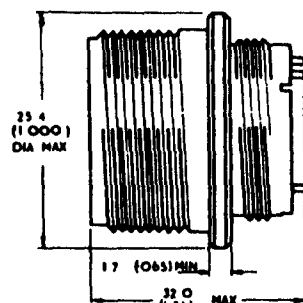
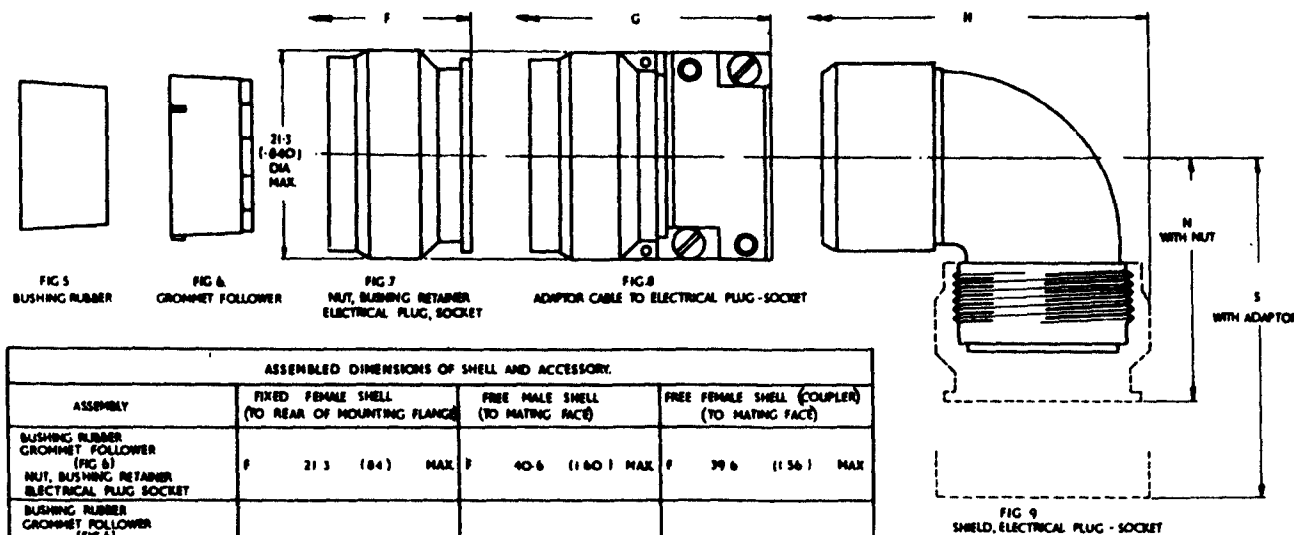


FIG 3 FREE FEMALE SHELL
(COUPLER)

ACCESSORIES



ASSEMBLED DIMENSIONS OF SHELL AND ACCESSORY.												
ASSEMBLY	FIXED FEMALE SHELL (TO REAR OF MOUNTING FLANGE)				FREE MALE SHELL (TO MATING FACE)				FREE FEMALE SHELL (COUPLER) (TO MATING FACE)			
BUSHING RUBBER GROMMET FOLLOWER (FIG 6) NUT, BUSHING RETAINER ELECTRICAL PLUG SOCKET	F	21.3	(.84)	MAX	F	40.6	(1.60)	MAX	F	39.6	(1.56)	MAX
BUSHING RUBBER GROMMET FOLLOWER (FIG 6) ADAPTOR CABLE TO ELECTRICAL PLUG SOCKET	G	32.3	(1.27)	MAX	G	51.6	(2.03)	MAX	G	50.8	(2.00)	MAX
BUSHING RUBBER (2 OFF) GROMMET FOLLOWER (FIG 6) SHIELD, ELECTRICAL, PLUG SOCKET.	H	36.8	(1.45)	MAX	H	56.1	(2.21)	MAX	H	56.1	(2.17)	MAX
NUT, BUSHING RETAINER ELECTRICAL PLUG, SOCKET	N	32.3	(1.27)	MAX	N	32.3	(1.27)	MAX	N	32.3	(1.27)	MAX
BUSHING RUBBER (2 OFF) GROMMET FOLLOWER (FIG 6) SHIELD ELECTRICAL PLUG SOCKET	H	36.8	(1.45)	MAX	H	56.1	(2.21)	MAX	H	55.1	(2.17)	MAX
ADAPTOR CABLE TO ELECTRICAL PLUG - SOCKET	S	43.4	(1.71)	MAX	S	43.4	(1.71)	MAX	S	43.4	(1.71)	MAX

THE OVERALL MATED LENGTH OF ANY MATED COMBINATION
CAN BE CALCULATED BY SUBTRACTING 13.46 (0.53)
(MATING OVERLAP) FROM THE SUM OF THE OVERALL LENGTHS
OF THE REQUIRED COMPONENTS

WITHDRAWAL DISTANCE = MAXIMUM OVERLAP DIMENSION

DIMENSIONS ARE IN MILLIMETRES WITH ORIGINAL INCH
DIMENSIONS SHOWN IN BRACKETS

ACCESSORIES FOR SHELL SIZE 10SL
(see page 26 for outline drawings)

ORDERING DATA	ARRANGEMENT	NOMENCLATURE	MAXIMUM WEIGHT (GRAMMES)	CONTROL DRAWING NUMBER
NATO STOCK NUMBER				
5365-99-014-7036	10SL-3	BUSHING, RUBBER	0.75	CC/C1347
5365-99-014-7037	10SL-4	BUSHING, RUBBER	0.90	CC/C1347
-	-	-	-	-
-	-	-	-	-
-	-	-	-	-
7777-99-014-7038	-	GROMMET FOLLOWER	1.5	CC/C1348
5935-99-014-7039	-	NUT, BUSHING RETAINER, ELECTRICAL PLUG-SOCKET	6.5	CC/C1344
5935-99-014-7040	-	ADAPTOR, CABLE TO ELECTRICAL PLUG-SOCKET	14	CC/C1345
5935-99-014-7041	-	SHIELD, ELECTRICAL PLUG-SOCKET	20	CC/C1346

TABLE 1(B)
STANDARD RANGE
SHELL SIZE 12S

ORDERING DATA	ORIENTATIONS					SHELL DETAILS (SEE PAGE 29)		MAX . WEIGHT 'g'	CONTROL DRAWING NUMBER	CONTACT DETAILS					
	NORMAL	W	X	Y	Z	TYPE	FIG			FUNCTION	ARRANGEMENT (SEE PAGE 73)	NUMBER OF			
												SIZE 4	SIZE 8	SIZE 12	SIZE 16
STYLE REF CC1331-12S-3P NATO STOCK NO 5935-99-	014-6190	014-6191	014-6192	014-6193	014-6194	Free male	2	22	CC/B1331	Plug	12S - 3	-	-	-	2
STYLE REF CC1331-12S-3S NATO STOCK NO 5935-99-	014-6195	014-6196	014-6197	014-6198	014-6199			13		Socket					
STYLE REF CC1330-12S-3P NATO STOCK NO 5935-99-	014-6200	014-6201	014-6202	014-6203	014-6204	Fixed female	1	12	CC/B1330	Plug	12S - 3	-	-	-	2
STYLE REF CC1330-12S-3S NATO STOCK NO 5935-99-	014-6205	014-6206	014-6207	014-6208	014-6209			15		Socket					
STYLE REF CC1332-12S-3P NATO STOCK NO 5935-99-	014-6210	014-6211	014-6212	014-6213	014-6214	Free female (coupler)	3	12	CC/B1332	Plug	12S - 3	-	-	-	2
STYLE REF CC1332-12S-3S NATO STOCK NO 5935-99-	014-6215	014-6216	014-6217	014-6218	014-6219			15		Socket					

SIZE 12S

SHELL AND ACCESSORY OUTLINE DRAWINGS

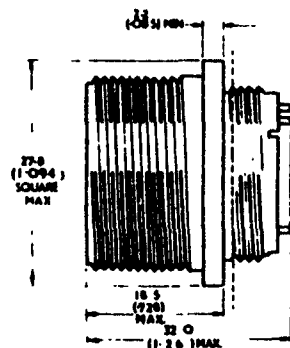


FIG 1 FIXED FEMALE SHELL

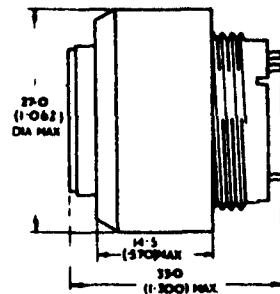


FIG 2 FREE MALE SHELL

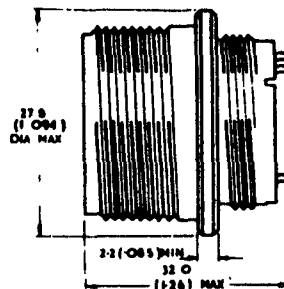


FIG 3 FREE FEMALE SHELL (COUPLER)

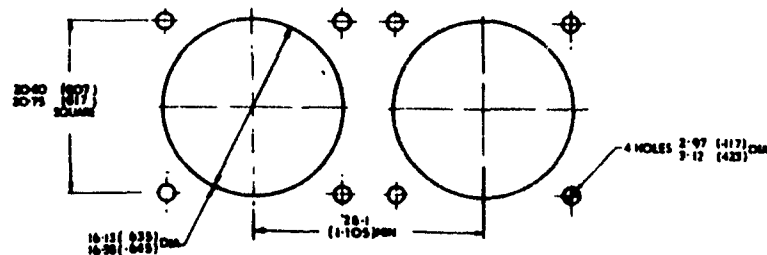
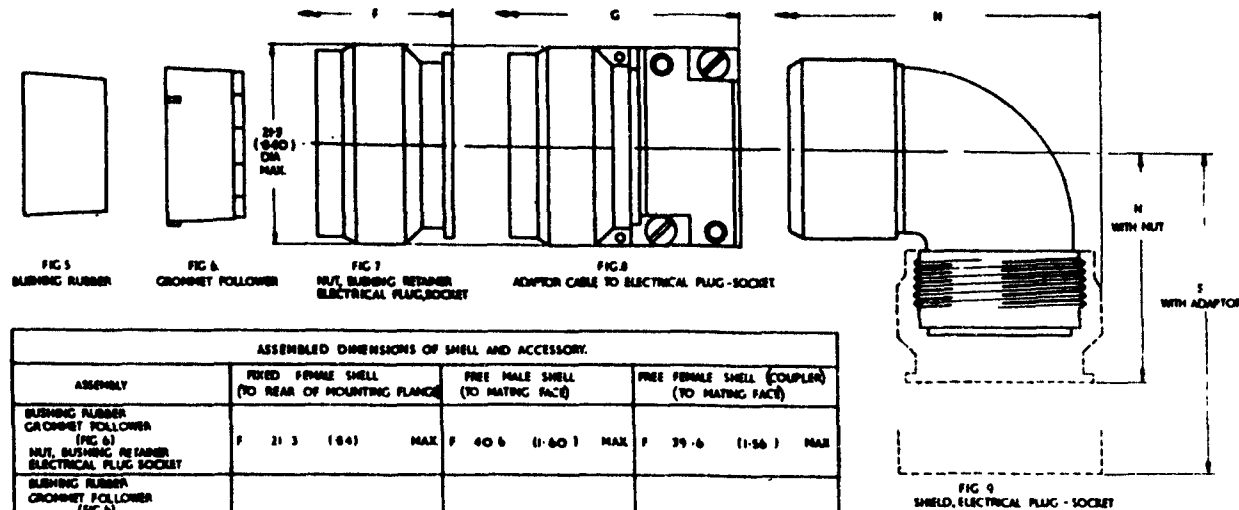


FIG 4 PANEL PIERCING DETAILS FOR FRONT MOUNTING.
(WHEN CABLE ACCESSORIES ARE USED MAXIMUM PANEL THICKNESS 1.1 (0.043))

ACCESSORIES



ASSEMBLED DIMENSIONS OF SHELL AND ACCESSORY.			
ASSEMBLY	FIXED FEMALE SHELL (TO REAR OF MOUNTING FLANGE)	FREE MALE SHELL (TO MATING FACE)	FREE FEMALE SHELL (COUPLER) (TO MATING FACE)
BUSHING RUBBER CROMMET FOLLOWER (FIG 6) NUT, BUSHING RETAINER ELECTRICAL PLUG SOCKET	F 21.3 (0.84) MAX	F 40.6 (1.601) MAX	F 39.6 (1.561) MAX
BUSHING RUBBER CROMMET FOLLOWER (FIG 6) ADAPTER CABLE TO ELECTRICAL PLUG SOCKET	G 32.3 (1.27) MAX	G 51.6 (2.03) MAX	G 50.8 (2.001) MAX
BUSHING RUBBER (2 OFF) CROMMET FOLLOWER (FIG 6) SHIELD, ELECTRICAL PLUG SOCKET	H 36.0 (1.42) MAX	H 56.1 (2.21) MAX	H 56.1 (2.21) MAX
NUT, BUSHING RETAINER ELECTRICAL PLUG SOCKET	N 32.3 (1.27) MAX	N 32.3 (1.27) MAX	N 32.3 (1.27) MAX
BUSHING RUBBER (2 OFF) CROMMET FOLLOWER (FIG 6) SHIELD ELECTRICAL PLUG SOCKET	H 36.0 (1.42) MAX	H 56.1 (2.21) MAX	H 56.1 (2.21) MAX
ADAPTER CABLE TO ELECTRICAL PLUG-SOCKET	S 43.4 (1.71) MAX	S 43.4 (1.71) MAX	S 43.4 (1.71) MAX

THE OVERALL MATED LENGTH OF ANY MATED COMBINATION
CAN BE CALCULATED BY SUBTRACTING 13.46 (0.53)
(MATING OVERLAP FROM THE SUM OF THE OVERALL LENGTHS
OF THE REQUIRED COMPONENTS)

WITHDRAWAL MAXIMUM OVERLAP DIMENSION

DIMENSION IN MILLIMETRES WITH ORIGINAL INCH
DIMENSION SHOWN IN BRACKETS

ACCESSORIES FOR SHELL SIZE 12S (see page 29 for outline drawings)				
ORDERING DATA	ARRANGEMENT	NOMENCLATURE	MAXIMUM WEIGHT (GRAMMES)	CONTROL DRAWING NUMBER
NATO STOCK NUMBER				
5365-99-014-7042	12S-3	BUSHING, RUBBER	0.85	CC/C1347
-	-	-	-	-
-	-	-	-	-
-	-	-	-	-
-	-	-	-	-
7777-99-014-7043	-	GROMMET FOLLOWER	1.5	CC/C1348
5935-99-014-7044	-	NUT, BUSHING RETAINER, ELECTRICAL PLUG-SOCKET	6.5	CC/C1344
5935-99-014-7040	-	ADAPTER, CABLE TO ELECTRICAL PLUG-SOCKET	14	CC/C1345
5935-99-014-7041	-	SHIELD, ELECTRICAL PLUG-SOCKET	20	CC/C1346

TABLE I(C)
STANDARD RANGE
SHELL SIZE 14S

ORDERING DATA	ORIENTATIONS					SHELL DETAILS (SEE PAGE 35)		MAX. WEIGHT 'g'	CONTROL DRAWING NUMBER	CONTACT DETAILS					
	NORMAL	W	X	Y	Z	TYPE	FIG			FUNCTION	ARRANGEMENT (SEE PAGE 73)	NUMBER OFF			
												SIZE 4	SIZE 8	SIZE 12	SIZE 16
STYLE REF CC1331-14S-2P NATO STOCK NO 5935-99-	014-6220	NOT TO BE PROVIDED	014-6221	014-6222	NOT TO BE PROVIDED	Free male	2	25	CC/C1331	Plug	14S - 2	-	-	-	4
STYLE REF CC1331-14S-2S NATO STOCK NO 5935-99-	014-6223		014-6224	014-6225			24	Socket		-		-	-	4	
STYLE REF CC1330-14S-2P NATO STOCK NO 5935-99-	014-6226		014-6227	014-6228		Fixed female	1	17	CC/C1330	Plug	14S - 2	-	-	-	4
STYLE REF CC1330-14S-2S NATO STOCK NO 5935-99-	014-6229		014-6230	014-6231				20		Socket		-	-	-	4
STYLE REF CC1332-14S-2P NATO STOCK NO 5935-99-	014-6232		014-6233	014-6234		Free female (coupler)	3	17	CC/C1332	Plug	14S - 2	-	-	-	4
STYLE REF CC1332-14S-2S NATO STOCK NO 5935-99-	014-6235		014-6236	014-6237				20		Socket		-	-	-	4
STYLE REF CC1331-14S-4P NATO STOCK NO 5935-99-	014-6238		NOT TO BE PROVIDED	NOT TO BE PROVIDED		Free male	2	20	CC/C1331	Plug	14S - 4	-	-	-	1
STYLE REF CC1331-14S-4S NATO STOCK NO 5935-99-	014-6239							22		Socket		-	-	-	1

TABLE I(C) - CONTINUED

ORDERING DATA	ORIENTATIONS					SHELL DETAILS (SEE PAGE 35)		MAX. WEIGHT 'g'	CONTROL DRAWING NUMBER	CONTACT DETAILS					
	NORMAL	W	X	Y	Z	TYPE	FIG			FUNCTION	ARRANGEMENT (SEE PAGE 73)	NUMBER OFF			
												SIZE 4	SIZE 8	SIZE 12	SIZE 16
STYLE REF CC1330-14S-4F NATO STOCK NO 5935-99-	014-6240	NOT TO BE PROVIDED	NOT TO BE PROVIDED	NOT TO BE PROVIDED	NOT TO BE PROVIDED	Fixed female	1	15	CC/C1330	Plug	14S - 4	-	-	-	1
STYLE REF CC1330-14S-4S NATO STOCK NO 5935-99-	014-6241							18		Socket					
STYLE REF CC1332-14S-4P NATO STOCK NO 5935-99-	014-6242					Free female (coupler)	3	15	CC/C1332	Plug	14S - 4	-	-	-	1
STYLE REF CC1332-14S-4S NATO STOCK NO 5935-99-	014-6243									Socket					
STYLE REF CC1331-14S-5P NATO STOCK NO 5935-99-	014-6244					Free male	2	26	CC/C1331	Plug	14S - 5	-	-	-	5
STYLE REF CC1331-14S-5S NATO STOCK NO 5935-99-	014-6246									Socket					
STYLE REF CC1330-14S-5P NATO STOCK NO 5935-99-	014-6248					Fixed female	1	17	CC/C1330	Plug	14S - 5	-	-	-	5
STYLE REF CC1330-14S-5S NATO STOCK NO 5935-99-	014-6250									Socket					
STYLE REF CC1332-14S-5P NATO STOCK NO 5935-99-	014-6252					Free female (coupler)	3	17	CC/C1332	Plug	14S - 5	-	-	-	5
STYLE REF CC1332-14S-5S NATO STOCK NO 5935-99-	014-6254									Socket					

TABLE I(C) - CONTINUED

ORDERING DATA	ORIENTATIONS					SHELL DETAILS (SEE PAGE 35)		MAX. WEIGHT 'g'	CONTROL DRAWING NUMBER	CONTACT DETAILS					
	NORMAL	W	I	Y	Z	TYPE	FIG			FUNCTION	ARRANGEMENT (SEE PAGE 73)	NUMBER OFF			
												SIZE 4	SIZE 8	SIZE 12	SIZE 16
STYLE REF CC1331-14S-6P NATO STOCK NO 5935-99-	014-6256	NOT TO BE PROVIDED	NOT TO BE PROVIDED	NOT TO BE PROVIDED	NOT TO BE PROVIDED	Free male	2	22	CC/C1331	Plug	14S - 6	-	-	-	6
STYLE REF CC1331-14S-6S NATO STOCK NO 5935-99-	014-6257							25		Socket					
STYLE REF CC1330-14S-6P NATO STOCK NO 5935-99-	014-6258					Fixed female	1	18	CC/C1330	Plug	14S - 6	-	-	-	6
STYLE REF CC1330-14S-6S NATO STOCK NO 5935-99-	014-6259							22		Socket					
STYLE REF CC1332-14S-6S NATO STOCK NO 5935-99-	014-6260					Free female (coupler)	3	18	CC/C1332	Plug	14S - 6	-	-	-	6
STYLE REF CC1332-14S-6P NATO STOCK NO 5935-99-	014-6261							22		Socket					

TABLE I(C) - CONTINUED

ORDERING DATA	ORIENTATIONS					SHELL DETAILS (SEE PAGE 35)		MAX. WEIGHT 'g'	CONTROL DRAWING NUMBER	CONTACT DETAILS					
	NORMAL	W	X	Y	Z	TYPE	FIG			FUNCTION	ARRANGEMENT (SEE PAGE 73)	NUMBER OFF			
												SIZE 4	SIZE 8	SIZE 12	SIZE 16
STYLE REF CC1331-14S-7P NATO STOCK NO 5935-99-	014-6262	014-6263	014-6264	014-6265	NOT TO BE PROVIDED	Free male	2	26	CC/C1331	Plug	14S - 7	-	-	-	3
STYLE REF CC1331-14S-7S NATO STOCK NO 5935-99-	014-6266	014-6267	014-6268	014-6269				Socket							
STYLE REF CC1330-14S-7P NATO STOCK NO 5935-99-	014-6270	014-6271	014-6272	014-6273		Fixed female	1	16	CC/C1330	Plug	14S - 7	-	-	-	3
STYLE REF CC1330-14S-7S NATO STOCK NO 5935-99-	014-6274	014-6275	014-6276	014-6277				Socket							
STYLE REF CC1332-14S-7P NATO STOCK NO 5935-99-	014-6278	014-6279	014-6280	014-6281		Free female (coupler)	3	16	CC/C1332	Plug	14S - 7	-	-	-	3
STYLE REF CC1332-14S-7S NATO STOCK NO 5935-99-	014-6282	014-6283	014-6284	014-6285				Socket							
STYLE REF CC1331-14S-9P NATO STOCK NO 5935-99-	014-6286	014-6287	014-6288	014-6289		Free male	2	21	CC/C1331	Plug	14S - 9	-	-	-	2
STYLE REF CC1331-14S-9S NATO STOCK NO 5935-99-	014-6291	014-6292	014-6293	014-6294				014-6295		23					
STYLE REF CC1330-14S-9P NATO STOCK NO 5935-99-	014-6296	014-6297	014-6298	014-6299		Fixed female	1	15	CC/C1330	Plug	14S - 9	-	-	-	2
STYLE REF CC1330-14S-9S NATO STOCK NO 5935-99-	014-6301	014-6302	014-6303	014-6304				014-6305		18					
STYLE REF CC1332-14S-9P NATO STOCK NO 5935-99-	014-6306	014-6307	014-6308	014-6309	Free female (coupler)	3	15	CC/C1332	Plug	14S - 9	-	-	-	2	
STYLE REF CC1332-14S-9S NATO STOCK NO 5935-99-	014-6311	014-6312	014-6313	014-6314			014-6315		18						Socket

SIZE 14S

SHELL AND ACCESSORY OUTLINE DRAWINGS

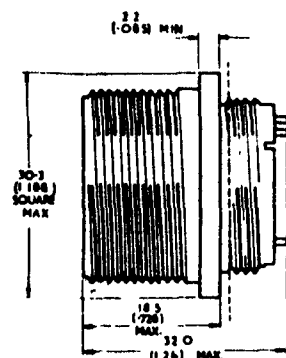


FIG. 1. FIXED FEMALE SHELL.

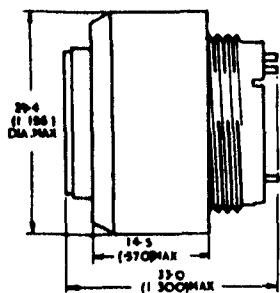


FIG 2 FREE MALE SHELL.

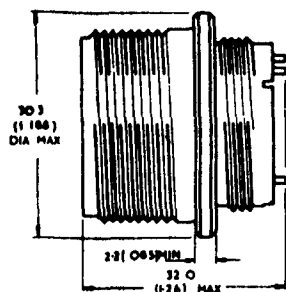


FIG 3 FREE FEMALE SHELL
(COUPLER)

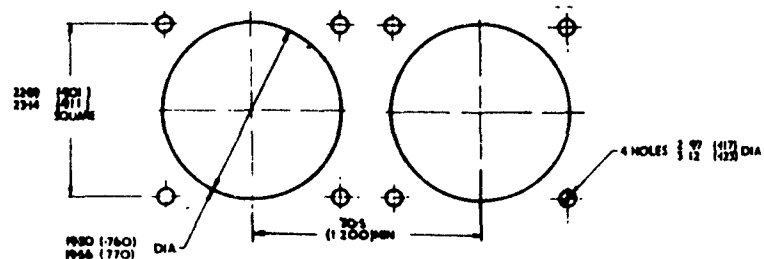


FIG 4 PANEL PIERCING DETAILS FOR FRONT MOUNTING.
(WHEN CABLE ACCESSORIES ARE USED MAXIMUM PANEL THICKNESS 3-3 (130))

ACCESSORIES

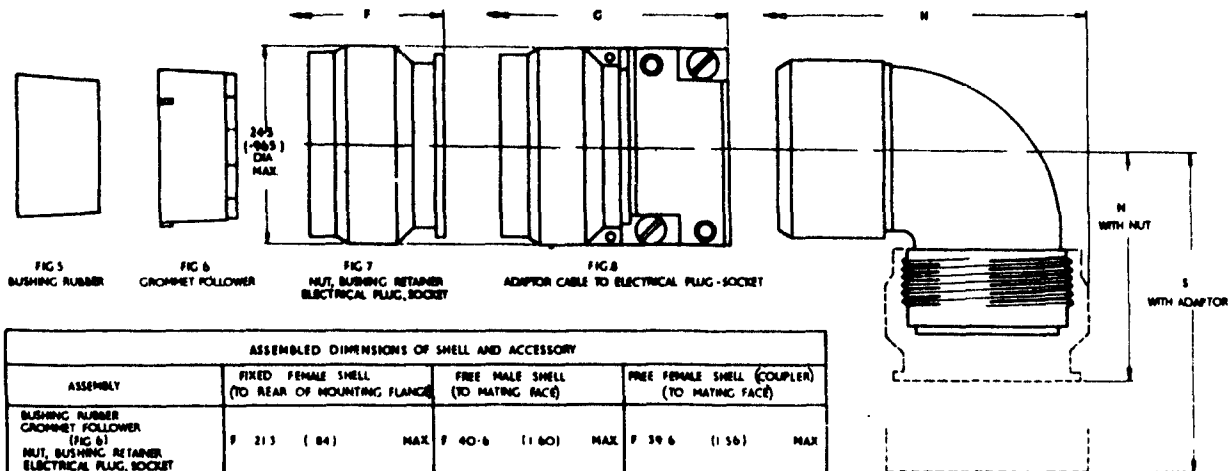


FIG 9
SHIELD, ELECTRICAL PLUG - SOCKET

ASSEMBLED DIMENSIONS OF SHELL AND ACCESSORY												
ASSEMBLY	FIXED FEMALE SHELL (TO REAR OF MOUNTING FLANGE)			FREE MALE SHELL (TO MATING FACE)		FREE FEMALE SHELL (COUPLER) (TO MATING FACE)						
BUSHING RUBBER CROWNET FOLLOWER (FIG 6) NUT, BUSHING RETAINER ELECTRICAL PLUG SOCKET	F	213	(84)	MAX	F	40.6	(1.60)	MAX	F	39.6	(1.56)	MAX
BUSHING RUBBER CROWNET FOLLOWER (FIG 6) ADAPTOR CABLE TO ELECTRICAL PLUG SOCKET	G	323	(127)	MAX	G	51.6	(2.03)	MAX	G	50.8	(2.00)	MAX
BUSHING RUBBER (2 OFF) CROWNET FOLLOWER (FIG 6) SHIELD, ELECTRICAL, PLUG SOCKET,	H	39.4	(1.55)	MAX	H	58.7	(2.31)	MAX	H	57.7	(2.27)	MAX
NUT, BUSHING RETAINER ELECTRICAL PLUG, SOCKET	N	36.1	(1.42)	MAX	N	36.1	(1.42)	MAX	N	36.1	(1.42)	MAX
BUSHING RUBBER (2 OFF) CROWNET FOLLOWER (FIG 6) SHIELD ELECTRICAL PLUG SOCKET	M	39.4	(1.55)	MAX	M	58.7	(2.31)	MAX	M	57.7	(2.27)	MAX
ADAPTOR CABLE TO ELECTRICAL PLUG - SOCKET	S	47.2	(1.86)	MAX	S	47.2	(1.86)	MAX	S	49.2	(1.96)	MAX

THE OVERALL MATED LENGTH OF ANY MATED COMBINATION CAN BE CALCULATED BY SUBTRACTING 13.46 (0.53) (MATING OVERLAP) FROM THE SUM OF THE OVERALL LENGTHS OF THE REQUIRED COMPONENTS

WITHDRAWAL DISTANCE = MAXIMUM OVERLAP DIMENSION

DIMENSIONS ARE IN MILLIMETRES WITH ORIGINAL INCH
DIMENSIONS SHOWN IN BRACKETS.

ACCESSORIES FOR SHELL SIZE 14S (see page 35 for outline drawings)				
ORDERING DATA	ARRANGEMENT	NOMENCLATURE	MAXIMUM WEIGHT (GRAMMES)	CONTROL DRAWING NUMBER
NATO STOCK NUMBER				
5365-99-014-7047	14S-2	BUSHING, RUBBER	1.5	CC/C1347
5365-99-014-7048	14S-4	BUSHING, RUBBER	1.75	CC/C1347
5365-99-014-7049	14S-5	BUSHING, RUBBER	1.5	CC/C1347
5365-99-014-7050	14S-6	BUSHING, RUBBER	1.25	CC/C1347
5365-99-014-7051	14S-7	BUSHING, RUBBER	1.5	CC/C1347
5365-99-014-7052	14S-9	BUSHING, RUBBER	1.75	CC/C1347
7777-99-014-7053	-	GROMMET FOLLOWER	1.5	CC/C1348
5935-99-014-7054	-	NUT, BUSHING RETAINER, ELECTRICAL PLUG-SOCKET	7.5	CC/C1344
5935-99-014-7055	-	ADAPTER, CABLE TO ELECTRICAL PLUG-SOCKET	16	CC/C1345
5935-99-014-7056	-	SHIELD, ELECTRICAL PLUG-SOCKET	24	CC/C1346

TABLE 1(D)

STANDARD RANGE

SHELL SIZE 16S

ORDERING DATA	ORIENTATIONS					SHELL DETAILS (SEE PAGE 38)		MAX. WEIGHT 'g'	CONTROL DRAWING NUMBER	CONTACT DETAILS					
	NORMAL	W	X	Y	Z	TYPE	FIG			FUNCTION	ARRANGEMENT (SEE PAGE 73)	NUMBER OFF			
												SIZE 4	SIZE 8	SIZE 12	SIZE 16
STYLE REF CC1331-16S-1P NATO STOCK NO 5935-99-	014-6316	014-6317	NOT TO BE PROVIDED	NOT TO BE PROVIDED	014-6318	Free male	2	30	CC/C1331	Plug	16S - 1	-	-	-	7
STYLE REF CC1331-16S-1S NATO STOCK NO 5935-99-	014-6319	014-6320			014-6321			34		Socket					
STYLE REF CC1330-16S-1P NATO STOCK NO 5935-99-	014-6322	014-6323			014-6324	Fixed female	1	22	CC/C1330	Plug	16S - 1	-	-	-	7
STYLE REF CC1330-16S-1S NATO STOCK NO 5935-99-	014-6325	014-6326			014-6327			27		Socket					
STYLE REF CC1332-16S-1P NATO STOCK NO 5935-99-	014-6328	014-6329			014-6330	Free female (coupler)	3	22	CC/C1332	Plug	16S - 1	-	-	-	7
STYLE REF CC1332-16S-1S NATO STOCK NO 5935-99-	014-6331	014-6332			014-6333			27		Socket					

-37-

SIZE 16S

SHELL AND ACCESSORY OUTLINE DRAWINGS

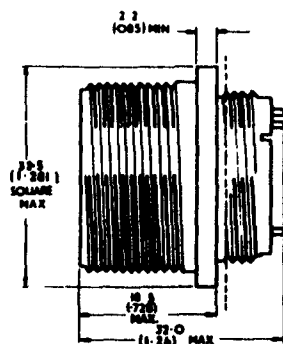


FIG 1. FIXED FEMALE SHELL

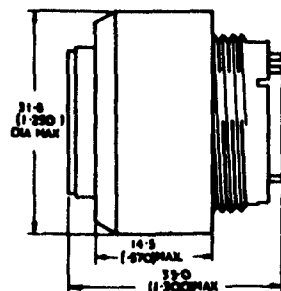


FIG 2. FREE MALE SHELL

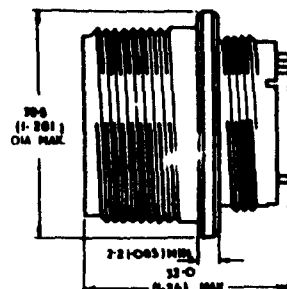


FIG 3. FREE FEMALE SHELL (CONTR)

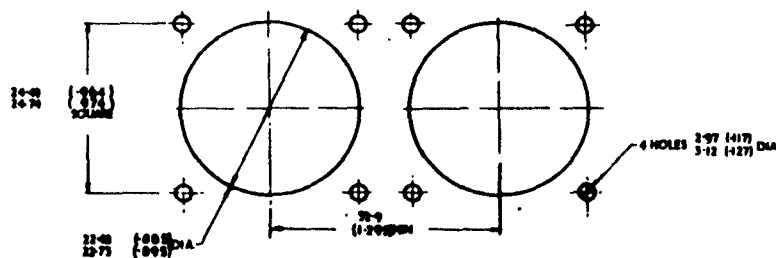
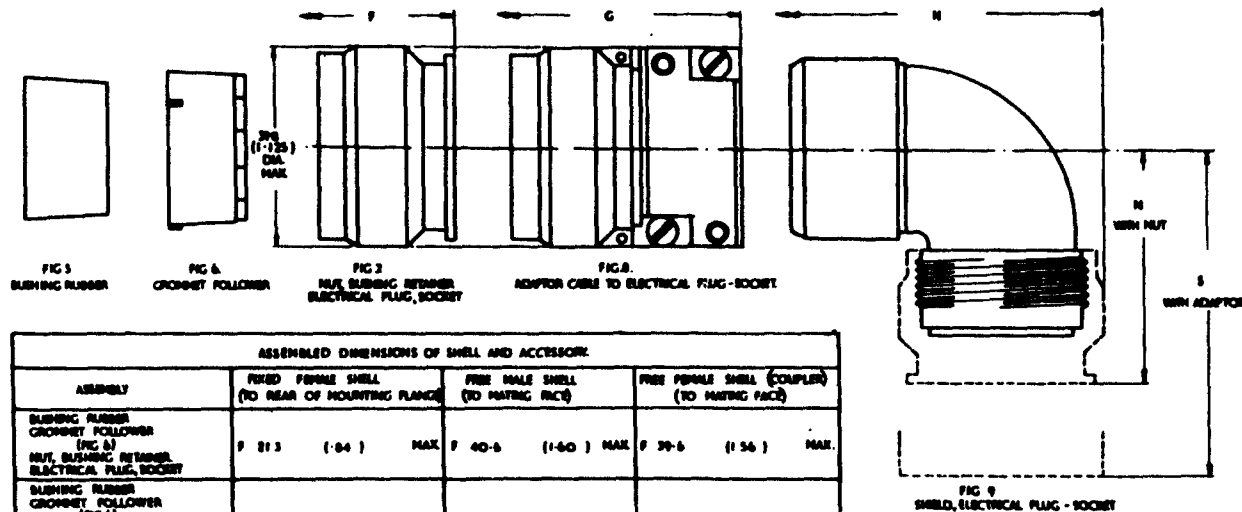


FIG 4. PANEL PIERCING DETAILS FOR FRONT MOUNTING.
(WHEN CABLE ACCESSORIES ARE USED MAXIMUM PANEL THICKNESS 3.3 (0.131))

ACCESSORIES



ASSEMBLED DIMENSIONS OF SHELL AND ACCESSORY									
ASSEMBLY	FIXED FEMALE SHELL (TO REAR OF MOUNTING FLANGE)			FREE MALE SHELL (TO MATING FACE)			FREE FEMALE SHELL (COUPLED) (TO MATING FACE)		
BUSHING RUBBER CROCKET FOLLOWER (FIG 5) NUT, BUSHING RETAINER ELECTRICAL PLUG, SOCKET	F 31.3	(1.24)	MAX	F 40.5	(1.60)	MAX	F 39.6	(1.56)	MAX
BUSHING RUBBER CROCKET FOLLOWER (FIG 6) ADAPTOR CABLE TO ELECTRICAL PLUG SOCKET	G 40.0	(1.59)	MAX	G 60.5	(2.38)	MAX	G 58.7	(2.31)	MAX
BUSHING RUBBER (2 OFF) CROCKET FOLLOWER (FIG 7) SHIELD, ELECTRICAL PLUG SOCKET	H 42.7	(1.68)	MAX	H 61.5	(2.42)	MAX	H 61.0	(2.40)	MAX
NUT, BUSHING RETAINER ELECTRICAL PLUG SOCKET	H 37.5	(1.47)	MAX	H 37.3	(1.47)	MAX	H 37.3	(1.47)	MAX
BUSHING RUBBER (2 OFF) CROCKET FOLLOWER (FIG 8) SHIELD ELECTRICAL PLUG SOCKET	H 42.7	(1.68)	MAX	H 61.5	(2.42)	MAX	H 61.0	(2.40)	MAX
ADAPTOR CABLE TO ELECTRICAL PLUG - SOCKET	S 48.5	(1.91)	MAX	S 48.5	(1.91)	MAX	S 48.5	(1.91)	MAX

THE OVERALL MATED LENGTH OF ANY MATED COMBINATION
CAN BE CALCULATED BY SUBTRACTING 13.46 (0.53)
(MATING OVERLAP) FROM THE SUM OF THE OVERALL LENGTHS
OF THE REQUIRED COMPONENTS.

WITHDRAWAL DISTANCE = MAXIMUM OVERLAP DIMENSION

DIMENSIONS ARE IN MILLIMETRES WITH ORIGINAL INCH
DIMENSIONS SHOWN IN BRACKETS.

ACCESSORIES FOR SHELL SIZE 16S
(see page 38 for outline drawings)

ORDERING DATA	ARRANGEMENT	NOMENCLATURE	MAXIMUM WEIGHT (GRAMMES)	CONTROL DRAWING NUMBER
NATO STOCK NUMBER				
5365-99-014-7057	16S-1	BUSHING, RUBBER	1.75	CC/C1347
-	-	-	-	-
-	-	-	-	-
-	-	-	-	-
-	-	-	-	-
7777-99-014-7058	-	GROMMET FOLLOWER	1.75	CC/C1348
5935-99-014-7059	-	NUT, BUSHING RETAINER, ELECTRICAL PLUG-SOCKET	10	CC/C1344
5935-99-014-7060	-	ADAPTER, CABLE TO ELECTRICAL PLUG-SOCKET	21	CC/C1345
5935-99-014-7061	-	SHIELD, ELECTRICAL PLUG-SOCKET	27	CC/C1346

TABLE I(E)
STANDARD RANGE
SHELL SIZE 16

ORDERING DATA	ORIENTATIONS					SHELL DETAILS (SEE PAGE 41)		MAX. WEIGHT 'g'	CONTROL DRAWING NUMBER	CONTACT DETAILS					
	NORMAL	W	X	Y	Z	TYPE	FIG			FUNCTION	ARRANGEMENT (SEE PAGE 73)	NUMBER OFF			
												SIZE 4	SIZE 8	SIZE 12	SIZE 16
STYLE REF CC1331-16-9P NATO STOCK NO 5935-99-	014-6334	014-6335	014-6336	014-6337	014-6338	Free male	2	42	CC/C1331	Plug	16 - 9	-	-	2	2
STYLE REF CC1331-16-9S NATO STOCK NO 5935-99-	014-6339	014-6340	014-6341	014-6342	014-6343			32		Socket					
STYLE REF CC1330-16-9P NATO STOCK NO 5935-99-	014-6344	014-6345	014-6346	014-6347	014-6348	Fixed female	1	22	CC/C1330	Plug	16 - 9	-	-	2	2
STYLE REF CC1330-16-9S NATO STOCK NO 5935-99-	014-6349	014-6350	014-6351	014-6352	014-6353			27		Socket					
STYLE REF CC1332-16-9P NATO STOCK NO 5935-99-	014-6354	014-6355	014-6356	014-6357	014-6358	Free female (coupler)	3	22	CC/C1332	Plug	16 - 9	-	-	2	2
STYLE REF CC1332-16-9S NATO STOCK NO 5935-99-	014-6359	014-6360	014-6361	014-6362	014-6363			27		Socket					
STYLE REF CC1331-16-10P NATO STOCK NO 5935-99-	014-6364	014-6365	014-6366	014-6367	NOT TO BE PROVIDED	Free male	2	23	CC/C1331	Plug	16 - 10	-	-	3	-
STYLE REF CC1331-16-10S NATO STOCK NO 5935-99-	014-6368	014-6369	014-6370	014-6371				28		Socket					
STYLE REF CC1330-16-10P NATO STOCK NO 5935-99-	014-6372	014-6373	014-6374	014-6375		Fixed female	1	27	CC/C1330	Plug	16 - 10	-	-	3	-
STYLE REF CC1330-16-10S NATO STOCK NO 5935-99-	014-6376	014-6377	014-6378	014-6379				33		Socket					
STYLE REF CC1332-16-10P NATO STOCK NO 5935-99-	014-6380	014-6381	014-6382	014-6383		Free female (coupler)	3	27	CC/C1332	Plug	16 - 10	-	-	3	-
STYLE REF CC1332-16-10S NATO STOCK NO 5935-99-	014-6384	014-6385	014-6386	014-6387				33		Socket					

NOT TO BE PROVIDED

SIZE 16

SHELL AND ACCESSORY OUTLINE DRAWINGS

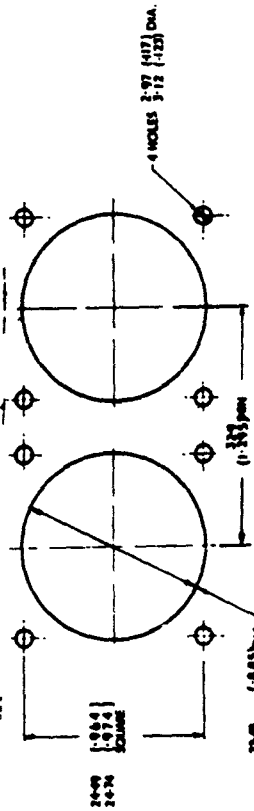
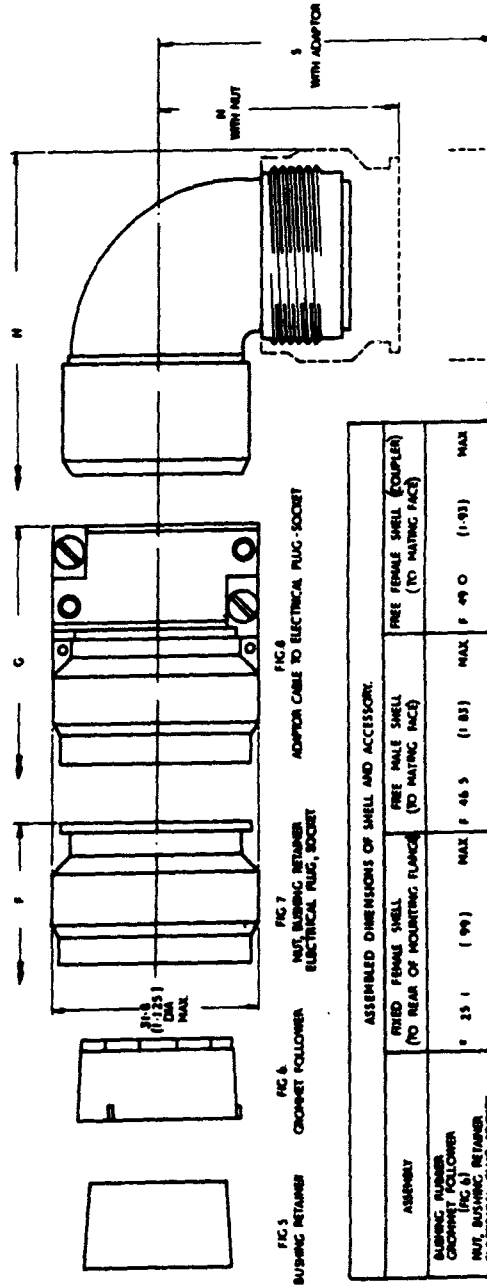


FIG. 4. PANEL PIERCING DETAILS FOR FRONT MOUNTING.
(WHEN CABLE ACCESSORIES ARE USED MAXIMUM PANEL THICKNESS 3.5 (110.1))

ACCESSORIES



THE OVERALL MATED LENGTH OF ANY MATED COMBINATION CAN BE CALCULATED BY SUBTRACTING 18.29 (10.72) (MATING OVERLAP) FROM THE SUM OF THE OVERALL LENGTHS OF THE REQUIRED COMPONENTS
WITHDRAWAL DISTANCE + MAXIMUM OVERLAP DIMENSION
DIMENSIONS ARE IN INCHES WITH ORIGINAL INCH DIMENSIONS SHOWN IN BRACKETS

ASSEMBLED DIMENSIONS OF SHELL AND ACCESSORY				
ASSEMBLY	FIXED FEMALE SHELL (TO REAR OF MOUNTING PLANGE)	FREE MALE SHELL (TO MATING FACE)	FREE FEMALE SHELL (COUPLER) (TO MATING FACE)	
BURNING RETAINER (FIG. 5)	25.1 (99)	MAX 48.5 (1.83)	MAX 49.0 (1.93)	MAX
CROCKET FOLLOWER (FIG. 6)	44.2 (1.74)	MAX 65.5 (2.58)	MAX 67.6 (2.67)	MAX
NUT, BURNING RETAINER ELECTRICAL PLUG, SOCKET (FIG. 7)	48.5 (1.83)	MAX 67.6 (2.67)	MAX 70.4 (2.77)	MAX
ADAPTOR CABLE TO ELECTRICAL PLUG, SOCKET (FIG. 8)	37.6 (1.48)	MAX 37.6 (1.48)	MAX 37.6 (1.48)	MAX
SHIELD, ELECTRICAL PLUG, SOCKET (FIG. 9)	48.5 (1.83)	MAX 67.6 (2.67)	MAX 70.4 (2.77)	MAX
BURNING RETAINER (FIG. 5)	25.1 (99)	MAX 48.5 (1.83)	MAX 49.0 (1.93)	MAX
CROCKET FOLLOWER (FIG. 6)	44.2 (1.74)	MAX 65.5 (2.58)	MAX 67.6 (2.67)	MAX
NUT, BURNING RETAINER ELECTRICAL PLUG, SOCKET (FIG. 7)	48.5 (1.83)	MAX 67.6 (2.67)	MAX 70.4 (2.77)	MAX
ADAPTOR CABLE TO ELECTRICAL PLUG, SOCKET (FIG. 8)	37.6 (1.48)	MAX 37.6 (1.48)	MAX 37.6 (1.48)	MAX
SHIELD, ELECTRICAL PLUG, SOCKET (FIG. 9)	48.5 (1.83)	MAX 67.6 (2.67)	MAX 70.4 (2.77)	MAX

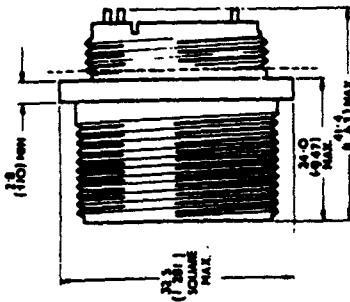


FIG. 1. FIXED FEMALE SHELL

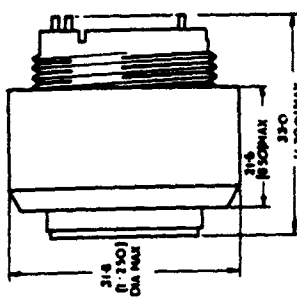


FIG. 2. FREE MALE SHELL

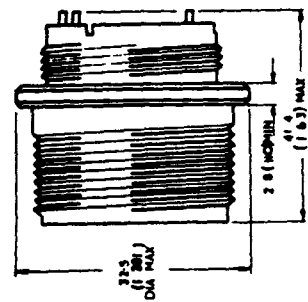


FIG. 3. FREE FEMALE SHELL (COUPLER)

ACCESSORIES FOR SHELL SIZE 16 (see page 41 for outline drawings)				
ORDERING DATA	ARRANGEMENT	NOMENCLATURE	MAXIMUM WEIGHT (GRAMMES)	CONTROL DRAWING NUMBER
NATO STOCK NUMBER				
5365-99-014-7062	16 - 9	BUSHING, RUBBER	2.5	CC/C1347
5365-99-014-7063	16 - 10	BUSHING, RUBBER	2.5	CC/C1347
-	-	-	-	-
-	-	-	-	-
-	-	-	-	-
7777-99-014-7058	-	GROMMET FOLLOWER	1.75	CC/C1348
5935-99-014-7065	-	NUT, BUSHING RETAINER, ELECTRICAL PLUG-SOCKET	10	CC/C1344
5935-99-014-7066	-	ADAPTER, CABLE TO ELECTRICAL PLUG-SOCKET	21	CC/C1345
5935-99-014-7061	-	SHIELD, ELECTRICAL PLUG-SOCKET	27	CC/C1346

TABLE I(F)
STANDARD RANGE
SHELL SIZE 18

ORDERING DATA	ORIENTATIONS						SHELL DETAILS (SEE PAGE 44)		MAX. WEIGHT 'g'	CONTROL DRAWING NUMBER	FUNCTION	ARRANGEMENT (SEE PAGE 73)	CONTACT DETAILS			
	NORMAL	W	X	Y	Z	TYPE	FIG	SIZE 4					SIZE 8	SIZE 12	SIZE 16	
STYLE REF CC1331-18-1P NATO STOCK NO 5935-99-							Free male	2	65	CC/C1331	Plug	18 - 1	-	-	10	
STYLE REF CC1331-18-1S NATO STOCK NO 5935-99-									69		Socket					
STYLE REF CC1330-18-1P NATO STOCK NO 5935-99-							Fixed female	1	33	CC/C1330	Plug	18 - 1	-	-	10	
STYLE REF CC1330-18-1S NATO STOCK NO 5935-99-									43		Socket					
STYLE REF CC1332-18-1P NATO STOCK NO 5935-99-							Free female (coupler)	3	33	CC/C1332	Plug	18 - 1	-	-	10	
STYLE REF CC1332-18-1S NATO STOCK NO 5935-99-									43		Socket					
STYLE REF CC1331-18-11P NATO STOCK NO 5935-99-							Free male	2	38	CC/C1331	Plug	18 - 11	-	-	-	
STYLE REF CC1331-18-1S NATO STOCK NO 5935-99-									50		Socket					
STYLE REF CC1330-18-11P NATO STOCK NO 5935-99-							Fixed female	1	34	CC/C1330	Plug	18 - 11	-	-	-	
STYLE REF CC1330-18-1S NATO STOCK NO 5935-99-									44		Socket					
STYLE REF CC1332-18-11P NATO STOCK NO 5935-99-							Free female (coupler)	3	34	CC/C1332	Plug	18 - 11	-	-	-	
STYLE REF CC1332-18-1S NATO STOCK NO 5935-99-									44		Socket					

SIZE 18

SHELL AND ACCESSORY OUTLINE DRAWINGS

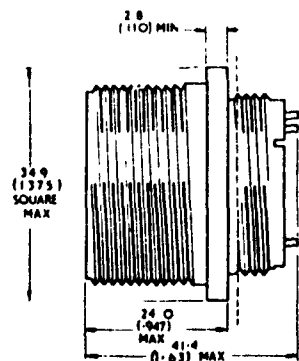


FIG 1 FIXED FEMALE SHELL

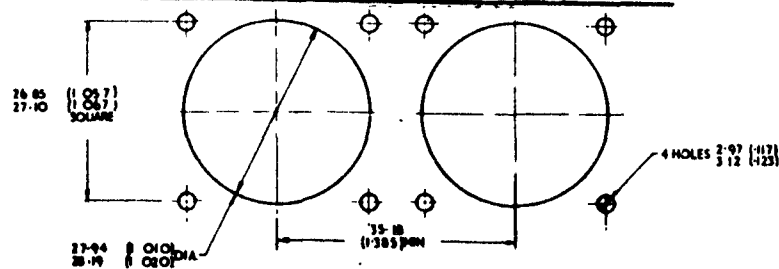


FIG 4 PANEL PIERCING DETAILS FOR FRONT MOUNTING.
(WHEN CABLE ACCESSORIES ARE USED MAXIMUM PANEL THICKNESS 3.3 (0.130))

ACCESSORIES

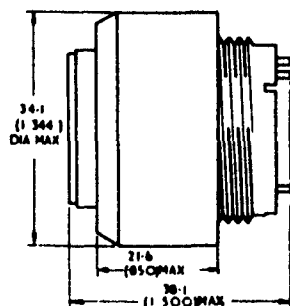


FIG 2 FREE MALE SHELL.

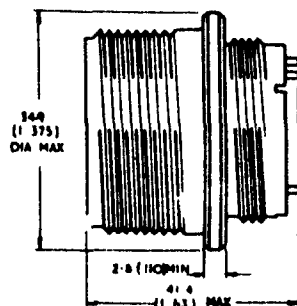
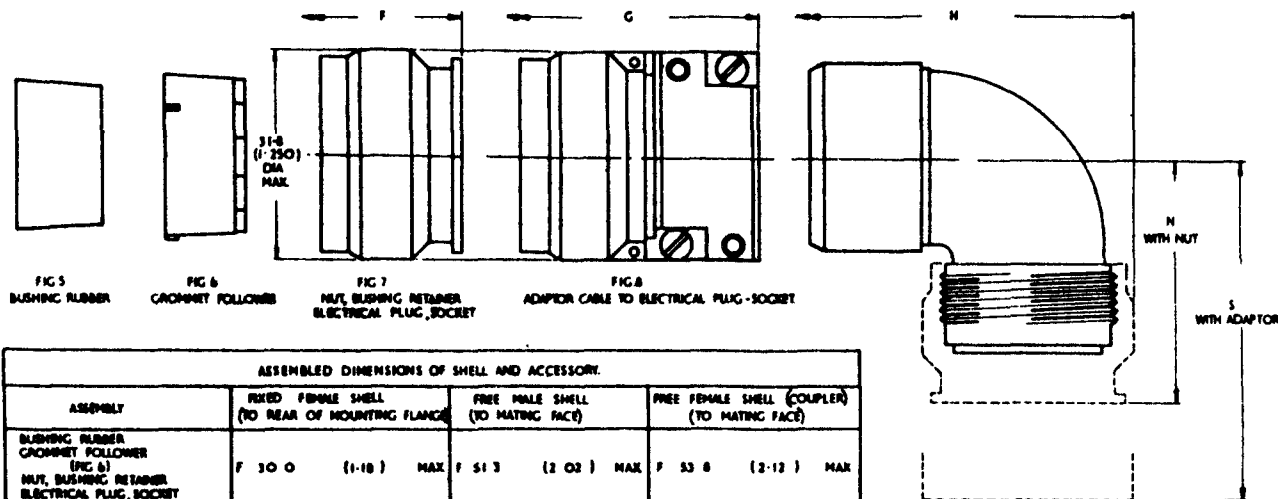


FIG 3 FREE FEMALE SHELL
(COUPLER)

ASSEMBLED DIMENSIONS OF SHELL AND ACCESSORY.			
ASSEMBLY	FIXED FEMALE SHELL (TO REAR OF MOUNTING FLANGE)	FREE MALE SHELL (TO MATING FACE)	FREE FEMALE SHELL (COUPLER) (TO MATING FACE)
BUSHING RUBBER CROMMET FOLLOWER (FIG 6) NUT, BUSHING RETAINER ELECTRICAL PLUG, SOCKET	F 30.0 (1.18) MAX	F 51.3 (2.02) MAX	F 53.8 (2.12) MAX
BUSHING RUBBER CROMMET FOLLOWER (FIG 6) ADAPTOR CABLE TO ELECTRICAL PLUG - SOCKET	G 48.8 (1.92) MAX	G 70.1 (2.76) MAX	G 72.6 (2.86) MAX
BUSHING RUBBER (2 OFF) CROMMET FOLLOWER (FIG 6) SHIELD, ELECTRICAL PLUG SOCKET.	H 57.7 (2.27) MAX	H 79.0 (3.11) MAX	H 81.3 (3.20) MAX
NUT BUSHING RETAINER ELECTRICAL PLUG, SOCKET	H 42.2 (1.66) MAX	H 42.2 (1.66) MAX	H 42.2 (1.66) MAX
BUSHING RUBBER (2 OFF) CROMMET FOLLOWER (FIG 6) SHIELD ELECTRICAL PLUG - SOCKET	H 57.7 (2.27) MAX	H 79.0 (3.11) MAX	H 81.3 (3.20) MAX
ADAPTOR CABLE TO ELECTRICAL PLUG - SOCKET	S 61.2 (2.41) MAX	S 61.2 (2.41) MAX	S 61.2 (2.41) MAX

THE OVERALL MATED LENGTH OF ANY MATED COMBINATION
CAN BE CALCULATED BY SUBTRACTING 16.24 (0.641)
(MATING OVERLAP) FROM THE SUM OF THE OVERALL LENGTHS
OF THE REQUIRED COMPONENTS.

WITHDRAWAL DISTANCE = MAXIMUM OVERLAP DIMENSION

DIMENSIONS ARE IN MILLIMETRES WITH ORIGINAL INCH
DIMENSIONS SHOWN IN BRACKETS.

ACCESSORIES FOR SHELL SIZE 18
(see page 44 for outline drawings)

ORDERING DATA	ARRANGEMENT	NOMENCLATURE	MAXIMUM WEIGHT (GRAMMES)	CONTROL DRAWING NUMBER
NATO STOCK NUMBER				
5365-99-014-7068	18 - 1	BUSHING, RUBBER	5.0	CC/C1347
5365-99-014-7069	18 - 11	BUSHING, RUBBER	5.0	CC/C1347
-	-	-	-	-
-	-	-	-	-
-	-	-	-	-
7777-99-014-7070	-	GROMMET FOLLOWER	3.5	CC/C1348
5935-99-014-7071	-	NUT, BUSHING RETAINER, ELECTRICAL PLUG-SOCKET	14.0	CC/C1344
5935-99-014-7072	-	ADAPTER, CABLE TO ELECTRICAL PLUG-SOCKET	38	CC/C1345
5935-99-014-7073	-	SHIELD, ELECTRICAL PLUG-SOCKET	37	CC/C1346

TABLE 1(G)
STANDARD RANGE
SHELL SIZE 20

ORDERING DATA	ORIENTATIONS					SHELL DETAILS (SEE PAGE 49)		MAX. WEIGHT 'g'	CONTROL DRAWING NUMBER	CONTACT DETAILS					
	NOMIAL	W	X	Y	Z	TYPE	FIG			FUNCTION	ARRANGEMENT (SEE PAGE 73)	NUMBER OFF			
												SIZE 4	SIZE 8	SIZE 12	SIZE 16
STYLE REF CC1331-20-14P NATO STOCK NO 5935-99-	014-6436	014-6437	014-6438	014-6439	014-6440	Free male	2	25	CC/C1331	Plug	20 - 14	-	2	3	-
STYLE REF CC1331-20-14S NATO STOCK NO 5935-99-	014-6441	014-6442	014-6443	014-6444	014-6445			63		Socket					
STYLE REF CC1330-20-14P NATO STOCK NO 5935-99-	014-6446	014-6447	014-6448	014-6449	014-6450	Fixed female	1	46	CC/C1330	Plug	20 - 14	-	2	3	-
STYLE REF CC1330-20-14S NATO STOCK NO 5935-99-	014-6451	014-6452	014-6453	014-6454	014-6455			56		Socket					
STYLE REF CC1332-20-14P NATO STOCK NO 5935-99-	014-6456	014-6457	014-6458	014-6459	014-6460	Free female (coupler)	3	46	CC/C1332	Plug	20 - 14	-	2	3	-
STYLE REF CC1332-20-14S NATO STOCK NO 5935-99-	014-6461	014-6462	014-6463	014-6464	014-6465			56		Socket					
STYLE REF CC1331-20-15P NATO STOCK NO 5935-99-	014-6466	014-6467	NOT TO BE PROVIDED	NOT TO BE PROVIDED	014-6468	Free male	2	20	CC/C1331	Plug	20 - 15	-	-	7	-
STYLE REF CC1331-20-15S NATO STOCK NO 5935-99-	014-6469	014-6470			014-6471			30		Socket					
STYLE REF CC1330-20-15P NATO STOCK NO 5935-99-	014-6472	014-6473			014-6474	Fixed female	1	42	CC/C1330	Plug	20 ± 15	-	-	7	-
STYLE REF CC1330-20-15S NATO STOCK NO 5935-99-	014-6475	014-6476			014-6477			56		Socket					
STYLE REF CC1332-20-15P NATO STOCK NO 5935-99-	014-6478	014-6479			014-6480	Free female (coupler)	3	42	CC/C1332	Plug	20 - 15	-	-	7	-
STYLE REF CC1332-20-15S NATO STOCK NO 5935-99-	014-6481	014-6482			014-6483			56		Socket					

TABLE I(G) - CONTINUED

ORDERING DATA	ORIENTATIONS					SHELL DETAILS (SEE PAGE 49)		MAX. WEIGHT '6'	CONTROL DRAWING NUMBER	CONTACT DETAILS					
	NORMAL	W	X	Y	Z	TYPE	FIG			FUNCTION	ARRANGEMENT (SEE PAGE 73)	NUMBER OFF			
												SIZE 4	SIZE 8	SIZE 12	SIZE 16
STYLE REF CC1331-20-18P NATO STOCK NO 5935-99-	014-6484	014-6485	014-6486	014-6487	014-6488	Free male	2	21	CC/C1331	Plug	20 - 18	-	-	3	6
STYLE REF CC1331-20-18S NATO STOCK NO 5935-99-	014-6489	014-6490	014-6491	014-6492	014-6493			38		Socket					
STYLE REF CC1330-20-18P NATO STOCK NO 5935-99-	014-6494	014-6495	014-6496	014-6497	014-6498	Fixed female	1	40	CC/C1330	Plug	20 - 18	-	-	3	6
STYLE REF CC1330-20-18S NATO STOCK NO 5935-99-	014-6499	014-6500	014-6501	014-6502	014-6503			53		Socket					
STYLE REF CC1332-20-18P NATO STOCK NO 5935-99-	014-6504	014-6505	014-6506	014-6507	014-6508	Free female (coupler)	3	40	CC/C1332	Plug	20 - 18	-	-	3	6
STYLE REF CC1332-20-18S NATO STOCK NO 5935-99-	014-6509	014-6510	014-6511	014-6512	014-6513			53		Socket					
STYLE REF CC1331-20-22P NATO STOCK NO 5935-99-	014-6514	014-6515	014-6516	014-6517	014-6518	Free male	2	28	CC/C1331	Plug	20 - 22	-	3	-	3
STYLE REF CC1331-20-22S NATO STOCK NO 5935-99-	014-6519	014-6520	014-6521	014-6522	014-6523			38		Socket					
STYLE REF CC1330-20-22P NATO STOCK NO 5935-99-	014-6524	014-6525	014-6526	014-6527	014-6528	Fixed female	1	48	CC/C1330	Plug	20 - 22	-	3	-	3
STYLE REF CC1330-20-22S NATO STOCK NO 5935-99-	014-6529	014-6530	014-6531	014-6532	014-6533			64		Socket					

TABLE I(G) - CONTINUED

ORDERING DATA	ORIENTATIONS						SHELL DETAILS (SEE PAGE 49)		MAX. WEIGHT 'G'	CONTROL DRAWING NUMBER	CONTACT DETAILS				
	NORMAL	W	X	Y	Z	TYPE	FIG	FUNCTION			ARRANGEMENT (SEE PAGE 73)	NUMBER OFP			
												SIZE 4	SIZE 12	SIZE 16	
STYLE REP CC1332-20-22P NATO STOCK NO 5935-99-	014-6534	014-6535	014-6536	014-6537	014-6538	Free female (coupler)	3	48	CC/C1332	Plug	20 - 22	-	3	-	3
STYLE REP CC1332-20-22S NATO STOCK NO 5935-99-	014-6539	014-6540	014-6541	014-6542	014-6543					Socket					
STYLE REP CC1331-20-29P NATO STOCK NO 5935-99-	014-6544	014-6545	NOT TO BE PROVIDED	NOT TO BE PROVIDED	014-6546	Free male	2	24	CC/C1331	Plug	20 - 29	-	-	-	17
STYLE REP CC1331-20-29S NATO STOCK NO 5935-99-	014-6547	014-6548			014-6549					Socket					
STYLE REP CC1330-20-29P NATO STOCK NO 5935-99-	014-6550	014-6551	NOT TO BE PROVIDED	NOT TO BE PROVIDED	014-6552	Fired female	1	43	CC/C1330	Plug	20 - 29	-	-	-	17
STYLE REP CC1330-20-29S NATO STOCK NO 5935-99-	014-6553	014-6554			014-6555					Socket					
STYLE REP CC1332-20-29P NATO STOCK NO 5935-99-	014-6556	014-6557	NOT TO BE PROVIDED	NOT TO BE PROVIDED	014-6558	Free female (coupler)	3	43	CC/C1332	Plug	20 - 29	-	-	-	17
STYLE REP CC1332-20-29S NATO STOCK NO 5935-99-	014-6559	014-6560			014-6561					Socket					

ACCESSORIES

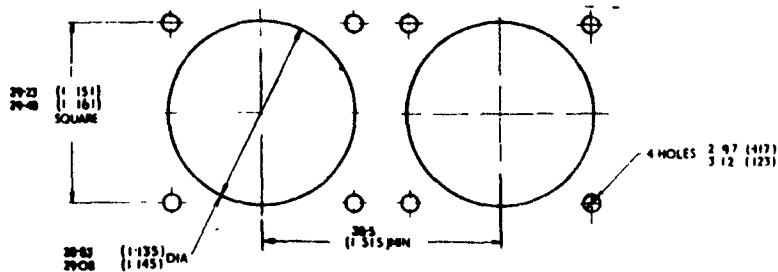


FIG 4 PANEL PIERCING DETAILS FOR FRONT MOUNTING
(WHEN CABLE ACCESSORIES ARE USED MAXIMUM PANEL THICKNESS IS 33 (130))

FIG 1 FIXED FEMALE SHELL

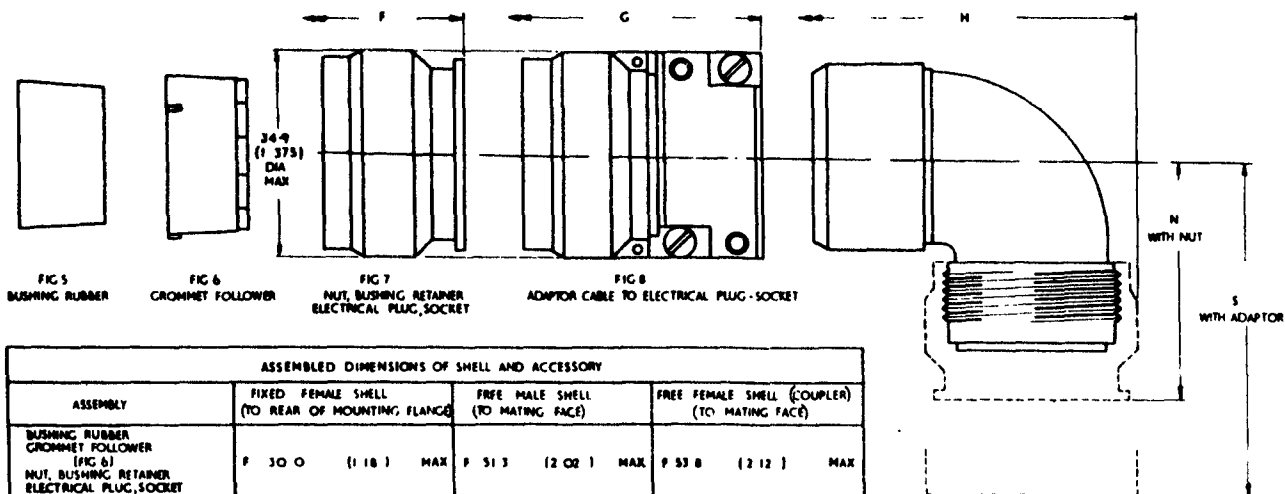


FIG 2 FREE MALE SHELL

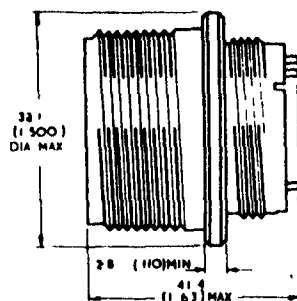


FIG 3 FREE FEMALE SHELL
(COUPLER)

FIG 9
SHIELD, ELECTRICAL PLUG SOCKET

ASSEMBLY	FIXED FEMALE SHELL (TO REAR OF MOUNTING FLANGE)	FREE MALE SHELL (TO MATING FACE)	FREE FEMALE SHELL (COUPLER) (TO MATING FACE)
BUSHING RUBBER CROMMET FOLLOWER (FIG 6) NUT, BUSHING RETAINER ELECTRICAL PLUG, SOCKET	F 30 0 (1 18) MAX	F 31 3 (2 02) MAX	F 33 8 (2 12) MAX
BUSHING RUBBER CROMMET FOLLOWER (FIG 6) ADAPTOR CABLE TO ELECTRICAL PLUG, SOCKET	G 48 8 (1 92) MAX	G 70 1 (2 76) MAX	G 72 6 (2 86) MAX
BUSHING RUBBER (2 OFF) CROMMET FOLLOWER (FIG 6) SHIELD, ELECTRICAL PLUG SOCKET	M 63 5 (2 50) MAX	M 84 8 (3 34) MAX	M 87 4 (3 44) MAX
NUT, BUSHING RETAINER ELECTRICAL PLUG, SOCKET	N 45 5 (1 79) MAX	N 45 5 (1 79) MAX	N 45 5 (1 79) MAX
BUSHING RUBBER (2 OFF) CROMMET FOLLOWER (FIG 6) SHIELD ELECTRICAL PLUG SOCKET	M 63 5 (2 50) MAX	M 84 8 (3 34) MAX	M 87 4 (3 44) MAX
ADAPTOR CABLE TO ELECTRICAL PLUG - SOCKET	S 64 5 (2 54) MAX	S 64 5 (2 54) MAX	S 64 5 (2 54) MAX

THE OVERALL MATED LENGTH OF ANY MATED COMBINATION
CAN BE CALCULATED BY SUBTRACTING 18.29 (0.72)
(MATING OVERLAP) FROM THE SUM OF THE OVERALL LENGTHS
OF THE REQUIRED COMPONENTS

WITHDRAWAL DISTANCE = MAXIMUM OVERLAP DIMENSION

DIMENSIONS ARE IN MILLIMETRES WITH ORIGINAL INCH
DIMENSIONS SHOWN IN BRACKETS

ACCESSORIES FOR SHELL SIZE 20 (see page 49 for outline drawings)				
ORDERING DATA	ARRANGEMENT	NOMENCLATURE	MAXIMUM WEIGHT (GRAMMES)	CONTROL DRAWING NUMBER
NATO STOCK NUMBER				
5365-99-014-7074	20 - 14	BUSHING, RUBBER	6.0	CC/C1347
5365-99-014-7075	20 - 15	BUSHING, RUBBER	6.5	CC/C1347
5365-99-014-7076	20 - 18	BUSHING, RUBBER	6.5	CC/C1347
5365-99-014-7077	20 - 22	BUSHING, RUBBER	5.5	CC/C1347
5365-99-014-7078	20 - 29	BUSHING, RUBBER	5.5	CC/C1347
7777-99-014-7079	-	GROMMET FOLLOWER	4.0	CC/C1348
5935-99-014-7080	-	NUT, BUSHING RETAINER, ELECTRICAL PLUG-SOCKET	15.0	CC/C1344
5935-99-014-7081	-	ADAPTER, CABLE TO ELECTRICAL PLUG-SOCKET	40	CC/C1345
5935-99-014-7082	-	SHIELD, ELECTRICAL PLUG-SOCKET	42	CC/C1346

TABLE I(H)
STANDARD RANGE
SHELL SIZE 22

ORDERING DATA	ORIENTATIONS					SHELL DETAILS (SEE PAGE 54)		MAX. WEIGHT 'g'	CONTROL DRAWING NUMBER	CONTACT DETAILS					
	NORMAL	W	X	Y	Z	TYPE	FIG			FUNCTION	ARRANGEMENT (SEE PAGE 74)	NUMBER OFF			
												SIZE 4	SIZE 8	SIZE 12	SIZE 16
STYLE REF CC1331-22-14P NATO STOCK NO 5935-99-	014-6562	014-6563	NOT TO BE PROVIDED	NOT TO BE PROVIDED	014-6564	Free male	2	60	CC/C1331	Plug	22 - 14	-	-	-	19
STYLE REF CC1331-22-14S NATO STOCK NO 5935-99-	014-6565	014-6566			014-6567			75		Socket					
STYLE REF CC1330-22-14P NATO STOCK NO 5935-99-	014-6568	014-6569			014-6570	Fixed female	1	50	CC/C1330	Plug	22 - 14	-	-	-	19
STYLE REF CC1330-22-14S NATO STOCK NO 5935-99-	014-6571	014-6572			014-6573			66		Socket					
STYLE REF CC1332-22-14P NATO STOCK NO 5935-99-	014-6574	014-6575			014-6576	Free female (coupler)	3	50	CC/C1332	Plug	22 - 14	-	-	-	19
STYLE REF CC1332-22-14S NATO STOCK NO 5935-99-	014-6577	014-6578			014-6579			66		Socket					
STYLE REF CC1331-22-18P NATO STOCK NO 5935-99-	014-6580	014-6581	014-6582	014-6583	014-6584	Free male	2	53	CC/C1331	Plug	22 - 18	-	-	-	8
STYLE REF CC1331-22-18S NATO STOCK NO 5935-99-	014-6585	014-6586	014-6587	014-6588	014-6589			68		Socket					
STYLE REF CC1330-22-18P NATO STOCK NO 5935-99-	014-6590	014-6591	014-6592	014-6593	014-6594	Fixed female	1	42	CC/C1330	Plug	22 - 18	-	-	-	8
STYLE REF CC1330-22-18S NATO STOCK NO 5935-99-	014-6595	014-6596	014-6597	014-6598	014-6599			57		Socket					

TABLE I(H) - CONTINUED

ORDERING DATA	ORIENTATIONS					SHELL DETAILS (SEE PAGE 54)		MAX. WEIGHT 'g'	CONTROL DRAWING NUMBER	CONTACT DETAILS					
	NORMAL	W	X	Y	Z	TYPE	FIG			FUNCTION	ARRANGEMENT (SEE PAGE 74)	NUMBER OFF			
												SIZE 4	SIZE 8	SIZE 12	SIZE 16
STYLE REF CC1332-22-18P NATO STOCK NO 5935-99-	014-6600	014-6601	014-6602	014-6603	014-6604	Free female (coupler)	3	42	CC/C1332	Plug	22 - 18	-	-	-	8
STYLE REF CC1332-22-18S NATO STOCK NO 5935-99-	014-6605	014-6606	014-6607	014-6608	014-6609			57		Socket		-	-	-	-
STYLE REF CC1331-22-19P NATO STOCK NO 5935-99-	014-6610	014-6611	014-6612	014-6613	014-6614	Free male	2	53	CC/C1331	Plug	22 - 19	-	-	-	14
STYLE REF CC1331-22-19S NATO STOCK NO 5935-99-	014-6615	014-6616	014-6617	014-6618	014-6619			73		Socket		-	-	-	-
STYLE REF CC1330-22-19P NATO STOCK NO 5935-99-	014-6620	014-6621	014-6622	014-6623	014-6624	Fixed female	1	46	CC/C1330	Plug	22 - 19	-	-	-	14
STYLE REF CC1330-22-19S NATO STOCK NO 5935-99-	014-6625	014-6626	014-6627	014-6628	014-6629			61		Socket		-	-	-	-
STYLE REF CC1332-22-19P NATO STOCK NO 5935-99-	014-6630	014-6631	014-6632	014-6633	014-6634	Free female (coupler)	3	46	CC/C1332	Plug	22 - 19	-	-	-	14
STYLE REF CC1332-22-19S NATO STOCK NO 5935-99-	014-6635	014-6636	014-6637	014-6638	014-6639			61		Socket		-	-	-	-
STYLE REF CC1331-22-22P NATO STOCK NO 5935-99-	014-6640	NOT TO BE PROVIDED	014-6641	014-6642	NOT TO BE PROVIDED	Free male	2	59	CC/C1331	Plug	22 - 22	-	4	-	-
STYLE REF CC1331-22-22S NATO STOCK NO 5935-99-	014-6643		014-6644	014-6645				75		Socket		-	-	-	-

 REF. SK. 50 - 1 (PART 1)
 SECTION 6
 TABLE I(H) (CONT'D)

TABLE I(H) - CONTINUED

ORDERING DATA	ORIENTATIONS						SHELL DETAILS (SEE PAGE 54)		MAX. WEIGHT 'g'	CONTROL DRAWING NUMBER	CONTACT DETAILS							
	NORMAL	W	X	Y	Z	TYPE	FIG	FUNCTION			ARRANGEMENT (SEE PAGE 74)	NUMBER OFF						
												SIZE 4	SIZE 8	SIZE 12	SIZE 16			
STYLE REF CC1330-22-22P NATO STOCK NO 5935-99	014-6646	NOT TO BE PROVIDED				014-6647	014-6648	1		48	CC/C1330	Plug	22 - 22	-	4	-	-	
STYLE REF CC1330-22-22S NATO STOCK NO 5935-99	014-6649					014-6650	014-6651			64		Socket						
STYLE REF CC1332-22-22P NATO STOCK NO 5935-99						014-6653	014-6654	3		48	CC/C1332	Plug	22 - 22	-	4	-	-	
STYLE REF CC1332-22-22S NATO STOCK NO 5935-99	014-6652					014-6656	014-6657			64		Socket						
STYLE REF CC1331-22-23P NATO STOCK NO 5935-99	014-6658	014-6659									28	CC/C1331	Plug	22 - 23	-	-	8	-
STYLE REF CC1331-22-23S NATO STOCK NO 5935-99	014-6661	014-6662									46		Socket					
STYLE REF CC1330-22-23P NATO STOCK NO 5935-99	014-6664	014-6665									48	CC/C1330	Plug	22 - 23	-	-	8	-
STYLE REF CC1330-22-23S NATO STOCK NO 5935-99	014-6667	014-6668									65		Socket					
STYLE REF CC1332-22-23P NATO STOCK NO 5935-99	014-6670	014-6671									48	CC/C1332	Plug	22 - 23	-	-	8	-
STYLE REF CC1332-22-23S NATO STOCK NO 5935-99	014-6673	014-6674									65		Socket					

SIZE 22

SHELL AND ACCESSORY OUTLINE DRAWINGS

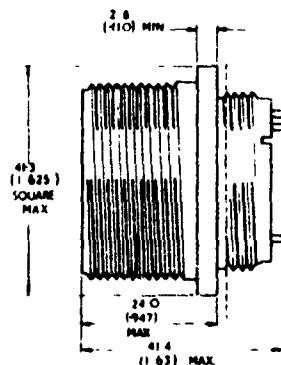


FIG 1 FIXED FEMALE SHELL

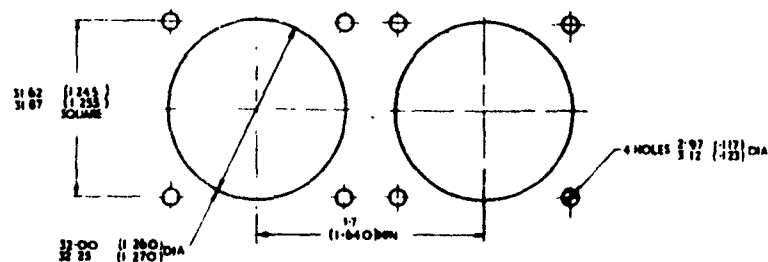


FIG 4 PANEL PIERCING DETAILS FOR FRONT MOUNTING.
(WHEN CABLE ACCESSORIES ARE USED MAXIMUM PANEL THICKNESS 3.3 (130))

ACCESSORIES

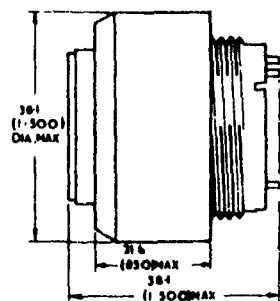


FIG 2 FREE MALE SHELL

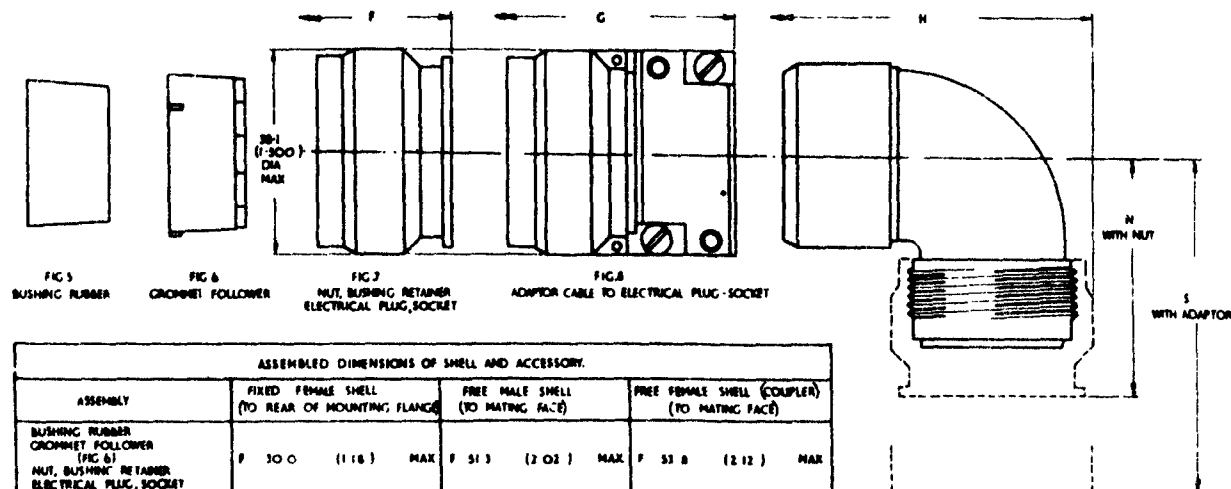


FIG 5 BUSHING RUBBER

FIG 6 GROMMET FOLLOWER

FIG 7 NUT, BUSHING RETAINER
ELECTRICAL PLUG, SOCKET

FIG 8 ADAPTOR CABLE TO ELECTRICAL PLUG - SOCKET

FIG 9 SHIELD, ELECTRICAL PLUG - SOCKET

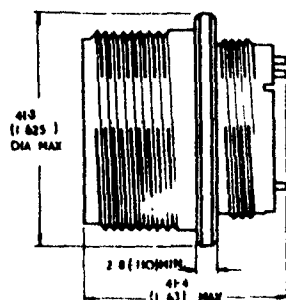


FIG 3 FREE FEMALE SHELL
(COUPLER)

ASSEMBLED DIMENSIONS OF SHELL AND ACCESSORY.

ASSEMBLY	FIXED FEMALE SHELL (TO REAR OF MOUNTING FLANGE)	FREE MALE SHELL (TO MATING FACE)	FREE FEMALE SHELL (COUPLER) (TO MATING FACE)
BUSHING RUBBER GROMMET FOLLOWER (FIG 6) NUT, BUSHING RETAINER ELECTRICAL PLUG, SOCKET	F 30.0 (1.18) MAX	F 31.3 (2.02) MAX	F 31.8 (2.12) MAX
BUSHING RUBBER GROMMET FOLLOWER (FIG 6) ADAPTOR CABLE TO ELECTRICAL PLUG - SOCKET	G 48.8 (1.92) MAX	G 70.1 (2.76) MAX	G 72.6 (2.86) MAX
BUSHING RUBBER (2 OFF) GROMMET FOLLOWER (FIG 6) SHIELD, ELECTRICAL PLUG SOCKET.	H 65.3 (2.57) MAX	H 86.6 (3.41) MAX	H 88.9 (3.50) MAX
NUT BUSHING RETAINER ELECTRICAL PLUG, SOCKET	N 46.7 (1.84) MAX	N 46.7 (1.84) MAX	N 46.7 (1.84) MAX
BUSHING RUBBER (2 OFF) GROMMET FOLLOWER (FIG 6) SHIELD ELECTRICAL PLUG - SOCKET.	H 65.3 (2.57) MAX	H 86.6 (3.41) MAX	H 88.9 (3.50) MAX
ADAPTOR CABLE TO ELECTRICAL PLUG - SOCKET	S 65.0 (2.56) MAX	S 65.0 (2.56) MAX	S 65.0 (2.56) MAX

THE OVERALL MATED LENGTH OF ANY MATED COMBINATION
CAN BE CALCULATED BY SUBTRACTING 18.29 (17.72)
(MATING OVERLAP) FROM THE SUM OF THE OVERALL LENGTHS
OF THE REQUIRED COMPONENTS

WITHDRAWAL DISTANCE = MAXIMUM OVERLAP DIMENSION

DIMENSIONS ARE IN MILLIMETRES WITH ORIGINAL INCH
DIMENSIONS SHOWN IN BRACKETS

ACCESSORIES FOR SHELL SIZE 22
(see page 54 for outline drawings)

ORDERING DATA	ARRANGEMENT	NOMENCLATURE	MAXIMUM WEIGHT (GRAMMES)	CONTROL DRAWING NUMBER
NATO STOCK NUMBER				
5365-99-014-7083	22 - 14	BUSHING, RUBBER	7.5	CC/C1347
5365-99-014-7084	22 - 18	BUSHING, RUBBER	9.0	CC/C1347
5365-99-014-7085	22 - 19	BUSHING, RUBBER	9.0	CC/C1347
5365-99-014-7086	22 - 22	BUSHING, RUBBER	7.5	CC/C1347
5365-99-014-7087	22 - 23	BUSHING, RUBBER	8.5	CC/C1347
7777-99-014-7088	-	GROMMET FOLLOWER	5.0	CC/C1348
5935-99-014-7089	-	NUT, BUSHING RETAINER, ELECTRICAL PLUG-SOCKET	17.0	CC/C1344
5935-99-014-7090	-	ADAPTER, CABLE TO ELECTRICAL PLUG-SOCKET	45	CC/C1345
5935-99-014-7091	-	SHIELD, ELECTRICAL PLUG-SOCKET	48	CC/C1346

TABLE 1(J)
STANDARD RANGE
SHELL SIZE 24

ORDERING DATA	ORIENTATIONS					SHELL DETAILS (SEE PAGE 58)		MAX. WEIGHT 'g'	CONTROL DRAWING NUMBER	CONTACT DETAILS					
	NORMAL	W	X	Y	Z	TYPE	FIG			FUNCTION	ARRANGEMENT (SEE PAGE 74)	NUMBER OFF			
												SIZE 4	SIZE 8	SIZE 12	SIZE 16
STYLE REF CC1331-24-7P NATO STOCK NO 5935-99-	014-6676	014-6677	014-6678	014-6679	014-6680	Free male	2	64	CC/C1331	Plug	24 - 7	-	-	2	14
STYLE REF CC1331-24-7S NATO STOCK NO 5935-99-	014-6681	014-6682	014-6683	014-6684	014-6685			84		Socket					
STYLE REF CC1330-24-7P NATO STOCK NO 5935-99-	014-6686	014-6687	014-6688	014-6689	014-6690	Fixed female	1	55	CC/C1330	Plug	24 - 7	-	-	2	14
STYLE REF CC1330-24-7S NATO STOCK NO 5935-99-	014-6691	014-6692	014-6693	014-6694	014-6695			75		Socket					
STYLE REF CC1332-24-7P NATO STOCK NO 5935-99-	014-6696	014-6697	014-6698	014-6699	014-6700	Free female (coupler)	3	55	CC/C1332	Plug	24 - 7	-	-	2	14
STYLE REF CC1332-24-7S NATO STOCK NO 5935-99-	014-6701	014-6702	014-6703	014-6704	014-6705			75		Socket					
STYLE REF CC1331-24-11P NATO STOCK NO 5935-99-	014-6706	014-6707	014-6708	014-6709	014-6710	Free male	2	36	CC/C1331	Plug	24 - 11	-	3	6	-
STYLE REF CC1331-24-11S NATO STOCK NO 5935-99-	014-6711	014-6712	014-6713	014-6714	014-6715			93		Socket					
STYLE REF CC1330-24-11P NATO STOCK NO 5935-99-	014-6716	014-6717	014-6718	014-6719	014-6720	Fixed female	1	61	CC/C1330	Plug	24 - 11	-	3	6	-
STYLE REF CC1330-24-11S NATO STOCK NO 5935-99-	014-6721	014-6722	014-6723	014-6724	014-6725			83		Socket					
STYLE REF CC1332-24-11P NATO STOCK NO 5935-99-	014-6726	014-6727	014-6728	014-6729	014-6730	Free female (coupler)	3	61	CC/C1332	Plug	24 - 11	-	3	6	-
STYLE REF CC1332-24-11S NATO STOCK NO 5935-99-	014-6731	014-6732	014-6733	014-6734	014-6735			83		Socket					

TABLE I(j) - CONTINUED

ORDERING DATA	ORIENTATIONS					SHELL DETAILS (SEE PAGE 58)		MAX. WEIGHT 'g'	CONTROL DRAWING NUMBER	CONTACT DETAILS					
	NORMAL	W	X	Y	Z	TYPE	FIG			FUNCTION	ARRANGEMENT (SEE PAGE 74)	NUMBER OFF			
												SIZE 4	SIZE 8	SIZE 12	SIZE 16
STYLE REF CC1331-24-12P NATO STOCK NO 5935-99-	014-6736	014-6737	014-6738	014-6739	014-6740	Free male	2	71	CC/C1331	Plug	24 - 12	2	-	3	-
STYLE REF CC1331-24-12S NATO STOCK NO 5935-99-	014-6741	014-6742	014-6743	014-6744	014-6745			90		Socket					
STYLE REF CC1330-24-12P NATO STOCK NO 5935-99-	014-6746	014-6747	014-6748	014-6749	014-6750	Fixed female	1	58	CC/C1330	Plug	24 - 12	2	-	3	-
STYLE REF CC1330-24-12S NATO STOCK NO 5935-99-	014-6751	014-6752	014-6753	014-6754	014-6755			77		Socket					
STYLE REF CC1332-24-12P NATO STOCK NO 5935-99-	014-6756	014-6757	014-6758	014-6759	014-6760	Free female (coupler)	3	58	CC/C1332	Plug	24 - 12	2	-	3	-
STYLE REF CC1332-24-12S NATO STOCK NO 5935-99-	014-6761	014-6762	014-6763	014-6764	014-6765			77		Socket					
STYLE REF CC1331-24-28P NATO STOCK NO 5935-99-	014-6766	014-6767	014-6768	014-6769	014-6770	Free male	2	70	CC/C1331	Plug	24 - 28	-	-	-	24
STYLE REF CC1331-24-28S NATO STOCK NO 5935-99-	014-6771	014-6772	014-6773	014-6774	014-6775			90		Socket					
STYLE REF CC1330-24-28P NATO STOCK NO 5935-99-	014-6776	014-6777	014-6778	014-6779	014-6780	Fixed female	1	58	CC/C1330	Plug	24 - 28	-	-	-	24
STYLE REF CC1330-24-28S NATO STOCK NO 5935-99-	014-6781	014-6782	014-6783	014-6784	014-6785			80		Socket					
STYLE REF CC1332-24-28P NATO STOCK NO 5935-99-	014-6786	014-6787	014-6788	014-6789	014-6790	Free female (coupler)	3	58	CC/C1332	Plug	24 - 28	-	-	-	24
STYLE REF CC1332-24-28S NATO STOCK NO 5935-99-	014-6791	014-6792	014-6793	014-6794	014-6795			80		Socket					

SIZE 24

SHELL AND ACCESSORY OUTLINE DRAWINGS

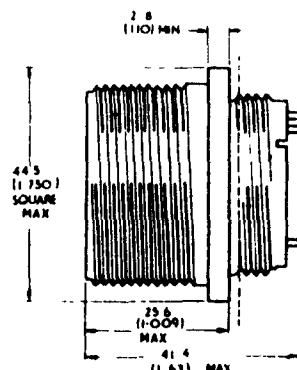


FIG 1 FIXED FEMALE SHELL

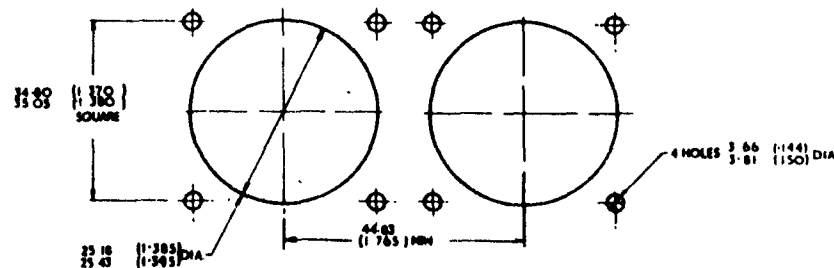


FIG 4 PANEL PIERCING DETAILS FOR FRONT MOUNTING.

(WHEN CABLE ACCESSORIES ARE USED MAXIMUM PANEL THICKNESS 3.3 (0.130))

ACCESSORIES

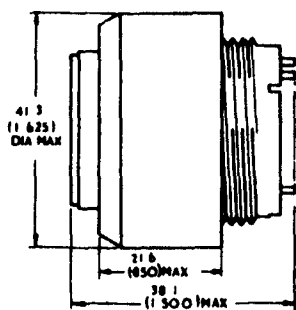


FIG 2 FREE MALE SHELL.

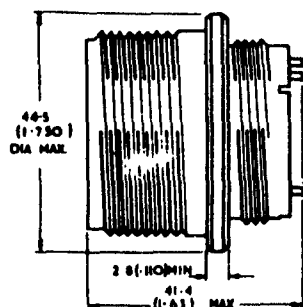
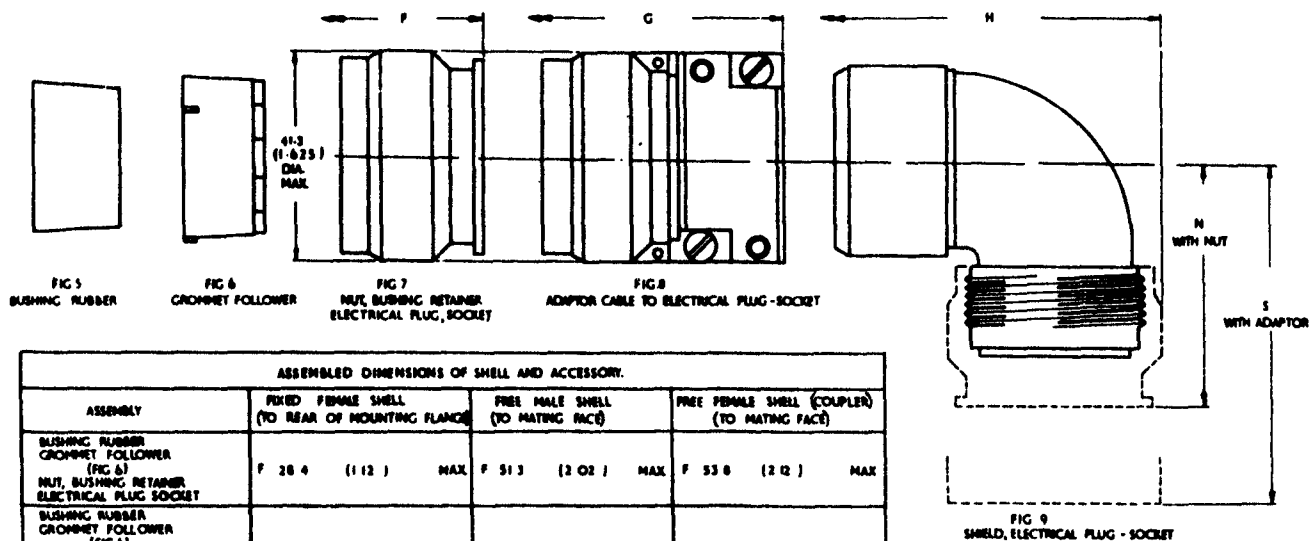


FIG 3 FREE FEMALE SHELL (COUPLER)

ASSEMBLED DIMENSIONS OF SHELL AND ACCESSORY.				
ASSEMBLY	FIXED FEMALE SHELL (TO REAR OF MOUNTING FLANGE)		FREE MALE SHELL (TO MATING FACE)	
BUSHING RUBBER CROMMET FOLLOWER (FIG 6)	F 28.4	(1.12) MAX	F 31.3	(1.23) MAX
NUT, BUSHING RETAINER ELECTRICAL PLUG, SOCKET	F 53.8	(2.12) MAX	F 53.8	(2.12) MAX
BUSHING RUBBER CROMMET FOLLOWER (FIG 6)	G 47.2	(1.86) MAX	G 70.1	(2.76) MAX
ADAPTOR CABLE TO ELECTRICAL PLUG-SOCKET	G 72.6	(2.86) MAX	G 72.6	(2.86) MAX
BUSHING RUBBER (2 OFF) CROMMET FOLLOWER (FIG 6)	H 68.3	(2.69) MAX	H 91.2	(3.59) MAX
SHIELD, ELECTRICAL PLUG SOCKET	H 93.7	(3.69) MAX	H 93.7	(3.69) MAX
NUT, BUSHING RETAINER ELECTRICAL PLUG, SOCKET	H 48.5	(1.91) MAX	H 48.5	(1.91) MAX
BUSHING RUBBER (2 OFF) CROMMET FOLLOWER (FIG 6)	S 67.8	(2.67) MAX	S 67.8	(2.67) MAX
SHIELD ELECTRICAL PLUG-SOCKET	S 67.8	(2.67) MAX	S 67.8	(2.67) MAX

THE OVERALL MATED LENGTH OF ANY MATED COMBINATION CAN BE CALCULATED BY SUBTRACTING 18.29 (0.72) (MATING OVERLAP) FROM THE SUM OF THE OVERALL LENGTHS OF THE REQUIRED COMPONENTS

WITHDRAWAL DISTANCE = MAXIMUM OVERLAP DIMENSION

DIMENSIONS ARE IN MILLIMETRES WITH ORIGINAL INCH DIMENSIONS SHOWN IN BRACKETS

ACCESSORIES FOR SHELL SIZE 24
(see page 58 for outline drawings)

ORDERING DATA	ARRANGEMENT	NOMENCLATURE	MAXIMUM WEIGHT (GRAMMES)	CONTROL DRAWING NUMBER
NATO STOCK NUMBER				
5365-99-014-7092	24 - 7	BUSHING, RUBBER	10.5	CC/C1347
5365-99-014-7093	24 - 11	BUSHING, RUBBER	10	CC/C1347
5365-99-014-7094	24 - 12	BUSHING, RUBBER	10	CC/C1347
5365-99-014-7095	24 - 28	BUSHING, RUBBER	10	CC/C1347
-	-	-	-	-
7777-99-014-7096	-	GROMMET FOLLOWER	5	CC/C1348
5935-99-014-7097	-	NUT, BUSHING RETAINER, ELECTRICAL PLUG-SOCKET	18.5	CC/C1344
5935-99-014-7098	-	ADAPTER, CABLE TO ELECTRICAL PLUG-SOCKET	50	CC/C1345
5935-99-014-7099	-	SHIELD, ELECTRICAL PLUG-SOCKET	60	CC/C1346

TABLE I(K)
STANDARD RANGE
SHELL SIZE 28

ORDERING DATA	ORIENTATIONS					SHELL DETAILS (SEE PAGE 63)		MAX. WEIGHT 'g'	CONTROL DRAWING NUMBER	CONTACT DETAILS					
	NORMAL	W	X	Y	Z	TYPE	FIG			FUNCTION	ARRANGEMENT (SEE PAGE 74)	NUMBER OF PINS			
												SIZE 4	SIZE 8	SIZE 12	SIZE 16
STYLE REF CC1331-28-10P NATO STOCK NO 5935-99-	014-6796	014-6797	014-6798	014-6799	014-6800	Free male	2	91	CC/C1331	Plug	28 - 10	2	2	-	-
STYLE REF CC1331-28-10S NATO STOCK NO 5935-99-	014-6801	014-6802	014-6803	014-6804	014-6805			118		Socket					
STYLE REF CC1330-28-10P NATO STOCK NO 5935-99-	014-6806	014-6807	014-6808	014-6809	014-6810	Fixed female	1	82	CC/C1330	Plug	28 - 10	2	2	3	-
STYLE REF CC1330-28-10S NATO STOCK NO 5935-99-	014-6811	014-6812	014-6813	014-6814	014-6815			108		Socket					
STYLE REF CC1332-28-10P NATO STOCK NO 5935-99-	014-6816	014-6817	014-6818	014-6819	014-6820	Free female (coupler)	3	82	CC/C1332	Plug	28 - 10	2	2	3	-
STYLE REF CC1332-28-10S NATO STOCK NO 5935-99-	014-6821	014-6822	014-6823	014-6824	014-6825			108		Socket					
STYLE REF CC1331-28-11P NATO STOCK NO 5935-99-	014-6826	014-6827	014-6828	014-6829	014-6830	Free male	2	89	CC/C1331	Plug	28 - 11	-	-	4	18
STYLE REF CC1331-28-11S NATO STOCK NO 5935-99-	014-6831	014-6832	014-6833	014-6834	014-6835			115		Socket					
STYLE REF CC1330-28-11P NATO STOCK NO 5935-99-	014-6836	014-6837	014-6838	014-6839	014-6840	Fixed female	1	76	CC/C1330	Plug	28 - 11	-	-	4	18
STYLE REF CC1330-28-11S NATO STOCK NO 5935-99-	014-6841	014-6842	014-6843	014-6844	014-6845			106		Socket					

TABLE I(K) - CONTINUED

DEF STAN 59 - 35(PART 1)
SECTION 8
TABLE I(K) (CONTD)

ORDERING DATA	ORIENTATIONS						SHELL DETAILS (SEE PAGE 63)		MAX. WEIGHT 'g'	CONTROL DRAWING NUMBER	CONTACT DETAILS			
	NORMAL	W	X	Y	Z	TYPE	FIG	FUNCTION			ARRANGEMENT (SEE PAGE 74.)	NUMBER OFF		
												SIZE 4	SIZE 8	SIZE 12
STYLE REF CC1332-28-11P NATO STOCK NO 5935-99	014-6846	014-6847	014-6848	014-6849	014-6850	Free female (coupler)	3	Plug	CC/C1332	28 - 11	-	-	4	18
STYLE REF CC1332-28-11S NATO STOCK NO 5935-99	014-6851	014-6852	014-6853	014-6854	014-6855			Socket						
STYLE REF CC1331-28-20P NATO STOCK NO 5935-99	014-6856	014-6857	014-6858	014-6859	014-6860	Free male	2	Plug	CC/C1331	28 - 20	-	-	10	4
STYLE REF CC1331-28-20S NATO STOCK NO 5935-99	014-6861	014-6862	014-6863	014-6864	014-6865			Socket						
STYLE REF CC1330-28-20P NATO STOCK NO 5935-99	014-6866	014-6867	014-6868	014-6869	014-6870	Fixed female	1	Plug	CC/C1330	28 - 20	-	-	10	4
STYLE REF CC1330-28-20S NATO STOCK NO 5935-99	014-6871	014-6872	014-6873	014-6874	014-6875			Socket						
STYLE REF CC1332-28-20P NATO STOCK NO 5935-99	014-6876	014-6877	014-6878	014-6879	014-6880	Free female (coupler)	3	Plug	CC/C1332	28 - 20	-	-	10	4
STYLE REF CC1332-28-20S NATO STOCK NO 5935-99	014-6881	014-6882	014-6883	014-6884	014-6885			Socket						
STYLE REF CC1331-28-21P NATO STOCK NO 5935-99	014-6886	014-6887	014-6888	014-6889	014-6890	Free male	2	Plug	CC/C1331	28 - 21	-	-	-	37
STYLE REF CC1331-28-21S NATO STOCK NO 5935-99	014-6891	014-6892	014-6893	014-6894	014-6895			Socket						

TABLE I(K) - CONTINUED

ORDERING DATA	ORIENTATIONS					SHELL DETAILS (SEE PAGE 63)		MAX. WEIGHT 'g'	CONTROL DRAWING NUMBER	CONTACT DETAILS					
	NORMAL	W	X	Y	Z	TYPE	FIG			FUNCTION	ARRANGEMENT (SEE PAGE 74)	NUMBER OFF			
												SIZE 4	SIZE 8	SIZE 12	SIZE 16
STYLE REF CC1330-28-21P NATO STOCK NO 5935-99-	014-6896	014-6897	014-6898	014-6899	014-6900	Fixed female	1	84	CC/C1330	Plug	28 - 21	-	-	-	57
STYLE REF CC1330-28-21S NATO STOCK NO 5935-99-	014-6901	014-6902	014-6903	014-6904	014-6905			116		Socket					
STYLE REF CC1332-28-21P NATO STOCK NO 5935-99-	014-6906	014-6907	014-6908	014-6909	014-6910	Free female (coupler)	3	84	CC/C1332	Plug	28 - 21	-	-	-	57
STYLE REF CC1332-28-21S NATO STOCK NO 5935-99-	014-6911	014-6912	014-6913	014-6914	014-6915			116		Socket					
STYLE REF CC1331-28-22P NATO STOCK NO 5935-99-	014-6916	014-6917	014-6918	014-6919	014-6920	Free male	2	90	CC/C1331	Plug	28 - 22	3	-	-	3
STYLE REF CC1331-28-22S NATO STOCK NO 5935-99-	014-6921	014-6922	014-6923	014-6924	014-6925			115		Socket					
STYLE REF CC1330-28-22P NATO STOCK NO 5935-99-	014-6926	014-6927	014-6928	014-6929	014-6930	Fixed female	1	80	CC/C1330	Plug	28 - 22	3	-	-	3
STYLE REF CC1330-28-22S NATO STOCK NO 5935-99-	014-6931	014-6932	014-6933	014-6934	014-6935			105		Socket					
STYLE REF CC1332-28-22P NATO STOCK NO 5935-99-	014-6936	014-6937	014-6938	014-6939	014-6940	Free female (coupler)	3	80	CC/C1332	Plug	28 - 22	3	-	-	3
STYLE REF CC1332-28-22S NATO STOCK NO 5935-99-	014-6941	014-6942	014-6943	014-6944	014-6945			105		Socket					

SIZE 28

SHELL AND ACCESSORY OUTLINE DRAWINGS

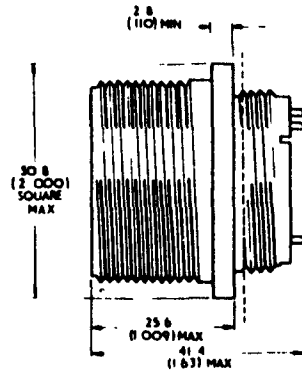


FIG 1 FIXED FEMALE SHELL

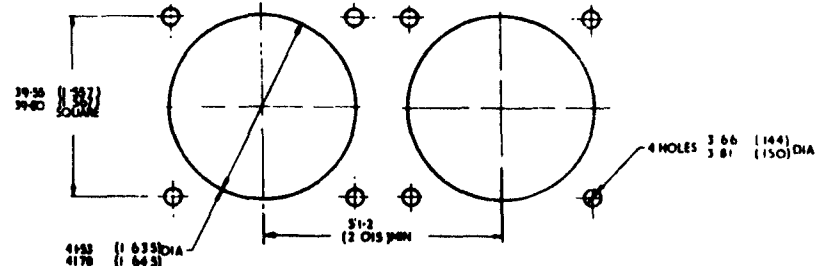


FIG 4 PANEL PIERCING DETAILS FOR FRONT MOUNTING.
(WHEN CABLE ACCESSORIES ARE USED MAXIMUM PANEL THICKNESS 3.3 (130))

ACCESSORIES

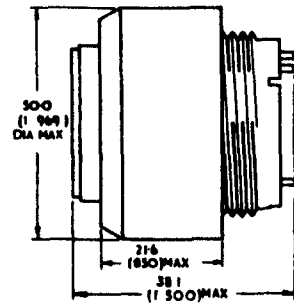


FIG 2 FREE MALE SHELL

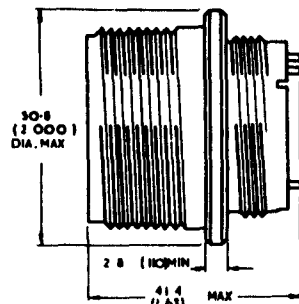
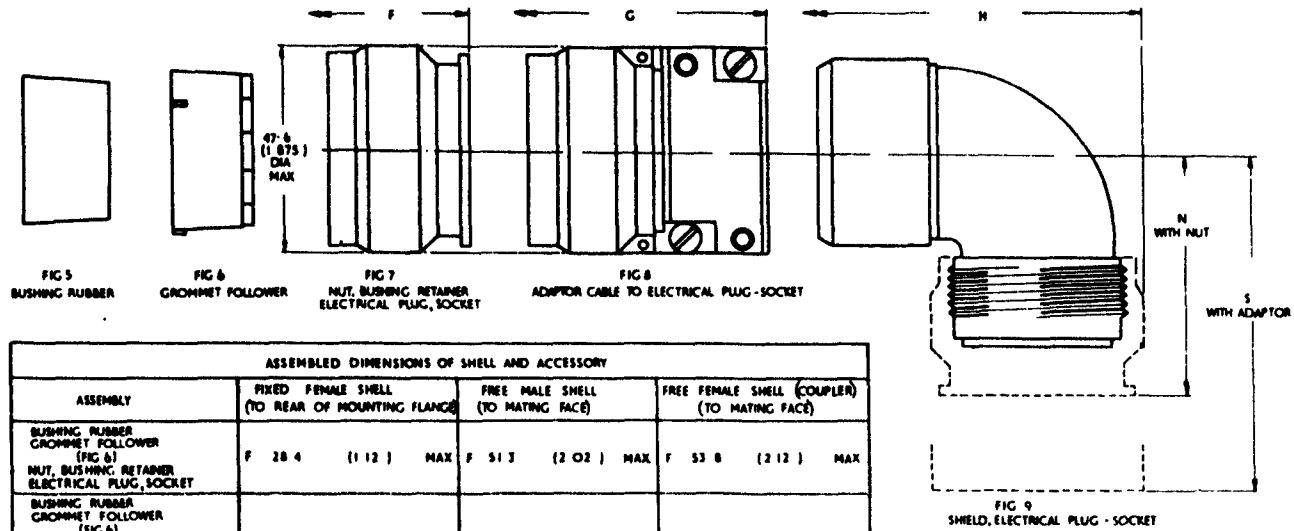


FIG 3 FREE FEMALE SHELL
(COUPLER)

ASSEMBLED DIMENSIONS OF SHELL AND ACCESSORY							
ASSEMBLY	FIXED FEMALE SHELL (TO REAR OF MOUNTING FLANGE)			FREE MALE SHELL (TO MATING FACE)		FREE FEMALE SHELL (COUPLER) (TO MATING FACE)	
BUSHING RUBBER GROMMET FOLLOWER (FIG 6) NUT, BUSHING RETAINER ELECTRICAL PLUG, SOCKET	F	28.4	(112) MAX	F	51.3 (2.02) MAX	F	53.8 (212) MAX
BUSHING RUBBER GROMMET FOLLOWER (FIG 6) ADAPTOR CABLE TO ELECTRICAL PLUG SOCKET	G	47.2	(186) MAX	G	70.1 (2.76) MAX	G	72.6 (286) MAX
BUSHING RUBBER (2 OFF) GROMMET FOLLOWER (FIG 6) SHIELD, ELECTRICAL PLUG SOCKET	H	71.1	(280) MAX	H	94.0 (3.70) MAX	H	96.5 (380) MAX
NUT, BUSHING RETAINER ELECTRICAL PLUG, SOCKET	N	51.3	(2.02) MAX	N	51.3 (2.02) MAX	N	51.3 (2.02) MAX
BUSHING RUBBER (2 OFF) GROMMET FOLLOWER (FIG 6) SHIELD ELECTRICAL PLUG SOCKET	H	71.1	(2.80) MAX	H	94.0 (3.70) MAX	H	96.5 (380) MAX
ADAPTOR CABLE TO ELECTRICAL PLUG - SOCKET	S	70.6	(2.78) MAX	S	70.6 (2.78) MAX	S	70.6 (2.78) MAX

THE OVERALL MATED LENGTH OF ANY MATED COMBINATION
CAN BE CALCULATED BY SUBTRACTING 18.29 (0.72)
(MATING OVERLAP) FROM THE SUM OF THE OVERALL LENGTHS
OF THE REQUIRED COMPONENTS

WITHDRAWAL DISTANCE = MAXIMUM OVERLAP DIMENSION

DIMENSIONS ARE IN MILLIMETRES WITH ORIGINAL INCH
DIMENSIONS SHOWN IN BRACKETS

ACCESSORIES FOR SHELL SIZE 28
(see page 63 for outline drawings)

ORDERING DATA	ARRANGEMENT	NOMENCLATURE	MAXIMUM WEIGHT (GRAMMES)	CONTROL DRAWING NUMBER
NATO STOCK NUMBER				
5365-99-014-7100	28 - 10	BUSHING, RUBBER	14	CC/C1347
5365-99-014-7101	28 - 11	BUSHING, RUBBER	15	CC/C1347
5365-99-014-7102	28 - 20	BUSHING, RUBBER	16	CC/C1347
5365-99-014-7103	28 - 21	BUSHING, RUBBER	13	CC/C1347
5365-99-014-7104	28 - 22	BUSHING, RUBBER	14	CC/C1347
7777-99-014-7105	-	GROMMET FOLLOWER	6	CC/C1348
5935-99-014-7106	-	NUT, BUSHING, RETAINER, ELECTRICAL PLUG-SOCKET	24	CC/C1344
5935-99-014-7107	-	ADAPTER, CABLE TO ELECTRICAL PLUG-SOCKET	55	CC/C1345
5935-99-014-7108	-	SHIELD, ELECTRICAL PLUG-SOCKET	75	CC/C1346

TABLE I(L)
STANDARD RANGE
SHELL SIZE 32

ORDERING DATA	ORIENTATIONS					SHELL DETAILS (SEE PAGE 66)		MAX. WEIGHT 'g'	CONTROL DRAWING NUMBER	CONTACT DETAILS					
	NORMAL	W	X	Y	Z	TYPE	FIG			FUNCTION	ARRANGEMENT (SEE PAGE 74)	NUMBER OFF			
												SIZE 4	SIZE 8	SIZE 12	SIZE 16
STYLE REF CC1331-32-6P NATO STOCK NO ~~5935-99~~	014-6946	014-6947	014-6948	014-6949	014-6950	Free male	2	121	CC/C1331	Plug	32 - 6	2	3	2	16
STYLE REF CC1331-32-6S NATO STOCK NO ~~5935-99~~	014-6951	014-6952	014-6953	01-6954	014-6955			162		Socket					
STYLE REF CC1330-32-6P NATO STOCK NO ~~5935-99~~	014-6956	014-6957	014-6958	014-6959	014-6960	Fixed female	1	110	CC/C1330	Plug	32 - 6	2	3	2	16
STYLE REF CC1330-32-6S NATO STOCK NO ~~5935-99~~	014-6961	014-6962	014-6963	014-6964	014-6965			149		Socket					
STYLE REF CC1332-32-6P NATO STOCK NO ~~5935-99~~	014-6966	014-6967	014-6968	014-6969	014-6970	Free female (coupler)	3	110	CC/C1332	Plug	32 - 6	2	3	2	16
STYLE REF CC1332-32-6S NATO STOCK NO ~~5935-99~~	014-6971	014-6972	014-6973	014-6974	014-6975			149		Socket					
STYLE REF CC1331-32-7P NATO STOCK NO ~~5935-99~~	014-6976	014-6977	014-6978	014-6979	014-6980	Free male	2	85	CC/C1331	Plug	32 - 7	-	-	7	28
STYLE REF CC1331-32-7S NATO STOCK NO ~~5935-99~~	014-6981	014-6982	014-6983	014-6984	014-6985			91		Socket					
STYLE REF CC1330-32-7P NATO STOCK NO ~~5935-99~~	014-6986	014-6987	014-6988	014-6989	014-6990	Fixed female	1	112	CC/C1330	Plug	32 - 7	-	-	7	28
STYLE REF CC1330-32-7S NATO STOCK NO ~~5935-99~~	014-6991	014-6992	014-6993	014-6994	014-6995			144		Socket					
STYLE REF CC1332-32-7P NATO STOCK NO ~~5935-99~~	014-6996	014-6997	014-6998	014-6999	014-7000	Free female (coupler)	3	112	CC/C1332	Plug	32 - 7	-	-	7	28
STYLE REF CC1332-32-7S NATO STOCK NO ~~5935-99~~	014-7001	014-7002	014-7003	014-7004	014-7005			144		Socket					

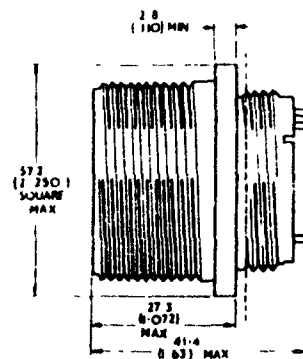


FIG 1 FIXED FEMALE SHELL

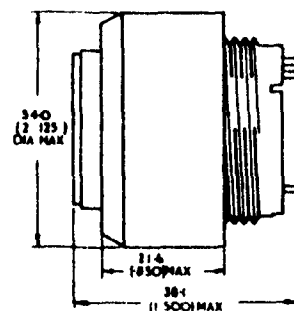


FIG 2 FREE MALE SHELL

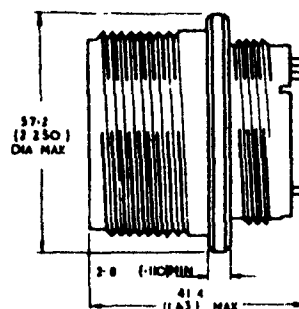


FIG 3 FREE FEMALE SHELL (COUPLER)

SIZE 32 SHELL AND ACCESSORY OUTLINE DRAWINGS

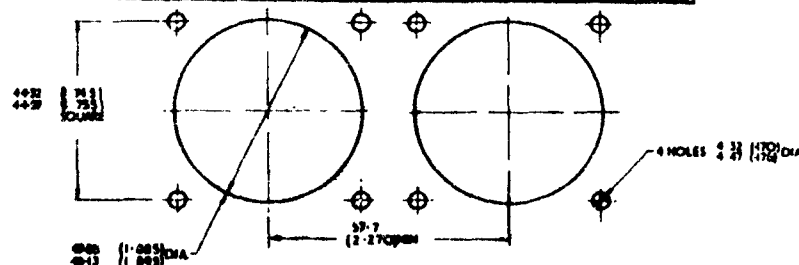


FIG 4 PANEL PIERCING DETAILS FOR FRONT MOUNTING.
(WHEN CABLE ACCESSORIES ARE USED MAXIMUM PANEL THICKNESS 3.3 (0.130))

ACCESSORIES

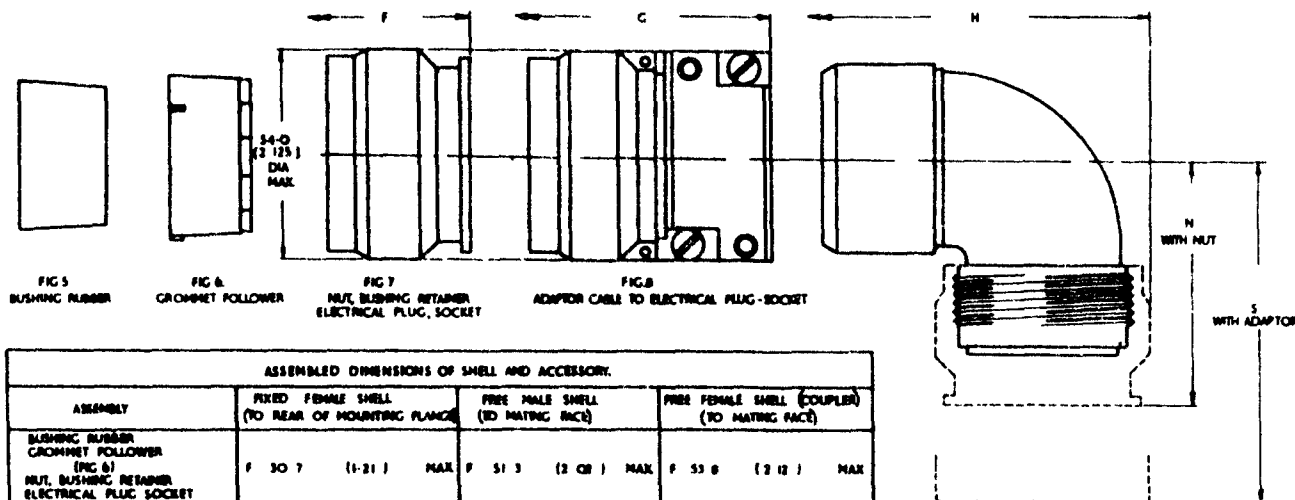


FIG 5
BUSHING RUBBER

FIG 6
CROMMET FOLLOWER

FIG 7
NUT, BUSHING RETAINER
ELECTRICAL PLUG, SOCKET

FIG 8
ADAPTOR CABLE TO ELECTRICAL
PLUG-SOCKET

FIG 9
SHIELD, ELECTRICAL PLUG-SOCKET

ASSEMBLED DIMENSIONS OF SHELL AND ACCESSORY.												
ASSEMBLY	FIXED FEMALE SHELL (TO REAR OF MOUNTING PLANCE)				FREE MALE SHELL (TO MATING FACE)				FREE FEMALE SHELL (COUPLER) (TO MATING FACE)			
BUSHING RUBBER CROMMET FOLLOWER (FIG 5) NUT, BUSHING RETAINER ELECTRICAL PLUG SOCKET	F	30.7	(1.21)	MAX	F	31.3	(1.23)	MAX	F	33.8	(1.33)	MAX
BUSHING RUBBER CROMMET FOLLOWER (FIG 6) ADAPTOR CABLE TO ELECTRICAL PLUG SOCKET	G	49.8	(1.96)	MAX	G	50.1	(1.97)	MAX	G	52.6	(2.06)	MAX
BUSHING RUBBER (2 OFF) CROMMET FOLLOWER (FIG 6) SHIELD, ELECTRICAL PLUG SOCKET.	H	82.8	(3.26)	MAX	H	102.4	(4.07)	MAX	H	105.7	(4.16)	MAX
NUT, BUSHING RETAINER ELECTRICAL PLUG SOCKET	N	54.6	(2.15)	MAX	N	54.6	(2.15)	MAX	N	54.6	(2.15)	MAX
BUSHING RUBBER (2 OFF) CROMMET FOLLOWER GLAND (FIG 6) SHIELD ELECTRICAL PLUG SOCKET	N	82.8	(3.26)	MAX	N	102.4	(4.07)	MAX	N	105.7	(4.16)	MAX
ADAPTOR CABLE TO ELECTRICAL PLUG - SOCKET	S	71.1	(2.80)	MAX	S	71.1	(2.80)	MAX	S	71.1	(2.80)	MAX

THE OVERALL MATED LENGTH OF ANY MATED COMBINATION CAN BE CALCULATED BY SUBTRACTING 18.29 (0.72) (MATING OVERLAP) FROM THE SUM OF THE OVERALL LENGTHS OF THE REQUIRED COMPONENTS

WITHDRAWAL DISTANCE = MAXIMUM OVERLAP DIMENSION

DIMENSIONS ARE IN MILLIMETRES WITH ORIGINAL INCH DIMENSIONS SHOWN IN BRACKETS

ACCESSORIES FOR SHELL SIZE 32
(see page 66 for outline drawings)

ORDERING DATA	ARRANGEMENT	NOMENCLATURE	MAXIMUM WEIGHT (GRAMMES)	CONTROL DRAWING NUMBER
NATO STOCK NUMBER				
5365-99-014-7109	32 - 6	BUSHING, RUBBER	18.5	CC/C1347
5365-99-014-7110	32 - 7	BUSHING, RUBBER	21	CC/C1347
-	-	-	-	-
-	-	-	-	-
-	-	-	-	-
7777-99-014-7111	-	GROMMET FOLLOWER	7.0	CC/C1348
5935-99-014-7112	-	NUT, BUSHING RETAINER, ELECTRICAL PLUG-SOCKET	28	CC/C1344
5935-99-014-7113	-	ADAPTER, CABLE TO ELECTRICAL PLUG-SOCKET	70	CC/C1345
5935-99-014-7114	-	SHIELD, ELECTRICAL PLUG-SOCKET	90	CC/C1346

TABLE 1(M)
STANDARD RANGE
SHELL SIZE 36

ORDERING DATA	ORIENTATIONS					SHELL DETAILS (SEE PAGE 69)		MAX. WEIGHT 'g'	CONTROL DRAWING NUMBER	CONTACT DETAILS					
						FUNCTION	ARRANGEMENT (SEE PAGE 74)			NUMBER OFF					
	NORMAL	W	X	Y	Z					TYPE	FIG	SIZE 4	SIZE 8	SIZE 12	SIZE 16
STYLE REF CG1331-36-7P NATO STOCK NO 5935-99-	014-7006	014-7007	014-7008	014-7009	014-7010	Free male	2	150	CG/C1331	Plug	36 - 7	-	-	7	40
STYLE REF CG1331-36-7S NATO STOCK NO 5935-99-	014-7011	014-7012	014-7013	014-7014	014-7015			185		Socket					
STYLE REF CG1330-36-7P NATO STOCK NO 5935-99-	014-7016	014-7017	014-7018	014-7019	014-7020	Fixed female	1	160	CG/C1330	Plug	36 - 7	-	-	7	40
STYLE REF CG1330-36-7S NATO STOCK NO 5935-99-	014-7021	014-7022	014-7023	014-7024	014-7025			190		Socket					
STYLE REF CG1332-36-7P NATO STOCK NO 5935-99-	014-7026	014-7027	014-7028	014-7029	014-7030	Free female (coupler)	3	160	CG/C1332	Plug	36 - 7	-	-	7	40
STYLE REF CG1332-36-7S NATO STOCK NO 5935-99-	014-7031	014-7032	014-7033	014-7034	014-7035			190		Socket					

SIZE 36

SHELL AND ACCESSORY OUTLINE DRAWINGS

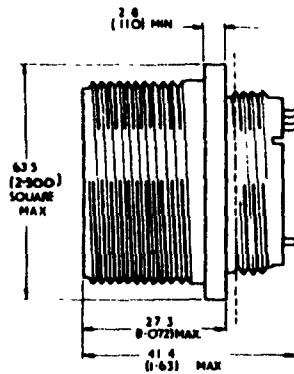


FIG 1 FIXED FEMALE SHELL

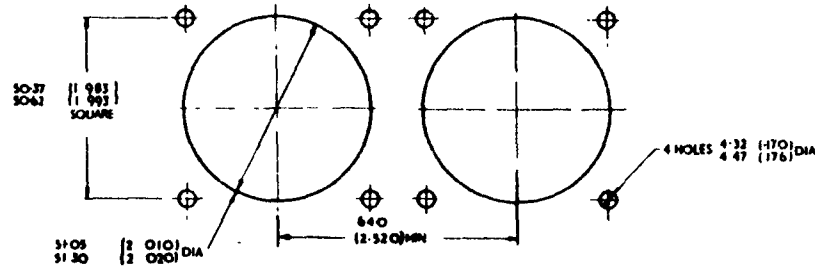


FIG 4 PANEL PIERCING DETAILS FOR FRONT MOUNTING.
(WHEN CABLE ACCESSORIES ARE USED MAXIMUM PANEL THICKNESS 3.3 (0.13))

ACCESSORIES

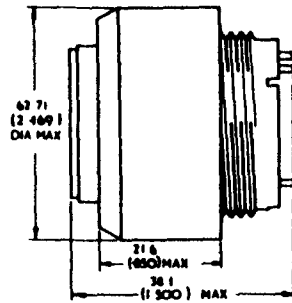


FIG 2 FREE MALE SHELL

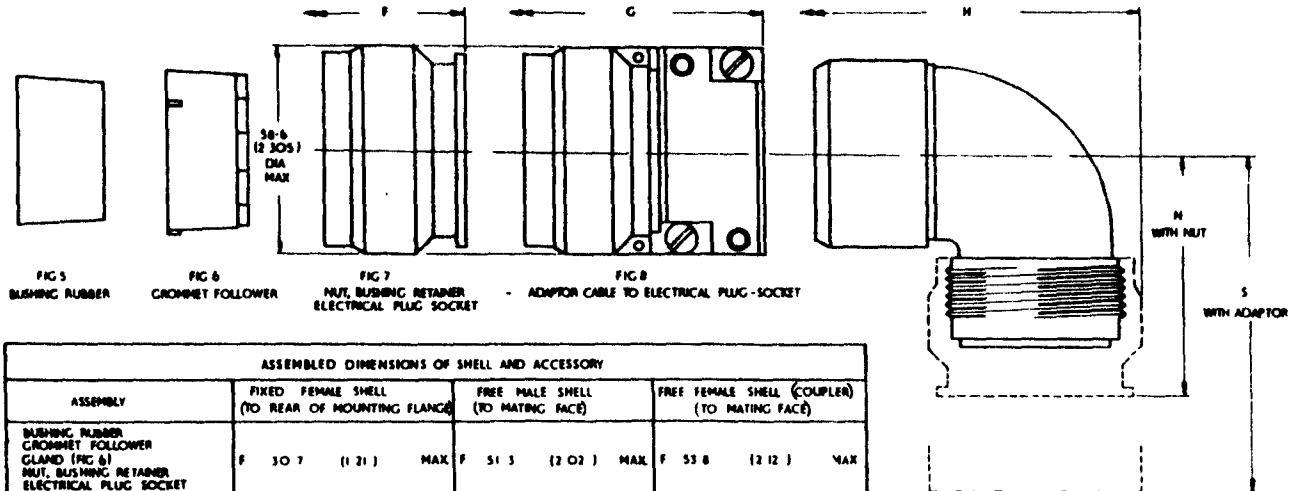


FIG 5
BUSHING RUBBER

FIG 6
GROMMET FOLLOWER

FIG 7
NUT, BUSHING RETAINER
ELECTRICAL PLUG SOCKET

FIG 8
ADAPTOR CABLE TO ELECTRICAL PLUG - SOCKET

FIG 9
SHIELD, ELECTRICAL PLUG - SOCKET

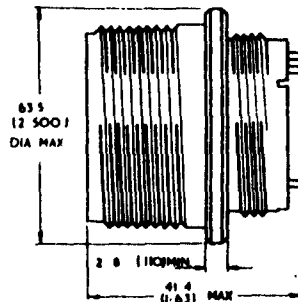


FIG 3 FREE FEMALE SHELL
(COUPLER)

ASSEMBLED DIMENSIONS OF SHELL AND ACCESSORY			
ASSEMBLY	FIXED FEMALE SHELL (TO REAR OF MOUNTING FLANGE)	FREE MALE SHELL (TO MATING FACE)	FREE FEMALE SHELL (COUPLER) (TO MATING FACE)
BUSHING RUBBER GROMMET FOLLOWER GLAND (FIG 6) NUT, BUSHING RETAINER ELECTRICAL PLUG SOCKET	F 30.7 (1.21) MAX	F 51.3 (2.02) MAX	F 53.8 (2.12) MAX
BUSHING RUBBER GROMMET FOLLOWER (FIG 6) ADAPTOR CABLE TO ELECTRICAL PLUG SOCKET	G 49.8 (1.96) MAX	G 70.1 (2.76) MAX	G 72.6 (2.86) MAX
BUSHING RUBBER (2 OFF) GROMMET FOLLOWER (FIG 6) SHIELD, ELECTRICAL PLUG SOCKET	H 87.4 (3.44) MAX	H 107.7 (4.24) MAX	H 110.2 (4.34) MAX
NUT, BUSHING RETAINER ELECTRICAL PLUG SOCKET	N 56.6 (2.23) MAX	N 56.6 (2.23) MAX	N 56.6 (2.23) MAX
BUSHING RUBBER (2 OFF) GROMMET FOLLOWER (FIG 6) SHIELD ELECTRICAL PLUG SOCKET	H 87.4 (3.44) MAX	H 107.7 (4.24) MAX	H 110.2 (4.34) MAX
ADAPTOR CABLE TO ELECTRICAL PLUG - SOCKET	S 50.5 (2.99) MAX	S 50.5 (2.99) MAX	S 50.5 (2.99) MAX

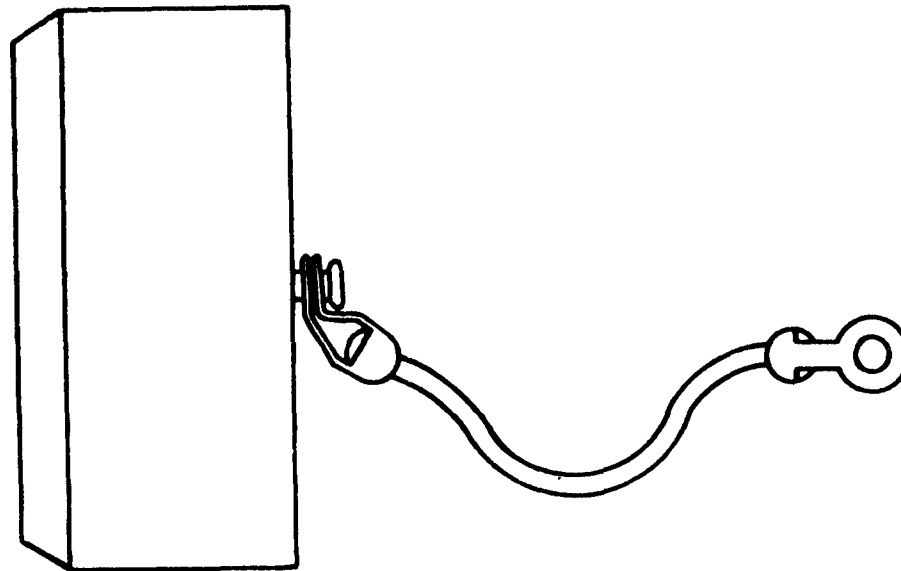
THE OVERALL MATED LENGTH OF ANY MATED COMBINATION CAN BE CALCULATED BY SUBTRACTING 18.29 (0.72) (MATING OVERLAP) FROM THE SUM OF THE OVERALL LENGTHS OF THE REQUIRED COMPONENTS

WITHDRAWAL DISTANCE = MAXIMUM OVERLAP DIMENSION

DIMENSIONS ARE IN MILLIMETRES WITH ORIGINAL INCH DIMENSIONS SHOWN IN BRACKETS

ACCESSORIES FOR SHELL SIZE 36 (see page 69 for outline drawings)				
ORDERING DATA	ARRANGEMENT	NOMENCLATURE	MAXIMUM WEIGHT (GRAMMES)	CONTROL DRAWING NUMBER
NATO STOCK NUMBER				
5365-99-014-7115	36 - 7	BUSHING, RUBBER	20	CC/C1347
-	-	-	-	-
-	-	-	-	-
-	-	-	-	-
-	-	-	-	-
7777-99-014-7116	-	GROMMET FOLLOWER	9.0	CC/C1348
5935-99-014-7117	-	NUT, BUSHING RETAINER, ELECTRICAL PLUG-SOCKET	37	CC/C1344
5935-99-014-7118	-	ADAPTER, CABLE TO ELECTRICAL PLUG-SOCKET	85	CC/C1345
5935-99-014-7119	-	SHIELD, ELECTRICAL PLUG-SOCKET	100	CC/C1346

PLUGS AND SOCKETS, ELECTRICAL, PATTERN 121
SPARES AND ANCILLARIES



ORDERING DATA NATO STOCK NO 5935-99-	CONTROL DRG. No.	SHELL SIZE
014 - 7120	CC/B1355/1	10SL
014 - 7121	.. /2	12S
014 - 7122	.. /3	14S
014 - 7123	.. /4	16S & 16
014 - 7124	.. /5	18
014 - 7125	.. /6	20
014 - 7126	.. /7	22
014 - 7127	.. /8	24
014 - 7138	.. /9	28
014 - 7129	.. /10	32
014 - 7130	.. /11	36

FIG. 10 COVER, ELECTRICAL PLUG - SOCKET

PLUGS AND SOCKETS, ELECTRICAL, PATTERN 121
SPARES AND ANCILLARIES

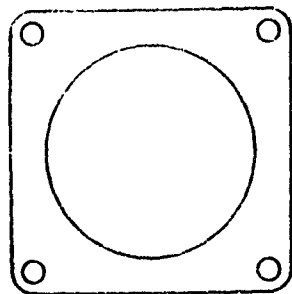


FIG. 11 GASKET

ORDERING DATA NATO STOCK NO 5330-99-	DEF REF No	SHELL SIZE
014 - 7131	CC/B1352/1	10SL
014 - 7132	/2	125
014 - 7133	/3	145
014 - 7134	/4	165 & 16
014 - 7135	/5	18
014 - 7136	/6	20
014 - 7137	/7	22
014 - 7138	/8	24
014 - 7139	/9	28
014 - 7140	/10	32
014 - 7141	/11	36



(a) CC/B1353/1&2.



(b) CC/B1353/3&4

ORDERING DATA NATO STOCK NO 5340-99-	CONTROL DRG No	FOR USE WITH CONTACT SIZE
014 - 7154	CC/B1353/1	4
014 - 7155	/2	8
014 - 7156	/3	12
014 - 7157	/4	16

FIG 12 { CC/B1353/1&2 CAP-PLUG, PROTECTIVE, DUST & MOISTURE SEAL.
CC/B1353/3&4 PLUG, PROTECTIVE, DUST & MOISTURE SEAL.

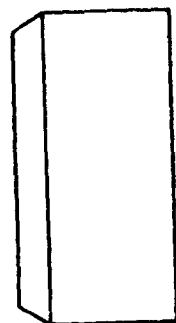


FIG 13 NUT, OUTER, ELECTRICAL PLUG-SOCKET

ORDERING DATA NATO STOCK NO. 5935-99-	CONTROL DRG No	SHELL SIZE
014 - 7142	CC/C1350/1	10SL
014 - 7143	/2	125
014 - 7144	/3	145
014 - 7145	/4	165
014 - 7146	/5	16
014 - 7147	/6	18
014 - 7148	/7	20
014 - 7149	/8	22
014 - 7150	/9	24
NOT PROVISIONED	/10	26
014 - 7151	/11	28
NOT PROVISIONED	/12	30
014 - 7152	/13	32
014 - 7153	/14	36

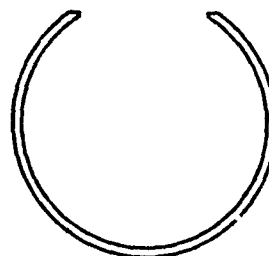
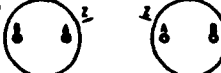
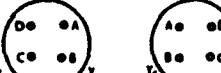
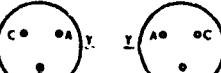
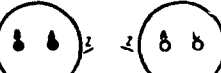
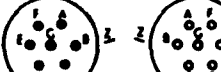
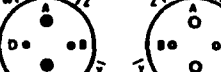
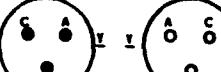
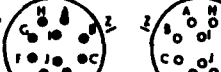
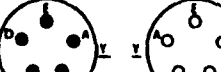
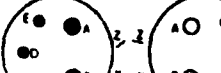
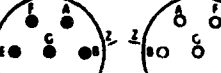
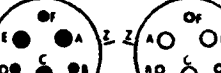
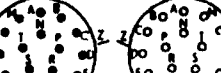


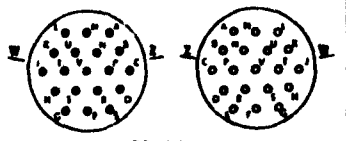
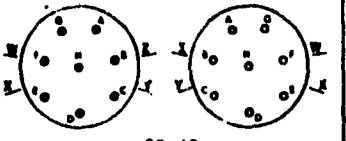
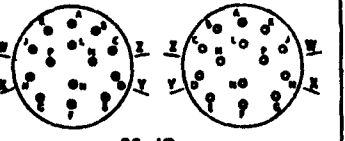
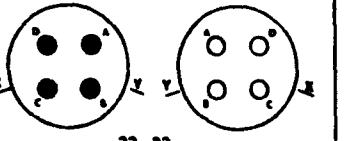
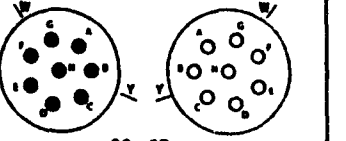
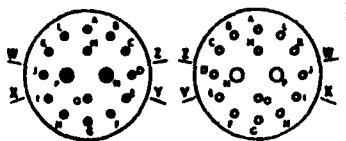
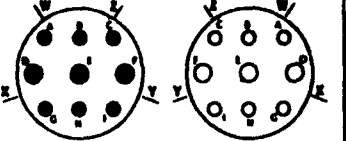
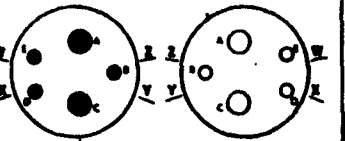
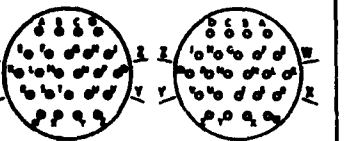
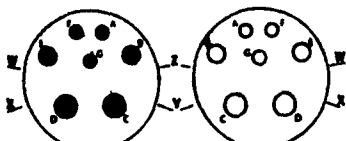
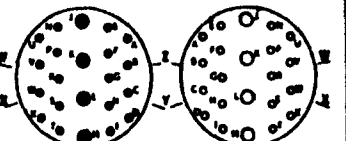
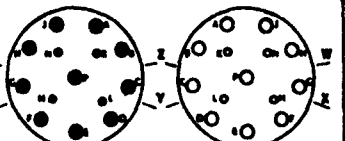
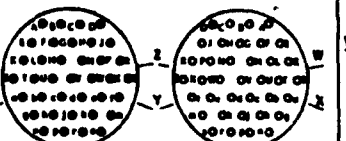
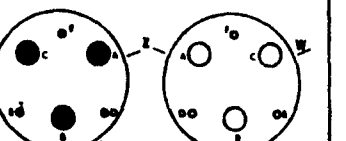
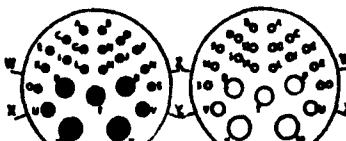
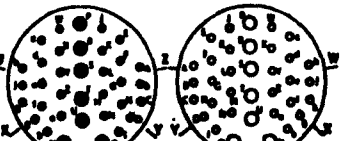
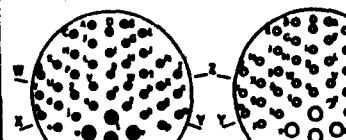
FIG. 14. RING, RETAINING.

ORDERING DATA NATO STOCK NO. 5365-99-	CONTROL DRG No	SHELL SIZE
014 - 7158	CC/B1351/1	10SL
014 - 7159	/2	125
014 - 7160	/3	145
014 - 7161	/4	165 & 16
014 - 7162	/5	18
014 - 7163	/6	20
014 - 7164	/7	22
014 - 7165	/8	24
NOT PROVISIONED	/9	26
014 - 7166	/10	28
NOT PROVISIONED	/11	30
014 - 7167	/12	32
014 - 7168	/13	36

ATTEN 121 CONTACT ARRANGEMENTS

SHELL SIZE	CONTACT ARRANGEMENTS IN NORMAL ORIENTATION VIEWED FROM MATING FACE - ALTERNATIVE INSERT POSITIONS AS SHOWN											
	PLUG SOCKET		PLUG SOCKET		PLUG SOCKET		PLUG SOCKET		PLUG SOCKET		PLUG SOCKET	
10SL												
	10SL-3		10SL-4									
12S												
	12S-3											
14S												
	14S-2		14S-4		14S-5		14S-6		14S-7		14S-9	
16S 16												
	16S-1		16-9		16-10							
18												
	18-1		18-11									
20												
	20-14		20-15		20-18		20-22		20-29			

PATTERN 121 CONTACT ARRANGEMENTS

SHELL SIZE	CONTACT ARRANGEMENTS IN NORMAL ORIENTATION VIEWED FROM MATING FACE - ALTERNATIVE INSERT POSITIONS AS SHOWN									
	PLUG		SOCKET		PLUG		SOCKET		PLUG	
22										
24										
28										
32										
36										

Ministry of Defence

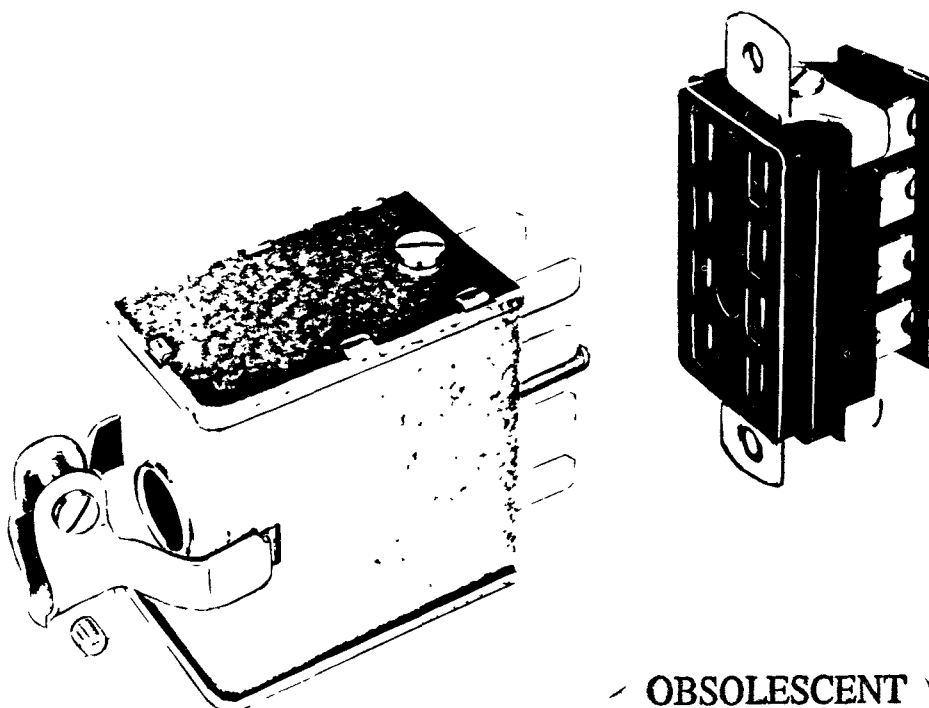
Defence Standard

59-35(PART 1)

SECTION 10/Issue 1

12 April 1976

**PLUGS AND SOCKETS, ELECTRICAL,
PATTERN 126, RECTANGULAR,
NON-SEALED WITH SOLDERED
TERMINATIONS FOR d.c. AND
LOW FREQUENCY APPLICATIONS**



— OBSOLESCE —

THIS DEFENCE STANDARD WILL NOT BE UPDATED AND IS
NOT TO BE USED FOR THE PURCHASE OF NEW EQUIPMENT

D/D STAN/59/7/49 (STAN 8)
N/RD/484/72/0243 (AD/CVD2S)
(1) /294/031 [AD/RS(PE)]

DEF STAN 59 - 35 (PART 1)
SECTION 10/1

PLUGS AND SOCKETS, ELECTRICAL

PATTERN 126

RECTANGULAR, NON-SEALED WITH SOLDERED TERMINATIONS,

FOR d.c. AND LOW FREQUENCY APPLICATIONS

1. This Section of DEF STAN 59 - 35 (PART 1) specifies the requirements for plugs and sockets, electrical, Pattern 126, rectangular non-sealed with soldered terminations, for d.c. and low frequency applications, primarily intended for inter-chassis connection applications for Ministry of Defence use.
2. This Section is to be used in conjunction with DEF STAN 59 - 35 (PART 1), 'Plugs and Sockets, electrical (d.c. and low frequency applications)', which is the generic specification.
3. The specification contained in this Section of the Standard has been prepared because there is no suitable national or commercial specification available.
4. There is no Table I standard range in this Section of the Standard. Items for use in new designs of equipment may be selected from DEF STAN 59 - 35 (PART 1) or DEF STAN 59 - 35 (PART 3) which define MOD preferred connectors in the BS 9520 series of British Standards.
5. PLUGS AND SOCKETS REFERRED TO IN THIS SECTION OF THE STANDARD ARE TO BE USED FOR MAINTENANCE PURPOSES ONLY. TABLE II GIVES DETAILS OF THESE ITEMS. THEY WILL BE RETAINED AS LONG AS APPROVALS ARE LISTED IN DEF STAN 59 - 59; 'SERVICES QUALIFIED PRODUCTS LIST OF ELECTRONIC COMPONENTS'.
6. Tables II(C) and II(D) list those items which are to be provisioned only until such times as the Qualification Approved items are available. Reference should be made to the appropriate NOTE on Pages 34, 35, 36 and 37.
7. The imperial units used in this Section of the Standard reflect current trade practice for these items.
8. This Section together with DEF STAN 59 - 35 (PART 1) contains all necessary technical information and it is the definitive specification for these items. It must be invoked for all tender and contract purposes.
9. This Section of DEF STAN 59 - 35 (PART 1) has been agreed by all authorities concerned who are to implement it from its date of issue.
10. If this Section of DEF STAN 59 - 35 (PART 1) should be found unsuitable for a particular requirement, the Director of Standardization shall be informed of the circumstances. Any enquiries regarding this Section in relation to an invitation to tender or a contract in which it is invoked should be addressed to the Quality Assurance Authority named in that invitation to tender or contract.

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PLUGS AND SOCKETS, ELECTRICAL
PATTERN 126
RECTANGULAR, NON-SEALED WITH SOLDERED TERMINATIONS
FOR d.c. AND LOW FREQUENCY APPLICATIONS

1. SCOPE

- a. This Section of the Standard relates to plugs and sockets, electrical Pattern 126, rectangular, non-sealed with soldered terminations, for d.c. and low frequency applications.
- b. This Section of the Standard gives details of dimensions, ratings, and test values peculiar to the range of items defined herein. It is to be used in conjunction with DEF STAN 59-35 (PART 1), all the requirements of which are applicable unless otherwise stated herein.

2. RELATED SPECIFICATIONS AND DOCUMENTS

These are listed in DEF STAN 59-35 (PART 1).

3. TECHNICAL INFORMATION

a. Electrical ratings.

Current: Maximum current per contact	15 Ampere
Voltage (sea level): Working voltage d.c. or a.c. peak	450 Volts
Proof voltage d.c. or a.c. peak	2000 Volts

b. Environmental rating. (DEF 5011)

Temperature severity	-25° to + 85°C
Humidity class	H5
Shock severity	Not applicable
Air density (low)	Not applicable
Vibration	V1
Acceleration	Not applicable

4. INFORMATION TO BE SUPPLIED BY PURCHASER

- a. When ordering components to this Section of the Standard it is essential to quote the relevant NATO Stock Number, style reference and this Section and number of the Standard.
- b. The NATO Stock Numbers in Table II(A) and Table II(B) of this Section of the Standard have been issued in advance of the certificate of Qualification Approval. The numbers shall not be used until the relevant certificates have been issued. The issue of a Qualification Approval certificate is indicated by the inclusion of the item in DEF STAN 59-59, 'Services qualified products list of electronic components'.

5. ILLUSTRATIONS AND DRAWINGS

- a. The essential purpose of the illustrations and drawings which form part of this Section of the Standard is to ensure mechanical interchangeability. Where official drawings are quoted they are mandatory. Copies of such drawings are obtainable from: Procurement Executive, Ministry of Defence, EQD, Section T4(d), 'Aquila', Golf Road, Bromley, Kent, BR1 2JB.

5. b. HM Government drawings referred to are now associated with this Section of the Standard and therefore they must not be altered or amended in any way which will affect function, material, or interchangeability unless this Section of the Standard itself is amended. Holders of master drawings must endorse them accordingly.

6. STYLE REFERENCES

The style references used in this Section of the Standard are abbreviations to identify individual plugs and sockets. A typical reference is:

<u>FUNCTION</u>		<u>PATTERN</u>		<u>NO OF CONTACTS</u>		<u>VARIANT LETTER</u>
P	-	26	-	12	-	A

where the function is denoted by P - plug, S - socket; Pattern 126 by 26; number of contacts by 2, 4, 6, 8, 10, and 12; variant letters A, B, C, D, E, and F denoting type of connector.

<u>VARIANT LETTERS</u>	<u>TYPE OF CONNECTOR</u>
A	Angle bracket
B	Flush fitting
C	Cable clamp, end
D	Cable clamp, top
E	Less angle bracket
F	Less can

7. QUALIFICATION APPROVAL

a. Provision of samples.

The manufacturer shall submit specimens of the range for which approval is desired in accordance with Schedule 1, or a minimum quantity of specimens, if approval for only one style is desired, in accordance with Schedule 1.

b. Grouping of specimens.

The specimens shall be grouped as indicated in Schedule 1.

c. Test incidence.

Initial measurements referred to in Table 4 of DEF-5011 and in this Section of the Standard as Group 0, shall be carried out immediately prior to the commencement of tests on subsequent groups and the results shall be recorded. Each test shall be applied in the order listed in Schedule 6 and where measurements are required the results shall be recorded. Where tests are not applicable this is indicated in Schedule 6.

SCHEDULE 1

COLUMN NUMBER		1	2
STYLE REFERENCE		See Notes	
		P-26-12-C or D	P-26-4, 6, 8, or 10-
		S-26-12-C or D	S-26-4, 6, 8, or 10-
		P-26-2-A, B, E, or F	
		S-26-2-A, B, E, or F	
TOTAL NUMBER OF MATING PAIRS		12	2
GROUP	TEST NUMBER	DISTRIBUTION OF SPECIMENS (MATING PAIRS)	
0	15.1 to 15.11 (incl) except 15.1 (iii), and 15.36 See Note 2.	All	All
	15.3(iii), 15.6, 15.8, 15.10, and 15.36	Not applicable	
1	15.12 to 15.20 (incl)	3	1
	15.13, 15.15, 15.16, 15.17, 15.17, 15.19, and 15.20	Not applicable	
2	15.21	3	-
3	15.22 to 15.24 (incl)	3	1
	15.23 and 15.24	Not applicable	
4	15.25	1	-
5	15.26	Not applicable	
6	15.27	1	-
	15.28	Not applicable	
7	15.29 to 15.33 (incl)	1	-
	15.31to 15.33 (incl)	Not applicable	
8	15.31 to 15.35 (incl)	Not applicable	

Notes:

- Where Qualification Approval is desired for one style, the submission shall consist of 12 mating pairs of that style. Distribution of specimens shall be in accordance with column 1.

DEF STAN 59 - 35 (PART 1)
SECTION 10/1

Notes:

2. Where Qualification Approval is desired for a range of two (or more) styles, the submission shall comprise of 12 mating pairs of each of the largest and smallest styles, (together with two mating pairs of each other size, within the range) for which approval is desired. Where approval is sought for a range of styles that include variant C or D, the variants submitted shall be in accordance with column 1.
3. The styles listed in columns 1 and 2 should be submitted when approval for the complete range of styles is desired.

8. BATCH ACCEPTANCE TEST PROCEDURE

Components submitted for acceptance shall be tested in accordance with DEF-5001-C, Section 3, and shall be subjected to the following tests:

- a. 100 per cent acceptance tests.

SCHEDULE 2

TEST NO DEF STAN 59-35 (PART 1)	TITLE OF TEST
15.1(i)	Visual examination

- b. Sampling tests.

- (1) Tests bracketed together within a group are considered as a sequence and must be performed as such, using the same sample throughout.
- (2) Information on the re-submission of rejected batches is given in DEF-131-A.

Group 'A' tests.

SCHEDULE 3

TEST NO DEF STAN 59-35 (PART 1)	TITLE OF TEST	AQL	INSPECTION LEVEL	TEST CATEGORY
15.2 15.4	Compatibility (gauging) or Compatibility assurance test (see Note below) Engagement and disengagement force	1%	II	Non- destructive

Note:

Where compatibility gauges (Test 15.2) are not available, a compatibility assurance test shall be applied. For the compatibility assurance test, the manufacturer shall demonstrate to the Quality Assurance Authority that his system of piece part checking and assembly methods, together with final mechanical measurements, will ensure that the finished component will meet the compatibility requirements. The quantities implied by the above inspection levels and AQL will be agreed with the Quality Assurance Authority in relation to each particular manufacturer's system.

Group 'B' tests.

SCHEDULE 4

TEST NO DEF STAN 59-35 (PART 1)	TITLE OF TEST	AQL	INSPECTION LEVEL	TEST CATEGORY
15.12 15.7 15.11 15.5	Soldering Contact resistance Voltage proof (Method B) Contact holding force	4%	S3	Destructive

c. Disposal of samples. See DEF-5001-C, Section 3.

9. SYSTEMATIC QUALITY ASSURANCE TESTS

Tests bracketed together within a group are considered as a sequence and must be performed as such using the same sample throughout.

a. Group 'C' tests. Not applicable.

b. Group 'D' tests.

SCHEDULE 5

- (1) The sample size and performance requirements for Group 'D' tests shall be in accordance with the Qualification Approval requirements for the tests specified in clause 7.
- (2) Components for Group 'D' tests shall be selected from batches which have successfully passed the acceptance tests and the batch size from which this selection is made shall be at least three-times the required sample quantity.

10. TEST REQUIREMENTS

The general test requirements are fully defined in DEF STAN 59-35 (PART 1). The following Schedule 6 contains additional information on test conditions and requirements for the range of items defined herein.

SCHEDULE 6

TEST NO DEF STAN 59-35 (PART 1)	TITLE	DESCRIPTION	REQUIREMENTS		
15.1	General examination	As specified	As specified		
(i)	Visual examination	As specified	As specified		
(ii)	Dimensions (out-line)	As specified	As specified		
(iii)	Dimensions (detail) and materials	As specified	As specified		
(iv)	Mass	As specified	As shown in Table II(A) and Table II(B)		
15.2	COMPATIBILITY ASSURANCE	As specified	As specified		
15.3	POLARIZATION	As specified	As specified		
(i)	Polarizing device	As specified	As specified		
(ii)	Mis-mating	As specified By hand	As specified		
(iii)	Orientation	NOT APPLICABLE			
15.4	ENGAGEMENT AND DISENGAGEMENT FORCE	One half of the mating pair to be resiliently mounted As specified	No of Contacts	Engagement Force (Max) N approx;(lbf)	Disengagement Force (Max) N approx;(lbf)
			2	22.25 (5.0)	13.35 (3.0)
			4	40.05 (9.0)	24.9 (5.6)
			6	53.4 (12.0)	34.7 (7.8)
			8	62.2 (14.0)	42.7 (9.6)
			10	66.75(15.0)	48.9 (11.0)
			12	66.75(15.0)	53.4 (12.0)
15.5	CONTACT HOLDING FORCE	As specified For GAUGE details see Annex C	Contacts shall retain 5 oz gauge and release 12 oz gauge		
15.6	SEALING	NOT APPLICABLE			
15.7	CONTACT RESISTANCE	As specified, Method B	Maximum - 3 milliohms		
15.8	SHELL CONTINUITY	NOT APPLICABLE			

SCHEDULE 6 (CONTINUED)

TEST NO DEF STAN 59-35 (PART 1)	TITLE	DESCRIPTION	REQUIREMENTS
15.9	INSULATION RESISTANCE	As specified, Method B.	Minimum - 100 Megohms
15.10	IONIZATION	NOT APPLICABLE	
15.11	VOLTAGE PROOF	As specified, Method B. For proof voltages see clause 3.	As specified
15.12	SOLDERING	Soldering-iron method. Bit size 4.75 mm (0.187 in)	Satisfactory tinning. No loosening of parts or other damage such as would impair performance
15.13	BUMPING	NOT APPLICABLE	
15.14	VIBRATION	As specified except that monitoring is not required. Under 'Atmos- pheric conditions for measurement' Severity V1 As in 15.7	Maximum - 3 milliohms
(i)	Contact resistance		
(ii)	Sealing	NOT APPLICABLE	
15.15	SHOCK	NOT APPLICABLE	
15.16	ACCELERATION	NOT APPLICABLE	
15.17	TEMPERATURE, RAPID CHANGE	NOT APPLICABLE	

SCHEDULE 6 (CONTINUED)

TEST NO DEF STAN 59-35 (PART 1)	TITLE	DESCRIPTION	REQUIREMENTS
15.18	CLIMATIC	As specified. Humidity class H5 Temperature severity -25° to +85°C	
15.18.1	Intermediate measurements	As specified	
(i)	Visual examination	As specified	As specified
15.18.2	Temperature, dry heat	As specified	As specified
(i)	Sealing (hot)	NOT APPLICABLE	
15.18.3	Damp heat, accelerated	As specified	
15.18.4	Temperature, dry cold	As specified	
(i)	Disengagement and engagement (cold)	As specified (Measurement of force is not required)	By hand
(ii)	Sealing (cold)	NOT APPLICABLE	
15.18.5	Air density, low	NOT APPLICABLE	
15.18.6(a)	Damp heat, accelerated, with assisted recovery (Class H3 only)	NOT APPLICABLE	
15.18.6(b)	Damp heat, accelerated with 24 hour recovery (Class H5 only)	As specified	
(i)	Working voltage application	As specified, for working voltages, see clause 3.	As specified

SCHEDULE 6 (CONTINUED)

TEST NO DEF STAN 59-35 (PART 1)	TITLE	DESCRIPTION	REQUIREMENTS
15.18.6(c)	Damp heat, accelerated (Class H6 only)	NOT APPLICABLE	
15.18.6(d)	Damp heat, accelerated with temperature, dry cold. (Class H7 only)	NOT APPLICABLE	
15.18.7	Final measurements	As specified	
(i)	Contact resistance	As in 15.7	Maximum - 8 milliohms
(ii)	Shell continuity	NOT APPLICABLE	
(iii)	Insulation resistance	As in 15.9 Method B, within 30 minutes after completion of recovery	Minimum - 10 Megohms
(iv)	Visual examination	As specified	As specified
(v)	Disengagement and engagement	As specified	By hand
(vi)	Sealing	NOT APPLICABLE	
(vii)	Insulation resistance (Class H5 only)	As in 15.9 Method B	Minimum - 100 Megohms
(viii)	Voltage proof	As specified, Method B. For proof voltages see clause 3.	As specified
15.19	FIRE RISK	NOT APPLICABLE	
15.20	FIREPROOFNESS	NOT APPLICABLE	

SCHEDULE 6 (CONTINUED)

TEST NO DEF STAN 59-35 (PART 1)	TITLE	DESCRIPTION	REQUIREMENTS
15.21	DAMP HEAT, (long term)	As specified Severity (H5)	As specified
(i)	Working voltage application (omitted for Class H3)	As specified. For working voltages see clause 3.	As specified
15.21.1(a)	Assisted recovery (Class H3 only)	NOT APPLICABLE	
15.21.1(b)	Recovery (Class H5 only)	As specified	
15.21.1(c)	Recovery (Classes H6 and H7 only)	NOT APPLICABLE	
15.21.2	Final measurements	As specified	
(i)	Contact resistance	As in 15.7	Maximum - 8 milliohms
(ii)	Shell continuity	NOT APPLICABLE	
(iii)	Insulation resistance	As in 15.9 Method A	Minimum - 10 Megohms
(iv)	Visual examination	As specified	As specified
(v)	Disengagement and engagement	As specified	By hand
(vi)	Sealing	NOT APPLICABLE	
(vii)	Insulation resistance (Class H5 only)	As in 15.9 Method A	Minimum - 100 Megohms
(viii)	Voltage proof	As specified, Method A. For proof voltages see clause 3.	As specified

SCHEDULE 6 (CONTINUED)

TEST NO DEF STAN 59-35 (PART 1)	TITLE	DESCRIPTION	REQUIREMENTS
15.22	ENDURANCE, MECHANICAL	As specified. Speed 2 operations per minute (maximum) 500 operations under Atmospheric conditions for measurement.	
(i)	Visual examination		As specified
(ii)	Engagement and disengagement force		By hand
(iii)	Contact holding force	NOT APPLICABLE	
15.23	ENDURANCE, HIGH TEMPERATURE (long and short term)	NOT APPLICABLE	
15.24	PLATING PROVING	NOT APPLICABLE	
15.25	CABLE CLAMP (Applicable to items fitted with cable clamp).	As specified using suitable cable	
(i)	Robustness	NOT APPLICABLE	
(ii)	Resistance to cable rotation	NOT APPLICABLE	
(iii)	Resistance to cable pull. (tensile)	As specified. Force 45N Maximum displacement 1.58 mm (1/16 in).	As specified
(iv)	Resistance to cable bending	NOT APPLICABLE	
(v)	Resistance to cable torsion	NOT APPLICABLE	

SCHEDULE 6 (CONTINUED)

TEST NO DEF STAN 59-35 (PART 1)	TITLE	DESCRIPTION	REQUIREMENTS
15.26	MOULD GROWTH	NOT APPLICABLE	
15.27	SALT MIST	As specified	
(i)	Contact resistance	NOT APPLICABLE	
(ii)	Shell continuity	NOT APPLICABLE	
(iii)	Engagement and disengagement force	NOT APPLICABLE	
(iv)	Insulation resistance	NOT APPLICABLE	
(v)	Working voltage application	NOT APPLICABLE	
		The specimens shall be 'Cleaned after exposure' and subjected to the following tests:	
(vi)	Visual examination	As specified	As specified
(vii)	Disengagement and engagement	As specified	By hand
(viii)	Insulation resistance	As in 15.9, Method A	Minimum - 10 Megohms
(ix)	Contact resistance	As in 15.7	Maximum - 8 milliohms
(x)	Shell continuity	NOT APPLICABLE	
(xi)	Voltage proof	As in 15.11 Method B, for voltages see clause 3.	As specified
15.28	DUST	NOT APPLICABLE	
15.29	ROBUSTNESS OF TERMINATIONS	NOT APPLICABLE	

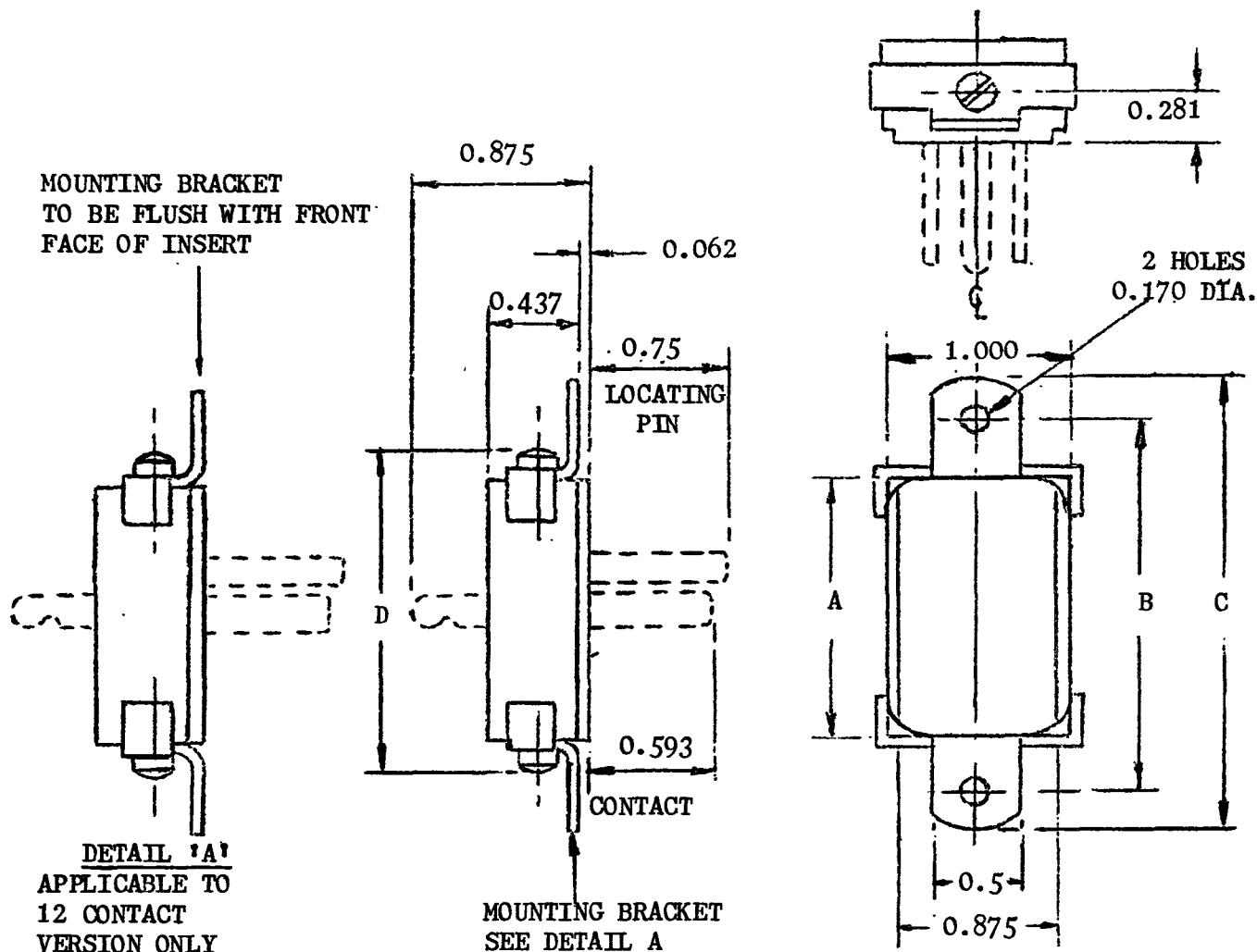
SCHEDULE 6 (CONTINUED)

TEST NO DEF STAN 59-35 (PART 1)	TITLE	DESCRIPTION	REQUIREMENTS
15.30	CONTACT RETENTION (in insert)	As specified. Test 50% of the contacts Applied force 44.5N (10 lbf) Rate of application 4.45N (1 lbf)/sec	As specified
15.31	INSERT RETENTION	NOT APPLICABLE	
15.32	TEST PROD DAMAGE	NOT APPLICABLE	
15.33	IMPUT AND LOADING	NOT APPLICABLE	
15.34	IMMERSION	NOT APPLICABLE	
15.35	SOLVENT RESISTANCE	NOT APPLICABLE	
15.36	CONTACT STRENGTH	NOT APPLICABLE	

OUTLINE DRAWING

VARIANT A

PLUG, ELECTRICAL, WITH ANGLE BRACKET



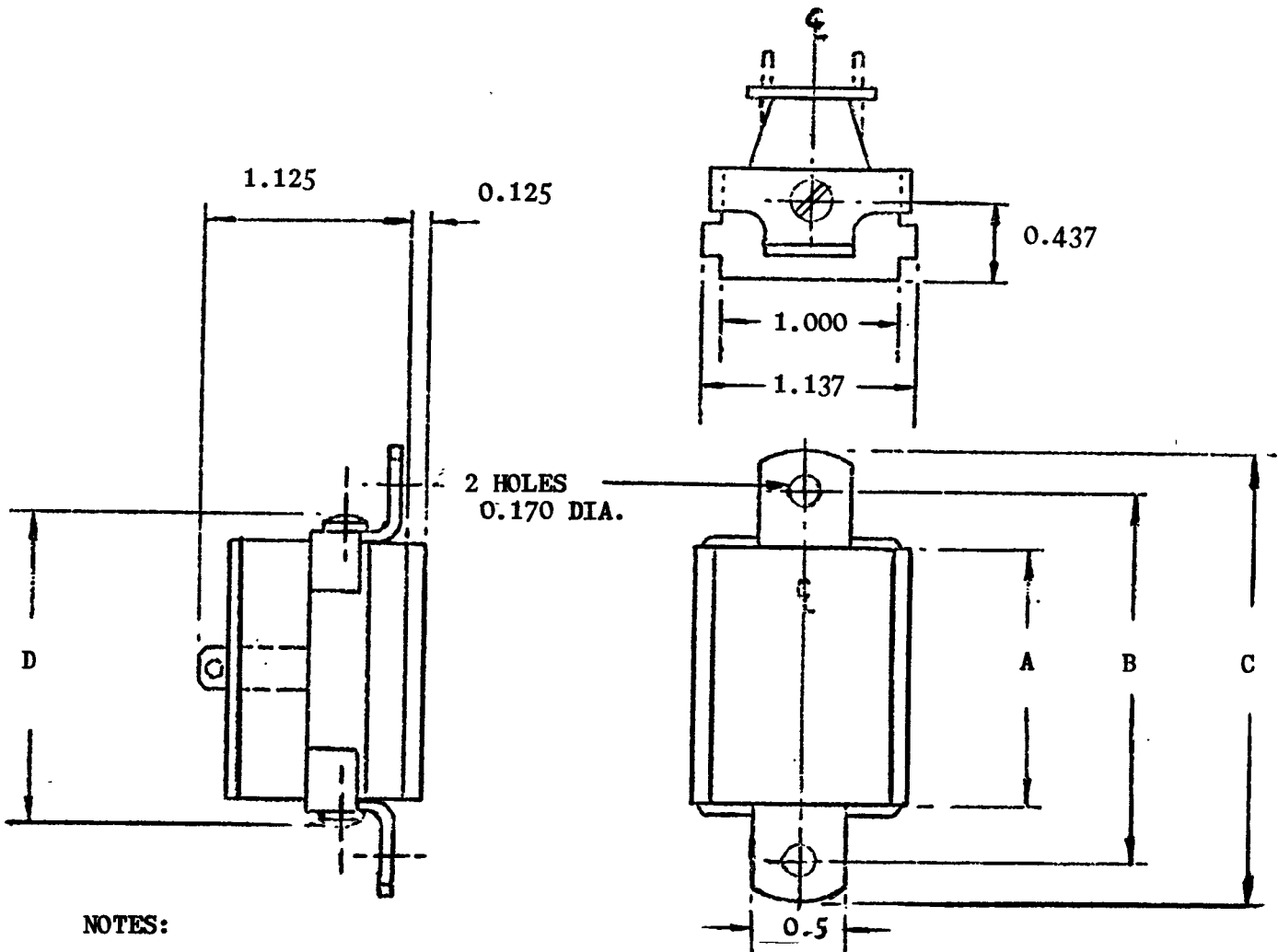
NOTES:

- 1: For Contact Arrangement See Annex A Page 27
- 2: For Panel Piercing Details See Annex B Page 28
- 3: Dimensions in inches

ITEM NO	STYLE REFERENCE	NO OF CONTACTS	DIMENSIONS			
			A MAX	B ± 0.015	C ± 0.015	D ± 0.015
	(a)	(b)	(c)	(d)	(e)	(f)
1	P-26- 2A	2	0.567	1.187	1.625	0.812
2	- 4A	4	1.005	1.625	2.062	1.250
3	- 6A	6	1.442	2.062	2.500	1.687
4	- 8A	8	1.882	2.500	2.937	2.125
5	-10A	10	2.317	2.937	3.375	2.562
6	-12A	12	2.755	3.375	3.812	3.000

OUTLINE DRAWING

VARIANT A SOCKET, ELECTRICAL, WITH ANGLE BRACKET



NOTES:

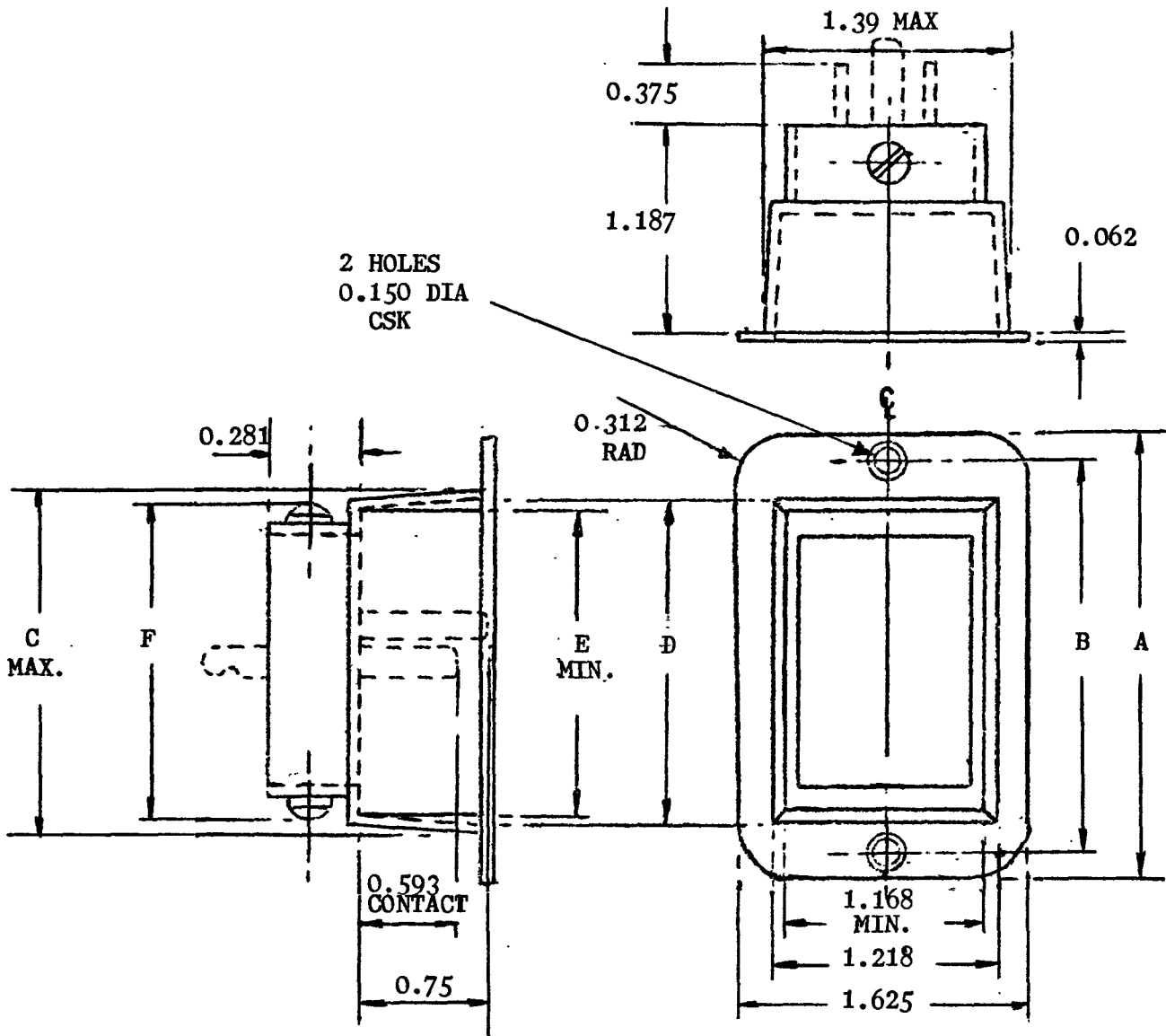
1. For Contact Arrangement See Annex A Page 27
2. For Panel Piercing Details See Annex B Page 28
3. Dimensions in inches

ITEM NO	STYLE REFERENCE	NO OF CONTACTS	DIMENSIONS			
			A MAX	B ± 0.015	C ± 0.015	D ± 0.015
	(a)	(b)	(c)	(d)	(e)	(f)
1	S-26- 2A	2	0.562	1.187	1.625	0.812
2	- 4A	4	1.000	1.625	2.062	1.250
3	- 6A	6	1.437	2.062	2.500	1.687
4	- 8A	8	1.875	2.500	2.937	2.125
5	-10A	10	2.312	2.937	3.375	2.562
6	-12A	12	2.750	3.375	3.812	3.000

OUTLINE DRAWING

VARIANT B

PLUG, ELECTRICAL, WITH FLUSH PANEL MOUNTING



NOTES:

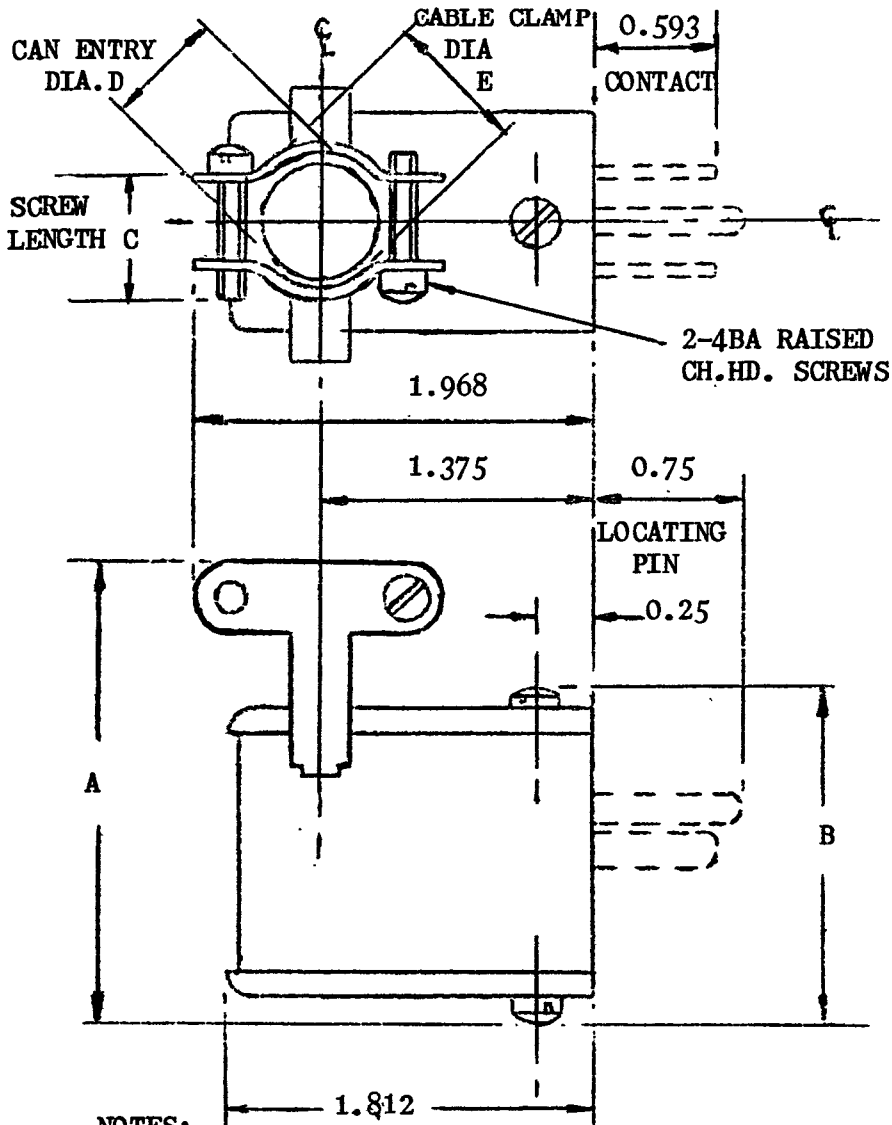
1. For Contact Arrangement See Annex A Page 27
2. For Panel Piercing Details See Annex B Page 28
3. Dimensions in inches

ITEM NO	STYLE REFERENCE	NO OF CONTACTS	DIMENSIONS					
			A	B	C	D	E	F
			± 0.015	± 0.005	MAX	± 0.015	MIN	± 0.015
	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)
1	P-26-2B	2	1.687	1.375	1.075	0.906	0.860	0.812
2	-4B	4	2.125	1.812	1.515	1.343	1.300	1.250
3	-6B	6	2.562	2.250	1.940	1.875	1.755	1.687
4	-8B	8	3.000	2.687	2.378	2.218	2.160	2.125
5	-10B	10	3.437	3.125	2.830	2.656	2.600	2.562
6	-12B	12	3.875	3.562	3.263	3.093	3.050	3.000

OUTLINE DRAWING

VARIANT C

PLUG, ELECTRICAL, WITH CABLE CLAMP END



NOTES:

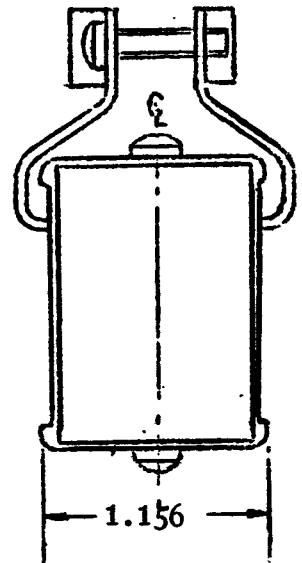
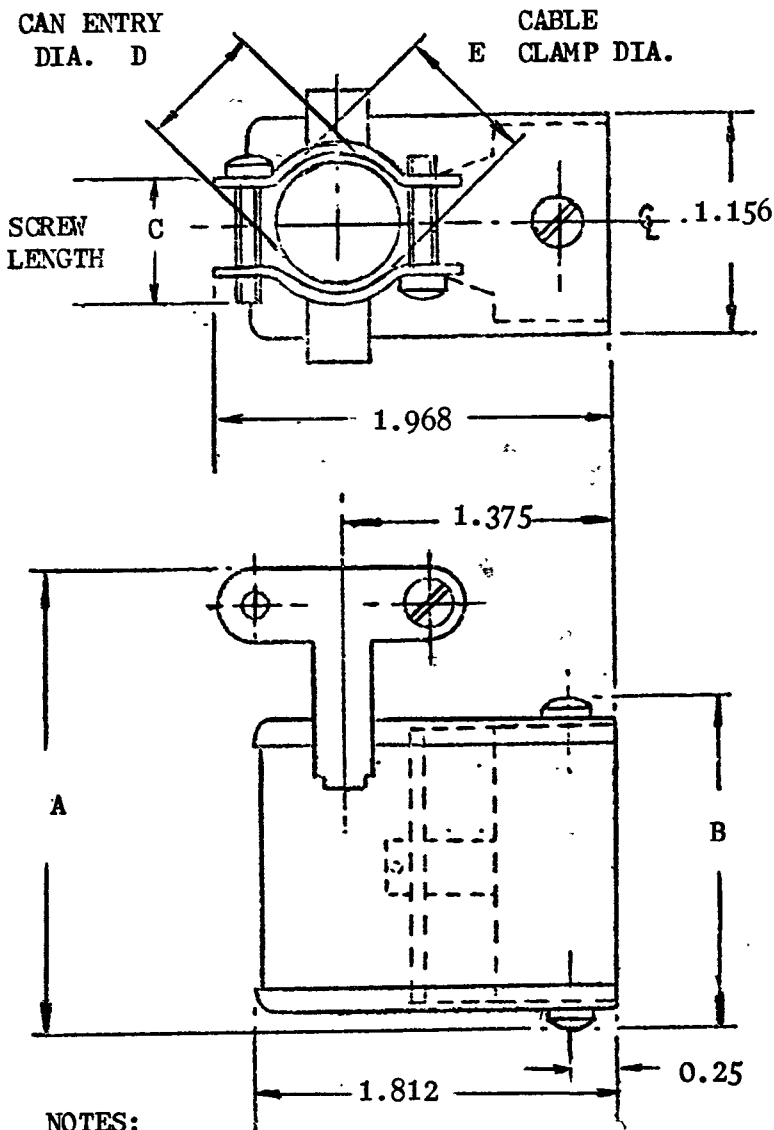
1. For Contact Arrangement See Annex A Page 27
2. Dimensions in inches

ITEM NO	STYLE REFERENCE	NO OF CONTACTS	DIMENSIONS				
			A	B	C	D (DIA)	E (DIA)
			± 0.015	± 0.015	± 0.015	± 0.015	± 0.015
	(a)	(b)	(c)	(d)	(e)	(f)	(g)
1	P-26-2C	2	1.375	0.796	0.500	0.375	0.375
2	- 4C	4	1.859	1.281	0.500	0.375	0.375
3	- 6C	6	2.250	1.671	0.500	0.437	0.375
4	- 8C	8	2.671	2.093	0.500	0.437	0.375
5	-10C	10	3.125	2.546	0.500	0.562	0.500
6	-12C	12	3.546	2.968	0.500	0.562	0.500

OUTLINE DRAWING

VARIANT C

SOCKET, ELECTRICAL, WITH CABLE CLAMP END



NOTES:

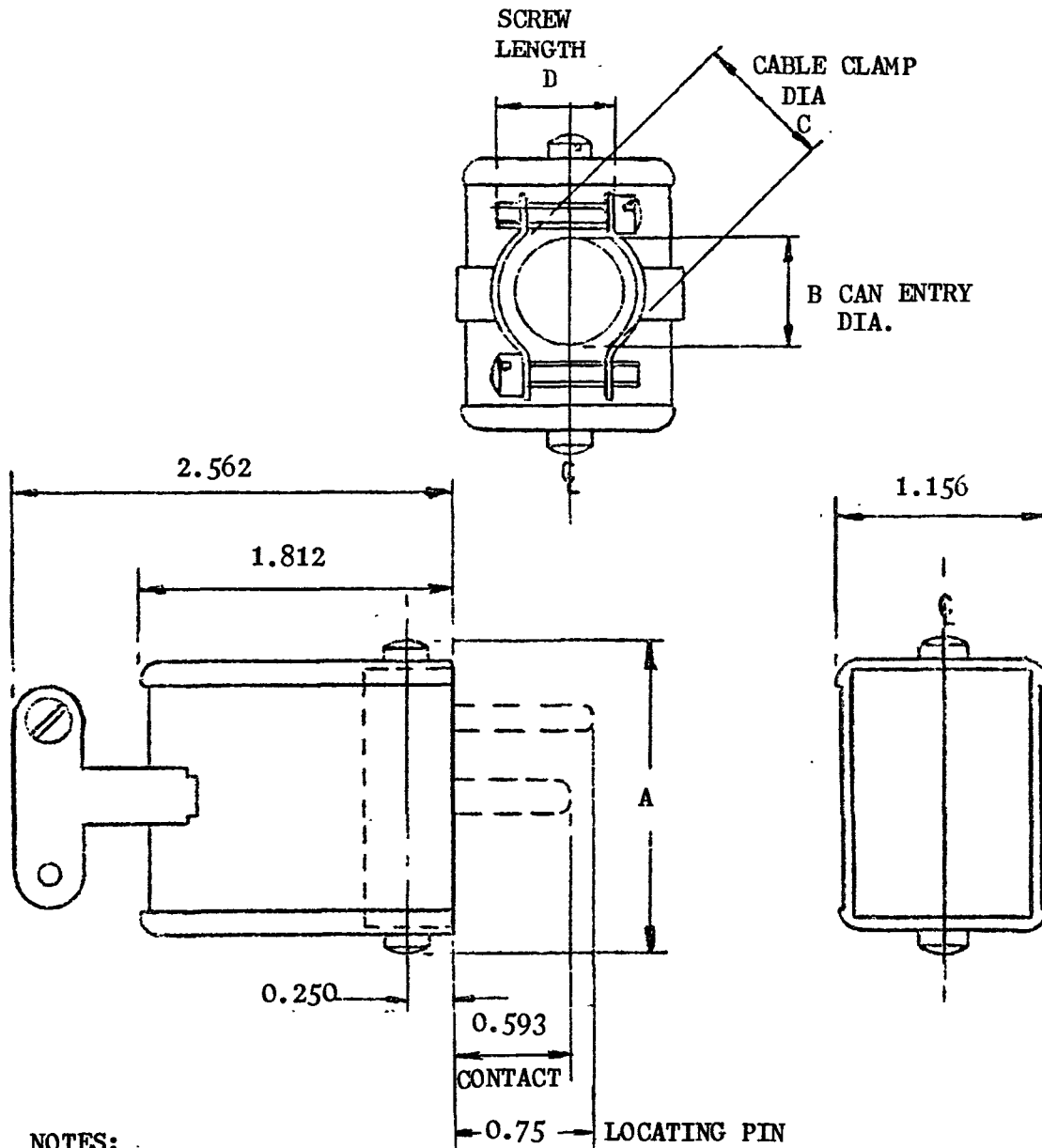
1. For Contact Arrangement See Annex A, Page 27
2. Dimensions in inches

ITEM NO	STYLE REFERENCE	NO OF CONTACTS	DIMENSIONS				
			A	B	C	D (DIA)	E (DIA)
			± 0.015	± 0.015	± 0.015	± 0.015	± 0.015
	(a)	(b)	(c)	(d)	(e)	(f)	(g)
1	S-26- 2C	2	1.375	0.796	0.500	0.375	0.375
2	- 4C	4	1.859	1.281	0.500	0.375	0.375
3	- 6C	6	2.250	1.671	0.500	0.437	0.375
4	- 8C	8	2.671	2.093	0.500	0.437	0.375
5	-10C	10	3.125	2.546	0.500	0.562	0.500
6	-12C	12	3.546	2.968	0.500	0.562	0.500

OUTLINE DRAWING

VARIANT D

PLUG, ELECTRICAL, WITH CABLE CLAMP TOP



NOTES:

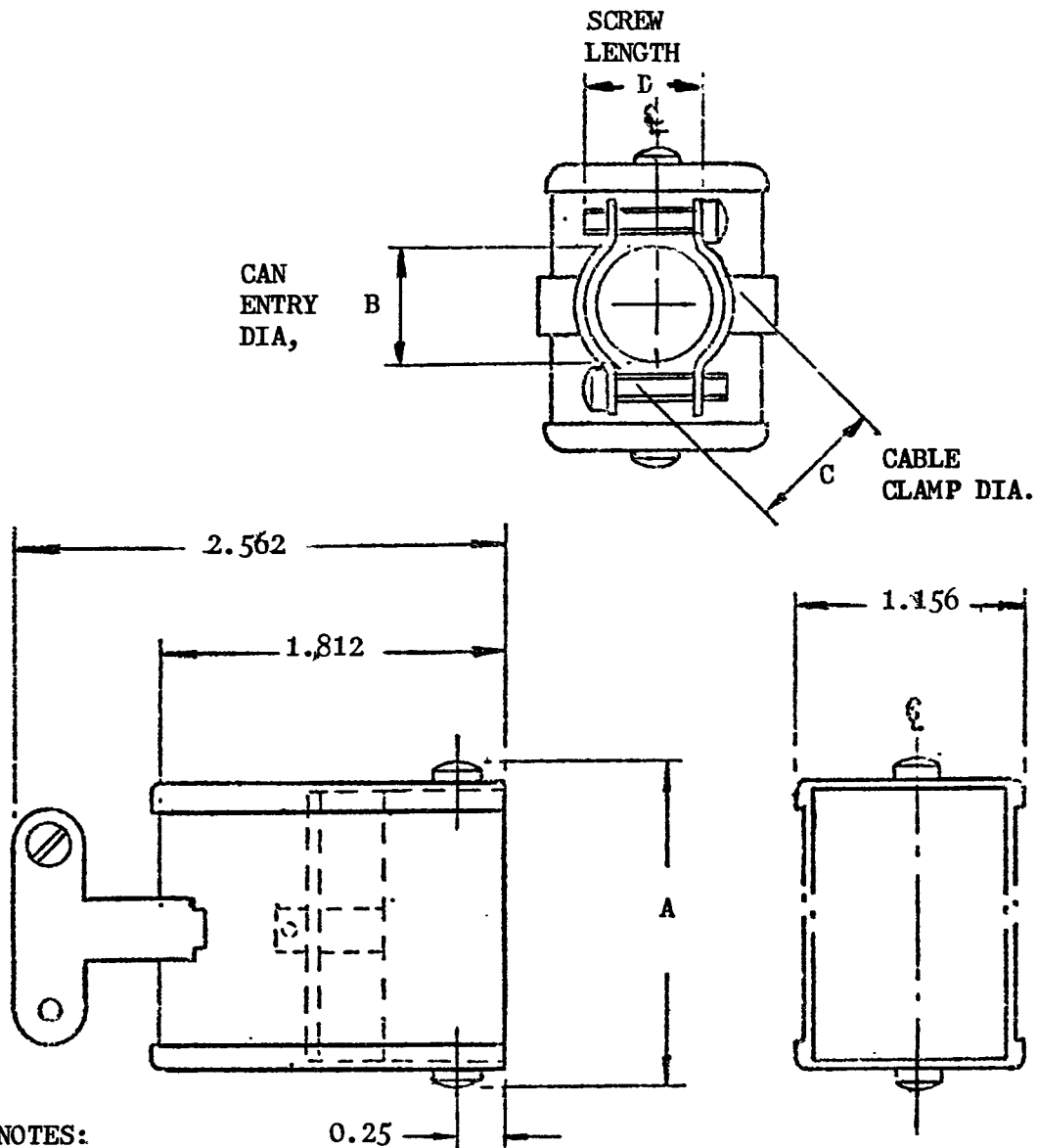
- 1: For Contact Arrangement See Annex A, Page 27
- 2: Dimensions in inches

ITEM NO	STYLE REFERENCE	DIMENSIONS				
		NO OF CONTACTS	A	B (DIA)	C (DIA)	D
			± 0.015	± 0.015	± 0.015	± 0.015
	(a)	(b)	(c)	(d)	(e)	(f)
1	P-26- 2D	2	0.796	0.375	0.375	0.500
2	- 4D	4	1.281	0.375	0.375	0.500
3	- 6D	6	1.671	0.437	0.375	0.500
4	- 8D	8	2.093	0.437	0.375	0.500
5	-10D	10	2.546	0.562	0.500	0.500
6	-12D	12	2.968	0.562	0.500	0.500

OUTLINE DRAWING

VARIANT D

SOCKET, ELECTRICAL, WITH CABLE CLAMP TOP



NOTES:

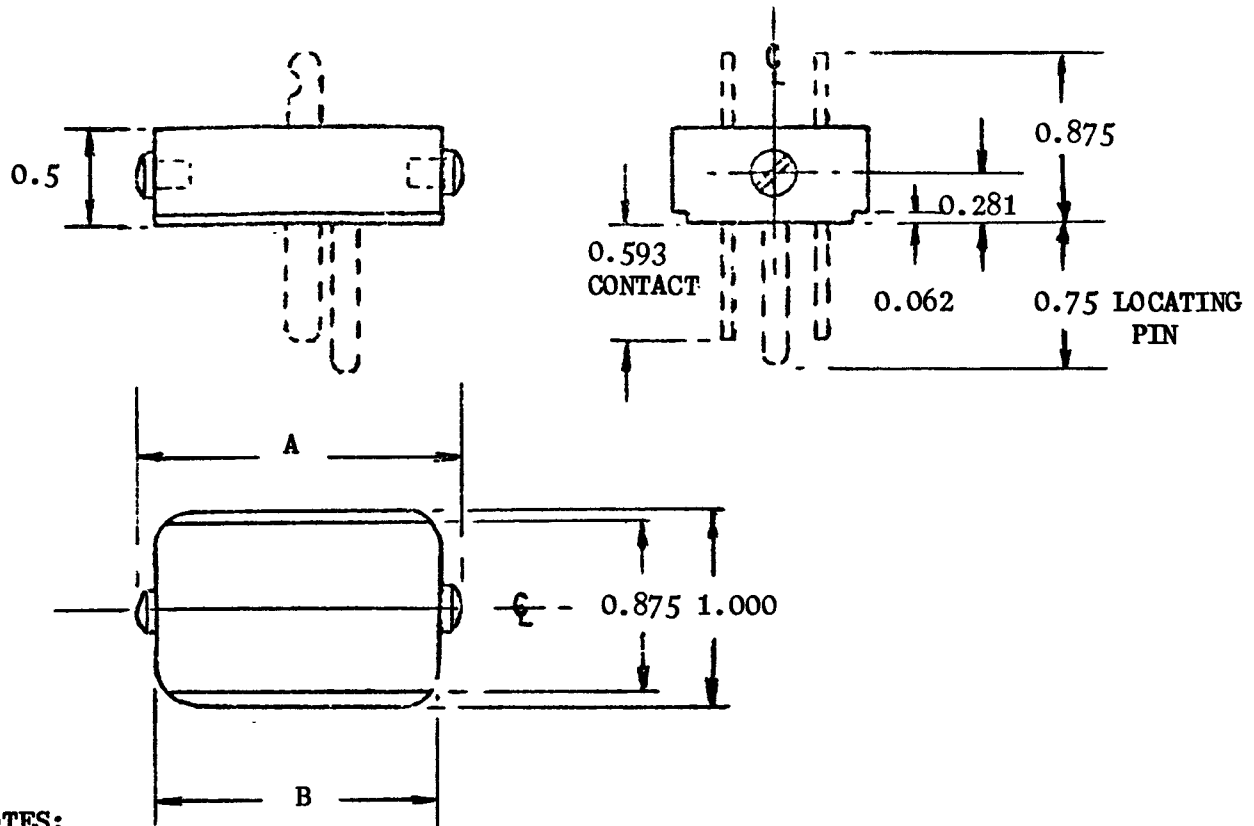
1. For Contact Arrangement See Annex A, Page 27
2. Dimensions in inches

ITEM NO	STYLE REFERENCE	NO OF CONTACTS	DIMENSIONS			
			A	B (DIA)	C (DIA)	D
			± 0.015	± 0.015	± 0.015	± 0.015
	(a)	(b)	(c)	(d)	(e)	(f)
1	S-26- 2D	2	0.796	0.375	0.375	0.500
2	- 4D	4	1.281	0.375	0.375	0.500
3	- 6D	6	1.671	0.437	0.375	0.500
4	- 8D	8	2.093	0.437	0.375	0.500
5	-10D	10	2.546	0.562	0.500	0.500
6	-12D	12	2.968	0.562	0.500	0.500

OUTLINE DRAWING

VARIANT E

PLUG, ELECTRICAL, LESS ANGLE BRACKET



NOTES:

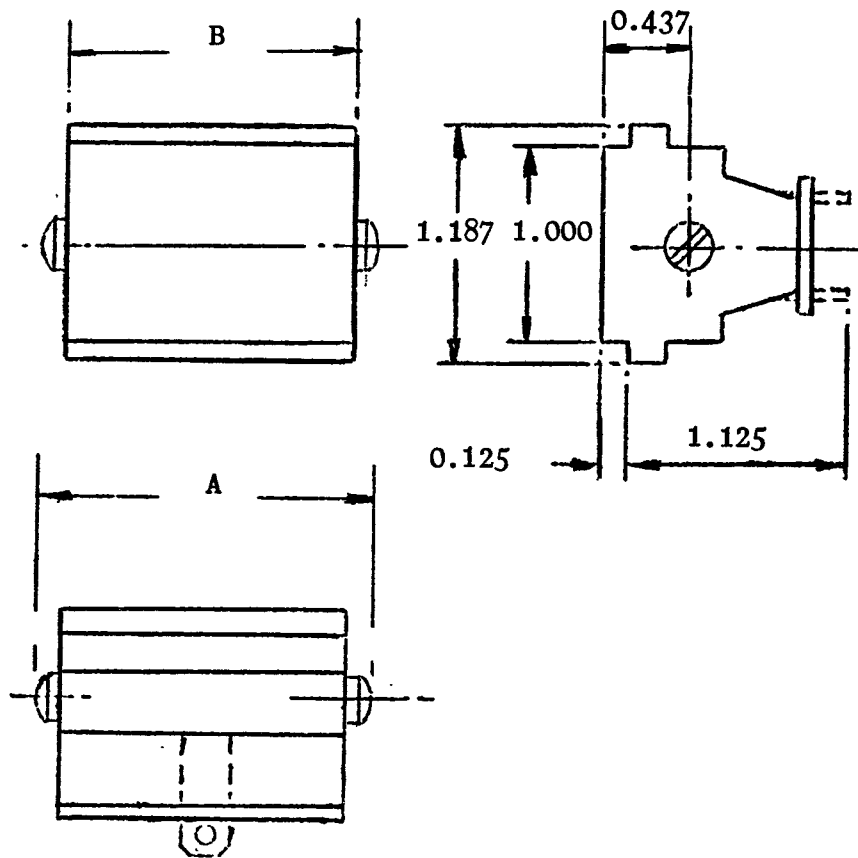
1. For Contact Arrangement See Annex A, Page 27
2. Dimensions in inches

ITEM NO	STYLE REFERENCE	NO OF CONTACTS	DIMENSIONS	
			A (MAX)	B ± 0.005
	(a)	(b)	(c)	(d)
1	P-26- 2E	2	0.796	0.562
2	- 4E	4	1.281	1.000
3	- 6E	6	1.671	1.437
4	- 8E	8	2.093	1.875
5	-10E	10	2.546	2.312
6	-12E	12	2.968	2.750

OUTLINE DRAWING

VARIANT E

SOCKET, ELECTRICAL, LESS ANGLE BRACKET



NOTES:

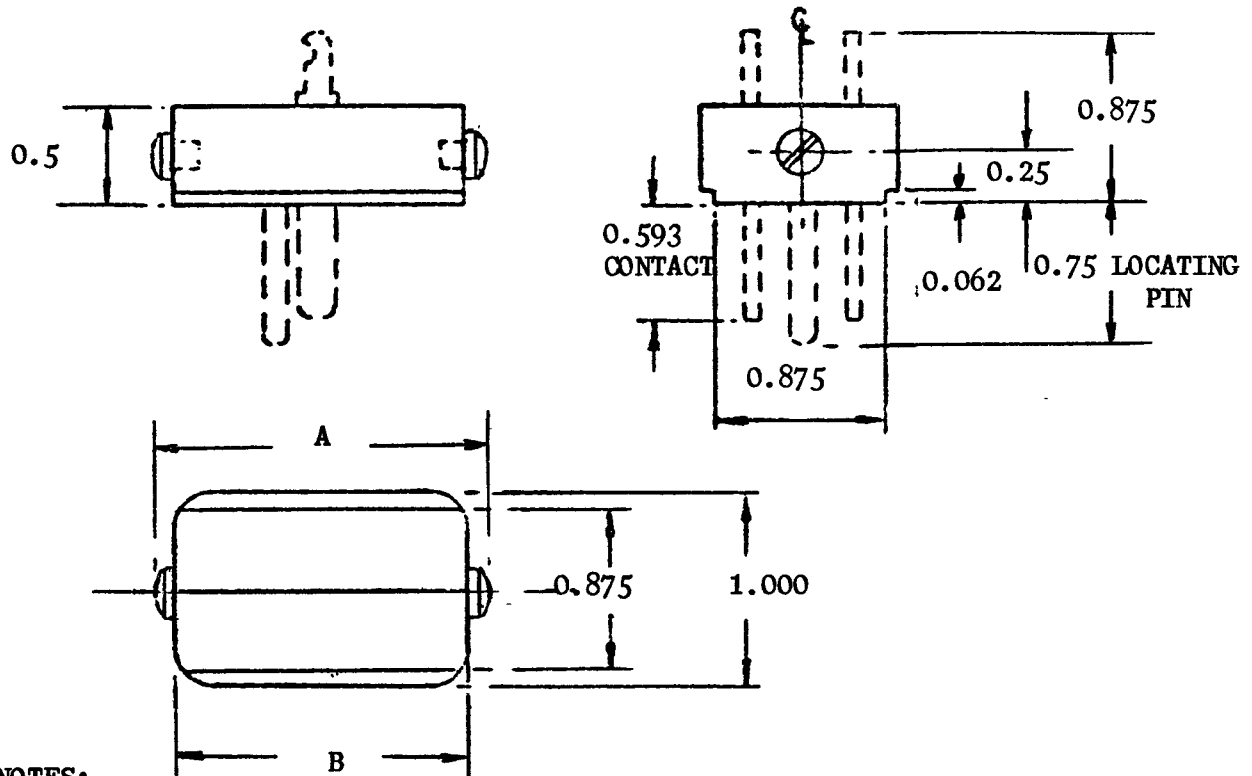
1. For Contact Arrangement See Annex A, Page 27
2. Dimensions in inches

ITEM NO	STYLE REFERENCE	NO OF CONTACTS	DIMENSIONS	
			A (MAX)	B ± 0.005
	(a)	(b)	(c)	(d)
1	S-26- 2E	2	0.796	0.562
2	- 4E	4	1.281	1.000
3	- 6E	6	1.671	1.437
4	- 8E	8	2.093	1.875
5	-10E	10	2.546	2.312
6	-12E	12	2.968	2.750

OUTLINE DRAWING

VARIANT F

PLUG, ELECTRICAL, LESS CAN



NOTES:

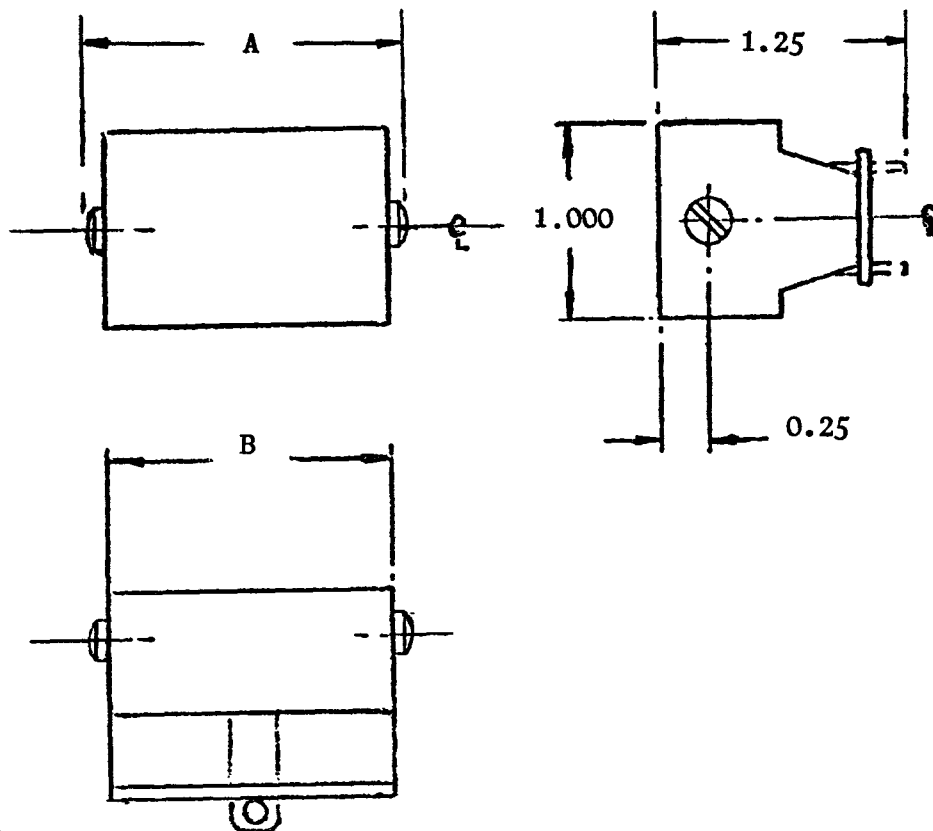
1. For Contact Arrangement See Annex A Page 27
2. Dimensions in inches

ITEM NO	STYLE REFERENCE	NO OF CONTACTS	DIMENSIONS	
			A (MAX)	B ± 0.005
	(a)	(b)	(c)	(d)
1	P-26- 2F	2	0.796	0.562
2	- 4F	4	1.281	1.000
3	- 6F	6	1.671	1.437
4	- 8F	8	2.093	1.875
5	-10F	10	2.546	2.312
6	-12F	12	2.968	2.750

OUTLINE DRAWING

VARIANT F

SOCKET, ELECTRICAL, LESS CAN



NOTES:

1. For Contact Arrangement, See Annex A Page 27
2. Dimensions in inches

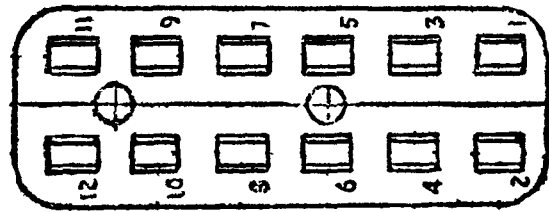
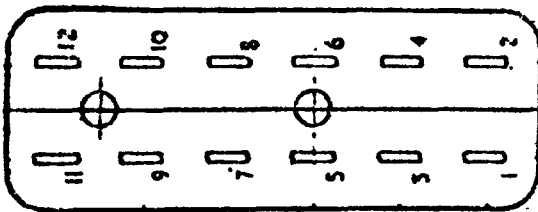
ITEM NO	STYLE REFERENCE	NO OF CONTACTS	DIMENSIONS	
			A (MAX)	B ± 0.005
	(a)	(b)	(c)	(d)
1	S-26- 2F	2	0.796	0.562
2	- 4F	4	1.281	1.000
3	- 6F	6	1.671	1.437
4	- 8F	8	2.093	1.875
5	-10F	10	2.546	2.312
6	-12F	12	2.968	2.750

ANNEX A
CONTACT ARRANGEMENTS
 (Viewed from mating face)

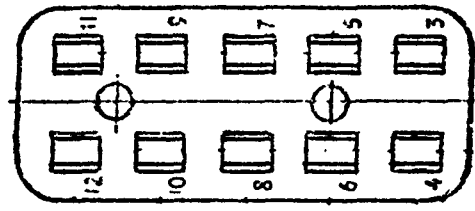
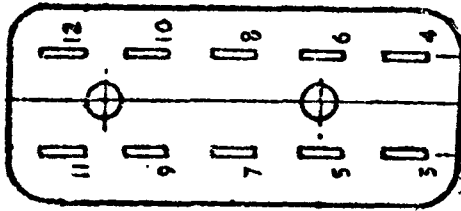
DEF STAN 59 - 35 (PART 1)
SECTION 10/1
ANNEX A

MALE CONTACTS

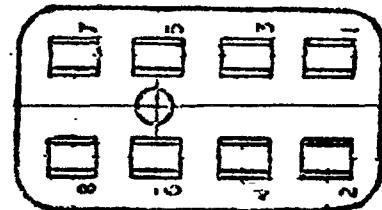
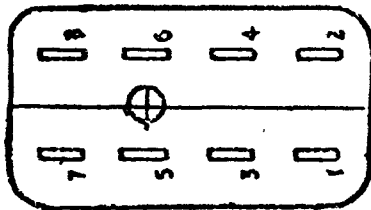
FEMALE CONTACTS



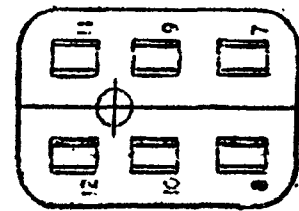
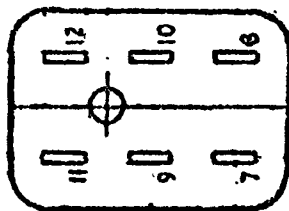
12 CONTACTS



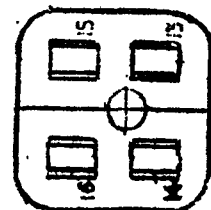
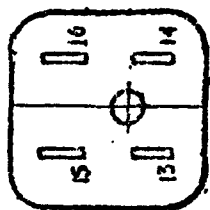
10 CONTACTS



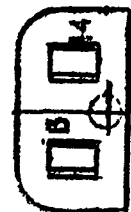
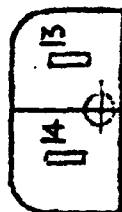
8 CONTACTS



6 CONTACTS



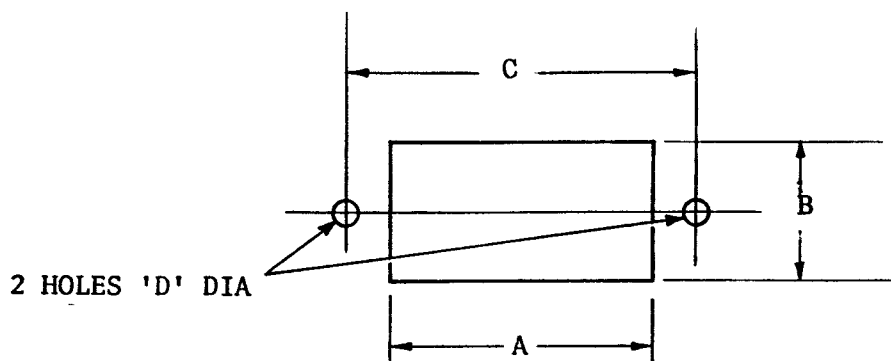
4 CONTACTS



2 CONTACTS

ANNEX B

PANEL PIERCING DETAILS



VARIANT A PLUG						
ITEM NO	STYLE REFERENCE	NO OF CONTACTS	DIMENSIONS (INCHES)			
			A	B	C	D
	(a)	(b)	(c)	(d)	(e)	(f)
1	P-26-2A	2	0.578	0.891	1.187	0.172
2	-4A	4	1.015	0.891	1.625	0.172
3	-6A	6	1.453	0.891	2.062	0.172
4	-8A	8	1.891	0.891	2.500	0.172
5	-10A	10	2.328	0.891	2.937	0.172
6	-12A	12	2.766	0.891	3.375	0.172

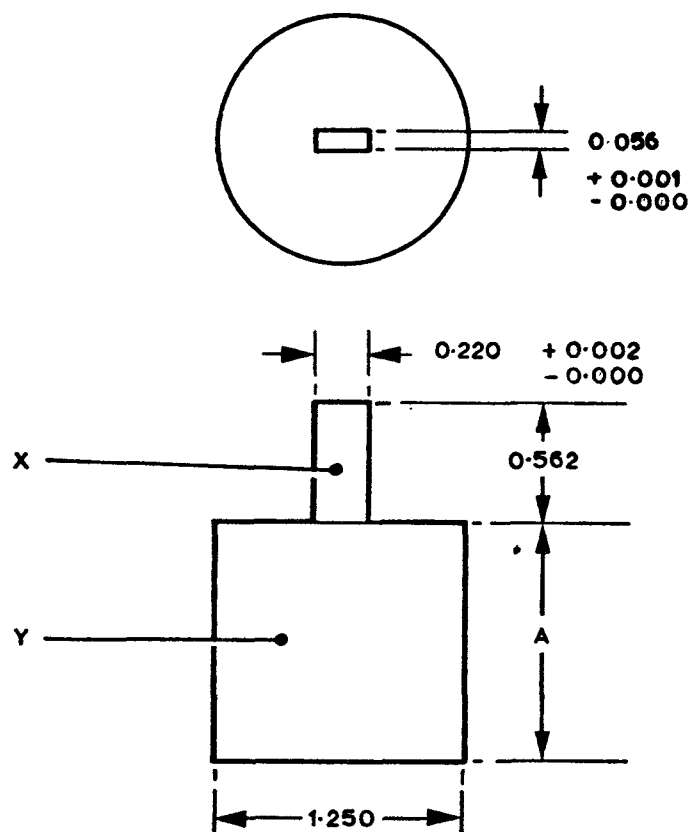
VARIANT A SOCKET						
ITEM NO	STYLE REFERENCE	NO OF CONTACTS	DIMENSIONS (INCHES)			
			A	B	C	D
	(a)	(b)	(c)	(d)	(e)	(f)
1	S-26-2A	2	0.578	1.015	1.187	0.172
2	-4A	4	1.015	1.015	1.625	0.172
3	-6A	6	1.453	1.015	2.062	0.172
4	-8A	8	1.891	1.015	2.500	0.172
5	-10A	10	2.328	1.015	2.937	0.172
6	-12A	12	2.766	1.015	3.375	0.172

ANNEX B (CONTD)

VARIANT B PLUG						
ITEM NO	STYLE REFERENCE	NO OF CONTACTS	DIMENSIONS (INCHES)			
			A	B	C	D
	(a)	(b)	(c)	(d)	(e)	(e)
1	P-26-2B	2	1.078	1.391	1.375	0.156
2	-4B	4	1.515	1.391	1.812	0.156
3	-6B	6	1.953	1.391	2.250	0.156
4	-8B	8	2.391	1.391	2.687	0.156
5	-10B	10	2.828	1.391	3.125	0.156
6	-12B	12	3.266	1.391	3.562	0.156

ANNEX C

TEST GAUGES, SOCKET CONTACTS



All dimensions in inches

NOTES:

1: Dimension A 1.027 inches for 5oz Mass
 2.466 inches for 12oz Mass

2. Material X - Hardened Steel
 Y - Brass

TABLE I
STANDARD RANGE
NOT APPLICABLE

TABLE II(A)
ITEMS PERMITTED ONLY FOR MAINTENANCE PURPOSES
PLUGS, ELECTRICAL, PATTERN 126

ITEM NO	NO OF CONTACTS	CONTROL DRAWING NUMBER	STYLE REFERENCE NUMBER	OUTLINE DRAWING	NATO STOCK NUMBER 5935-99-	MAX. MASS (g)
	(a)	(b)	(c)	(d)	(e)	(f)
1	2	CC 1605/1	P-26-2A	PAGE 16	015-7646	21.26
2	4	/2	-4A		015-7647	34.02
3	6	/3	-6A		015-7648	42.53
4	8	/4	-8A		015-7649	52.46
5	10	/5	-10A		015-7650	63.80
6	12	/6	-12A		015-7651	70.87
7	2	CC 1605/7	P-26-2B	PAGE 18	015-7652	65.20
8	4	/8	-4B		015-7653	79.39
9	6	/9	-6B		015-7654	99.24
10	8	/10	-8B		015-7655	127.6
11	10	/11	-10B		015-7656	134.7
12	12	/12	-12B		015-7657	163.0
13	2	CC 1605/13	P-26-2C	PAGE 19	015-7658	53.80
14	4	/14	-4C		015-7659	72.30
15	6	/15	-6C		015-7660	92.15
16	8	/16	-8C		015-7661	102.1
17	10	/17	-10C		015-7662	123.3
18	12	/18	-12C		015-7663	137.5

DEF STAN 59 - 35 (PART 1)
SECTION 10/1
TABLE II(A) (CONTD)

TABLE II(A) (CONTINUED)
ITEMS PERMITTED ONLY FOR MAINTENANCE PURPOSES
PLUGS, ELECTRICAL, PATTERN 126

ITEM NO	NO OF CONTACTS	CONTROL DRAWING NUMBER	STYLE REFERENCE NUMBER	OUTLINE DRAWING	NATO STOCK NUMBER 5935-99-	MAX. MASS (g)
	(a)	(b)	(c)	(d)	(e)	(f)
1	2	CC 1605/19	P-26-2D	PAGE 21	015-7664	53.88
2	4	/20	-4D		015-7665	72.30
3	6	/21	-6D		015-7666	92.15
4	8	/22	-8D		015-7667	102.1
5	10	/23	-10D		015-7668	123.3
6	12	/24	-12D		015-7669	137.5
7	2	CC 1605/25	P-26-2E	PAGE 23	015-7670	14.70
8	4	/26	-4E		015-7671	24.69
9	6	/27	-6E		015-7672	32.60
10	8	/28	-8E		015-7673	41.11
11	10	/29	-10E		015-7674	53.88
12	12	/30	-12E		015-7675	60.95
13	2	CC 1605/31	P-26-2F	PAGE 25	015-7676	12.76
14	4	/32	-4F		015-7677	22.68
15	6	/33	-6F		015-7678	32.60
16	8	/34	-8F		015-7679	41.11
17	10	/35	-10F		015-7680	53.88
18	12	/36	-12F		015-7681	60.95

TABLE II(B)
ITEMS PERMITTED ONLY FOR MAINTENANCE, PURPOSES
SOCKETS, ELECTRICAL, PATTERN 126

ITEM NO	NO OF CONTACTS	CONTROL DRAWING NUMBER	STYLE REFERENCE NUMBER	OUTLINE DRAWING	NATO STOCK NUMBER 5935-99-	MAX. MASS (g)
	(a)	(b)	(c)	(d)	(e)	(f)
1	2	CC 1606/1	S-26-2A	PAGE 17	015-7682	19.85
2	4	/2	-4A		015-7683	31.19
3	6	/3	-6A		015-7684	42.53
4	8	/4	-8A		015-7685	52.46
5	10	/5	-10A		015-7686	60.95
6	12	/6	-12A		015-7687	72.30
7	2	CC 1606/7	S-26-2C	PAGE 20	015-7688	52.46
8	4	/8	-4C		015-7689	70.87
9	6	/9	-6C		015-7690	85.06
10	8	/10	-8C		015-7691	103.5
11	10	/11	-10C		015-7692	120.5
12	12	/12	-12C		015-7693	139.0
13	2	CC 1606/13	S-26-2D	PAGE 22	015-7694	52.46
14	4	/14	-4D		015-7695	70.87
15	6	/15	-6D		015-7696	85.06
16	8	/16	-8D		015-7697	103.5
17	10	/17	-10D		015-7698	120.5
18	12	/18	-12D		015-7699	139.0
19	2	CC 1606/19	S-26-2E	PAGE 24	015-7700	11.34
20	4	/20	-4E		015-7701	22.68
21	6	/21	-6E		015-7702	32.60
22	8	/22	-8E		015-7703	41.11
23	10	/23	-10E		015-7704	52.46
24	12	/24	-12E		015-7705	62.37
25	2	CC 1606/25	S-26-2F	PAGE 26	015-7706	11.34
26	4	/26	-4F		015-7707	22.68
27	6	/27	-6F		015-7708	32.60
28	8	/28	-8F		015-7709	41.11
29	10	/29	-10F		015-7710	52.46
30	12	/30	-12F		015-7711	60.95

TABLE II(C)
≠ ITEMS PERMITTED ONLY FOR MAINTENANCE PURPOSES
PLUG, ELECTRICAL (JONES TYPE)

ITEM NO	NATO STOCK NUMBER 5935-99-	ITEM NAME	REPLACEMENT ITEM	
			NATO STOCK NUMBER 5935-99-	STYLE REFERENCE NUMBER
	(a)	(b)	(c)	(d)
1	100-0672	PLUG, ELECTRICAL	015-7651	P-26-12A
2	427-7367		015-7658	P-26-2C
3	441-6836		015-7669	P-26-12D
4	441-6841		015-7653	P-26-4B
5	580-3593		015-7652	P-26-2B
6	580-3623		015-7655	P-26-8B
7	580-3651		015-7662	P-26-10C
8	580-3665		015-7673	P-26-8E
9	711-6186		015-7675	P-26-12E
10	911-5709		015-7675	P-26-12E
11	932-5769		015-7677	P-26-4F
12	933-0412		015-7675	P-26-10B
13	940-2264		015-7671	P-26-4E
14	940-2267		015-7648	P-26-6A
15	940-2273		015-7657	P-26-12B
16	940-2277		015-7665	P-26-4D
17	940-2280		015-7666	P-26-6D
18	940-2283		015-7668	P-26-10D
19	940-2287		015-7663	P-26-12C
20	940-2290		015-7669	P-26-12D

NOTE: ≠ The NATO Stock Numbers/Domestic Reference Numbers listed in this Table refer to items being currently manufactured to a Commercial Specification. When Qualification Approval has been granted an amendment will be issued to this Defence Standard, transferring Table II(C) and Table II(D) to Table III(A) and Table III(B) respectively - Items no longer to be provisioned.

Table II(C) and Table II(D) are shown in the Table III format. They list the NATO Stock Numbers/Domestic Reference Number of items manufactured to the Commercial Standard together with the NATO Stock Number of the replacement Qualification Approved item.

TABLE II(C) (CONTINUED)

≠ ITEMS PERMITTED ONLY FOR MAINTENANCE PURPOSES
PLUG, ELECTRICAL (JONES TYPE)

ITEM NO	NATO STOCK NUMBER 5935-99-	ITEM NAME	REPLACEMENT ITEM	
			NATO STOCK NUMBER 5935-99-	STYLE REFERENCE NUMBER
	(a)	(b)	(c)	(d)
1	940-2293	PLUG, ELECTRICAL	015-7679	P-26-8F
2	943-8317		015-7650	P-26-10A
3	943-8318		015-7664	P-26-2D
4	943-8319		015-7667	P-26-8D
5	943-8320		015-7646	P-26-2A
6	943-8321		015-7647	P-26-4A
7	943-8322		015-7649	P-26-8A
8	943-8889		015-7660	P-26-6C
9	943-8890		015-7661	P-26-8C
10	949-0865		015-7659	P-26-4C
11	953-2140		015-7674	P-26-10E
12	954-4507		015-7672	P-26-6E
13	955-0673		015-7666	P-26-6D
14	956-3038		015-7678	P-26-6F
15	999-3321		015-7653	P-26-4B
16	≠10H/4045		015-7670	P-26-2E
17	≠10H/4049		015-7676	P-26-2F
18	≠10H/4057		015-7680	P-26-10F
19	≠10H/4058		015-7681	P-26-12F
20	≠10H/19730		015-7654	P-26-6B

NOTES: 1. ≠ Indicates that no previous NATO Stock Number is available for this item which is, therefore, identified by its Domestic Reference Number.

2. ≠ The NATO Stock Number/Domestic Reference Numbers listed in this Table refer to items being currently manufactured to a Commercial Specification. When Qualification Approval has been granted an amendment will be issued to this Defence Standard, transferring Table II(C) and Table II(D) to Table III(A) and Table III(B) respectively - Items no longer to be provisioned.

Tables II(C) and II(D) are shown in the Table III format. They list the NATO Stock Numbers/Domestic Reference Number of items manufactured to the Commercial Standard together with the NATO Stock Number of the replacement Qualification Approved item.

TABLE II(D)

≠ ITEMS PERMITTED ONLY FOR MAINTENANCE PURPOSES

SOCKET, ELECTRICAL (JONES TYPE)

ITEM NO	NATO STOCK NUMBER 5935-99-	ITEM NAME	REPLACEMENT ITEM	
			NATO STOCK NUMBER 5935-99-	STYLE REFERENCE NUMBER
	(a)	(b)	(c)	(d)
1	103-9917	SOCKET, ELECTRICAL	015-7707	S-26-4F
2	430-4825		015-7693	S-26-12C
3	430-7952		015-7703	S-26-8E
4	440-3510		015-7701	S-26-4E
5	441-7517		015-7689	S-26-4C
6	442-4677		015-7683	S-26-4A
7	451-5513		015-7686	S-26-10A
8	580-2514		015-7704	S-26-10E
9	580-3592		015-7688	S-26-2C
10	580-3625		015-7709	S-26-8F
11	933-0415		015-7692	S-26-10C
12	940-2295		015-7683	S-26-4A
13	940-2301		015-7703	S-26-8E
14	940-2302		015-7685	S-26-8A
15	940-2303		015-7702	S-26-6E
16	940-2304		015-7684	S-26-6A
17	940-2309		015-7687	S-26-12A
18	940-2310		015-7705	S-26-12A
19	940-2312		015-7694	S-26-2D
20	940-2316		015-7701	S-26-4E

NOTE: ≠The NATO Stock Numbers/Domestic Reference Numbers listed in this Table refer to items being currently manufactured to a Commercial Specification. When Qualification Approval has been granted an amendment will be issued to this Defence Standard, transferring Table II(C) and Table II(D) to Table III(A) and III(B) respectively - Items no longer to be provisioned.

Tables II(C) and Table II(D) are shown in the Table III format. They list the NATO Stock Numbers/Domestic Reference Numbers of items to the Commercial Standard together with the NATO Stock Numbers of the replacement Qualification Approved item.

TABLE II(D) (CONTINUED)

≠ ITEMS PERMITTED ONLY FOR MAINTENANCE PURPOSES

SOCKET, ELECTRICAL (JONES TYPE)

ITEM NO	NATO STOCK NUMBER 5935-99-	ITEM NAME	REPLACEMENT ITEM	
			NATO STOCK NUMBER 5935-99-	STYLE REFERENCE NUMBER
	(a)	(b)	(c)	(d)
1	940-2319	SOCKET, ELECTRICAL	015-7659	S-26-4D
2	940-2325		015-7690	S-26-6C
3	940-2326		015-7696	S-26-6D
4	940-2330		015-7691	S-26-8C
5	940-2334		015-7699	S-26-12D
6	940-2335		015-7693	S-26-12C
7	943-8324		015-7698	S-26-10D
8	943-8325		015-7697	S-26-8D
9	943-8326		015-7682	S-26-2A
10	943-8327		015-7689	S-26-4C
11	946-5291		015-7708	S-26-6F
12	970-2574		015-7711	S-26-12F
13	972-8279		015-7686	S-26-10A
14	/10H/1526		015-7710	S-26-10F
15	/10H/4050		015-7706	S-26-2F
16	/10H/4051		015-7700	S-26-2E

NOTES:1. ≠ Indicates that no previous NATO Stock Number is available for this item which is, therefore, identified by its Domestic Reference Number.

2. ≠ The NATO Stock Numbers/Domestic Reference Numbers listed in this Table refer to items being currently manufactured to a Commercial Specification. When Qualification Approval has been granted an amendment will be issued to this Defence Standard, transferring Table II(C) and Table II(D) to Table III(B) respectively - Items no longer to be provisioned.

Table II(C) and Table II(D) are shown in the Table III format. They list the NATO Stock Numbers/Domestic Reference Numbers of items to the Commercial Standard together with the NATO Stock Numbers of the replacement Qualification Approved item.

Ministry of Defence

Defence Standard

59-35 (PART 1)

SECTION 14/Issue 2

9 February 1984

**CONNECTORS, ELECTRICAL:
CONNECTORS, BUTTING, PATTERN
100 (10 PR COUPLER),
SEALED AND NON-SEALED, WITH
SOLDERED TERMINATIONS FOR
d.c. AND LOW FREQUENCY
APPLICATIONS**

OBSOLESCENT

**THIS DEFENCE STANDARD WILL NOT BE UPDATED AND IS
NOT TO BE USED FOR THE PURCHASE OF NEW EQUIPMENT**

CONNECTORS, ELECTRICAL

CONNECTORS, BUTTING, PATTERN 100 (10 PR COUPLER),

SEALED AND NON-SEALED, WITH SOLDERED

TERMINATIONS FOR d.c. AND LOW FREQUENCY APPLICATIONS

This Defence Standard supersedes DEF STAN 59-35 (PART 1), Section 14/Issue 1 dated 29th April, 1974.

- 1 This Defence Standard specifies the requirements for connectors, butting, Pattern 100, free coupler, and fixed, square flange, with butting type contacts, soldered, for Ministry of Defence use.
- 2 Table I lists the standard range of connectors, butting, to be used in all future designs of equipment and, wherever acceptable, for maintenance of existing equipment. There is no Table II.
- 3 The specification included in this Section of the Standard has been prepared because there is no suitable national or commercial specification available.
- 4 The metric units used in this Section of the Standard are derived from the original imperial units.
- 5 This Section of the Standard implements QSTAG 228, the substance of which is in the Annex.
- 6 This Standard has been agreed by authorities concerned. It is to be implemented, wherever practicable, in all designs, contracts, orders, etc. commencing after its date of publication. If a difficulty arises which prevents application of the Defence Standard, the Directorate of Standardization shall be informed so that a remedy can be sought.
- 7 Any enquiries regarding this Standard in relation to an invitation to tender or a contract in which it is invoked are to be addressed to the responsible technical or supervising authority named in that invitation to tender or contract.
- 8 This Standard has been devised for the use of the Crown and of its contractors in the execution of contracts for the Crown and, subject to the Unfair Contract Terms Act 1977, the Crown will not be liable in any way whatever (including but without limitation negligence on the part of the Crown its servants or agents) where the Standard is used for other purposes.

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SPECIFICATION FOR CONNECTORS, BUTTING,
PATTERN 100 (10 PR COUPLER), SEALED
AND NON-SEALED, WITH SOLDERED TERMINATIONS

1 SCOPE

- 1.1 This Defence Standard relates to multi-contact circular connectors with quick coarse thread coupling and butting type non-removable solder contacts. Polarization is achieved by positive shell hermaphroditic configuration. The fixed item has a square flange and is provided with a protective cover. The free couplers, types A and B, are also supplied with protective covers. Types A and B are identical with the exception that one is a mirror image of the other in relation to the coding of contacts which are commoned in pairs. These items can be mated with each other for extension leads. Only type A has the correct mirror image coding of contacts necessary for mating with the fixed item. If type B is mated with the fixed item, compliance with wiring instructions is essential in order to ensure the correct commoning of pairs of contacts.
- 1.2 Qualification approval procedures shall be in accordance with DEF STAN 00-9.

2 WARNING

- 2.1 This Standard calls for the use of substances and/or test procedures that may be injurious to health if adequate precautions are not taken. It refers only to technical suitability and in no way absolves either the supplier or the user from statutory obligations relating to health and safety at any stage of manufacture or use.

- 2.2 Particular attention is drawn to the following hazard:

These items are cadmium plated, and therefore normal health and safety regulations relating to cadmium should be observed.

3 RELATED DOCUMENTS

- 3.1 Reference is made in this Standard to:

BS 2011	'Basic environmental testing procedure'
BS 6000	'Guide to the use of BS 6001. Sampling procedures and tables for inspection by attributes'
BS 6001	'Sampling procedures and tables for inspection by attributes'
BS 9520	'Specification for electrical connectors of assessed quality, d.c. and low frequency application'
DEF STAN 00-9	'General requirements for qualification approval, capability approval and quality assurance of components for Ministry of Defence use '
DEF STAN 00-10	'General design and manufacturing requirements for Service electronic equipment'
DEF STAN 59-59	'Electrical/Electronic components for Defence use - Services qualified products list'
MOD(N) JOINT SERVICE REGISTER	'Joint Service register of manufacturing codes'
IEC Publication 50 (Chapter 581)	'International electrotechnical vocabulary'

3.2 Reference in this Standard to any related document means, in any tender or contract, the edition current at the date of such tender or contract unless a specific edition is indicated.

3.3 Copies of documents referred to in clause 3.1 are obtainable from:

British Standards/
IEC Publications

The British Standards Institute
(Sales Department)
Linford Wood
Milton Keynes
MK14 6LE

Defence Standards

Directorate of Standardization
First Avenue House
High Holborn
London WC1V 6HE

4 DEFINITIONS

4.1 The definitions contained in IEC publication 50, Chapter 581 of the International Electrotechnical Vocabulary, shall apply.

4.2 The style references used in this specification are abbreviations to identify individual connectors. A typical reference is:

100-10PR-C-A

where 100 denotes the pattern number; 10 PR denotes contact pairing C denotes free coupler; F denotes fixed item; A or B denotes type of free coupler.

5 TECHNICAL INFORMATION

5.1 Ratings

5.1.1 Electrical ratings:

- (a) Current - 1 ampere
- (b) voltage - see Schedule 1, following:

SCHEDULE 1

VOLTAGE RATING	SEA LEVEL
Working voltage (d.c. or a.c. peak)	250
Proof voltage (d.c. or a.c. peak)	1500

5.1.2 Environmental rating

General applications

- (a) Climatic category 20/55/56
- (b) Vibration severity: 10 Hz to 500 Hz
0.75 mm or 98 mm/s² (10 g),
duration six hour

5.1.2 (cont'd)

- (c) Bump severity: 390 m/s² (40 g) -
4000 bumps
(d) Impact: Drop height 1.5 m - five
impacts
(e) Immersion (free specimens only): 1.5 m, duration one hour
(f) Sealing (free specimens only): 1 bar†

Note: † 1 bar = 10⁵ N/m² = 10⁵ Pa

5.1.3 Endurance ratings

- (a) Mechanical: 100 operations
(b) High Temperature: 1000 hours at 55°C
(rated current)

5.2 Characteristics

5.2.1 Electrical

- (a) Maximum contact resistance 100 mΩ after conditioning
(b) Minimum insulation resistance 100 MΩ after conditioning

5.2.2 Mechanical

- (a) Maximum Mass

ITEM NO.	NATO STOCK NUMBER	ITEM NAME	STYLE REFERENCE	CONTROL DRAWING NO.	MAX. MASS (grammes)
	(a)	(b)	(c)	(d)	(e)
1	5935-99-015-1650†	CONNECTOR, BUTTING	100-10PR-F	CC1521	475
2	5935-99-015-1651††		100-10PR-C-A	CC1520/1	900
3	5935-99-015-1652††		100-10PR-C-B	CC1520/2	900

- Notes 1. † indicates item supplied complete with gasket, fixing screws and cover, butting connector.
2. †† indicates items supplied complete with cover, butting connector.
3. Details of these items are shown on pages 12 and 14.

6 INFORMATION TO BE SUPPLIED BY PURCHASER

- 6.1 When ordering components to this Section of this Standard, it is essential to quote the relevant NATO Stock Number, Style reference, and this Section of the Standard.
6.2 It is essential that, having selected a suitable item from the ranges listed in this Standard, reference is made to DEF STAN 59-59, 'Services Qualified Products List of Electronic Components', to ascertain that a Qualification Approval Certificate is extant for the item concerned.

7 DRAWINGS

- 7.1 The essential purpose of the illustrations and drawings which form part of this specification is to ensure mechanical interchangeability. It is essential that equipment designers work to the limits stated and not to the dimensions of individual specimens. Where official drawings are quoted they are mandatory. Copies of such drawings are obtainable from Procurement Executive, Ministry of Defence, Section T4, EQD, 'Aquila', Golf Road, Bromley, Kent, BR1 2JB.
- 7.2 Drawings referred to in clause 7.1 are associated with this specification and any alteration to them affecting function, material, or interchangeability must also be reflected in this specification. Holders of such drawings should, therefore endorse them accordingly and notify the Directorate of Standardization of any change requiring the amendment of this specification.

8 MATERIALS, PROCESSES AND FINISHES

- 8.1 The materials, manufacturing processes and finishing shall be generally in accordance with the requirements of DEF STAN 00-10, unless otherwise specified. Attention is drawn to the requirement in DEF STAN 00-9 that materials, processes and finishes shall not be changed significantly without the prior agreement of the approval authority.
- 8.2 The following materials and processes are specified:
- Shell housing - Brass, cadmium plated
- Finish - Blackstove enamelled
- Insulation and material - Black thermosetting plastic
- Contacts - Brass, gold plated
- Protective caps - Brass, rubber covered.

9 MARKING

- 9.1 The component shall be marked clearly and durably with the information shown below. If for reasons of space it is not possible to provide the full markings, the order of priority shall be as shown.
- (a) The manufacturer's code, as given in the MOD(N) Joint Service Register
- (b) The date code as given in DEF STAN 00-9
- (c) The NATO Stock Number
- (d) Style reference.

10 PACKAGING

- 10.1 Packaging shall be in accordance with the terms of the contract.

11 QUALIFICATION APPROVAL PROCEDURES

11.1 The procedure in Def Stan 00-9 Section C shall apply.

Note: The primary stage of manufacture shall be the final **assembly** of the piece-parts which shall be carried out under the direct surveillance of the approved Chief Inspector.

11.2 Component specification authority is normally the Master Specification Officer (MSO) for the subject concerned, whose address is:

The MSO, Connectors,
DCVD 2S,
Empress State Building,
LONDON,
SW6 1TR

11.3 Details of manufacturers who have obtained Qualification Approval are given in DEF STAN 59-59.

12 BATCH ACCEPTANCE PROCEDURE

12.1 Samples submitted for acceptance shall be tested in accordance with DEF STAN 00-9 and shall be subjected to the following:

12.1 (cont'd)

INSPECTION	BS 9520 REFERENCE AND CONDITIONS OF TEST	REQUIREMENTS
GROUP A	To be applied on a sampling basis lot by lot, except Subgroup A0. Subgroup A4 to be applied where applicable	
<u>Subgroup A0</u>	<u>100% inspection</u>	
Voltage proof	1.2.4.5 Method A or B shall be prescribed Duration = 5 s	There shall be no break down or flash over
Visual examination	1.2.2(a)	Workmanship and finish shall be satisfactory
Pressure sealing (air leakage)	1.2.6.19.1 Free specimens only (Note 2) Duration = 15 s	Leakage not to exceed 1 cc per hr
<u>Subgroup A1</u>	<u>Inspection level S3, AQL 1.5%</u>	
Visual examination	1.2.2(b)	Marking shall be satisfactory
GROUP B	To be applied on a sampling basis lot by lot	
<u>Subgroup B1</u>	<u>Inspection level S4, AQL 1%</u>	
Gauging procedure	1.2.3.3	Compatability shall be demonstrated and be satisfactory
Insulation	1.2.4.4 Method A	100 MΩ min.
Engaging and separating force, connector	1.2.5.3	By hand
<u>Subgroup B2</u>	<u>Inspection level S3, AQL 4%</u> (Specimens from Subgroup B1 may be used)	
Solderability	1.2.6.7.1 As BS 2011 Test Ta. This test may be carried out on contacts from the same production batch Bit size = 3 mm	As in BS 9520 clause 1.2.6.7.1

Note 1: For inspection levels and AQLs refer to BS 6000 and BS 6001

Note 2: Sample to be tested in one direction only.

12.1 (cont'd)

INSPECTION	BS 9520 REFERENCE AND CONDITIONS OF TEST	REQUIREMENTS
<u>Subgroup B2 (cont'd)</u>		
Contact force (free items only)	The force required to depress each contact shall fall between 4.45 N and 8.90 N	The contact shall be capable of being depressed 1.27 mm
Contact resistance	1.2.4.2(a)	100 mΩ max.
GROUP C	To be applied on a sampling basis at twelve monthly intervals. The issue number of the manufacturing drawing shall be checked against that on the approval certificate.	
<u>Subgroup C1</u>	<u>Inspection level S3, AQL 1%</u>	
Dimensions, outline	1.2.3.1	To comply with figs. 1 and 3 of this Standard.
<u>Subgroup C3(D)</u>	<u>Inspection level S3, AQL 4%</u>	
	Specimens from Subgroup C1 with contacts fitted may be used.	
Contact resistance	1.2.4.2(a)	100 mΩ max.
Rapid change of temperature	1.2.6.8 Upper and lower temperature severities	-20°C +55°C
Damp heat, steady state	1.2.6.15 Duration = 21 days	
<u>Final measurements</u>	1.2.6.15.3	
Contact resistance		100 mΩ max.
Insulation resistance		100 MΩ min.
Voltage proof		As specified
Visual examination		no deterioration such as will impair operation
<u>Subgroup C5(D)</u>	<u>Inspection level S3, AQL 4%</u>	
Mechanical Operation	1.2.7.1 25 operations (at not exceeding 15 operations per minute)	

DEF STAN 59-35 (PART 1)
SECTION 14/2

12.1 (cont'd)

INSPECTION	BS 9520 REFERENCE AND CONDITIONS OF TEST		REQUIREMENTS
<u>Subgroup C5 (D)</u> <u>(cont'd)</u>			
Electrical load and temperature	1.2.7.2	Duration = 5 h, at upper category temperature. No electrical load. During the conditioning, the following measurements shall be made.	
Insulation resistance	1.2.4.4	Method B. Mated at upper temperature severity. After 1.5h - 2 h recovery. Specimens shall remain mated, unless otherwise stated.	Not less than 50 M Ω
<u>Final measurements</u>			
Contact resistance	1.2.4.2(a)		100 m Ω
Voltage proof	1.2.4.5		1500 V
Engaging and separating force, connector	1.2.5.3		By hand
Visual examination	1.2.2(c) 1.2.2(d)		As BS 9520 1.2.2(c) 1.2.2(d)
Pressure sealing (air leakage)	1.2.6.19.1(b)		Not to exceed 1 cc/h

TABLE I
STANDARD RANGE
CONNECTORS, BUTTING, PATTERN 100 (10 PR COUPLER)

ITEM NO.	NATO STOCK NUMBER (a)	ITEM NAME (b)	STYLE REFERENCE (c)	CONTROL DRAWING NO. (d)	MAX. MASS (grammes) (e)
1	5935-99-015-1650+	CONNECTOR, BUTTING	100-10PR-F	CC 1521	475
2	5935-99-015-1651++		100-10PR-C-A	CC 1520/1	900
3	5935-99-015-1652++		100-10PR-C-B	CC 1520/2	900

Notes: 1. + indicates item supplied complete with gasket, fixing screws and cover, butting connector.
2. ++ indicates item supplied complete with cover, butting connector.
3. Details of these items are shown on pages 12 and 14.

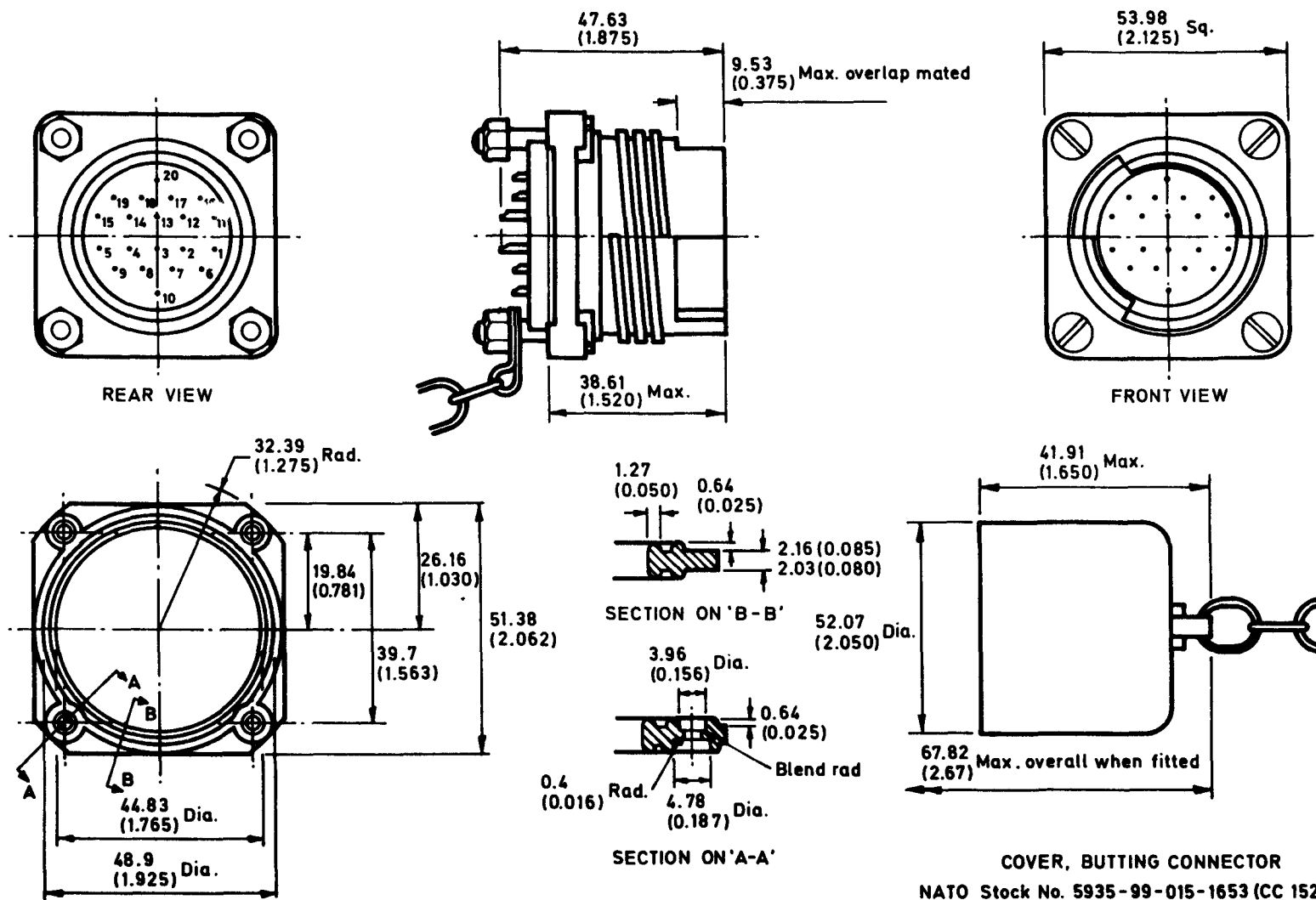
TABLE II
ITEMS PERMITTED ONLY FOR MAINTENANCE PURPOSES

NOT APPLICABLE

TABLE III
ITEMS NO LONGER TO BE PROVISIONED

ITEM NO.	NATO STOCK NUMBER (a)	SERVICE REFERENCE NUMBER (b)	ITEM NAME (c)	NATO STOCK NUMBER OF REPLACING ITEM (d)
1	5935-99-901-3141	Z32/5935-99-901-3141	CONTACT ASSEMBLY, ELECTRICAL	5935-99-015-1650
2	5935-99-900-7996	Z32/5935-99-900-7996		5935-99-015-1651
3	5935-99-900-7997	Y3/5935-99-900-7997		5935-99-015-1652

CONNECTOR, BUTTING, PATTERN 100, FIXED UNIT OUTLINE DIMENSIONS

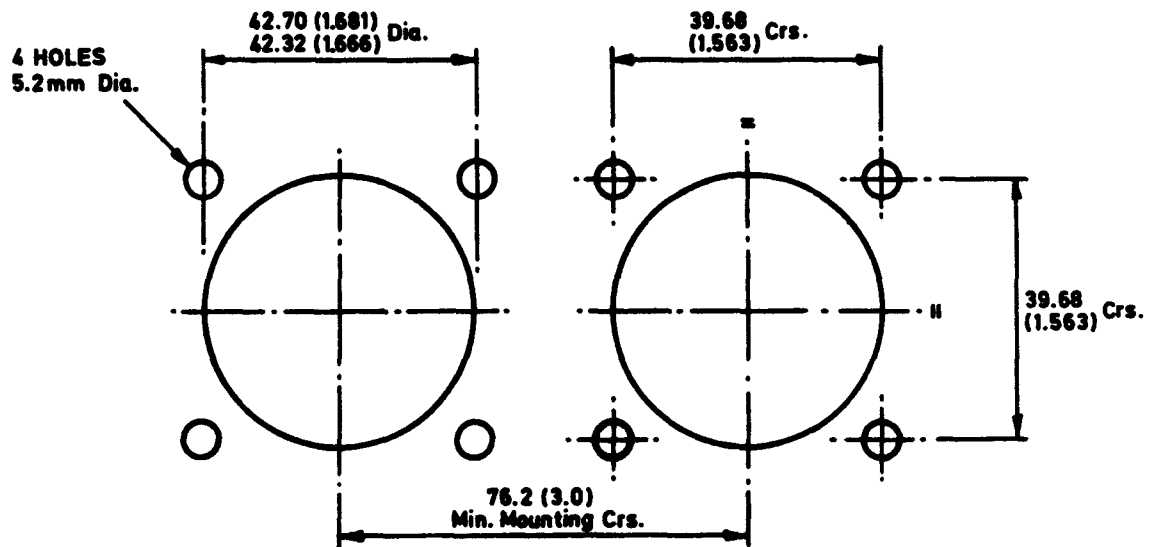


GASKET
NATO Stock No. 5330-99-015-1655 (CC 1524)

STYLE REF	CONTROL DRAWING	NATO STOCK NO
100-10PR-F	CC 1521	5935-99-015-1650

Note: Dimensions are metric, original imperial dimensions are given in brackets

CONNECTOR, BUTTING, PATTERN 100, FREE COUPLER
PANEL PIERCING DETAILS

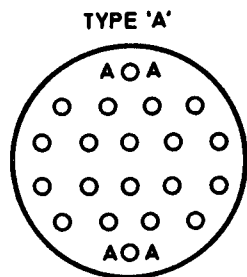


Panel thickness = 3.1 (0.125) Max.

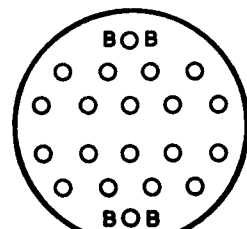
Note: Dimensions are metric,
original imperial dimensions
are given in brackets

Fig 2

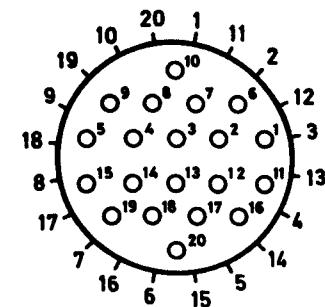
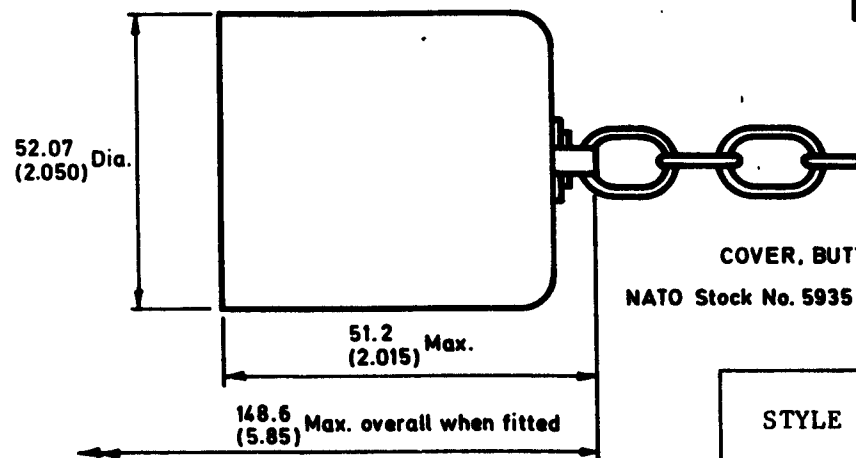
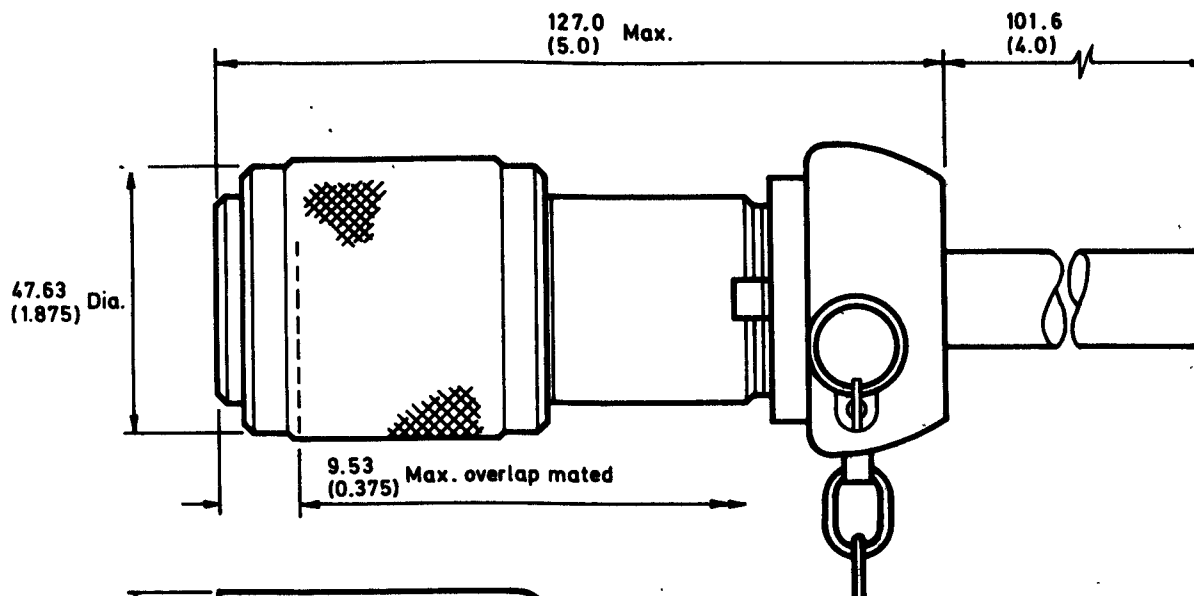
CONNECTOR, BUTTING, PATTERN 100, FREE COUPLER OUTLINE DIMENSIONS



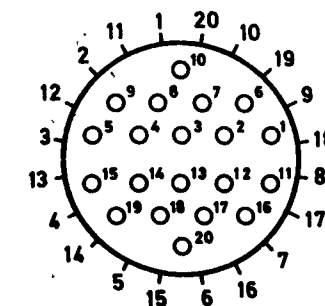
FRONT VIEW



TYPE 'B'



TYPE 'A'



TYPE 'B'

REAR VIEW

(Showing relationship between paired numbers)

COVER, BUTTING CONNECTOR

NATO Stock No. 5935-99-015-1654 (CC 1522)

Note: Dimensions are metric,
original imperial dimensions
are given in brackets

STYLE REF	CONTROL DRAWING	NATO STOCK NO
100-10PR-C-A	CC 1520/1	5935-99-015-1651
100-10PR-C-B	CC 1520/2	5935-99-015-1652

ANNEX

ABCA QUADRIPARTITE STANDARDIZATION AGREEMENT

QSTAG 228 EDITION 2

CONNECTORS MULTI-PAIR FIELD TELEPHONE CABLES

30TH NOVEMBER 1982

SUBSTANCE OF AGREEMENT

SCOPE OF AGREEMENT

The Armies of the United States, United Kingdom and Australia and the Canadian Force's have agreed to achieve interoperability of connectors for multi-pair field telephone cables.

DEF STAN 59-35 (PART 1) SECTION 8B/ISSUE 1

PLUGS AND SOCKETS, ELECTRICAL

PATTERN 121B

FOR dc AND LOW FREQUENCY APPLICATIONS

AMENDMENT 1

1. Page 47

a. PAGE ITEM NO 19, col (g)

Delete: 20-PY

Substitute: 20-18PY

b. PAGE ITEM NO 20, col (g)

Delete: 20-PZ

Substitute: 20-18PZ

2. Page 48, PAGE ITEM NO 3, col (d)

Delete: 015-9973

Substitute: 015-9273

3. Page 51

a. PAGE ITEM NO 2, col (g)

Delete: 18-11PW

Substitute: 28-11PW

b. PAGE ITEM NO 9, col (h)

Delete: 015-9107

Substitute: 015-9507

c. PAGE ITEM NO 17, col (h)

Delete: 015-9439

Substitute: 015-9539

4. Page 52

a. PAGE ITEM NO 3, col (e)

Delete: 32-62SCX

Substitute: 32-6SCX

4. Page 52 (Contd)

b. PAGE ITEM NO 4, col (c)

Delete: 32-PCY

Substitute: 32-6PCY

c. PAGE ITEM NO 4, col (e)

Delete: 32-62SCY

Substitute: 32-6SCY

d. PAGE ITEM NO 8, col (d)

Delete: 015-9582

Substitute: 015-9583

e. PAGE ITEM NO 12, col (g)

Delete: 36 7PW

Substitute: 36-7PW

f. PAGE ITEM NO 13, col (g)

Delete: 36 7PX

Substitute: 36-7PX

5. Page 56, PAGE ITEM NO 12, col (d)

Delete: 015-9889

Substitute: 015-9789

6. Page 67

a. PAGE ITEM NO 17, col (k)

Delete: 017-8484

Substitute: 017-0484

b. PAGE ITEM NO 20, col (j)

Delete: 24-7PZ

Substitute: 24-7SZ

7. Page 70

a. PAGE ITEM NO 1, col (h)

Delete: 017-0658

Substitute: 017-0659

7. Page 70, (Contd)
- b. PAGE ITEM NO 13, col (j)
- Delete: 37-7SX
- Substitute: 36-7SX
8. Page 79, PAGE ITEM NO 4, col (d)
- Delete: 017-0810
- Substitute: 017-0801
9. Page 80, PAGE ITEM NO 16, col (j)
- Delete: 22.2S
- Substitute: 22-2S

16 MARCH 1978
DIRECTORATE OF STANDARDIZATION
MINISTRY OF DEFENCE
LONDON

DEF STAN 59 - 35 (PART 1)
SECTION 8B/1

Corrigenda

Page 37, column headed E max.

Delete: 17.00; 18.00; 24.00; and 27.00
Substitute: 20.00; 21.00; 27.00; and 30.00

D/D STAN/59/7/59(STAN 8)
N/RD 484/72/0185 (AD/CVD 2S)
AL/298/05 [AD/RS(PE)]

OBSOLESCE

Ministry of Defence

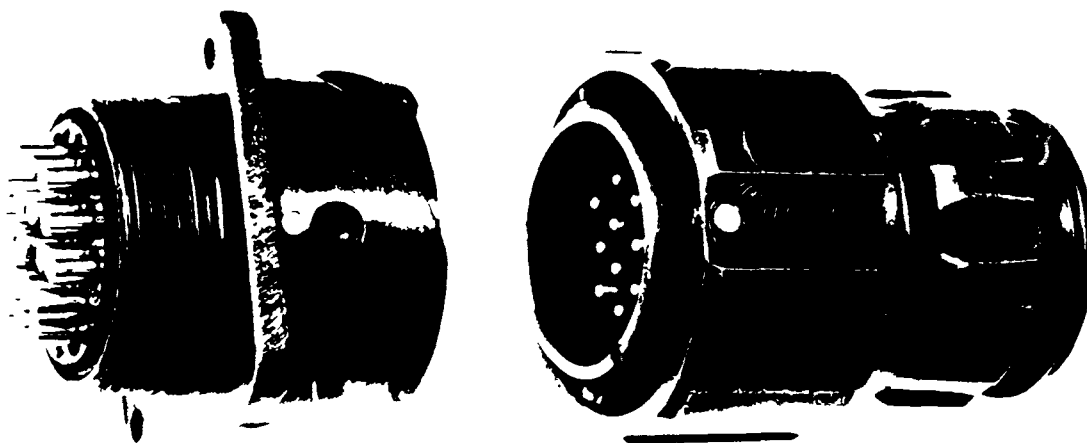
Defence Standard

59-35 (PART 1)

SECTION 8B/Issue 1

14th November 1975

**PLUGS AND SOCKETS,
ELECTRICAL
PATTERN 121B
FOR d.c. AND LOW FREQUENCY
APPLICATIONS**



— OBSOLESCE —

**THIS DEFENCE STANDARD WILL NOT BE UPDATED AND IS
NOT TO BE USED FOR THE PURCHASE OF NEW EQUIPMENT**

AMENDMENT RECORD

AMENDMENT NUMBER	DATE	SIGNATURE

PLUGS AND SOCKETS, ELECTRICAL

PATTERN 121B

FOR d.c. AND LOW FREQUENCY APPLICATIONS

1. This Section of DEF STAN 59 - 35(PART 1) specifies the requirements for multi-contact plugs and sockets, electrical, Pattern 121B, for d.c. and low frequency applications for Ministry of Defence, Navy, and Army use. These connectors shall not be used for airframe applications.
2. This Section is to be used in conjunction with DEF STAN 59 - 35(PART 1) 'Plugs and sockets, electrical (d.c. and low frequency applications)', which is the generic specification.
3. Tables I(A) to I(D) list the standard ranges of plugs, sockets and accessories to be used in all future designs of equipments and, where practicable, for the maintenance of existing equipments.
4. Tables II(A) to II(D) give details of those items permitted only for maintenance purposes.
5. This Section of the Defence Standard implements NATO Electronic Parts Recommendation(NEPR) No 86 the substance of which is shown in Annex F.
6. This Section together with DEF STAN 59 - 35(PART 1) contains all necessary technical information and it is the definitive specification for these items. It must be invoked for all tender and contract purposes.
7. This Section has been agreed by all authorities concerned who are to implement it from its date of issue.
8. If this Section of DEF STAN 59 - 35(PART 1) should be found unsuitable for a particular requirement, the Director of Standardization shall be informed of the circumstances. Any enquiries regarding this Section in relation to an invitation to tender or a contract in which it is invoked should be addressed to the Quality Assurance Authority named in that invitation to tender or contract.

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STANDARD
RANGE

MAINTENANCE
RANGE

SPECIFICATION FOR PLUGS AND SOCKETS, ELECTRICAL,
PATTERN 121B, SEALED WITH SOLDERED TERMINATIONS:
NON-SEALED WITH CRIMPED TERMINATIONS: BAYONET
COUPLING, FOR d.c. AND LOW FREQUENCY APPLICATIONS

1. SCOPE

- a. This specification relates to a range of multi-contact, bayonet coupled plugs and sockets with crimped, rear insertion/front release, removable contacts or soldered non-removable contacts. Both types are intermateable with each other. Polarization is achieved by varying the angular position of the contact insert. The coupling rings are captive free rotating. A visible and audible locking check is provided when connectors are mated.
- b. Outlet accessories, which will provide complete sealing, positive shielding and screen termination, are available for use with the Standard Range of Pattern 121B plugs and sockets. These are listed in DEF STAN 59 - 35(PART 1) Section 8A.
- c. This specification gives details of dimensions, ratings, and test values peculiar to the range of standard items defined.
- d. To ensure compliance with this specification, connectors shall always have a full complement of contacts fitted, with filler plugs behind unwired contacts.

2. RELATED SPECIFICATIONS AND DOCUMENTS

These are listed in DEF STAN 59 - 35(PART 1).

3. TECHNICAL INFORMATION

a. Electrical ratings

- (1) Current: Maximum current per individual contact at a maximum ambient temperature of 85°C
 - Contact size 16 - 13 Amps
 - Contact size 12 - 23 Amps
 - Contact size 8 - 46 Amps
 - Contact size 4 - 80 Amps
 - Contact size 0 - 150 Amps

The performance of any connector listed in this specification at all times exceeds the maximum bunched rating of the appropriate size wire or cable of equivalent temperature rating and this bunched rating shall be the limiting factor. For mixed loadings, the greatest individual load shall be taken to be the bunched loading.

3. a. (2) Voltage

SCHEDULE 1

VOLTAGE RATING								
SEA LEVEL					10.67mb AT 20°C 30 480 m (D2)			
SERVICE RATING	INSTRUMENT	A	D	E	INSTRUMENT	A	D	E
Working voltage / d.c. or a.c. peak	350	500	750	1000	100	200	250	325
Proof voltage d.c. or a.c. peak	800	1400	2000	2800	200	350	450	650

Establishment of electrical safety factor is the responsibility of the user

Note: The applicable voltage rating code is tabulated in Annex D.

b. Environmental ratings (DEF-5011).

Temperature severity	T5 (-55/+125°C)
Humidity severity	H6 (6 cycles acc 56 days LT)
Shock severity	S2 75g
Air density (low)	D2 0.014 (mean altitude of 100,000ft)
Vibration	V2 5-500 c/s (long endurance)
Acceleration	A1 13g
Classification	GP3 (D2, A1, V2)

4. INFORMATION TO BE SUPPLIED BY PURCHASER

a. When ordering components to this Section of the Standard it is essential to quote the relevant NATO Stock Number (where allotted), style reference, and this Section of the Standard.

b. The NATO Stock Numbers in this Section of the Standard may have been issued in advance of certificates of Qualification Approval. The numbers shall not be used until the relevant certificates have been issued. The issue of a Qualification Approval certificate is indicated by the inclusion of the item in DEF STAN 59-59 (Services qualified products list of electronic components).

5. ILLUSTRATIONS AND DRAWINGS

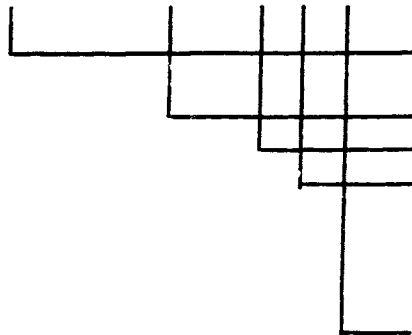
a. The essential purpose of the illustrations and drawings which form part of this specification is to ensure mechanical interchangeability. It is essential that equipment designers work to the limits stated and not to the dimensions of individual specimens. Where official drawings are quoted they are mandatory. Copies of such drawings are obtainable from MOD (PE), EQD, SECTION T4, 'AQUILA', GOLF ROAD, BROMLEY, KENT, BR1 2JB.

b. HM Government drawings referred to are now associated with this Section of the Defence Standard and therefore they must not be altered in any way which will affect function, material, or interchangeability unless the Section of the Defence Standard itself is amended. Holders of master drawings must endorse them accordingly.

6. STYLE REFERENCES

The style references used in this specification are codes to identify individual components. A typical style reference is:

CC 1596 - 14S - 2 PC X



Control Drawing No. denoting style - fixed, square flange mounting etc.
Shell size - 10SL, 14S, 16S etc.
Contact arrangement - 2, 3, 4, 7, etc.
Contact - PC denotes male contact, crimped; SC denotes female contact, crimped (where C is omitted this denotes solder type contact).
Orientation - W, X, Y, Z (where orientation is normal the suffix letter is omitted).

7. QUALIFICATION APPROVAL

a. Manufacturers seeking Qualification Approval shall:

- (1) Comply with the requirements of DEF-5001-C.
- (2) Submit a minimum sample of 60 mated pairs of specimens, representative of the range for which approval is sought, for tests in accordance with Schedule 2.
- (3) Submit for tests 15.2 and 15.3 an additional three specimens of each shell size, style, contact arrangement, and orientation of plugs and sockets for which approval is sought. Alternatively, an approved sampling plan may be agreed by the supervising inspectorate.
- (4) Submit for test 15.1(iii) an additional three specimens of each piece part of the range submitted for approval. Where common piece parts are involved, no more than 3 of each need be submitted.

Note: On the satisfactory conclusion of tests on the additional specimens submitted at 7a(3) and (4) above, the specimens may be returned to the manufacturer's stock.

b. Specimens for each Group should contain representative styles and the smallest, medium and largest size for which approval is sought. The overall sample shall include the greatest contact density for each voltage and current rating for which approval is sought.

c. Specimens for Group 1, 2, 3, and 7 tests, shall be taken from the overall sample which shall be submitted to Group 0 tests immediately prior to any other Group of tests.

7. (contd)

d. Specimens for Group 4, 5, and 6 tests may be taken from those used for Group 7.

e. Specimens for Group 8 tests may be taken from those used for Group 2.

f. The contacts of crimp type connectors shall be Qualification Approved in accordance with the requirements of Annex B of this Standard.

SCHEDULE 2

GROUP	TEST NUMBER	MINIMUM PER GROUP (mated pair)	DISTRIBUTION
0	15.1[except 15.1(iii)] to 15.11 and A1*	60	All
	15.5		Socket contacts only
	15.36		Not applicable
1	15.12 to 15.18	15	All
	15.19		1
	15.20		Not applicable
2	15.21	15	All
3	15.22 and 15.23	15	All
	15.24		Not applicable
4	15.25	5	All
5	15.26	5	All
6	15.27 and 15.28	5	All
7	15.29 to 15.33 and A2*	15	All
8	15.34	12	5
	15.35		1 for each solvent

* See Annex A page 20.

8. BATCH ACCEPTANCE TEST PROCEDURE

Components submitted for acceptance shall be tested in accordance with DEF-5001-C, Section 3, and shall be subjected to the following tests:

- a. 100 per cent acceptance tests see DEF-5001-C, Section 3.

SCHEDULE 3

TEST NO DEF STAN 59 - 35(PART 1)	TITLE OF TEST
15.1(i) 15.6	Visual examination Sealing (Note: The component to be tested in one direction only, using a pressure differential of 1 bar (1 atmosphere)) /
15.11	Voltage proof (As for Acceptance Sampling) Method A

- b. Sampling tests see DEF-5001-C, Section 3.

- (1) Tests bracketed together within a group are considered as a sequence and must be performed as such, using the same sample throughout.
- (2) Information on the re-submission of rejected batches is given in DEF-131-A.

Group 'A' tests.

SCHEDULE 4

TEST NO DEF STAN 59-35 (PART 1)	TITLE OF TEST	AQL	INSPECTION LEVEL	CATEGORY
15.2	Compatibility (gauging) or Compatibility Assurance Test (See note below)	))))1%	II	Non- destructive
15.4	Engagement and disengagement force	))		
15.5	Contact holding force (with- out sizing)	))		

Note: Where Compatibility Gauges (Test 15.2) are not available a Compatibility Assurance Test shall be applied.

For the Compatibility Assurance Test the manufacturer shall demonstrate to the Quality Assurance Authority that his system of piece part checking and assembly methods together with final mechanical measurements will ensure that the finished component will meet the compatibility requirement. The Inspection Levels and Acceptance Quality Levels will be agreed by the Quality Assurance Authority in relation to each particular manufacturers system.

$$\text{1 bar} = 10^5 \text{ N/m}^2 = 100 \text{ kPa}$$

8.b.(contd)

Group 'B' tests.

SCHEDULE 5

TEST NO DEF STAN 59 - 35 (PART 1)	TITLE OF TEST	AQL	INSPECTION LEVEL	TEST CATEGORY
15.12	Solderability and resistance to heat (DEF-5011, Section 5, Test 14g) Bit size 4.75mm for size 12 and 16 contacts; 7.62mm for larger contacts. Recovery time 1 hour	4%	S3	Destructive
15.5	Contact holding force			
15.7/	Contact resistance <u>Note:</u> /This test may be carried out using a test voltage not exceeding 2.5V and a test current not exceeding 1 amp			
15.9	Insulation resistance Method A or B	4%	S3	Destructive
15.30	Contact retention (in insert)	4%	S3	Destructive
15.31	Insert retention (in shell)	4%	S3	Destructive

9. SYSTEMATIC QUALITY ASSURANCE TESTS

a. Test bracketed together within a group are considered as a sequence and must be performed as such using the same sample throughout.

Group 'C' tests.

SCHEDULE 6

TEST NO DEF STAN 59 - 35 (PART 1)	TITLE OF TEST	AQL	INSPECTION LEVEL	TEST CATEGORY
15.1(ii)	Dimensions (outline). Additionally, issue number of manufacturer's drawing schedule to be checked against that quoted on approval certificate; any significant differences to be reported to the Approving Authority	1%	S3	Non-destructive

DEF STAN 59 - 35(PART 1)
SECTION 8B/1

9.a.(contd)

TEST NO DEF STAN 59 - 35 (PART 1)	TITLE OF TEST	AQL	INSPECTION LEVEL	TEST CATEGORY
15.7 15.8 15.17 15.21 15.21(i) 15.21.2(i) 15.21.2(ii) 15.21.2(iii) 15.21.2(iv) 15.21.2(v) 15.21.2(vi) 15.21.2(viii)	Contact resistance Shell continuity Temperature, rapid change 15.17(i), (ii), and (iii) not required Damp heat (long term) (21 days) Working voltage application Contact resistance Shell continuity Insulation resistance Visual examination Disengagement and engagement Sealing Voltage proof	4%	S3	Destructive
15.4 15.7 15.8 15.22 15.22(i) 15.22(ii) 15.22(iii) 15.23.2 15.23.2(i) 15.23.2(ii) 15.23.2(iii) 15.23.2(iv) 15.23.2(v)	Engagement and disengagement force Contact resistance Shell continuity Endurance mechanical (50 operations) Visual examination Engagement and disengagement force Contact holding force Endurance high temperature (short term) 250 hours at 125°C, without electrical load) Insulation resistance (hot) Contact resistance Shell continuity Voltage proof Sealing	4%	S3	Destructive

Group 'D' tests.

SCHEDULE 7

- The sample size and performance requirements for Group 'D' tests shall be in accordance with the Qualification Approval requirements for the tests specified herein (see clause 7).
- Components for Group 'D' tests shall be selected from batches which have successfully passed the acceptance tests and the batch size from which this selection is made shall be at least three-times the required sample quantity.

b. Disposal of samples. See DEF-5001-C, Section 4.

10. TEST REQUIREMENTS

The general test requirements are fully defined in DEF STAN 59 - 35 (PART 1). The following table contains additional information on test conditions and requirements for the range of standard items defined herein:

SCHEDULE 8

TEST NO DEF STAN 59 - 35(PART 1) OR ANNEX A*	TITLE	DESCRIPTION	REQUIREMENTS
15.1	GENERAL EXAMINATION		
(i)	Visual examination	As specified	As specified
(ii)	Dimensions (outline)	As specified	As specified
(iii)	Dimensions (detail) and materials	As specified	As specified
(iv)	Mass	As specified	As shown in Annex E
15.2	COMPATIBILITY ASSURANCE	As specified	As specified
15.3	POLARIZATION		
(i)	Polarizing device	As specified using compatibility gauge	As specified
(ii)	Mis-mating	As specified by hand	As specified
(iii)	Orientation	As specified using a force of 110N	As specified
15.4	ENGAGEMENT AND DISENGAGEMENT FORCE	As specified. Measure- ment of force not required	By hand
15.5	CONTACT HOLDING FORCE	As specified using gauge shown in Annex C	As specified
A.1*	INSERT AGEING (Crimp types only)	In accordance with test specified in Annex A1	As specified in Annex A1
15.6	SEALING (Barrier seals only)	As specified. At a pressure differential† of 1 bar (1 atmosphere)	As specified
15.7	CONTACT RESISTANCE	As specified. Method B	Maximum - 5 milliohms
15.8	SHELL CONTINUITY	As specified	Maximum - 50 milliohms
15.9	INSULATION RESISTANCE	As specified Method A Method B	Minimum - 5000 Megohms Results to be recorded

† 1 bar = 10^5 N/m^2 = 100kPa

* See Annex A page 20.

DEF STAN 59 - 35(PART 1)
SECTION 8B/1

TEST NO DEF STAN 59 - 35(PART 1) OR ANNEX A	TITLE	DESCRIPTION	REQUIREMENTS
15.10	IONIZATION	NOT APPLICABLE	
15.11	VOLTAGE PROOF	As specified. Method B. For proof voltages see Schedule 1	As specified
15.12	SOLDERING (Solder types only)	Soldering-iron method Bit size: 4.75 mm for size 12 and 16 contacts, 7.62 mm for larger contacts. Recovery time 1 hour	Satisfactory tin- ning. No loosening of parts or other damage such as would impair performance
15.13	BUMPING	As specified. Under 'Atmospheric condi- tions for measurement'	Maximum intermit- tency - 10 microseconds
(i)	Contact resistance	As in 15.7 Method B	Maximum - 5 milliohms
(ii)	Sealing	As in 15.6	As specified
15.14	VIBRATION	As specified. Under 'Atmospheric condi- tions for measurement'. Severity V2	Maximum intermit- tency - 10 microseconds
(i)	Contact resistance	As in 15.7 Method B	Maximum - 5 milliohms
(ii)	Sealing	As in 15.6	As specified
15.15	SHOCK	As specified. Severity S2	Maximum intermit- tency - 10 microseconds
(i)	Contact resistance	As in 15.7 Method B	Maximum - 5 milliohms
(ii)	Sealing	As in 15.6	As specified
15.16	ACCELERATION	As specified. Severity A1	
(i)	Contact resistance	As in 15.7 Method B	Maximum - 5 milliohms
(ii)	Sealing	As in 15.6	As specified
15.17	TEMPERATURE RAPID CHANGE	As specified. Severity T5	As specified
(i)	Contact resistance	As in 15.7 Method B	Maximum - initial reading plus 5 milliohms
(ii)	Screen continuity	As in 15.8	Maximum - initial reading plus 5 milliohms
(iii)	Sealing	As in 15.6	As specified

TEST NO DEF STAN 59 - 35 (PART 1) OR ANNEX A	TITLE	DESCRIPTION	REQUIREMENT
15.18	CLIMATIC	As specified. Humidity class H6, temperature severity T5	
15.18.1	Intermediate measurements	As specified	
(i)	Visual examination	As specified	As specified
15.18.2	Temperature, dry heat	As specified	
(i)	Sealing (hot)	As specified	As specified
15.18.3	Damp heat, accelerated	As specified	
15.18.4	Temperature, dry cold	As specified	
(i)	Disengagement and engagement (cold)	As specified	By hand
(ii)	Sealing (cold)	As specified	As specified
15.18.5	Air density low	As specified. Severity D2	
(i)	Voltage proof	As specified. For proof voltages see Schedule 1	As specified
15.18.6 (a)	Damp heat, accelerated, with assisted recovery (Class H3 only)		NOT APPLICABLE
(b)	Damp heat, accelerated with 24 hour recovery (Class H5 only)		NOT APPLICABLE
(c)	Damp heat, accelerated (Class H6 only)	As specified	
(i)	Working voltage application	As specified. For working voltages see Schedule 1	As specified
15.18.6 (d)	Damp heat, accelerated with temperature, dry cold (Class H7 only)		NOT APPLICABLE

DEF STAN 59 - 35(PART 1)
SECTION 8B/1

TEST NO DEF STAN 59 - 35 (PART 1) OR ANNEX A	TITLE	DESCRIPTION	REQUIREMENTS
15.18.7 (i)	Final measurements Contact resistance	As specified As in 15.7 Method B	Maximum - initial reading plus 5 milliohms
(ii)	Shell continuity	As in 15.8	Maximum - initial reading plus 5 milliohms
(iii)	Insulation resistance	As specified Method A	Minimum - 100 Megohms
(iv)	Visual examination	As specified	As specified
(v)	Disengagement and engagement	As specified	By hand
(vi)	Sealing	As in 15.6	As specified
(vii)	Insulation resistance (Class H5 only)	NOT APPLICABLE	
(viii)	Voltage proof	As specified. For proof voltages see Schedule 1	As specified
15.19	FIRE RISK	As specified	As specified
15.20	FIREPROOFNESS	NOT APPLICABLE	
15.21 (i)	DAMP HEAT, (LONG TERM) Working voltage application (omitted for Class H3)	As specified Severity H6 As specified. For working voltages see Schedule 1 <u>Note:</u> The number of mated and unmated specimens may differ by one	As specified As specified
15.21.1 (a)	Assisted recovery (Class H3 only)	NOT APPLICABLE	
(b)	Recovery (Class H5 only)	NOT APPLICABLE	
(c)	Recovery (Classes H6 and H7 only)	As specified	
15.21.2 (i)	Final measurements Contact resistance	As specified As in 15.7 Method B	Maximum - initial reading plus 5 milliohms
(ii)	Shell continuity	As in 15.8	Maximum - initial reading plus 5 milliohms
(iii)	Insulation resistance	As specified Method A	Minimum - 100 Megohms
(iv)	Visual examination	As specified	As specified
(v)	Disengagement and engagement	As specified	By hand
(vi)	Sealing	As in 15.6	As specified
(vii)	Insulation resistance (Class H5 only)	NOT APPLICABLE	
(viii)	Voltage proof	As in 15.11. For proof voltages see Schedule 1	As specified

TEST NO DEF STAN 59 - 35(PART 1) OR ANNEX A	TITLE	DESCRIPTION	REQUIREMENTS
15.22	ENDURANCE, MECHANICAL	As specified. 500 operations by hand under 'Atmospheric conditions for measurement'	
(i)	Visual examination	As specified	As specified
(ii)	Engagement and disengagement force	As in 15.4	By hand
(iii)	Contact holding force	As in 15.5 (without sizing)	As specified
A1	Insert ageing (crimp type only)	As specified in Annex A	As specified in Annex A
15.23	ENDURANCE, HIGH TEMPERATURE (long and short term)	As specified (all specimens, except Group C, long term only)	
15.23.1	Long term (all specimens)	The specimens shall be subjected to an ambient temperature of 85°C for a period of 1000 hours. During this period all contacts will carry their rated current. Contacts shall be connected in series using short lengths of suitable conductor	
(i)	Sealing (hot)	As specified	As specified
(ii)	Insulation resistance (hot)	As specified. Method B	Measurements to be recorded
(iii)	Contact resistance	As in 15.7 Method B	Maximum - initial reading plus 5 milliohms
(iv)	Shell continuity	As in 15.8	Maximum - initial reading plus 5 milliohms
(v)	Voltage proof	As in 15.11. For proof voltages see Schedule 1	As specified
(vi)	Sealing	As in 15.6	As specified
15.23.2	Short term (Group 'C' test specimens only)	As specified The specimens shall be subjected to an ambient temperature of 125°C for a period of 250 hours without electrical load	
(i)	Insulation resistance (hot)	As specified. Method B	Measurements to be recorded
(ii)	Contact resistance	As in 15.7 Method B	Maximum - initial reading plus 5 milliohms

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SECTION 8B/1

TEST NO DEF STAN 59 - 35(PART 1) R ANNEX A	TITLE	DESCRIPTION	REQUIREMENTS
15.23.2 (contd) (iii)	Shell continuity	As in 15.8	Maximum - initial reading plus 5 milliohms
(iv)	Voltage proof	As in 15.11. For proof voltages see Schedule 1	As specified
(v)	Sealing	As in 15.6	As specified
15.24	PLATING PROVING	NOT APPLICABLE	
15.25 (i)	CABLE CLAMP Robustness	NOT APPLICABLE	
(ii)	Resistance to cable rotation	UNDER CONSIDERATION	
(iii)	Resistance to cable pull (tensile)		
(iv)	Resistance to cable bending		
(v)	Resistance to cable torsion		
15.26 (i)	MOULD GROWTH Insulation resistance	As specified As in 15.9. Method A	Minimum - 100 Megohms
(ii)	Visual examination	As specified	As specified
15.27 (i)	SALT MIST Contact resistance	As specified As in 15.7 Method B	Maximum - initial reading plus 5 milliohms
(ii)	Shell continuity	As in 15.8	Maximum - initial reading plus 5 milliohms
(iii)	Engagement and dis- engagement force	As in 15.4	By hand
(iv)	Insulation resistance	As in 15.9 Method A	Minimum - 100 Megohms
(v)	Working voltage application	As specified	As specified
(vi)	Visual examination	As specified	As specified
(vii)	Disengagement and engagement	As specified	By hand
(viii)	Insulation resistance	As in 15.9 Method A	Minimum - 100 Megohms
(ix)	Contact resistance	As in 15.7 Method B	Maximum - initial reading plus 5 milliohms
(x)	Shell continuity	As in 15.8	Maximum - initial reading plus 5 milliohms
(xi)	Voltage proof	As in 15.11. For proof voltages see Schedule 1	As specified

TEST NO DEF STAN 59 - 35(PART 1) OR ANNEX A	TITLE	DESCRIPTION	REQUIREMENTS
15.28 (i)	DUST Contact resistance	As specified As in 15.7 Method B	Maximum - initial reading plus 5 milliohms
(ii)	Visual examination	As specified	As specified
(iii)	Engagement and dis- engagement force	As in 15.4	By hand
15.29	ROBUSTNESS OF TERMINATIONS	As specified. Test 50% of the contacts of each size, but not more than 6 <u>CONTACT</u> <u>SIZE</u> <u>FORCE</u> 16 45N 12 67N 8 78N 4 178N 0 178N	As specified
15.30	CONTACT RETENTION (in insert)	As specified. Test 50% of the contacts of each size, but not more than 6, different from those used in 15.29 <u>CONTACT</u> <u>SIZE</u> <u>FORCE</u> 16 35N 12 45N 8 78N 4 90N 0 95N	As specified
15.31	INSERT RETENTION (in shell)	As specified <u>SHELL SIZE</u> <u>FORCE</u> 10 27 N 12 35 N 14 48 N 16 73 N 18 103 N 20 150 N 22 185 N 24 228 N 28 322 N 32 457 N 36 590 N	As specified
(i)	Sealing	As in 15.6	As specified
A2	INSERT TORSION (crimp types only)	In accordance with the test specified in Annex A2	As specified in Annex A2

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TEST NO DEF STAN 59 - 35(PART 1) OR ANNEX A	TITLE	DESCRIPTION	REQUIREMENTS
15.32 (i)	TEST PROD DAMAGE (socket contacts only) Contact holding force	As specified. Size 16 and 12 contacts only. Moment 0.225 Nm As in 15.5 (without sizing)	As specified
15.33 15.33.1 15.33.2 15.33.3	IMPACT AND LOADING Impact (free specimens only) Resistance to static load Resistance to compressive load	Drop height 1 m 5 impacts NOT APPLICABLE NOT APPLICABLE	As specified
15.34 15.34.1 (i) (ii) 15.34.2 (i) (ii) (iii)	IMMERSION Immersion (normal) Insulation resistance Visual examination Immersion, low air density Insulation resistance Insulation resistance Insulation resistance	As specified As specified As in 15.9. Method A As specified As specified As in 15.9. Method B in mated condition As in 15.9. Method B in mated condition As in 15.9. Method B in mated condition	Minimum - 2000 Megohms As specified Value to be recorded Difference from value recorded at 15.34.2(i) not to exceed 10% Difference from value recorded at 15.34.2(i) not to exceed 10%
15.35 (i) 15.35.1	SOLVENT RESISTANCE Insulation resistance Immersion and temperature cycling	As specified. Test with all solvents listed in DEF STAN 59 - 35(PART 1) Annex D, Sections 1 and 2 with the exception of 1f (SKYDROL 500A) As specified. Method A. As specified	As specified Minimum - 5000 Megohms As specified

TEST NO DEF STAN 59 - 35(PART 1) OR ANNEX A	TITLE	DESCRIPTION	REQUIREMENTS
15.35.1.1 (i)	Cycle 1 Engagement and disengagement	As specified As specified	By hand
(ii)	Engagement and disengagement	As specified	By hand
15.35.1.2 (i)	Cycles 2 to 5 Insulation resistance	As specified As in 15.9. Method A	Minimum - 100 Megohms
15.35.1.3 (i)	Cycles 6 to 10 Insulation resistance	As specified As in 15.9. Method A	Minimum - 100 Megohms
15.35.1.4 (i)	Cycles 11 to 15 Insulation resistance	As specified As specified. Method A	Minimum - 100 Megohms
15.35.2 (i)	Immersion Engagement and disengagement	As specified As specified	By hand
(ii)	Engagement and disengagement	As specified	By hand
(iii)	Insulation resistance	As specified. Method A	Minimum - 100 Megohms
15.36	CONTACT STRENGTH	NOT APPLICABLE	

ANNEX A
TEST PROCEDURES AND METHODS NOT INCLUDED
IN DEF STAN 59 - 35(PART 1)

SCHEDULE 9

TEST NO	TITLE	METHOD OF TEST	REQUIREMENT																						
A1	Insert Ageing	The contacts shall be subjected to the contact retention test described in test no 15.30	As in 15.30																						
(a)		The contacts shall then be subjected to line insertions and withdrawals using the tools as shown in Annex E																							
(b)		The contacts shall then be re-subjected to test no 15.30																							
A2	Insert Torsion	An axial force shall be applied in both directions consecutively. The force shall be increased steadily at the rate of approximately 44.5 N/S maximum. The forces shall be as follows:	The insert shall maintain its normal position in the shell																						
(a)		<table><thead><tr><th>SHELL SIZE</th><th>FORCE N/m</th></tr></thead><tbody><tr><td>10</td><td>1.13</td></tr><tr><td>14</td><td>1.58</td></tr><tr><td>16</td><td>1.81</td></tr><tr><td>18</td><td>2.03</td></tr><tr><td>20</td><td>2.26</td></tr><tr><td>22</td><td>2.49</td></tr><tr><td>24</td><td>2.71</td></tr><tr><td>28</td><td>3.16</td></tr><tr><td>32</td><td>3.62</td></tr><tr><td>36</td><td>4.07</td></tr></tbody></table>		SHELL SIZE	FORCE N/m	10	1.13	14	1.58	16	1.81	18	2.03	20	2.26	22	2.49	24	2.71	28	3.16	32	3.62	36	4.07
SHELL SIZE		FORCE N/m																							
10		1.13																							
14		1.58																							
16		1.81																							
18		2.03																							
20		2.26																							
22		2.49																							
24		2.71																							
28	3.16																								
32	3.62																								
36	4.07																								
(b)	Visual examination	As specified	There shall be no damage, movement or displacement of the parts such as would impair operation																						

ANNEX B

CRIMPED REMOVABLE CONTACTS

QUALIFICATION APPROVAL AND TEST REQUIREMENTS

1. QUALIFICATION APPROVAL

- a. Manufacturers seeking Qualification Approval shall comply with requirements of DEF-5001-C.
- b. The manufacturer shall submit 15 pairs of specimens of each contact size, grouped and identified in accordance with Schedule 10, to the tests specified in Schedule 14.
- c. Manufacturers shall submit full details of the crimping tool and its gauges to the Qualification Approval Authority concurrent with their application for Qualification Approval.

SCHEDULE 10. GROUPING OF SPECIMENS

CONTACT SIZE		16	12	8	4	0
GROUP NO	TEST NO	PAIRS OF MATED CONTACTS SPECIMENS NUMBERED				
0	B1	1-15	1-15	1-15	1-15	1-15
	B2	1-15	1-15	1-15	1-15	1-15
1	B3	13-15	13-15	13-15	13-15	13-15
	B4	1-3	1-3	1-3	1-3	1-3
	B5	4-12	4-12	4-12	4-12	4-12
	B6	4-6	4-6	NOT APPLICABLE		
	B7	7-9	7-9	7-9	7-9	7-9
	B8	10-12	10-12	10-12	10-12	10-12
	B9	13-15	13-15	13-15	13-15	13-15

2. BATCH ACCEPTANCE TEST PROCEDURE

Components submitted for acceptance shall be tested in accordance with DEF-5001-C, Section 3, and shall be submitted to the following tests:

- a. 100% acceptance tests. Test 1, Visual examination (examination of workmanship and finish)
- b. Sampling tests.

SCHEDULE 11. GROUP A TESTS

TEST NO	TITLE OF TEST	AQL	INSPECTION LEVEL	TEST CATEGORY
B1 B3	Visual examination Contact holding force (without sizing)	1%	II	Non-destructive

SCHEDULE 12. GROUP B TESTS

TEST NO	TITLE OF TEST	AQL	INSPECTION LEVEL	TEST CATEGORY
B5	Contact resistance	4%	S3	Destructive

c. Disposal of samples. See DEF-5001-C, Section 3.

3. SYSTEMATIC QUALITY ASSURANCE TESTS

a. SCHEDULE 13. GROUP C TESTS

TEST NO	TITLE OF TEST	AQL	INSPECTION LEVEL	TEST CATEGORY
B2 B4 B7	Dimensions Crimp barrel hardness (50 operations) Mechanical endurance	4%	S3	Destructive

b. Group D tests.

- (1) The sample size and performance requirements for Group D tests shall be in accordance with the Qualification Approval requirements specified in clause 1 and Schedule 10 of this Annex.
- (2) Components for Group D tests shall be selected from batches which have successfully passed the acceptance tests. The batch size from which selection is made shall be at least three times the required sample quantity.

c. Disposal of Samples. See DEF-5001-C Section 4.

• TEST REQUIREMENTS - REMOVABLE CRIMPED CONTACTS

The following Schedule contains information on Qualification Approval test conditions and requirements. Additional notes applicable to this Schedule are on page 26.

SCHEDULE 14

TEST NO	TITLE OF TEST	DESCRIPTION	REQUIREMENTS
B1	Visual examination	The contact shall be visually examined.	The condition, workmanship and finish shall be satisfactory. Marking shall be as specified.
B2 (1) (2)	Dimensions Outline Mass	The specimens shall be measured for compliance with outline drawings at Annex E.	As specified As specified

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ANNEX B(CONTD)

TEST NO	TITLE OF TEST	DESCRIPTION	REQUIREMENTS
B3	Contact holding force.	The contacts shall be sized 10 times by hand using the gauges specified. The contact holding force gauge shall then be fully inserted into the contact with the mass of the gauge acting vertically downwards in the direction of disengagement.	The contact shall retain the gauge, details of which are given in Annex C
B4	Crimp barrel hardness.	For this test the wall of the barrel shall be supported suitably (e.g. such as by casting the whole in resin and machining to expose the barrel). The hardness of the exterior of the barrel at a point midway along the length of the conductor hole shall be measured.	The Vickers hardness value shall be not less than 90, nor greater than 120.
		NOTE: For subsequent tests, the specimens shall be crimped to a suitable length of conductor and prepared as described at Note 2, page 26.	
B5	Contact resistance	The contact (and crimped joint) resistance shall be measured across pairs of engaged contacts, from a suitable point on the conductor. NOTES: 1. The open circuit voltage of the test apparatus shall not exceed 2.5V. 2. The test voltage may be ac rms or dc. If dc, the measurement shall be made twice, so that the measurement is made with current following in both directions. 3. The resistance of the conductors may be calculated and deducted from the result obtained.	5 milliohms maximum

TEST NO	TITLE OF TEST	DESCRIPTION	REQUIREMENT
B6	Test prod damage (Size 12 and 16, female contacts only)	The contacts shall be held horizontally in a suitable fixture. The test tool, described in DEF STAN 59-35(PART 1) Annex C in conjunction with the test prods specified at Annex C of this Section, shall be set for a bending moment of 0.225 Nm and fully inserted into the contact. With the test tool in position and unsupported, the specimen shall be rotated thro 360° about the axis of the contact and tool. The speed of rotation shall be 4 to 6 rev/min. The test shall be repeated on the same specimen using each of the specified test prods.	
(1)	Contact holding force.	As specified at B3 (without sizing)	As specified
B7	Mechanical endurance	The female contact shall be held stationary in a suitable fixture. The male contact shall be mounted on a fixture which permits the contact to travel along the axis of the stationary contact and to engage it to the appropriate depth as shown by the control drawings. The contacts shall then be subjected to 500 cycles of engagement and disengagement at a rate not exceeding 30 cycles per hour.	
(1)	Contact holding force	As specified at B3 (without sizing)	As specified
(2)	Contact resistance	As specified at B5	6.5 milliohms - Maximum

TEST NO	TITLE OF TEST	DESCRIPTION	REQUIREMENT
B8	Endurance, high temperature	Pairs of contacts shall be engaged to the appropriate depth as shown on the control drawings. The specimens shall be subjected to an ambient temperature of 125°C for a period of 1000 hours without electrical load. At the conclusion of the 1000 hour period, the specimens shall be allowed to recover until stabilised at normal ambient temperature.	
(1)	Contact resistance	As specified at B5.	6.5 milliohms - Maximum
(2)	Contact holding force	As specified at B3. (without sizing)	As specified
(3)	Visual examination	As specified at B1.	As specified
B9	Crimped joint tensile	Unmated specimens, fitted with conductors as specified in Schedule 15 shall be tested to destruction in a suitable tensile testing machine. The tension shall be applied between the free end of the conductor and the mating end of the contact. The rate of separation of the mounting heads of the machine shall be constant and be between 25 and 50 mm/min.	The specimen shall not fail at a load less than that shown in Schedule 15

SCHEDULE 15, PULL-OFF LOADS

CONTACT SIZE	CONDUCTOR DETAILS				MINIMUM LOAD N
	NUMBER AND DIAMETER OF STRANDS	NOMINAL CROSS SECTIONAL AREA in ²	NOMINAL DIAMETER in	SPECIFICATION	
16	40/.0076	0.0018	0.061	BS 2E21 or BS G177	169
12	110/.0076	0.0050	0.096		445
8	120/.012	0.0136	0.167		890
4	294/.012	0.0333	0.272		1868
0	UNDER CONSIDERATION				

NOTES

1. VERIFICATION

Prior to the production of specimens for the foregoing tests, the cable or wire shall be verified as having been released to the appropriate specification, and the crimping tool and gauges inspected to ensure that they are in accordance with MS 3191A. Where gauges are not interchangeable they shall be marked to identify the tool for which they are applicable. The crimping tool to be used in forming the crimped joint of the specimens shall be checked with the gauge by the method specified on the appropriate drawing.

2. PREPARATION OF SPECIMENS

The cable or wire ends of conductors as listed in Schedule 15, shall be stripped of insulation in accordance with the manufacturer's recommendations, care being taken not to sever or damage any strands. All insulation shall be removed from the stripped portion of the conductor. After stripping, the end of the insulation shall be left clean and square. Should the original lay of the strands be disturbed, it may be restored by a light twist. The conductor shall be clean before assembly with the male or female contact. A specimen shall consist of a convenient length of cable or wire with a male or female contact at each end. Each specimen shall be numbered on an area not involved in the crimping operation and so identified as to enable it to be associated with the relevant crimping tool and tool setting.

3. TEST CONDITIONS

Unless otherwise specified, all tests shall be performed at a temperature of $25 \pm 10^{\circ}\text{C}$, at an air pressure of between 860 and 1060 mbars and with a relative humidity not greater than 75%. All specimens used in the tests shall be stored under these conditions for a period of 48 hours before testing is commenced.

ANNEX C
SIZING AND CONTACT HOLDING GAUGES
AND TEST PRODS

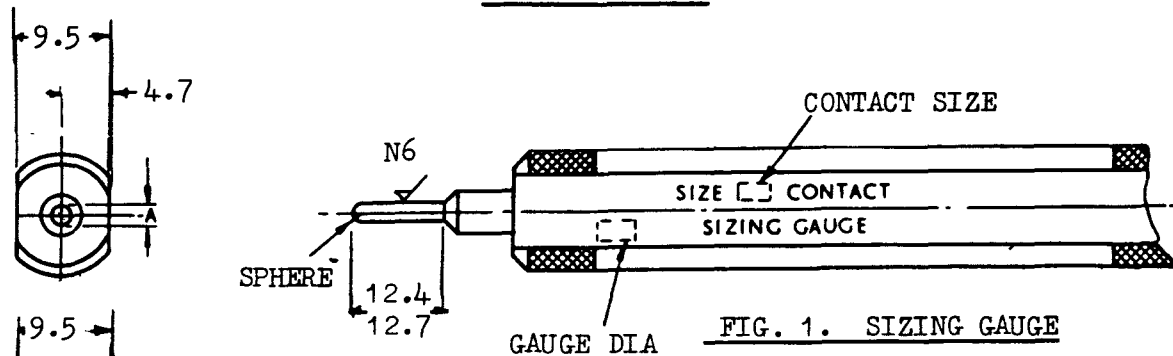


FIG. 1. SIZING GAUGE

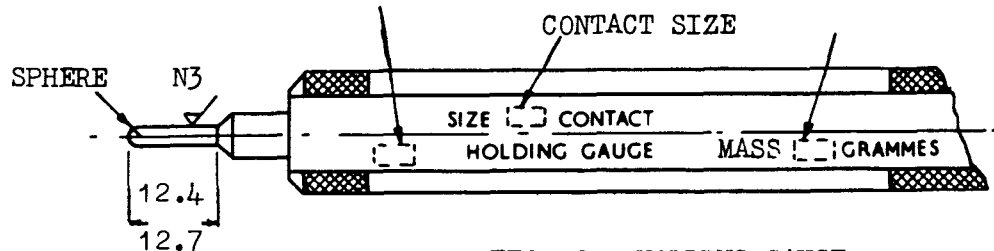


FIG. 2. HOLDING GAUGE

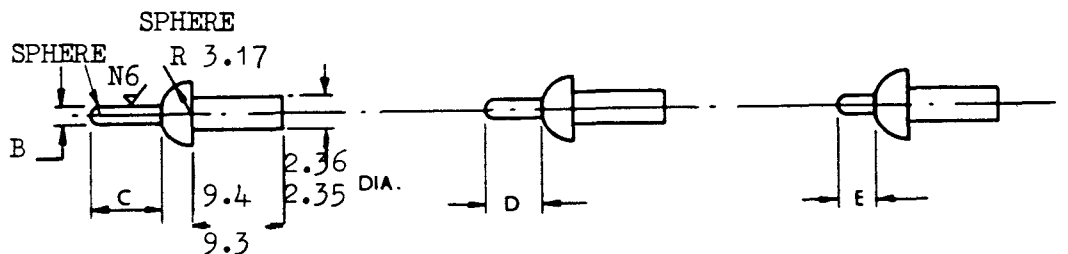


FIG. 3. TEST PRODS

The length and contact diameter only varies. All other dimensions as left hand illustration.

CONTACT SIZE	GAUGE DIMENSIONS					GAUGE MARKINGS		
	GAUGE		TEST PRODS			SIZING GAUGE	HOLDING GAUGE	
	A	B	C	D	E	DIA	DIA	MASS(g)
16	1.613	1.567	12.77	9.60	6.42	1.60	1.56	100
	1.608	1.562						
12	2.413	2.367	12.62	9.45	6.27	2.41	2.36	198
	2.408	2.362						
8	3.632	3.586	-	-	-	3.63	3.58	283
	3.627	3.581						
4	5.740	5.695	-	-	-	5.74	5.69	397
	5.735	5.690						
0	9.093	9.047	-	-	-	9.09	9.04	
	9.088	9.042						

NOTES

1. MATERIAL - GAUGE STEEL
2. GAUGING SURFACES TO BE -
 - (a) HARDENED AND TEMPERED TO 650 HV 20.
 - (b) GROUND AND LAPPED TO THE SURFACE FINISH SHOWN ABOVE
3. THESE GAUGES TO BE USED FOR TESTING FULLY ASSEMBLED COMPONENTS ONLY.
4. SHANK DIAMETER AND LENGTH TO BE SUCH AS WILL PERMIT UNRESTRICTED ACCESS OF GAUGE.
5. ALL DIMENSIONS IN MILLIMETRES.

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ANNEX D

ANNEX D
CONTACT ARRANGEMENTS VIEWED FROM
MATING FACE

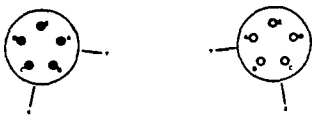
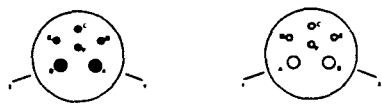
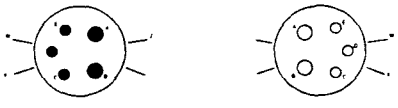
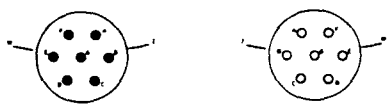
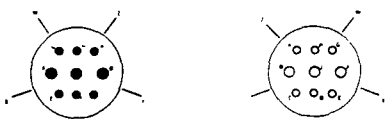
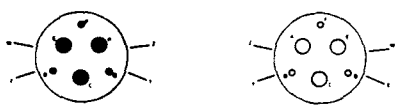
Contact arrangements in normal orientation with alternative insert positions (relative to the master key/keyway at top centre) shown.

SHELL SIZE	CONTACT ARRANGEMENT	TOTAL NO OF CONTACTS	NUMBER OF CONTACTS OF EACH SIZE					SERVICE RATING
			0	4	8	12	16	
10SL	 10SL-3	3					3	A
	 10SL-4	2					2	A
14S	 14S-2	4					4	INST
	 14S-4	1					1	D
	 14S-5	5					5	INST
	 14S-6	6					6	INST
	 14S-7	7					7	INST

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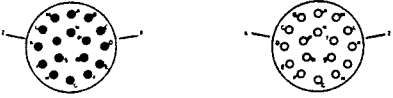
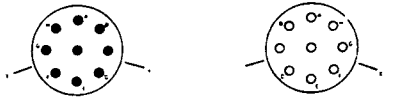
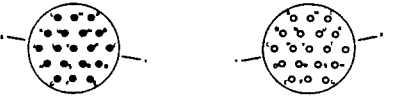
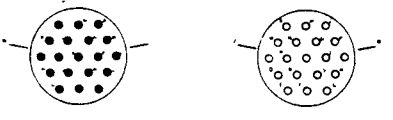
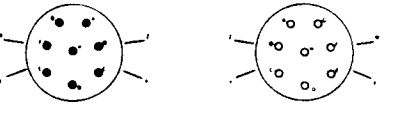
SHELL SIZE	CONTACT ARRANGEMENT	TOTAL NO OF CONTACTS	NUMBER OF CONTACTS OF EACH SIZE					SERVICE RATING
			0	4	8	12	16	
14S	 14S-7	3					3	A
	 14S-9	2					2	A
16S	 16S-1	7					7	A
16	 16-9	4				2	2	A
	 16-10	3				3		A
	 16-12 *	1		1				D
18	 18-1	10					10	A for contacts B, C, F and G; INST for remainder

* For maintenance purposes only.

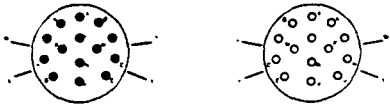
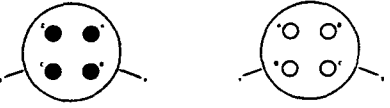
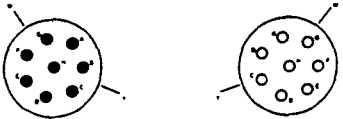
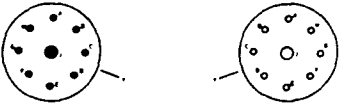
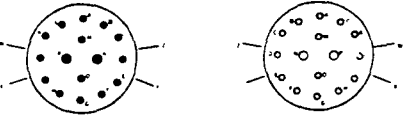
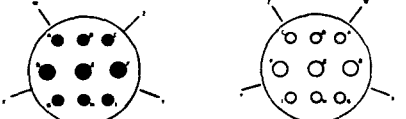
SHELL SIZE	CONTACT ARRANGEMENT	TOTAL NO OF CONTACTS	NUMBER OF CONTACTS OF EACH SIZE					SERVICE RATING
			0	4	8	12	16	
18	 18-1	5				5		A
20	 20-2 *	1	1					D
	 20-8 *	6			2		4	INST
	 20-14	5			2	3		A
	 20-15	7				7		A
	 20-16	9				3	6	A
	 20-22	6			3		3	A

* For maintenance purposes only.

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ANNEX D(CONTD)

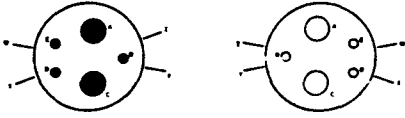
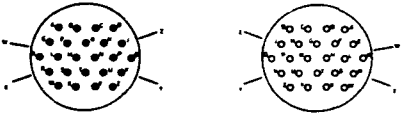
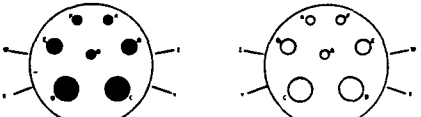
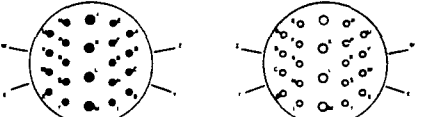
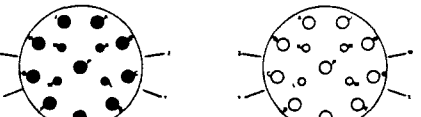
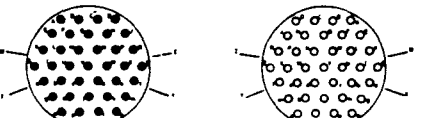
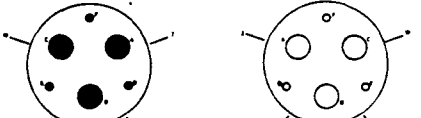
SHELL SIZE	CONTACT ARRANGEMENT	TOTAL NO OF CONTACTS	NUMBER OF CONTACTS OF EACH SIZE					SERVICE RATING
			0	4	8	12	16	
20	 20 29	17					17	A
	 * 20 49	9					9	D for contact J; INST for remainder
	 * 20 48	19					19	INST
22	 * 22 2	3			3			D
	 * 22 17	5			2		3	D
	 22 4	19					19	A
	 22 18	8					8	A for contacts C, D, and E; INST for remainder

* For maintenance purposes only.

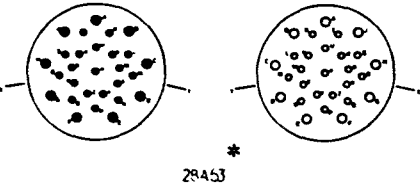
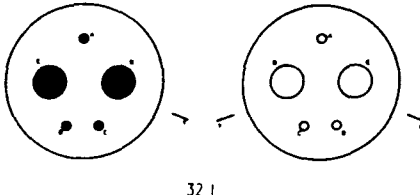
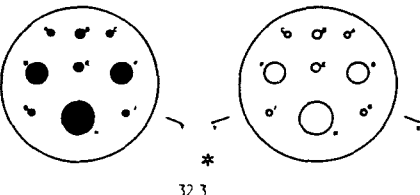
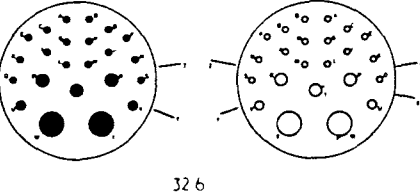
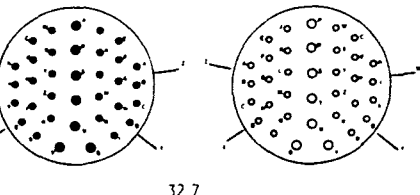
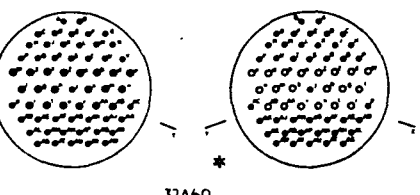
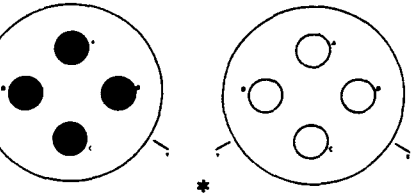
SHELL SIZE	CONTACT ARRANGEMENT	TOTAL NO OF CONTACTS	NUMBER OF CONTACTS OF EACH SIZE					SERVICE RATING
			0	4	8	12	16	
22	 22 9	14					14	A
	 22 10	4			4			A
	 22 23	8				8		D for contact H; A for remainder
	 22 27 *	9			1		8	D for contact J; A for remainder
24	 24 16	16				2	14	A
	 24 10 *	7			7			A
	 24 11	9			3	6		A

* For maintenance purposes only.

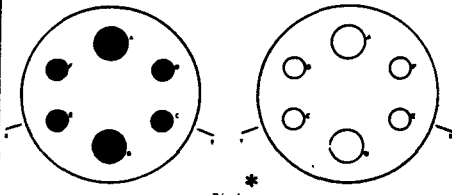
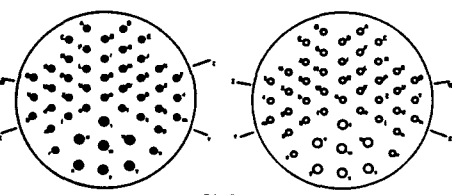
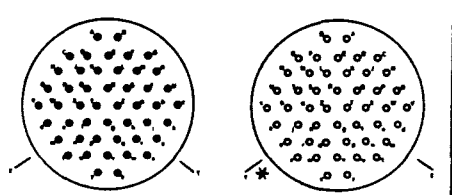
DEF STAN 59 - 35(PART 1)
SECTION 8B/1
ANNEX D(CONTD)

SHELL SIZE	CONTACT ARRANGEMENT	TOTAL NO OF CONTACTS	NUMBER OF CONTACTS OF EACH SIZE					SERVICE RATING
			0	4	8	12	16	
24	 24 12	5		2		3		A
	 24 28	24					24	INST
28	 28 10	7		2	2	3		D for contact G; A for remainder
	 28 18	22				4	18	A
	 28 20	14				10	4	A
	 28 37	37					37	A
	 28 22	6		3			3	D

DEF STAN 59 - 35(PART 1)
SECTION 8B/1
ANNEX D(CONTD)

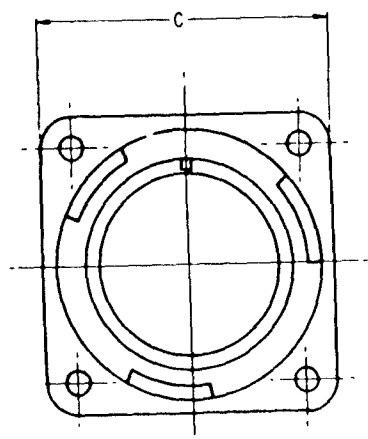
SHELL SIZE	CONTACT ARRANGEMENT	TOTAL NO OF CONTACTS	NUMBER OF CONTACTS OF EACH SIZE						SERVICE RATING
			0	4	8	12	16	20	
28	 28A53	28				9	19		A for contact e; INST for remainder
32	 32 1	5	2			3			E for contact A; D for remainder
	 32 3	9	1	2		2	4		D
	 32 6	23		2	3	2	16		A
	 32 7	35				7	28		INST for contacts A, B, H, and J; A for remainder
	 32A69	61					20	41	INST
36	 36 C	4	4						A

* For maintenance purposes only.

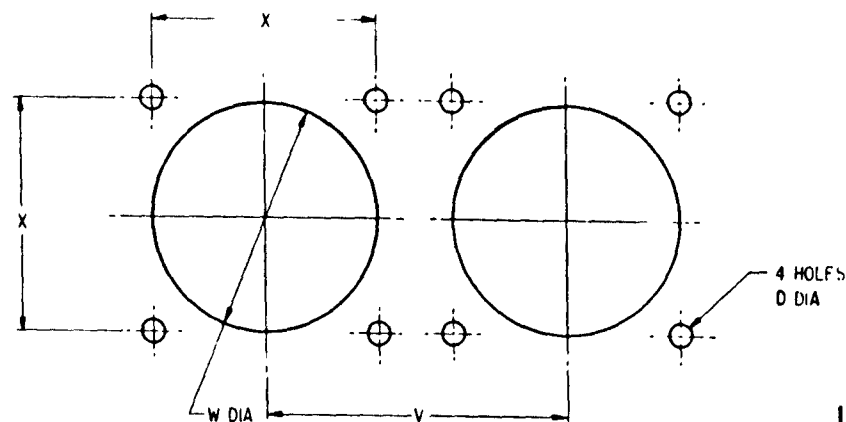
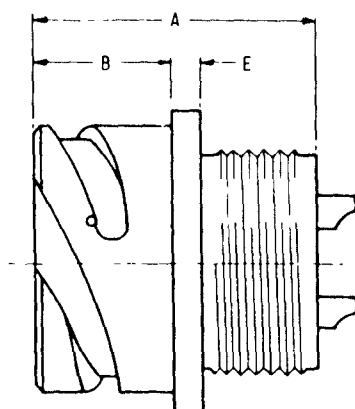
SHELL SIZE	CONTACT ARRANGEMENT	TOTAL NO OF CONTACTS	NUMBER OF CONTACTS OF EACH SIZE					SERVICE RATING
			0	4	8	12	16	
36	 36 6 *	6	2	4				A
	 36 7	47				7	40	A
	 36 10 *	48					48	A

* For maintenance purposes only.

OUTLINE DIMENSIONS AND PANEL CUTOUTS
PLUGS AND SOCKETS, PATTERN 121B
FIXED, SQUARE FLANGE MOUNTING



DIMENSIONS IN MILLIMETRES



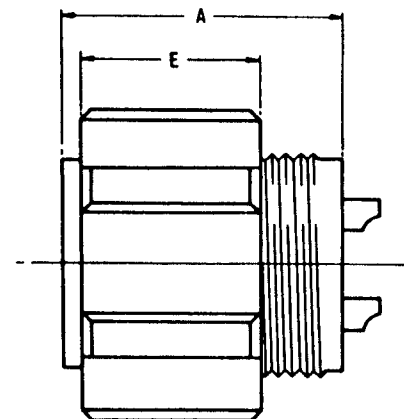
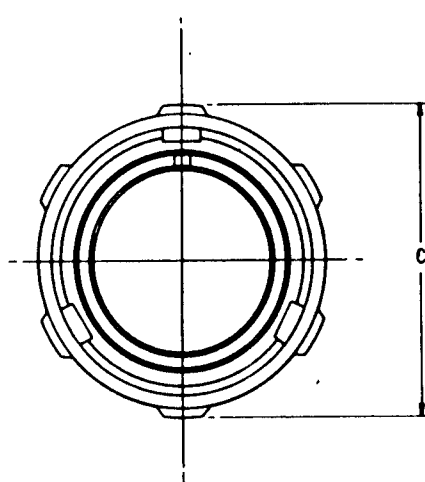
PANEL CUT-OUT DETAILS.
(MAXIMUM PANEL THICKNESS 'P')

CORRESPONDING CONTROL DRAWING : CC 1596

SHELL SIZE	C SQUARE ± 0.3	A MAX.	B + 0.4 - 0	E ± 0.2	X ± 0.1	W MAX. MIN.		V MIN.	D DIA	P MAX.	MAX MASS(g)
10SL	25.40	28.20	14.20	2.80	18.20	16.38	16.13	25.60	3.20	3.3	22.5
14S	30.00	28.60			23.00	19.56	19.30	31.60			34.5
16S	32.50			3.20							43
16		19.00	24.60	22.73	22.48	34.4	50				
18	27.00		28.19	27.94	38.3	73					
20	29.40		29.08	28.83	41.7	95					
22	31.80		32.25	32.00	45.2	103					
24	20.60		34.90	35.43	35.08	48.7	3.70	143			
28		39.70	41.78	41.53	55.5	196					
32		22.20	44.50	48.13	47.88	62.4	4.30	245			
36	49.20		51.30	51.05	66.5	315					

ANNEX E

OUTLINE DIMENSIONS
PLUGS AND SOCKETS, ELECTRICAL, PATTERN 121B
FREE, WITH COARSE RIBBED COUPLING NUT, AND
ACCESSORY THREAD

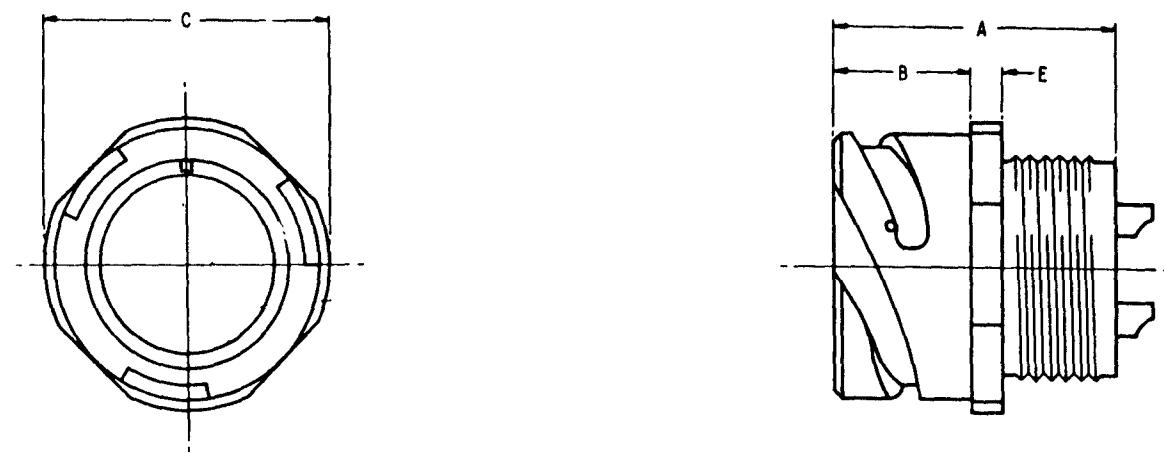


DIMENSIONS IN MILLIMETRES

CORRESPONDING CONTROL DRAWING : CC 1597

SHELL SIZE	C DIA MAX.	A MAX.	E MAX.	MAX. MASS (g)
10SL	24.20	28.20	17.00	25
14S	30.60	28.60	18.00	43
16S	33.40			49
16		37.50	24.00	56
18				79
20				102
22				110
24				150
28				207
32		61.40	27.00	255
36	65.00	315		

OUTLINE DIMENSIONS
PLUGS AND SOCKETS, ELECTRICAL, PATTERN 121B
IN-LINE COUPLER

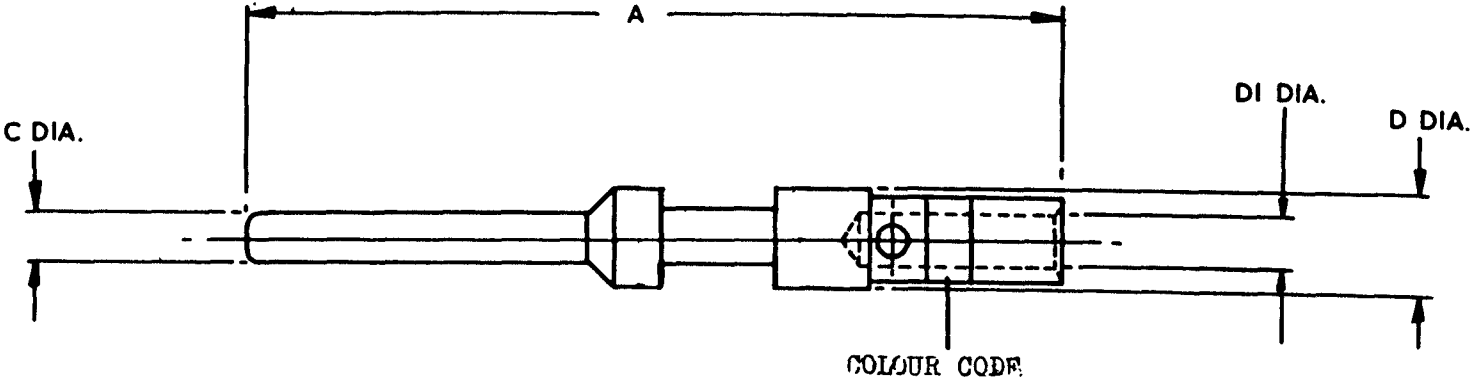


DIMENSIONS IN MILLIMETRES

CORRESPONDING CONTROL DRAWING : CC 1598

SHELL SIZE	C DIA MAX.	A MAX.	B + 0.4 - 0	E + 0.2 - 0	MAX. MASS (g)	
10SL	25.20	28.20	14.20	2.80	22.5	
14S	29.80	28.60		3.20		35
16S	32.30	37.50			19.00	4.00
16			52			
18	77					
20	100					
22	107					
24	147					
28	200					
32	249					
36	310					

OUTLINE DIMENSIONS
CONTACT, ELECTRICAL
REMOVABLE MALE CONTACT (CRIMP TYPE)

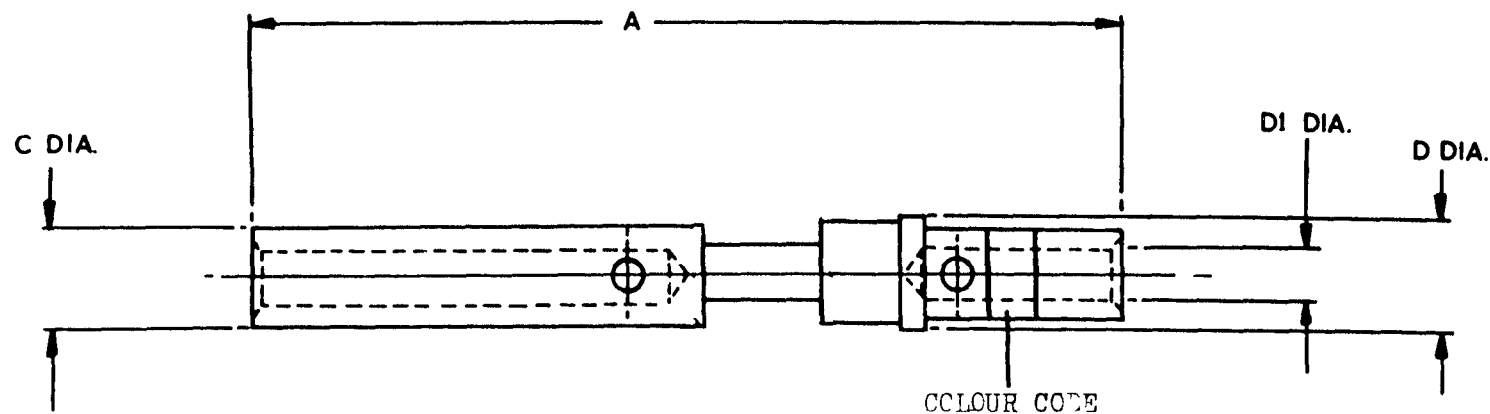


DIMENSIONS IN MILLIMETRES.

CORRESPONDING CONTROL DRAWING NO: CC 1599

CONTACT SIZE	A MAX.	C DIA		DI DIA		D DIA		MAX. MASS (g)	COLOUR CODE
		MAX.	MIN.	MAX.	MIN.	MAX.	MIN.		
16S	27.6	1.6	1.55	1.73	1.65	3.2	3.1	1.0	Blue
16	31.6	1.6	1.55	1.73	1.65	3.2	3.1	1.0	Blue
12	37.2	2.4	2.35	2.6	2.5	4.8	4.7	3.3	Yellow
8	39.8	3.6	3.55	4.65	4.55	7.6	7.4	7.7	White
4	39.8	5.75	5.70	7.25	7.1	11.0	10.9	16.0	Green
0	41.2	9.1	9.05	11.65	11.5	15.00	14.9	33.0	Black

OUTLINE DIMENSIONS
CONTACT, ELECTRICAL
REMOVABLE FEMALE CONTACT (CRIMP TYPE)



DIMENSIONS IN MILLIMETRES

CORRESPONDING CONTROL DRAWING NO: CC 1600

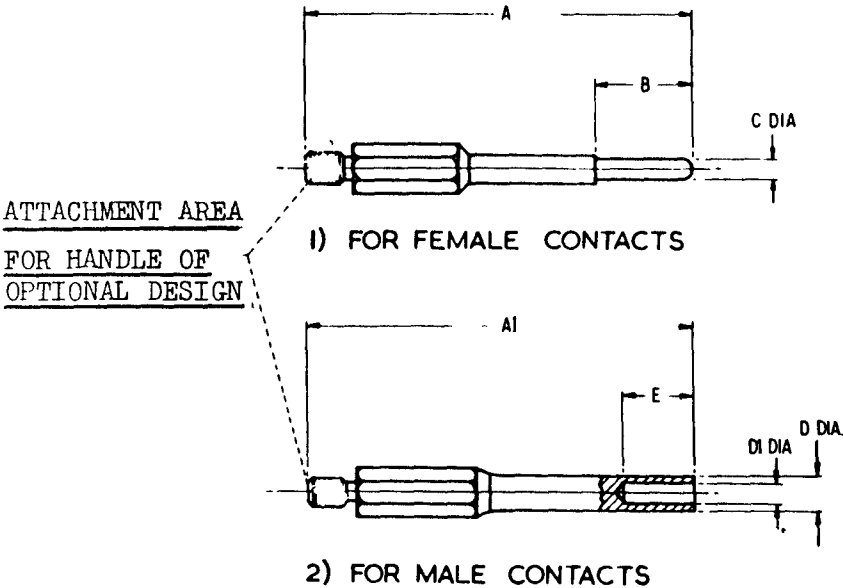
CONTACT SIZE	A MAX.	C DIA		D1 DIA		D DIA		MAX. MASS (g)	COLOUR CODE
		MAX.	MIN.	MAX.	MIN.	MAX.	MIN.		
16S	29.3	3.17	3.07	1.73	1.65	3.2	3.1	1.6	Blue
16	38.00	3.17	3.07	1.73	1.65	3.2	3.1	1.6	Blue
12	37.2	4.80	4.70	2.6	2.5	4.8	4.7	4.2	Yellow
8	41.1	6.50	6.30	4.65	4.55	7.6	7.4	8.4	White
4	41.1	8.60	8.40	7.25	7.1	11.0	10.9	16.0	Green
0	41.8	13.20	13.00	11.65	11.5	15.00	14.9	32.5	Black

OUTLINE DIMENSIONS
TOOLS FOR CONTACT INSERTION AND REMOVAL

CONTACT INSERTION TOOL

UNDER CONSIDERATION

CONTACT WITHDRAWAL TOOLS

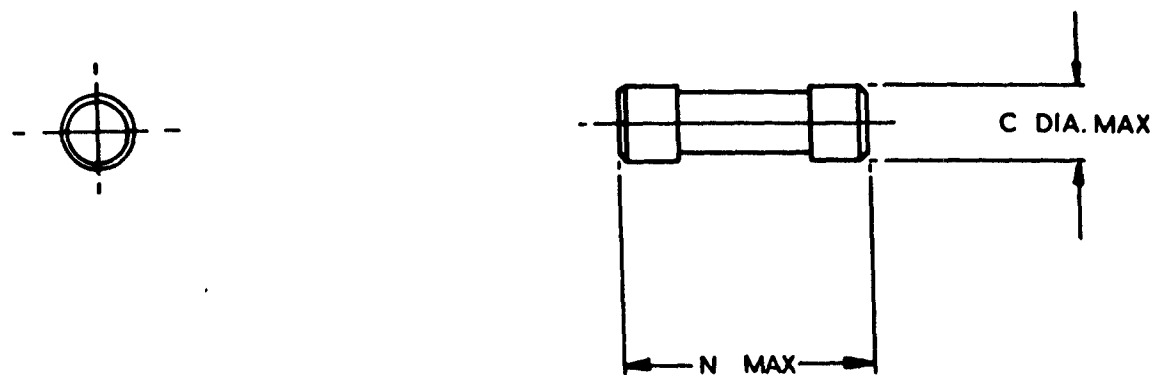


DIMENSIONS IN MILLIMETRES

CORRESPONDING CONTROL DRAWING NO: CC 1603

CONTACT SIZE	A MAX.	A1 MAX.	B	C DIA MAX.	D DIA MAX.	DI DIA MIN.	E ± 0.5
16	62.2	56.5	12.5	1.5	2.5	1.68	17.5
12	67.2		17.5	2.32	3.6	2.43	22.5
8	102.2	102.2	57.6	3.42	6.35	3.7	19.0
4				5.25	9.2	5.85	
0				8.8	12.4	9.4	

OUTLINE DIMENSIONS
PLUG, PROTECTIVE, DUST AND MOISTURE SEAL
(FILLER PLUG)



DIMENSIONS IN MILLIMETRES

CORRESPONDING CONTROL DRAWING NO: CC 1601

CONTACT SIZE	N MAX.	C DIA MAX.	MAX. MASS(g)	COLOUR
16	12.2	3.9	0.165	Blue
12		4.8	0.22	Yellow
8		6.0	0.33	White
4		8.7	0.77	Green
0		13.7	2.035	Black

ANNEX F

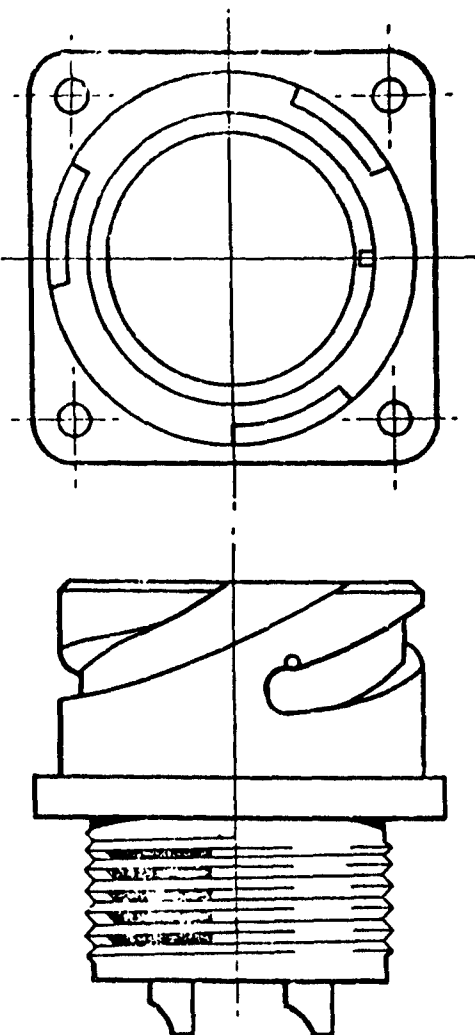
NATO ELECTRONIC PARTS RECOMMENDATION (NEPR) NO 86

STANDARDIZATION OF CONNECTORS, ELECTRIC, BAYONET - COUPLING,
STANDARD DENSITY, WATERPROOF
SUBSTANCE OF AGREEMENT

This recommendation contains a list of electric, circular, bayonet-coupling connectors which will be preferred for use in military electric and electronic equipment.

TABLE I(A)
STANDARD RANGE
PLUGS AND SOCKETS, ELECTRICAL, PATTERN 121B
FIXED, SQUARE FLANGE MOUNTING

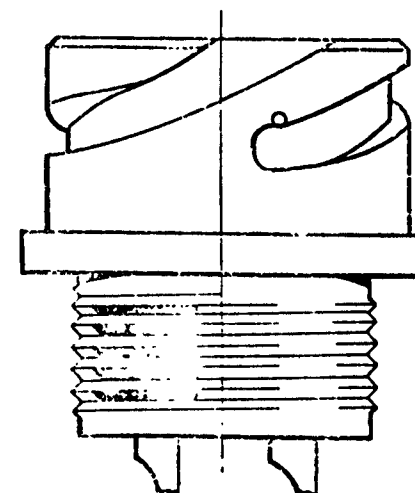
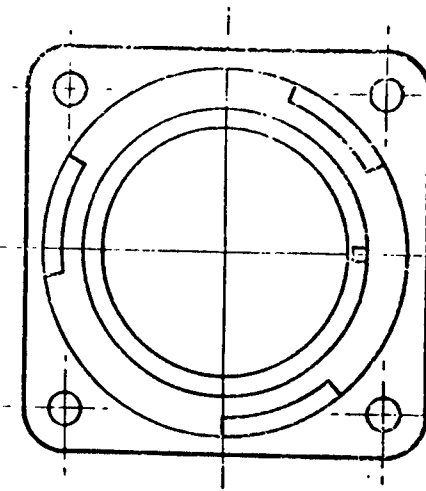
PAGE ITEM NO	CONTACT ARRANGEMENT	ORIENTATION	CRIMP TYPE				SOLDER TYPE			
			PLUG		SOCKET		PLUG		SOCKET	
			STYLE REFERENCE CC1596-	NATO STOCK NUMBER 5935-99-	STYLE REFERENCE CC1596-	NATO STOCK NUMBER 5935-99-	STYLE REFERENCE CC1596-	NATO STOCK NUMBER 5935-99-	STYLE REFERENCE CC1596-	NATO STOCK NUMBER 5935-99-
	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(j)	(k)
1	10SL-3	N	10SL-3PC	015-9061	10SL-3SC	015-9062	10SL-3P	015-9063	10SL-3S	015-9064
2		W	Not to be provided							
3		X	Not to be provided							
4		Y	Not to be provided							
5		Z	Not to be provided							
6	10SL-4	N	10SL-4PC	015-9065	10SL-4SC	015-9066	10SL-4P	015-9067	10SL-4S	015-9068
7		W	Not to be provided							
8		X	Not to be provided							
9		Y	Not to be provided							
10		Z	Not to be provided							
11	14S-2	N	14S-2PC	015-9069	14S-2SC	015-9070	14S-2P	015-9071	14S-2S	015-9072
12		W	Not to be provided							
13		X	14S-2PCX	015-9073	14S-2SCX	015-9074	14S-2PX	015-9075	14S-2SX	015-9076
14		Y	14S-2PCY	015-9077	14S-2SCY	015-9078	14S-2PY	015-9079	14S-2SY	015-9080
15		Z	Not to be provided							
16	14S-4	N	14S-4PC	015-9081	14S-4SC	015-9082	14S-4P	015-9083	14S-4S	015-9084
17		W	Not to be provided							
18		X	Not to be provided							
19		Y	Not to be provided							
20		Z	Not to be provided							



For outline dimensions see page 36

TABLE I(A) - CONTINUED

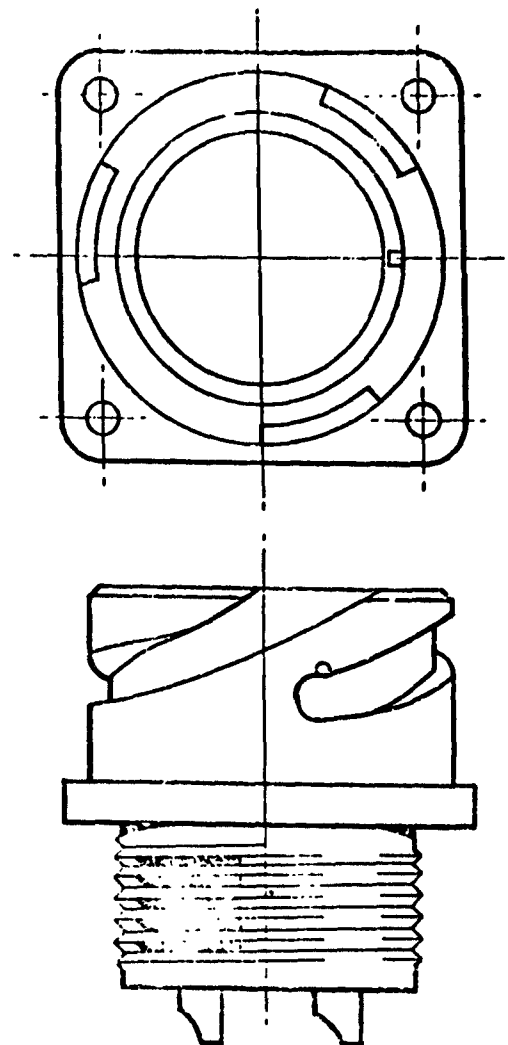
PAGE ITEM NO	CONTACT ARRANGEMENT	ORIENTATION	CRIMP TYPE				SOLDER TYPE			
			PLUG		SOCKET		PLUG		SOCKET	
			STYLE REFERENCE CC1596-	NATO STOCK NUMBER 5935-99-	STYLE REFERENCE CC1596-	NATO STOCK NUMBER 5935-99-	STYLE REFERENCE CC1596	NATO STOCK NUMBER 5935-99-	STYLE REFERENCE CC1596-	NATO STOCK NUMBER 5935-99-
			(c)	(d)	(e)	(f)	(g)	(h)	(j)	(k)
1	14S-5	N	14S-5PC	015-9085	14S-5SC	015-9086	14S-5P	015-9087	14S-5S	015-9088
2		W	Not to be provided							
3		X	14S-5PCX	015-9089	14S-5SCX	015-9090	14S-5PX	015-9091	14S-5SX	015-9092
4		Y	Not to be provided							
5		Z	Not to be provided							
6	14S-6	N	14S-6PC	015-9093	14S-6SC	015-9094	14S-6P	015-9095	14S-6S	015-9096
7		W	Not to be provided							
8		X	Not to be provided							
9		Y	Not to be provided							
10		Z	Not to be provided							
11	14S-7	N	14S-7PC	015-9097	14S-7SC	015-9098	14S-7P	015-9099	14S-7S	015-9100
12		W	14S-7PCW	015-9101	14S-7SCW	015-9102	14S-7PW	015-9103	14S-7SW	015-9104
13		X	14S-7PCX	015-9105	14S-7SCX	015-9106	14S-7PX	015-9107	14S-7SX	015-9108
14		Y	14S-7PCY	015-9109	14S-7SCY	015-9110	14S-7PY	015-9111	14S-7SY	015-9112
15		Z	Not to be provided							
16	14S-9	N	14S-9PC	015-9113	14S-9SC	015-9114	14S-9P	015-9115	14S-9S	015-9116
17		W	14S-9PCW	015-9117	14S-9SCW	015-9118	14S-9PW	015-9119	14S-9SW	015-9120
18		X	14S-9PCX	015-9121	14S-9SCX	015-9122	14S-9PX	015-9123	14S-9SX	015-9124
19		Y	14S-9PCY	015-9125	14S-9SCY	015-9126	14S-9PY	015-9127	14S-9SY	015-9128
20		Z	14S-9PCZ	015-9129	14S-9SCZ	015-9130	14S-9PZ	015-9131	14S-9SZ	015-9132



For outline dimensions see page 36

TABLE I(A) - CONTINUED

PAGE ITEM NO	CONTACT ARRANGEMENT	ORIENTATION	CRIMP TYPE				SOLDER TYPE			
			PLUG		SOCKET		PLUG		SOCKET	
			STYLE REFERENCE CC1596-	NATO STOCK NUMBER 5935-99-	STYLE REFERENCE CC1596-	NATO STOCK NUMBER 5935-99-	STYLE REFERENCE CC1596-	NATO STOCK NUMBER 5935-99-	STYLE REFERENCE CC1596-	NATO STOCK NUMBER 5935-99-
			(c)	(d)	(e)	(f)	(g)	(h)	(j)	(k)
1	16S-1	N	16S-1PC	015-9133	16S-1SC	015-9134	16S-1P	015-9135	16S-1S	015-9136
2		W	16S-1PCW	015-9137	16S-1SCW	015-9138	16S-1PW	015-9139	16S-1SW	015-9140
3		X	Not to be provided							
4		Y	Not to be provided							
5		Z	16S-1PCZ	015-9141	16S-1SCZ	015-9142	16S-1PZ	015-9143	16S-1SZ	015-9144
6	16-9	N	16-9PC	015-9145	16-9SC	015-9146	16-9P	015-9147	16-9S	015-9148
7		W	16-9PCW	015-9149	16-9SCW	015-9150	16-9PW	015-9151	16-9SW	015-9152
8		X	16-9PCX	015-9153	16-9SCX	015-9154	16-9PX	015-9155	16-9SX	015-9156
9		Y	16-9PCY	015-9157	16-9SCY	015-9158	16-9PY	015-9159	16-9SY	015-9160
10		Z	16-9PCZ	015-9161	16-9SCZ	015-9162	16-9PZ	015-9163	16-9SZ	015-9164
11	16-10	N	16-10PC	015-9165	16-10SC	015-9166	16-10P	015-9167	16-10S	015-9168
12		W	16-10PCW	015-9169	16-10SCW	015-9170	16-10PW	015-9171	16-10SW	015-9172
13		X	16-10PCX	015-9173	16-10SCX	015-9174	16-10PX	015-9175	16-10SX	015-9176
14		Y	16-10PCY	015-9177	16-10SCY	015-9178	16-10PY	015-9179	16-10SY	015-9180
15		Z	Not to be provided							
16	18-1	N	18-1PC	015-9181	18-1SC	015-9182	18-1P	015-9183	18-1S	015-9184
17		W	18-1PCW	015-9185	18-1SCW	015-9186	18-1PW	015-9187	18-1SW	015-9188
18		X	18-1PCX	015-9189	18-1SCX	015-9190	18-1PX	015-9191	18-1SX	015-9192
19		Y	18-1PCY	015-9193	18-1SCY	015-9194	18-1PY	015-9195	18-1SY	015-9196
20		Z	18-1PCZ	015-9197	18-1SCZ	015-9198	18-1PZ	015-9199	18-1SZ	015-9200

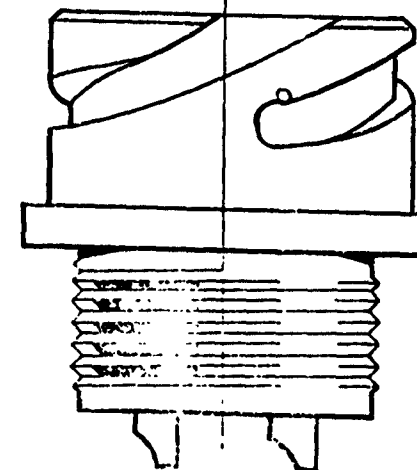
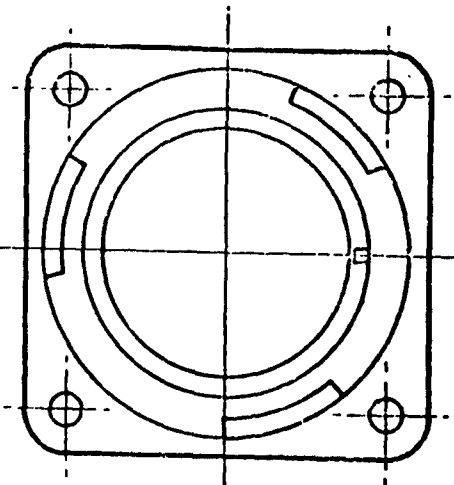


For outline dimensions see page 36

 DEF: STAN 59 - 35(PART 1)
 SECTION 8B/1
 TABLE I(A)(CONT'D)

TABLE I(A) - CONTINUED

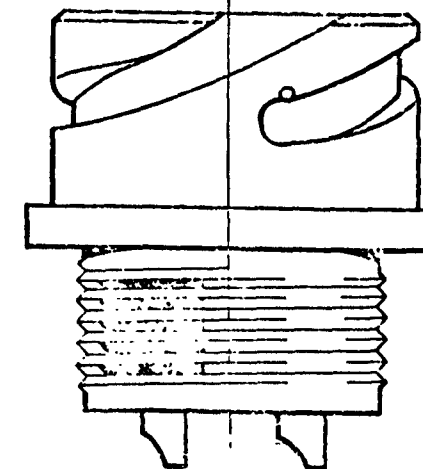
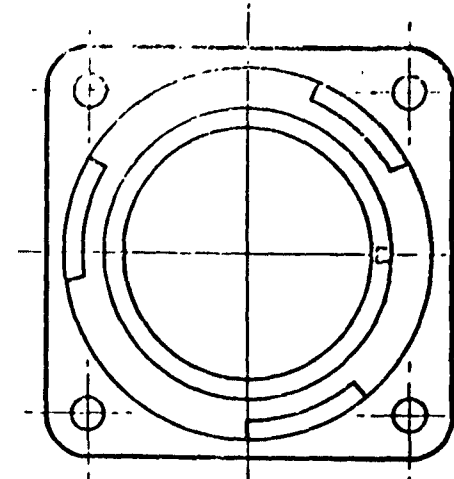
PAGE ITEM NO	CONNECT ARRANGEMENT	ORIENTATION	CRIMP TYPE				SOLDER TYPE			
			PLUG		SOCKET		PLUG		SOCKET	
			STYLE REFERENCE CC1596-	NATO STOCK NUMBER 5935-99-	STYLE REFERENCE CC1596-	NATO STOCK NUMBER 5935-99-	STYLE REFERENCE CC1596-	NATO STOCK NUMBER 5935-99-	STYLE REFERENCE CC1596-	NATO STOCK NUMBER 5935-99-
			(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)
1	18-11	N	18-11PC	015-9201	18-11SC	015-9202	18-11P	015-9203	18-11S	015-9204
2		W	Not to be provided							
3		X	18-11PCX	015-9205	18-11SCX	015-9206	18-11PX	015-9207	18-11SX	015-9208
4		Y	18-11PCY	015-9209	18-11SCY	015-9210	18-11PY	015-9211	18-11SY	015-9212
5		Z	Not to be provided							
6	20-14	N	20-14PC	015-9213	20-14SC	015-9214	20-14P	015-9215	20-14S	015-9216
7		W	20-14PCW	015-9217	20-14SCW	015-9218	20-14PW	015-9219	20-14SW	015-9220
8		X	20-14PCX	015-9221	20-14SCX	015-9222	20-14PX	015-9223	20-14SX	015-9224
9		Y	20-14PCY	015-9225	20-14SCY	015-9226	20-14PY	015-9227	20-14SY	015-9228
10		Z	20-14PCZ	015-9229	20-14SCZ	015-9230	20-14PZ	015-9231	20-14SZ	015-9232
11	20-15	N	20-15PC	015-9233	20-15SC	015-9234	20-15P	015-9235	20-15S	015-9236
12		W	20-15PCW	015-9237	20-15SCW	015-9238	20-15PW	015-9239	20-15SW	015-9240
13		X	Not to be provided							
14		Y	Not to be provided							
15		Z	20-15PCZ	015-9241	20-15SCZ	015-9242	20-15PZ	015-9243	20-15SZ	015-9244
16	20-18	N	20-18PC	015-9245	20-18SC	015-9246	20-18P	015-9247	20-18S	015-9248
17		W	20-18PCW	015-9249	20-18SCW	015-9250	20-18PW	015-9251	20-18SW	015-9252
18		X	20-18PCX	015-9253	20-18SCX	015-9254	20-18PX	015-9255	20-18SX	015-9256
19		Y	20-18PCY	015-9257	20-18SCY	015-9258	20-18PY	015-9259	20-18SY	015-9260
20		Z	20-18PCZ	015-9261	20-18SCZ	015-9262	20-18PZ	015-9263	20-18SZ	015-9264



For outline dimensions see page 46

TABLE I(A) - CONTINUED

PAGE ITEM NO	CONTACT ARRANGEMENT	ORIENTATION	CRIMP TYPE				SOLDER TYPE			
			PLUG		SOCKET		PLUG		SOCKET	
			STYLE REFERENCE CC1596-	NATO STOCK NUMBER 5935-99-	STYLE REFERENCE CC1596-	NATO STOCK NUMBER 5935-99-	STYLE REFERENCE CC1596-	NATO STOCK NUMBER 5935-99-	STYLE REFERENCE CC1596-	NATO STOCK NUMBER 5935-99-
	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(j)	(k)
1	20-22	N	20-22PC	015-9265	20-22SC	015-9266	20-22P	015-9267	20-22S	015-9268
2		W	20-22PCW	015-9269	20-22SCW	015-9270	20-22PW	015-9271	20-22SW	015-9272
3		X	20-22PCX	015-9973	20-22SCX	015-9274	20-22PX	015-9275	20-22SX	015-9276
4		Y	20-22PCY	015-9277	20-22SCY	015-9278	20-22PY	015-9279	20-22SY	015-9280
5		Z	20-22PCZ	015-9281	20-22SCZ	015-9282	20-22PZ	015-9283	20-22SZ	015-9284
6	20-29	N	20-29PC	015-9285	20-29SC	015-9286	20-29P	015-9287	20-29S	015-9288
7		W	20-29PCW	015-9286	20-29SCW	015-9290	20-29PW	015-9291	20-29SW	015-9292
8		X	Not to be provided							
9		Y	Not to be provided							
10		Z	20-29PCZ	015-9293	20-29SCZ	015-9294	20-29PZ	015-9295	20-29SZ	015-9296
11	22-14	N	22-14PC	015-9297	22-14SC	015-9298	22-14P	015-9299	22-14S	015-9300
12		W	22-14PCW	015-9301	22-14SCW	015-9302	22-14PW	015-9303	22-14SW	015-9304
13		X	Not to be provided							
14		Y	Not to be provided							
15		Z	22-14PCZ	015-9305	22-14SCZ	015-9306	22-14PZ	015-9307	22-14SZ	015-9308
16	22-18	N	22-18PC	015-9309	22-18SC	015-9310	22-18P	015-9311	22-18S	015-9312
17		W	22-18PCW	015-9313	22-18SCW	015-9314	22-18PW	015-9315	22-18SW	015-9316
18		X	22-18PCX	015-9317	22-18SCX	015-9318	22-18PX	015-9319	22-18SX	015-9320
19		Y	22-18PCY	015-9321	22-18SCY	015-9322	22-18PY	015-9323	22-18SY	015-9324
20		Z	22-18PCZ	015-9325	22-18SCZ	015-9326	22-18PZ	015-9327	22-18SZ	015-9328

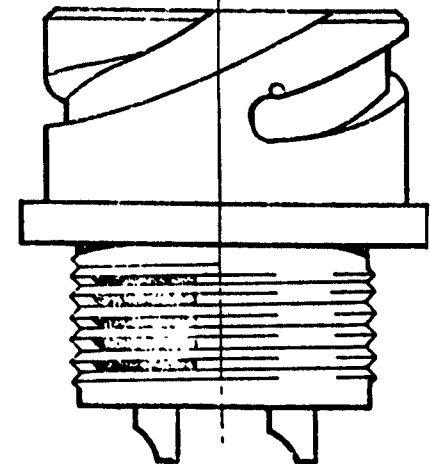
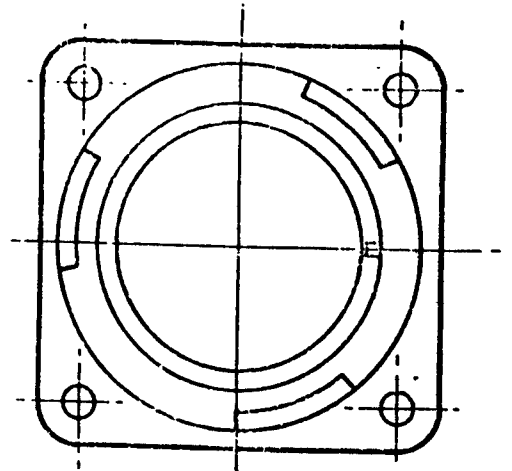


For outline dimensions see page 36

 DNF STAN 59 - 35(PART 1)
 SECTION 8B/1
 TABLE I(A)(CONTD)

TABLE I(A) - CONTINUED

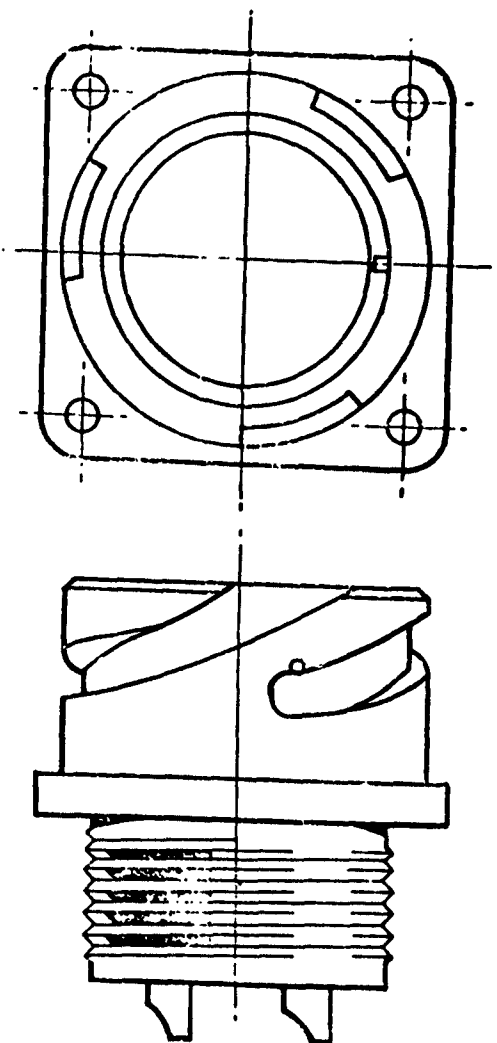
PAGE ITEM NO	CC:FACT ARRANGEMENT	ORIENTATION	CRIMP TYPE				SOLDER TYPE			
			PLUG		SOCKET		PLUG		SOCKET	
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			(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)
1	22-19	N	22-19PC	015-9329	22-19SC	015-9330	22-19P	015-9331	22-19S	015-9332
2		W	22-19PCW	015-9333	22-19SCW	015-9334	22-19PW	015-9335	22-19SW	015-9336
3		X	22-19PCX	015-9337	22-19SCX	015-9338	22-19PX	015-9339	22-19SX	015-9340
4		Y	22-19PCY	015-9341	22-19SCY	015-9342	22-19PY	015-9343	22-19SY	015-9344
5		Z	22-19PCZ	015-9345	22-19SCZ	015-9346	22-19PZ	015-9347	22-19SZ	015-9348
6	22-22	N	22-22PC	015-9349	22-22SC	015-9350	22-22P	015-9351	22-22S	015-9352
7		W	Not to be provided							
8		X	22-22PCX	015-9353	22-22SCX	015-9354	22-22PX	015-9355	22-22SX	015-9356
9		Y	22-22PCY	015-9357	22-22SCY	015-9358	22-22PY	015-9359	22-22SY	015-9360
10		Z	Not to be provided							
11	22-23	N	22-23PC	015-9361	22-23SC	015-9362	22-23P	015-9363	22-23S	015-9364
12		W	22-23PCW	015-9365	22-23SCW	015-9366	22-23PW	015-9367	22-23SW	015-9368
13		X	Not to be provided							
14		Y	22-23PCY	015-9369	22-23SCY	015-9370	22-23PY	015-9371	22-23SY	015-9372
15		Z	Not to be provided							
16	24-7	N	24-7PC	015-9373	24-7SC	015-9374	24-7P	015-9375	24-7S	015-9376
17		W	24-7PCW	015-9377	24-7SCW	015-9378	24-7PW	015-9379	24-7SW	015-9380
18		X	24-7PCX	015-9381	24-7SCX	015-9382	24-7PX	015-9383	24-7SX	015-9384
19		Y	24-7PCY	015-9385	24-7SCY	015-9386	24-7PY	015-9387	24-7SY	015-9388
20		Z	24-7PCZ	015-9389	24-7SCZ	015-9390	24-7PZ	015-9391	24-7SZ	015-9392



For outline dimensions see page 36

TABLE I(A) - CONTINUED

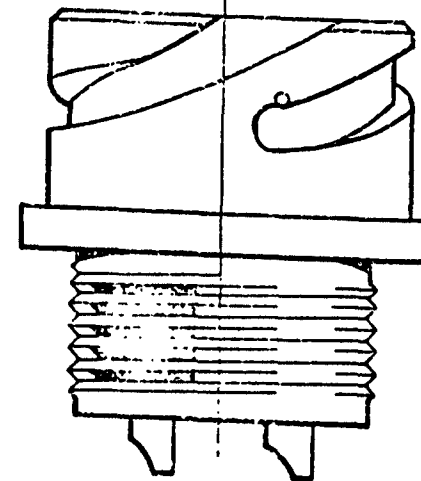
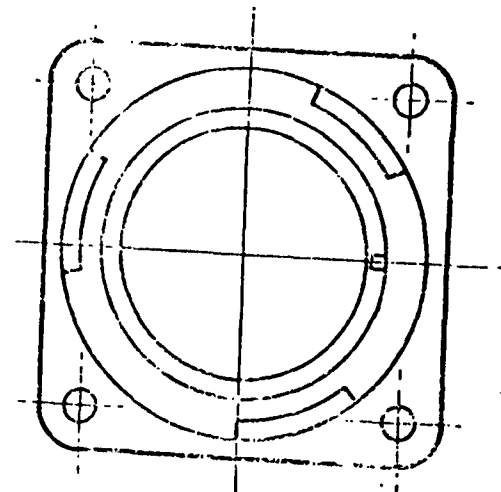
PAGE ITEM NO	CONTACT ARRANGEMENT	ORIENTATION	CRIMP TYPE				SOLDER TYPE			
			PLUG		SOCKET		PLUG		SOCKET	
			STYLE REFERENCE CC1596-	NATO STOCK NUMBER 5935-99-	STYLE REFERENCE CC1596-	NATO STOCK NUMBER 5935-99-	STYLE REFERENCE CC1596-	NATO STOCK NUMBER 5935-99-	STYLE REFERENCE CC1596-	NATO STOCK NUMBER 5935-99-
			(c)	(d)	(e)	(f)	(g)	(h)	(j)	(k)
1	24-11	N	24-11PC	015-9393	24-11SC	015-9394	24-11P	015-9395	24-11S	015-9396
2		W	24-11PCW	015-9397	24-11SCW	015-9398	24-11PW	015-9399	24-11SW	015-9400
3		X	24-11PCX	015-9401	24-11SCX	015-9402	24-11PX	015-9403	24-11SX	015-9404
4		Y	24-11PCY	015-9405	24-11SCY	015-9406	24-11PY	015-9407	24-11SY	015-9408
5		Z	24-11PCZ	015-9409	24-11SCZ	015-9410	24-11PZ	015-9411	24-11SZ	015-9412
6	24-12	N	24-12PC	015-9413	24-12SC	015-9414	24-12P	015-9415	24-12S	015-9416
7		W	24-12PCW	015-9417	24-12SCW	015-9418	24-12PW	015-9419	24-12SW	015-9420
8		X	24-12PCX	015-9421	24-12SCX	015-9422	24-12PX	015-9423	24-12SX	015-9424
9		Y	24-12PCY	015-9425	24-12SCY	015-9426	24-12PY	015-9427	24-12SY	015-9428
10		Z	24-12PCZ	015-9429	24-12SCZ	015-9430	24-12PZ	015-9431	24-12SZ	015-9432
11	24-28	N	24-28PC	015-9433	24-28SC	015-9434	24-28P	015-9435	24-28S	015-9436
12		W	24-28PCW	015-9437	24-28SCW	015-9438	24-28PW	015-9439	24-28SW	015-9440
13		X	24-28PCX	015-9441	24-28SCX	015-9442	24-28PX	015-9443	24-28SX	015-9444
14		Y	24-28PCY	015-9445	24-28SCY	015-9446	24-28PY	015-9447	24-28SY	015-9448
15		Z	24-28PCZ	015-9449	24-28SCZ	015-9450	24-28PZ	015-9451	24-28SZ	015-9452
16	28-10	N	28-10PC	015-9453	28-10SC	015-9454	28-10P	015-9455	28-10S	015-9456
17		W	28-10PCW	015-9457	28-10SCW	015-9458	28-10PW	015-9459	28-10SW	015-9460
18		X	28-10PCX	015-9461	28-10SCX	015-9462	28-10PX	015-9463	28-10SX	015-9464
19		Y	28-10PCY	015-9465	28-10SCY	015-9466	28-10PY	015-9467	28-10SY	015-9468
20		Z	28-10PCZ	015-9469	28-10SCZ	015-9470	28-10PZ	015-9471	28-10SZ	015-9472



For outline dimensions see page 36

TABLE I(A) - CONTINUED

PAGE ITEM NO	CONTACT ARRANGEMENT	ORIENTATION	CRIMP TYPE				SOLDER TYPE			
			PLUG		SOCKET		PLUG		SOCKET	
			STYLE REFERENCE CC1596-	NATO STOCK NUMBER 5935-99-	STYLE REFERENCE CC1596-	NATO STOCK NUMBER 5935-99-	STYLE REFERENCE CC1596-	NATO STOCK NUMBER 5935-99-	STYLE REFERENCE CC1596-	NATO STOCK NUMBER 5935-99-
	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(j)	(k)
1	28-11	N	28-11PC	015-9473	28-11SC	015-9474	28-11P	015-9475	28-11S	015-9476
2		W	28-11PCW	015-9477	28-11SCW	015-9478	28-11PW	015-9479	28-11SW	015-9480
3		X	28-11PCX	015-9481	28-11SCX	015-9482	28-11PX	015-9483	28-11SX	015-9484
4		Y	28-11PCY	015-9485	28-11SCY	015-9486	28-11PY	015-9487	28-11SY	015-9488
5		Z	28-11PCZ	015-9489	28-11SCZ	015-9490	28-11PZ	015-9491	28-11SZ	015-9492
6	28-20	N	28-20PC	015-9493	28-20SC	015-9494	28-20P	015-9495	28-20S	015-9496
7		W	28-20PCW	015-9497	28-20SCW	015-9498	28-20PW	015-9499	28-20SW	015-9500
8		X	28-20PCX	015-9501	28-20SCX	015-9502	28-20PX	015-9503	28-20SX	015-9504
9		Y	28-20PCY	015-9505	28-20SCY	015-9506	28-20PY	015-9507	28-20SY	015-9508
10		Z	28-20PCZ	015-9509	28-20SCZ	015-9510	28-20PZ	015-9511	28-20SZ	015-9512
11	28-21	N	28-21PC	015-9513	28-21SC	015-9514	28-21P	015-9515	28-21S	015-9516
12		W	28-21PCW	015-9517	28-21SCW	015-9518	28-21PW	015-9519	28-21SW	015-9520
13		X	28-21PCX	015-9521	28-21SCX	015-9522	28-21PX	015-9523	28-21SX	015-9524
14		Y	28-21PCY	015-9525	28-21SCY	015-9526	28-21PY	015-9527	28-21SY	015-9528
15		Z	28-21PCZ	015-9529	28-21SCZ	015-9530	28-21PZ	015-9531	28-21SZ	015-9532
16	28-22	N	28-22PC	015-9533	28-22SC	015-9534	28-22P	015-9535	28-22S	015-9536
17		W	28-22PCW	015-9537	28-22SCW	015-9538	28-22PW	015-9539	28-22SW	015-9540
18		X	28-22PCX	015-9541	28-22SCX	015-9542	28-22PX	015-9543	28-22SX	015-9544
19		Y	28-22PCY	015-9545	28-22SCY	015-9546	28-22PY	015-9547	28-22SY	015-9548
20		Z	28-22PCZ	015-9549	28-22SCZ	015-9550	28-22PZ	015-9551	28-22SZ	015-9552

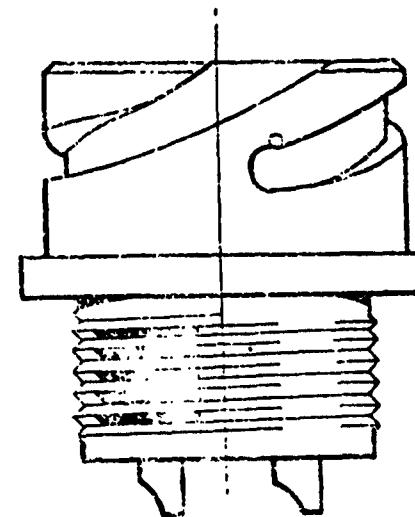
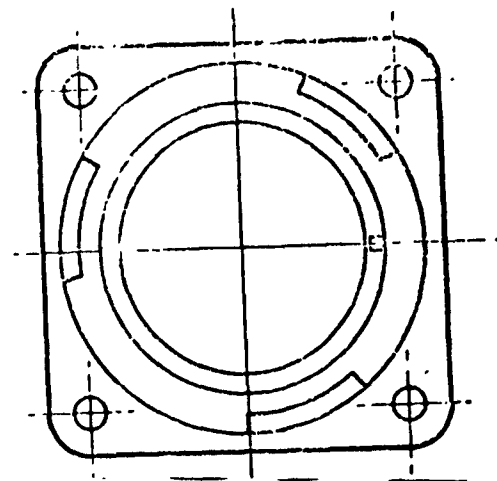


For outline dimensions see page 36

 DEF STAN 59 - 35 (PART 1)
 SECTION 89/1
 TABLE I(A) (CONT'D)

TABLE I(A) - CONTINUED

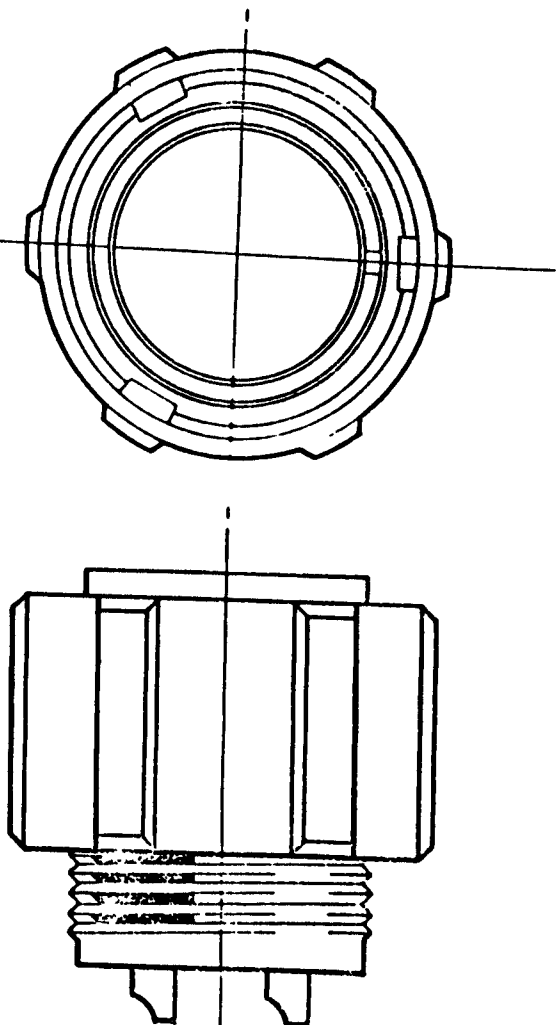
PAGE ITEM NO	CONTACT ARRANGEMENT	ORIENTATION	CRIMP TYPE				SOLDER TYPE			
			PLUG		SOCKET		PLUG		SOCKET	
			STYLE REFERENCE CC1596-	NATO STOCK NUMBER 5935-99-	STYLE REFERENCE CC1596-	NATO STOCK NUMBER 5935-99-	STYLE REFERENCE CC1596-	NATO STOCK NUMBER 5935-99-	STYLE REFERENCE CC1596-	NATO STOCK NUMBER 5935-99-
(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)
1	32-6	N	32-6PC	015-9553	32-6SC	015-9554	32-6P	015-9555	32-6S	015-9556
2		W	32-6PCW	015-9557	32-6SCW	015-9558	32-6PW	015-9559	32-6SW	015-9560
3		X	32-6PCX	015-9561	32-6SCX	015-9562	32-6PX	015-9563	32-6SX	015-9564
4		Y	32-6PCY	015-9565	32-6SCY	015-9566	32-6PY	015-9567	32-6SY	015-9568
5		Z	32-6PCZ	015-9569	32-6SCZ	015-9570	32-6PZ	015-9571	32-6SZ	015-9572
6	32-7	N	32-7PC	015-9573	32-7SC	015-9574	32-7P	015-9575	32-7S	015-9576
7		W	32-7PCW	015-9577	32-7SCW	015-9578	32-7PW	015-9579	32-7SW	015-9580
8		X	32-7PCX	015-9581	32-7SCX	015-9582	32-7PX	015-9583	32-7SX	015-9584
9		Y	32-7PCY	015-9585	32-7SCY	015-9586	32-7PY	015-9587	32-7SY	015-9588
10		Z	32-7PCZ	015-9589	32-7SCZ	015-9590	32-7PZ	015-9591	32-7SZ	015-9592
11	36-7	N	36-7PC	015-9593	36-7SC	015-9594	36-7P	015-9595	36-7S	015-9596
12		W	36-7PCW	015-9597	36-7SCW	015-9598	36-7PW	015-9599	36-7SW	015-9600
13		X	36-7PCX	015-9601	36-7SCX	015-9602	36-7PX	015-9603	36-7SX	015-9604
14		Y	36-7PCY	015-9605	36-7SCY	015-9606	36-7PY	015-9607	36-7SY	015-9608
15		Z	36-7PCZ	015-9609	36-7SCZ	015-9610	36-7PZ	015-9611	36-7SZ	015-9612



For outline dimensions see page 36

TABLE I (B)
STANDARD RANGE
PLUGS AND SOCKETS ELECTRICAL PATTERN 121B
FREE WITH ACCESSORY THREAD AND COARSE
RIBBED COUPLING NUT

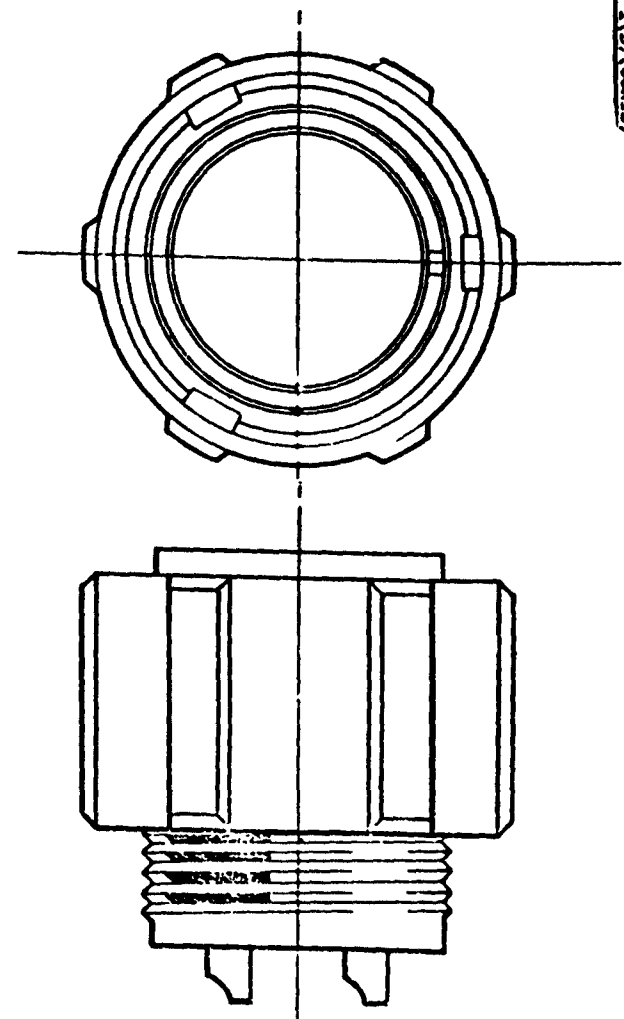
PAGE ITEM NO	CONTACT ARRANGEMENT	ORIENTATION	CRIMP TYPE				SOLDER TYPE			
			PLUG		SOCKET		PLUG		SOCKET	
			STYLE REFERENCE CC1597-	NATO STOCK NUMBER 5935-99-	STYLE REFERENCE CC1597-	NATO STOCK NUMBER 5935-99-	STYLE REFERENCE CC1597-	NATO STOCK NUMBER 5935-99-	STYLE REFERENCE CC1597-	NATO STOCK NUMBER 5935-99-
(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(j)	(k)	
1	10SL-3	N	10SL-3PC	015-9613	10SL-3SC	015-9614	10SL-3P	015-9615	10SL-3S	015-9616
2		W	Not to be provided							
3		X	Not to be provided							
4		Y	Not to be provided							
5		Z	Not to be provided							
6	10SL-4	N	10SL-4PC	015-9617	10SL-4SC	015-9618	10SL-4P	015-9619	10SL-4S	015-9620
7		W	Not to be provided							
8		X	Not to be provided							
9		Y	Not to be provided							
10		Z	Not to be provided							
11	14S-2	N	14S-2PC	015-9621	14S-2SC	015-9622	14S-2P	015-9623	14S-2S	015-9624
12		W	Not to be provided							
13		X	14S-2PCX	015-9625	14S-2SCX	015-9626	14S-2PX	015-9627	14S-2SX	015-9628
14		Y	14S-2PCY	015-9629	14S-2SCY	015-9630	14S-2PY	015-9631	14S-2SY	015-9632
15		Z	Not to be provided							
16	14S-4	N	14S-4PC	015-9633	14S-4SC	015-9634	14S-4P	015-9635	14S-4S	015-9636
17		W	Not to be provided							
18		X	Not to be provided							
19		Y	Not to be provided							
20		Z	Not to be provided							



For outline dimensions see page 37

TABLE I(B) - CONTINUED

PAGE ITEM NO	CONTACT ARRANGEMENT	ORIENTATION	CRIMP TYPE				SOLDER TYPE			
			PLUG		SOCKET		PLUG		SOCKET	
			STYLE REFERENCE CC1597-	NATO STOCK NUMBER 5935-99-	STYLE REFERENCE CC1597-	NATO STOCK NUMBER 5935-99-	STYLE REFERENCE CC1597-	NATO STOCK NUMBER 5935-99-	STYLE REFERENCE CC1597-	NATO STOCK NUMBER 5935-99-
	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(j)	(k)
1	14S-5	N	14S-5PC	015-9637	14S-5SC	015-9638	14S-5P	015-9639	14S-5S	015-9640
2		W	Not to be provided							
3		X	14S-5PCX	015-9641	14S-5SCX	015-9642	14S-5PX	015-9643	14S-5S	015-9644
4		Y	Not to be provided							
5		Z	Not to be provided							
6	14S-6	N	14S-6PC	015-9645	14S-6SC	015-9646	14S-6P	015-9647	14S-6S	015-9648
7		W	Not to be provided							
8		X	Not to be provided							
9		Y	Not to be provided							
10		Z	Not to be provided							
11	14S-7	N	14S-7PC	015-9649	14S-7SC	015-9650	14S-7P	015-9651	14S-7S	015-9652
12		W	14S-7PCW	015-9653	14S-7SCW	015-9654	14S-7PW	015-9655	14S-7SW	015-9656
13		X	14S-7PCX	015-9657	14S-7SCX	015-9658	14S-7PX	015-9659	14S-7SX	015-9660
14		Y	14S-7PCY	015-9661	14S-7SCY	015-9662	14S-7PY	015-9663	14S-7SY	015-9664
15		Z	Not to be provided							
16	14S-9	N	14S-9PC	015-9665	14S-9SC	015-9666	14S-9P	015-9667	14S-9S	015-9668
17		W	14S-9PCW	015-9669	14S-9SCW	015-9670	14S-9PW	015-9671	14S-9SW	015-9672
18		X	14S-9PCX	015-9673	14S-9SCX	015-9674	14S-9PX	015-9675	14S-9SX	015-9676
19		Y	14S-9PCY	015-9677	14S-9SCY	015-9678	14S-9PY	015-9679	14S-9SY	015-9680
20		Z	14S-9PCZ	015-9681	14S-9SCZ	015-9682	14S-9PZ	015-9683	14S-9SZ	015-9684

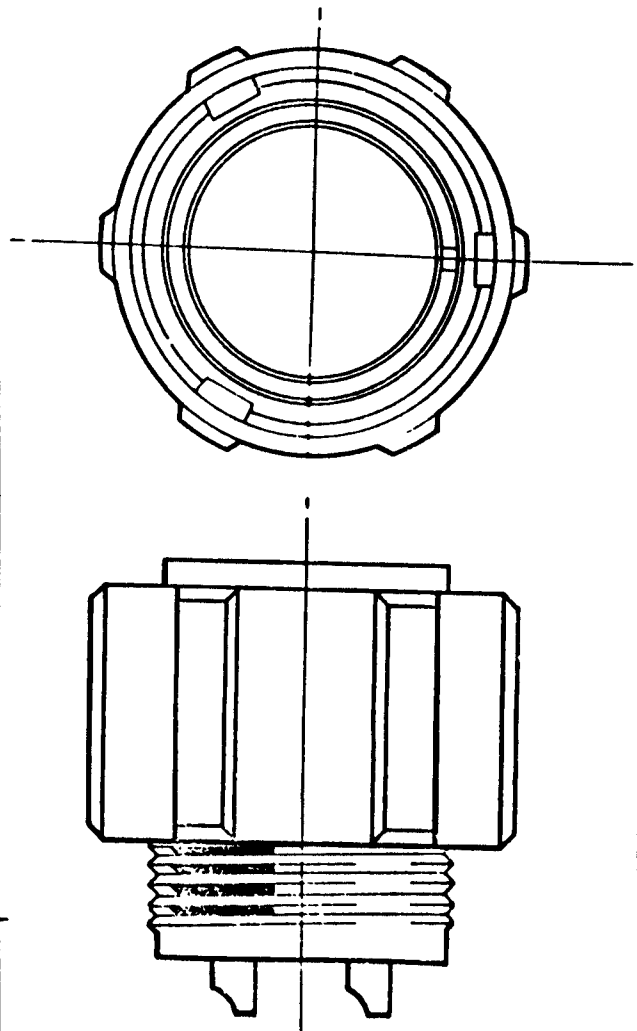


For outline dimensions see page 37

 SEE STAN 29 - 35 (PART 1)
 SECTION 85/1
 TABLE I(B) (CONT'D)

TABLE I(B) - CONTINUED

PAGE ITEM NO	CONNECT ARRANGEMENT	ORIENTATION	CRIMP TYPE				SOLDER TYPE			
			PLUG		SOCKET		PLUG		SOCKET	
			STYLE REFERENCE CC1597-	NATO STOCK NUMBERZ 5935-99-	STYLE REFERENCE CC1597-	NATO STOCK NUMBER 5935-99-	STYLE REFERENCE CC1597-	NATO STOCK NUMBER 5935-99-	STYLE REFERENCE CC1597-	NATO STOCK NUMBER 5935-99-
			(a)	(d)	(e)	(f)	(g)	(h)	(j)	(k)
1	16S-1	N	16S-1PC	015-9685	16S-1SC	015-9686	16S-1P	015-9687	16S-1S	015-9688
2		W	16S-1PCW	015-9689	16S-1SCW	015-9690	16S-1PW	015-9691	16S-1SW	015-9692
3		X	Not to be provided							
4		Y	Not to be provided							
5		Z	16S-1PCZ	015-9693	16S-1SCZ	015-9694	16S-1PZ	015-9695	16S-1SZ	015-9696
6	16-9	N	16-9PC	015-9697	16-9SC	015-9698	16-9P	015-9699	16-9S	015-9700
7		W	16-9PCW	015-9701	16-9SCW	015-9702	16-9PW	015-9703	16-9SW	015-9704
8		X	16-9PCX	015-9705	16-9SCX	015-9706	16-9PX	015-9707	16-9SX	015-9708
9		Y	16-9PCY	015-9709	16-9SCY	015-9710	16-9PY	015-9711	16-9SY	015-9712
10		Z	16-9PCZ	015-9713	16-9SCZ	015-9714	16-9PZ	015-9715	16-9SZ	015-9716
11	16-10	N	16-10PC	015-9717	16-10SC	015-9718	16-10P	015-9719	16-10S	015-9720
12		W	16-10PCW	015-9721	16-10SCW	015-9722	16-10PW	015-9723	16-10SW	015-9724
13		X	16-10PCX	015-9725	16-10SCX	015-9726	16-10PX	015-9727	16-10SX	015-9728
14		Y	16-10PCY	015-9729	16-10SCY	015-9730	16-10PY	015-9731	16-10SY	015-9732
15		Z	Not to be provided							
16	18-1	N	18-1PC	015-9733	18-1SC	015-9734	18-1P	015-9735	18-1S	015-9736
17		W	18-1PCW	015-9737	18-1SCW	015-9738	18-1PW	015-9739	18-1SW	015-9740
18		X	18-1PCX	015-9741	18-1SCX	015-9742	18-1PX	015-9743	18-1SX	015-9744
19		Y	18-1PCY	015-9745	18-1SCY	015-9746	18-1PY	015-9747	18-1SY	015-9748
20		Z	18-1PCZ	015-9749	18-1SCZ	015-9750	18-1PZ	015-9751	18-1SZ	015-9752

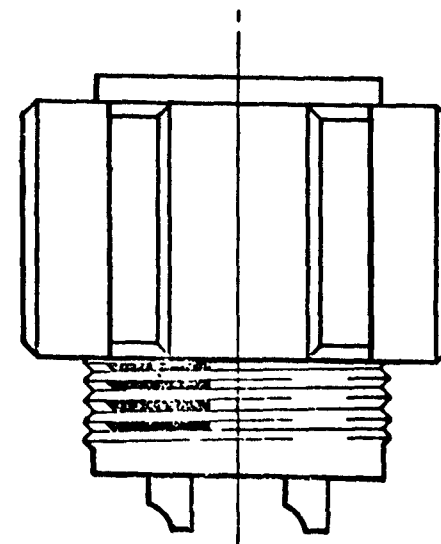
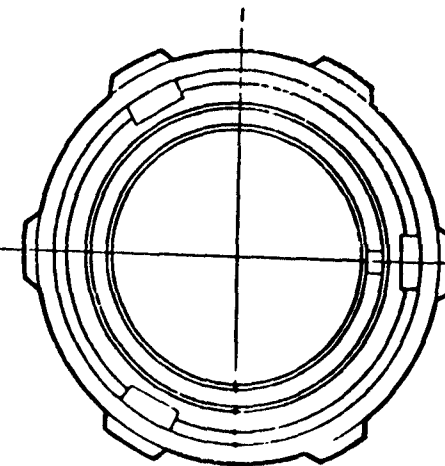


For outline dimensions see page 37

DIE STAMP 59 - 35(PART 1)
SECTION 88/1
TABLE I(B)(CONT'D)

TABLE I(B) - CONTINUED

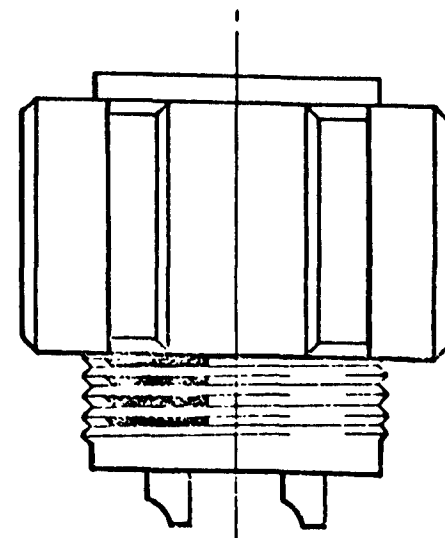
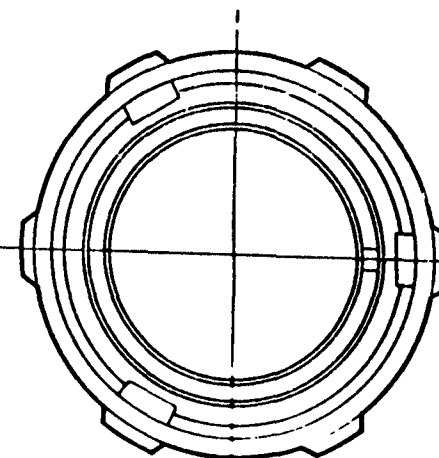
PAGE ITEM NO	CONTACT ARRANGEMENT	ORIENTATION	CRIMP TYPE				SOLDER TYPE			
			PLUG		SOCKET		PLUG		SOCKET	
			STYLE REFERENCE CC1597-	NATO STOCK NUMBER 5935-99-	STYLE REFERENCE CC1597-	NATO STOCK NUMBER 5935-99-	STYLE REFERENCE CC1597-	NATO STOCK NUMBER 5935-99-	STYLE REFERENCE CC1597-	NATO STOCK NUMBER 5935-99-
	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(j)	(k)
1	18-11	N	18-11PC	015-9753	18-11SC	015-9754	18-11P	015-9755	18-11S	015-9756
2		W	Not to be provided							
3		X	18-11PCX	015-9757	18-11SCX	015-9758	18-11PX	015-9759	18-11SX	015-9760
4		Y	18-11PCY	015-9761	18-11SCY	015-9762	18-11PY	015-9763	18-11SY	015-9764
5		Z	Not to be provided							
6	20-14	N	20-14PC	015-9765	20-14SC	015-9766	20-14P	015-9767	20-14S	015-9768
7		W	20-14PCW	015-9769	20-14SCW	015-9770	20-14PW	015-9771	20-14SW	015-9772
8		X	20-14PCX	015-9773	20-14SCX	015-9774	20-14PX	015-9775	20-14SX	015-9776
9		Y	20-14PCY	015-9777	20-14SCY	015-9778	20-14PY	015-9779	20-14SY	015-9780
10		Z	20-14PCZ	015-9781	20-14SCZ	015-9782	20-14PZ	015-9783	20-14SZ	015-9784
11	20-15	N	20-15PC	015-9785	20-15SC	015-9786	20-15P	015-9787	20-15S	015-9788
12		W	20-15PCW	015-9889	20-15SCW	015-9790	20-15PW	015-9791	20-15SW	015-9792
13		X	Not to be provided							
14		Y	Not to be provided							
15		Z	20-15PCZ	015-9793	20-15SCZ	015-9794	20-15PZ	015-9795	20-15SZ	015-9796
16	20-18	N	20-18PC	015-9797	20-18SC	015-9798	20-18P	015-9799	20-18S	015-9800
17		W	20-18PCW	015-9801	20-18SCW	015-9802	20-18PW	015-9803	20-18SW	015-9804
18		X	20-18PCX	015-9805	20-18SCX	015-9806	20-18PX	015-9807	20-18SX	015-9808
19		Y	20-18PCY	015-9809	20-18SCY	015-9810	20-18PY	015-9811	20-18SY	015-9812
20		Z	20-18PCZ	015-9813	20-18SCZ	015-9814	20-18PZ	015-9815	20-18SZ	015-9816



For outline dimensions see page 37

TABLE I(B) - CONTINUED

PAGE ITEM NO	CONTACT ARRANGEMENT	ORIENTATION	CRIMP TYPE				SOLDER TYPE			
			PLUG		SOCKET		PLUG		SOCKET	
			STYLE REFERENCE CC1597-	NATO STOCK NUMBER 5935-99-	STYLE REFERENCE CC1597-	NATO STOCK NUMBER 5935-99-	STYLE REFERENCE CC1597-	NATO STOCK NUMBER 5935-99-	STYLE REFERENCE CC1597-	NATO STOCK NUMBER 5935-99-
(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)
1	20-22	N	20-22PC	015-9817	20-22SC	015-9818	20-22P	015-9819	20-22S	015-9820
2		W	20-22PCW	015-9821	20-22SCW	015-9822	20-22PW	015-9823	20-22SW	015-9824
3		X	20-22PCX	015-9825	20-22SCX	015-9826	20-22PX	015-9827	20-22SX	015-9828
4		Y	20-22PCY	015-9829	20-22SCY	015-9830	20-22PY	015-9831	20-22SY	015-9832
5		Z	20-22PCZ	015-9833	20-22SCZ	015-9834	20-22PZ	015-9835	20-22SZ	015-9836
6	20-29	N	20-29PC	015-9837	20-29SC	015-9838	20-29P	015-9839	20-29S	015-9840
7		W	20-29PCW	015-9841	20-29SCW	015-9842	20-29PW	015-9843	20-29SW	015-9844
8		X	Not to be provided							
9		Y	Not to be provided							
10		Z	20-29PCZ	015-9845	20-29SCZ	015-9846	20-29PZ	015-9847	20-29SZ	015-9848
11	22-14	N	22-14PC	015-9849	22-14SC	015-9850	22-14P	015-9851	22-14S	015-9852
12		W	22-14PCW	015-9853	22-14SCW	015-9854	22-14PW	015-9855	22-14SW	015-9856
13		X	Not to be provided							
14		Y	Not to be provided							
15		Z	22-14PCZ	015-9857	22-14SCZ	015-9858	22-14PZ	015-9859	22-14SZ	015-9860
16	22-18	N	22-18PC	015-9861	22-18SC	015-9862	22-18P	015-9863	22-18S	015-9864
17		W	22-18PCW	015-9865	22-18SCW	015-9866	22-18PW	015-9867	22-18SW	015-9868
18		X	22-18PCX	015-9869	22-18SCX	015-9870	22-18PX	015-9871	22-18SX	015-9872
19		Y	22-18PCY	015-9873	22-18SCY	015-9874	22-18PY	015-9875	22-18SY	015-9876
20		Z	22-18PCZ	015-9877	22-18SCZ	015-9878	22-18PZ	015-9879	22-18SZ	015-9880

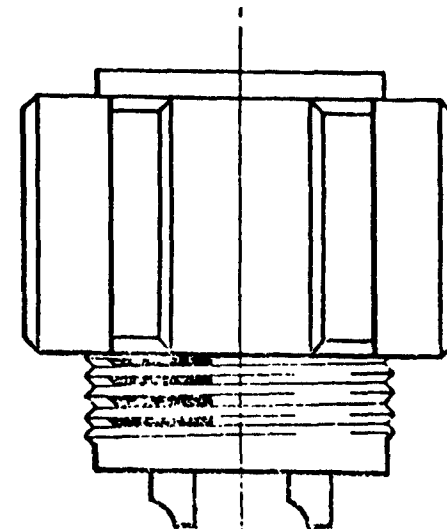
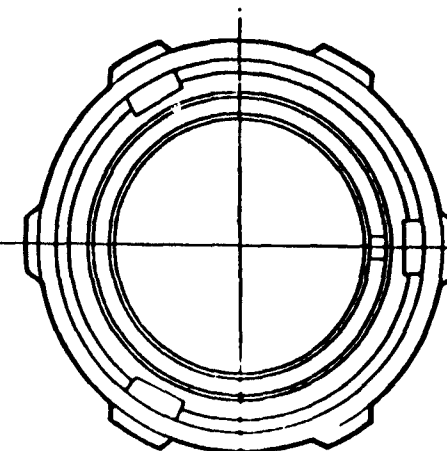


For outline dimensions see page 37

 DEF STAN 59 - 35(PART 1)
 SECTION B9/1
 TABLE I(B) (CONTD)

TABLE I(B) - CONTINUED

PAGE ITEM NO	CONTACT ARRANGEMENT	ORIENTATION	CRIMP TYPE				SOLDER TYPE			
			PLUG		SOCKET		PLUG		SOCKET	
			STYLE REFERENCE CC1597-	NATO STOCK NUMBER 5935-99-	STYLE REFERENCE CC1597-	NATO STOCK NUMBER 5935-99-	STYLE REFERENCE CC1597-	NATO STOCK NUMBER 5935-99-	STYLE REFERENCE CC1597-	NATO STOCK NUMBER 5935-99-
	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(j)	(k)
1	22-19	N	22-19PC	015-9881	22-19SC	015-9882	22-19P	015-9883	22-19S	015-9884
2		W	22-19PCW	015-9885	22-19SCW	015-9886	22-19PW	015-9887	22-19SW	015-9888
3		X	22-19PCX	015-9889	22-19SCX	015-9890	22-19PX	015-9891	22-19SX	015-9892
4		Y	22-19PCY	015-9893	22-19SCY	015-9894	22-19PY	015-9895	22-19SY	015-9896
5		Z	22-19PCZ	045-9897	22-19SCZ	015-9898	22-19PZ	015-9899	22-19SZ	015-9900
6	22-22	N	22-22PC	015-9901	22-22SC	015-9902	22-22P	015-9903	22-22S	015-9904
7		W	Not to be provided							
8		X	22-22PCX	015-9905	22-22SCX	015-9906	22-22PX	015-9907	22-22SX	015-9908
9		Y	22-22PCY	015-9909	22-22SCY	015-9910	22-22PY	015-9911	22-22SY	015-9912
10		Z	Not to be provided							
11	22-23	N	22-23PC	015-9913	22-23SC	015-9914	22-23P	015-9915	22-23S	015-9916
12		W	22-23PCW	015-9917	22-23SCW	015-9918	22-23PW	015-9919	22-23SW	015-9920
13		X	Not to be provided							
14		Y	22-23PCY	015-9921	22-23SCY	015-9922	22-23PY	015-9923	22-23SY	015-9924
15		Z	Not to be provided							
16	24-7	N	24-7PC	015-9925	24-7SC	015-9926	24-7P	015-9927	24-7S	015-9928
17		W	24-7PCW	015-9929	24-7SCW	015-9930	24-7PW	015-9931	24-7SW	015-9932
18		X	24-7PCX	015-9933	24-7SCX	015-9934	24-7PX	015-9935	24-7SX	013-9936
19		Y	24-7PCY	015-9937	24-7SCY	015-9938	24-7PY	015-9939	24-7SY	015-9940
20		Z	24-7PCZ	015-9941	24-7SCZ	015-9942	24-7PZ	015-9943	24-7SZ	015-9944

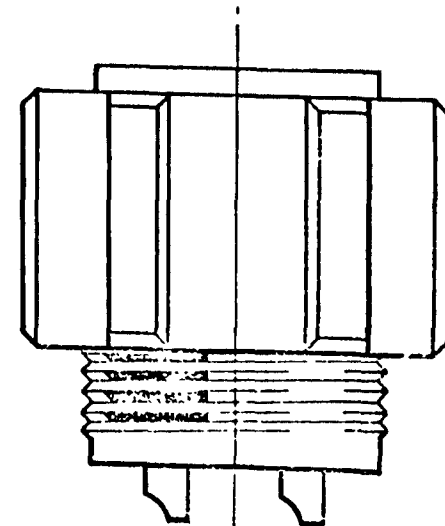
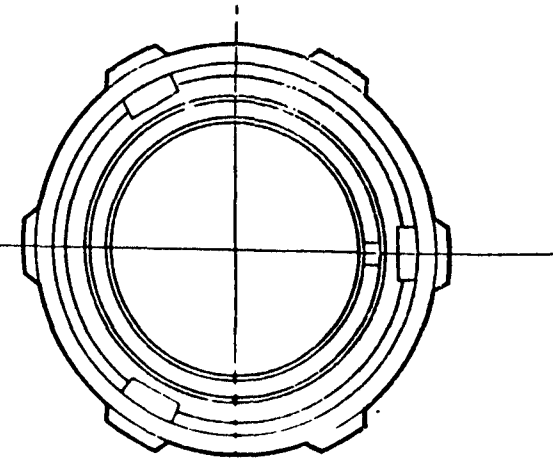


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 17 STAR 59 - 35(PAGE 1)
 SECTION BY 1
 DATE 10/1/60

TABLE I(B) - CONTINUED

PAGE ITEM NO	CONTACT ARRANGEMENT	ORIENTATION	CRIMP TYPE				SOLDER TYPE			
			PLUG		SOCKET		PLUG		SOCKET	
			STYLE REFERENCE CC1597-	NATO STOCK NUMBER 5935-99-	STYLE REFERENCE CC1597-	NATO STOCK NUMBER 5935-99-	STYLE REFERENCE CC1597-	NATO STOCK NUMBER 5935-99-	STYLE REFERENCE CC1597-	NATO STOCK NUMBER 5935-99-
			(c)	(d)	(e)	(f)	(g)	(h)	(j)	(k)
1	24-11	N	24-11PC	015-9945	24-11SC	015-9946	24-11P	015-9947	24-11S	015-9948
2		W	24-11PCW	015-9949	24-11SCW	015-9950	24-11PW	015-9951	24-11SW	015-9952
3		X	24-11PCX	015-9953	24-11SCX	015-9954	24-11PX	015-9955	24-11SX	015-9956
4		Y	24-11PCY	015-9957	24-11SCY	015-9958	24-11PY	015-9959	24-11SY	015-9960
5		Z	24-11PCZ	015-9961	24-11SCZ	015-9962	24-11PZ	015-9963	24-11SZ	015-9964
6	24-12	N	24-12PC	015-9965	24-12SC	015-9966	24-12P	015-9967	24-12S	015-9968
7		W	24-12PCW	015-9969	24-12SCW	015-9970	24-12PW	015-9971	24-12SW	015-9972
8		X	24-12PCX	015-9973	24-12SCX	015-9974	24-12PX	015-9975	24-12SX	015-9976
9		Y	24-12PCY	015-9977	24-12SCY	015-9978	24-12PY	015-9979	24-12SY	015-9980
10		Z	24-12PCZ	015-9981	24-12SCZ	015-9982	24-12PZ	015-9983	24-12SZ	015-9984
11	24-28	N	24-28PC	015-9985	24-28SC	015-9986	24-28P	015-9987	24-28S	015-9988
12		W	24-28PCW	015-9989	24-28SCW	015-9990	24-28PW	015-9991	24-28SW	015-9992
13		X	24-28PCX	015-9993	24-28SCX	015-9994	24-28PX	015-9995	24-28SX	015-9996
14		Y	24-28PCY	015-9997	24-28SCY	015-9998	24-28PY	015-9999	24-28SY	017-0000
15		Z	24-28PCZ	017-0001	24-28SCZ	017-0002	24-28PZ	017-0003	24-28SZ	017-0004
16	28-10	N	28-10PC	017-0005	28-10SC	017-0006	28-10P	017-0007	28-10S	017-0008
17		W	28-10PCW	017-0009	28-10SCW	017-0010	28-10PW	017-0011	28-10SW	017-0012
18		X	28-10PCX	017-0013	28-10SCX	017-0014	28-10PX	017-0015	28-10SX	017-0016
19		Y	28-10PCY	017-0017	28-10SCY	017-0018	28-10PY	017-0019	28-10SY	017-0020
20		Z	28-10PCZ	017-0021	28-10SCZ	017-0022	28-10PZ	017-0023	28-10SZ	017-0024

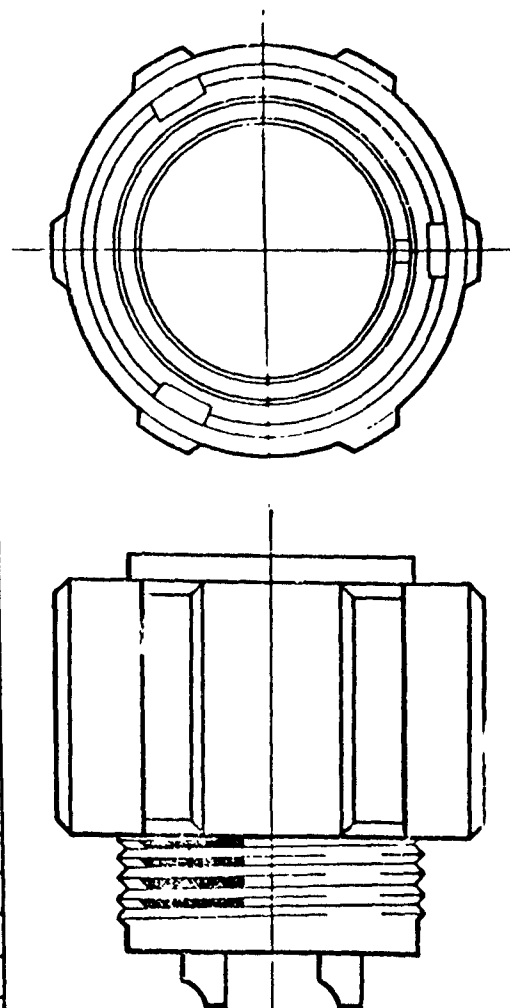


For outline dimensions see page 37

 DEF STAN 59 - 35 (PART 1)
 SECTION 8B/1
 TABLE I(B) (CONTD)

TABLE I(B) - CONTINUED

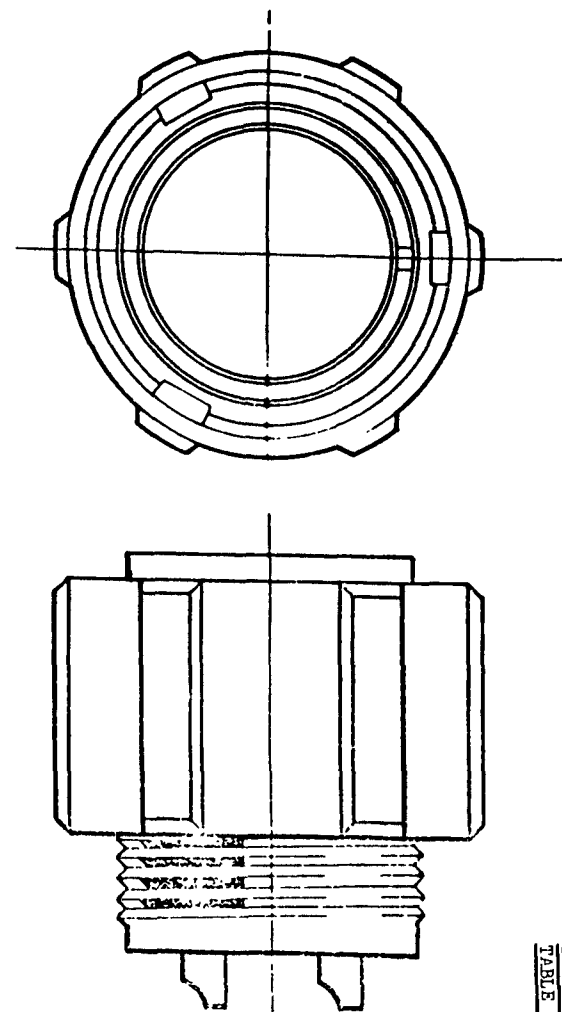
PAGE ITEM NO	CONNECTION ARRANGEMENT	ORIENTATION	CRIMP TYPE				SOLDER TYPE			
			PLUG		SOCKET		PLUG		SOCKET	
			STYLE REFERENCE CC1597-	NATO STOCK NUMBER 5935-99-	STYLE REFERENCE CC1597-	NATO STOCK NUMBER 5935-99-	STYLE REFERENCE CC1597-	NATO STOCK NUMBER 5935-99-	STYLE REFERENCE CC1597-	NATO STOCK NUMBER 5935-99-
	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(j)	(k)
1	28-11	N	28-11PC	017-0025	28-11SC	017-0026	28-11P	017-0027	28-11S	017-0028
2		W	28-11PCW	017-0029	28-11SCW	017-0030	28-11PW	017-0031	28-11SW	017-0032
3		X	28-11PCX	017-0033	28-11SCX	017-0034	28-11PX	017-0035	28-11SX	017-0036
4		Y	28-11PCY	017-0037	28-11SCY	017-0038	28-11PY	017-0039	28-11SY	017-0040
5		Z	28-11PCZ	017-0041	28-11SCZ	017-0042	28-11PZ	017-0043	28-11SZ	017-0044
6	28-20	N	28-20PC	017-0045	28-20SC	017-0046	28-20P	017-0047	28-20S	017-0048
7		W	28-20PCW	017-0049	28-20SCW	017-0050	28-20PW	017-0051	28-20SW	017-0052
8		X	28-20PCX	017-0053	28-20SCX	017-0054	28-20PX	017-0055	28-20SX	017-0056
9		Y	28-20PCY	017-0057	28-20SCY	017-0058	28-20PY	017-0059	28-20SY	017-0060
10		Z	28-20PCZ	017-0061	28-20SCZ	017-0062	28-20PZ	017-0063	28-20SZ	017-0064
11	28-21	N	28-21PC	017-0065	28-21SC	017-0066	28-21P	017-0067	28-21S	017-0068
12		W	28-21PCW	017-0069	28-21SCW	017-0070	28-21PW	017-0071	28-21SW	017-0072
13		X	28-21PCX	017-0073	28-21SCX	017-0074	28-21PX	017-0075	28-21SX	017-0076
14		Y	28-21PCY	017-0077	28-21SCY	017-0078	28-21PY	017-0079	28-21SY	017-0080
15		Z	28-21PCZ	017-0081	28-21SCZ	017-0082	28-21PZ	017-0083	28-21SZ	017-0084
16	28-22	N	28-22PC	017-0085	28-22SC	017-0086	28-22P	017-0087	28-22S	017-0088
17		W	28-22PCW	017-0089	28-22SCW	017-0090	28-22PW	017-0091	28-22SW	017-0092
18		X	28-22PCX	017-0093	28-22SCX	017-0094	28-22PX	017-0095	28-22SX	017-0096
19		Y	28-22PCY	017-0097	28-22SCY	017-0098	28-22PY	017-0099	28-22SY	017-0100
20		Z	28-22PCZ	017-0101	28-22SCZ	017-0102	28-22PZ	017-0103	28-22SZ	017-0104



For outline dimensions see page 37

TABLE I(B) - CONTINUED

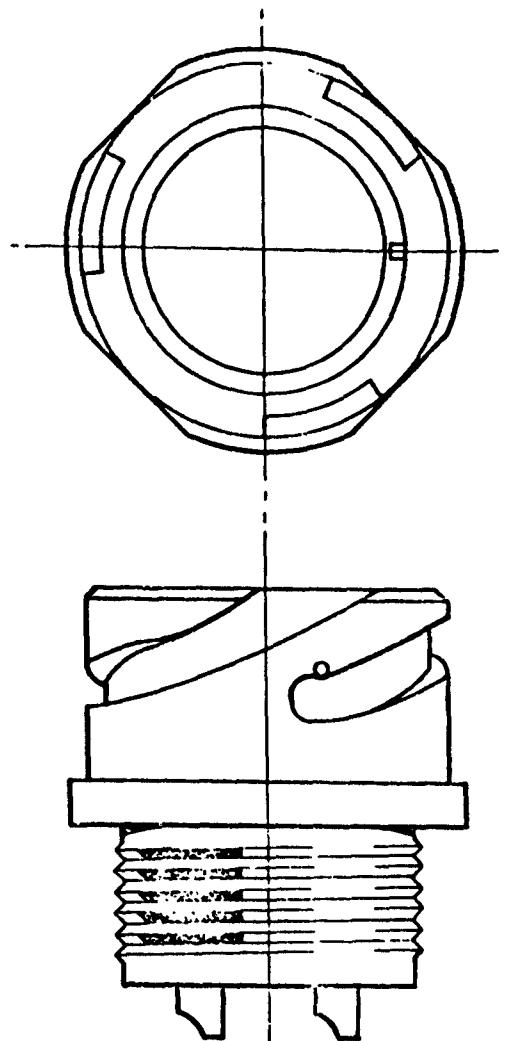
PAGE ITEM NO	CONTACT ARRANGEMENT	ORIENTATION	CRIMP TYPE				SOLDER TYPE			
			PLUG		SOCKET		PLUG		SOCKET	
			STYLE REFERENCE CC1597-	NATO STOCK NUMBER 5935-99-	STYLE REFERENCE CC1597-	NATO STOCK NUMBER 5935-99-	STYLE REFERENCE CC1597-	NATO STOCK NUMBER 5935-99-	STYLE REFERENCE CC1597	NATO STOCK NUMBER 5935-99-
	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(j)	(k)
1	32-6	N	32-6PC	017-0105	32-6SC	017-0106	32-6P	017-0107	32-6S	017-0108
2		W	32-6PCW	017-0109	32-6SCW	017-0110	32-6PW	017-0111	32-6SW	017-0112
3		X	32-6PCX	017-0113	32-6SCX	017-0114	32-6PX	017-0115	32-6SX	017-0116
4		Y	32-6PCY	017-0117	32-6SCY	017-0118	32-6PY	017-0119	32-6SY	017-0120
5		Z	32-6PCZ	017-0121	32-6SCZ	017-0122	32-6PZ	017-0123	32-6SZ	017-0124
6	32-7	N	32-7PC	017-0125	32-7SC	017-0126	32-7P	017-0127	32-7S	017-0128
7		W	32-7PCW	017-0129	32-7SCW	017-0130	32-7PW	017-0131	32-7SW	017-0132
8		X	32-7PCX	017-0133	32-7SCX	017-0134	32-7PX	017-0135	32-7SX	017-0136
9		Y	32-7PCY	017-0137	32-7SCY	017-0138	32-7PY	017-0139	32-7SY	017-0140
10		Z	32-7PCZ	017-0141	32-7SCZ	017-0142	32-7PZ	017-0143	32-7SZ	017-0144
11	36-7	N	36-7PC	017-0145	36-7SC	017-0146	36-7P	017-0146	36-7S	017-0148
12		W	36-7PCW	017-0149	36-7SCW	017-0150	36-7PW	017-0151	36-7SW	017-0152
13		X	36-7PCX	017-0153	36-7SCX	017-0154	36-7PX	017-0155	36-7SX	017-0156
14		Y	36-7PCY	017-0157	36-7SCY	017-0158	36-7PY	017-0159	36-7SY	017-0160
15		Z	36-7PCZ	017-0161	36-7SCZ	017-0162	36-7PZ	017-0163	36-7SZ	017-0164



For outline dimensions see page 37

TABLE I(C)
STANDARD RANGE
PLUGS AND SOCKETS, ELECTRICAL, PATTERN 121B
IN-LINE CABLE COUPLER

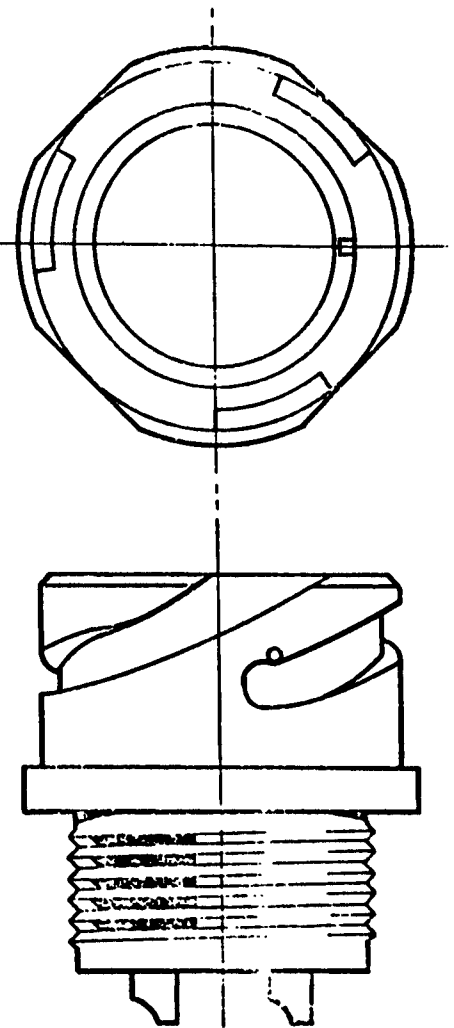
PAGE ITEM NO	CONTACT ARRANGEMENT	ORIENTATION	CRIMP TYPE				SOLDER TYPE			
			PLUG		SOCKET		PLUG		SOCKET	
			STYLE REFERENCE CC1598-	NATO STOCK NUMBER 5935-99-	STYLE REFERENCE CC1598-	NATO STOCK NUMBER 5935-99-	STYLE REFERENCE CC1598-	NATO STOCK NUMBER 5935-99-	STYLE REFERENCE CC1598-	NATO STOCK NUMBER 5935-99-
(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(j)	(k)	
1	10SL-3	N	10SL-3PC	017-0165	10SL-3SC	017-0166	10SL-3P	017-0167	10SL-3C	017-0168
2		W	Not to be provided							
3		X	Not to be provided							
4		Y	Not to be provided							
5		Z	Not to be provided							
6	10SL-4	N	10SL-4PC	017-0169	10SL-4SC	017-0170	10SL-4P	017-0171	10SL-4S	017-0172
7		W	Not to be provided							
8		X	Not to be provided							
9		Y	Not to be provided							
10		Z	Not to be provided							
11	14S-2	N	14S-2PC	017-0173	14S-2SC	017-0174	14S-2P	017-0175	14S-2S	017-0176
12		W	Not to be provided							
13		X	14S-2PCX	017-0177	14S-2SCX	017-0178	14S-2PX	017-0179	14S-2SX	017-0180
14		Y	14S-2PCY	017-0181	14S-2SCY	017-0182	14S-2PY	017-0183	14S-2SY	017-0184
15		Z	Not to be provided							
16	14S-4	N	14S-4PC	017-0185	14S-4SC	017-0186	14S-4P	017-0187	14S-4S	017-0188
17		W	Not to be provided							
18		X	Not to be provided							
19		Y	Not to be provided							
20		Z	Not to be provided							



For outline dimensions see page 38

TABLE I(C) - CONTINUED

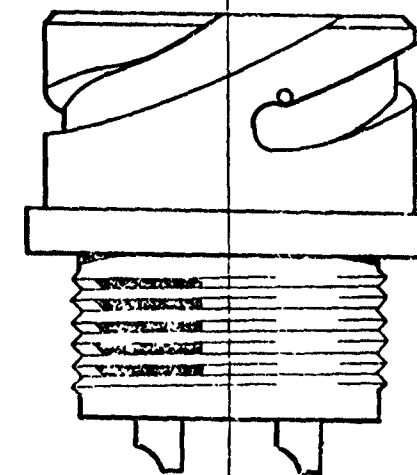
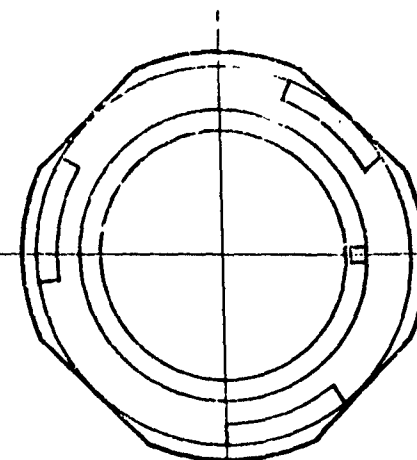
PAGE ITEM NO	ARRANGEMENT	ORIENTATION	CRIMP TYPE				SOLDER TYPE			
			PLUG		SOCKET		PLUG		SOCKET	
			STYLE REFERENCE CC1598-	NATO STOCK NUMBER 5935-99-	STYLE REFERENCE CC1598-	NATO STOCK NUMBER 5935-99-	STYLE REFERENCE CC1598-	NATO STOCK NUMBER 5935-99-	STYLE REFERENCE CC1598-	NATO STOCK NUMBER 5935-99-
(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)
1	14S-5	N	14S-5PC	017-0189	14S-5SC	017-0190	14S-5P	017-0191	14S-5S	017-0192
2		W	Not to be provided							
3		X	14S-5PCX	017-0193	14S-5SCX	017-0194	14S-5PX	017-0195	14S-5SX	017-0196
4		Y	Not to be provided							
5		Z	Not to be provided							
6	14S-6	N	14S-6PC	017-0197	14S-6SC	017-0198	14S-6P	017-0199	14S-6S	017-0200
7		W	Not to be provided							
8		X	Not to be provided							
9		Y	Not to be provided							
10		Z	Not to be provided							
11	14S-7	N	14S-7PC	017-0201	14S-7SC	017-0202	14S-7P	017-0203	14S-7S	017-0204
12		W	14S-7PCW	017-0205	14S-7SCW	017-0206	14S-7PW	017-0207	14S-7SW	017-0208
13		X	14S-7PCX	017-0209	14S-7SCX	017-0210	14S-7PX	017-0211	14S-7SX	017-0212
14		Y	14S-7PCY	017-0213	14S-7SCY	017-0214	14S-7PY	017-0215	14S-7SY	017-0216
15		Z	Not to be provided							
16	14S-9	N	14S-9PC	017-0217	14S-9SC	017-0218	14S-9P	017-0219	14S-9S	017-0220
17		W	14S-9PCW	017-0221	14S-9SCW	017-0222	14S-9PW	017-0223	14S-9SW	017-0224
18		X	14S-9PCX	017-0225	14S-9SCX	017-0226	14S-9PX	017-0227	14S-9SX	017-0228
19		Y	14S-9PCY	017-0229	14S-9SCY	017-0230	14S-9PY	017-0231	14S-9SY	017-0232
20		Z	14S-9PCZ	017-0233	14S-9SCZ	017-0234	14S-9PZ	017-0235	14S-9SZ	017-0236



For outline dimensions see page 30

TABLE I(C) - CONTINUED

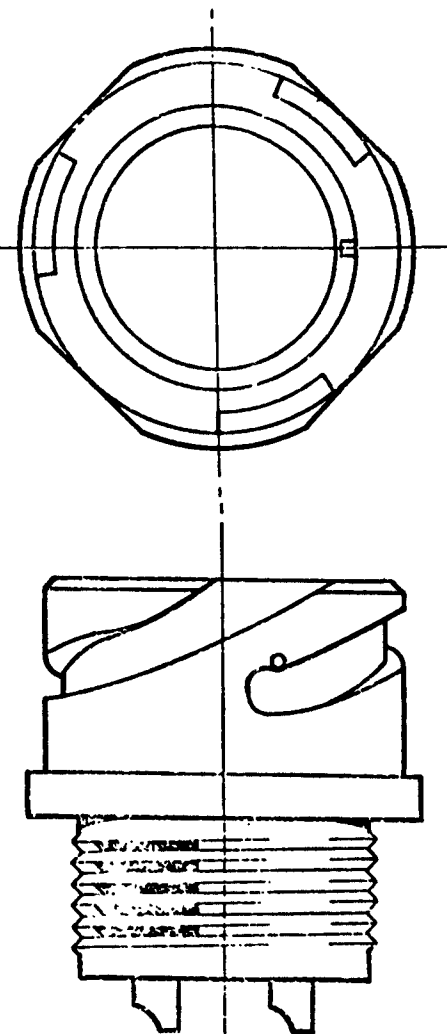
PAGE ITEM NO	CONTACT ARRANGEMENT	ORIENTATION	CRIMP TYPE				SOLDER TYPE			
			PLUG		SOCKET		PLUG		SOCKET	
			STYLE REFERENCE CC1598-	NATO STOCK NUMBER 5935-99-	STYLE REFERENCE CC1598-	NATO STOCK NUMBER 5935-99-	STYLE REFERENCE CC1598-	NATO STOCK NUMBER 5935-99-	STYLE REFERENCE CC1598-	NATO STOCK NUMBER 5935-99-
		(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(j)
1	16S-1	N	16S-1PC	017-0237	16S-1SC	017-0238	16S-1P	017-0239	16S-1S	017-0240
2		W	16S-1PCW	017-0241	16S-1SCW	017-0242	16S-1PW	017-0243	16S-1SW	017-0244
3		X	Not to be provided							
4		Y	Not to be provided							
5		Z	16S-1PCZ	017-0245	16S-1SCZ	017-0246	16S-1PZ	017-0247	16S-1SZ	017-0248
6	16-9	N	16-9PC	017-0249	16-9SC	017-0250	16-9P	017-0251	16-9S	017-0252
7		W	16-9PCW	017-0253	16-9SCW	017-0254	16-9PW	017-0255	16-9SW	017-0256
8		X	16-9PCX	017-0257	16-9SCX	017-0258	16-9PX	017-0259	16-9SX	017-0260
9		Y	16-9PCY	017-0261	16-9SCY	017-0262	16-9PY	017-0263	16-9SY	017-0264
10		Z	16-9PCZ	017-0265	16-9SCZ	017-0266	16-9PZ	017-0267	16-9SZ	017-0268
11	16-10	N	16-10PC	017-0269	16-10SC	017-0270	16-10P	017-0271	16-10S	017-0272
12		W	16-10PCW	017-0273	16-10SCW	017-0274	16-10PW	017-0275	16-10SW	017-0276
13		X	16-10PCX	017-0277	16-10SCX	017-0278	16-10PX	017-0279	16-10SX	017-0280
14		Y	16-10PCY	017-0281	16-10SCY	017-0282	16-10PY	017-0283	16-10SY	017-0284
15		Z	Not to be provided							
16	18-1	N	18-1PC	017-0285	18-1SC	017-0286	18-1P	017-0287	18-1S	017-0288
17		W	18-1PCW	017-0289	18-1SCW	017-0290	18-1PW	017-0291	18-1SW	017-0292
18		X	18-1PCX	017-0293	18-1SCX	017-0294	18-1PX	017-0295	18-1SX	017-0296
19		Y	18-1PCY	017-0297	18-1SCY	017-0298	18-1PY	017-0299	18-1SY	017-0300
20		Z	18-1PCZ	017-0301	18-1SCZ	017-0302	18-1PZ	017-0303	18-1SZ	017-0304



For outline dimensions see page 38

TABLE I(C) - CONTINUED

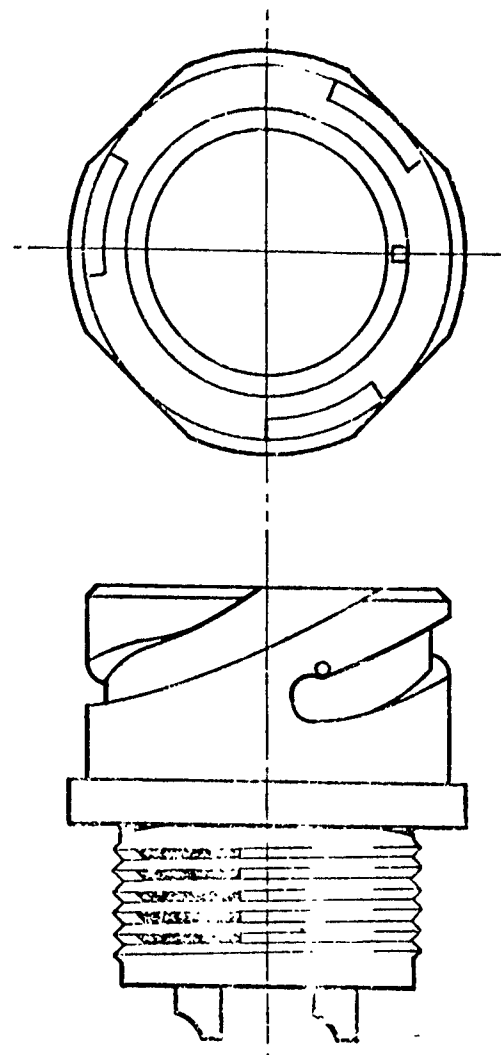
PAGE ITEM NO	CONTACT ARRANGEMENT	ORIENTATION	CRIMP TYPE				SOLDER TYPE			
			PLUG		SOCKET		PLUG		SOCKET	
			STYLE REFERENCE CC-1598-	NATO STOCK NUMBER 5935-99-	STYLE REFERENCE CC1598-	NATO STOCK NUMBER 5935-99-	STYLE REFERENCE CC1598-	NATO STOCK NUMBER 5935-99-	STYLE REFERENCE CC1598-	NATO STOCK NUMBER 5935-99-
	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(j)	(k)
1	18-11	N	18-11PC	017-0305	18-11SC	017-0306	18-11P	017-0307	18-11S	017-0308
2		W	Not to be provided							
3		X	18-11PCX	017-0309	18-11SCX	017-0310	18-11PX	017-0311	18-11SX	017-0312
4		Y	18-11PCY	017-0313	18-11SCY	017-0314	18-11PY	017-0315	18-11SY	017-0316
5		Z	Not to be provided							
6	20-14	N	20-14PC	017-0317	20-14SC	017-0318	20-14P	017-0319	20-14S	017-0320
7		W	20-14PCW	017-0321	20-14SCW	017-0322	20-14PW	017-0323	20-14SW	017-0324
8		X	20-14PCX	017-0325	20-14SCX	017-0326	20-14PX	017-0327	20-14SX	017-0328
9		Y	20-14PCY	017-0329	20-14SCY	017-0330	20-14PY	017-0331	20-14SY	017-0332
10		Z	20-14PCZ	017-0333	20-14SCZ	017-0334	20-14PZ	017-0335	20-14SZ	017-0336
11	20-15	N	20-15PC	017-0337	20-15SC	017-0338	20-15P	017-0339	20-15S	017-0340
12		W	20-15PCW	017-0341	20-15SCW	017-0342	20-15PW	017-0343	20-15SW	017-0344
13		X	Not to be provided							
14		Y	Not to be provided							
15		Z	20-15PCZ	017-0345	20-15SCZ	017-0346	20-15PZ	017-0347	20-15SZ	017-0348
16	20-18	N	20-18PC	017-0349	20-18SC	017-0350	20-18P	017-0351	20-18S	017-0352
17		W	20-18PCW	017-0353	20-18SCW	017-0354	20-18PW	017-0355	20-18SW	017-0356
18		X	20-18PCX	017-0357	20-18SCX	017-0358	20-18PX	017-0359	20-18SX	017-0360
19		Y	20-18PCY	017-0361	20-18SCY	017-0362	20-18PY	017-0363	20-18SY	017-0364
20		Z	20-18PCZ	017-0365	20-18SCZ	017-0366	20-18PZ	017-0367	20-18SZ	017-0368



For outline dimensions see page 38

TABLE 1(C) - CONTINUED

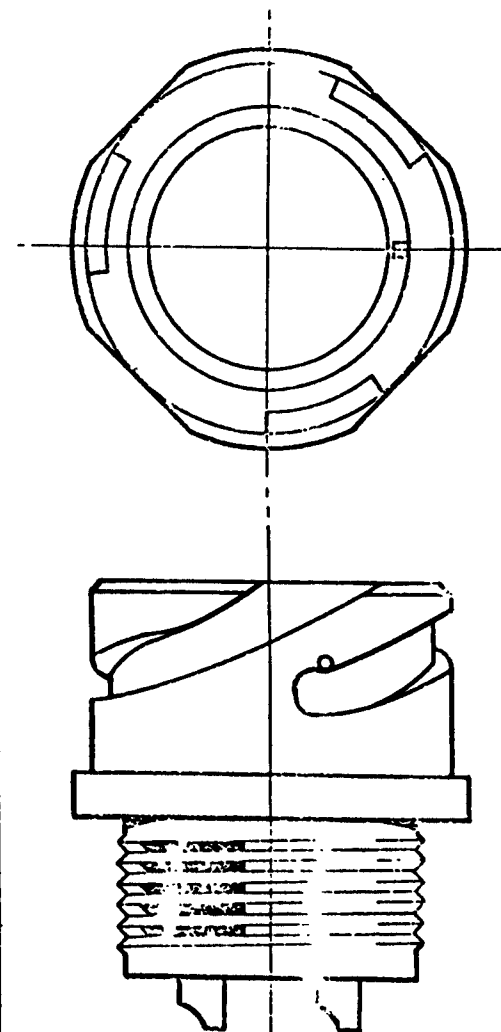
PAGE ITEM NO	CONTACT ARRANGEMENT	ORIENTATION	CRIMP TYPE				SOLDER TYPE			
			PLUG		SOCKET		PLUG		SOCKET	
			STYLE REFERENCE CC1598	NATO STOCK NUMBER 5935-99-	STYLE REFERENCE CC1598	NATO STOCK NUMBER 5935-99-	STYLE REFERENCE CC1598	NATO STOCK NUMBER 5935-99-	STYLE REFERENCE CC1598	NATO STOCK NUMBER 5935-99-
	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(j)	(k)
1	20-22	N	20-22PC	017-0369	20-22SC	017-0370	20-22P	017-0371	20-22S	017-0372
2		W	20-22PCW	017-0373	20-22SCW	017-0374	20-22PW	017-0375	20-22SW	017-0376
3		X	20-22PCX	017-0377	20-22SCX	017-0378	20-22PX	017-0379	20-22SX	017-0380
4		Y	20-22PCY	017-0381	20-22SCY	017-0382	20-22PY	017-0383	20-22SY	017-0384
5		Z	20-22PCZ	017-0385	20-22SCZ	017-0386	20-22PZ	017-0387	20-22SZ	017-0388
6	20-29	N	20-29PC	017-0389	20-29SC	017-0390	20-29P	017-0391	20-29S	017-0392
7		W	20-29PCW	017-0393	20-29SCW	017-0394	20-29PW	017-0395	20-29SW	017-0396
8		X	Not to be provided							
9		Y	Not to be provided							
10		Z	20-29PCZ	017-0397	20-29SCZ	017-0398	20-29PZ	017-0399	20-29SZ	017-0400
11	22-14	N	22-14PC	017-0401	22-14SC	017-0402	22-14P	017-0403	22-14S	017-0404
12		W	22-14PCW	017-0405	22-14SCW	017-0406	22-14PW	017-0407	22-14SW	017-0408
13		X	Not to be provided							
14		Y	Not to be provided							
15		Z	22-14PCZ	017-0409	22-14SCZ	017-0410	22-14PZ	017-0411	22-14SZ	017-0412
16	22-18	N	22-18PC	017-0413	22-18SC	017-0414	22-18P	017-0415	22-18S	017-0416
17		W	22-18PCW	017-0417	22-18SCW	017-0418	22-18PW	017-0419	22-18SW	017-0420
18		X	22-18PCX	017-0421	22-18SCX	017-0422	22-18PX	017-0423	22-18SX	017-0424
19		Y	22-18PCY	017-0425	22-18SCY	017-0426	22-18PY	017-0427	22-18SY	017-0428
20		Z	22-18PCZ	017-0429	22-18SCZ	017-0430	22-18PZ	017-0431	22-18SZ	017-0432



For outline dimensions see page 38

TABLE I(C) - CONTINUED

PAGE ITEM NO	ARRANGEMENT	ORIENTATION	CRIMP TYPE				SOLDER TYPE			
			PLUG		SOCKET		PLUG		SOCKET	
			STYLE REFERENCE CC1598	NATO STOCK NUMBER 5935-99-	STYLE REFERENCE CC1598	NATO STOCK NUMBER 5935-99-	STYLE REFERENCE CC1598	NATO STOCK NUMBER 5935-99-	STYLE REFERENCE CC1598	NATO STOCK NUMBER 5935-99-
			(c)	(d)	(e)	(f)	(g)	(h)	(j)	(k)
1	22-19	N	22-19PC	017-0433	22-19SC	017-0434	22-19P	017-0435	22-19S	017-0436
2		W	22-19PCW	017-0437	22-19SCW	017-0438	22-19PW	017-0439	22-19SW	017-0440
3		X	22-19PCX	017-0441	22-19SCX	017-0442	22-19PX	017-0443	22-19SX	017-0444
4		Y	22-19PCY	017-0445	22-19SCY	017-0446	22-19PY	017-0447	22-19SY	017-0448
5		Z	22-19PCZ	017-0449	22-19SCZ	017-0450	22-19PZ	017-0451	22-19SZ	017-0452
6	22-22	N	22-22PC	017-0453	22-22SC	017-0454	22-22P	017-0455	22-22S	017-0456
7		W	Not to be provided							
8		X	22-22PCX	017-0457	22-22SCX	017-0458	22-22PX	017-0459	22-22SX	017-0460
9		Y	22-22PCY	017-0461	22-22SCY	017-0462	22-22PY	017-0463	22-22SY	017-0464
10		Z	Not to be provided							
11	22-23	N	22-23PC	017-0465	22-23SC	017-0466	22-23P	017-0467	22-23S	017-0468
12		W	22-23PCW	017-0469	22-23SCW	017-0470	22-23PW	017-0471	22-23SW	017-0472
13		X	Not to be provided							
14		Y	22-23PCY	017-0473	22-23SCY	017-0474	22-23PY	017-0475	22-23SY	017-0476
15		Z	Not to be provided							
16	24-7	N	24-7PC	017-0477	24-7SC	017-0478	24-7P	017-0479	24-7S	017-0480
17		W	24-7PCW	017-0481	24-7SCW	017-0482	24-7PW	017-0483	24-7SW	017-0484
18		X	24-7PCX	017-0485	24-7SCX	017-0486	24-7PX	017-0487	24-7SX	017-0488
19		Y	24-7PCY	017-0489	24-7SCY	017-0490	24-7PY	017-0491	24-7SY	017-0492
20		Z	24-7PCZ	017-0493	24-7SCZ	017-0494	24-7PZ	017-0495	24-7SZ	017-0496

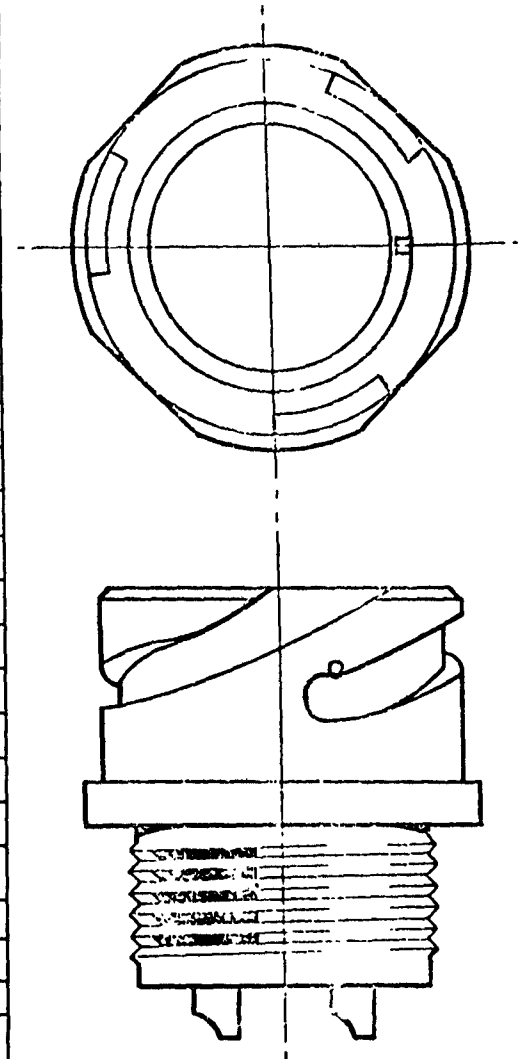


For outline dimensions see page 38

 DEF STAN 59 - 35(PART 1)
 SECTION 8B/1
 TABLE I(C) (CONTD)

TABLE I(C) - CONTINUED

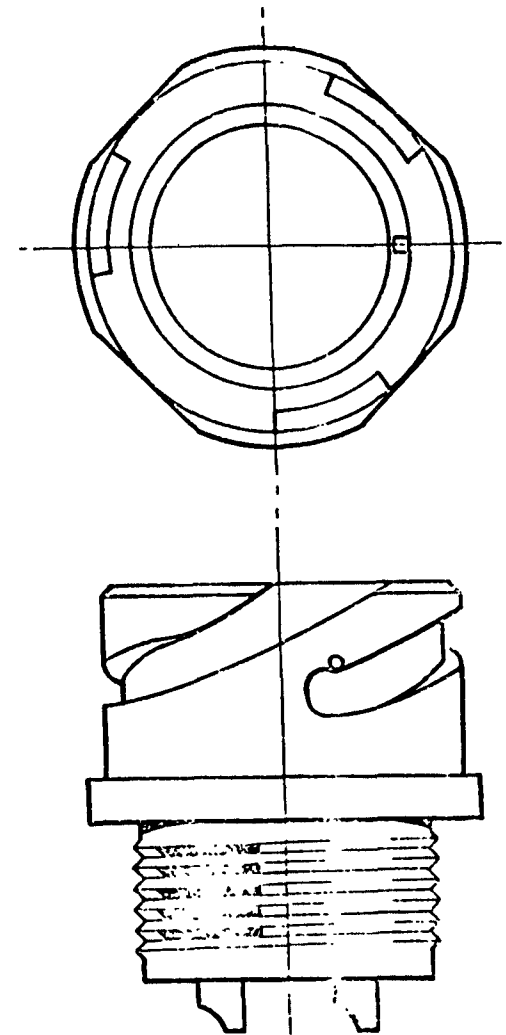
PAGE ITEM NO	CONTACT ARRANGEMENT	ORIENTATION	CRIMP TYPE				SOLDER TYPE			
			PLUG		SOCKET		PLUG		SOCKET	
			STYLE REFERENCE CC1598-	NATO STOCK NUMBER 5935-99-	STYLE REFERENCE CC1598-	NATO STOCK NUMBER 5935-99-	STYLE REFERENCE CC1598	NATO STOCK NUMBER 5935-99-	STYLE REFERENCE CC1598	NATO STOCK NUMBER 5935-99-
	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(j)	(k)
1	24-11	N	24-11PC	017-0497	24-11SC	017-0498	24-11P	017-0499	24-11S	017-0500
2		W	24-11PCW	017-0501	24-11SCW	017-0502	24-11PW	017-0503	24-11SW	017-0504
3		X	24-11PCX	017-0505	24-11SCX	017-0506	24-11PX	017-0507	24-11SX	017-0508
4		Y	24-11PCY	017-0509	24-11SCY	017-0510	24-11PY	017-0511	24-11SY	017-0512
5		Z	24-11PCZ	017-0513	24-11SCZ	017-0514	24-11PZ	017-0515	24-11SZ	017-0516
6	24-12	N	24-12PC	017-0517	24-12SC	017-0518	24-12P	017-0519	24-12S	017-0520
7		W	24-12PCW	017-0521	24-12SCW	017-0522	24-12PW	017-0523	24-12SW	017-0524
8		X	24-12PCX	017-0525	24-12SCX	017-0526	24-12PX	017-0527	24-12SX	017-0528
9		Y	24-12PCY	017-0529	24-12SCY	017-0530	24-12PY	017-0531	24-12SY	017-0532
10		Z	24-12PCZ	017-0533	24-12SCZ	017-0534	24-12PZ	017-0535	24-12SZ	017-0536
11	24-28	N	24-28PC	017-0537	24-28SC	017-0538	24-28P	017-0539	24-28S	017-0540
12		W	24-28PCW	017-0541	24-28SCW	017-0542	24-28PW	017-0543	24-28SW	017-0544
13		X	24-28PCX	017-0545	24-28SCX	017-0546	24-28PX	017-0547	24-28SX	017-0548
14		Y	24-28PCY	017-0549	24-28SCY	017-0550	24-28PY	017-0551	24-28SY	017-0552
15		Z	24-28PCZ	017-0553	24-28SCZ	017-0554	24-28PZ	017-0555	24-28SZ	017-0556
16	28-10	N	28-10PC	017-0557	28-10SC	017-0558	28-10P	017-0559	28-10S	017-0560
17		W	28-10PCW	017-0561	28-10SCW	017-0562	28-10PW	017-0563	28-10SW	017-0564
18		X	28-10PCX	017-0565	28-10SCX	017-0566	28-10PX	017-0567	28-10SX	017-0568
19		Y	28-10PCY	017-0569	28-10SCY	017-0570	28-10PY	017-0571	28-10SY	017-0572
20		Z	28-10PCZ	017-0573	28-10SCZ	017-0574	28-10PZ	017-0575	28-10SZ	017-0576



For outline dimensions see page 38

TABLE I(C) - CONTINUED

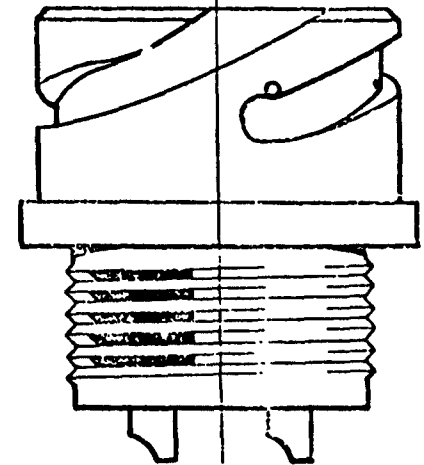
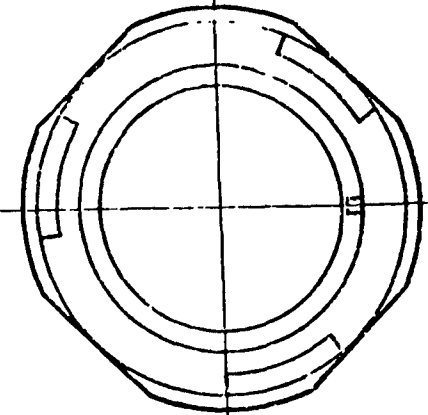
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			PLUG		SOCKET		PLUG		SOCKET	
			STYLE REFERENCE CC1598-	NATO STOCK NUMBER 5935-99-	STYLE REFERENCE CC1598-	NATO STOCK NUMBER 5935-99-	STYLE REFERENCE CC1598-	NATO STOCK NUMBER 5935-99-	STYLE REFERENCE CC1598-	NATO STOCK NUMBER 5935-99-
	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(j)	(k)
1	28-11	N	28-11PC	017-0577	28-11SC	017-0578	28-11P	017-0579	28-11S	017-0580
2		W	28-11PCW	017-0581	28-11SCW	017-0582	28-11PW	017-0583	28-11SW	017-0584
3		X	28-11PCX	017-0585	28-11SCX	017-0586	28-11PX	017-0587	28-11SX	017-0588
4		Y	28-11PCY	017-0589	28-11SCY	017-0590	28-11PY	017-0591	28-11SY	017-0592
5		Z	28-11PCZ	017-0593	28-11SCZ	017-0594	28-11PZ	017-0595	28-11SZ	017-0596
6	28-20	N	28-20PC	017-0597	28-20SC	017-0598	28-20P	017-0599	28-20S	017-0600
7		W	28-20PCW	017-0601	28-20SCW	017-0602	28-20PW	017-0603	28-20SW	017-0604
8		X	28-20PCX	017-0605	28-20SCX	017-0606	28-20PX	017-0607	28-20SX	017-0608
9		Y	28-20PCY	017-0609	28-20SCY	017-0610	28-20PY	017-0611	28-20SY	017-0612
10		Z	28-20PCZ	017-0613	28-20SCZ	017-0614	28-20PZ	017-0615	28-20SZ	017-0616
11	28-21	N	28-21PC	017-0617	28-21SC	017-0618	28-21P	017-0619	28-21S	017-0620
12		W	28-21PCW	017-0621	28-21SCW	017-0622	28-21PW	017-0623	28-21SW	017-0624
13		X	28-21PCX	017-0625	28-21SCX	017-0626	28-21PX	017-0627	28-21SX	017-0628
14		Y	28-21PCY	017-0629	28-21SCY	017-0630	28-21PY	017-0631	28-21SY	017-0632
15		Z	28-21PCZ	017-0633	28-21SCZ	017-0634	28-21PZ	017-0635	28-21SZ	017-0636
16	28-22	N	28-22PC	017-0637	28-22SC	017-0638	28-22P	017-0639	28-22S	017-0640
17		W	28-22PCW	017-0641	28-22SCW	017-0642	28-22PW	017-0643	28-22SW	017-0644
18		X	28-22PCX	017-0645	28-22SCX	017-0646	28-22PX	017-0647	28-22SX	017-0648
19		Y	28-22PCY	017-0649	28-22SCY	017-0650	28-22PY	017-0651	28-22SY	017-0652
20		Z	28-22PCZ	017-0653	28-22SCZ	017-0654	28-22PZ	017-0655	28-22SZ	017-0656



For outline dimensions see page 56

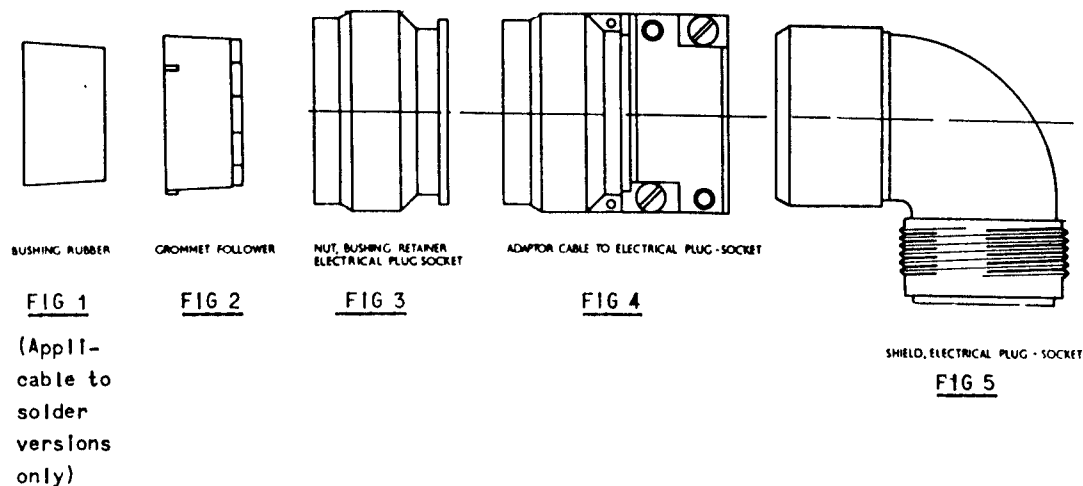
TABLE I(C) - CONTINUED

PAGE ITEM NO	CONT.-CT ARRANGEMENT	ORIENTATION	CRIMP TYPE				SOLDER TYPE			
			PLUG		SOCKET		PLUG		SOCKET	
			STYLE REFERENCE CC1598-	NATO STOCK NUMBER 5935-99-	STYLE REFERENCE CC1598-	NATO STOCK NUMBER 5935-99-	STYLE REFERENCE CC1598-	NATO STOCK NUMBER 5935-99-	STYLE REFERENCE CC1598-	NATO STOCK NUMBER 5935-99-
	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(j)	(k)
1	32-6	N	32-6PC	017-0657	32-6SC	017-0658	32-6P	017-0658	32-6S	017-0660
2		W	32-6PCW	017-0661	32-6SCW	017-0662	32-6PW	017-0663	32-6SW	017-0664
3		X	32-6PCX	017-0665	32-6SCX	017-0666	32-6PX	017-0667	32-6SX	017-0668
4		Y	32-6PCY	017-0669	32-6SCY	017-0670	32-6PY	017-0671	32-6SY	017-0672
5		Z	32-6PCZ	017-0673	32-6SCZ	017-0674	32-6PZ	017-0675	32-6SZ	017-0676
6	32-7	N	32-7PC	017-0677	32-7SC	017-0678	32-7P	017-0679	32-7S	017-0680
7		W	32-7PCW	017-0681	32-7SCW	017-0682	32-7PW	017-0683	32-7SW	017-0684
8		X	32-7PCX	017-0685	32-7SCX	017-0686	32-7PX	017-0687	32-7SX	017-0688
9		Y	32-7PCY	017-0689	32-7SCY	017-0690	32-7PY	017-0691	32-7SY	017-0692
10		Z	32-7PCZ	017-0693	32-7SCZ	017-0694	32-7PZ	017-0695	32-7SZ	017-0696
11	36-7	N	36-7PC	017-0697	36-7SC	017-0698	36-7P	017-0699	36-7S	017-0700
12		W	36-7PCW	017-0701	36-7SCW	017-0702	36-7PW	017-0703	36-7SW	017-0704
13		X	36-7PCX	017-0705	36-7SCX	017-0706	36-7PX	017-0707	36-7SX	017-0708
14		Y	36-7PCY	017-0709	36-7SCY	017-0710	36-7PY	017-0711	36-7SY	017-0712
15		Z	36-7PCZ	017-0713	36-7SCZ	017-0714	36-7PZ	017-0715	36-7SZ	017-0716



For outline dimensions see page 38

TABLE I(D)
STANDARD RANGE
CABLE OUTLET ACCESSORIES



PAGE ITEM NO	SHELL SIZE	CONTACT ARRANGEMENT	ITEM NAME	NATO STOCK NUMBER	CONTROL DRAWING NUMBER	FIG NO
	(a)	(b)	(c)	(d)	(e)	(f)
1	10SL	10SL-3	BUSHING, RUBBER	5365-99-014-7036	CC1347	1
2		10SL-4	BUSHING, RUBBER	5365-99-014-7037	CC1347	1
3		-	GROMMET FOLLOWER	5935-99-014-7038	CC1348	2
4		-	NUT, BUSHING RETAINER, ELECTRICAL PLUG - SOCKET	5935-99-014-7039	CC1344	3
5		-	ADAPTOR, CABLE TO ELECTRICAL PLUG - SOCKET	5935-99-014-7040	CC1345	4
6		-	SHIELD, ELECTRICAL PLUG - SOCKET	5935-99-014-7041	CC1346	5

Note: Full details of these accessories are given in DEF STAN 59 - 35(PART 1) SECTION 8A

TABLE I (D) - CONTINUED

PAGE ITEM NO	SHELL SIZE	CONTACT ARRANGEMENT	ITEM NAME	NATO STOCK NUMBER	CONTROL DRAWING NUMBER	FIG NO
	(a)	(b)	(c)	(d)	(e)	(f)
1	14S	14S-2	BUSHING, RUBBER	5365-99-014-7047	CC1347	1
2		14S-4		5365-99-014-7048	CC1347	1
3		14S-5		5365-99-014-7049	CC1347	1
4		14S-6		5365-99-014-7050	CC1347	1
5		14S-7		5365-99-014-7051	CC1347	1
6		14S-9		5365-99-014-7052	CC1347	1
7		-	GROMMET FOLLOWER	5935-99-014-7053	CC1348	2
8		-	NUT, BUSHING RETAINER, ELECTRICAL PLUG SOCKET	5935-99-014-7054	CC1344	3
9		-	ADAPTOR, CABLE TO ELECTRICAL PLUG-SOCKET	5935-99-014-7055	CC1345	4
10		-	SHIELD, ELECTRICAL PLUG-SOCKET	5935-99-014-7056	CC1346	5
11	16S	16S-1	BUSHING, RUBBER	5365-99-014-7057	CC1347	1
12		-	GROMMET FOLLOWER	5935-99-014-7058	CC1348	2
13		-	NUT, BUSHING RETAINER, ELECTRICAL PLUG-SOCKET	5935-99-014-7059	CC1344	3
14		-	ADAPTOR, CABLE TO ELECTRICAL PLUG-SOCKET	5935-99-014-7060	CC1345	4
15		-	SHIELD, ELECTRICAL PLUG-SOCKET	5935-99-014-7061	CC1346	5
16	16	16-9	BUSHING, RUBBER	5365-99-014-7062	CC1347	1
17		16-10	BUSHING, RUBBER	5365-99-014-7063	CC1347	1
18		-	GROMMET FOLLOWER	5935-99-014-7058	CC1348	2
19		-	NUT, BUSHING RETAINER, ELECTRICAL PLUG-SOCKET	5935-99-014-7065	CC1344	3
20		-	ADAPTOR, CABLE TO ELECTRICAL PLUG-SOCKET	5935-99-014-7066	CC1345	4
21		-	SHIELD ELECTRICAL PLUG-SOCKET	5935-99-014-7061	CC1346	5

Note: Full details of these accessories are given in DEF STAN 59 - 35 (PART 1) SECTION 8A

TABLE I(D) - CONTINUED

PAGE ITEM NO	SHELL SIZE	CONTACT ARRANGEMENT	ITEM NAME	NATO STOCK NUMBER	CONTROL DRAWING NUMBER	FIG NO
	(a)	(b)	(c)	(d)	(e)	(f)
1	18	18-1	BUSHING, RUBBER	5365-99-014-7068	CC1347	1
2		18-11	BUSHING, RUBBER	5365-99-014-7069	CC1347	1
3		-	GROMMET FOLLOWER	5935-99-014-7070	CC1348	2
4		-	NUT, BUSHING RETAINER, ELECTRICAL PLUG-SOCKET	5935-99-014-7071	CC1344	3
5		-	ADAPTOR, CABLE TO ELECTRICAL PLUG-SOCKET	5935-99-014-7072	CC1345	4
6		-	SHIELD, ELECTRICAL PLUG-SOCKET	5935-99-014-7073	CC1346	5
7	20	20-14	BUSHING, RUBBER	5365-99-014-7074	CC1347	1
8		20-15		5365-99-014-7075	CC1347	1
9		20-16		5365-99-014-7076	CC1347	1
10		20-17		5365-99-014-7077	CC1347	1
11		20-29		5365-99-014-7078	CC1347	1
12		-	GROMMET FOLLOWER	5935-99-014-7079	CC1348	2
13		-	NUT, BUSHING RETAINER, ELECTRICAL PLUG-SOCKET	5935-99-014-7080	CC1344	3
14		-	ADAPTOR, CABLE TO ELECTRICAL PLUG-SOCKET	5935-99-014-7081	CC1345	4
15		-	SHIELD ELECTRICAL PLUG-SOCKET	5935-99-014-7082	CC1346	5
16	22	22-14	BUSHING, RUBBER	5365-99-014-7083	CC1347	1
17		22-18		5365-99-014-7084	CC1347	1
18		22-19		5365-99-014-7085	CC1347	1
19		22-22		5365-99-014-7086	CC1347	1
20		22-23		5365-99-014-7087	CC1347	1
21		-	GROMMET FOLLOWER	5935-99-014-7088	CC1348	2
22		-	NUT, BUSHING RETAINER, ELECTRICAL PLUG-SOCKET	5935-99-014-7089	CC1344	3
23		-	ADAPTOR, CABLE TO ELECTRICAL PLUG-SOCKET	5935-99-014-7090	CC1345	4
24		-	SHIELD ELECTRICAL PLUG-SOCKET	5935-99-014-7091	CC1346	5

Note: Full details of these accessories are given in DEF STAN 59 - 35(PART 1) SECTION 8A

DEF STAN 59 - 35(PART 1)
SECTION 8B/1
TABLE I(D)(CONTD)

TABLE I(D) - CONTINUED

PAGE ITEM NO	SHELL SIZE	CONTACT ARRANGEMENT	ITEM NAME	NATO STOCK NUMBER	CONTROL DRAWING NUMBER	FIG NO
	(a)	(b)	(c)	(d)	(e)	(f)
1	24	24-7	BUSHING, RUBBER	5365-99-014-7092	CC1347	1
2		24-11		5365-99-014-7093	CC1347	1
3		24-12		5365-99-014-7094	CC1347	1
4		24-28		5365-99-014-7095	CC1347	1
5		-	GROMMET FOLLOWER	5935-99-014-7096	CC1348	2
6		-	NUT, BUSHING RETAINER, ELECTRICAL PLUG-SOCKET	5935-99-014-7097	CC1344	3
7		-	ADAPTOR, CABLE TO ELECTRICAL PLUG-SOCKET	5935-99-014-7098	CC1345	4
8		-	SHIELD, ELECTRICAL PLUG-SOCKET	5935-99-014-7099	CC1346	5
9	28	28-10	BUSHING, RUBBER	5365-99-014-7100	CC1347	1
10		28-11		5365-99-014-7101	CC1347	1
11		28-20		5365-99-014-7102	CC1347	1
12		28-21		5365-99-014-7103	CC1347	1
13		28-22		5365-99-014-7104	CC1347	1
14		-	GROMMET FOLLOWER	5935-99-014-7105	CC1348	2
15		-	NUT, BUSHING RETAINER, ELECTRICAL PLUG-SOCKET	5935-99-014-7106	CC1344	3
16		-	ADAPTOR, CABLE TO ELECTRICAL PLUG-SOCKET	5935-99-014-7107	CC1345	4
17		-	SHIELD, ELECTRICAL PLUG-SOCKET	5935-99-014-7108	CC1346	5

Note: Full details of these accessories are given in DEF STAN 59 - 35(PART 1) SECTION 8A

TABLE I(D) - CONTINUED

PAGE ITEM NO	SHELL SIZE	CONTACT ARRANGEMENT	ITEM NAME	NATO STOCK NUMBER	CONTROL DRAWING NUMBER	FIG NO
	(a)	(b)	(c)	(d)	(e)	(f)
1	32	32-6	BUSHING, RUBBER	5365-99-014-7109	CC1347	1
2		32-7	BUSHING, RUBBER	5365-99-014-7110	CC1347	1
3		-	GROMMET FOLLOWER	5935-99-014-7111	CC1348	2
4		-	NUT, BUSHING RETAINER, ELECTRICAL PLUG-SOCKET	5935-99-014-7112	CC1344	3
5		-	ADAPTOR, CABLE TO ELECTRICAL PLUG-SOCKET	5935-99-014-7113	CC1345	4
6		-	SHIELD ELECTRICAL PLUG-SOCKET	5935-99-014-7114	CC1346	5
7	36	36-7	BUSHING, RUBBER	5365-99-014-7115	CC1347	1
8		-	GROMMET FOLLOWER	5935-99-014-7116	CC1348	2
9		-	NUT, BUSHING RETAINER, ELECTRICAL PLUG-SOCKET	5935-99-014-7117	CC1344	3
10		-	ADAPTOR, CABLE TO ELECTRICAL PLUG-SOCKET	5935-99-014-7118	CC1345	4
11		-	SHIELD ELECTRICAL PLUG-SOCKET	5935-99-014-7119	CC1346	5

Note: Full details of these accessories are given in DEF STAN 59 - 35(PART 1) SECTION 8A

DEF STAN 59 - 35(PART 1)
SECTION 8B/1
TABLE I(D)(CONTD)

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TABLE I(E)
STANDARD RANGE
SPARES AND TOOLS

PAGE ITEM NO	CONTACT SIZE	ITEM NAME	NATO STOCK NUMBER	STYLE REFERENCE
	(a)	(b)	(c)	(d)
1	16S	CONTACT, ELECTRICAL (PIN CONTACTS) (CRIMP)	5999-99-	CC1599/001
2	16		017-1212	CC1599/002
3	12		017-1214	CC1599/003
4	8		017-1215	CC1599/004
5	4		017-1216	CC1599/005
6	0		017-1217	CC1599/006
7	16S	CONTACT, ELECTRICAL (SOCKET CONTACTS) (CRIMP)	5999-99-	CC1600/001
8	16		017-1218	CC1600/002
9	12		017-1219	CC1600/003
10	8		017-1220	CC1600/004
11	4		017-1221	CC1600/005
12	0		017-1222	CC1600/006
13	16	PLUG, PROTECTIVE, DUST AND MOISTURE SEAL (FILLER PLUGS)	5340-99-	CC1601/001
14	12		017-1223	CC1601/002
15	8		017-1224	CC1601/003
16	4		017-1225	CC1601/004
17	0		017-1226	CC1601/005
18	16	INSERTION TOOL	5999-99-	CC1602/001
19	12		017-1228	CC1602/002
20	8		017-1229	CC1602/003
21	4		017-1230	CC1602/004
22	0		017-1231	CC1602/005
23	16	WITHDRAWAL TOOL	5999-99-	CC1603/001
24	12		017-1232	CC1603/002
25	8		017-1233	CC1603/003
26	4		017-1234	CC1603/004
27	0		017-1235	CC1603/005

- Notes**
1. Spare contacts are provided against the above NATO stock numbers in packets of 25 for sizes 16 and 12; 10 for sizes 8 and 4; and 5 for size 0.
 2. All plugs and sockets are normally supplied with a full complement of contacts.
 3. Filler plugs are provided against the above NATO stock numbers in packets of 25 for sizes 16 and 12; 10 for sizes 8 and 4; and 5 for size 0.
 4. For outline dimensions, see pages 36 to 39.

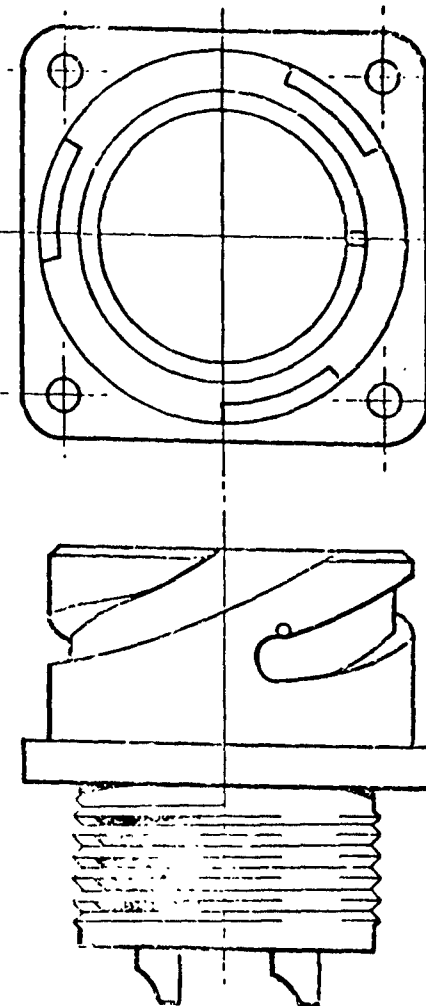
TABLE I(E)(CONTD)

PAGE ITEM NO	SHELL SIZE	ITEM NAME	NATO STOCK NUMBER 5330-99-	STYLE REFERENCE
	(a)	(b)	(c)	(d)
1	10	GASKET	014-7131	CC1352/1
2	14		014-7133	CC1352/3
3	16		014-7134	CC1352/4
4	18		014-7135	CC1352/5
5	20		014-7136	CC1352/6
6	22		014-7137	CC1352/7
7	24		014-7138	CC1352/8
8	28		014-7139	CC1352/9
9	32		014-7140	CC1352/10
10	36		014-7141	CC1352/11

Note. The gasket above, is for use with items listed in Tables I(A) and II(A), and fits over the threaded (rear end) of the shell.

TABLE II(A)
ITEMS PERMITTED ONLY FOR MAINTENANCE PURPOSES PLUGS AND SOCKETS,
ELECTRICAL, PATTERN 121B, FIXED, SQUARE FLANGE MOUNTING

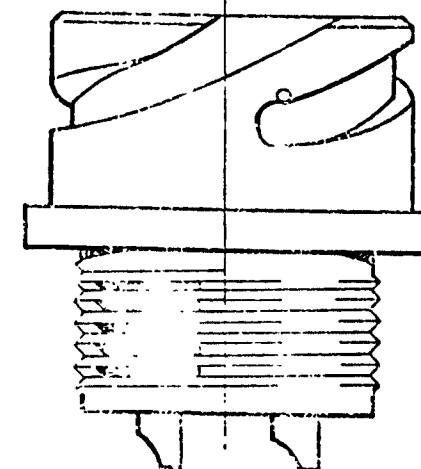
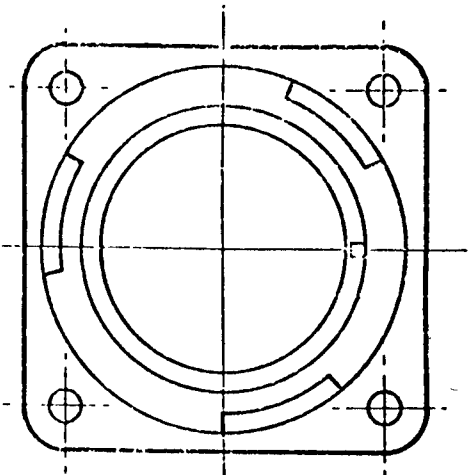
PAGE ITEM NO	CONTACT ARRANGEMENT	ORIENTATION	CRIMP TYPE				SOLDER TYPE			
			PLUG		SOCKET		PLUG		SOCKET	
			STYLE REFERENCE CC1596-	NATO STOCK NUMBER 5935-99-	STYLE REFERENCE CC1596-	NATO STOCK NUMBER 5935-99-	STYLE REFERENCE CC1596-	NATO STOCK NUMBER 5935-99-	STYLE REFERENCE CC1596-	NATO STOCK NUMBER 5935-99-
	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(j)	(k)
1	16-12	N	16-12PC	017-0717	16-12SC	017-0718	16-12P	017-0719	16-12S	017-0720
2		X	Not to be provided							
3		Y	Not to be provided							
4	20-2	N	20-2PC	017-0721	20-2SC	017-0722	20-2P	017-0723	20-2S	017-0724
5		X	Not to be provided							
6		Y	Not to be provided							
7	20-8	N	20-8PC	017-0725	20-8SC	017-0726	20-8P	017-0727	20-8S	017-0728
8		X	20-8PCX	017-0729	20-8SCX	017-0730	20-8PX	017-0731	20-8SX	017-0732
9		Y	20-8PCY	017-0733	20-8SCY	017-0734	20-8PY	017-0735	20-8SY	017-0736
10	20A9	N	20A9PC	017-0737	20A9SC	017-0738	20A9P	017-0739	20A9S	017-0740
11		X	20A9PCX	017-0741	20A9SCX	017-0742	20A9PX	017-0743	20A9SX	017-0744
12		Y	20A9PCY	017-0745	20A9SCY	017-0746	20A9PY	017-0747	20A9SY	017-0748
13	20A48	N	20A48PC	017-0749	20A48SC	017-0750	20A48P	017-0751	20A48S	017-0752
14		X	20A48PCX	017-0753	20A48SCX	017-0754	20A48PX	017-0755	20A48SX	017-0756
15		Y	20A48PCY	017-0757	20A48SCY	017-0758	20A48PY	017-0759	20A48SY	017-0760
16	22-2	N	22-2PC	017-0761	22-2SC	017-0762	22-2P	017-0763	22-2S	017-0764
17		X	22-2PCX	017-0765	22-2SCX	017-0766	22-2PX	017-0767	22-2SX	017-0768
18		Y	22-2PCY	017-0769	22-2SCY	017-0770	22-2PY	017-0771	22-2SY	017-0772
19	22-12	N	22-12PC	017-0773	22-12SC	017-0774	22-12P	017-0775	22-12S	017-0776
20		X	22-12PCX	017-0777	22-12SCX	017-0778	22-12PX	017-0779	22-12SX	017-0780
21		Y	22-12PCY	017-0781	22-12SCY	017-0782	22-12PY	017-0783	22-12SY	017-0784
22	22-27	N	22-27PC	017-0785	22-27SC	017-0786	22-27P	017-0787	22-27S	017-0788
23		X	Not to be provided							
24		Y	22-27PCY	017-0793	22-27SCY	017-0794	22-27PY	017-0795	22-27SY	017-0796



For outline dimensions see page 36.

TABLE II(A) - CONTINUED

PAGE ITEM NO	CONNECTION ARRANGEMENT	ORIENTATION	CRIMP TYPE				SOLDER TYPE			
			PLUG		SOCKET		PLUG		SOCKET	
			STYLE REFERENCE CC1596-	NATO STOCK NUMBER 5935-99-	STYLE REFERENCE CC1596-	NATO STOCK NUMBER 5935-99-	STYLE REFERENCE CC1596-	NATO STOCK NUMBER 5935-99-	STYLE REFERENCE CC1596-	NATO STOCK NUMBER 5935-99-
	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(j)	(k)
1	24-10	N	24-10PC	017-0797	24-10SC	017-0798	24-10P	017-0799	24-10S	017-0800
2		X	Not to be provided							
3		Y	Not to be provided							
4	28A63	N	28A63PC	017-0810	28A63SC	017-0802	28A63P	017-0803	28A63S	017-0804
5		X	28A63PCX	017-0805	28A63SCX	017-0806	28A63PX	017-0807	28A63SX	017-0808
6		Y	28A63PCY	017-0809	28A63SCY	017-0810	28A63PY	017-0811	28A63SY	017-0812
7	32-1	N	32-1PC	017-0813	32-1SC	017-0814	32-1P	017-0815	32-1S	017-0816
8		X	32-1PCX	017-0817	32-1SCX	017-0818	32-1PX	017-0819	32-1SX	017-0820
9		Y	32-1PCY	017-0821	32-1SCY	017-0822	32-1PY	017-0823	32-1SY	017-0824
10	32-3	N	32-3PC	017-0825	32-3SC	017-0826	32-3P	017-0827	32-3S	017-0828
11		X	32-3PCX	017-0829	32-3SCX	017-0830	32-3PX	017-0831	32-3SX	017-0832
12		Y	32-3PCY	017-0833	32-3SCY	017-0834	32-3PY	017-0835	32-3SY	017-0836
13	32A69	N	32A69PC	017-0837	32A69SC	017-0838	32A69P	017-0839	32A69S	017-0840
14		X	32A69PCX	017-0841	32A69SCX	017-0842	32A69PX	017-0843	32A69SX	017-0844
15		Y	32A69PCY	017-0845	32A69SCY	017-0846	32A69PY	017-0847	32A69SY	017-0848
16	36-5	N	36-5PC	017-0849	36-5SC	017-0850	36-5P	017-0851	36-5S	017-0852
17		X	36-5PCX	017-0853	36-5SCX	017-0854	36-5PX	017-0855	36-5SX	017-0856
18		Y	36-5PCY	017-0857	36-5SCY	017-0858	36-5PY	017-0859	36-5SY	017-0860
19	36-6	N	36-6PC	017-0861	36-6SC	017-0862	36-6P	017-0863	36-6S	017-0864
20		X	36-6PCX	017-0865	36-6SCX	017-0866	36-6PX	017-0867	36-6SX	017-0868
21		Y	36-6PCY	017-0869	36-6SCY	017-0870	36-6PY	017-0871	36-6SY	017-0872
22	36-10	N	36-10PC	017-0873	36-10SC	017-0874	36-10P	017-0875	36-10S	017-0876
23		X	36-10PCX	017-0877	36-10SCX	017-0878	36-10PX	017-0879	36-10SX	017-0880
24		Y	36-10PCY	017-0881	36-10SCY	017-0882	36-10PY	017-0883	36-10SY	017-0884

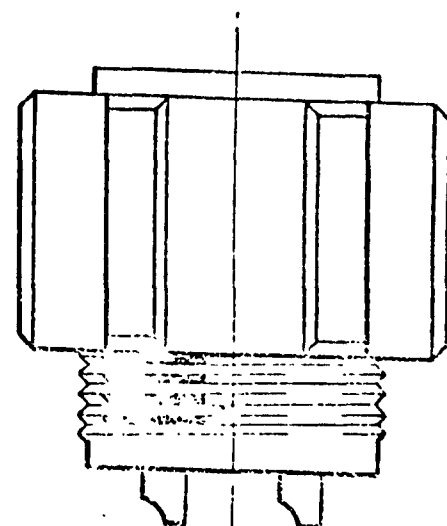
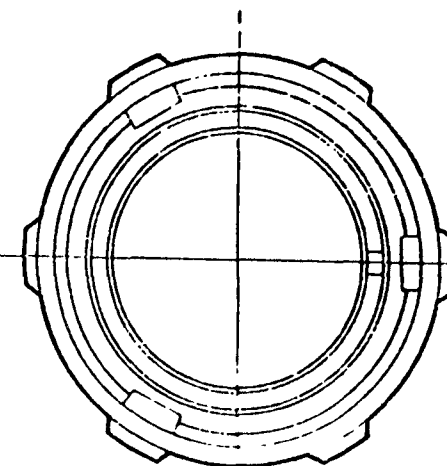


For outline dimensions see page 36

 DEF STAN 59 - 35(PART 1)
 SECTION BB/1
 TABLE II (A) (CONT'D)

TABLE II(B)
ITEMS PERMITTED ONLY FOR MAINTENANCE PURPOSES
PLUGS AND SOCKETS, ELECTRICAL, PATTERN 121B,
FREE, WITH ACCESSORY THREAD AND COARSE RIBBED COUPLING NUT

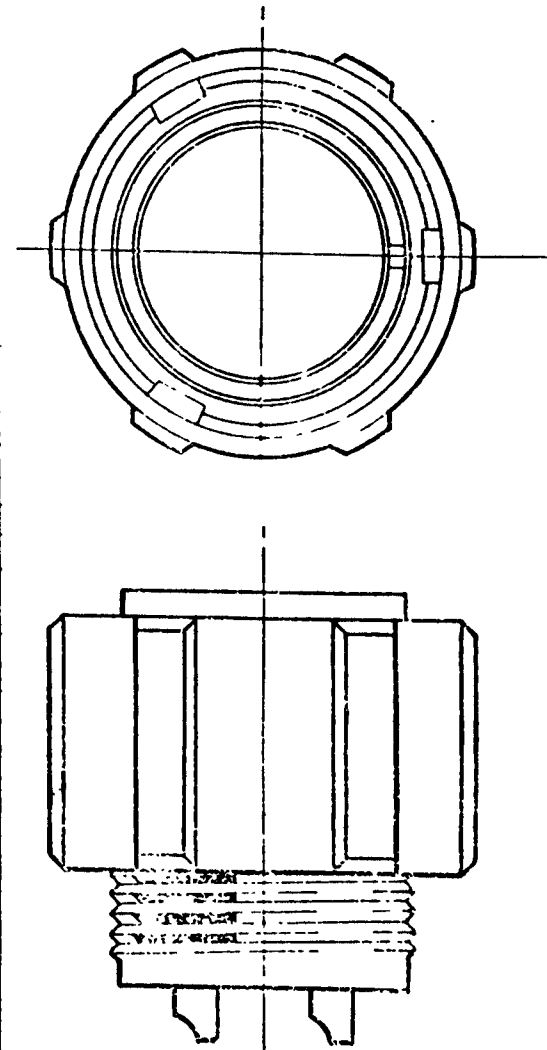
PAGE ITEM NO	COUNTRY ARRANGEMENT	ORIENTATION	CRIMP TYPE				SOLDER TYPE			
			PLUG		SOCKET		PLUG		SOCKET	
			STYLE REFERENCE CC 1597-	NATO STOCK NUMBER 5935-99-	STYLE REFERENCE CC 1597-	NATO STOCK NUMBER 5935-99-	STYLE REFERENCE CC 1597-	NATO STOCK NUMBER 5935-99-	STYLE REFERENCE CC 1597-	NATO STOCK NUMBER 5935-99-
	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(k)
1	16-12	N	16-12PC	017-0885	16-12SC	017-0886	16-12P	017-0887	16-12S	017-0888
2		X	Not to be provided							
3		Y	Not to be provided							
4	20-2	N	20-2PC	017-0889	20-2SC	017-0890	20-2P	017-0891	20-2S	017-0892
5		X	Not to be provided							
6		Y	Not to be provided							
7	20-8	N	20-8PC	017-0893	20-8SC	017-0894	20-8P	017-0895	20-8S	017-0896
8		X	20-8PCX	017-0897	20-8SCX	017-0898	20-8PX	017-0899	20-8SX	017-0900
9		Y	20-8PCY	017-0901	20-8SCY	017-0902	20-8PY	017-0903	20-8SY	017-0904
10	20A9	N	20A9PC	017-0905	20A9SC	017-0906	20A9P	017-0907	20A9S	017-0908
11		X	20A9PCX	017-0909	20A9SCX	017-0910	20A9PX	017-0911	20A9SX	017-0912
12		Y	20A9PCY	017-0913	20A9SCY	017-0914	20A9PY	017-0915	20A9SY	017-0916
13	20A48	N	20A48PC	017-0917	20A48SC	017-0918	20A48P	017-0919	20A48S	017-0920
14		X	20A48PCX	017-0921	20A48SCX	017-0922	20A48PX	017-0923	20A48SX	017-0924
15		Y	20A48PCY	017-0925	20A48SCY	017-0926	20A48PY	017-0927	20A48SY	017-0928
16	22-2	N	22-2PC	017-0929	22-2SC	017-0930	22-2P	017-0931	22-2S	017-0932
17		X	22-2PCX	017-0933	22-2SCX	017-0934	22-2PX	017-0935	22-2SX	017-0936
18		Y	22-2PCY	017-0937	22-2SCY	017-0938	22-2PY	017-0939	22-2SY	017-0940
19	22-12	N	22-12PC	017-0941	22-12SC	017-0942	22-12P	017-0943	22-12S	017-0944
20		X	22-12PCX	017-0945	22-12SCX	017-0946	22-12PX	017-0947	22-12SX	017-0948
21		Y	22-12PCY	017-0949	22-12SCY	017-0950	22-12PY	017-0951	22-12SY	017-0952
22	22-27	N	22-27PC	017-0953	22-27SC	017-0954	22-27P	017-0955	22-27S	017-0956
23		X	Not to be provided							
24		Y	22-27PCY	017-0957	22-27SCY	017-0958	22-27PY	017-0959	22-27SY	017-0960



For outline dimensions see page 37.

TABLE II(B) - CONTINUED

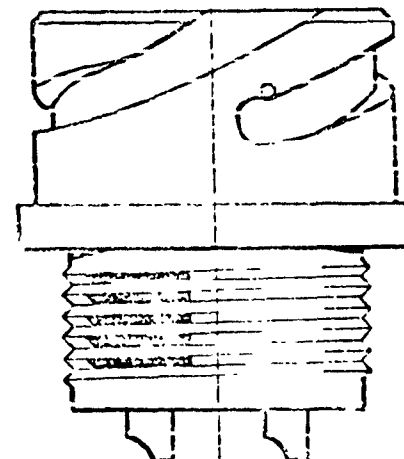
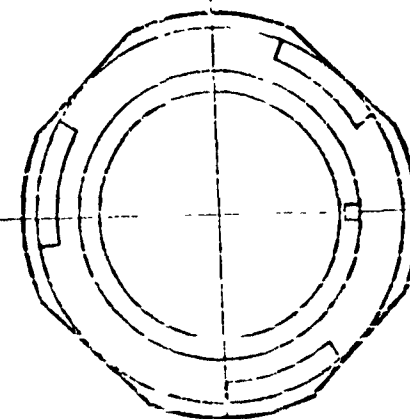
PAGE ITEM NO	CONTACT ARRANGEMENT	ORIENTATION	CRIMP TYPE				SOLDER TYPE			
			PLUG		SOCKET		PLUG		SOCKET	
			STYLE REFERENCE CC 1597-	NATO STOCK NUMBER 5935-99	STYLE REFERENCE CC 1597-	NATO STOCK NUMBER 5935-99-	STYLE REFERENCE CC 1597-	NATO STOCK NUMBER 5935-99-	STYLE REFERENCE CC 1597-	NATO STOCK NUMBER 5935-99-
			(c)	(d)	(e)	(f)	(g)	(h)	(j)	(k)
1	24-10	N	24-10PC	017-0961	24-10SC	017-0962	24-10P	017-0963	24-10S	017-0964
2		X	Not to be provided							
3		Y	Not to be provided							
4	28A63	N	28A63PC	017-0965	28A63SC	017-0966	28A63P	017-0967	28A63S	017-0968
5		X	28A63PCX	017-0969	28A63SCX	017-0970	28A63PX	017-0971	28A63SX	017-0972
6		Y	28A63PCY	017-0973	28A63SCY	017-0974	28A63PY	017-0975	28A63SY	017-0976
7	32-1	N	32-1PC	017-0977	32-1SC	017-0978	32-1P	017-0979	32-1S	017-0980
8		X	32-1PCX	017-0981	32-1SCX	017-0982	32-1PX	017-0983	32-1SX	017-0984
9		Y	32-1PCY	017-0985	32-1SCY	017-0986	32-1PY	017-0987	32-1SY	017-0988
10	32-3	N	32-3PC	017-0989	32-3SC	017-0990	32-3P	017-0991	32-3S	017-0992
11		X	32-3PCX	017-0993	32-3SCX	017-0994	32-3PX	017-0995	32-3SX	017-0996
12		Y	32-3PCY	017-0997	32-3SCY	017-0998	32-3PY	017-0999	32-3SY	017-1000
13	32A69	N	32A69PC	017-1001	32A69SC	017-1002	32A69P	017-1003	32A69S	017-1004
14		X	32A69PCX	017-1005	32A69SCX	017-1006	32A69PX	017-1007	32A69SX	017-1008
15		Y	32A69PCY	017-1009	32A69SCY	017-1010	32A69PY	017-1011	32A69SY	017-1012
16	36-5	N	36-5PC	017-1013	36-5SC	017-1014	36-5P	017-1015	36-5S	017-1016
17		X	36-5PCX	017-1017	36-5SCX	017-1018	36-5PX	017-1019	36-5SX	017-1020
18		Y	36-5PCY	017-1021	36-5SCY	017-1022	36-5PY	017-1023	36-5SY	017-1024
19	36-6	N	36-6PC	017-1025	36-6SC	017-1026	36-6P	017-1027	36-6S	017-1028
20		X	36-6PCX	017-1029	36-6SCX	017-1030	36-6PX	017-1031	36-6SX	017-1032
21		Y	36-6PCY	017-1033	36-6SCY	017-1034	36-6PY	017-1035	36-6SY	017-1036
22	36-10	N	36-10PC	017-1037	36-10SC	017-1038	36-10P	017-1039	36-10S	017-1040
23		X	36-10PCX	017-1041	36-10SCX	017-1042	36-10PX	017-1043	36-10SX	017-1044
24		Y	36-10PCY	017-1045	36-10SCY	017-1046	36-10PY	017-1047	36-10SY	017-1048



For outline dimensions see page 37

TABLE II(C)
ITEMS PERMITTED ONLY FOR MAINTENANCE PURPOSES
PLUGS AND SOCKETS, ELECTRICAL, PATTERN 121B, IN-LINE CABLE COUPLER

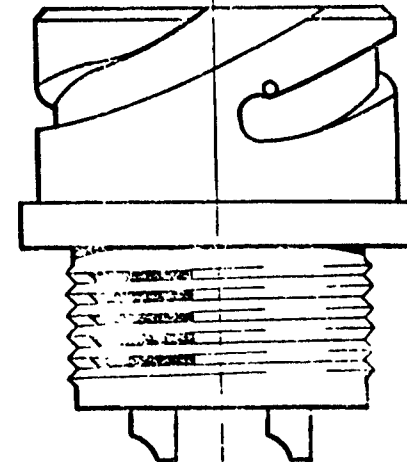
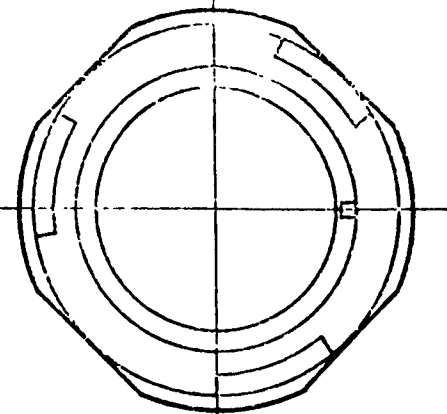
PAGE ITEM NO	CONTACT A-FILING MARK	ORIENTATION	CRIMP TYPE				SOLDER TYPE			
			PLUG		SOCKET		PLUG		SOCKET	
			STYLE REFERENCE CC1598	NATO STOCK NUMBER 5935-99-	STYLE REFERENCE CC1598-	NATO STOCK NUMBER 5935-99-	STYLE REFERENCE CC1598-	NATO STOCK NUMBER 5935-99-	STYLE REFERENCE CC1598-	NATO STOCK NUMBER 5935-99-
		(a)	(c)	(d)	(e)	(f)	(g)	(h)	(j)	(k)
1	16-12	N	16-12PC	017-1049	16-12SC	017-1050	16-12P	017-1051	16-12S	017-1052
2		X	Not to be provided							
3		Y	Not to be provided							
4		N	20-2PC	017-1053	20-2SC	017-1054	20-2P	017-1055	20-2S	017-1056
5		X	Not to be provided							
6	20-2	Y	Not to be provided							
7		N	20-8PC	017-1057	20-8SC	017-1058	20-8P	017-1059	20-8S	017-1060
8		X	20-8PCX	017-1061	20-8SCX	017-1062	20-8PX	017-1063	20-8SX	017-1064
9		Y	20-8PCY	017-1065	20-8SCY	017-1066	20-8PY	017-1067	20-8SY	017-1068
10		N	20A9PC	017-1069	20A9SC	017-1070	20A9P	017-1071	20A9S	017-1072
11		X	20A9PCX	017-1073	20A9SCX	017-1074	20A9PX	017-1075	20A9SX	017-1076
12		Y	20A9PCY	017-1077	20A9SCY	017-1078	20A9PY	017-1079	20A9SY	017-1080
13		N	20A48PC	017-1081	20A48SC	017-1082	20A48P	017-1083	20A48S	017-1084
14		X	20A48PCX	017-1085	20A48SCX	017-1086	20A48PX	017-1087	20A48SX	017-1088
15		Y	20A48PCY	017-1089	20A48SCY	017-1090	20A48PY	017-1091	20A48SY	017-1092
16		N	22-2PC	017-1093	22-2SC	017-1094	22-2P	017-1095	22-2S	017-1096
17		X	22-2PCX	017-1097	22-2SCX	017-1098	22-2PX	017-1099	22-2SX	017-1100
18		Y	22-2PCY	017-1101	22-2SCY	017-1102	22-2PY	017-1103	22-2SY	017-1104
19		N	22-12PC	017-1105	22-12SC	017-1106	22-12P	017-1107	22-12S	017-1108
20		X	22-12PCX	017-1109	22-12SCX	017-1110	22-12PX	017-1111	22-12SX	017-1112
21		Y	22-12PCY	017-1113	22-12SCY	017-1114	22-12PY	017-1115	22-12SY	017-1116
22		N	22-27PC	017-1117	22-27SC	017-1118	22-27P	017-1119	22-27S	017-1120
23		X	Not to be provided							
24	22-27	Y	22-27PCY	017-1121	22-27SCY	017-1122	22-27PY	017-1123	22-27SY	017-1124



For outline dimensions see page 58.

TABLE II(C) - CONTINUED

PAGE ITEM NO	CC-1-0 APPL. TABLE	ORIENTATION	CRIMP TYPE				SOLDER TYPE			
			PLUG		SOCKET		PLUG		SOCKET	
			STYLE REFERENCE CC1598-	NATO STOCK NUMBER 5935-99-	STYLE REFERENCE CC1598-	NATO STOCK NUMBER 5935-99-	STYLE REFERENCE CC1598-	NATO STOCK NUMBER 5935-99-	STYLE REFERENCE CC1598-	NATO STOCK NUMBER 5935-99-
			(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)
1	24-10	N	24-10PC	017-1125	24-10SC	017-1126	24-10P	017-1127	24-10S	017-1128
2		X	Not to be provided							
3		Y	Not to be provided							
4	28A63	N	28A63-PC	017-1129	28A63SC	017-1130	28A63P	017-1131	28A63S	017-1132
5		X	28A63PCX	017-1133	28A63SCX	017-1134	28A63PX	017-1135	28A63SX	017-1136
6		Y	28A63PCY	017-1137	28A63SCY	017-1138	28A63PY	017-1139	28A63SY	017-1140
7	32-1	N	32-1PC	017-1141	32-1SC	017-1142	32-1P	017-1143	32-1S	017-1144
8		X	32-1PCX	017-1145	32-1SCX	017-1146	32-1PX	017-1147	32-1SX	017-1148
9		Y	32-1PCY	017-1149	32-1SCY	017-1150	32-1PY	017-1151	32-1SY	017-1152
10	32-3	N	32-3PC	017-1153	32-3SC	017-1154	32-3P	017-1155	32-3S	017-1156
11		X	32-3PCX	017-1157	32-3SCX	017-1158	32-3PX	017-1159	32-3SX	017-1160
12		Y	32-3PCY	017-1161	32-3SCY	017-1162	32-3PY	017-1163	32-3SY	017-1164
13	32A69	N	32A69PC	017-1165	32A69SC	017-1166	32A69P	017-1167	32A69S	017-1168
14		X	32A69PCX	017-1169	32A69SCX	017-1170	32A69PX	017-1171	32A69SX	017-1172
15		Y	32A69PCY	017-1173	32A69SCY	017-1174	32A69PY	017-1175	32A69SY	017-1176
16	36-5	N	36-5PC	017-1177	36-5SC	017-1178	36-5P	017-1179	36-5S	017-1180
17		X	36-5PCX	017-1181	36-5SCX	017-1182	36-5PX	017-1183	36-5SX	017-1184
18		Y	36-5PCY	017-1185	36-5SCY	017-1186	36-5PY	017-1187	36-5SY	017-1188
19	36-6	N	36-6PC	017-1189	36-6SC	017-1190	36-6P	017-1191	36-6S	017-1192
20		X	36-6PCX	017-1193	36-6SCX	017-1194	36-6PX	017-1195	36-6SX	017-1196
21		Y	36-6PCY	017-1197	36-6SCY	017-1198	36-6PY	017-1199	36-6SY	017-1200
22	36-10	N	36-10PC	017-1201	36-10SC	017-1202	36-10P	017-1203	36-10S	017-1204
23		X	36-10PCX	017-1205	36-10SCX	017-1206	36-10PX	017-1207	36-10SX	017-1208
24		Y	36-10PCY	017-1209	36-10SCY	017-1210	36-10PY	017-1211	36-10SY	017-1212



For outline dimensions see page 38.

TABLE II(D)
ITEMS PERMITTED ONLY FOR MAINTENANCE PURPOSES
BUSHINGS, RUBBER
(GROMMETS)

PAGE ITEM NO	SHELL SIZE	CONTACT ARRANGEMENT	ITEM NAME	NATO STOCK NUMBER	CONTROL DRAWING NO
	(a)	(b)	(c)	(d)	(e)
1	16	16-12	BUSHING, RUBBER	5365-99-017-1238	CC 1347
2	20	20-2		5365-99-017-1239	
3		20-8		5365-99-017-1240	
4		20A9		5365-99-017-1241	
5		20A48		5365-99-017-1242	
6	22	22-2		5365-99-017-1243	
7		22-12		5365-99-017-1244	
8		22-27		5365-99-017-1245	
9	24	24-10		5365-99-017-1246	
10	28	28A63		5365-99-017-1247	
11	32	32-1		5365-99-017-1248	
12		32-3		5365-99-017-1249	
13		32A69		5365-99-017-1250	
14	36	36-5		5365-99-017-1251	
15		36-6		5365-99-017-1252	
16		36-10		5365-99-017-1253	

Note: These items to be used only when applicable Plugs and Sockets from Table II are selected together with the appropriate cable outlet accessories shown in Table I(D)

OBSOLESCENT

Ministry of Defence

Defence Standard

59-35 (PART 4)

SECTION 9A / Issue 1

23rd August 1982

**CONNECTORS, ELECTRICAL
PART 4: RADIO FREQUENCY
COAXIAL CONNECTORS
SECTION 9A: PATTERN 9210 F0017
(SERIES SMA UNSEALED)
LIST OF ITEMS CONFORMING TO
BS 9210 F0017**

OBSOLESCENT

**THIS DEFENCE STANDARD WILL NOT BE UPDATED AND IS
NOT TO BE USED FOR THE PURCHASE OF NEW EQUIPMENT**

DEF STAN 59-35 (PART 4) SECTION 9A/1

CONNECTORS, ELECTRICAL

PART 4 : RADIO FREQUENCY COAXIAL CONNECTORS

SECTION 9A : PATTERN 9210 F0017 (SERIES SMA UNSEALED)

- 1 This Section of Defence Standard 59-35 (PART 4) implements BS 9210 F0017 'Detail specification for radio frequency connectors of assessed quality series SMA, unsealed, soldered, captive contacts, crimped braid, 50 ohm, full assessment level'. It is for Ministry of Defence use.
- 2 This Section of the Standard is to be used in conjunction with DEF STAN 59-35 'Connectors, electrical PART 4 : Radio frequency coaxial connectors' and BS 9210 'Specification for radio frequency connectors of assessed quality'. All the requirements are applicable unless stated herein.
- 3 Tables I(A) and I(B) list the standard ranges of Pattern 9210 F0017 connectors, electrical, from which selection shall be made for all new requirements and whenever practicable, for the maintenance of existing equipment.
- 4 This Section of the Standard contains no Table II or Table III but it is intended to add these by amendment action later.
- 5 This Section of the Standard has been agreed on behalf of the Ministry of Defence by the Master Specification Officer (MSO), see Annex B.
- 6 This Section of the Standard has been agreed by authorities concerned. It is to be implemented, wherever practicable, in all designs, contracts, orders, etc commencing after its date of publication. If a difficulty arises which prevents application of the Defence Standard, the Directorate of Standardization shall be informed so that a remedy can be sought.
- 7 Any enquiries regarding this Section of the Standard in relation to an invitation to tender or a contract in which it is invoked are to be addressed to the responsible technical or supervising authority named in that invitation to tender or contract.

For the purposes of this Standard and until such times as a Defence Standard is published in the DEF STAN 59-71 series - Crimping for R.F. Connectors, intending users should consult with the MSO's listed in Annex B for guidance on the use of hand crimping tools.

INDEX TO CONTENTS

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CONNECTORS, ELECTRICAL. RADIO FREQUENCY CONNECTORS SERIES SMA, PATTERN 9210 F0017. GENERAL INFORMATION.	3
<u>CONNECTORS, ELECTRICAL</u>	
TABLE I(A))))))	6
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STANDARD RANGES	
TABLE I(B)))))	7
	(CONNECTORS, ELECTRICAL, RADIO FREQUENCY (SERIES SMA, UNSEALED, SOLDERED, CAPTIVE (CONTACTS, CRIMPED BRAID, (50 ohm passivated (stainless steel (PSS), to BS 9210 F0017).
TABLE II) TABLE III)	NOT APPLICABLE
ANNEX A -	A-1
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CONNECTORS ELECTRICALRADIO FREQUENCY CONNECTORS SERIES SMA, PATTERN 9210 F0017GENERAL INFORMATION1 SCOPE

This Section of Defence Standard 59-35 (PART 4) lists details of radio frequency coaxial connectors of the type described in clause 1 on page 1. Their climatic category is 55/155/21.

2 WARNING

- 2.1 This Section of the Standard calls for the use of substances and/or test procedures that may be injurious to health if adequate precautions are not taken. It refers only to technical suitability and in no way absolves either the supplier or the user from statutory obligations relating to health and safety at any stage of manufacture or use.
- 2.2 Particular attention is drawn to the following hazards although the list may not necessarily be exhaustive:
- 2.2.1 The toxic fumes emitted by polytetrafluoroethylene (PTFE) when it is heated to the temperature required for soldering.
- 2.2.2 The dangers of handling cigarettes and tobacco in areas which may contain pieces of PTFE insulation stripped from cables or wire.
- 2.3 This Section of the Standard has been devised for the use of the Crown and of its contractors in the execution of contracts for the Crown and, subject to the Unfair Contract Terms Act 1977, the Crown will not be liable in any way whatever (including but without limitation negligence on the part of the Crown, its servants or agents) where the Standard is used for other purposes.

3 QUALIFICATION APPROVAL

- 3.1 It is essential that, having selected a particular component from the standard range listed in this Section of the Standard, reference is made to:

DEF STAN 59-59	'Electrical/Electronic components for Defence use - Services qualified products list including components of assessed quality'
PD 9002	'BS 9000 and BS CECC Qualified Products List'

to ascertain that a Qualification Approval certificate is extant for the item concerned. If there is no such certificate at the time of selection, then the relevant NATO Stock Number(s) listed herein shall not be used for ordering that item.

- 3.2 Where no Qualification Approval exists or selection from Table I cannot be made then the procedure given in DEF STAN 59-36 (PART 2) shall apply.

SECTION 9A/1

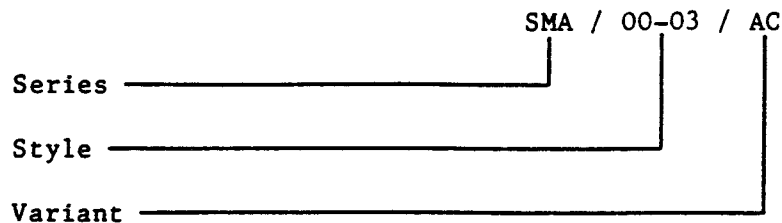
4 ORDERING INFORMATION

4.1 When ordering connectors, electrical, listed in this Section of the Standard, the ordering information required by BS 9210 F0017, Clause 6, this Defence Standard number and the NATO Stock Number(s) shall be stated, together with the packaging requirements.

4.2 Style and variant references

4.2.1 The style and variant references used in this Section of the Standard are in accordance with DEF STAN 59-35 (PART 4) and BS 9210.

EXAMPLE OF CODED CONNECTOR DESCRIPTION



Note: Details of the crimping tools for use with any variant of connectors, electrical, are listed in Annex A, page A-1, of this Defence Standard.

4.2.2 The above example corresponds to a series SMA connector, free, straight, with male centre contact, intended for soldered connection to 50 ohm coaxial cables having the following maximum diameters:

Outer protection	2.70 mm
Outer conductor	2.24 mm
Dielectric	1.60 mm
Inner conductor	0.48 mm

4.3 Example for ordering

Connector, electrical, BS 9210 F0017 and DEF STAN 59-35 (PART 4) Section 9A Issue 0, Style SMA/00-03/AC, NATO Stock Number 5935-99-XXX-XXXX.

Note: 0 indicates that the current Issue No. is applicable.

5 PACKAGING INSTRUCTION

5.1 The packaging of connectors, electrical, is to be in accordance with the packaging instructions given in CPU Packaging Specification No. CPU/PIP/109 unless otherwise stated in any tender or contract.

5.2 Additional requirements for marking and packaging of Pattern 9210 F0017 connectors, electrical, for Service use are given in DEF STAN 59-35 (PART 4).

6 CODIFICATION IDENTIFICATION

- 6.1 If any difficulties arise from the identification of connectors, electrical, against NATO Stock Numbers, clarification should be sought from:

The Defence Codification Authority,
Ministry of Defence,
Leysdown Road,
Mottingham,
LONDON, SE9 3NN.

7 DIMENSIONS

For all requirements IT IS ESSENTIAL THAT EQUIPMENT DESIGNERS WORK TO THE DIMENSIONS SHOWN IN BS 9210 F0017 AND NOT TO INDIVIDUAL SPECIMENS.

8 SUPPLEMENTARY INFORMATION

Additional requirements to those specified by BS 9210 and associated rules/documents may be included where these have been agreed by the Master Specification Officer.

9 RELATIONSHIP BETWEEN DEFENCE STANDARDS AND CECC/BS 9000 SERIES

For details of relationship between Defence Standards and CECC/British Standard 9000 series reference should be made to DEF STAN 59-36 (PART 1).

10 IMPLEMENTATION OF CECC/BS HARMONIZED SPECIFICATIONS

When CECC/BS Harmonized Sectional and Detail Specifications relevant to this Section of the Standard are published and their implementation is agreed by the MSO then this Section will be amended to give details of the CECC documents concerned.

Note: See BS CECC 22000

TABLE 1(A)

STANDARD RANGE

CONNECTORS, ELECTRICAL, RADIO FREQUENCY, SERIES SMA, UNSEALED, SOLDERED, CAPTIVE CONTACTS, CRIMPED BRAID

(50 ohm, gold plated (Au), to BS 9210 F0017)

PAGE ITEM NO.	NSN 5915-99-	SERVICE MANAGEMENT CODE			ITEM NAME	STYLE	DESCRIPTION	MASS (grms)	VARIANT	NATO STOCK NUMBERS OF SUITABLE BS 2316 DEF STAN 61-12 (PT 9) AND MIL-C-17 CABLE RADIO FREQUENCY 6145-99-
		NAVY	ARMY	AIR FORCE						50 OHM MATCHED
		(a)	(b)	(c)						(d)
1	+	--	--	--	CONNECTOR, ELECTRICAL, FIXED	00.01	Connector fixed straight, 4-hole fixing, female centre contact	6.5	AC	014-9546
2	+	--	--	--					AE	017-4520 and 017-4519
3	+	--	--	--					AJ	014-9533 and 014-9542
4	+	--	--	--					AK	-
5	+	--	--	--	CONNECTOR, ELECTRICAL, FREE	01.01	Connector coupler free, straight, female centre contact	5	AC	014-9546
6	+	--	--	--					AE	017-4520 and 017-4519
7	+	--	--	--					AJ	014-9533 and 014-9542
8	+	--	--	--					AK	-
9	+	--	--	--		06.02	Connector free straight, male centre contact	6	AC	014-9546
10	+	--	--	--					AE	017-4520 and 017-4519
11	+	--	--	--					AJ	014-9533 and 014-9542
12	+	--	--	--					AK	-
13	+	--	--	--		08.02	Connector free right angle, male centre contact	6	AC	014-9546
14	+	--	--	--					AE	017-4520 and 017-4519
15	+	--	--	--					AJ	014-9533 and 014-9542
16	+	--	--	--					AK	-

Notes: + Indicates that a NATO Stock Number (NSN) has not been allocated to the item.

-- Indicates that at the date of publication of the Standard, the Service concerned does not use the item.

- Indicates that the column heading does not apply.

TABLE 1(B)

STANDARD RANGE

CONNECTORS, ELECTRICAL, RADIO FREQUENCY, SERIES SMA, UNSEALED, SOLDERED, CAPTIVE CONTACTS, CRIMPED BRAID

(50 ohm passivated stainless steel (PSS) to BS 9210 F0017)

PAGE ITEM NO.	NSN 5915-99-	SERVICE MANAGEMENT CODE			ITEM NAME	STYLE	DESCRIPTION	MASS (grms)	VARIANT	NATO STOCK NUMBERS OF SUITABLE BS 2316 DEF STAN 61-12 (PT 9) AND MIL-C-17 CABLE RADIO FREQUENCY 6145-99-
		NAVY	ARMY	AIR FORCE						50 OHM MATCHED
	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(j)	(k)
1	+	--	--	--	CONNECTOR, ELECTRICAL, FIXED	00.03	Connector fixed straight, 4-hole fixing, female centre contact	6.5	AC	014-9546
2	+	--	--	--					AE	017-4520 and 017-4519
3	+	--	--	--					AJ	014-9533 and 014-9542
4	+	--	--	--					AK	-
5	+	--	--	--	CONNECTOR, ELECTRICAL, FREE	01.03	Connector coupler free, straight, female centre contact	5	AC	014-9546
6	+	--	--	--					AE	017-4520 and 017-4519
7	+	--	--	--					AJ	014-9533 and 014-9542
8	+	--	--	--					AK	-
9	+	--	--	--		06.02	Connector free straight, male centre contact	6	AC	014-9546
10	+	--	--	--					AE	017-4520 and 017-4519
11	+	--	--	--					AJ	014-9533 and 014-9542
12	+	--	--	--					AK	-
13	+	--	--	--		08.02	Connector free right angle, male centre contact	6	AC	014-9546
14	+	--	--	--					AE	017-4520 and 017-4519
15	+	--	--	--					AJ	014-9533 and 014-9542
16	+	--	--	--					AK	-

Notes applicable to this Table are on page 6

DEF STAN 59-35 (PART 4)
SECTION 9A/1
TABLE 1(B)

SECTION 9A/1ANNEX AANNEX A

CRIMPING TOOLS APPLICABLE FOR USE WITH RADIO FREQUENCY CONNECTORS
SERIES SMA, UNSEALED, SOLDERED, CAPTIVE CONTACTS, CRIMPED BRAID

Crimping tools with fixed dies

Cable Variant	Crimping Tool Style Reference BS 5310	NSN
AC, AE	BS 5310-2A/WB	5120-99-746-5464
AJ, AK	BS 5310-2A/WD	5120-99-746-5465

Crimping tool with interchangeable dies

Cable Variant	Crimping Tool Style Reference BS 5310	NSN	Die Style Reference BS 5310	NSN
AC, AE	)	5120-99-746-5463	BS 5310-2B/WB	5120-99-132-9984
AJ, AK	) BS 5310 2B/T		BS 5310-2B/WD	5120-99-746-5469

ANNEX B

MASTER SPECIFICATION OFFICERS FOR RADIO FREQUENCY CONNECTORS AND

FOR CRIMPING AND TERMINATION OF CABLES AND WIRES

- B.1 The Master Specification Officer (MSO) who is the consulting authority for connectors, electrical, (RF) on behalf of the Ministry of Defence may be contacted at the following address:

MOD(PE), DSWP(N)/PSB,
ASWE Extension,
Eastney Fort East,
Royal Marine Barracks,
Portsmouth,
Hants. PO4 9PP.

- B.2 The Master Specification Officer (MSO) who is the consulting authority for the crimping and termination of cables and wires, on behalf of the Ministry of Defence may be contacted at the following address:

DCVD,
MOD(PE),
Empress State Building,
Lillie Road,
Fulham,
London, SW6 1TR.

ANNEX C

RELATED DOCUMENTS

C.1 Reference is made in this Section of the Standard to:

BS 2316	'Specification for radio-frequency cables'
BS 5310	'Hand crimping tools for the termination of electrical cables and wires for low frequency and radio frequency applications'
BS 9000	'General requirements for electronic components of assessed quality'
BS 9210	'Specification for radio frequency connectors of assessed quality'
BS 9210 F0017	'Detail specification for radio frequency connectors of assessed quality, series SMA unsealed, soldered, captive contacts, crimped braid, 50 ohm, full assessment level'
PD 9002	'BS 9000 and BS CECC Qualified products list'
BS CECC 22000	'Specification for harmonized system of quality assessment for electronic components : Generic specification : Radio frequency coaxial connectors'
DEF STAN 59-35 (PART 4)	'Radio frequency coaxial connectors'
DEF STAN 59-36 (PART1)/2	'Electronic components for Defence purposes. (PART 1) : The role of the Defence Standards in relation to the BS 9000 series of specifications'
DEF STAN 59-36 (PART 2)	'Electronic components for Defence purposes. (PART 2) : Procedure for the selection and specification of electronic components for use in Defence equipment and the procedure for dealing with any non-standard components selected'
DEF STAN 59-59	'Electrical/Electronic components for Defence use. Services qualified products list'
DEF STAN 61-12 (PART 9)	'Cables, radio frequency'
CPU(PIP)109	'Specification for the packaging of connectors electrical'
MIL-C-17	'Cables, radio frequency, flexible and semi-rigid'

C.2 Reference in this Section of the Standard to any related document means, in any tender or contract, the edition current at the date of such tender or contract unless a specific edition is indicated.

C.3 The following documents and specifications are obtainable from the addresses shown:

C.3.1 Copies of British Standards:

British Standards Institution,
Sales Office,
Newton House,
101 Pentonville Road,
London, N1 9ND

C.3.2 Copies of BS 9000 'F' Specifications are obtainable from the relevant manufacturer listed in PD 9002.

C.3.3 Copies of Packaging Specification No. CPU/PIP/109:

Procurement Executive,
Ministry of Defence,
Central Packaging Unit,
Garland Road,
Plumstead,
London, SE18 2PW

C.3.4 Copies of PD 9002:

British Standards Institution,
Sales Office,
Maylands Avenue,
Hemel Hempstead,
Herts. HP2 4SQ

C.3.5 Copies of Defence Standards:

Directorate of Standardization (Stan 13),
First Avenue House,
High Holborn,
London, WC1V 6HE

C.3.6 Copies of MIL Specifications:

MOD Library Services,
Room 21;76,
St. Christopher House,
Southwark Street,
London, SE1 OTD

Ministry of Defence

OBSOLESCENT

INTERIM

Defence Standard

59-35 (PART 4)

SECTION 12/Issue 1

27 June 1980

CONNECTORS, ELECTRICAL

PART 4: RADIO FREQUENCY

COAXIAL CONNECTORS

SECTION 12: DETAIL SPECIFICATION-

SERIES EIA FLANGE

OBSOLESCENT

**THIS DEFENCE STANDARD WILL NOT BE UPDATED AND IS
NOT TO BE USED FOR THE PURCHASE OF NEW EQUIPMENT**

CONNECTORS, ELECTRICAL

PART 4: RADIO FREQUENCY COAXIAL CONNECTORS

SECTION 12: DETAIL SPECIFICATION - SERIES EIA FLANGE

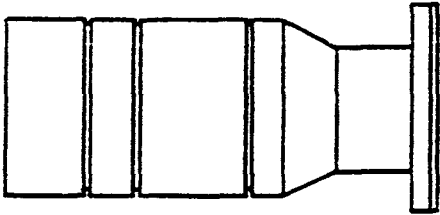
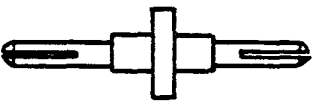
1. This INTERIM Section of the Defence Standard contains the detail specification for radio frequency coaxial connectors, Series EIA Flange prepared in accordance with DEF STAN 59-35 (PART 4).
2. This INTERIM Section of the Defence Standard has been prepared to cover the immediate requirements of the Navy and Air Force Departments and it will be extended later in consultation with other departments concerned with the subject, to make it of more general application.
3. Table I(A) lists the standard range of connectors, electrical, radio frequency, Series EIA Flange, Table I(B) lists the standard range of adaptors for use with Table I(A) items. These items are to be used in all future designs of equipment and wherever practicable, for the maintenance of existing equipment. There are no Tables II or III.
4. Before selecting any item in this INTERIM Section of the Standard, reference must be made to DEF STAN 59-35 (PART 4) clause 4, and to DEF STAN 59-59 'Electrical/Electronic components for defence use - Services qualified products list' together with the subsequent amendments, to ascertain that a Qualification Approval Certificate is extant for the items concerned. If there is no such certificate at the time of selection, then the relevant NATO Stock Number(s) listed shall not be used. Where no Qualification Approval exists for an item, then the procedure given in DEF STAN 59-36 (PART 2) shall apply.
5. The component defined in this INTERIM Section of the Standard, although nominally an RF connector, is structurally the same as a flanged waveguide but more robust. It has been tested, and proved capable of enduring considerably higher stress levels than those prescribed in vibration, shock, and bump tests for RF connectors in general; or those experienced in the normal environmental conditions of use. Because of the robustness of these components, vibration, shock, and bump testing for Qualification Approval is not considered necessary and is not specified in the Detail Specification.
6. For ordering and packaging information, reference should be made to DEF STAN 59-35 (PART 4), clause 9.
7. This INTERIM STANDARD has been agreed by authorities concerned. It is to be implemented, wherever practicable, in all designs, contracts, orders, etc commencing after its date of publication. If a difficulty arises which prevents application of the INTERIM STANDARD, the Directorate of Standardization shall be informed so that a remedy can be sought.
8. Any enquiries regarding this INTERIM STANDARD in relation to an invitation to tender or a contract in which it is invoked are to be addressed to the responsible technical or supervising authority named in that invitation to tender or contract.

CONNECTORS, COAXIAL, RADIO FREQUENCY

DETAIL SPECIFICATION

SERIES EIA FLANGE ($\frac{7}{8}$ in LINE SIZE)

This detail specification will be withdrawn when a suitable CECC/British Standard 9000 is published.

<u>Qualification Approval Authority</u> SEPCO Secretariat, DCVD, MOD(PE) Empress State Building, Lillie Road, London, SW6 1TR	Issue No
<u>Component Specification Authority</u> MSO for RF connectors - DW PROD(N), MOD (PE) ASWE Extension, Eastney Fort East, Royal Marine Barracks, Portsmouth, Hants PO4 9PP	For approved manufacturer's see DEF STAN 59-59
 Style 06-03  Style 15-01 For other styles and dimensions, see Annex A	
RADIO FREQUENCY COAXIAL CONNECTOR	
SERIES EIA FLANGE ROTATABLE, SEALED ($\frac{7}{8}$ in, LINE SIZE) 50 OHM	
BASED ON IEC 339-2 IEC 50-22-3 See notes 2 and 3	

Note 1: NATO Stock Numbers for items covered by this Detail Specification are listed in Table I(A) and Table I(B), pages 16 and 17 of this INTERIM Section of the Defence Standard.

2: IEC Publication 339-2 gives dimensions of flange and bullet.

3: IEC 50-22-3 is the designation reference.

INTERIM DEF STAN 59-35 (PART 4)
SECTION 12/1

1. PHYSICAL CHARACTERISTICS

1.1

STYLE REFERENCE NO	DESCRIPTION	MASS (g) MAX
06-03	Connector free, straight. Female contact	)see Table I(A))page 16
15 - 01	Adaptor, coupling element. (Bullet)	))see Table I(B))page 17
16-05	Adaptor, connector free, right angle. Two female contacts	))

CONNECTOR VARIANT	ASSOCIATED CABLES (DEF STAN 61-12(PART 9))
As specified	see Table I(A) page 16

1.2 Body material and finish

1.2.1 Brass, cadmium plated (Cd) passivated.

1.2.2 Brass, cadmium plated (Cd) passivated, epoxy paint finish to
Aircraft material Specification DTD 5555.

1.2.3 Aluminium alloy. Note: As supplied connectors manufactured from
this material are not suitable for exposure
to salt laden environments and must be
protected by approved paint finishes or
enclosures.

1.3 Centre contact finish Silver (Ag)

2. RATINGS (INCLUDING LIMITING CONDITIONS OF USE) AND CHARACTERISTICS

2.1 Nominal characteristic impedance Z_0 50 Ω

2.2 RF performance (Reflection co-efficient (and VSWR) max.)

Straight cable outlet style

Unmatched variants

up to 1 GHz	up to 3 GHz
0.05 (1.10)	0.09 (1.20)
not stated	

2.3 Deviation from Z_0 of Cable caused
by inserting a mated pair of
connectors (straight cable outlet
style)

Note: see clause 10.2 on page 7.

+5 Ω and/or -5 Ω
(as indicated by a Time
Domain Reflectometer (TDR)
display)

2. (contd)

Working voltage (dc or ac peak) at sea level
Proof voltage (dc or ac peak) at sea level
Current rating (max.)
Power rating⁶

INNER CONDUCTOR TO OUTER CONDUCTOR
2000 V
6000 V

20 A dc

-

Contact resistance max.
Outer conductor continuity max.
Insulation resistance min.

BEFORE CONDITIONING	AFTER CONDITIONING
1 mΩ	2 mΩ
1 mΩ	2 mΩ
6 GΩ	500 MΩ

Vibration)
Bump)
Shock)

not specified
(see page 1, clause 5)

Climatic category
Sealing (barrier seal)
Sealing (pressurization)

40/155/21 and 40/070/21
0.2MPa internal pressure (2 bar)
0.4MPa internal pressure (4 bar)

Note:

⁶ As power is dependent on frequency, and cable type, for information on power refer to the manufacturer.

3. RELATED DOCUMENTS

BS 9210 'Specification for radio frequency connectors of assessed quality'
DEF STAN 00-9 'General requirements for Qualification Approval'
DEF STAN 61-12 (PART 9) 'Cables, radio frequency'
Other documents as listed in DEF STAN 59-35(PART 4) 'Radio frequency coaxial connectors'.
DTD 5555 Aircraft material specification

4. ADDITIONAL INFORMATION (NOT USED FOR INSPECTION PURPOSES)

For installation instructions refer to:

- (a) MOD(AIR) No 90 Signals Group Specification 90G 1463
- (b) MOD(N) ASWE Specification B1064

5. MARKING OF CONNECTORS. ADAPTORS, AND PACKAGES

Marking shall be in accordance with DEF STAN 59-35 (PART 4), clause 7a. Additionally, the primary pack for connectors shall be marked with the NATO Stock Number of the associated cable.

6. ASSEMBLY AND CABLE MOUNTING INSTRUCTIONS

Every individual connector package shall include the following:

- a. Assembly and cable mounting instructions.
- b. Details (NATO Stock Numbers and Item Names) of special spanners, sealants etc, that may be required.
- c. Instructions for drilling pressure by-pass holes.

7. ORDERING INFORMATION

7.1 In accordance with DEF STAN 59-35(PART 4), clause 8b(2) orders for connectors and adaptors covered by this specification shall contain the following information, as appropriate:

- 7.1.1 Description ie Radio frequency coaxial connector, Series EIA Flange (7in line size). Characteristic impedance (50 ohms) Body material and finish, Style, and variant.
- 7.1.2 NATO Stock Number.
- 7.1.3 Cable size and NATO Stock Number.
- 7.1.4 DEF STAN 59-35 (PART 4) Section 12/1.
- 7.1.5 Packaging instructions (see page 2, clause 7).

7.2 The NATO Stock Numbers for items conforming to this detail specification may have been allotted in advance of a certificate of Qualification Approval. The numbers shall not be used until the relevant certificates have been issued. The issue of a Qualification Approval certificate is indicated by the inclusion of the item in DEF STAN 59-59 'Electrical/Electronic components for defence use - Services qualified products list'(see page 1, clause 4).

8. ILLUSTRATIONS AND DRAWINGS

8.1 The purpose of the illustrations and drawings which form part of this specification is to ensure mechanical interchangeability. IT IS ESSENTIAL THAT EQUIPMENT DESIGNERS WORK TO THE LIMITS STATED AND NOT TO THE DIMENSIONS OF INDIVIDUAL SPECIMENS.

8.2 Any illustrations or drawings in this detail specification must not be altered in any way which will affect function, material, or interchangeability unless agreement from the Component Specification Authority has been obtained to amend this Detail Specification.

9. QUALIFICATION APPROVAL

9.1 Manufacturers seeking Qualification Approval shall:

- a. Have been assessed as complying with the requirements of DEF STAN 05-21 or DEF STAN 05-24 with an appropriate scope.
- b. Comply with the requirements of DEF STAN 00-9.
- c. Submit samples to the tests specified for Groups C and D5, in accordance with Annex C of this Specification.

9.2 For the maintenance of Qualification Approval, after the satisfactory conclusion of an initial Qualification Approval test programme, manufacturers shall submit samples to:

- a. Groups A and B tests on a lot-by-lot sampling basis.
- b. Group C tests annually, in accordance with Annex C. Group C tests may be omitted when Group D tests are due.
- c. Group D tests at intervals of 5 years, in accordance with Annex C.

9.3 The components defined in this specification are manufactured in discontinuous lots, a fixed number of samples is therefore specified for the periodic tests.

10. TESTS

10.1 Dynamic tests.

See page 1, clause 5.

10.2 RF Tests.

There is no Standard Test EIA Flange Connector, available at this time, for connecting test specimens into a slotted line VSWR measurement system. A Time Domain Reflectometer is therefore specified, to measure the deviation(s) of the characteristic impedance caused by a mated pair of connectors fitted in a cable of appropriate characteristic impedance.

11. INSPECTION REQUIREMENTS

11.1 Where relevant, the inspection requirements are fully defined in the appropriate clause of BS 9210. Reference to the relevant clauses are made in the table of tests as necessary. Unless otherwise stated in the table of tests, the provisions of 11.2 to 11.11 inclusive shall apply.

11.2 Contact resistance and outer conductor continuity for each mated pair of connectors shall be measured using the 'light current' method specified in subclause 1.2.4.3.3(1) of BS 9210. The initial contact resistances of both inner and outer conductor paths of each mated pair of connectors shall not exceed 1 m Ω . Resistances after conditioning (ie Intermediate and Final measurements) shall not exceed 2 m Ω . Where one connector and bullet only are conditioned, the contact resistance shall be measured between the inserted bullet and the inner connector contact. The resistance after conditioning shall not exceed 1 m Ω .

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- 11.3 Insulation resistance between inner conductor and the shell shall be measured at $500\text{ V} \pm 50\text{ V}$ dc. The initial value shall not be less than $6\text{ G}\Omega$. The insulation resistance after conditioning shall not be less than $500\text{ M}\Omega$.
- 11.4 Voltage proof shall be measured at $6\text{ kV} \pm 0.1\text{ kV}$ dc or peak ac (40-60 Hz). There shall be no breakdown or flashover.
- 11.5 The sealing (barrier seal) test shall be carried out with the lower pressure at the mating face, using a pressure differential of $0.2\text{ MPa} \pm 0.02\text{ MPa}$ (2 bar $\pm$ 200 mbar). Leakage shall not exceed $1\text{ cm}^3/\text{hr}$.
- 11.6 The sealing (pressurization) test shall be carried out with an internal pressure of $0.4\text{ MPa} \pm 0.04\text{ MPa}$ (4 bar $\pm$ 400 mbar). There shall be $300\text{ mm} \pm 5\text{ mm}$ of cable fitted to each connector. The fall in pressure shall be not greater than 0.03 MPa (300 mbar) after 24 hours.
- 11.7 The engagement and separation test shall be carried out between an individual connector and associated adaptor (15-01); not between a mated pair of connectors. The engagement and separation force shall be between 20 N and 60 N.
- 11.8 The Damp heat, cyclic test shall be carried out in accordance with Test Db of BS 2011 or IEC Publication 68. The severity shall be 6 cycles at 40°C . The connectors shall not be mated. The ends of the cables shall be hermetically sealed. On conclusion of the test the procedure of subclause 1.2.6.7.4 of BS 9210 shall apply. The working voltage shall be $2\text{ kV} \pm 200\text{ V}$ dc or ac peak.
- 11.9 Samples submitted to tests which are marked as '(D)' shall not be accepted for release (see subclause 2.6.5 of BS 9000: Part 1). In the interest of economy, connectors which have passed tests marked (D) may be dismantled, cleaned, inspected, and any undamaged piece parts re-used at the discretion of the Quality Assurance Manager.
- 11.10. The tests or measurements prescribed in BS 9210 after environmental conditioning, are omitted between the environmental conditionings when these form part of a sequence, in accordance with subclause 1.2.6 of BS 9210. The appropriate tests are included at the end of each test sequence.
- 11.11 The reflections caused by the introduction of a mated pair of connectors into a length of the relevant cable, shall not cause a characteristic impedance deviation of greater than $5\text{ }\Omega$ above and/or below the average impedance level of the fitted cable, when measured with a Time Domain Reflectometer with a rise time of nominally 150 picoseconds (ps) ($< 170\text{ ps}$).

INSPECTION	BS 9210 REFERENCE	CONDITIONS OF TEST	PERFORMANCE REQUIREMENTS
<u>GROUP A</u>		To be applied on a sampling basis lot-by-lot. Subgroups A0,A2,A3, A4 and A5 are not applicable	
<u>subgroup A1</u> Dimensions and materials (piece parts)	1.2.3.2	Inspection level and AQL. See Note 6 page 15	As in 1.2.3.2 of BS 9210
<u>GROUP B</u>		To be applied on a sampling basis lot-by-lot. Subgroups B1,B3,B4, B5, B6,B7 and B8 are not applicable. The specimens used shall be assembled connectors not fitted to cable	
<u>subgroup B2</u> Visual inspection Insulation resistance Voltage proof Sealing (barrier seal)	1.2.2 1.2.4.6 1.2.4.7 1.2.6.11	Inspection level II AQL 1% See Note 2 page 15 As in 11.3 of this detail specification As in 11.4 of this detail specification As in 11.5 of this detail specification. Test shall be carried out without cable being fitted.	As in 1.2.2 of BS 9210 As in 11.3 As in 11.4 As in 11.5
<u>GROUP C</u>		Applied at annual intervals except when Group D tests are due. Subgroups C2,C4 and C6 are not applicable. The sample size shall be in accordance with Annex C of this detail specification. In addition the issue number of the manufacturer's drawing list shall be checked against that in the Qualification Approval Application or Certificate.	

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INSPECTION	BS 9210 REFERENCE	CONDITIONS OF TEST	PERFORMANCE REQUIREMENTS
subgroup C1			
Outline dimensions and mass	1.2.3.1		As in Annex A, Tables I(A), and I(B), Figs 1, and 2 of this detail specifica- tion.
Compatibility mechanical (gauging)	1.2.5.9(1)	Using compatibility gauges. See Annex B for essential dimensional details	As in 1.2.5. 9(1) of BS 9210
subgroup C3(D) 7		11.9, 11.10 and Notes 1 and 2, page 15 of this detail specification apply to tests in this subgroup. Each connector shall be fitted to 150mm of the appropriate cable indicated in Table I(A) in accordance with the manufacturers assembly instructions.	
Rapid change of temperature	1.2.6.9	-40°C and 70°C	
Intermediate measurements			
Visual examination			There shall be no damage or deteriora- tion
Sealing (barrier seal)	1.2.6.11	As in 11.5 of this detail specification	As in 11.5 (
Damp heat, cyclic (12 + 12 hour cycle)		As in 11.8 of this detail specification	As in 11.8
Final Measurements			
Contact resistance	1.2.4.3	As in 11.2 of this detail specification	As in 11.2
Insulation resistance	1.2.4.6	As in 11.3 of this detail specification	As in 11.3
Voltage proof	1.2.4.7	As in 11.4 of this detail specification	As in 11.4
Visual examination			There shall be no damage or (
			deterioration

INSPECTION	BS 9210 REFERENCE	CONDITIONS OF TEST	PERFORMANCE REQUIREMENTS
<u>subgroup C5(D)</u>		11.9, 11.10 of this detail specification and Notes 1, 2 and 4, page 15 apply to tests in this subgroup. Cable shall be fitted to connectors as for subgroup C3	
Mechanical endurance	1.2.7.1	50 operations at not more than 15 per minute. procedure as in 11.7 of this detail specification	
Intermediate measurements			
Engagement and separation	1.2.5.5	As in 11.7 of this detail specification	As in 11.7
Gauge retention force(resilient contacts)	1.2.5.2	Applicable to Style 15-01, adaptor, coupling, only.	As in 1.2.5.2 of BS 9210
High temperature endurance	1.2.7.2	Upper category temperature. Applied for 50 hours with no electrical load.	
Final measurements			
Contact resistance	1.2.4.3	As in 11.2 of this detail specification	As in 11.2
Voltage proof	1.2.4.7	As in 11.4 of this detail specification	As in 11.4
Sealing (barrier seal)	1.2.6.11	As in 11.5 of this detail specification	As in 11.5
<u>GROUP D</u>		D tests are to be performed at 5-year intervals. The sample size shall be in accordance with Annex C of this detail specification. In addition the issue number of the manufacturer's drawing list shall be checked against that in the Qualification Approval Application or Certificate	

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INSPECTION	BS 9210 REFERENCE	CONDITIONS OF TEST	PERFORMANCE REQUIREMENTS
<u>subgroup D5(i)</u>		See Note 2 page 15	
Outline dimensions and mass	1.2.3.1		As in Annex A Tables I(A), and I(B), Figs 1, and 2 of this detail specification
Compatibility mechanical (gauging)	1.2.5.9(1)	Using compatibility gauges. See Annex B for essential dimensional details	As in 1.2.5.9 (1) of BS 9210
Reflection co-efficient	1.2.4.1	Using TDR method. As in 11.11 of this detail specification.	As in 11.11
<u>subgroup D5(ii)</u> <u>(D)</u>		11.9 and 11.10 of this detail specification and Notes 1,2 and 4 page 15 apply to tests in this subgroup. Cable shall be fitted to connectors as for subgroup C3	
Effectiveness of clamping device to cable pulling	1.2.5.8.2.2	400 N force shall be applied axially in a controlled manner without jerking or snatching, at a distance $\geq$ 50 mm from the cable outlet, for 1 minute	As in 1.2.5.8. 2.2 of BS 9210
followed by Effectiveness of clamping device to cable pushing		As for 1.2.5.8.2.2 Cable Pulling except that the direction of the force shall be axially towards the connector	As in 1.2.5.8.2.2 of BS 9210
followed by Effectiveness of clamping device against cable torsion	1.2.5.8.5	Torque $\geq$ 6 Nm for $\geq$ 10s applied 80 to 85 mm from cable outlet, using one connector per cable length	As in 1.2.5.8.5 of BS 9210
followed by Sealing (barrier seal)	1.2.6.11	As in 11.5 of this detail specification	As in 11.5

INSPECTION.	BS 9210 REFERENCE	CONDITIONS OF TEST	PERFORMANCE REQUIREMENTS
<u>subgroup D5(ii)</u> <u>(D)✓</u> (Contd) followed by Climatic sequence Final measurements Contact resistance Insulation resistance Voltage proof Visual examination Engagement and separation Sealing (barrier seal)	 1.2.6.7.6 1.2.4.3 1.2.4.6 1.2.4.7 1.2.5.5 1.2.6.11	 Procedure 1. -40°C/155°C or 70°C. See Note 4 page 15. Sealing(barrier seal). See Note 7,page 15. Omit low air pressure test As in 11.2 of this detail specification As in 11.3 of this detail specification As in 11.4 of this detail specification As in 11.7 of this detail specification As in 11.5 of this detail specification	 As in 11.2 As in 11.3 As in 11.4 There shall be no damage or deterioration As in 11.7 As in 11.5
<u>subgroup D5(iii)</u> <u>(D)✓</u> Damp heat, steady state Final Measurements Contact resistance	 1.2.6.8 1.2.4.3	11.9 of this detail specification and Notes 1 and 2 page 15 apply to tests in this subgroup. Cable shall be fitted to connectors as for subgroup C3 Severity: 40° ± 2°C for 21 days. Polarizing voltage 60 ± 5 V dc. Inner conductor to be positive. Working voltage 2 kV ± 200 V dc or ac peak As in 11.2 of this detail specification. See Note 3 page 15	 As in 1.2.6.8 of BS 9210 As in 11.2

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INSPECTION	BS 9210 REFERENCE	CONDITIONS OF TEST	PERFORMANCE REQUIREMENTS
<u>subgroup D5(iii)</u> <u>(D)</u> (Contd)			
Insulation resistance	1.2.4.6	As in 11.3 of this detail specification	As in 11.3
Voltage proof	1.2.4.7	As in 11.4 of this detail specification	As in 11.4
Visual examination			There shall be no damage or deterioration
<u>subgroup D5(iv)</u> <u>(D)</u>		11.9 of this detail specification and Notes 1, 2, 3 and 4 of page 15 apply to tests in this subgroup. Cables shall be fitted to connectors as for subgroup C3, except that the length shall be 300 mm $\pm$ 5 mm	
High temperature endurance	1.2.7.2	Upper category temperature. Applied for 250 hours without electrical load	As in 1.2.7.2 of BS 9210
Measurements at high temperature			
Insulation resistance	1.2.4.6	As in 11.3 of this detail specification	As in 11.3
Sealing (barrier seal)	1.2.6.11	As in 11.5 of this detail specification. Unmated specimens only Style 06-03	As in 11.5
Final measurements			
Contact resistance	1.2.4.3	As in 11.2 of this detail specification. See Note 3 page 15	As in 11.2
Outer conductor continuity	1.2.4.4	As in 11.2 of this detail specification	As in 11.2
Voltage proof	1.2.4.7	As in 11.4 of this detail specification	As in 11.4
Visual examination			There shall be no damage or deterioration
Sealing (pressurization)	1.2.6.12	As in 11.6 of this detail specification. See Note 5 page 15	As in 11.6

INSPECTION	BS 9210 REFERENCE	CONDITIONS OF TEST	PERFORMANCE REQUIREMENTS
<u>subgroup D5(v)</u> <u>(D)7</u> Corrosive atmosphere (salt mist) Intermediate measurements Final measurements after cleaning Visual examination	 1.2.6.14	11.9 and 11.10 of this specification and Note 2 of page 15 apply to tests in this subgroup. Cable shall be fitted to connectors as for subgroup C3, with cable ends sealed Severity 1 None No visual aids. The connectors shall be removed from cables, and the cable entry examined for galvanic action between cable and connector	 No pitting or flaking of materials and finishes shall be apparent

NOTES APPLICABLE TO TESTS AND CONDITIONS:

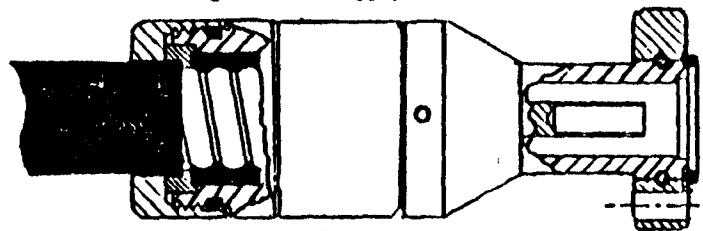
1. The requisite test parameters covered by the final measurements in this subgroup may be measured prior to the commencement of the test or test sequence.
2. This inspection also applies to Style 15-01. Inspections referring to Note 2 form the complete inspection requirements for adaptors which may be mated with appropriate connectors during the tests. The test shall then apply to both the connector and the accessory.
3. Mated pairs of connectors shall not be disconnected or disturbed until after the final measurements have been made.
4. The temperature category of the fitted cable when lower than that of the connector under test, shall determine the upper category temperature of the conditioning test.
5. Before carrying out this test, pressure by-pass holes are to be drilled in accordance with the manufacturer's instructions.
6. Inspection level and AQL as specified in the manufacturer's Quality Manual. If subgroup A1 has already been performed during the production process they may be omitted in accordance with DEF STAN 00-9, clause 2.6.3.
7. At the beginning of the low temperature conditioning the connector shall be allowed to stabilize at minus 10°C. The sealing (barrier seal) test to sub clause 1.2.6.11 of BS 9210 and 11.5 of this detail specification shall then be applied to the connector. After this, the conditioning at the lower category temperature should be completed.

TABLE 1(A)
STANDARD RANGE

CONNECTORS, RADIO FREQUENCY, SERIES EIA FLANGE (7/8" LINE SIZE)

PAGE ITEM NO	NATO STOCK NUMBER 5935-99-	ITEM NAME	STYLE	DESCRIPTION						RELATED DETAILS	RECOMMENDED CABLE NATO STOCK NUMBER
				NOMINAL IMPEDANCE (OHM)	CABLE SIZE	MATERIAL	FINISH	MASS MAX. (gram)	CLIMATIC CATEGORY		
	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(k)	(l)
1	017-2242	CONNECTORS, ELECTRICAL, FREE	06-03	50	1/4 in.	Brass	Cadmium	1430	40/070/21	Connector, free, straight, female contact, for use with copper convulated sheathed cable.	6145-99-531-4071
2	017-2243				1/2 in.	Brass	Cadmium	0			6145-12-147-3262
3	017-2244				3/4 in.	Aluminum	-	0			6145-99-531-4070
4	017-2245				1 in.	Brass	Cadmium	0			OR
	017-2246				1 1/4 in.	Aluminum	-	0			6145-12-144-2296
6	017-2247				1 1/2 in.	Aluminum	-	1070			6145-12-144-2994
7	017-2248			Unmatched	3/4 in.	Brass	Cadmium	0	40/155/21	Connector, free, straight, female contact, high tempera- ture paint finish, for use with high temperature copper convulated non-sheathed cable.	6145-12-156-9662
8	017-2250			50	1/4 in.	Brass	Cadmium epoxy paint	0			6145-99-523-4708
9	017-2249				1/2 in.	Brass	Cadmium epoxy paint	0			6145-99-523-4707
10	017-2251			Unmatched	UR79	Aluminum	-	0	40/070/21	Connector, free, straight, female contact, for use with aluminum tubular cable.	6145-99-942-4559
11	017-2252				UR63 and AP180	Brass	Cadmium	0			6145-99-910-0291
12	017-2253				779†	Aluminum	-	0			

- Notes:**
1. † AP 180779 cable is a maintenance only item that is physically identical to UR 63. It is not intended to codify this item.
 2. 0 indicates that the specified mass is under consideration,
 3. - indicates that the column heading does not apply.



Style 06-03

TYPICAL EXAMPLE

EIA FLANGE 7/8" LINE SIZE - Mating face details are on page 20.
(see RELATED DETAILS, column (k) above).

TABLE I(B)

STANDARD RANGE

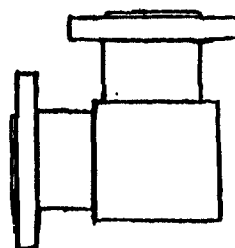
ADAPTORS FOR USE WITH CONNECTORS, RADIO FREQUENCY, SERIES EIA FLANGE

PAGE ITEM NO	NATO STOCK NUMBER 5935-99-	ITEM NAME	STYLE	NOMINAL IMPEDANCE (OHM)	DESCRIPTION			RELATED DETAILS
					MATERIAL	FINISH	MASS MAX. (gram)	
	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)
1	017-2254	CONNECTORS, ELECTRICAL ADAPTOR	15-01	50	Copper alloy	Silver	25	Adaptor, coupling element (bullet)
2	017-2255		16-05	50	Brass	Cadmium	2225	Adaptor, connector, free, right angle, two female contacts.
3	017-2256				Aluminium	-	680	

Note: - indicates that the column heading does not apply.



Style 15-01



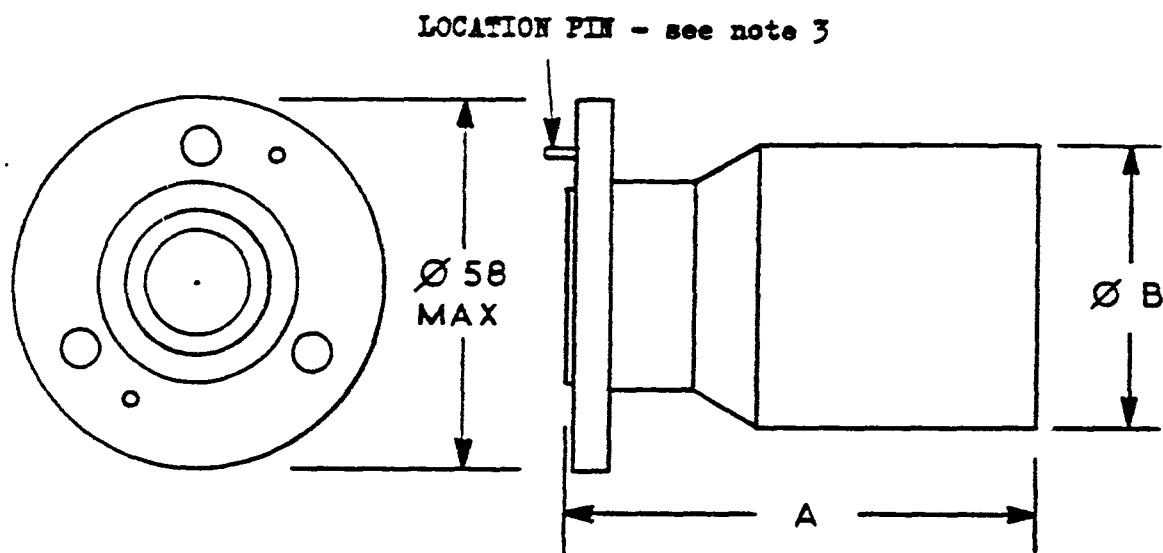
Style 16-05

TYPICAL OUTLINES

Mating face and centre contact details are
given on page 20, for Styles 15-01 and
16-05

INTERIM DEF STAN 59-35(PART 4)
SECTION 12/1
TABLE I(B)

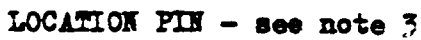
ANNEX A
OUTLINE DIMENSIONS
STYLE 06-03



CABLE SIZE		$\frac{1}{2}$ in	$\frac{5}{8}$ in	$\frac{7}{8}$ in	$1\frac{5}{8}$ in
DIMENSIONS	A	143.0	160.0	188.0	
	ØB	38.0	52.0	78	

- Notes:
1. The dimensions which are millimetres are derived from the original inch dimensions.
 2. All dimensions are maxima.
 3. Connectors are to be supplied with a location pin which can be removed without destroying the finish on the flange

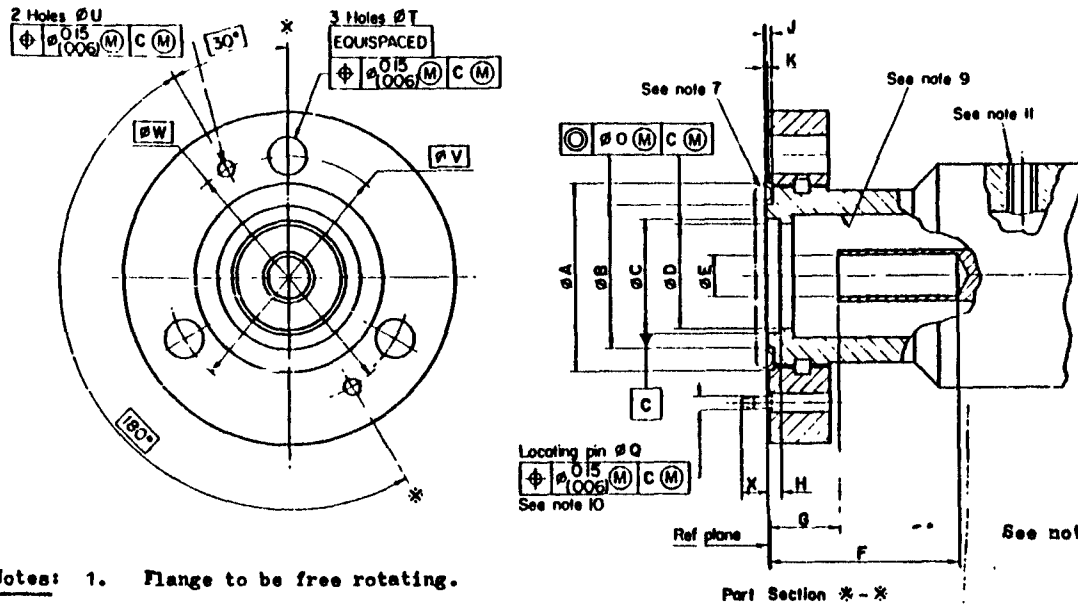
STYLE 16-05



Notes:

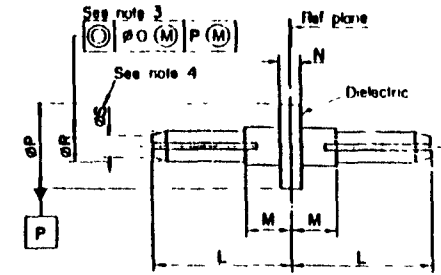
3. Connectors are to be supplied with a location pin which can be removed without destroying the finish on the flange

ANNEX B



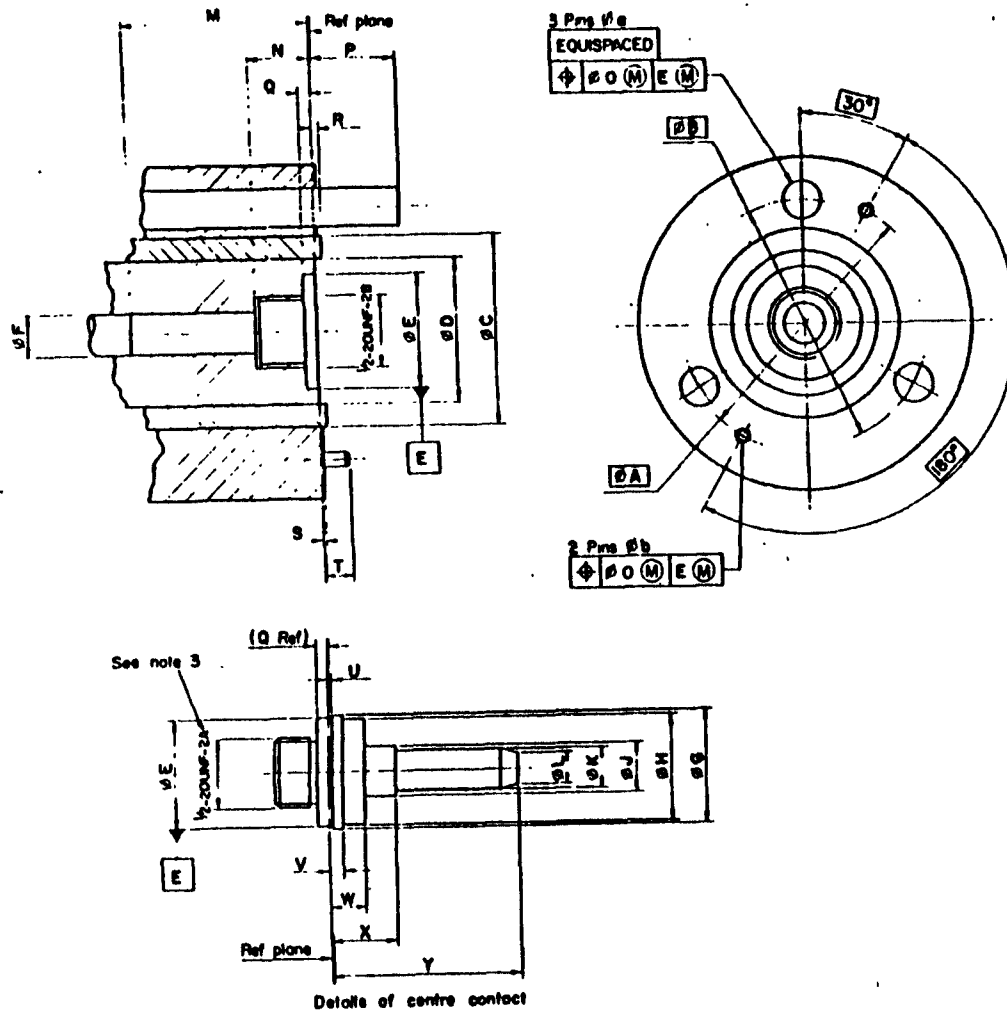
- Notes:**
1. Flange to be free rotating.
 2. Position tolerance assumes no diametral float ie diameters V and W to be capable of taking up a common axis.
 3. Diameter R is after slotting and flaring to meet performance requirements, number of slots optional.
 4. Diameter S to be smaller than diameter E after slotting and flaring.
 5. Diameters A and E will be gauged to ensure that on MNC each feature is on or can take up a common axis.
 6. Flange coupling bolts - in order to obviate problems of spanner access when tightening connector flange bolts, socket headed bolts are recommended.
 7. 'O' seal to have a minimum cross sectional diameter of 3.0mm (.118") and minimum internal diameter of 27.0mm (1.063").
 8. For gauge information see Fig 2 and Fig 3.
 9. This diameter optional and to meet performance requirements.
 10. Locating pin to be as dimensioned and in position as shown.
 11. A sealing plug for the pressurisation inlet hole is to be supplied with each connector.

Details of centre contact assembly



Ref Letter	Dimensions					
	Millimetres			Inches		
	Minimum	Nominal	Maximum	Minimum	Nominal	Maximum
ϕA	34.20		34.40	1.346		1.354
ϕB	26.00		26.20	1.024		1.031
ϕC	20.70		20.85	.815		.821
ϕD	19.86		20.02	.782		.788
ϕE	7.34		7.44	.289		.293
J F	34.20			1.346		
G	11.90		12.70	.469		.500
H	2.35		2.60	.093		.098
J	1.20		1.35	.047		.053
K	0.20		0.60	.008		.024
L			34.15			1.344
M			11.90			.468
N	4.60		4.70	.181		.185
ϕP	20.60		20.70	.811		.815
ϕQ	3.08		3.10	.121		.122
ϕT	6.95		7.25	.274		.285
ϕU	3.30		3.40	.130		.134
ϕV		44.45			1.750	
ϕW		46.02			1.812	
X			4.50			.177

Fig 1 Mating face details - EIA Flange and centre contacts (Style 06-03)



Notes: 1. Diameters C,D,F,G,H,J,K,L and thread



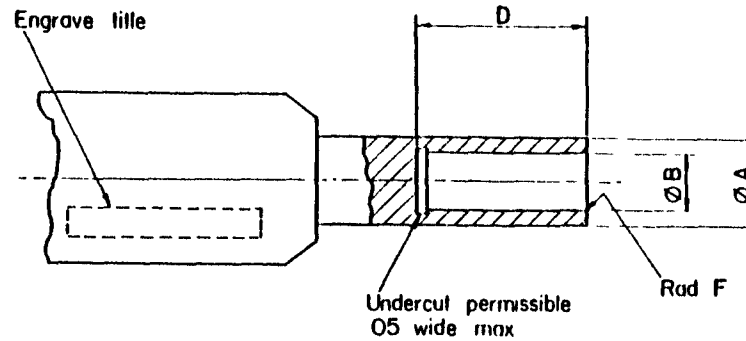
2. Gauging surfaces to be hardened/ground
Min 650 HV5 Surface texture 0.4 μ



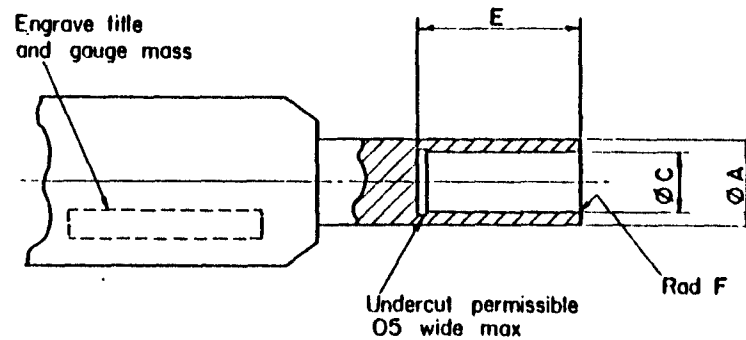
3. Recommended screw type fitting.

Ref Letter	Dimensions					
	Millimetres			Inches		
	Minimum	Nominal	Maximum	Minimum	Nominal	Maximum
Φ A		46.02			1.812	
Φ B		44.45			1.750	
Φ C	34.16		34.19	1.345		1.346
Φ D	26.19		26.21	1.031		1.032
Φ E	20.696		20.701	.8148		.8150
Φ F	7.335		7.340	.2888		.2890
Φ G	20.701		20.706	.8150		.8152
Φ H	19.81		19.84	.780		.781
Φ J		8.89			.350	
Φ K	7.338		7.335	.2885		.2888
Φ L	5.08		5.21	.200		.205
M	34.14		34.16	1.344		1.345
N	11.82		11.94	.468		.470
P	14.99		15.24	.590		.600
Q	2.36		2.39	.093		.094
R	1.17		1.19	.046		.047
S	0.18		0.20	.007		.008
T	4.37		4.57	.172		.180
U	0.05		0.14	.002		.005
V	2.34		2.36	.092		.093
W		6.35			.250	
X	11.82		11.91	.468		.469
Y	34.14		34.16	1.344		1.345
Φ a	6.66		6.70	.262		.264
Φ b	3.10		3.12	.122		.123

Fig 2. Compatibility gauge information to inspect mating face of EIA Flange and centre contacts.



CENTRE CONTACT SIZING GAUGE NO. 1



CENTRE CONTACT RETENTION FORCE GAUGE NO. 2
See note 2

Notes: 1. Gauging surfaces ∇ to be hardened/
ground

Min. 650 HV5 Surface texture ⁰²₍₈₎ ⁰

2. Mass of contact retention force gauge. Centre contact 3kg $\pm$ 5g

Ref Letter	Dimensions					
	Millimetres			Inches		
	Minimum	Nominal	Maximum	Minimum	Nominal	Maximum
Ø A		11.40			.45	
Ø B	7.336		7.340	.2888		.2890
Ø C	7.437		7.442	.2928		.2930
D	22.17		22.22	.873		.875
E	21.08		21.13	.830		.832
F	0.05		0.13	.002		.005

Fig 3 Sizing and retention gauges for EIA
Flange centre contact.

ANNEX C

RECOMMENDED SPECIMEN ALLOCATIONS FOR GROUP C AND GROUP D TESTS

For the purposes of this Table only, the following suffixes shall apply:

Suffix L - 1 $\frac{1}{8}$ in cable size variant. 70°C rated cable fitted.

Suffix M - $\frac{7}{8}$ in cable size variant. 70°C rated cable fitted.

Suffix S(HT) - $\frac{3}{4}$ in cable size variant. 155°C rated cable fitted.

(A) indicates Aluminium Alloy

(B) indicates Brass cadmium plated

SUB GROUP	DESCRIPTION OF TESTS	NUMBER OF SPECIMENS									REMARKS
C1	Outline dimensions, mass, compatibility	06-03						16-05		15-01	
		L		M		S(HT)					
		1 (A)	-	1 (A)	1 (B)	1 (A)	1 (B)	1 (A)	-	2	
C3 (D)	Rapid change of temperature,damp heat cyclic			1 (A)	-					1	+
C5 (D)	Mechanical and high temperature endurance					-	1 (B)			1	+
D5 (i)	Outline dimensions, mass compatibility, reflection co-efficient	2 (A)	-	2 (A)	4 (B)	-	4 (B)	2 (A)	-	10	Non destructive
D5 (ii)(D)	Cable clamping,climatic sequence	1 (A)	-	1 (A)	1 (B)	-	1 (B)			4	Connector unmated +
D5 (iii)(D)	Damp heat steady state	1 (A)	-	1 (A)	1 (B)			1 (A)	-	3	Connector unmated +
D5 (iv)(D)	High temperature endurance			-	1 (B)	-	2 (B)	1 (A)	-	2	Connectors mated ≠
D5 (v)(D)	Salt mist			-	1 (B)✓	-	1(B)✓			1	Connectors mated

- Notes:
- The specimens used for subgroup C1 shall be used for C3, and C5, D5 (i) for D5 (ii), (iii), (iv), and (v).
 - ∅ For this conditioning test, sheathed cable (70°C rated) shall be fitted.
 - + Style 15-01 inserted in each connector.
 - ≠ For this conditioning test, the 2 style 06-03 S(HT) together with a style 15-01 shall be mated. The style 06-03 M and style 16-05 together with a style 15-01 shall be unmated.

PLUGS AND SOCKETS, ELECTRICAL, PATTERN 608,

SEALED, WITH SOLDERED TERMINATIONS:

NON-SEALED, WITH CRIMPED TERMINATIONS:

COARSE THREAD COUPLING, FOR dc

AND LOW FREQUENCY APPLICATIONS

AMENDMENT NO 1

1. Page 48

Under the table of dimensions, after 'Approximately'

Delete: 457.20 mm
Substitute: 450 mm

2. Page 55

Delete in toto
Substitute new page attached

3. Page 59

Drawing of contact insertion tool

a. Delete: 15.875 ($\frac{5}{8}$)A/F
Substitute: 16 ($\frac{5}{8}$)A/F

b. Delete: 106.93 (4.21)
Substitute: 100

c. Delete: 154.43 (6.08)
Substitute: 150

4. Page 80

a. Under PAGE ITEM NO 17
Insert: 17a

b. Against 17a, under columns (c), (d), (e), (f), and (g)
Insert: 523-2439, 7.6, 7.8, /030, 015-1125

5. Page 81

a. Under PAGE ITEM NO 20
Insert: 20a

b. Against 20a, under columns (c), (d), (e), (f), and (g)
Insert: 523-2440, 9.7, 11.1, /174, 017-1633

6. Page S2

a. Under PAGE ITEM NO 9
Insert: 9a

b. Against 9a, under columns (c), (d), (e), (f), and (g)
Insert: 523-2441, 10.6, 12.0, /175. 017-1634

7. Page 95, TABLE A, PLUG, PROTECTIVE, DUST AND MOISTURE SEAL

a. Under column headed STYLE REFERENCE
Delete: CC/1579/001, /002, /003
Substitute: CC/1579/004, /005, /006

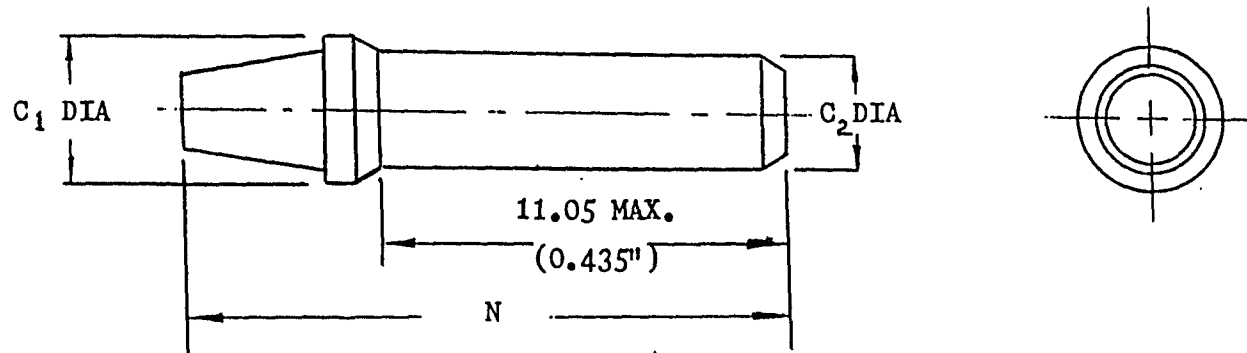
b. Under column headed NATO STOCK NUMBER 5340-99-
Delete: 015-1236, 015-1237, 015-1238
Substitute: 017-1635, 017-1636, 017-1637

8. Make a note of this Amendment on the Amendment Record.

16 MARCH 1976

DIRECTORATE OF STANDARDIZATION
MINISTRY OF DEFENCE
LONDON

OUTLINE DIMENSIONS
PLUG, PROTECTIVE, DUST AND MOISTURE SEAL
(FILLER PLUG)



ORIGINAL DIMENSIONS IN INCHES

CORRESPONDING CONTROL DRAWING: CC/1579/004-006

CONTACT SIZE	MAXIMUM DIMENSIONS						COLOUR
	N		C ₁ DIA		C ₂ DIA		
	mm	in	mm	in	mm	in	
20	15.45	0.61	2.69	0.106	1.75	0.069	RED
16	15.95	0.63	2.67	0.105	2.31	0.091	BLUE
12			3.89	0.153	3.12	0.123	YELLOW

PLUGS AND SOCKETS, ELECTRICAL, PATTERN 608,

SEALED, WITH SOLDERED TERMINATIONS:

NON-SEALED, WITH CRIMPED TERMINATIONS:

COARSE THREAD COUPLING,

FOR dc AND LOW FREQUENCY APPLICATIONS

AMENDMENT 2

1. Page 3

Delete: I(N) ADAPTORS, CABLE TO ELECTRICAL PLUG-SOCKET,
FOR PLUGS AND SOCKETS, SINGLE HOLE MOUNTING
WITH GROMMET SEAL

91

2. Page 56

Delete all details

3. Page 92

Delete all details

4. Page 95. Table headed 'RINGS, SEALING, TOROIDAL - 'O' RINGS'

Delete all details

5. Make a note of this amendment on the Amendment Record.

4 JUNE 1976

DIRECTORATE OF STANDARDIZATION
MINISTRY OF DEFENCE
LONDON

PLUGS AND SOCKETS, ELECTRICAL, PATTERN 608,
SEALED, WITH SOLDERED TERMINATIONS:
NON-SEALED, WITH CRIMPED TERMINATIONS
COARSE THREAD COUPLING,
FOR dc AND LOW FREQUENCY APPLICATIONS

AMENDMENT 3

1. Page 2, PAGE NOS 24 (twice) to 59 inclusive
Increase these NOS by 1
2. Page 3, PAGE NOS 62 to 95 inclusive
Increase these NOS by 1
3. Page 55, CORRESPONDING CONTROL DRAWING
Delete: CC/1579/004-006
Substitute: CC/1579/181-183
4. Page 80, PAGE ITEM NO 17a, cols (d), and (e)
Delete: 7.6, 7.8
Substitute: 9.2 10.4
5. Page 81,
 - a. PAGE ITEM NO 13, cols (f), and (g)
Delete: /048 and -1143
Substitute: /039 and -1134
 - b. PAGE ITEM NO 14, cols (d), (f), and (g)
Delete: 7.08/049, -1144
Substitute: 7.05, /041, -1136
 - c. PAGE ITEM NO 19, cols (d), and (e):
Delete: 8.4, 9.6
Substitute: 8.3, 9.5
6. Page 82,
 - a. PAGE ITEM NO 3, cols (f), and (g)
Delete: /064, -1154
Substitute: /063, -1153

6. b. PAGE ITEM NO 12, cols (d), and (e)

Delete: 12.7, 13.7

Substitute: 12.4, 13.4

- c. PAGE ITEM NO 26, cols (f) and (g)

Delete: /093, 1173

Substitute: /090, 1170

7. Page 83,

- a. PAGE ITEM NO 7

Delete in toto

- b. PAGE ITEM NO 16, cols (d), (e), (f), and (g)

Delete: 11.4, 12.8, /114, -1186

Substitute: 12.7, 13.9, /168, -1367

- c. PAGE ITEM NO 17, cols (d) and (e)

Delete: 11.2, 13.0

Substitute: 11.4, 12.8

8. Page 84,

- a. PAGE ITEM NO 7, cols (f), and (g)

Delete: /110, -1185

Substitute: /107, -1182

- b. PAGE ITEM NO 17, col (e)

Delete: 16.9

Substitute: 16.4

- c. Under PAGE ITEM NO 20

Insert new item 20a:

	(c)	(d)	(e)	(f)	(g)
20a	521-8472	15.2	16.8	/134	015-1380

- d. PAGE ITEM NO 24, cols (f) and (g)

Delete: /140, -1192

Substitute: /139, -1191

8. e. Column headed ITEM PAGE NO

Amend to read PAGE ITEM NO

9. Page 85,

a. PAGE ITEM NO 1, col (e)

Delete: 20.2

Substitute: 20.4

b. PAGE ITEM NO 7, cols (d), and (e)

Delete: 15.5, 16.8

Substitute: 18.5, 19.8

10. Page 95, Table headed PLUG, PROTECTIVE, DUST AND MOISTURE SEAL, headed
STYLE REFERENCE

Delete: CC/1579/004,/005,/006

Substitute: CC/1579/181, 182, 183

16 MARCH 1978
DIRECTORATE OF STANDARDIZATION
MINISTRY OF DEFENCE
LONDON

D/D STAN/59/7/45 (STAN 8)
N/RD 484/72/0128(AD/CVD2S)

PLUGS AND SOCKETS, ELECTRICAL, PATTERN 608
SEALED, WITH SOLDERED TERMINATIONS:
NON-SEALED, WITH CRIMPED TERMINATIONS:
COARSE THREADED COUPLING,
FOR ~~do~~ AND LOW FREQUENCY APPLICATIONS

AMENDMENT 4

1. Pages 63 to 66 inclusive, bottom right corner
Delete: 41
Substitute: 42
2. Pages 67 to 70 inclusive, bottom right corner
Delete: 42
Substitute: 43
3. Pages 71 to 74 inclusive, bottom right corner
Delete: 43
Substitute: 44
4. Pages 75 to 78 inclusive, bottom right corner
Delete: 44
Substitute: 45
5. Page 79, bottom right corner
Delete: 45
Substitute: 46
6. Make a note of this amendment on the Amendment Record.

22 August 1978

DIRECTORATE OF STANDARDIZATION
MINISTRY OF DEFENCE
LONDON

PLUGS AND SOCKETS, ELECTRICAL, PATTERN 608

SEALED, WITH SOLDERED TERMINATIONS:

NON-SEALED, WITH CRIMPED TERMINATIONS:

COARSE THREADED COUPLING,

FOR dc AND LOW FREQUENCY APPLICATIONS

AMENDMENT 5

1. Page 72, PAGE ITEM NO 15, column (g)

Delete : /390

Substitute : /290

2. Page 73, column (k)

a. PAGE ITEM NO 11

Delete : -0813

Substitute : -0831

b. PAGE ITEM NO 12

Delete : -0814

Substitute : -0832

c. PAGE ITEM NO 13

Delete : -0815

Substitute : -0833

d. PAGE ITEM NO 14

Delete : -0816

Substitute : -0834

e. PAGE ITEM NO 15

Delete : -0817

Substitute : -0835

3. Page 78, column (c)

a. PAGE ITEM NO 17

Delete : /167

Substitute : /267

DEF STAN 59-35 (PART 5)/2
PLUGS AND SOCKETS, ELECTRICAL, PATTERN 608
SEALED, WITH SOLDERED TERMINATIONS:
NON-SEALED, WITH CRIMPED TERMINATIONS:
COARSE THREADED COUPLING,
FOR dc AND LOW FREQUENCY APPLICATIONS

AMENDMENT 6

1. Page 76, columns (c) and (e)

a. PAGE ITEM NO 16

Delete: /151 and /156

Substitute: /121 and /126

b. PAGE ITEM NO 17

Delete: /152 and /157

Substitute: /122 and /127

c. PAGE ITEM NO 18

Delete: /153 and /158

Substitute: /123 and /128

d. PAGE ITEM NO 19

Delete: /154 and /159

Substitute: /124 and /129

e. PAGE ITEM NO 20

Delete: /155 and /160

Substitute: /125 and /130

2. Make a note of this amendment on the Amendment Record.

29 JULY 1981

DIRECTORATE OF STANDARDIZATION
MINISTRY OF DEFENCE
LONDON

D/D STAN/59/7/45 (STAN 8)
N/RD 484/72/0128 (AD/CVD 2S)

OBSOLESCE

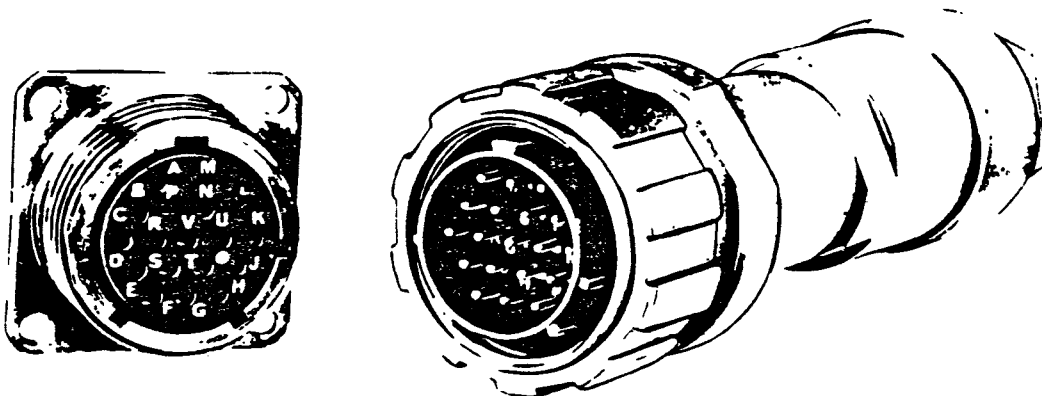
Ministry of Defence

Defence Standard

59-35(PART 5)/Issue 2

21st November 1975

**PLUGS AND SOCKETS, ELECTRICAL,
PATTERN 608, SEALED,
WITH SOLDERED TERMINATIONS:
NON-SEALED, WITH CRIMPED
TERMINATIONS:
COARSE THREADED COUPLING,
FOR d.c. AND LOW FREQUENCY
APPLICATIONS**



OBSOLESCE

THIS DEFENCE STANDARD WILL NOT BE UPDATED AND IS
NOT TO BE USED FOR THE PURCHASE OF NEW EQUIPMENT

AMENDMENT RECORD

AMENDMENT NUMBER	DATE	SIGNATURE

REVISION NOTE

Issue 2 of this Standard incorporates changes in the Qualification Approval procedures and test requirements. Additional items are included in Table I(F) and additional Tables I(N) to I(Q) introduced.

PLUGS AND SOCKETS, ELECTRICAL, PATTERN 608,
SEALED, WITH SOLDERED TERMINATIONS: NON-SEALED,
WITH CRIMPED TERMINATIONS : COARSE THREAD
COUPLING, FOR dc AND LOW FREQUENCY
APPLICATIONS

This Defence Standard supersedes DEF
STAN 59-35 (PART 5) Issue 1 dated
17th January 1972

1. This Defence Standard specifies the requirements for a range of multi-contact, circular, metal shell, plugs and sockets, with coarse thread coupling and soldered or crimped terminations for Ministry of Defence use. It is not applicable to aircraft wiring systems.
2. This Standard is to be used in conjunction with BS 9520 'Electrical connectors, of assessed quality for frequencies below 3 MHz : Generic data and methods of test,' which is the generic specification.
3. Tables I (A) to I (D) list the standard ranges of plugs and sockets, electrical Pattern 608, to be used in all future designs of materiel and where practicable, for the maintenance of existing materiel. Tables I (E) to I (Q) list the standard ranges of associated accessories and ancilliary parts.
4. This Standard has been prepared because there is no suitable national or any other standard acceptable to the Ministry of Defence available.
5. The metric units used in this Standard are derived from the original imperial units.
6. This Standard together with BS 9520 contains all necessary technical information and it is the definitive specification for these items. It must be invoked for all tender and contract purposes.
7. This Standard has been agreed by all authorities concerned who are to implement it from its date of issue.
8. If this Standard should be found unsuitable for a particular requirement the Director of Standardization shall be informed of the circumstances. Any enquiries regarding this Standard in relation to an invitation to tender or a contract in which it is invoked should be addressed to the Quality Assurance Authority named in that invitation to tender or contract.

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SPECIFICATION FOR PLUGS AND SOCKETS, ELECTRICAL,
PATTERN 608, SEALED, WITH SOLDERED TERMINATIONS:
NON-SEALED, WITH CRIMPED TERMINATIONS: COARSE THREAD
COUPLING, FOR dc AND LOW FREQUENCY APPLICATIONS

1. SCOPE

a. This Standard relates to a range of multi-contact circular, metal shell, plugs and sockets (connectors) with quick coarse thread coupling and crimp front release removable contacts or soldered non-removable contacts suitable for use in marine and other extreme environments. Both types are intermateable. The polarization feature is by positive shell keying. Sealed outlet accessories are available for use with cables specified herein providing braid termination and positive shielding. To ensure compliance with this specification, connectors shall always have a full complement of contacts fitted, with filter plugs behind unwired contacts.

b. Qualification approval procedure shall be in accordance with DEF-5001-C, Section 2.

c. Acceptance sampling, and inspection of parts procedures shall be in accordance with BS 9000 (clause 2.5).

2. RELATED SPECIFICATION AND DOCUMENTS

a. Reference is made in this Standard to:

BS 2011	'Methods for the environmental testing of electronic components and electronic equipment'
BS 9000	'General requirements for electronic components of assessed quality'
BS 9520	'Electrical connectors of assessed quality for frequencies below 3 MHz: Generic data and methods of test'
BSG 210	'PTFE insulated equipment wire'
DEF STAN 59-59	'Services qualified products list of electronic components'
DEF STAN 61-12 (PART 5)	'Wires, cords, and cables, electrical-metric units. Small multi-core cables'
DEF STAN 61-12 (PART 6)	'Wires, cords, and cables, electrical-metric units. PVC, polyethylene, or silicon rubber insulated equipment wires'
DEF STAN 61-12 (PART 8)	'Wires, cords, and cables, electrical - metric units. PTFE insulated equipment wires'
DEF 133	'Climatic, shock and vibration testing of Service equipment'
DEF-1234-A	'Production requirement for Service packaging'
DEF-5001-C	'General specification and qualification approval and acceptance procedure for electronic components'

DG-11	'Design requirements for Service packaging'
DG Ships 211	'Cable, electric silicon rubber insulated for general services (metric units)'
DG Ships 212	'Cable, electric butyl or ethylene propylene rubber insulated and chlorosulphonated polyethylene insulated for general services (metric units)'
DG Ships 213	'Cable, electric polyvinylchloride insulated, polyethylene insulated, polytetrafluoroethylene insulated, rubber insulated and mineral insulated for general services (metric units)'
HQPO 38	'Packaging of plugs and sockets electrical'
MIL-C-23216	'Removable crimp contacts'
MIL-T-83724	'Crimping tool MS 27828 (Modified)'

b. The related documents listed above are those applicable at the date of publication of this Standard. Their current applicability must be confirmed by all users of the Standard. The Quality Assurance Authority will supply, on request, information concerning any changes that may be necessary due to the cancellation, replacement, supersession or amendment of any related document.

c. Copies of documents referred to in clause 2a are obtainable as follows:

British Standards, from:

The British Standards Institution
(Sales Branch)
Newton House
Pentonville Road,
London, N1 9ND.

Defence Specification and Defence Guides, from:

Her Majesty's Stationery Office.

DG Ships Specification, from:

Director General Ships
Specification Section
MOD(PE)
Foxhill
Bath BA1 5AB.

MIL Specification, from:

DRIC
MOD(PE)
Station Square House
St Mary Cray
Orpington
Kent, BR5 3RE.

HQPO Specifications, from:

MOD(PE)
MQAD
Central Packaging Unit
Garland Road
London SE18 2PW.

Defence Standards, from:

Directorate of Standardization
Ministry of Defence
First Avenue House
High Holborn
London, WC1V 6HE.

3. TECHNICAL INFORMATION

a. Ratings.

(1) Electrical.

- (a) Current. Contact size 20 (1 mm dia $\nearrow$): 5 amps
Contact size 16 (1.6 mm dia $\nearrow$): 15 amps
Contact size 12 (2.4 mm dia $\nearrow$): 24 amps

The above current ratings are for ambient temperatures not exceeding 100°C for shell sizes 8 to 16 and not exceeding 50°C for shell sizes 18 to 24.

The performance of any connectors listed in this Standard at all times exceeds the maximum bunched ratings of the appropriate size wire or cable of equivalent temperature rating and this bunched rating shall be the determining factor. For mixed loadings, the greatest individual load shall be taken to be the bunched loading.

Note: For bunched cable ratings see cable specifications listed in clause 2 of this Standard.

(b) Voltage.

SCHEDULE 1

Note: Voltage ratings applicability is shown in Annex F (contact arrangements and polarization availability).

	SEA LEVEL		
VOLTAGE RATING	1	2	3
Working Voltage $\nearrow$ d.c. or a.c. peak	700	1250	1500
Voltage proof d.c. or a.c. peak	1750	2100	3000

$\nearrow$ indicates diameter at engagement end of male contact.
 $\nearrow$ establishment of electrical safety factor is the responsibility of the user.

3. a. (1)

(c) Environmental ratings.General application.

- (i) Climatic classification 55/125/56
- (ii) Vibration severity 55 Hz - 5 kHz
98 m/s² (10g)
duration 6 hours
- (iii) Shock severity 490 m/s² (50 g)
- (iv) Acceleration severity 490 m/s² (50 g)
- (v) Bump severity 390 m/s² (40 g)
4000 + 10 bumps
- (vi) Impact Drop height 1 m
- (vii) Immersion 39 kN/m² 20°C - duration
100 hours
- (viii) Sealing (solder type) 1 bar - 1 cm³/h max.

Naval application (Ships and submarines).

As for general application above but-with the following tests substituted or added to Group D Inspection requirements. For details of test methods, test sequences, and other relevant information see Annex A.

- (i) Vibration severity 1 Hz - 33 Hz
0.127 mm (0.57g)
duration 6 hours
 - (ii) Shock severity 120 g - height 1.54 m
 - (iii) Immersion 39 kN/m²-20°C
- (d) Endurance Ratings.
- (i) Mechanical, long term 500 operations
short term 50 operations
 - (ii) High temperature, long term 1000 hours at 85°C
(with electrical load)
 - (iii) High temperature, short term 250 hours at 125°C
(no electrical load)

b. Characteristics.(1) Electrical.SCHEDULE 2

	CONTACT SIZE		
	20	16	12
Maximum contact resistance (initially)	10 milliohms	5 milliohms	3 milliohms
Maximum contact resistance (after conditioning)	15 milliohms	10 milliohms	8 milliohms

$$1 \text{ bar} = 10^5 \text{ N/m}^2 = 10^5 \text{ Pa.}$$

3. b. (1) Electrical. (contd)

Minimum insulation resistance (initially)	5000 Megohms
Minimum insulation resistance (hot at maximum temperature 125°C)	20 Megohms

(2) Mechanical.

- (a) Engaging and separating torque, connector (ie the torque required over the free travel of the coupling thread).

SCHEDULE 3

SHELL SIZE	TORQUE Nm	
	ENGAGING TORQUE MAXIMUM	SEPARATING TORQUE MINIMUM
8	0.9	0.11
10	1.36	0.11
12	1.8	0.22
14	2.26	0.45
16	2.71	0.45
18	3.16	0.45
20	3.61	0.67
22	4.06	0.79
24	4.97	0.79

- (b) Minimum insert retention — 517 kN/m² (or equivalent force appropriate to shell size when force is applied mechanically)

- (c) Minimum contact (crimp and solder type) retention force in insert:

Contact size 20 76.5 N
 Contact size 16 112.5 N
 Contact size 12 112.5 N

- (d) Minimum insert torsion (crimp type only):

SCHEDULE 4

SHELL SIZE	Nm
8	Under consideration
10	
12	
14	
16	
18	
20	
22	
24	

3. b. (2) Mechanical. (contd)

(e) Maximum weight with set of contacts see Annex G outline drawings.

(f) Conductor accommodation.

SOLDER TYPE CONTACTS

CONTACT SIZE	CONDUCTOR DIAMETER (mm)		CONDUCTOR INSULATION O/D (mm)	
	Max.	Min.	Max.	Min.
20	1.22	-	2.16	1.19
16	1.75	-	2.77	1.67
12	2.84	-	3.61	2.46

CRIMP TYPE CONTACTS

CONTACT SIZE	CONDUCTOR DIAMETER (mm)		CONDUCTOR INSULATION O/D (mm)	
	Max.	Min.	Max.	Min.
20	16/0.20	25/0.10	2.16	1.19
16	7/0.5	16/0.20	2.77	1.67
12	7/0.85	7/0.67	3.61	2.46

Note: Other wire sizes within these limits with similar cross sectional areas may be substituted.

4. INFORMATION TO BE SUPPLIED BY PURCHASER

a. When ordering components to this Standard it is essential to quote the relevant NATO Stock Number, Style reference, and this Standard.

b. The NATO Stock Numbers in this Standard may have been issued in advance of the certificate of Qualification Approval. The numbers shall not be used until the relevant certificates have been issued. The issue of a Qualification Approval certificate is indicated by the inclusion of the item in DEF STAN 59-59, 'Services qualified products list of electronic components'.

5. ILLUSTRATIONS AND DRAWINGS

a. To ensure mechanical interchangeability equipment designers shall work to the limits stated on the drawings and not to the dimensions of the individual specimens. The illustrations are included as a visual aid. Where official drawings are quoted they are mandatory. Copies of such drawings are obtainable from MOD(PE), EQD, Section T 4, 'Aquila', Golf Road, Bromley, Kent. BRI 2JB.

b. HM Government drawings referred to herein are now associated with this Standard, and therefore, must not be altered or amended in any way which will affect function, material, or interchangeability unless the Defence Standard itself is amended. Holders of master drawings must endorse them accordingly.

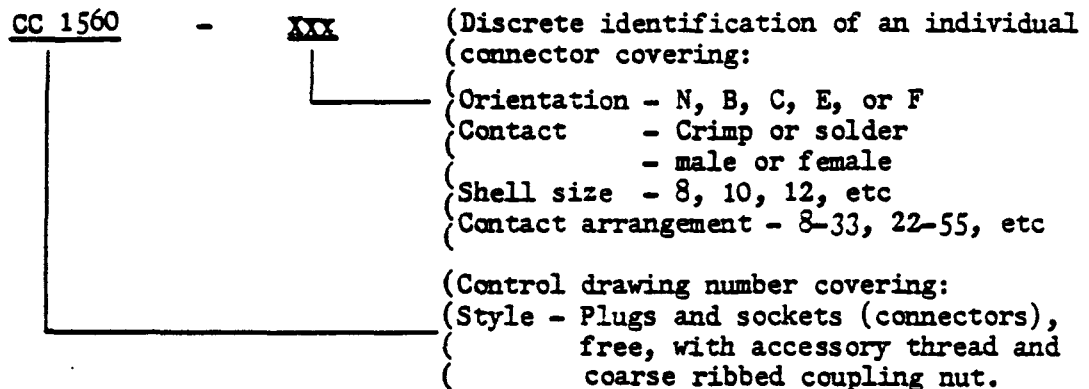
6. PATENTS

Patents or design rights or copyright may subsist in connection with items defined as standards and the issue of this Standard does not convey or imply any licence to use information which is the subject of such rights. Authority to use such rights, for UK Government purposes, must be obtained through the issue of an authorization in writing which will be incorporated in any contract placed by a Department of the said Government for such purposes.

7. STYLE REFERENCES

The Style References used in this specification are codes to identify individual components.

A typical Style reference is CC 1560 - XXX

8. PACKAGING AND MARKING

a. Packaging. The standard of packaging will normally be specified in the tender or contract.

- (1) When 'Full', 'Restricted', or 'Primary' standards are specified packaging shall be in accordance with HQPO 38.
- (2) When 'Trade' packages are specified, packaging shall be in accordance with DG-11, Part 1, Section 2.
- (3) When no packaging is specified, packaging shall be in accordance with DG-11, DEF-1234-A and the relevant Service Packaging Instruction Sheet (Form 673) issued by the Packaging Design Authority named in the tender or contract.

b. Marking.

- (1) As far as practicable the following information shall be clearly and durably marked on the component:
 - (a) The National Item Identification Number (NIIN)
(last seven digits of the NATO Stock Number).
 - (b) The manufacturer's code and date code.
- (2) In all instances the primary package shall carry the full NATO Stock Number together with a brief description, eg Plug, electrical, Pattern 608, etc.

9. QUALIFICATION APPROVALa. Provision of samples.

The manufacturer shall submit specimens, being representative of the standard ranges, for which approval is desired in accordance with Schedule 5, and as prescribed for tests included in sub-groups D0 and D1.

b. Grouping of specimens.

The specimens shall be grouped as indicated in Schedule 5, and fitted with appropriate outlet accessory sets as agreed with the Quality Assurance Authority and the Test House representative.

c. Test procedures.

The test procedure as prescribed in BS 9520 (clause 1.2) shall apply, amended as stated below:

(1) BS 9520 (clause 1.2.1) Measurement conditions.

Before commencing tests on plugs and sockets (connectors) the manufacturer shall show that the combination of crimp barrel, conductor, and crimping tool to be used for the tests shall have been designed to conform to the requirements of:

MIL-C-23216 'Removable crimp contact'

MIL-T-83724 'Crimping tool MS 27828 (Modified)' and Annex B of this Standard.

(a) Where cable for termination of free specimens is used for test purposes this shall be an approved insulated cable selected from DG Ships 211 'Cable, electric silicone rubber insulated for general services (metric units)', except for solvent resistance tests, where either DEF STAN 61 - 12 (PART 8) or BSG 210 should be used.

(b) All specimens with terminating cables shall be tested with appropriate outlet accessories, except for the solvent resistance test.

(2) Numerical notation of tests in BS 9520 (clause 1.2.2. et seq).

Where the procedure for any specified test differs from that prescribed in BS 9520, then the test will be annotated in the following manner:

Prefix numeral:	0
Subsequent numerals:	as in BS 9520
Details of test procedure:	Annex A in DEF STAN 59-35 (PART 5)/2

EXAMPLE

Vibration: BS 9520 Test 1.2.6.2.

Test 0.2.6.2. Annex A

SCHEDULE 5
SPECIMEN GROUPING FOR QUALIFICATION APPROVAL
(PLUGS AND SOCKETS)

TEST GROUP	SHELL SIZE/CONTACT ARRANGEMENT MATING SPECIMENS	TEST GROUP
D2	8-33 10-6 14-19 16-4 24-61	D7
	8-33 10-6 14-19 16-4 24-61	D8 (i)
	8-33 10-6 14-19 16-4 24-61 (5)	D8 (ii)
		D9
D3(a)	8-33 (3) 10-6 (3) 14-19 (3) 16-4 (3) 24-61 (3)	-
D3	8-33 (3) 10-6 (3) 14-19 (3) 16-4 (3) 24-61 (3)	D4
D5	8-33 (3) 10-6 (3) 14-19 (3) 16-4 (3) 24-61 (3)	-
D6	8-33 (3) 10-6 (3) 14-19 (3) 16-4 (3) 24-61 (3)	-

For notes applicable to Schedule 5 see page 13.

NOTES APPLICABLE TO SCHEDULE 5

1. The specimens supplied shall consist of equal numbers of each female shell style with female contacts and each female shell style with male contacts, (solder or crimp type) together with appropriate number of mating shell styles.
2. For subgroup D9 one specimen pair is required for each fluid specified. Where these number more than five, extra specimens are to be taken from those used for subgroup D5.
3. Results of tests on plugs and sockets fitted with accessories listed herein may be accepted as evidence for approval of the accessories in conjunction with the requirements listed in Note 4 below.
4. In addition to the test evidence obtained from Note 3 above, three of each accessory item shall be subjected to the following tests, clauses are as in BS 9520:
 - 1.2.2(1) Visual examination
 - 1.2.3.1 Dimensions, outline
 - 1.2.3.2 Dimensions, detail, and materials
 - 1.2.5.1 Weight
5. The figures in parenthesis, in schedule 5, represent the minimum number of specimens of specific shell size/contact arrangements for particular test groups.

SCHEDULE 6SPECIMEN GROUPING FOR QUALIFICATION APPROVAL(CRIMP CONTACTS)

	COLUMN NUMBER	1	2	3
	CONTACT SIZE	SIZE 20	SIZE 16	SIZE 12
	CLAUSE 9 SUB-GROUPS	PAIRS OF MATED CONTACTS SPECIMENS NUMBERED		
GROUP 0	A1	4-24	4-24	4-24
	B1	5-8	5-8	5-8
	C1	9-12	9-12	9-12
	D1	1-3	1-3	1-3
GROUP 1	D2	13-24	13-24	13-24

- Notes:
1. The schedule relates to one combination of contact type (and material and finish) conductor size, type of crimping tool, size of die, indenter, or positioner.
 2. For each and any other combination, the tests and quantities of specimens in the schedule shall apply.
 3. See also Annex B.

10. INSPECTION REQUIREMENTS (PLUGS AND SOCKETS)

Samples subjected to tests marked '(D)' shall not be accepted for release under clause 2.6.5 of BS 9000: Part 1.
Unless otherwise specified tests shall be performed at an ambient temperature between 15°C and 35°C.

SCHEDULE 7

TEST	SUB-CLAUSE NO (BS 9520) OR ANNEX A DEF STAN 59-35(PART 5) AND CONDITIONS OF TEST	REQUIREMENT
<u>GROUP A INSPECTION</u>	(To be applied on a sampling basis lot-by-lot). Sub-groups A2, A3, and A4 are not applicable	
<u>Sub-group A0</u> Voltage proof Visual examination Sealing	Inspection level 100% 1.2.4.4. Method A Voltages as in 3.a. (1) (b) 1.2.2.(1) 1.2.6.18. Solder versions only: 15s at 1 bar Barrier seal only	Non-destructive tests There shall be no breakdown or flashover As in 1.2.2. (1) 1 cm ³ /h max.
<u>Sub-group A1</u> Visual examination	Inspection level S3 AQL 1.5% 1.2.2.(2)	As in 1.2.2. (2)
<u>Sub-group A5</u> CTR information	Results of sub-group A0 shall be reported as attributes information	
<u>GROUP B INSPECTION</u>	(To be applied on a sampling basis, lot-by-lot) Sub-groups B3, B4, B5, B6, and B7 are not applicable <u>Note:</u> When contacts are wired the contacts and wires/cables used shall satisfy the measurement conditions of Annex B of this specification	
<u>Sub-group B1</u> Gauging procedure Insulation resistance	Inspection level S4, AQL 1% 1.2.3.3.(2) 1.2.4.3. Method A (500 ± 50 V)	Non-destructive test As in 1.2.3.3(2) 5000 Megohms min.

$$\nearrow 1 \text{ bar} = 10^5 \text{ N/m}^2 = 10^5 \text{ Pa}$$

SCHEDULE 7 -(CONTINUED)

TEST	SUB-CLAUSE NO (BS 9520) OR ANNEX A DEF STAN 59 - 35 (PART 5) AND CONDITIONS OF TEST	REQUIREMENT
Sub-group B1 (contd)		
Engaging and separating force, connector	1.2.5.2. Forces as specified in 3.b. (2) (a)	As in 1.2.5.2
Contact holding force	1.2.5.8. Without sizings and using gauge as shown in Annex C	As in 1.2.5.8
Sub-group B2	Inspection level S4, AQL 4% (use samples from sub-group B1)	Destructive tests
Soldering (solder types only)	1.2.6.6. Soldering-iron method. Bit size 3 mm for sizes 20 and 16 contacts and 4.75 mm for size 12 contacts. Recovery time one hour	Terminations shall be uniformly tinned. No loosening of parts or other damage such as would impair performance
Contact resistance	1.2.4.1. (1)	As shown in 3.b. (1) (initial value)
Housing (shell) continuity	1.2.4.2(2) Not applicable 1.2.4.2.(3)(b)	- Maximum - 50 milliohms
Insert ageing (crimp types only)	1.2.5.10. Nine insertions and withdrawals using tools as shown in Annex F	As in 1.2.5.10.
Contact retention (in insert)	1.2.5.3. Forces as in 3.b. (2)(c)	As in 1.2.5.3.
Insert retention (in shell)	1.2.5.4. Force 517 kN/m ² for 5 s	As in 1.2.5.4.
Insert torsion (crimp types only)	1.2.5.5. Torque as shown in 3.b.(2)(d)	As in 1.2.5.5.
Sub-group B8 CTR information	Results of sub-group B1, and contact resistance, insert ageing, housing(shell) continuity, contact retention (in insert) from sub-group B2 shall be reported as attributes information	

SCHEDULE 7 - (CONTINUED)

TEST	SUB CLAUSE NO(BS 9520)OR ANNEX A DEF STAN 59-35(PART 5)AND CONDITIONS OF TEST	REQUIREMENT
<u>GROUP C</u> <u>INSPECTION</u>	(To be applied on a sampling basis, at three-monthly intervals). Sub-group C2 is not applicable Connectors shall have contacts fitted and wired as applicable. The contacts and wires/cables used shall satisfy the measurement conditions of Annex B of this specification	
<u>Sub-group C1</u> Dimensions (outline)	Inspection level S3, AQL 4% 1.2.3.1	As specified in Annex F of this specification
<u>Sub-group C3</u> Contact resistance Rapid change of temperature Damp heat (steady state)	Inspection level S3, AQL 4% Samples from sub-group C1 may be used 1.2.4.1.(1) 1.2.6.7. - 55°C to + 125°C 1.2.6.14. 21 days. Working voltage as specified in clause 3.a.(1)(b). Polarizing voltage 60 V d.c. (1) (2) a. Method A (500 ± 50V) (2) b. (2) c. (2) d. (2) e. (2) f. (2) g. Not applicable (2) h. Method A	As in 3.b.(1) As in 1.2.6.7.(1) As in 1.2.6.14. (1) 100 Megohms min. As in 1.2.6.14.(2)(b) 50 milliohms max. As in 3.b. (1) By hand 1 cm ³ /h max. As in 1.2.6.14(2)(h)
<u>Sub-group C4</u> Sealing immersion	Three random selected mated pairs shall be used for this sub-group 1.2.6.13. 39 kN/m ² at 20°C for period of 100 hours Final measurement: 1. Insulation resistance 2. Visual examination	100 Megohms min. As in 1.2.6.13(2)

SCHEDULE 7 - (CONTINUED)

TEST	SUB-CLAUSE NO (BS 9520) OR ANNEX A DEF STAN 59-35 (PART 5) AND CONDITIONS OF TEST	REQUIREMENTS
<u>Sub-group C5(D)</u> Mechanical endurance High temperature endurance Sealing Final measurements for subgroup C5 Housing (shell) continuity Contact resistance Voltage proof Engagement and separating force, connector Visual examination Sealing	Inspection level S3, AQL 4.0% 1.2.7.1. 50 operations at approximately 10 operations per minute 1.2.7.2. 250 hours duration at 125°C. No electrical load. Insulation resistance shall be measured eight times at intervals of not less than 24 hours. Method B. (500 ± 50 V d.c.) The chamber condition shall be maintained for the following measurement 1.2.6.18.1(2) Pressure differential - 1 bar ¹ After 1½ - 2 hours recovery 1.2.4.2. Without dismantling 1.2.4.1.(1) Without dismantling 1.2.4.4. Method B. Voltage as in clause 3.a.(1)(b) 1.2.5.2. 1.2.2. 1.2.6.18.1. (2)	20 Megohms min. 1 cm ³ /h max. 50 milliohms max. As in 3.b.(1) As in 1.2.4.4 By hand As in 1.2.2. 1 cm ³ /h max.
<u>Sub-group C6</u> CTR information	The results from the tests in sub-groups C3 (except contact resistance), C4, and C5 shall be reported as attributes information. The contact resistance and insulation resistance at the conclusion of the tests in sub-groups C3, C4, and C5 shall be reported as measurements information.	

¹ 1 bar = 10⁵ N/m² = 10⁵ Pa

SCHEDULE 7 - (CONTINUED)

TEST	SUB-CLAUSE NO (BS 9520) OR ANNEX A DEF STAN 59-35 (PART 5) AND CONDITIONS OF TEST	REQUIREMENT
<u>GROUP D INSPECTION</u>	(To be applied on a sampling basis, or three-yearly intervals) Connectors shall have contacts fitted and wired as applicable. The contacts and wires/cables used shall satisfy the measurement conditions of Annex B of this specification	
<u>Sub-group D0</u>	Sample size - One set of piece parts for the connector range submitted for approval. No failure allowed	
Dimensions, detail and material	1.2.3.2.	As in 1.2.3.2.
<u>Sub-group D1</u>	For sample size see Annex G No failure allowed	
Dimensions, outline	1.2.3.1.	As in 1.2.3.1.
Mass	1.2.5.1. Including contacts	As shown in outline drawings
Gauging procedure	1.2.3.3.(1) 1.2.3.3.(3) 1.2.3.3.(4)	As in 1.2.3.3.(1) As in 1.2.3.3.(3) As in 1.2.3.3.(4)
Compass safe distance	1.2.5.11. One mated pair of each of the largest and smallest connectors	As in 1.2.5.11.
<u>Sub-group D2</u>	For sample size see Schedule 5 One failure allowed	
Test prod damage	1.2.5.9. Using tools and test prods as shown in Annex D (Tool to be set to produce the bending moment appropriate for contact size). Holding force gauge as shown in Annex C. Bending moment: Size 20: 0.057 Nm Size 16: 0.113 Nm Size 12: 0.226 Nm	As in 1.2.5.9,
Impact	1.2.5.6. Five impacts Drop height 1 m (2)	As in 1.2.5.6. By hand
Robustness of terminations (solder type only)	1.2.6.5.(2) Force: Size 20: 22N Size 16: 45N Size 12: 45N	As in 1.2.6.5.(2)

SCHEDULE 7 - (CONTINUED)

TEST	SUB-CLAUSE NO (BS 9520) OR ANNEX A DEF STAN 59-35 (PART 5) AND CONDITIONS OF TESTS	REQUIREMENT
<u>Sub-group D3(a)(D)</u>	For sample see Schedule 5 One failure allowed	
Cable clamping	1.2.5.7.(2) 222N 0.2.5.9. In accordance with the test specified in Annex A	As in 1.2.5.7. As in 1.2.5.7.(4)
Sealing immersion	1.2.6.13. 39 kN/m ² at 20°C for a period of 24 hours Final measurement: (1) (2)	100 Megohms min. As in 1.2.6.13.(2)
Vibration	0.2.6.2. In accordance with the test specified in Annex A	As specified in Annex A
Shock	0.2.6.3. In accordance with the test specified in Annex A	As specified in Annex A
Final measurements for subgroup D3(a)	Visual examination Contact resistance Sealing immersion	) As specified in) Annex A
<u>Sub-group D3(D)</u>	For sample see Schedule 5 One failure allowed	
Bump	1.2.6.1. 390 m/s ² 4000 ± 10 bumps	As in 1.2.6.1.
Vibration	1.2.6.2. Test FC of BS 2011 Procedure A 55 Hz to 5 KHz 0.75 mm/10 g Duration 6 h	As in 1.2.6.2.
Shock	1.2.6.3. 490 m/s ² Duration 11 ms	As in 1.2.6.3.
Acceleration (steady state)	1.2.6.4. 490 m/s ²	As in 1.2.6.4. continuity check

SCHEDULE 7 - (CONTINUED)

TEST	SUB-CLAUSE NO (BS 9520) OR ANNEX A DEF STAN 59-35 (PART 5) AND CONDITION OF TEST	REQUIREMENT
<u>Sub-group D3 (Contd)</u>		
Final measurements for sub-group D3		
Visual examination	1.2.2.(4)	As in 1.2.2.(4)
Contact resistance	1.2.4.1.(1)	As in 3.b.(1)
Sealing	1.2.0.18.1	1 cm ³ /h max.
Sub-group D4(i)(D)	For sample see Schedule 5 One failure allowed	
Rapid change of temperature	1.2.6.7. -55°C to +125°C	As in 1.2.6.7.(1)
Climatic sequence	1.2.6.11. Severity as in 3.a.(1) (C) (1) Sealing (at 125°C) (2) Engaging and separating (at -55°C) Sealing (at -55°C) (3) Not applicable a. Immediately after conditioning: Working voltage as in 3.a.(1)(b), duration - 5 minutes Method A b. After recovery: (i) Insulation resistance (Method A) (ii) Visual examination (iii) Housing (shell) continuity measured between the cable braid (if fitted), or the gland nut of the cable out- let of the fuse connector and the mounting panel of the the fixed connector (iv) Contact resistance (v) Engaging and separating (vi) Sealing. Solder types only barrier seal, except singly hole mounting style where all seals are tested c. After extended recovery: (i) Insulation resistance (Method A) (ii) Voltage proof. As in 3a (1) (b) (Method A)	1 cm ³ /h max. By hand 1 cm ³ /h max. There shall be no breakdown 100 Megohms min. As in 1.2.6.11.(ii) 50 milliohms max. As in 3.b.(1) By hand 1 cm ³ /h max. 5000 Megohms min. There shall be no breakdown

SCHEDULE 7 - (CONTINUED)

TEST	SUB-CLAUSe NO (BS9520) OR ANNEX A DEF STAN 59-35 (PART 5) AND CONDITION OF TEST	REQUIREMENT
<u>Sub-group D4(ii)</u>	Sample size. One fixed and one free mating connector of the largest shell size for which approval is sought. No failure allowed	
Flammability	1.2.6.8. Direct flame against (a) mating face and (b) unprotected rear (accessories removed) of each connector	As in 1.2.6.8.
<u>Sub-group D5 (D)</u>	For sample see Schedule 5 One failure allowed	
Contact resistance	1.2.4.1.(1)	As in 3.b.(1) (initial value)
Immersion (at low air pressure)	1.2.6.12 (1) cable as specified (2) before immersion Insulation resistance Method A (500 $\pm$ 50V)	5000 Megohms min.
Damp heat, steady state	(3) At 44 mbars $\neq$ During immersion. Insulation resistance Method A (500 $\pm$ 50V) 1.2.6.14. 50 days. Working voltage as in clause 3.a.(i)(b) Polarizing voltage 60 V d.c. 1.2.6.14. (1) Full working voltage as in clause 3.a.(1)(b) (2) a. Method A (500 $\pm$ 50V) b. c. Measured between the cable braid (if fitted), or the gland nut of the cable out- let of the fuse connector, and the mounting panel of the fixed connector d. e. f. 1.2.6.18.1(2) g. Not applicable h. Method A. Voltage as in 3.a.(1)(b)	1000 Megohms min. As in 1.2.6.14.(1) 100 Megohms min. As in 1.2.6.14.(2) (b) 50 milliohms max. As in 3.b.(1) By hand 1 cm ³ /h As in 1.2.6.14.(2)

$\neq$ 44 mbars = 44 x 10² N/m² = 44 x 10² Pa

SCHEDULE 7 - (CONTINUED)

TEST	SUB-CLAUSE NO (BS 9520) OR ANNEX A DEF STAN 59-35 (PART 5) AND CONDITIONS OF TEST	REQUIREMENT
<u>Sub-group D6 (D)(Contd)</u>	For sample see Schedule 5 One failure allowed	
Mechanical endurance	1.2.7.1. 500 operations at approximately 10 operations per minutes	
High temperature	1.2.7.2. 1000 h at 85°C Current as in clause 3.1.(1)(e). The chamber condition shall be maintained for the following measurements:	
Insulation resistance	1.2.4.3. Method B (500 $\pm$ 50V d.c.)	20 Megohms min.
Sealing	1.2.6.18.1(2) After 1½ - 2 hours recovery	1 cm ³ /h max.
Final measurements for subgroup D6		
Housing (shell) continuity	1.2.4.2. Without dismantling	50 milliohms max.
Contact resistance	1.2.4.1.(1) Without dismantling	As in 3.b.(1)
Voltage proof	1.2.4.4. Method B. Voltage as in clause 3.a.(1)(b)	As in 1.2.4.4.
Engaging and separating force (connector)	1.2.5.2.	By hand
Visual examination	1.2.2.	As in 1.2.2.
Sealing	1.2.6.18.1	1 cm ³ /h max.
<u>Sub-group D7(D)</u>	For sample see Schedule 5 One failure allowed	
Mould growth	1.2.6.15 28 days duration (1) Method A (500 $\pm$ 50V) (2) (3) (4) 1.2.4.1.(2) (5) Measured between the cable braid (if fitted), or the gland nut of the cable outlet of the fuse connector, and the mounting panel of the fixed connector (6) (7) (8) Method A. Voltage as in 3.1.(1)(b)	100 Megohms min. As in 1.2.6.15(2) By hand As in 3.b.(1) 50 milliohms max. By hand 1 cm ³ /h max. As in 1.2.6.15(8)
<u>Sub-group D8(i)(D)</u>	For sample see Schedule 5 No failure allowed	
Salt mist	1.2.6.16. Severity I (1) (2) (3) Measured between the cable braid (if fitted), or the gland nut of the cable outlet of the fuse connector, and the mounting panel of the fixed connector	By hand As in 3.b.(1) 50 milliohms max.

SCHEDULE 7 - (CONTINUED)

TEST	SUB-CLAUSE NO (BS 9520) OR ANNEX A DEF STAN 59-35 (PART 5) AND CONDITIONS OF TEST	REQUIREMENT
Sub-group D8(i)(D) (Contd)	(4) 1.2.4.1.(2) (5) Method A (500 + 50 V) (6) Voltage as in 3.a.(1)(b) (7)	By hand 50 Megohms min. As in 1.2.6.16(6) 1.2.6.16(7)
Sub-group D8(ii)(D)	For sample see Schedule 5 No failure allowed	
Dust	1.2.6.17 (1) (2)	As in 1.2.6.17(1) By hand
Sub-group D9(D)	For sample see Schedule 5 No failure allowed	
Fluid resistance	1.2.6.19 (1) (i) Table 1A - Trichloroethane (ii) 15° to 35°C (iii) 1h (iv) 1 cycle (2) (i) Table 2 - test fluids 2,3, 4,5,6,7,8,9 (ii) 15° to 35°C (iii) Method B - 15 cycles (iv) Upper test temperature of solvent	
Final measurements for sub-group D9		
Engaging and separating force, connector	1.2.5.4	By hand
Contact resistance	1.2.4.1.(1)	As in 3.b.(1)
Insulation resistance	1.2.4.3. Method A (500 ± 50 V)	100 Megohms min.
Sub-group D10 CTR information	Results of final measurements in sub- groups D3, D4, D6, D7, D8, and D9 and Immersion (at low air pressure) from subgroup D5 shall be reported as attributes information. Contact resistance and insulation resistance measurements at the conclusion of tests in subgroups D5 and D6 shall be reported as measurements information.	

11. INSPECTION REQUIREMENTS (CONTACTS, REMOVABLE CRIMP)CONTACT TESTSSCHEDULE 8

TEST	SUB-CLAUSE NO (BS 9520) OR ANNEX D DEF STAN 59-35 (PART 5) AND CONDITIONS OF TEST	REQUIREMENT
<u>GROUP A INSPECTION</u>	(To be applied on a sampling basis lot-by-lot associated with relevant connector lot size)	Non-destructive test
<u>Sub-group A1</u> Visual examination	Inspection level II, AQL 1.0% 1.2.2.	As in 1.2.2.(1)
<u>GROUP B INSPECTION</u>	(To be applied on a sampling basis lot-by-lot associated with relevant connector lot size)	
<u>Sub-group B1</u> Contact holding Force Tensile test	Inspection level S3, AQL 4.0% 1.2.5.8. Three sizings using sizing gauge appropriate to contact size as shown in Annex C 3.d. Annex B	Destructive tests The contact shall retain the holding force gauge as shown in Annex C As in Schedule 11 of Annex B
<u>GROUP C INSPECTION</u>	(To be applied on a sampling basis lot-by-lot associated with relevant connector lot size)	Non-destructive test
<u>Sub-group C1</u> Dimensions (outline)	Inspection level S3, AQL 0.1% 1.2.3.1. In addition the issue number of the manufacturers drawings shall be checked	Non-destructive test As specified in Annex F

SCHEDULE 8 - (CONTINUED)

TEST	SUB-CLAUSE NO (BS 9520) OR ANNEX B DEF STAN 59-35 (PART 5) AND CONDITIONS OF TEST	REQUIREMENT
<u>Sub-group C2</u>	Inspection level S3,AQL 4.0% The contacts from sub-group C1 shall then be crimped on to DEF STAN 61-12 (PART 6) equipment wires or on to metric cables and wires as agreed with the Quality Assurance Authority and the Test House, selected from conductors listed in Schedule 11	Destructive tests
Visual inspection	3.c. (1) Annex B	As in 3.c.(1)
Crimped joint resistance test	3.e. Annex B	As in 3.e.
Tensile test	3.d. Annex B	As in Schedule 11 of Annex B
<u>GROUP D</u> <u>INSPECTION</u>	(To be applied on a sampling basis at three-yearly intervals.)	
<u>Sub-group D1</u>		Non-destructive tests
Dimensions	1.2.3.2. Three male contacts and three sets of parts containing female contacts in each contact size	As in 1.2.3.(2)
Mass	1.2.5.1.	As shown in outline drawing
<u>Sub-group D2</u>	Quantity of specimens as shown in Schedule 10 in Annex B. The contacts shall be crimped on to DEF STAN 61-12 (PART 6) equipment wires or on to metric cables and wires as agreed with the Quality Assurance Authority and the Test House selected from conductors listed in Schedule 11	Destructive tests
Visual inspection	3.c.(1) Annex B	As in 3.c. (1)
Crimped joint resistance test	3.e. Annex B	As in 3.e.
Load and temperature cycling	3.f. Annex B	As in 3.f.
Tensile test	3.d. Annex B	As in Schedule 11 Annex B

ANNEX A

TEST PROCEDURES AND METHODS NOT INCLUDED IN BS 9520

PLUGS AND SOCKETS

SCHEDULE 9

TEST	METHOD OF TEST	REQUIREMENT																																				
0.2.5.9 Cable clamping	Resistance to cable torsion. A one metre length of the specified cable shall be attached to the plug or socket in the normal way Either the plug or the cable end shall be fixed and the following tests shall be applied: <u>SHELL</u> <u>SIZE</u> <table><tr><td>8</td><td>)</td><td>Rotate cable through 180°</td><td>)</td></tr><tr><td>10</td><td>)</td><td>in each sense. Record</td><td>)</td></tr><tr><td>12</td><td>)</td><td>torque value</td><td>)</td></tr><tr><td>14</td><td>)</td><td>Rotate cable through 90°</td><td>)</td></tr><tr><td>16</td><td>)</td><td>in each sense. Record</td><td>)</td></tr><tr><td>18</td><td>)</td><td>torque value</td><td>)</td></tr><tr><td>20</td><td>)</td><td>Rotate cable through 30°</td><td>)</td></tr><tr><td>22</td><td>)</td><td>in each sense. Record</td><td>)</td></tr><tr><td>24</td><td>)</td><td>torque value</td><td>)</td></tr></table>	8	)	Rotate cable through 180°	)	10	)	in each sense. Record	)	12	)	torque value	)	14	)	Rotate cable through 90°	)	16	)	in each sense. Record	)	18	)	torque value	)	20	)	Rotate cable through 30°	)	22	)	in each sense. Record	)	24	)	torque value	)	As in 1.2.5.7. (BS 9520)
8	)	Rotate cable through 180°	)																																			
10	)	in each sense. Record	)																																			
12	)	torque value	)																																			
14	)	Rotate cable through 90°	)																																			
16	)	in each sense. Record	)																																			
18	)	torque value	)																																			
20	)	Rotate cable through 30°	)																																			
22	)	in each sense. Record	)																																			
24	)	torque value	)																																			
0.2.6.2 Vibration sub-sonic	The mated pairs of specimens shall be mounted on a suitable plate assembly free from self-resonances over the range 1 Hz to 33 Hz. Equipment wires connected to the 'fixed' specimen shall be secured 230 mm from the rear of the specimen and the cable from the 'free' specimen secured 600 mm from the rear of the cable outlet to a point clear of the vibration table The test shall be carried out as specified in DEF-133 (8.3 Test 'D') except that the amplitude shall be ± 0.127 mm (0.254 mm total) (0.57g) During the vibration, continuous monitoring shall be carried out on all contacts and screen, where fitted, using a current not exceeding 50 mA (an approved monitoring circuit is depicted in Annex E)	10 microseconds max. intermittency																																				

SCHEDULE 9 -(CONTINUED)

TEST	METHOD OF TEST	REQUIREMENT
0.2.6.2. Vibration(contd)	Final measurements:	
Visual examination	The specimen shall be visually examined without dismantling.	There shall be no mechanical damage, movement or displacement of parts such as would impair operation
Contact resistance	1.2.4.1. (BS 9520)	As specified in li.b. (1)
Sealing immersion	1.2.6.13 (BS 9520) 39 kN/ m ² at 20°C for a period of 24 hours	
	Insulation resistance	100 Megohms min.
0.2.6.3. Shock	The mated pairs of specimens shall be mounted on a suitable test structure of sufficient rigidity to withstand 120 g without attenuation of the shock. No shock mounts are to be fitted for this test. Equipment wires connected to the 'fixed' specimen shall be secured 230 mm from the rear of the specimen and the cable from the 'free' specimen secured 600mm from the rear of the cable outlet to a point clear of the shock table During the shock testing continuous monitoring shall be carried out on all contacts and screen, where fitted, using a current not exceeding 50 mA (an approved monitoring circuit is depicted in Annex E) <u>TEST A (i) 120 g (1176 m/s²)</u> Two blows from a mass of 181.5 kg falling vertically from a height of 1.54 m <u>TEST B (ii) 120 g (1176 m/s²)</u> Two lateral blows from a mass of 181.5 kg at a radius of 1.54m falling through an angle of 120°	10 microseconds max. intermittency as in 0.2.6.2.

SCHEDULE- 9 (CONTINUED)

TEST	METHOD OF TEST	REQUIREMENT
0.2.6.3. Shock (contd)	Final measurements:	
Visual examination	The specimen shall be visually examined without dismantling	There shall be no mechanical damage, or displacement of parts, such as would impair operation
Contact resistance	1.2.4.1. (BS 9520)	As specified in 11.b. (1)
Sealing immersion	1.2.6.13. (BS 9520) 39 kN/m ² at 20°C for a period of 24 hours	
	Insulation resistance	100 Megohms min.

ANNEX B

TEST METHODS AND PROCEDURES FOR CRIMPED CONTACTS

1. VERIFICATION

Prior to the production of specimens for the tests detailed in this Defence Standard the male and female contacts shall be inspected for compliance with the Control Drawings. The cable or wire shall be verified as having been released to the appropriate specification, and the crimping tools and gauges inspected to ensure that they are in accordance with (MIL-T-83724) MS 27828 (Modified). Where the gauges are not interchangeable they shall be marked to identify the tool for which they are applicable. The crimping tool to be used in forming the crimp joint for the specimens shall be checked with the gauge by the method declared on the approved drawings.

2. PREPARATION OF SPECIMENS

The cable or wire ends of specimens (with conductors that are within the limits of sizes shown in clause 3b(2)(f) on page 9) shall be stripped of insulation in accordance with the manufacturer's recommendations, care being taken not to sever or damage any strands. All insulation shall be removed from the stripped portion of the conductor. After stripping, the end of the insulation shall be left clean and square. Should the original lay of the strands be disturbed, it may be restored by a light twist. The conductor shall be clean before assembly with the male or female contact. A specimen shall consist of a convenient length of cable or wire with a male or female contact at each end. Each specimen shall be numbered on an area not involved in the crimping operation and so identified as to enable it to be associated with the relevant crimping tool and tool setting.

3. QUALIFICATION APPROVAL TESTS

a. General requirements. The mechanical strength and electrical performance of the completed joints shall be such that the requirements of the tests specified in Schedule 10 are met. All of these tests are mandatory in the sequence shown and shall be applied to each combination of conductor and contact size listed in Schedule 10.

b. Test conditions, test sequence, and number of specimens.

- (1) Test conditions. Unless otherwise specified, all tests shall be performed at a temperature of $25 \pm 10^{\circ}\text{C}$, at an air pressure of between 860 and 1060 ~~mbar~~ mbar $\bar{s}$ and with a relative humidity not greater than 75%. All specimens used in the tests shall be stored under these conditions for a period of 48 hours before testing is commenced.

✱ 1000 mbar $\bar{s}$ = 10^5 N/m^2 = 10⁵ Pa

3. b. (2) Test sequence and number of specimens.

SCHEDULE 10

TEST NO	TEST	SPECIMEN NUMBERS		
		13-16	17-20	21-24
3c	Visual inspection	x	x	x
3d	Tensile	x	-	-
3e	Joint resistance	-	x	x
3f	Load and temperature cycling	-	x	x
3e	Joint resistance	-	x	x
3d	Tensile	-	-	x

c. Visual inspection.

The specimens shall be visually inspected for:

- (1) correct combination of cable or wire, tool and tool setting and male or female contact;
- (2) correctness of form and location of crimp;
- (3) freedom from fracture, rough or sharp edges, and flash;
- (4) verification of the insertion, beyond the visual inspection hole, of all conductor strands in the barrel;
- (5) absence of damage to the conductor or insulation.

d. Tensile test.

The appropriate specimens shall be tested to destruction in a suitable tensile testing machine in which tension is applied between the male or female contacts and in which the head travels at a constant speed of between 25 and 50 mm/min. The specimen shall not fail at a load less than that shown in Schedule 11.

e. Crimped joint resistance test.

- (1) For this test the d.c. load circuit shall be devised on the assumption that:
 - (a) the joint resistance is zero;
 - (b) the open circuit voltage shall never exceed 2.5V;
 - (c) the load current shall be half the current rating for the cable or wire;
 - (d) the current shall not flow for more than 30 ± 5 seconds.
- (2) Means shall be provided for recording current and associated potential drop.

- (3) The potential drop measurements shall be taken using the following procedure:
 - (a) Two knife edge contacts, maintained at a constant separation, shall be placed, one at a point on the conductor not more than 1 mm from the end of the crimp barrel, and the other on the male or female contact immediately below the insertion/extraction shoulder.
 - (b) These two knife edge contacts shall be applied with a constant force of between 0.39 and 0.49 N.
 - (c) Subsequent measurements shall be made between the same points.
 - (d) The joint resistance shall be calculated and recorded.

Note: As stability is to be monitored and no absolute values established a consistent test procedure is essential. Because no absolute values are established there is no justification for re-measurement with current flow reversed. Care should however be taken to ensure that in all subsequent measurements on the same specimen the current flow is in the original direction.

f. Load and temperature cycling test.

- (1) Initially the specimens shall be at a temperature of $25 \pm 10^{\circ}\text{C}$ and shall then be subjected simultaneously to the test current and enclosure temperature.
- (2) The specimens shall be placed horizontally in a suitable enclosure the ambient temperature of which shall be $0.7 t$, where t is the working temperature in $^{\circ}\text{C}$ of the insulation of the cable or wire specified.
- (3) An appropriate test current, which shall be the lower of the rated currents (d.c. or a.c. peak) specified in the relevant cable or wire specification and the manufacturer's contact specification, shall be applied for the 'heat on' period.
- (4) The 'heat on' period shall last until the temperature at the mid-part of the cable or wire attains between 95 and 100% of t . When the specimens have attained at least 95% of t , the application of heat and current shall cease and the specimens allowed to cool to a temperature of $25 \pm 10^{\circ}\text{C}$.
- (5) One cycle shall consist of a 'heat on' period followed by a 'heat off' period.

3. f. (6) (a) Crimped joint resistance shall be measured at the end of the 'heat off' period in accordance with 3e above at intervals of 50 cycles throughout a test comprising not less than 500 cycles. Stability shall be attained over the final 200 cycles. There shall be no variation exceeding 20% in crimped joint performance over this period.
- (b) Intermediate and final joint resistance shall not increase by more than 20 % on the initial reading.
- (c) On completion of the tests the specimens shall be visually examined using a magnification of the diameter. There shall be no signs of cracking or other damage such as would impair operation.

Note: Assisted cooling by means of forced circulation of the surrounding air, eg by means of a household type fan, is permissible.

PULL-OFF LOAD VALUES FOR COPPER CONDUCTOR CRIMPS

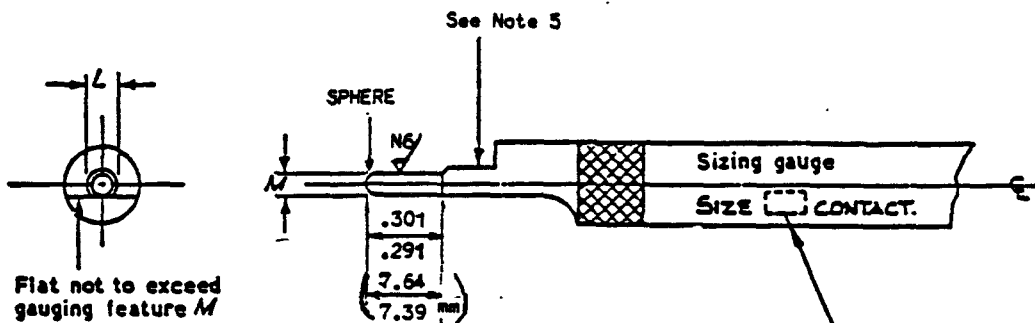
SCHEDULE 11

1	2	3	4	5
CONDUCTOR			CONTACT SIZE	PULL-OFF LOAD SEE NOTES 1 AND 2
CROSS SECTIONAL AREA, NOMINAL mm ²	NUMBER AND DIAMETER OF STRANDS mm	MAXIMUM DIAMETER mm		%BREAKING LOAD OF CONDUCTOR
0.22	7/0.20	0.60	20	75
0.20	25/0.10	0.62	20	75
0.34	19/0.15	0.75	20	65
0.50	7/0.30	0.90	20	65
0.50	16/0.20	0.93	20	65
0.75	24/0.20	1.14	16	60
0.88	7/0.40	1.20	16	60
1.00	32/0.20	1.32	16	60
2.50	7/0.67	2.01	12	55

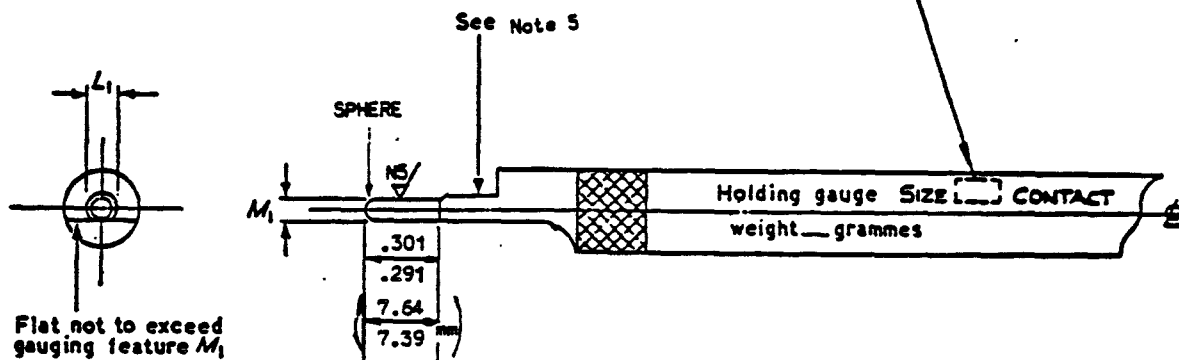
- Notes:
- These loads apply after conditioning.
 - The breaking load of the conductor as stated in the relevant cable or wire specification shall be used, if available, otherwise it shall be determined by testing.

ANNEX C
CONTACT SIZING AND
HOLDING FORCE GAUGES

SIZING GAUGE



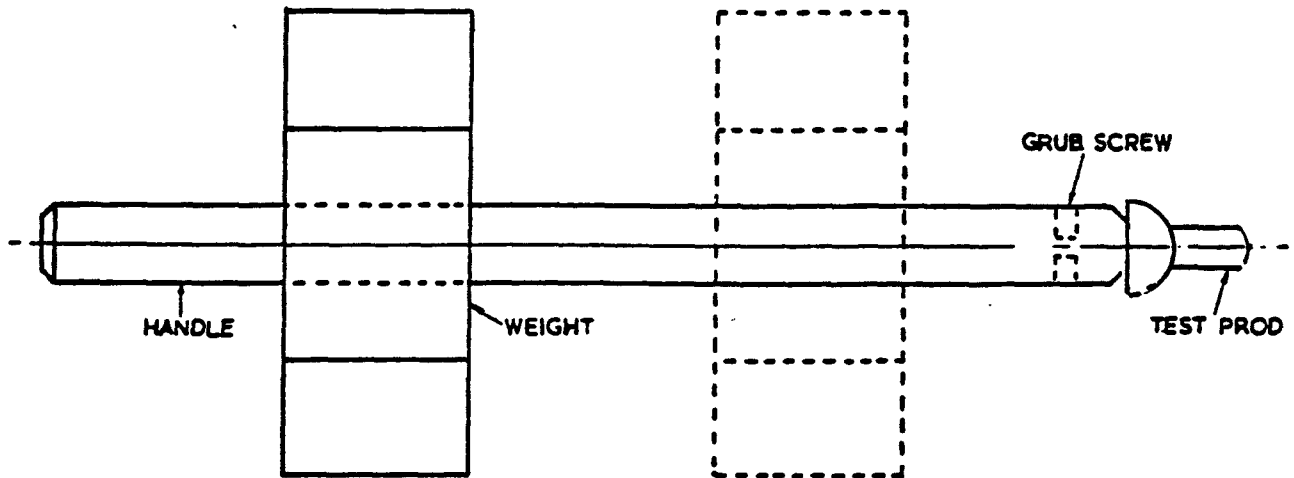
HOLDING GAUGE



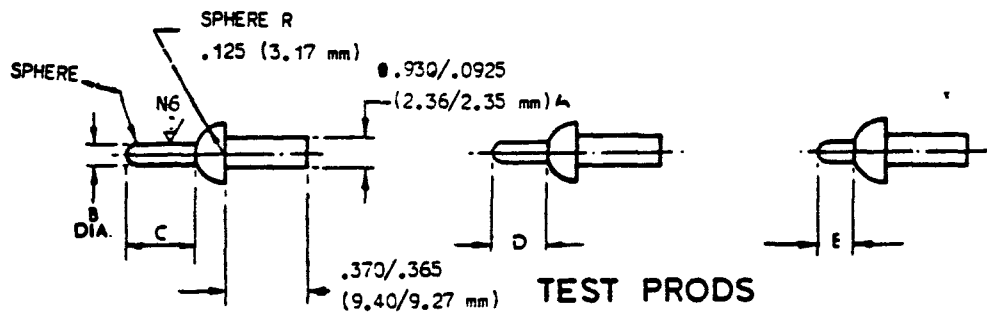
GAUGE DIMENSIONS					GAUGE MARKINGS				
CONTACT SIZE	M		M ₁		SIZING GAUGE		HOLDING GAUGE		WEIGHT (g)
					DIA		DIA		
	mm	in	mm	in	mm	in	mm	in	
20	1.041	0.0410	0.996	0.0392	1.04	0.041	0.991	0.039	35
	1.036	0.0408	0.991	0.0390					
16	1.613	0.063	0.567	0.0617	1.60	0.063	1.55	0.061	100
	1.608	0.633	1.562	0.0615					
12	2.413	0.0950	2.367	0.0932	2.41	0.095	2.36	0.093	198
	2.408	0.0948	2.362	0.0930					

- Notes:**
1. Material - gauging steel, all sharp edges to be removed.
 2. Gauging surfaces to be:
 - a. Hardened and tempered to 650 HV 20.
 - b. Ground and lapped to the surface finish shown above.
 3. These gauges to be used for testing fully assembled components only.
 4. Tolerance in respect of weight shall be ± 1 gramme.
 5. Shank diameters L and L₁ to be such as will permit unrestricted access of gauge.

ANNEX D



TEST PROD TOOL
IN ACCORDANCE WITH CC/C 1193

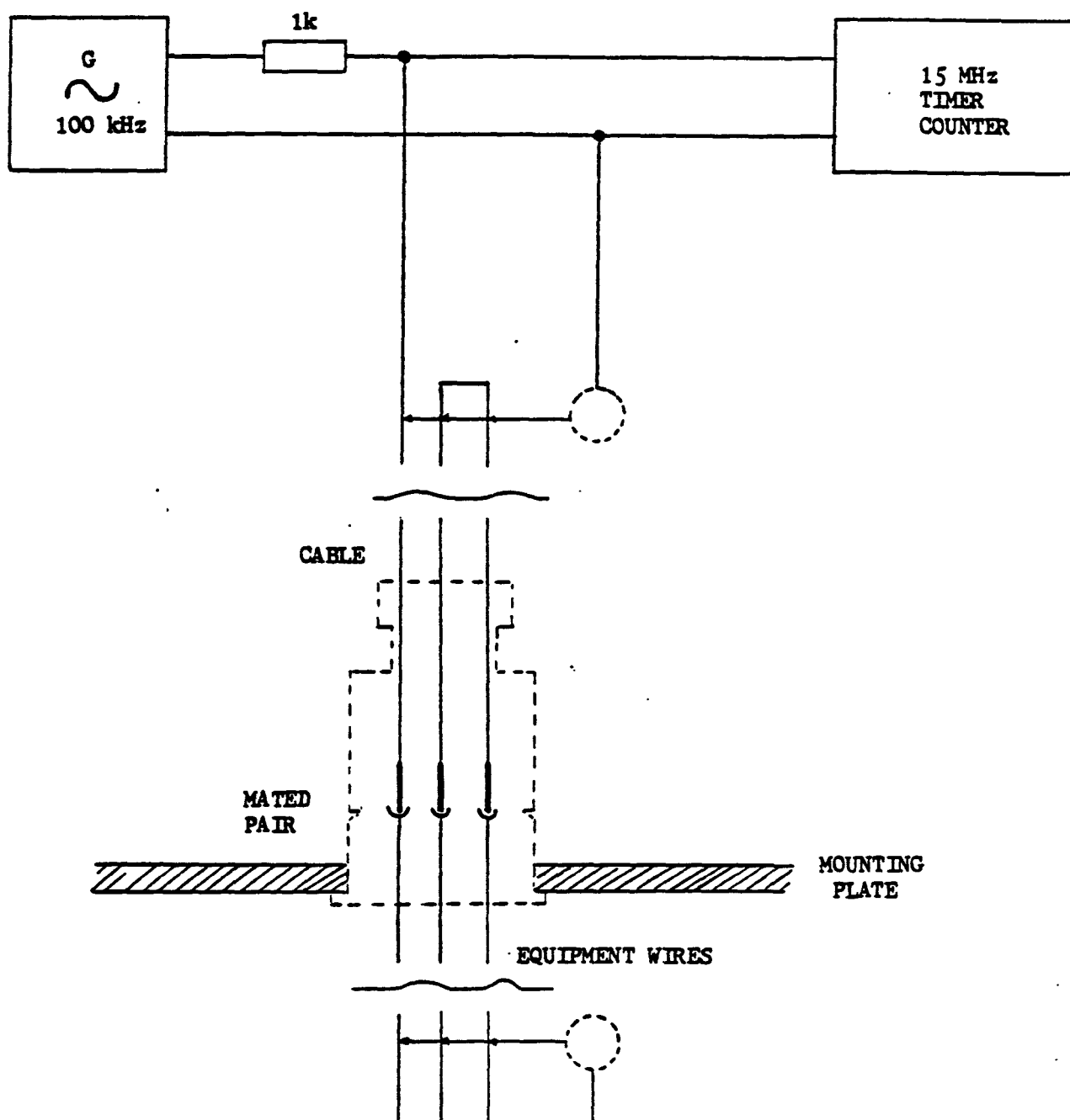


THE LENGTH OF PROD AND DIAMETER 'B' VARY. ALL OTHER DIMENSIONS AS L.H. ILLUSTRATION

CONTACT SIZE	DIMENSIONS							
	B		C		D		E	
	mm	in	mm	in	mm	in	mm	in
20	0.996 0.991	0.0392 0.0390	7.67 7.62	0.302 0.300	5.77 5.72	0.227 0.225	3.86 3.81	0.152 0.150
16	1.567 1.562	0.0617 0.0615						
12	2.367 2.362	0.0932 0.0930						

ANNEX E

TYPICAL CIRCUIT FOR INDICATING INTERMITTENT CONTACT AT COUPLING



ANNEX F

CONTACT ARRANGEMENTS

SHELL SIZE	ARRANGEMENTS	NO OF CONTACTS	CONTACT SIZE	CURRENT RATING	VOLTAGE RATING (SEE NOTE)
8	33	3	20	5	1
10	2	2	16	15	2
10	6	6	20	5	1
12	3	3	16	15	2
12	10	10	20	5	1
14	5	5	16	15	2
14	19	19	20	5	1
16	4	4	12	24	3
16	8	8	16	15	2
16	26	26	20	5	1
18	11	11	16	15	2
18	32	32	20	5	1
20	16	16	16	15	2
20	41	41	20	5	1
22	21	21	16	15	2
22	55	55	20	5	
24	61	61	20	5	1

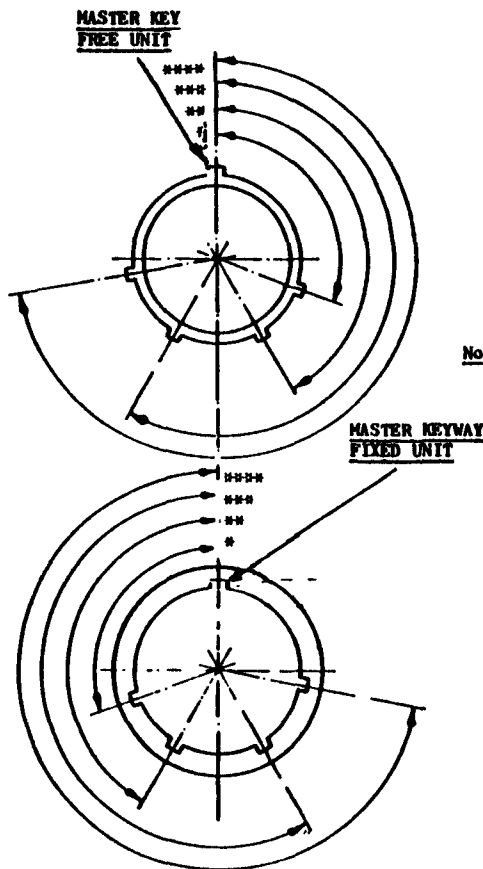
Note:

VOLTAGE RATING

1. Denotes 700 v working d.c. at sea level.
2. Denotes 1250 v working d.c. at sea level.
3. Denotes 1500 v working d.c. at sea level.

CONTACT ARRANGEMENTS AND POLARIZATION AVAILABILITY

CORRESPONDING CONTROL DRAWING: CC/1564



POLARIZATION VIEWED FROM MATING FACE

Note:

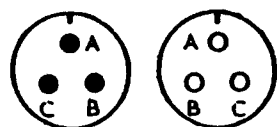
POLARIZATION IS ACHIEVED BY VARYING THE ANGULAR RELATIONSHIP OF THE GROUP OF MINOR KEYS (FREE UNIT) OR KEYWAYS (FIXED UNIT) TO THE MASTER KEY (FREE UNIT) OR KEYWAY (FIXED UNIT). THE POSITION OF THE INSERT (PLUG AND SOCKET) REMAINS CONSTANT TO THE MASTER KEY OR KEYWAY.

SEE PAGE 38 FOR SPECIFIC ANGLES AND SHELL SIZES

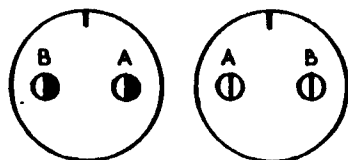
POLARIZATION AVAILABILITY

SHELL SIZE	NORMAL				B				C				E				F			
	*	**	***	****	*	**	***	****	*	**	***	****	*	**	***	****	*	**	***	****
8	105°	140°	215°	265°	NOT USED				NOT USED				118°	148°	248°	278°	82°	132°	207°	252°
10	105°	140°	215°	265°	85°	120°	195°	245°	125°	160°	235°	285°	115°	145°	245°	275°	85°	135°	210°	255°
12	105°	140°	215°	265°	89°	124°	199°	249°	121°	156°	231°	281°	115°	145°	245°	275°	85°	135°	210°	255°
14	105°	140°	215°	265°	91°	126°	201°	251°	119°	154°	229°	279°	75°	105°	205°	235°	120°	170°	245°	280°
16	105°	140°	215°	265°	93°	128°	203°	253°	117°	152°	227°	277°	75°	105°	205°	235°	120°	170°	245°	280°
18	105°	140°	215°	265°	95°	130°	205°	255°	115°	150°	225°	275°	75°	105°	205°	235°	120°	170°	245°	280°
20	105°	140°	215°	265°	95°	130°	205°	255°	115°	150°	225°	275°	75°	105°	205°	235°	120°	170°	245°	280°
22	105°	140°	215°	265°	97°	132°	207°	257°	113°	148°	223°	273°	75°	105°	205°	235°	120°	170°	245°	280°
24	105°	140°	215°	265°	97°	132°	207°	257°	113°	148°	223°	273°	75°	105°	205°	235°	120°	170°	245°	280°

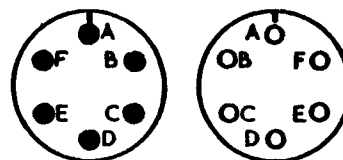
CONTACT ARRANGEMENTS [VIEWED FROM MATING FACE]



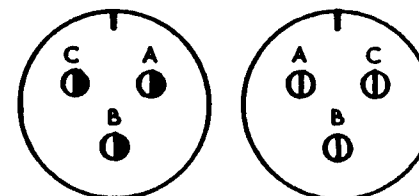
8-33



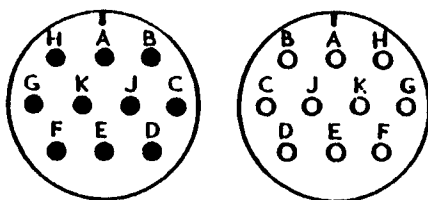
10-2



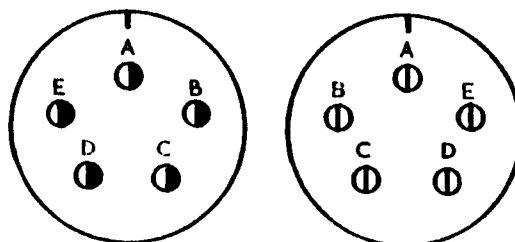
10-6



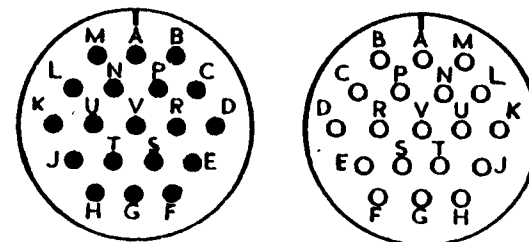
12-3



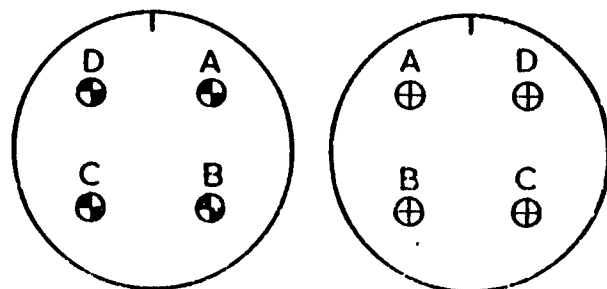
12-10



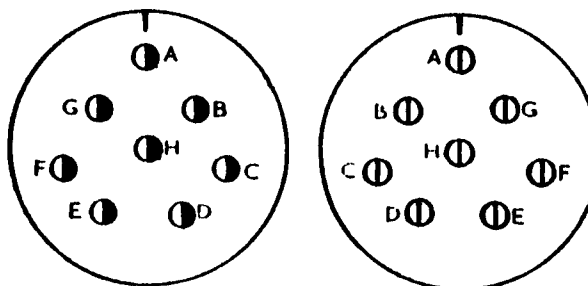
14-5



14-19



16-4



16-8

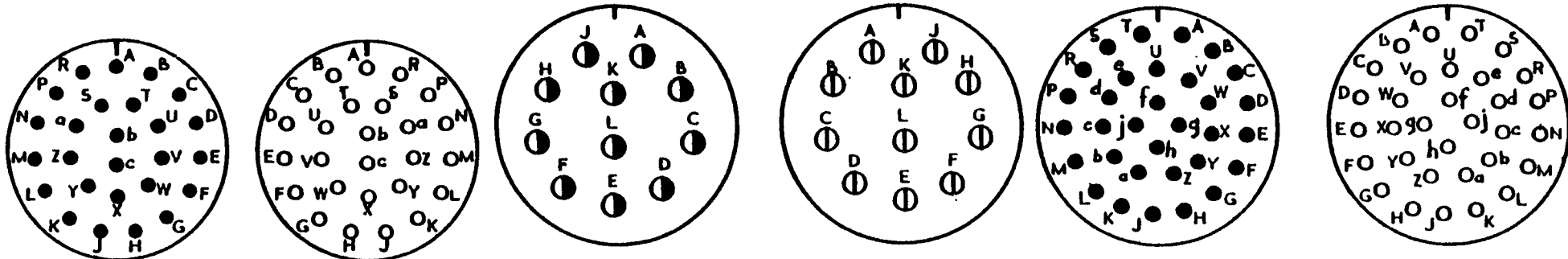
TYPE	POLARIZATION				
	N	B	C	E	F
8-33	X	—	—	X	X
10-2	X	X	X	X	X
10-6	X	X	X	X	X
12-3	X	X	X	X	X
12-10	X	X	X	X	X
14-5	X	X	X	X	X
14-19	X	X	X	X	X
16-4	X	X	X	X	X
16-8	X	X	X	X	X

SIZE 20 MALE CONTACTS —●—
FEMALE CONTACTS —○—

SIZE 12 MALE CONTACTS —●—
FEMALE CONTACTS —○—

SIZE 16 MALE CONTACTS —●—
FEMALE CONTACTS —○—

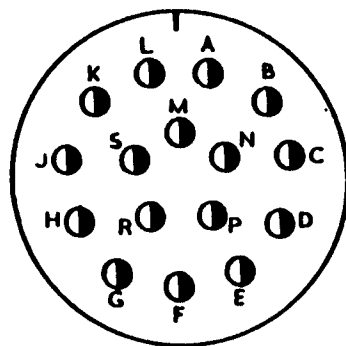
CONTACT ARRANGEMENTS [VIEWED FROM MATING FACE]



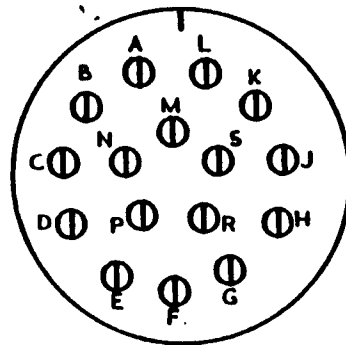
16-26

18-11

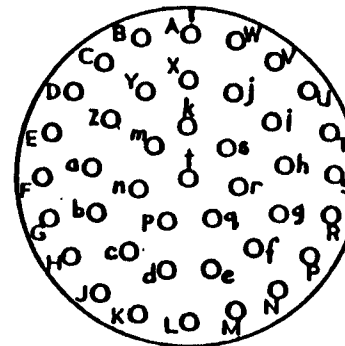
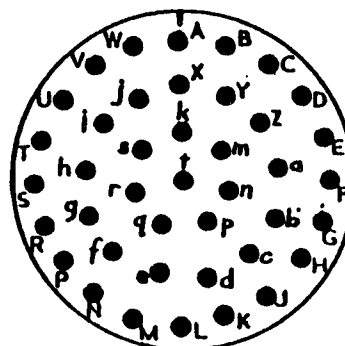
18-32



20-16



20-41

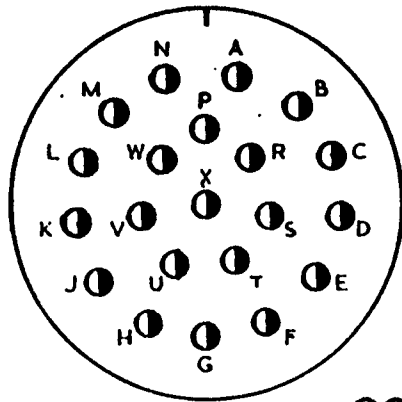


TYPE	POLARIZATION				
	N	B	C	E	F
16-26	X	X	X	X	X
18-11	X	X	X	X	X
18-32	X	X	X	X	X
20-16	X	X	X	X	X
20-41	X	X	X	X	X

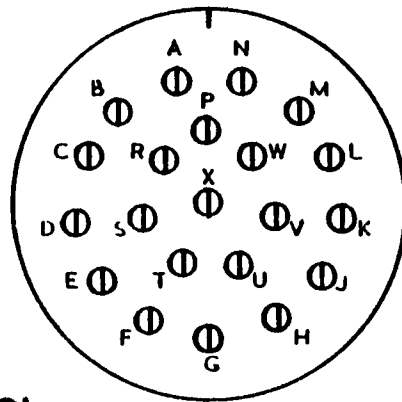
SIZE 20 MALE CONTACTS — ●
FEMALE CONTACTS — ○

SIZE 16 MALE CONTACTS — ⊙
FEMALE CONTACTS — ⊖

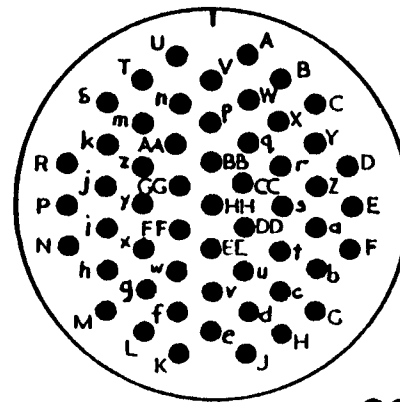
CONTACT ARRANGEMENTS [VIEWED FROM MATING FACE]



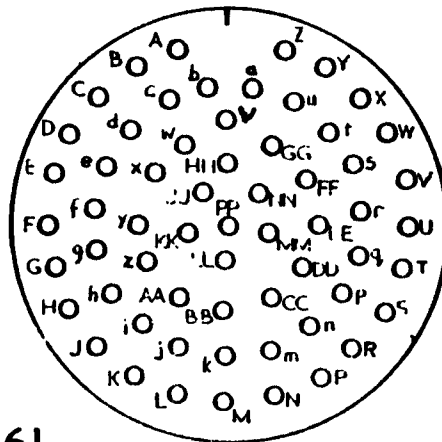
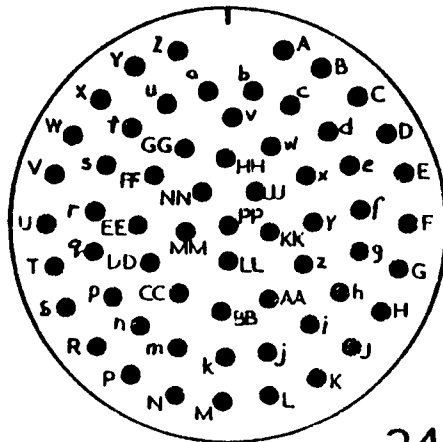
22-21



22-55



24-61



TYPE	POLARIZATION				
	N	B	C	E	F
22-21	X	X	X	X	X
22-55	X	X	X	X	X
24-61	X	X	X	X	X

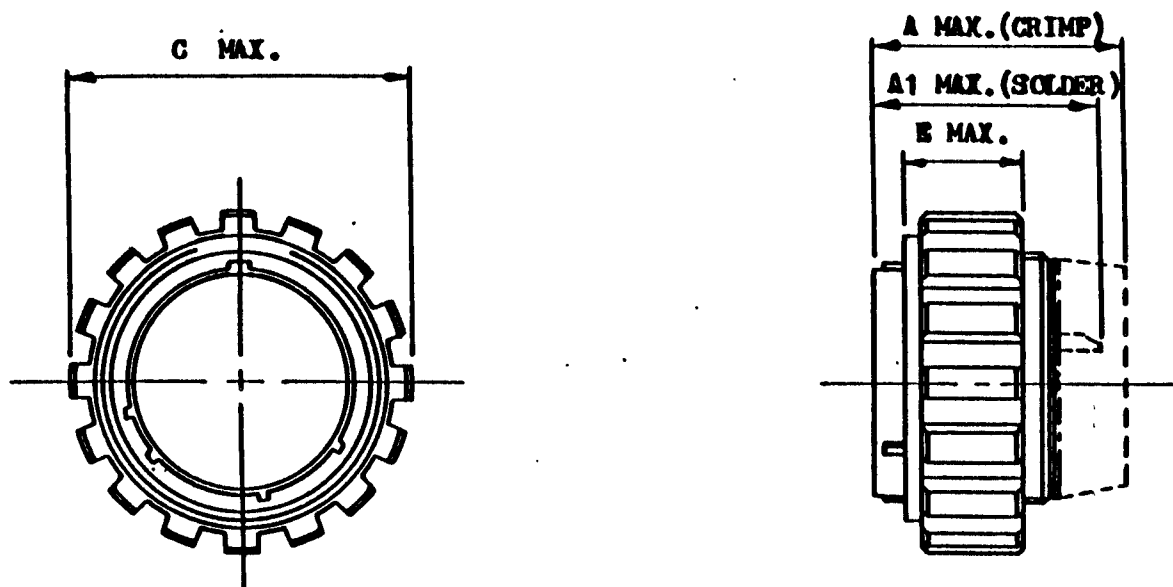
SIZE 20	MALE CONTACTS ——— •
	FEMALE CONTACTS ——— ○

SIZE 16	MALE CONTACTS ——— ●
	FEMALE CONTACTS ——— ○

ANNEX G

OUTLINE DIMENSIONS AND PANEL CUTOUTS

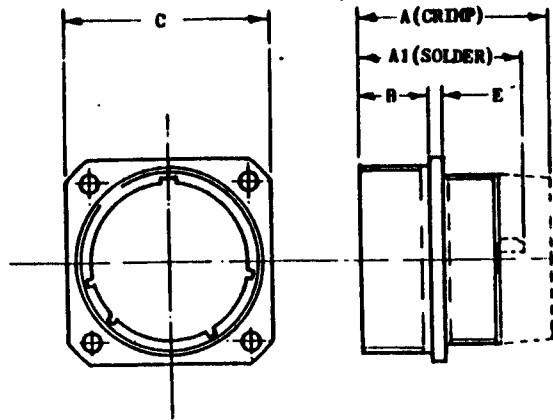
PLUGS AND SOCKETS (CONNECTORS), FREE, WITH ACCESSORY THREAD AND COARSE RIBBED COUPLING NUT



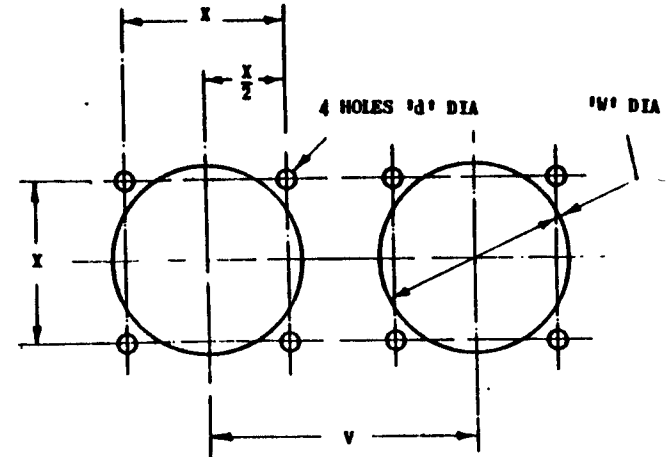
ORIGINAL DIMENSIONS IN INCHES
CORRESPONDING CONTROL DRAWING: CC/1560

SHELL SIZE	DIMENSIONS								MAX. MASS (g)
	C MAX.		A MAX.		A1 MAX.		E MAX.		
	mm	in	mm	in	mm	in	mm	in	
8	21.03	0.828	33.0	1.30	25.35	0.998	14.73	0.580	26
10	23.80	0.937							34
12	28.17	1.109							44
14	31.24	1.234							59
16	36.50	1.437					16.26	0.640	76
18	39.27	1.546							96
20	42.42	1.670							115
22	45.21	1.780							135
24	48.39	1.905						154	

**OUTLINE DIMENSIONS AND PANEL CUTOUTS
PLUGS AND SOCKETS (CONNECTORS), FIXED FLANGE MOUNTING, WITH ACCESSORY THREAD**



ORIGINAL DIMENSIONS IN INCHES

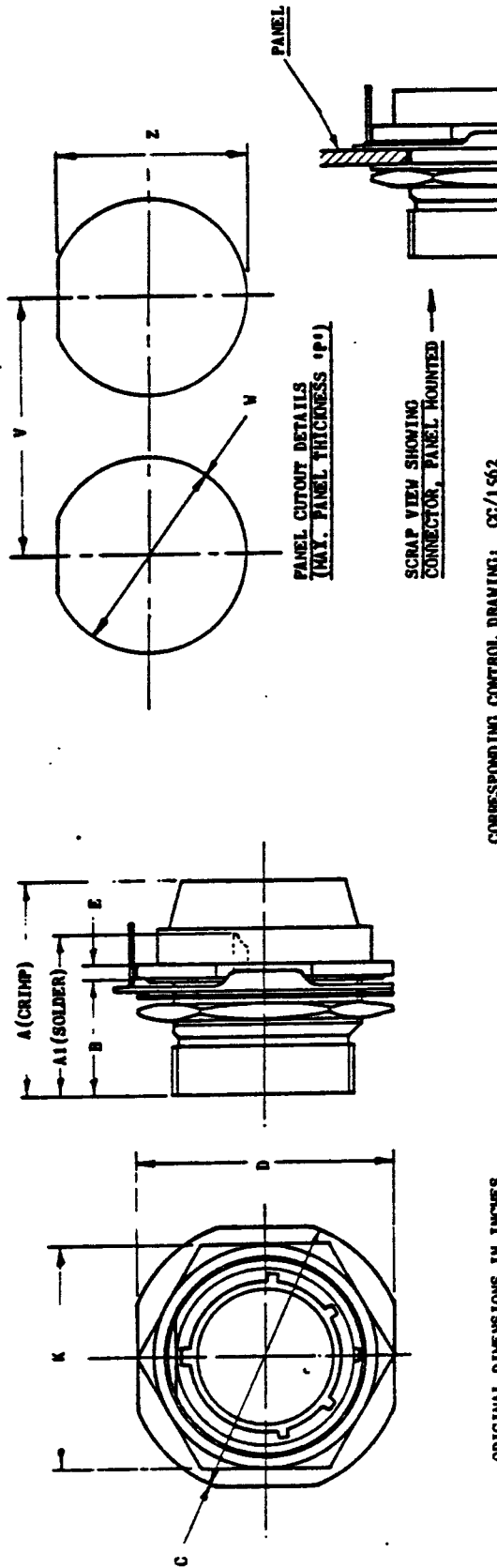


PANEL CUTOUT DETAILS
(MAX. PANEL THICKNESS .01)

CORRESPONDING CONTROL DRAWING: CG/1561

SHELL SIZE	SQUARE C MAX.		A MAX.		A1 MAX		B MAX.		E MAX.		X (TP)		W DIA		V MIN.		d DIA		P MAX.		MAX. MASS (g)
	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	+0.25 mm	+0.010 in	mm	in	+0.13 mm	+0.005 in	mm	in	
8	21.03	0.828	33.00	1.30	25.60	1.008	11.70	0.460	1.80	0.070	15.088	0.594	14.30	0.56	22.61	0.890	3.30	0.130	2.54	0.100	16
10	24.23	0.954									18.263	0.719	17.27	0.68	25.37	0.999					23
12	26.59	1.047									20.625	0.812	21.34	0.84	29.74	1.171					31
14	28.98	1.141									23.012	0.906	24.38	0.96	32.92	1.296					42
16	31.12	1.225									24.613	0.969	27.71	1.09	38.07	1.499					56
18	33.73	1.328									26.975	1.062	30.89	1.21	40.84	1.608					62
20	36.91	1.453	34.80	1.37	27.15	1.069	14.70	0.580	2.50	0.100	29.362	1.156	34.06	1.34	43.99	1.732	4.10	0.165	4.06	0.160	89
22	40.08	1.578									31.750	1.250	37.08	1.46	46.79	1.842					106
24	43.26	1.703					34.925	1.375			40.44	1.59	49.96	1.967	124						

OUTLINE DIMENSIONS AND PANEL CUTOUTS
PLUGS AND SOCKETS (CONNECTORS) FIXED, SINGLE HOLE MOUNTING WITH GROOVET SEAL



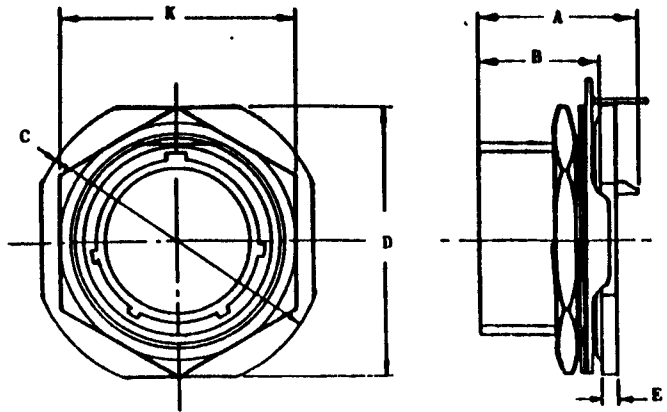
ORIGINAL DIMENSIONS IN INCHES

CORRESPONDING CONTROL DRAWING: CC/1562

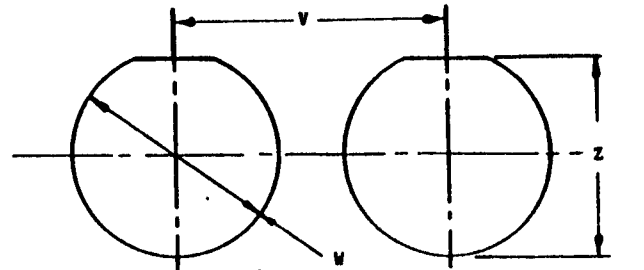
SHELL SIZE	A MAX.		A1 MAX.		B MAX.		C MAX. DIA.		D MAX.		E MAX.		P MAX.		K MAX.		V MIN.		W		Z		MAX. MASS (g)
	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	
8							27.43	1.080	24.23	0.954					19.30	0.760	27.30	1.075	15.90	0.626	14.94	0.588	39
10							30.50	1.200	27.38	1.078					22.60	0.890	30.48	1.200	18.92	0.745	17.91	0.705	53
12	33.00	1.30	25.60	1.008	18.03	0.710	35.30	1.390	32.16	1.266	3.30	0.130	2.54	0.100	27.20	1.070	35.31	1.390	23.69	0.933	22.33	0.879	70
14							38.40	1.510	35.33	1.391					30.50	1.200	38.35	1.510	26.77	1.054	25.45	1.002	85
16							41.70	1.640	38.51	1.516					33.50	1.320	41.66	1.640	29.95	1.179	28.65	1.128	104
18							44.70	1.760	41.68	1.641					36.80	1.450	44.70	1.760	33.12	1.304	31.83	1.259	126
20					22.90	0.900	49.50	1.950	46.43	1.828					39.90	1.570	49.28	1.940	36.29	1.429	35.00	1.378	152
22	34.80	1.37	27.15	1.069			52.60	2.070	49.63	1.954	4.10	0.160	6.10	0.240	43.20	1.700	52.70	2.075	39.47	1.554	38.18	1.503	182
24					23.00	0.900	55.68	2.192	52.78	2.078					46.20	1.820	55.88	2.200	42.65	1.679	41.35	1.628	215

OUTLINE DIMENSIONS AND PANEL CUTOUTS

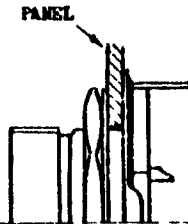
PLUGS AND SOCKETS (CONNECTORS), FIXED, SINGLE HOLE MOUNTING (SOLDER TYPE)



ORIGINAL DIMENSIONS IN INCHES



PANEL CUTOUT DETAILS
(MAX. PANEL THICKNESS .01)

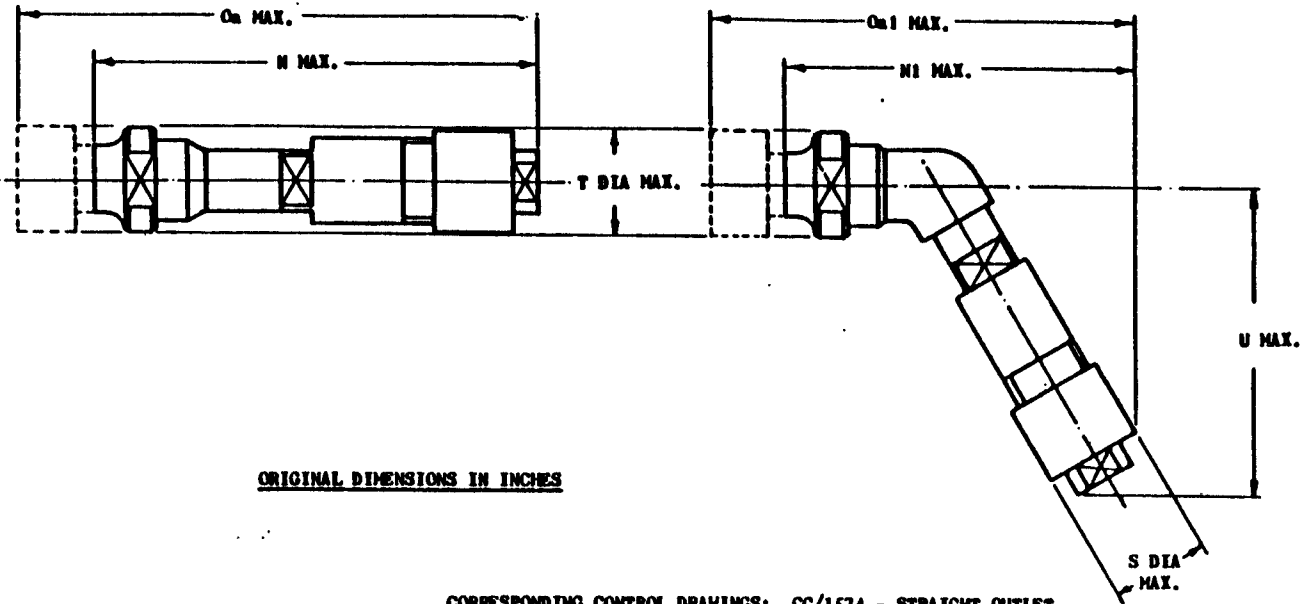


SCRAP VIEW SHOWING
CONNECTOR, PANEL MOUNTED

CORRESPONDING CONTROL DRAWING: CC/1563

SHELL SIZE	A MAX.		B MAX.		C MAX. DIA		D MAX.		E MAX.		P MAX.		K MAX.		V MIN.		W		Z		MAX. MASS (g)
																	±0.13	±.005	±0.13	±.005	
	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	
8					27.40	1.080	24.23	0.954					19.3	0.76	27.30	1.075	15.90	0.626	14.94	0.588	29
10					30.50	1.200	27.38	1.078					22.6	0.89	30.48	1.200	18.92	0.745	17.91	0.705	38
12	25.60	1.008	19.03	0.710	35.30	1.390	32.16	1.266	3.30	0.130	2.54	0.100	27.2	1.07	35.31	1.390	23.60	0.933	22.33	0.879	49
14					38.40	1.510	35.31	1.391					30.5	1.20	38.35	1.510	26.77	1.054	25.45	1.002	63
16					41.70	1.641	38.51	1.516					33.5	1.32	41.66	1.640	29.95	1.179	28.65	1.128	81
18					44.70	1.760	41.66	1.641					36.8	1.45	44.70	1.760	33.12	1.304	31.83	1.253	106
20					49.50	1.950	46.41	1.828					39.9	1.57	49.28	1.940	36.29	1.429	35.00	1.378	130
22	27.15	1.069	22.90	0.900	52.60	2.070	49.63	1.954	4.10	0.160	6.10	0.240	43.2	1.70	52.70	2.075	39.47	1.554	38.18	1.503	158
24			23.90	0.940	55.68	2.192	52.78	2.078					46.2	1.82	55.88	2.200	42.65	1.679	41.35	1.628	188

SHIELDS, ELECTRICAL PLUG-SOCKET
OUTLINE DIMENSIONS



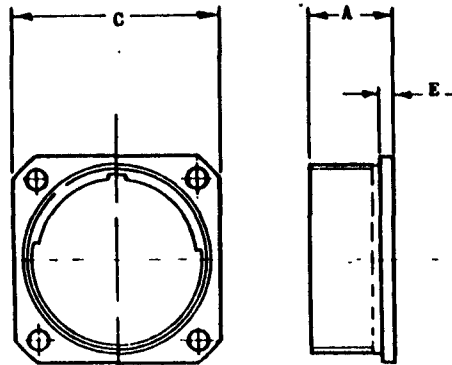
ORIGINAL DIMENSIONS IN INCHES

CORRESPONDING CONTROL DRAWINGS: CC/1574 - STRAIGHT OUTLET
CC/1575 - ANGLED OUTLET

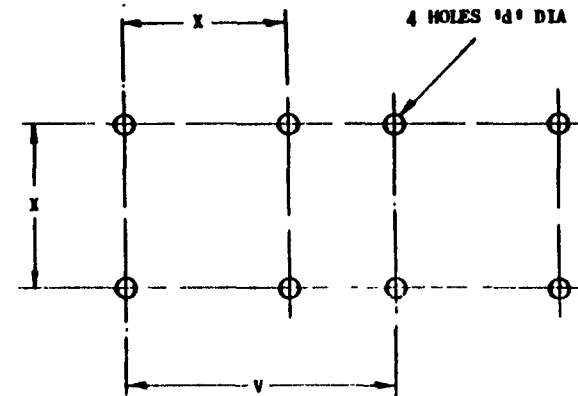
SHELL SIZE	DIMENSIONS														MAX. MASS (g)	
	Oa MAX.		Oa1 MAX.		N MAX.		N1 MAX.		S DIA MAX.		T DIA MAX.		U MAX.			
	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	STR	ANO
8	107.2	4.22	95.0	3.74	90.7	3.57	78.5	3.09	19.94	0.785	21.03	0.828	64.30	2.53	85	96
10			97.8	3.85			81.3	3.20	23.11	0.910	23.80	0.937	65.80	2.59	110	131
12			102.6	4.04			86.1	3.39	26.69	1.035	28.17	1.109	67.80	2.67	134	163
14			103.9	4.09			87.4	3.44	27.89	1.098	31.34	1.334	69.10	2.72	157	200
16			108.2	4.26			91.7	3.61	31.06	1.223	36.50	1.437	71.10	2.80	182	235
18	110.5	4.35	111.8	4.40			95.3	3.75	35.81	1.410	39.27	1.546	72.90	2.87	206	270
20			116.1	4.57			96.0	3.78	37.41	1.473	42.42	1.670	73.90	2.91	235	304
22			119.9	4.72			99.8	3.93	38.99	1.535	45.21	1.780	75.20	2.96	255	340
24			124.5	4.90			104.4	4.11	45.34	1.785	48.39	1.905	77.72	3.06	279	374

OUTLINE DIMENSIONS AND PANEL CUTOUTS

DUMMY ELECTRICAL PLUG-SOCKET (STORAGE SHELL SQUARE PLANGE)



ORIGINAL DIMENSIONS IN INCHES

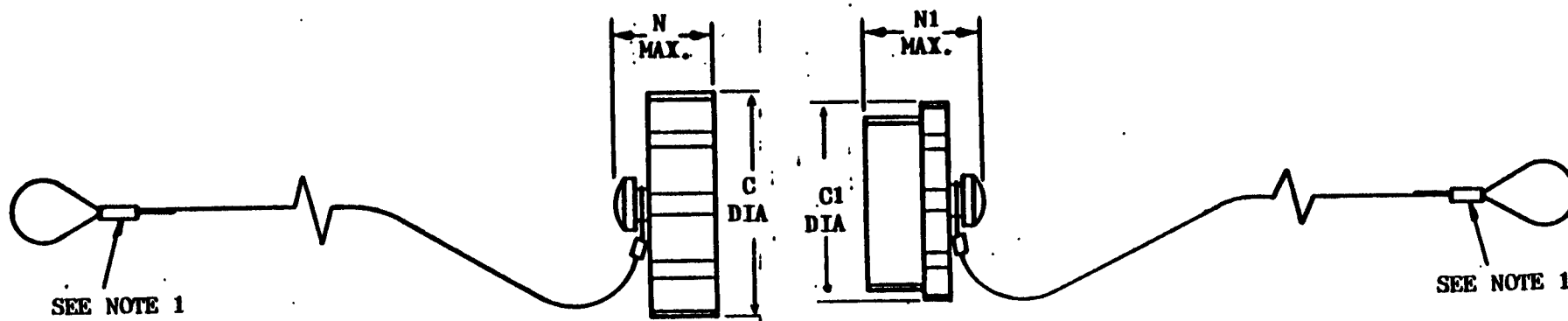


PANEL CUTOUT DETAILS
(MAX. PANEL THICKNESS 1P)

CORRESPONDING CONTROL DRAWING: CC/1576

SHELL SIZE	SQUARE C MAX.		A MAX.		E MAX.		X (TP)		V MIN.		d DIA		P MAX.		MAX. MASS (g)
	mm	in	mm	in	mm	in	mm	in	mm	in	mm +0.13	in +0.005	mm	in	
8	21.03	0.828	13.2	0.52	1.8	0.07	15.088	0.594	22.61	0.890	3.30	0.130	2.54	0.100	10
10	24.23	0.954					18.263	0.719	25.37	0.999					15
12	26.59	1.047					20.625	0.812	29.74	1.171					21
14	28.98	1.141					23.012	0.906	32.92	1.296					28
16	31.12	1.225					24.613	0.969	38.07	1.499					38
18	33.73	1.328	17.0	0.67	2.5	0.10	26.975	1.062	40.84	1.608	4.19	0.165	4.06	0.160	41
20	36.91	1.453					29.362	1.156	43.99	1.732					87
22	40.08	1.578					31.750	1.250	46.79	1.842					91
24	43.26	1.703					34.925	1.375	49.96	1.967					118

OUTLINE DIMENSIONS
COVERS, ELECTRICAL PLUG-SOCKET



ORIGINAL DIMENSIONS IN INCHES

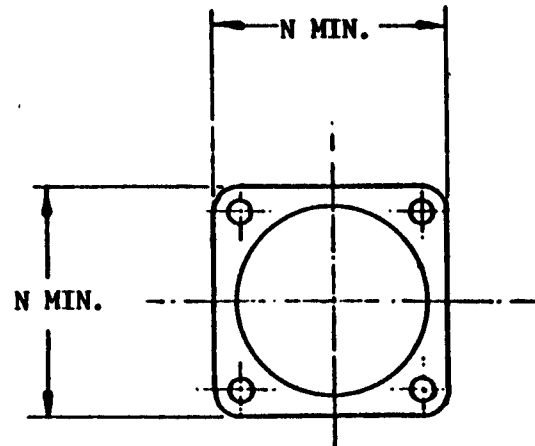
CORRESPONDING CONTROL DRAWING: CC/1577
CC/1578

SHELL SIZE	DIMENSIONS								MAX. MASS (g)	
	N MAX.		C MAX.		N1 MAX.		C1 MAX.		FIXED	FREE
	mm	in	mm	in	mm	in	mm	in		
8	16.3	0.64	22.1	0.87	18.5	0.73	17.55	0.691	19	12
10			24.9	0.98			20.50	0.807	25	17
12			29.0	1.14			24.56	0.967	30	22
14			32.3	1.27			27.74	1.092	34	28
16			35.3	1.39	20.1	0.79	30.94	1.218	39	34
18			38.6	1.52			34.11	1.343	44	40
20			41.7	1.64			37.29	1.468	49	46
22			45.0	1.77			40.49	1.594	54	52
24			48.0	1.89			43.64	1.718	59	57

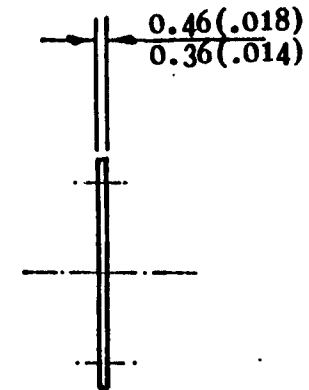
Approximately 457.20 mm (18 in) of flexible cord supplied.

Note 1: Ferrule crimped on installation.

OUTLINE DIMENSIONS
GASKETS



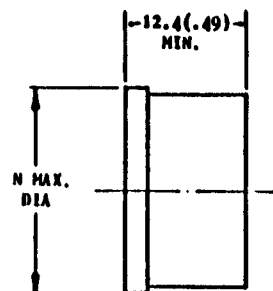
ORIGINAL DIMENSIONS IN INCHES



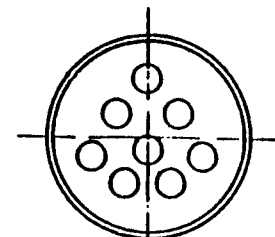
CORRESPONDING CONTROL DRAWING: CC/1583

SHELL SIZE	N MIN.	
	mm	in
(a)	(b)	(c)
8	20.78	0.818
10	23.98	0.944
12	26.34	1.037
14	28.73	1.131
16	30.85	1.215
18	33.48	1.318
20	36.65	1.443
22	39.83	1.563
24	43.00	1.693

OUTLINE DIMENSIONS
BUSHINGS, RUBBER
OROMET MOISTURE SEAL (SOLDER VERSIONS)



ORIGINAL DIMENSIONS IN INCHES

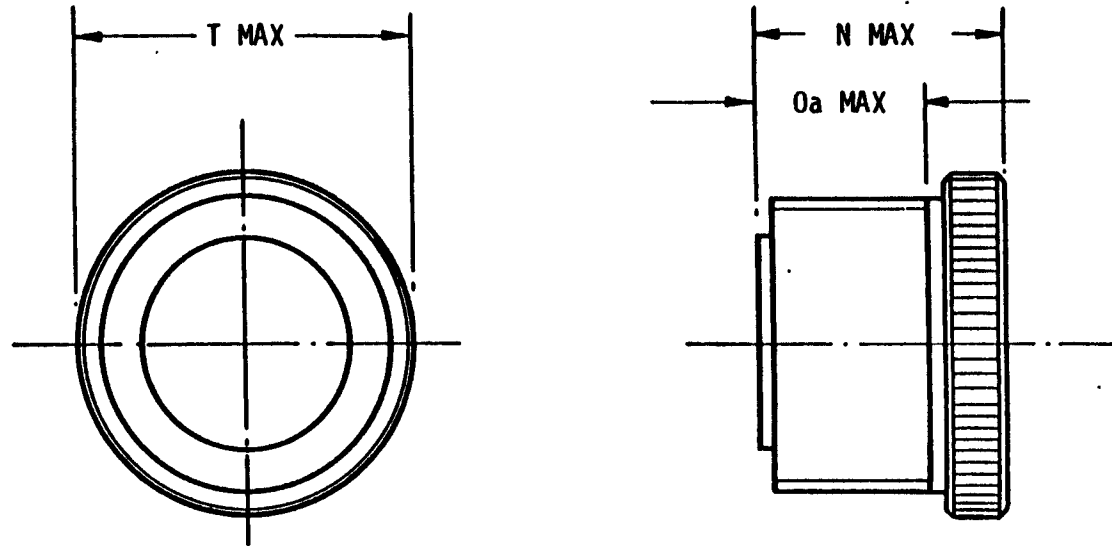


CORRESPONDING CONTROL DRAWING: CC/1580

CONTACT ARRANGEMENT	N MAX. DIAMETER		MAX. MASS (g)
	mm	in	
(a)	(b)	(c)	(d)
8-33	8.74	0.344	0.8
10-2	11.73	0.462	1.5
10-6	11.73	0.462	1.5
12-3	14.91	0.587	2.4
12-10	14.91	0.587	2.4
14-5	17.93	0.706	3.5
14-19	17.93	0.706	3.5
16-4	21.13	0.832	4.5
16-8	21.13	0.832	4.5
16-26	21.13	0.832	4.5
18-11	23.62	0.930	5.9
18-32	23.62	0.930	5.9
20-16	26.80	1.055	7.4
20-41	26.80	1.055	7.4
22-21	29.97	1.180	9.0
22-55	29.97	1.180	9.0
24-61	33.22	1.308	11.0

OUTLINE DIMENSIONS

NUT AND FERRULE ASSEMBLY FOR PLUG AND SOCKET SINGLE HOLE MOUNTING WITH GROMMET SEAL

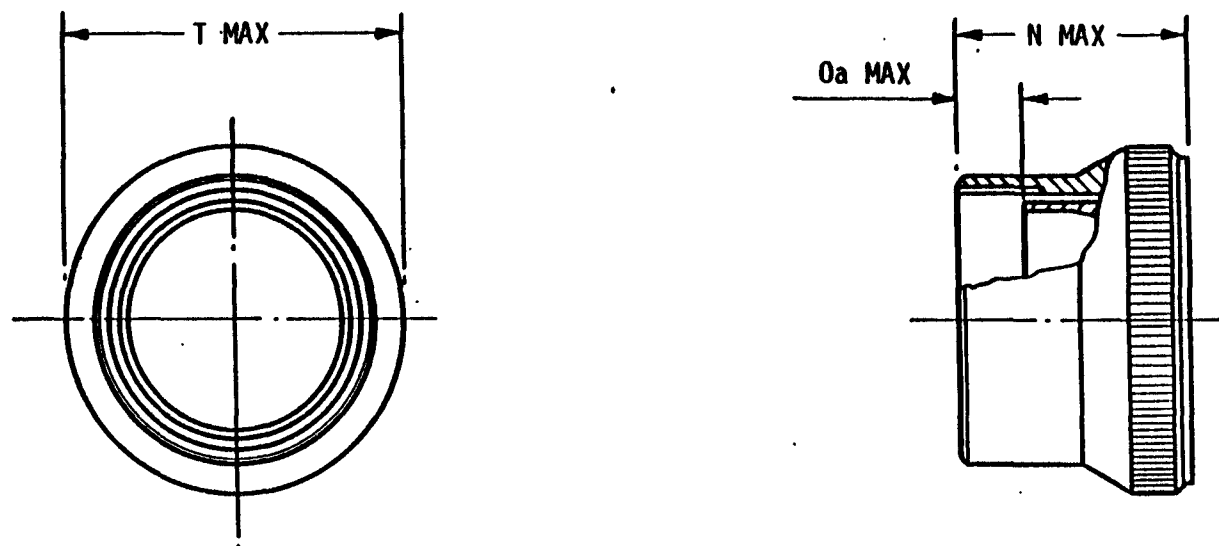


ORIGINAL DIMENSIONS IN INCHES

CORRESPONDING CONTROL DRAWINGS: CC/1585/001 to 009

SHELL SIZE	DIMENSIONS						MAX. MASS (g)
	Oa MAX.		N MAX.		T MAX.		
	mm	in	mm	in	mm	in	
8	7.87	0.310	11.94	0.470	18.8	0.74	11
10					22.1	0.87	14
12					25.1	0.99	17
14					28.4	1.12	19
16					31.5	1.24	22
18					34.8	1.37	24
20					37.8	1.49	28
22					41.1	1.62	30
24					44.2	1.74	33

OUTLINE DIMENSIONS
NUT AND FERRULE ASSEMBLY FOR PLUG AND SOCKET FREE AND FIXED SQUARE FLANGE

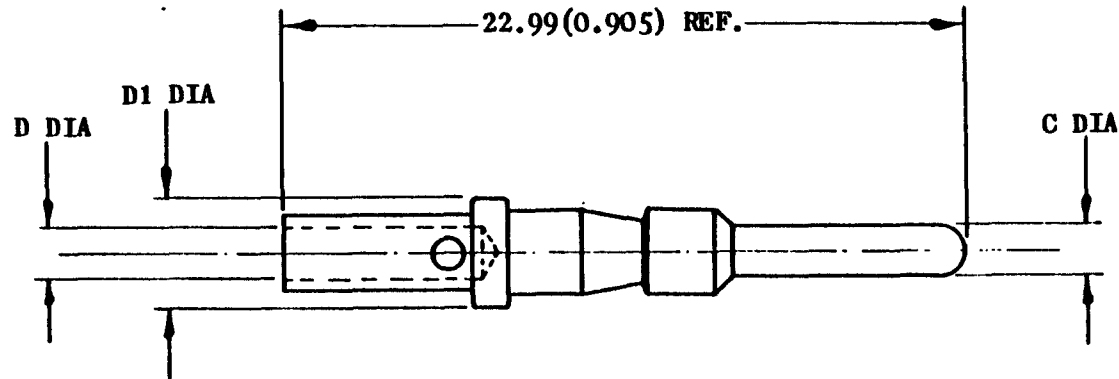


ORIGINAL DIMENSIONS IN INCHES
CORRESPONDING CONTROL DRAWING: CC/1586/001 to 009

SHELL SIZE.	DIMENSIONS						MAX. MASS (g)
	Oa MAX.		N MAX.		T MAX.		
	mm	in	mm	in	mm	in	
8					17.5	0.69	11
10					20.8	0.82	17
12					23.9	0.94	21
14					27.2	1.07	26
16					30.2	1.19	30
18					33.5	1.32	35
20					36.6	1.44	40
22					39.9	1.57	45
24					42.9	1.69	50

OUTLINE DIMENSIONS

CONTACT, ELECTRICAL REMOVABLE MALE CONTACT (CRIMP TYPE)



ORIGINAL DIMENSIONS IN INCHES

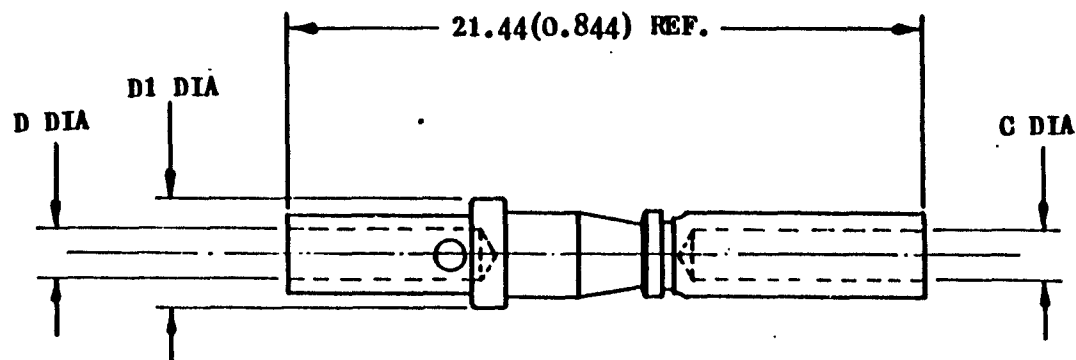
MATERIAL Cu ALLOY

CORRESPONDING CONTROL DRAWING: CC/1584

CONTACT SIZE	C DIA		D DIA		D1 DIA		MAX. MASS (g)
	mm	in	mm	in	mm	in	
20	1.04 max. 0.99 min.	0.041 max. 0.039 min.	1.27 max. 1.22 min.	0.050 max. 0.048 min.	2.62 max. 2.54 min.	0.103 max. 0.100 min.	0.4
16	1.61 max. 1.56 min.	0.0635 max. 0.0615 min.	1.73 max. 1.68 min.	0.068 max. 0.066 min.	3.76 max. 3.66 min.	0.148 max. 0.144 min.	0.8
12	2.41 max. 2.36 min.	0.095 max. 0.093 min.	2.59 max. 2.49 min.	0.102 max. 0.098 min.	5.13 max. 5.03 min.	0.202 max. 0.198 min.	1.2

OUTLINE DIMENSIONS

CONTACT, ELECTRICAL
REMOVABLE FEMALE CONTACT (CRIMP TYPE)

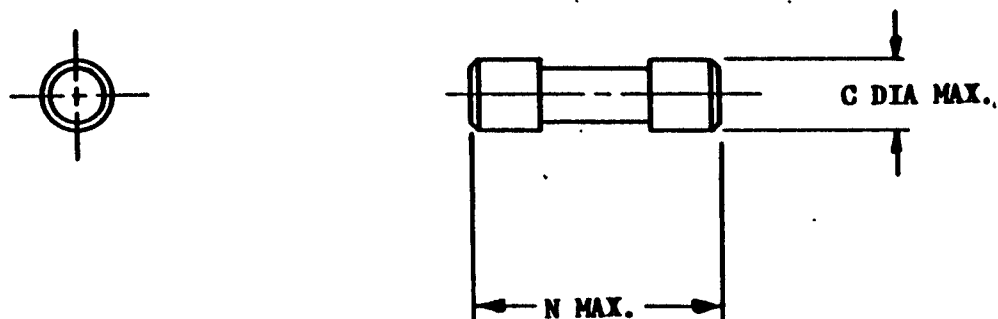


ORIGINAL DIMENSIONS IN INCHES

MATERIAL Cu ALLOY

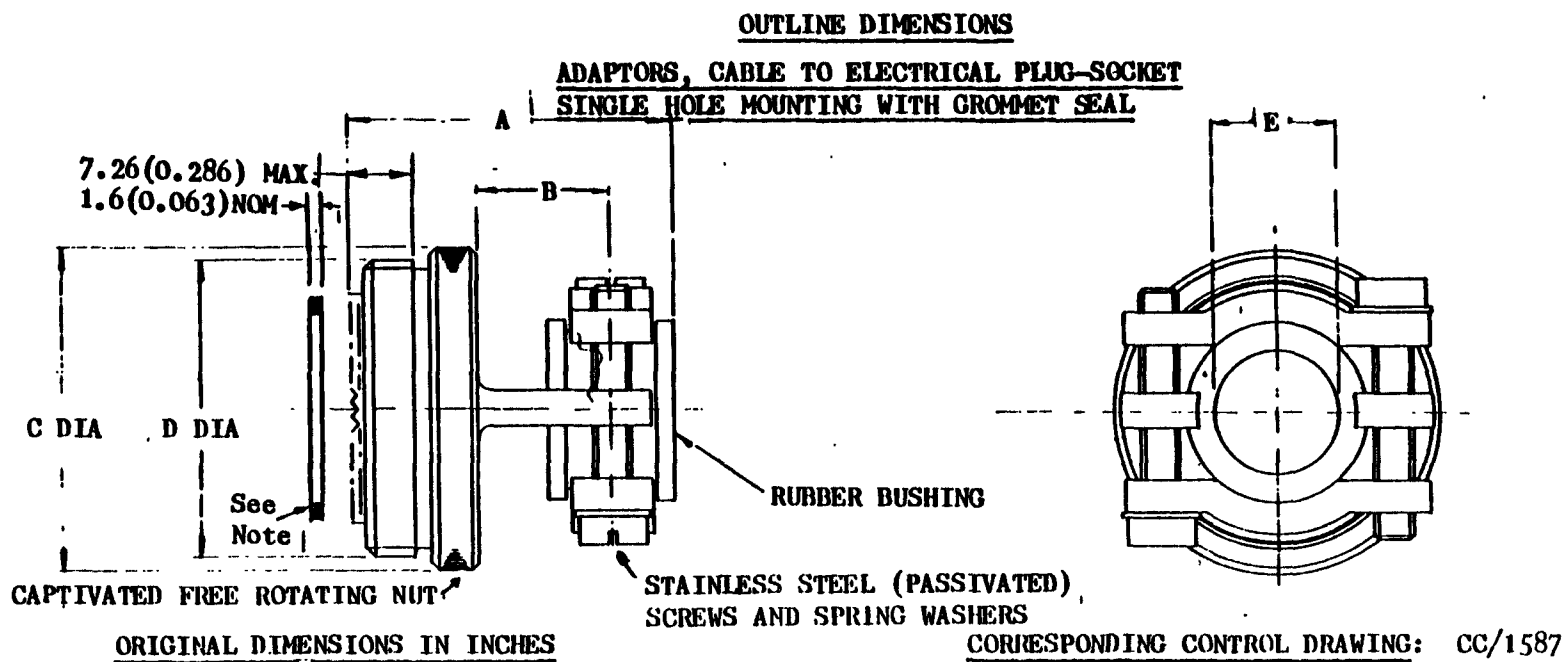
CORRESPONDING CONTROL DRAWING: CC/1584

CONTACT SIZE	C DIA		D DIA		D1 DIA		MAX. MASS (g)
	mm	in	mm	in	mm	in	
20	1.12 max. 1.07 min.	0.044 max. 0.042 min.	1.27 max. 1.22 min.	0.050 max. 0.048 min.	2.62 max. 2.54 min.	0.103 max. 0.100 min.	0.4
16	1.73 max. 1.65 min.	0.068 max. 0.065 min.	1.73 max. 1.68 min.	0.068 max. 0.066 min.	3.76 max. 3.66 min.	0.148 max. 0.144 min.	0.8
12	2.54 max. 2.46 min.	0.100 max. 0.097 min.	2.59 max. 2.49 min.	0.102 max. 0.098 min.	5.13 max. 5.03 min.	0.202 max. 0.198 min.	1.2

OUTLINE DIMENSIONSPLUG, PROTECTIVE, DUST AND MOISTURE SEAL
(FILLER PLUG)

ORIGINAL DIMENSIONS IN INCHES
CORRESPONDING CONTROL DRAWING: CC/1579/001 to 003 inclusive

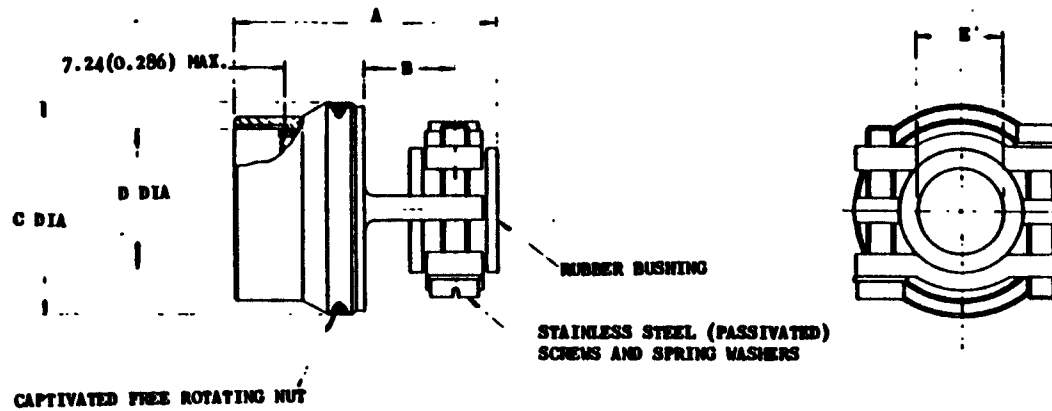
CONTACT SIZE	DIMENSIONS				COLOUR CODE
	N MAX.		C DIA MAX.		
	mm	in	mm	in	
20	8.6	0.34	2.11	0.083	RED
16	8.6	0.34	3.68	0.145	BLUE
12	8.6	0.34	4.57	0.180	YELLOW



SHELL SIZE	A MAX.		B MIN.		C MAX. DIA		D DIA CLASS 2 A UNEF	E NOM DIA		MAX. MASS (g)
	mm	in	mm	in	mm	in		mm	in	
8	27.61	1.087	8.76	0.345	18.80	0.740	5/8 - 24	3.18	0.125	UNDER CONSIDERATION
10	27.61	1.087	8.76	0.345	22.10	0.870	3/4 - 20	4.78	0.188	
12	27.61	1.087	8.76	0.345	25.15	0.990	7/8 - 20	7.92	0.312	
14	30.78	1.212	11.94	0.470	28.45	1.120	1 - 20	9.53	0.375	
16	30.78	1.212	11.94	0.470	31.50	1.240	1.1/8 - 18	12.19	0.480	
18	31.55	1.242	11.94	0.470	34.80	1.370	1.1/4 - 18	15.88	0.625	
20	34.72	1.367	15.11	0.595	37.85	1.490	1.3/8 - 18	15.88	0.625	
22	34.72	1.367	15.11	0.595	41.15	1.620	1.1/2 - 18	19.05	0.750	
24	34.72	1.367	15.11	0.595	44.20	1.740	1.5/8 - 18	20.32	0.800	

Note. Anti-rotation 'O' ring (to be supplied with the adaptor).

OUTLINE DIMENSIONS
ADAPTORS, CABLE TO ELECTRICAL PLUG-SOCKET
FREE AND FIRED, SQUARE PLANCE



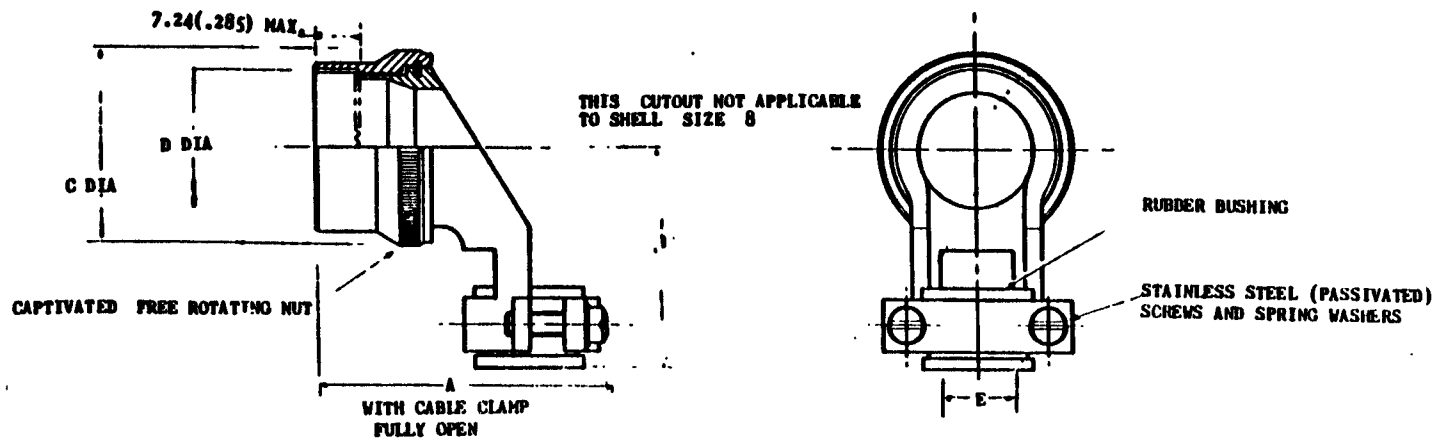
ORIGINAL DIMENSIONS IN INCHES

CORRESPONDING CONTROL DRAWING: CC/1588

SHELL SIZE	A MAX.		B MIN.		C MAX. DIA		D DIA			E NOM. DIA		MAX. MASS (g)
	mm	in	mm	in	mm	in	CLASS 2B UN E F	TRUNCATED TO mm	in	mm	in	
8	34.06	1.341	8.76	0.345	17.53	0.690	11.11(7/16)-28	-	-	3.18	0.125	UNDER CONSIDERATION
10	34.06	1.341	8.76	0.345	20.83	0.820	14.29(9/16)-24	-	-	4.78	0.188	
12	34.06	1.341	8.76	0.345	23.88	0.940	17.46(11/16)-24	-	-	7.92	0.312	
14	37.24	1.466	11.94	0.470	27.18	1.070	20.64(13/16)-20	19.71 19.58	0.776 MAX. 0.771 MIN.	9.53	0.375	
16	37.24	1.466	11.94	0.470	30.23	1.190	23.81(15/16)-20	22.89 22.76	0.901 MAX. 0.896 MIN.	12.19	0.480	
18	38.00	1.496	11.94	0.470	33.53	1.320	26.99(1.1/16)-18	25.93 25.81	1.021 MAX. 1.016 MIN.	15.88	0.625	
20	41.17	1.621	15.11	0.595	36.58	1.440	30.16(1.3/16)-18	29.11 28.98	1.146 MAX. 1.141 MIN.	15.88	0.625	
22	41.17	1.621	15.11	0.595	39.88	1.570	33.34(1.5/16)-18	32.28 32.16	1.271 MAX. 1.266 MIN.	19.05	0.750	
24	41.17	1.621	15.11	0.595	42.93	1.690	36.51(1.7/16)-18	35.46 35.33	1.396 MAX. 1.391 MIN.	20.32	0.800	

DEF STAN 99-35 (PART 5)/2
 ANNEX C (CONT'D)

OUTLINE DIMENSIONS
ADAPTORS (ANGLED) CABLE TO ELECTRICAL PLUG-SOCKETS
FIXED, SQUARE FLANGE



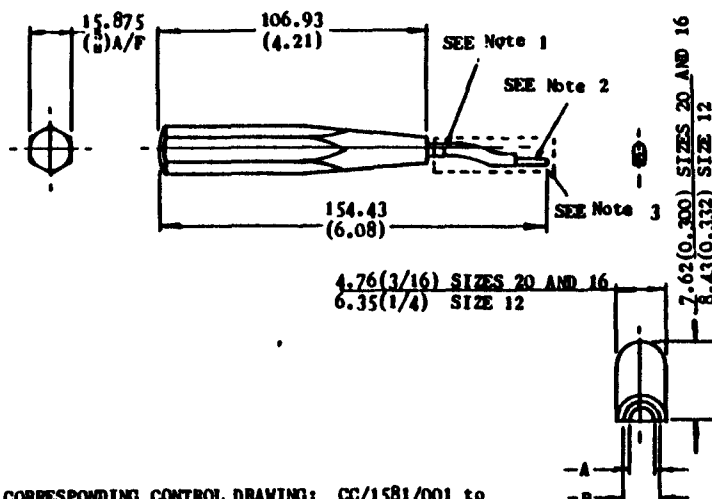
ORIGINAL DIMENSIONS IN INCHES

CORRESPONDING CONTROL DRAWING: CC/1589

SHELL SIZE	A MAX.		B MAX.		C MAX. DIA		D DIA			E NOM DIA		MAX. MASS (g)
	mm	in	mm	in	mm	in	CLASS 2B UNF	TRUNCATED TO mm	in	mm	in	
8	36.70	1.445	28.14	1.108	17.53	0.690	11.11(7/16)-28	-	-	3.18	0.125	UNDER CONSIDERATION
10	39.65	1.561	29.41	1.158	20.0	0.820	14.29(9/16)-24	-	-	4.78	0.188	
12	43.18	1.700	31.19	1.228	23.88	0.940	17.46(11/16)-24	-	-	7.92	0.312	
14	47.02	1.851	32.72	1.288	27.18	1.070	20.64(13/16)-20	19.71 19.58	0.776 0.771	9.53	0.375	
16	47.19	1.858	34.24	1.348	30.23	1.190	23.81(15/16)-20	22.89 22.76	0.901 0.896	12.19	0.480	
18	53.64	2.112	36.53	1.438	33.53	1.320	26.99(1.1/16)-18	25.93 25.81	1.021 1.016	15.88	0.625	
20	53.64	2.112	38.05	1.498	36.58	1.440	30.16(1.3/16)-18	29.11 28.98	1.146 1.141	15.88	0.625	
22	58.72	2.312	39.83	1.568	39.88	1.570	33.34(1.5/16)-18	32.28 32.16	1.271 1.266	19.05	0.750	
24	61.19	2.409	41.35	1.628	42.93	1.690	36.51(1.7/16)-18	35.46 35.33	1.396 1.391	20.32	0.800	

OUTLINE DIMENSIONS
TOOLS FOR CONTACT INSERTION AND WITHDRAWAL

CONTACT INSERTION TOOL

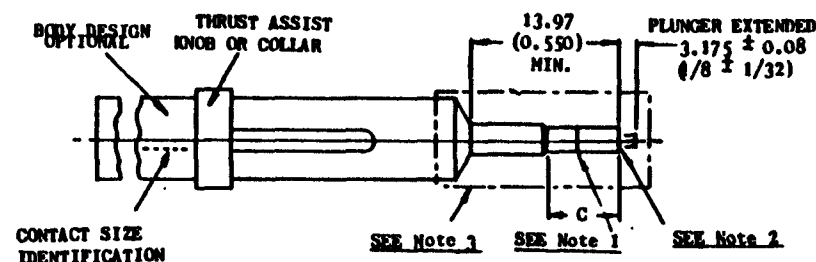


CORRESPONDING CONTROL DRAWING: CC/1581/001 to 003 inclusive

CONTACT SIZE	CONTACT COLOUR IDENTIFICATION	DIM A		DIM B	
		mm	in	mm	in
20	RED	2.11 max. 2.03 min.	0.083 max. 0.080 min.	3.30 max. 3.18 min.	0.130 max. 0.125 min.
16	BLUE	2.84 max. 2.72 min.	0.112 max. 0.107 min.	3.81 max. 3.68 min.	0.150 max. 0.145 min.
12	YELLOW	4.06 max. 3.94 min.	0.160 max. 0.155 min.	5.18 max. 5.05 min.	0.204 max. 0.199 min.

- Notes:**
1. Identification band and handle to be colour coded with suitable paint or stain.
 2. Material: Probe - Stainless steel BS 970 EN56CM. Hardened and tempered. Polished clean.
 3. Probe to be provided with protective cap/sleeve. (Design optional)
 4. Original dimensions in inches.

CONTACT WITHDRAWAL TOOL



CORRESPONDING CONTROL DRAWING: CC/1582/001 to 003 inclusive

CONTACT SIZE	CONTACT COLOUR IDENTIFICATION	DIM C	
		mm	in
20	RED	) 5.33 max. 4.83 min.	0.210 max.
16	BLUE		0.190 min.
12	YELLOW		

APPENDIX A

COGNITIVE QUALITIES
 SAMPLE PLAN FOR MONITORING IN QUALITY PROGRAMS
 (Applicable for Qualification Assessment of samples received)

SHELL SIZE	INHERIT ARRANGMENT	SHELL STYLE AND ORIENTATION																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																				
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		H	B	C	E	F	H	B	C	E	F	H	B	C	E	F	H	B	C	E	F	H	B	C	E	F	H	B	C	E	F	H	B	C	E	F	H	B	C	E	F																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
8	8-13	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	1

10 denotes male contact
 107 denotes female contact

10 denotes housing (shell) only

COMPATIBILITY GAUGING

SAMPLE PLAN FOR SUBGROUP D1 GAUGING PROCEDURE

(Applicable for Qualification Approval of crimp styles only)

SHELL SIZE	INSERT ARRANGEMENT	SHELL STYLE AND ORIENTATION														
		CC 1560					CC 1561					CC 1562				
		N	B	C	E	F	N	B	C	E	F	N	B	C	E	F
8	8-33	<u>MF</u>			<u>FM</u>	<u>MF</u>	FM			M	MF	M			MF	F
10	10-2	MF	MF	FM	M	F	F	M	F	M	F	M	F	M		
	10-6	MF	F	M	FM	MF	M			F	M	F	M	F	M	F
12	12-3	MF	MF	FM	M	F	F	M	F	M	F	M	F	M		
	12-10	MF	F	M	FM	MF	M			F	M	F	M	F	M	F
14	14-5	MF	MF	FM	M	F	F	M	F	M	F	M	F	M		
	14-19	MF	F	M	FM	MF	M			F	M	F	M	F	M	F
16	16-4	MF	M	F	M	F	F	M	F			M			F	M
	16-8	MF	F	M	F	M	M	F	M			F			M	F
	16-26	MF	M	F	M	F	F	M	F			M			F	M
18	18-11	MF	MF	FM	M	F	F	M	F	M	F	M	F	M		
	18-32	MF	F	M	FM	MF	M			F	M	F	M	F	M	F
20	20-16	MF	MF	FM	M	F	F	M	F	M	F	M	F	M		
	20-41	MF	F	M	FM	MF	M			F	M	F	M	F	M	F
22	22-21	MF	MF	FM	M	F	F	M	F	M	F	M	F	M		
	22-55	MF	F	M	FM	MF	M			F	M	F	M	F	M	F
24	24-61	<u>MF</u>	<u>MF</u>	<u>MF</u>	<u>MF</u>	<u>MF</u>	M	*	*	*	*	F	*	*	*	*

*, M, or F denotes 2 off

* denotes housings (shells) only

M denotes male contact

F denotes female contact

COMPATIBILITY GAUGING

SAMPLE PLAN FOR SUBGROUP D1 GAUGING PROCEDURE

(Applicable for Qualification Approval of solder styles only)

SHELL SIZE	INSERT ARRANGEMENT	SHELL STYLE AND ORIENTATION																			
		CC 1560					CC 1561					CC 1562					CC 1563				
		N	B	C	E	F	N	B	C	E	F	N	B	C	E	F	N	B	C	E	F
8	8-33	<u>MF</u>			<u>FM</u>	<u>MF</u>	F			M	F	M			F	M	F			M	F
10	10-2	MF	MF	MF	M	F	M	F	M	F	M	F	M	F	M	F	M			M	F
	10-6	MF	F	M	MF	MF	F					M	F	M	F	M	F	M	F	M	F
12	12-3	MF	MF	MF	M	F	M					M	F	M	F	M	F	M	F	M	F
	12-10	MF	F	M	MF	MF	F	M	F	M	F	F					M	F	M	F	M
14	14-5	MF	MF	MF	M	F	F	M	F	M	F	M					M	F	M	F	M
	14-19	MF	F	M	MF	MF	M	F	M	F	M	F	M	F	M	F	M				
16	16-4	MF	M	F	M	F	M	F			M	F	M			F	M			M	F
	16-8	MF	F	M	F	M			M					F							
	16-26	MF	M	F	M	F				F					M			F			M
18	18-11	MF	MF	MF	M	F	M	F	M	F	M	F	M	F	M	F	M				
	18-32	MF	F	M	MF	MF	F					M	F	M	F	M	F	M	F	M	F
20	20-16	MF	MF	MF	M	F	M					M	F	M	F	M	F	M	F	M	F
	20-41	MF	F	M	MF	MF	F	M	F	M	F	F					M	F	M	F	M
22	22-21	MF	MF	MF	M	F	F	M	F	M	F	M					F				
	22-55	MF	F	M	MF	MF	M	F	M	F	M	F	M	F	M	F	F				
24	24-61	<u>MF</u>	<u>MF</u>	<u>MF</u>	<u>MF</u>	<u>MF</u>	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F

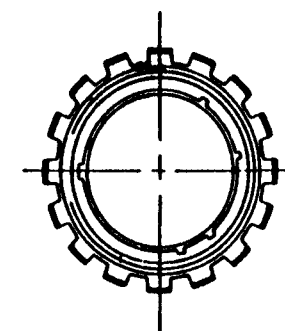
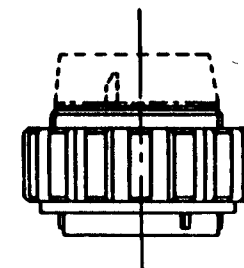
M or F denotes 2 off

M denotes male contact
F denotes female contact

TABLE I (A)
STANDARD RANGE

PLUGS AND SOCKETS (CONNECTORS), FREE, WITH ACCESSORY THREAD AND COARSE RIBBED COUPLING NUT

PAGE ITEM NO	CONTACT ARRANGEMENT	POLARIZATION	CRIMP TYPE				SOLDER TYPE			
			MALE CONTACT		FEMALE CONTACT		MALE CONTACT		FEMALE CONTACT	
			STYLE REFERENCE	NATO STOCK NUMBER 5935-99-	STYLE REFERENCE	NATO STOCK NUMBER 5935-99-	STYLE REFERENCE	NATO STOCK NUMBER 5935-99-	STYLE REFERENCE	NATO STOCK NUMBER 5935-99-
	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(j)	(k)
1	8-33	N	CC/1560/001	015-0000	CC/1560/011	015-0006	CC/1560/006	015-0003	CC/1560/016	015-0009
2		B	/002	Not used	/012	Not used	/007	Not used	/017	Not used
3		C	/003	Not used	/013	Not used	/008	Not used	/018	Not used
4		E	/004	015-0001	/014	015-0007	/009	015-0004	/019	015-0010
5		F	/005	015-0002	/015	015-0008	/010	015-0005	/020	015-0011
6	10-2	N	CC/1560/041	015-0012	CC/1560/051	015-0022	CC/1560/046	015-0017	CC/1560/056	015-0027
7		B	/042	015-0013	/052	015-0023	/047	015-0018	/057	015-0028
8		C	/043	015-0014	/053	015-0024	/048	015-0019	/058	015-0029
9		E	/044	015-0015	/054	015-0025	/049	015-0020	/059	015-0030
10		F	/045	015-0016	/055	015-0026	/050	015-0021	/060	015-0031
11	10-6	N	CC/1560/061	015-0032	CC/1560/091	015-0048	CC/1560/086	015-0037	CC/1560/096	015-0047
12		B	/082	015-0033	/092	015-0043	/087	015-0038	/097	015-0048
13		C	/083	015-0034	/093	015-0044	/088	015-0039	/098	015-0049
14		E	/084	015-0035	/094	015-0045	/089	015-0040	/099	015-0050
15		F	/085	015-0036	/095	015-0046	/090	015-0041	/100	015-0051
16	12-3	N	CC/1560/121	015-0052	CC/1560/131	015-0062	CC/1560/126	015-0057	CC/1560/136	015-0067
17		B	/122	015-0053	/132	015-0063	/127	015-0058	/137	015-0068
18		C	/123	015-0054	/133	015-0064	/128	015-0059	/138	015-0069
19		E	/124	015-0055	/134	015-0065	/129	015-0060	/139	015-0070
20		F	/125	015-0056	/135	015-0066	/130	015-0061	/140	015-0071

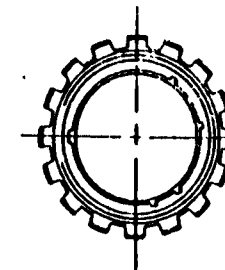
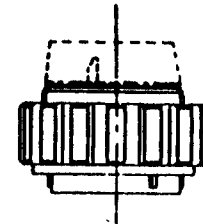


DEF STAN 59-35 (PART 5)/2
TABLE I(A)

For outline dimensions see page 41

TABLE I (A) - CONTINUED

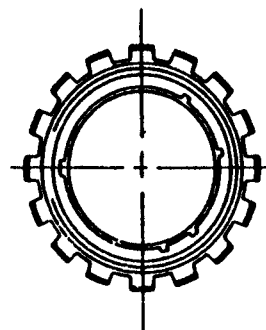
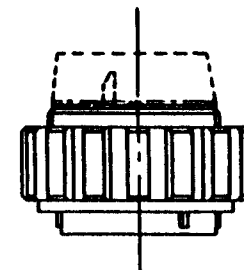
PAGE ITEM NO	CONTACT ARRANGEMENT	POLARIZATION	CRIMP TYPE				SOLDER TYPE			
			MALE CONTACT		FEMALE CONTACT		MALE CONTACT		FEMALE CONTACT	
			STYLE REFERENCE	NATO STOCK NUMBER 5935-99-	STYLE REFERENCE	NATO STOCK NUMBER 5935-99-	STYLE REFERENCE	NATO STOCK NUMBER 5935-99-	STYLE REFERENCE	NATO STOCK NUMBER 5935-99-
			(c)	(d)	(e)	(f)	(g)	(h)	(j)	(k)
1	12-10	H	CC/1560/181	015-0072	CC/1560/191	015-0082	CC/1560/186	015-0077	CC/1560/196	015-0087
2		B	/182	015-0073	/192	015-0083	/187	015-0078	/197	015-0088
3		C	/183	015-0074	/193	015-0084	/188	015-0079	/198	015-0089
4		E	/184	015-0075	/194	015-0085	/189	015-0080	/199	015-0090
5		F	/185	015-0076	/195	015-0086	/190	015-0081	/200	015-0091
6	14-5	H	CC/1560/261	015-0092	CC/1560/271	015-0102	CC/1560/266	015-0097	CC/1560/276	015-0107
7		B	/262	015-0093	/272	015-0103	/267	015-0098	/277	015-0108
8		C	/263	015-0094	/273	015-0104	/268	015-0099	/278	015-0109
9		E	/264	015-0095	/274	015-0105	/269	015-0100	/279	015-0110
10		F	/265	015-0096	/275	015-0106	/270	015-0101	/280	015-0111
11	14-10	H	CC/1560/281	015-0112	CC/1560/291	015-0122	CC/1560/286	015-0117	CC/1560/296	015-0127
12		B	/282	015-0113	/292	015-0123	/287	015-0118	/297	015-0128
13		C	/283	015-0114	/293	015-0124	/288	015-0119	/298	015-0129
14		E	/284	015-0115	/294	015-0125	/289	015-0120	/299	015-0130
15		F	/285	015-0116	/295	015-0126	/290	015-0121	/300	015-0131
16	16-4	H	CC/1560/401	015-1290	CC/1560/411	015-1300	CC/1560/406	015-1295	CC/1560/416	015-1305
17		B	/402	015-1291	/412	015-1301	/407	015-1296	/417	015-1306
18		C	/403	015-1292	/413	015-1302	/408	015-1297	/418	015-1307
19		E	/404	015-1293	/414	015-1303	/409	015-1298	/419	015-1308
20		F	/405	015-1294	/415	015-1304	/410	015-1299	/420	015-1309
21	16-9	H	CC/1560/361	015-0132	CC/1560/371	015-0142	CC/1560/366	015-0137	CC/1560/376	015-0147
22		B	/362	015-0133	/372	015-0143	/367	015-0138	/377	015-0148
23		C	/363	015-0134	/373	015-0144	/368	015-0139	/378	015-0149
24		E	/364	015-0135	/374	015-0145	/369	015-0140	/379	015-0150
25		F	/365	015-0136	/375	015-0146	/370	015-0141	/380	015-0151



For outline dimensions see page 41

TABLE I (A) - CONTINUED

PAGE ITEM NO	CONTACT RESISTANCE	POLARIZATION	CRIMP TYPE				SOLDER TYPE			
			MALE CONTACT		FEMALE CONTACT		MALE CONTACT		FEMALE CONTACT	
			STYLE REFERENCE	NATO STOCK NUMBER 5935-99-	STYLE REFERENCE	NATO STOCK NUMBER 5935-99-	STYLE REFERENCE	NATO STOCK NUMBER 5935-99-	STYLE REFERENCE	NATO STOCK NUMBER 5935-99-
			(c)	(d)	(e)	(f)	(g)	(h)	(j)	(k)
1	16-20	N	CC/1560/381	015-0152	CC/1560/391	015-0162	CC/1560/386	015-0157	CC/1560/396	015-0167
2		B	/382	015-0153	/392	015-0163	/387	015-0158	/397	015-0168
3		C	/383	015-0154	/393	015-0164	/388	015-0159	/398	015-0169
4		E	/384	015-0155	/394	015-0165	/389	015-0160	/399	015-0170
5		F	/385	015-0156	/395	015-0166	/390	015-0161	/400	015-0171
6	18-11	N	CC/1560/441	015-0172	CC/1560/451	015-0182	CC/1560/446	015-0177	CC/1560/456	015-0187
7		B	/442	015-0173	/452	015-0183	/447	015-0178	/457	015-0188
8		C	/443	015-0174	/453	015-0184	/448	015-0179	/458	015-0189
9		E	/444	015-0175	/454	015-0185	/449	015-0180	/459	015-0190
10		F	/445	015-0176	/455	015-0186	/450	015-0181	/460	015-0191
11	18-32	N	CC/1560/461	015-0192	CC/1560/471	015-0202	CC/1560/466	015-0197	CC/1560/476	015-0207
12		B	/462	015-0193	/472	015-0203	/467	015-0198	/477	015-0208
13		C	/463	015-0194	/473	015-0204	/468	015-0199	/478	015-0209
14		E	/464	015-0195	/474	015-0205	/469	015-0200	/479	015-0210
15		F	/465	015-0196	/475	015-0206	/470	015-0201	/480	015-0211
16	20-10	N	CC/1560/481	015-0212	CC/1560/491	015-0222	CC/1560/486	015-0217	CC/1560/496	015-0227
17		B	/482	015-0213	/492	015-0223	/487	015-0218	/497	015-0228
18		C	/483	015-0214	/493	015-0224	/488	015-0219	/498	015-0229
19		E	/484	015-0215	/494	015-0225	/489	015-0220	/499	015-0230
20		F	/485	015-0216	/495	015-0226	/490	015-0221	/500	015-0231

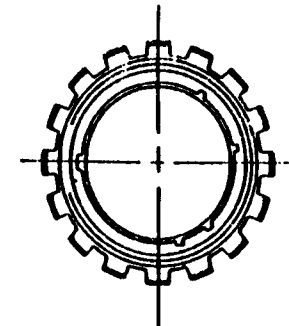
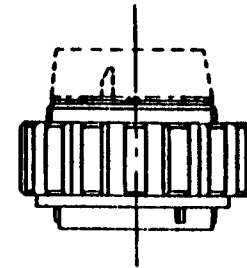


For outline dimensions see page 41

REF STAN 59-35 (PART 5)/2
TABLE I (A) (CONT'D)

TABLE I (A) - CONTINUED

PAGE ITEM NO	CONTACT ARRANGEMENT	POLARIZATION	CRIMP TYPE				SOLDER TYPE			
			MALE CONTACT		FEMALE CONTACT		MALE CONTACT		FEMALE CONTACT	
			STYLE REFERENCE	NATO STOCK NUMBER 5935-99-	STYLE REFERENCE	NATO STOCK NUMBER 5935-99-	STYLE REFERENCE	NATO STOCK NUMBER 5935-99-	STYLE REFERENCE	NATO STOCK NUMBER 5935-99-
			(c)	(d)	(e)	(f)	(g)	(h)	(j)	(k)
1	20-41	N	CC/1560/521	015-0232	CC/1560/531	015-0242	CC/1560/526	015-0237	CC/1560/536	015-0247
2		B	/522	015-0233	/532	015-0243	/527	015-0238	/537	015-0248
3		C	/523	015-0234	/533	015-0244	/528	015-0239	/538	015-0249
4		E	/524	015-0235	/534	015-0245	/529	015-0240	/539	015-0250
5		F	/525	015-0236	/535	015-0246	/530	015-0241	/540	015-0251
6	22-21	N	CC/1560/621	015-0252	CC/1560/631	015-0262	CC/1560/626	015-0257	CC/1560/636	015-0267
7		B	/622	015-0253	/632	015-0263	/627	015-0258	/637	015-0268
8		C	/623	015-0254	/633	015-0264	/628	015-0259	/638	015-0269
9		E	/624	015-0255	/634	015-0265	/629	015-0260	/639	015-0270
10		F	/625	015-0256	/635	015-0266	/630	015-0261	/640	015-0271
11	22-55	N	CC/1560/661	015-0272	CC/1560/671	015-0282	CC/1560/666	015-0277	CC/1560/676	015-0287
12		B	/662	015-0273	/672	015-0283	/667	015-0278	/677	015-0288
13		C	/663	015-0274	/673	015-0284	/668	015-0279	/678	015-0289
14		E	/664	015-0275	/674	015-0285	/669	015-0280	/679	015-0290
15		F	/665	015-0276	/675	015-0286	/670	015-0281	/680	015-0291
16	24-61	N	CC/1560/701	015-0292	CC/1560/711	015-0302	CC/1560/706	015-0297	CC/1560/716	015-0307
17		B	/702	015-0293	/712	015-0303	/707	015-0298	/717	015-0308
18		C	/703	015-0294	/713	015-0304	/708	015-0299	/718	015-0309
19		E	/704	015-0295	/714	015-0305	/709	015-0300	/719	015-0310
20		F	/705	015-0296	/715	015-0306	/710	015-0301	/720	015-0311



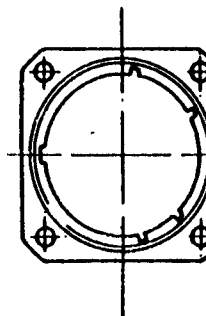
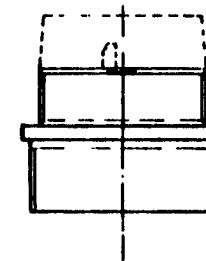
For outline dimensions see page 41

TABLE I (B)

STANDARD RANGE

PLUGS AND SOCKETS, (CONNECTORS), FIXED, FLANGE MOUNTING WITH ACCESSORY THREAD

PAGE ITEM NO	CONTACT ARRANGEMENT	POLARIZATION	CRIMP TYPE				SOLDER TYPE			
			MALE CONTACT		FEMALE CONTACT		MALE CONTACT		FEMALE CONTACT	
			STYLE REFERENCE	NATO STOCK NUMBER 5935-99-	STYLE REFERENCE	NATO STOCK NUMBER 5935-99-	STYLE REFERENCE	NATO STOCK NUMBER 5935-99-	STYLE REFERENCE	NATO STOCK NUMBER 5935-99-
			(c)	(d)	(e)	(f)	(g)	(h)	(j)	(k)
1	8-33	N	CC/1561/001	015-0312	CC/1561/011	015-0318	CC/1561/006	015-0315	CC/1561/016	015-0321
2		B	/002	Not used	/012	Not used	/007	Not used	/017	Not used
3		C	/003	Not used	/013	Not used	/008	Not used	/018	Not used
4		E	/004	015-0313	/014	015-0319	/009	015-0316	/019	015-0322
5		F	/005	015-0314	/015	015-0320	/010	015-0317	/020	015-0323
6	10-2	N	CC/1561/041	015-0324	CC/1561/051	015-0334	CC/1561/046	015-0329	CC/1561/056	015-0339
7		B	/042	015-0325	/052	015-0335	/047	015-0330	/057	015-0340
8		C	/043	015-0326	/053	015-0336	/048	015-0331	/058	015-0341
9		E	/044	015-0327	/054	015-0337	/049	015-0332	/059	015-0342
10		F	/045	015-0328	/055	015-0338	/050	015-0333	/060	015-0343
11	10-6	N	CC/1561/081	015-0344	CC/1561/091	015-0354	CC/1561/086	015-0349	CC/1561/096	015-0359
12		B	/082	015-0345	/092	015-0355	/087	015-0350	/097	015-0360
13		C	/083	015-0346	/093	015-0356	/088	015-0351	/098	015-0361
14		E	/084	015-0347	/094	015-0357	/089	015-0352	/099	015-0362
15		F	/085	015-0348	/095	015-0358	/090	015-0353	/100	015-0363
16	12-3	N	CC/1561/121	015-0364	CC/1561/131	015-0374	CC/1561/126	015-0369	CC/1561/136	015-0379
17		B	/122	015-0365	/132	015-0375	/127	015-0370	/137	015-0380
18		C	/123	015-0366	/133	015-0376	/128	015-0371	/138	015-0381
19		E	/124	015-0367	/134	015-0377	/129	015-0372	/139	015-0382
20		F	/125	015-0368	/135	015-0378	/130	015-0373	/140	015-0383



For outline dimensions see page 43

DEF STAN 99-35 (PART 5)/2
TABLE I (B)

TABLE 1 (B) - CONTINUED

PAGE ITEM NO	CONTACT ARRANGEMENT	POLARIZATION	CABLE TYPE				SOLDER TYPE			
			MALE CONTACT		FEMALE CONTACT		MALE CONTACT		FEMALE CONTACT	
			STYLE REFERENCE	MATO STOCK NUMBER 5935-99-	STYLE REFERENCE	MATO STOCK NUMBER 5935-99-	STYLE REFERENCE	MATO STOCK NUMBER 5935-99-	STYLE REFERENCE	MATO STOCK NUMBER 5935-99-
1	12-10	N	CC/1561/181	015-0384	CC/1561/191	015-0394	CC/1561/196	015-0399	CC/1561/196	015-0399
2		B	/182	015-0385	/192	015-0395	/187	015-0390	/197	015-0400
3		C	/183	015-0386	/193	015-0396	/188	015-0391	/198	015-0401
4	12-10	E	/184	015-0387	/194	015-0397	/189	015-0392	/199	015-0402
5		F	/185	015-0388	/195	015-0398	/190	015-0393	/200	015-0403
6		N	CC/1561/261	015-0404	CC/1561/271	015-0414	CC/1561/266	015-0409	CC/1561/276	015-0419
7	14-5	B	/262	015-0405	/272	015-0415	/267	015-0410	/277	015-0420
8		C	/263	015-0406	/273	015-0416	/268	015-0411	/278	015-0421
9		E	/264	015-0407	/274	015-0417	/269	015-0412	/279	015-0422
10	14-5	F	/265	015-0408	/275	015-0418	/270	015-0413	/280	015-0423
11		N	CC/1561/281	015-0424	CC/1561/291	015-0434	CC/1561/286	015-0429	CC/1561/296	015-0439
12		B	/282	015-0425	/292	015-0435	/287	015-0430	/297	015-0440
13	14-19	C	/283	015-0426	/293	015-0436	/288	015-0431	/298	015-0441
14		E	/284	015-0427	/294	015-0437	/289	015-0432	/299	015-0442
15		F	/285	015-0428	/295	015-0438	/290	015-0433	/300	015-0443
16	16-7	N	CC/1561/401	015-1310	CC/1561/411	015-1320	CC/1561/406	015-1315	CC/1561/416	015-1325
17		B	/402	015-1311	/412	015-1321	/407	015-1316	/417	015-1326
18		C	/403	015-1312	/413	015-1322	/408	015-1317	/418	015-1327
19	16-7	E	/404	015-1313	/414	015-1323	/409	015-1318	/419	015-1328
20		F	/405	015-1314	/415	015-1324	/410	015-1319	/420	015-1329
21		N	CC/1561/361	015-0444	CC/1561/371	015-0454	CC/1561/366	015-0449	CC/1561/376	015-0459
22	16-7	B	/362	015-0445	/372	015-0455	/367	015-0450	/377	015-0460
23		C	/363	015-0446	/373	015-0456	/368	015-0451	/378	015-0461
24		E	/364	015-0447	/374	015-0457	/369	015-0452	/379	015-0462
25	16-7	F	/365	015-0448	/375	015-0458	/370	015-0453	/380	015-0463

For outline dimensions
see page 42

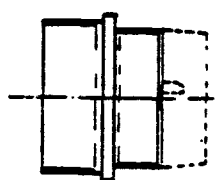
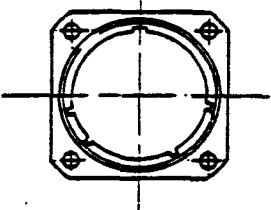
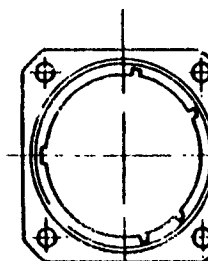
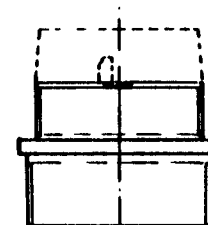


TABLE I (B) - CONTINUED

PAGE ITEM NO	CONTACT ARRANGEMENT	POLARIZATION	CRIMP TYPE				SOLDER TYPE			
			MALE CONTACT		FEMALE CONTACT		MALE CONTACT		FEMALE CONTACT	
			STYLE REFERENCE	NATO STOCK NUMBER 5935-99-	STYLE REFERENCE	NATO STOCK NUMBER 5935-99-	STYLE REFERENCE	NATO STOCK NUMBER 5935-99-	STYLE REFERENCE	NATO STOCK NUMBER 5935-99-
	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(j)	(k)
1	16-26	N	CC/1561/381	015-0464	CC/1561/391	015-0474	CC/1561/386	015-0469	CC/1561/396	015-0479
2		B	/382	015-0465	/392	015-0475	/387	015-0470	/397	015-0480
3		C	/383	015-0466	/393	015-0476	/388	015-0471	/398	015-0481
4		E	/384	015-0467	/394	015-0477	/389	015-0472	/399	015-0482
5		F	/385	015-0468	/395	015-0478	/390	015-0473	/400	015-0483
6	18-11	N	CC/1561/441	015-0484	CC/1561/451	015-0494	CC/1561/446	015-0489	CC/1561/456	015-0499
7		B	/442	015-0485	/452	015-0495	/447	015-0490	/457	015-0500
8		C	/443	015-0486	/453	015-0496	/448	015-0491	/458	015-0501
9		E	/444	015-0487	/454	015-0497	/449	015-0492	/459	015-0502
10		F	/445	015-0488	/455	015-0498	/450	015-0493	/460	015-0503
11	19-32	N	CC/1561/461	015-0504	CC/1561/471	015-0514	CC/1561/466	015-0509	CC/1561/476	015-0519
12		B	/462	015-0505	/472	015-0515	/467	015-0510	/477	015-0520
13		C	/463	015-0506	/473	015-0516	/468	015-0511	/478	015-0521
14		E	/464	015-0507	/474	015-0517	/469	015-0512	/479	015-0522
15		F	/465	015-0508	/475	015-0518	/470	015-0513	/480	015-0523
16	20-16	N	CC/1561/481	015-0524	CC/1561/491	015-0534	CC/1561/486	015-0529	CC/1561/496	015-0539
17		B	/482	015-0525	/492	015-0535	/487	015-0530	/497	015-0540
18		C	/483	015-0526	/493	015-0536	/488	015-0531	/498	015-0541
19		E	/484	015-0527	/494	015-0537	/489	015-0532	/499	015-0542
20		F	/485	015-0528	/495	015-0538	/490	015-0533	/500	015-0543

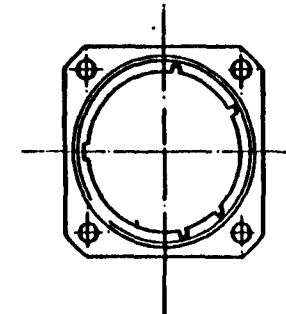
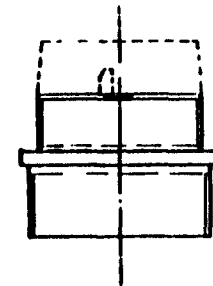


REF. STAN. 59-35 (PART 5) 1/2
TABLE I (B) (CONT'D)

For outline dimensions see page 42

TABLE I (B) - CONTINUED

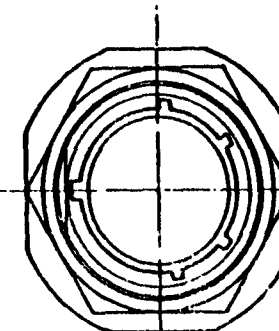
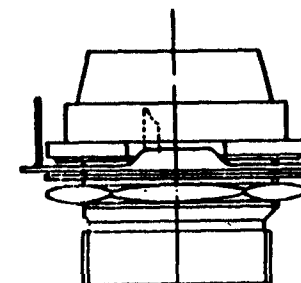
PAGE ITEM NO	CONTACT ARRANGEMENT	POLARIZATION	CRIMP TYPE				SOLDER TYPE			
			MALE CONTACT		FEMALE CONTACT		MALE CONTACT		FEMALE CONTACT	
			STYLE REFERENCE	NATO STOCK NUMBER 5935-99-	STYLE REFERENCE	NATO STOCK NUMBER 5935-99-	STYLE REFERENCE	NATO STOCK NUMBER 5935-99-	STYLE REFERENCE	NATO STOCK NUMBER 5935-99-
			(c)	(d)	(e)	(f)	(g)	(h)	(j)	(k)
1	20-41	N	CC/1561/521	015-0544	CC/1561/531	015-0554	CC/1561/526	015-0549	CC/1561/536	015-0559
2		B	/522	015-0545	/532	015-0555	/527	015-0550	/537	015-0560
3		C	/523	015-0546	/533	015-0556	/528	015-0551	/538	015-0561
4		E	/524	015-0547	/534	015-0557	/529	015-0552	/539	015-0562
5		F	/525	015-0548	/535	015-0558	/530	015-0553	/540	015-0563
6	22-21	N	CC/1561/621	015-0564	CC/1561/631	015-0574	CC/1561/626	015-0569	CC/1561/636	015-0579
7		B	/622	015-0565	/632	015-0575	/627	015-0570	/637	015-0580
8		C	/623	015-0566	/633	015-0576	/628	015-0571	/638	015-0581
9		E	/624	015-0567	/634	015-0577	/629	015-0572	/639	015-0582
10		F	/625	015-0568	/635	015-0578	/630	015-0573	/640	015-0583
11	22-55	N	CC/1561/661	015-0584	CC/1561/671	015-0594	CC/1561/666	015-0589	CC/1561/676	015-0599
12		B	/662	015-0585	/672	015-0595	/667	015-0590	/677	015-0600
13		C	/663	015-0586	/673	015-0596	/668	015-0591	/678	015-0601
14		E	/664	015-0587	/674	015-0597	/669	015-0592	/679	015-0602
15		F	/665	015-0588	/675	015-0598	/670	015-0593	/680	015-0603
16	24-61	N	CC/1561/701	015-0604	CC/1561/711	015-0614	CC/1561/706	015-0609	CC/1561/716	015-0619
17		B	/702	015-0605	/712	015-0615	/707	015-0610	/717	015-0620
18		C	/703	015-0606	/713	015-0616	/708	015-0611	/718	015-0621
19		E	/704	015-0607	/714	015-0617	/709	015-0612	/719	015-0622
20		F	/705	015-0608	/715	015-0618	/710	015-0613	/720	015-0623



For outline dimensions see page 42

TABLE I (C)
STANDARD RANGE
PLUGS AND SOCKETS (CONNECTORS), FIXED, SINGLE HOLE MOUNTING WITH GROMMET SEAL

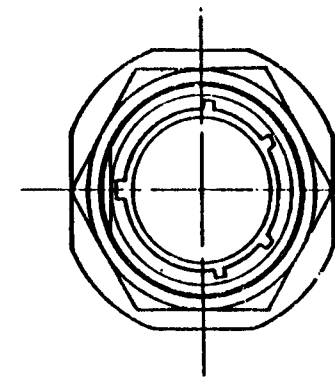
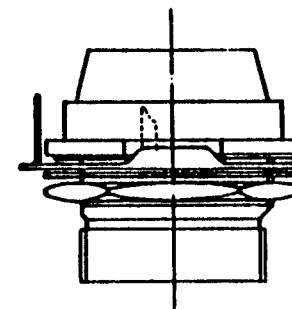
PAGE ITEM NO	CONTACT ARRANGEMENT	POLARIZATION	CRIMP TYPE				SOLDER TYPE			
			MALE CONTACT		FEMALE CONTACT		MALE CONTACT		FEMALE CONTACT	
			STYLE REFERENCE	NATO STOCK NUMBER 5935-99-	STYLE REFERENCE	NATO STOCK NUMBER 5935-99-	STYLE REFERENCE	NATO STOCK NUMBER 5935-99-	STYLE REFERENCE	NATO STOCK NUMBER 5935-99-
	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(j)	(k)
1	8-33	N	CC/1562/001	015-0624	CC/1562/011	015-0630	CC/1562/006	015-0627	CC/1562/016	015-0633
2		B	/002	Not used	/012	Not used	/007	Not used	/017	Not used
3		C	/003	Not used	/013	Not used	/008	Not used	/018	Not used
4		E	/004	015-0625	/014	015-0631	/009	015-0628	/019	015-0634
5		F	/005	015-0626	/015	015-0632	/010	015-0629	/020	015-0635
6	10-2	N	CC/1562/041	015-0636	CC/1562/051	015-0646	CC/1562/046	015-0641	CC/1562/056	015-0651
7		B	/042	015-0637	/052	015-0647	/047	015-0642	/057	015-0652
8		C	/043	015-0638	/053	015-0648	/048	015-0643	/058	015-0653
9		E	/044	015-0639	/054	015-0649	/049	015-0644	/059	015-0654
10		F	/045	015-0640	/055	015-0650	/050	015-0645	/060	015-0655
11	10-6	N	CC/1562/081	015-0656	CC/1562/091	015-0666	CC/1562/086	015-0661	CC/1562/096	015-0671
12		B	/082	015-0657	/092	015-0667	/087	015-0662	/097	015-0672
13		C	/083	015-0658	/093	015-0668	/088	015-0663	/098	015-0673
14		E	/084	015-0659	/094	015-0669	/089	015-0664	/099	015-0674
15		F	/085	015-0660	/095	015-0670	/090	015-0665	/100	015-0675
16	12-3	N	CC/1562/121	015-0676	CC/1562/131	015-0686	CC/1562/126	015-0681	CC/1562/136	015-0691
17		B	/122	015-0677	/132	015-0687	/127	015-0682	/137	015-0692
18		C	/123	015-0678	/133	015-0688	/128	015-0683	/138	015-0693
19		E	/124	015-0679	/134	015-0689	/129	015-0684	/139	015-0694
20		F	/125	015-0680	/135	015-0690	/130	015-0685	/140	015-0695



For outline dimensions see page 43

TABLE I (C) - CONTINUED

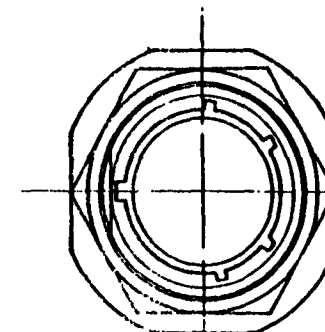
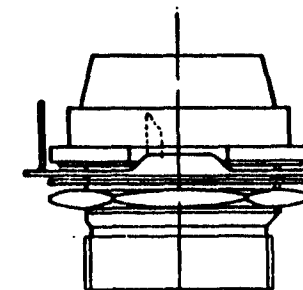
PAGE ITEM NO	CONTACT ARRANGEMENT	POLARIZATION	CRIMP TYPE				SOLDER TYPE			
			MALE CONTACT		FEMALE CONTACT		MALE CONTACT		FEMALE CONTACT	
			STYLE REFERENCE	NATO STOCK NUMBER 5935-99-	STYLE REFERENCE	NATO STOCK NUMBER 5935-99-	STYLE REFERENCE	NATO STOCK NUMBER 5935-99-	STYLE REFERENCE	NATO STOCK NUMBER 5935-99-
(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)
1	12-10	N	CC/1562/181	015-0696	CC/1562/191	015-0706	CC/1562/186	015-0701	CC/1562/196	015-0711
2		B	/182	015-0697	/192	015-0707	/187	015-0702	/197	015-0712
3		C	/183	015-0698	/193	015-0708	/188	015-0703	/198	015-0713
4		E	/184	015-0699	/194	015-0709	/189	015-0704	/199	015-0714
5		F	/185	015-0700	/195	015-0710	/190	015-0705	/200	015-0715
6	14-5	N	CC/1562/261	015-0716	CC/1562/271	015-0726	CC/1562/266	015-0721	CC/1562/276	015-0731
7		B	/262	015-0717	/272	015-0727	/267	015-0722	/277	015-0732
8		C	/263	015-0718	/273	015-0728	/268	015-0723	/278	015-0733
9		E	/264	015-0719	/274	015-0729	/269	015-0724	/279	015-0734
10		F	/265	015-0720	/275	015-0730	/270	015-0725	/280	015-0735
11	14-19	N	CC/1562/281	015-0736	CC/1562/291	015-0746	CC/1562/286	015-0741	CC/1562/296	015-0751
12		B	/282	015-0737	/292	015-0747	/287	015-0742	/297	015-0752
13		C	/283	015-0738	/293	015-0748	/288	015-0743	/298	015-0753
14		E	/284	015-0739	/294	015-0749	/289	015-0744	/299	015-0754
15		F	/285	015-0740	/295	015-0750	/390	015-0745	/300	015-0755
16	16-4	N	CC/1562/401	015-1330	CC/1562/411	015-1340	CC/1562/406	015-1335	CC/1562/416	015-1345
17		B	/402	015-1331	/412	015-1341	/407	015-1336	/417	015-1346
18		C	/403	015-1332	/413	015-1342	/408	015-1337	/418	015-1347
19		E	/404	015-1333	/414	015-1343	/409	015-1338	/419	015-1348
20		F	/405	015-1334	/415	015-1344	/410	015-1339	/420	015-1349
21	16-8	N	CC/1562/361	015-0756	CC/1562/371	015-0766	CC/1562/366	015-0761	CC/1562/376	015-0771
22		B	/362	015-0757	/372	015-0767	/367	015-0762	/377	015-0772
23		C	/363	015-0758	/373	015-0768	/368	015-0763	/378	015-0773
24		E	/364	015-0759	/374	015-0769	/369	015-0764	/379	015-0774
25		F	/365	015-0760	/375	015-0770	/370	015-0765	/380	015-0775



For outline dimensions see page 43

TABLE I (C) - CONTINUED

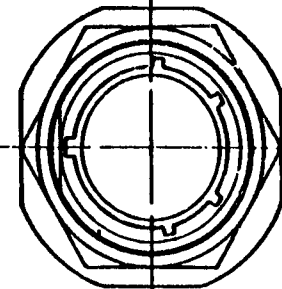
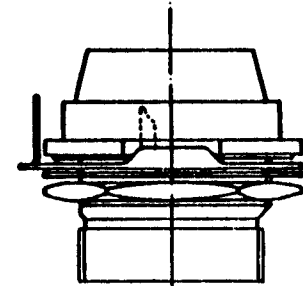
PAGE ITEM NO	CONTACT ARRANGEMENT	POLARIZATION	CRIMP TYPE				SOLDER TYPE			
			MALE CONTACT		FEMALE CONTACT		MALE CONTACT		FEMALE CONTACT	
			STYLE REFERENCE	NATO STOCK NUMBER 5935-99-	STYLE REFERENCE	NATO STOCK NUMBER 5935-99-	STYLE REFERENCE	NATO STOCK NUMBER 5935-99-	STYLE REFERENCE	NATO STOCK NUMBER 5935-99-
			(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)
1	16-26	N	CC/1562/381	015-0776	CC/1562/391	015-0785	CC/1562/386	015-0781	CC/1562/396	015-0791
2		B	/382	015-0777	/392	015-0787	/387	015-0782	/397	015-0792
3		C	/383	015-0778	/393	015-0788	/388	015-0783	/398	015-0793
4		E	/384	015-0779	/394	015-0789	/389	015-0784	/399	015-0794
5		F	/385	015-0780	/395	015-0790	/390	015-0785	/400	015-0795
6	18-11	N	CC/1562/441	015-0796	CC/1562/451	015-0806	CC/1562/446	015-0801	CC/1562/456	015-0811
7		B	/442	015-0797	/452	015-0807	/447	015-0802	/457	015-0812
8		C	/443	015-0798	/453	015-0808	/448	015-0803	/458	015-0813
9		E	/444	015-0799	/454	015-0809	/449	015-0804	/459	015-0814
10		F	/445	015-0800	/455	015-0810	/450	015-0805	/460	015-0815
11	18-32	N	CC/1562/461	015-0816	CC/1562/471	015-0826	CC/1562/466	015-0821	CC/1562/476	015-0813
12		B	/462	015-0817	/472	015-0827	/467	015-0822	/477	015-0814
13		C	/463	015-0818	/473	015-0828	/468	015-0823	/478	015-0815
14		E	/464	015-0819	/474	015-0829	/469	015-0824	/479	015-0816
15		F	/465	015-0820	/475	015-0830	/470	015-0825	/480	015-0817
16	20-16	N	CC/1562/481	015-0836	CC/1562/491	015-0846	CC/1562/486	015-0841	CC/1562/496	015-0851
17		B	/482	015-0837	/492	015-0847	/487	015-0842	/497	015-0852
18		C	/483	015-0838	/493	015-0848	/488	015-0843	/498	015-0853
19		E	/484	015-0839	/494	015-0849	/489	015-0844	/499	015-0854
20		F	/485	015-0840	/495	015-0850	/490	015-0845	/500	015-0855


 DEF STAN 59-35 (PART 5)/2
 TABLE I (C) (CONTD)

For outline dimensions see page 43

TABLE I (C) - CONTINUED

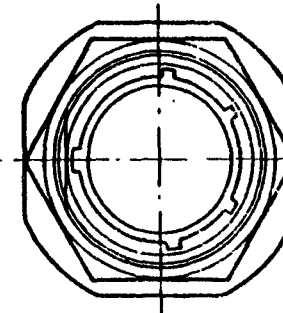
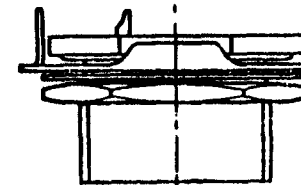
PAGE ITEM NO	CONTACT ARRANGEMENT	POLARIZATION	CRIMP TYPE				SOLDER TYPE			
			MALE CONTACT		FEMALE CONTACT		MALE CONTACT		FEMALE CONTACT	
			STYLE REFERENCE	NATO STOCK NUMBER 5935-99-	SSTYLE REFERENCE	NATO STOCK NUMBER 5935-99-	STYLE REFERENCE	NATO STOCK NUMBER 5935-99-	STYLE REFERENCE	NATO STOCK NUMBER 5935-99-
			(c)	(d)	(e)	(f)	(g)	(h)	(j)	(k)
1	20-41	N	CC/1562/521	015-0856	CC/1562/531	015-0866	CC/1562/526	015-0861	CC/1562/526	015-0871
2		B	/522	015-0857	/532	015-0867	/527	015-0862	/537	015-0872
3		C	/523	015-0858	/533	015-0868	/528	015-0863	/538	015-0873
4		E	/524	015-0859	/534	015-0869	/529	015-0864	/539	015-0874
5		F	/525	015-0860	/535	015-0870	/530	015-0865	/540	015-0875
6	22-21	N	CC/1562/621	015-0876	CC/1562/631	015-0886	CC/1562/626	015-0881	CC/1562/636	015-0891
7		B	/622	015-0877	/632	015-0887	/627	015-0882	/637	015-0892
8		C	/623	015-0878	/633	015-0888	/628	015-0883	/638	015-0893
9		E	/624	015-0879	/634	015-0889	/629	015-0884	/639	015-0894
10		F	/625	015-0880	/635	015-0890	/630	015-0885	/640	015-0895
11	22-55	N	CC/1562/661	015-0896	CC/1562/671	015-0906	CC/1562/666	015-0901	CC/1562/676	015-0911
12		B	/662	015-0897	/672	015-0907	/667	015-0902	/677	015-0912
13		C	/663	015-0898	/673	015-0908	/668	015-0903	/678	015-0913
14		E	/664	015-0899	/674	015-0909	/669	015-0904	/679	015-0914
15		F	/665	015-0900	/675	015-0910	/670	015-0905	/680	015-0915
16	24-61	N	CC/1562/701	015-0916	CC/1562/711	015-0926	CC/1562/706	015-0921	CC/1562/716	015-0931
17		B	/702	015-0917	/712	015-0927	/707	015-0922	/717	015-0932
18		C	/703	015-0918	/713	015-0928	/708	015-0923	/718	015-0933
19		E	/704	015-0919	/714	015-0929	/709	015-0924	/719	015-0934
20		F	/705	015-0920	/715	015-0930	/710	015-0925	/720	015-0935



For outline dimensions see page 43

TABLE I (D)
STANDARD RANGE
PLUGS AND SOCKETS (CONNECTORS), FIXED, SINGLE HOLE MOUNTING
(SOLDER TYPE)

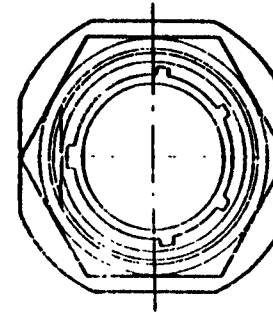
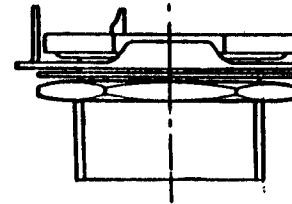
PAGE ITEM NO	CONTACT ARRANGEMENT	POLARIZATION	SOLDER TYPE			
			MALE CONTACT		FEMALE CONTACT	
			STYLE REFERENCE	NATO STOCK NUMBER 5935-99-	STYLE REFERENCE	NATO STOCK NUMBER 5935-99-
	(a)	(b)	(c)	(d)	(e)	(f)
1	8-33	N	CC/1563/001	015-0936	CC/1563/006	015-0939
2		B	/002	Not used	/007	Not used
3		C	/003	Not used	/008	Not used
4		E	/004	015-0937	/009	015-0940
5		F	/005	015-0938	/010	015-0941
6	10-2	N	CC/1563/021	015-0942	CC/1563/026	015-0947
7		B	/022	015-0943	/027	015-0948
8		C	/023	015-0944	/028	015-0949
9		E	/024	015-0945	/029	015-0950
10		F	/025	015-0946	/030	015-0951
11	10-6	N	CC/1563/041	015-0952	CC/1563/046	015-0957
12		B	/042	015-0953	/047	015-0958
13		C	/043	015-0954	/048	015-0959
14		E	/044	015-0955	/049	015-0960
15		F	/045	015-0956	/050	015-0961
16	12-3	N	CC/1563/051	015-0962	CC/1563/056	015-0967
17		B	/052	015-0963	/057	015-0968
18		C	/053	015-0964	/058	015-0969
19		E	/054	015-0965	/059	015-0970
20		F	/055	015-0966	/060	015-0971



For outline dimensions see page 44

TABLE I (D) - CONTINUED

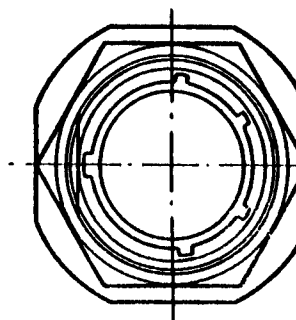
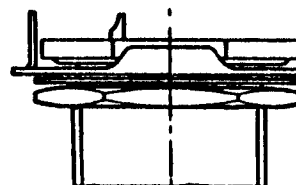
PAGE ITEM NO	CONTACT ARRANGEMENT	POLARIZATION	SOLDER TYPE			
			MALE CONTACT		FEMALE CONTACT	
			STYLE REFERENCE	NATO STOCK NUMBER 5935-99-	STYLE REFERENCE	NATO STOCK NUMBER 5935-99-
	(a)	(b)	(c)	(d)	(e)	(f)
1	12-10	N	CC/1563/081	015-0972	CC/1563/086	015-0977
2		B	/082	015-0973	/087	015-0978
3		C	/083	015-0974	/088	015-0979
4		E	/084	015-0975	/089	015-0980
5		F	/085	015-0976	/090	015-0981
6	14-5	N	CC/1563/101	015-0982	CC/1563/106	015-0987
7		B	/102	015-0983	/107	015-0988
8		C	/103	015-0984	/108	015-0989
9		E	/104	015-0985	/109	015-0990
10		F	/105	015-0986	/110	015-0991
11	14-19	N	CC/1563/111	015-0992	CC/1563/116	015-0997
12		B	/112	015-0993	/117	015-0998
13		C	/113	015-0994	/118	015-0999
14		E	/114	015-0995	/119	015-1000
15		F	/115	015-0996	/120	015-1001
16	16-4	N	CC/1563/151	015-1350	CC/1563/156	015-1355
17		B	/152	015-1351	/157	015-1356
18		C	/153	015-1352	/158	015-1357
19		E	/154	015-1353	/159	015-1358
20		F	/155	015-1354	/160	015-1359
21	16-8	N	CC/1563/131	015-1002	CC/1563/136	015-1007
22		B	/132	015-1003	/137	015-1008
23		C	/133	015-1004	/138	015-1009
24		E	/134	015-1005	/139	015-1010
25		F	/135	015-1006	/140	015-1011



For outline dimensions see page 44

TABLE I (D) - CONTINUED

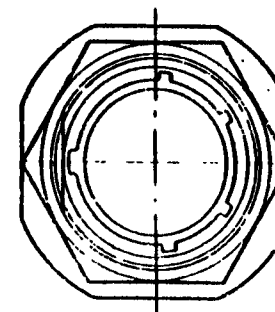
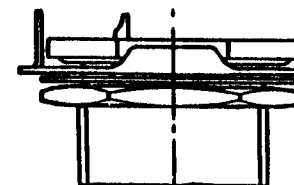
PART ITEM NO	CONTACT ARRANGEMENT	POLARIZATION	SOLDER TYPE			
			MALE CONTACT		FEMALE CONTACT	
			STYLE REFERENCE	NATO STOCK NUMBER 5935-99-	STYLE REFERENCE	NATO STOCK NUMBER 5935-99-
(a)	(b)	(c)	(d)	(e)	(f)	
1	16-26	N	CC/1563/141	015-1012	CC/1563/146	015-1017
2		B	/142	015-1013	/147	015-1018
3		C	/143	015-1014	/148	015-1019
4		E	/144	015-1015	/149	015-1020
5		F	/145	015-1016	/150	015-1021
6	18-11	N	CC/1563/161	015-1022	CC/1563/166	015-1027
7		B	/162	015-1023	/167	015-1028
8		C	/163	015-1024	/168	015-1029
9		E	/164	015-1025	/169	015-1030
10		F	/165	015-1026	/170	015-1031
11	18-32	N	CC/1563/171	015-1032	CC/1563/176	015-1037
12		B	/172	015-1033	/177	015-1038
13		C	/173	015-1034	/178	015-1039
14		E	/174	015-1035	/179	015-1040
15		F	/175	015-1036	/180	015-1041
16	20-16	N	CC/1563/181	015-1042	CC/1563/186	015-1047
17		B	/182	015-1043	/187	015-1048
18		C	/183	015-1044	/188	015-1049
19		E	/184	015-1045	/189	015-1050
20		F	/185	015-1046	/190	015-1051



For outline dimensions see page 44

TABLE I (D) - CONTINUED

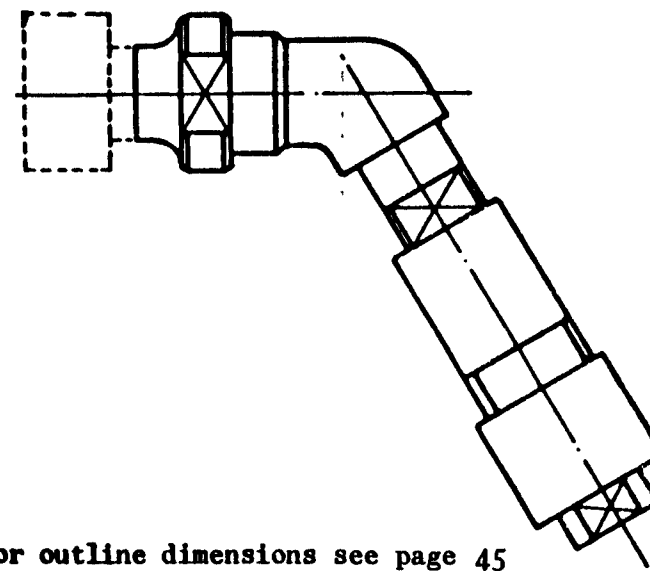
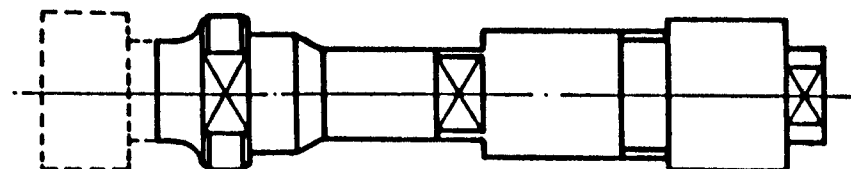
PAGE ITEM NO	CONTACT ARRANGEMENT	POLARIZATION	SOLDER TYPE			
			MALE CONTACT		FEMALE CONTACT	
			STYLE REFERENCE	NATO STOCK NUMBER 5935-99-	STYLE REFERENCE	NATO STOCK NUMBER 5935-99-
	(a)	(b)	(c)	(d)	(e)	(f)
1	20-41	N	CC/1563/201	015-1052	CC/1563/206	015-1057
2		B	/202	015-1053	/207	015-1058
3		C	/203	015-1054	/208	015-1059
4		E	/204	015-1055	/209	015-1060
5		F	/205	015-1056	/210	015-1061
6	22-21	N	CC/1563/221	015-1062	CC/1563/226	015-1067
7		B	/222	015-1063	/227	015-1068
8		C	/223	015-1064	/228	015-1069
9		E	/224	015-1065	/229	015-1070
10		F	/225	015-1066	/230	015-1071
11	23-55	N	CC/1563/241	015-1072	CC/1563/246	015-1077
12		B	/242	015-1073	/247	015-1078
13		C	/243	015-1074	/248	015-1079
14		E	/244	015-1075	/249	015-1080
15		F	/245	015-1076	/250	015-1081
16	24-61	N	CC/1563/261	015-1082	CC/1563/266	015-1087
17		B	/262	015-1083	/167	015-1088
18		C	/263	015-1084	/168	015-1089
19		E	/264	015-1085	/169	015-1090
20		F	/265	015-1086	/170	015-1091



For outline dimensions see page 44

TABLE I (E)
STANDARD RANGE
SHIELDS, ELECTRICAL PLUG-SOCKET (CABLE OUTLET ACCESSORIES)

PAGE ITEM NO	SHELL SIZE	STRAIGHT OUTLET		ANGLED OUTLET	
		STYLE REFERENCE	NATO STOCK NUMBER 5935-99-	STYLE REFERENCE	NATO STOCK NUMBER 5935-99-
	(a)	(b)	(c)	(d)	(e)
1	8	CC/1574/001	015-1092	CC/1575/001	015-1101
2	10	/002	015-1093	/002	015-1102
3	12	/003	015-1094	/003	015-1103
4	14	/004	015-1095	/004	015-1104
5	16	/005	015-1096	/005	015-1105
6	18	/006	015-1097	/006	015-1106
7	20	/007	015-1098	/007	015-1107
8	22	/008	015-1099	/008	015-1108
9	24	/009	015-1100	/009	015-1109



For outline dimensions see page 45

TABLE I (F)
STANDARD RANGE
ACCESSORY SETS, ELECTRICAL PLUG-SOCKET
FOR STRAIGHT AND ANGLED OUTLETS

PAGE ITEM NO	SHELL SIZE	CONTACT ARRANGEMENT	CABLE DETAILS			ACCESSORY SETS	
			NATO STOCK NUMBER 6145-99-	DIA (mm)		STYLE REFERENCE	NATO STOCK NUMBER 5935-99-
				MIN.	MAX.		
	(a)	(b)	(c)	(d)	(e)	(f)	(g)
1	8	8-33	521-6974	6.8	8.0	CC/1579/005	015-1110
2			521-6971	6.5	7.7	/006	015-1111
3			111-6724	6.4	7.2	/007	015-1112
4			111-6766	6.4	7.2	/007	015-1112
5			521-6973	6.0	7.2	/009	015-1114
6			111-6763	6.1	6.9	/010	015-1115
7			111-6717	6.1	6.9	/010	015-1115
8			521-6970	5.7	6.9	/012	015-1117
9			111-6722	5.4	6.2	/013	015-1118
10			111-6765	5.4	6.2	/013	015-1118
11			111-6715	5.1	5.9	/015	015-1120
12			111-6762	5.1	5.9	/015	015-1120
13	10	10-2	521-8342	7.6	8.6	/022	015-1122
14			521-6971	6.5	7.7	/023	015-1123
15			521-8486	8.1	9.1	/034	015-1129
16			521-6828	7.9	9.1	/034	015-1129
17			521-6910	8.4	9.1	/033	015-1128
18		10-6	521-7001	11.3	12.7	/029	015-1124
19			521-6996	9.6	11.0	/030	015-1125
20			521-6995	9.1	10.3	/031	015-1126
21			522-7853	8.9	9.7	/032	015-1127
22			521-6980	8.5	9.7	/033	015-1128
23			522-7852	8.2	9.0	/034	015-1129
24			111-6735	7.9	8.7	/033	015-1128

- Notes:** 1. Cable details contained in DG Ships 211, 212, 213, and DEF STAN 61-12 (PART 5).
2. See page 85.

TABLE I (F) - CONTINUED

PAGE ITEM NO	SHELL SIZE	CONTACT ARRANGEMENT	CABLE DETAILS			ACCESSORY SETS	
			NATO STOCK NUMBER 6145-99-	DIA (mm)		STYLE REFERENCE	NATO STOCK NUMBER 5935-99-
				MIN.	MAX.		
	(a)	(b)	(c)	(d)	(e)	(f)	(g)
1	10	10-6	111-6772	7.9	8.7	CC/1579/033	015-1128
2			521-6979	7.6	8.8	/022	015-1122
3			522-7851	7.7	8.5	/038	015-1133
4			521-6975	7.3	8.5	/039	015-1134
5			521-6977	7.3	8.5	/040	015-1135
6			521-6972	6.9	8.1	/041	015-1136
7			521-6974	6.8	8.0	/042	015-1137
8			111-6728	6.9	7.7	/043	015-1138
9			111-6733	6.9	7.7	/044	015-1139
10			111-6769	6.9	7.7	/043	015-1138
11			111-6771	6.9	7.7	/044	015-1139
12			521-6976	6.5	7.7	/047	015-1142
13			522-7838	7.5	8.3	/048	015-1143
14			522-7837	7.08	7.85	/049	015-1144
15			111-6726	5.9	6.7	/047	015-1142
16			111-6768	5.9	6.7	/047	015-1142
17			522-7887	9.8	10.8	/052	015-1361
18	12	12-3	521-8348	8.3	9.3	/057	015-1147
19			521-6840	8.4	9.6	/057	015-1147
20			521-6910	8.4	9.6	/055	015-1362
21		12-10	521-7002	11.6	13.0	/058	015-1148
22			521-6997	11.5	12.9	/059	015-1149
23			111-6742	10.8	11.8	/060	015-1150
24			522-7854	9.7	10.8	/061	015-1151

- Notes: 1. Cable details contained in DG Ships 211, 212, 213, and DEF STAN 61-12 (PART 5).
 2. See page 85.

TABLE I (F) - CONTINUED

PAGE ITEM NO	SHELL SIZE	CONTACT ARRANGEMENT	CABLE DETAILS			ACCESSORY SETS	
			NATO STOCK NUMBER 6145-99-	DIA (mm)		STYLE REFERENCE	NATO STOCK NUMBER 5935-99-
	(a)	(b)	(c)	MIN.	MAX.	(f)	(g)
1	12	12-10	522-7853	8.9	9.7	CC/1579/062	015-1152
2			521-6978	7.9	9.1	/063	015-1153
3			522-7839	8.2	9.0	/064	015-1154
4			521-7001	11.3	12.7	065	015-1385
5	14	14-5	521-8362	10.0	11.2	/070	015-1155
6			521-8354	9.0	10.0	/071	015-1156
7			521-6877	8.9	10.1	/071	015-1156
8			521-6878	9.6	11.0	/070	015-1155
9			521-6911	13.0	14.4	/072	015-1363
10		14-19	521-7003	12.8	14.2	/077	015-1157
11			521-6986	12.7	14.1	/078	015-1158
12			522-7856	12.7	13.7	/079	015-1159
13			521-6985	11.7	13.1	/080	015-1160
14			111-6751	11.5	12.5	/081	015-1161
15			111-6778	11.5	12.5	/081	015-1161
16			521-6983	13.7	12.1	/083	015-1163
17			522-7855	10.7	11.7	/084	015-1164
18			111-6749	10.5	11.5	/085	015-1165
19			111-6777	10.5	11.5	/085	015-1165
20			521-6982	9.8	11.2	/087	015-1167
21			111-6745	10.0	11.0	/088	015-1168
22			111-6775	10.0	11.0	/088	015-1168
23			521-6981	9.5	10.9	/090	015-1170
24			111-6743	9.1	9.9	/091	015-1171
25			111-6774	9.1	9.9	/091	015-1171
26			522-7840	9.7	10.8	/093	015-1173
27			522-7841	9.7	10.8	/094	015-1174
28			522-7888	10.3	11.4	/095	015-1364
29			522-7889	10.9	12.0	/096	015-1365

Note: 1. Cable details contained in DG Ships 211, 212, 213, and DEF STAN 61-12 (PART 5).
 2. See page 85.

TABLE I (F) - CONTINUED

PAGE ITEM NO	SHELL SIZE	CONTACT ARRANGEMENT	CABLE DETAILS			ACCESSORY SETS	
			NATO STOCK NUMBER 6145-99-	DIA (mm)		STYLE REFERENCE	NATO STOCK NUMBER 5935-99-
			(c)	(d)	(e)	(f)	(g)
1	16	16-4	521-8512	14.2	15.6	CC/1579/165	015-1373
2			521-8511	13.0	14.4	/166	015-1372
3			521-8466	12.4	13.8	/167	015-1371
4			521-8494	11.9	13.1	/168	015-1367
5			521-6889	11.4	12.8	/168	015-1367
6			521-8356	11.6	12.8	/168	015-1367
7			521-8441	10.9	12.1	/169	015-1368
8			521-6842	10.5	11.9	/170	015-1366
9			521-8489	10.7	11.9	/170	015-1366
10			521-8350	10.4	11.6	/170	015-1366
11			521-8288	9.9	11.1	/170	015-1366
12			111-6732	10.8	11.8	/171	015-1388
13			111-6730	9.8	10.8	/172	015-1386
14			521-8509	12.4	13.8	/173	015-1387
15			521-6931	12.4	13.8	/167	015-1371
16		16-8	521-8360	11.4	12.8	/114	015-1186
17			521-6879	11.2	13.0	/115	015-1374
18			521-6913	14.3	15.7	/165	015-1373
19			521-6928	13.2	14.6	/117	015-1370
20			521-6918	10.2	11.6	/118	015-1375
21			521-8470	10.3	11.7	/118	015-1375
22			521-8513	17.1	18.7	/120	015-1389
23		16-26	521-6998	16.6	18.2	/100	015-1175
24			521-8472	15.2	16.8	/101	015-1176
25			521-7004	15.1	16.7	/102	015-1177
26			521-6989	14.6	16.2	/103	015-1178

- Notes: 1. Cable details contained in DG Ships 211, 212, 213, and DEF STAN 61-12 (PART 5).
2. See page 85.

TABLE I (F) - CONTINUED

ITEM PAGE NO	SHELL SIZE	CONTACT ARRANGEMENT	CABLE DETAILS			ACCESSORY SETS	
			NATO STOCK NUMBER 6145-99-	DIA (mm)		STYLE REFERENCE	NATO STOCK NUMBER 5935-99-
				MIN.	MAX.		
	(a)	(b)	(c)	(d)	(e)	(f)	(g)
1	16	16-26	521-6988	13.5	14.9	CC/1579/104	015-1179
2			111-6758	13.6	14.6	/105	015-1180
3			111-6781	13.6	14.6	/105	015-1180
4			521-6984	12.6	14.0	/107	015-1182
5			111-6756	12.6	13.6	/108	015-1183
6			111-6780	12.6	13.6	/108	015-1183
7			522-7842	12.95	14.05	/110	015-1185
8			522-7890	15.3	16.3	/111	015-1376
9			525-5781	14.25	15.65	/112	015-1369
10	18	18-11	521-8361	13.9	15.1	/125	015-1187
11			521-6924	14.2	15.6	/126	015-1378
12			521-6880	13.1	14.5	/125	015-1187
13			521-6919	12.1	13.5	/128	015-1377
14			521-8471	12.6	14.0	/128	015-1377
15	20	20-16	521-6914	17.1	18.7	/130	015-1381
16			521-6925	15.6	17.2	/131	015-1384
17			521-6930	15.3	16.9	/132	015-1383
18			521-6929	14.6	16.2	/133	015-1382
19			521-6920	14.4	16.0	/134	015-1380
20			521-6881	14.3	15.7	/135	015-1379
21		20-41	521-6991	16.8	18.4	/136	015-1188
22			111-6760	15.5	16.7	/137	015-1189
23			521-6987	14.8	16.4	/139	015-1191
24			522-7843	15.2	16.3	/140	015-1192
25			111-6783	15.5	16.7	/138	015-1190

- Notes: 1. Cable details contained in DG Ships 211, 212, 213, and DEF STAN 61-12 (PART 5).
2. See page 85.

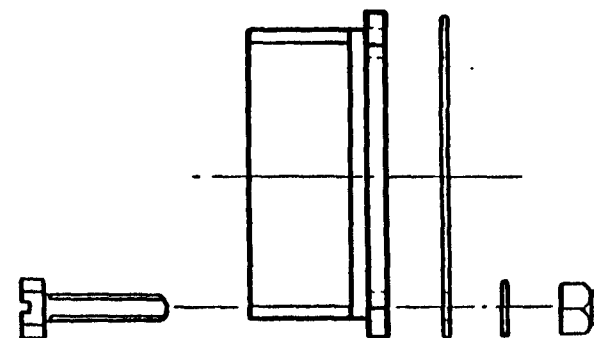
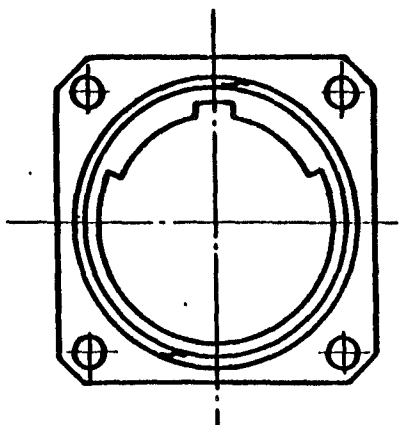
TABLE I (F) - CONTINUED

PAGE ITEM NO	SHELL SIZE	CONTACT ARRANGEMENT	CABLE DETAILS			ACCESSORY SETS	
			NATO STOCK NUMBER 6145-99-	DIA (mm)		STYLE REFERENCE	NATO STOCK NUMBER 5935-99-
	(a)	(b)	(c)	MIN.	MAX.	(f)	(g)
1	22	22-21	521-6926	18.8	20.2	CC/1579/142	015-1193
2			521-6882	15.9	17.5	/143	015-1194
3			521-8363	16.1	17.4	/144	015-1195
4		22-55	521-6999	22.1	24.1	/146	015-1196
5			521-6990	17.5	19.1	/147	015-1197
6			522-4509	18.3	19.3	/148	015-1198
7			522-7844	15.5	16.8	/149	015-1199
8	24	24-61	521-6993	20.7	22.7	/155	015-1200
9			521-6992	19.5	21.5	/156	015-1201
10			111-6761	19.1	20.3	/157	015-1202
11			111-6785	19.1	20.3	/157	015-1202
12			111-6784	18.1	19.1	/159	015-1204

- Notes:**
1. Cable details contained in DG Ships 211, 212, 213, and DEF STAN 61-12 (PART 5).
 2. The accessory sets listed in TABLE I (F) above consist of : 2 thrust rings, 1 sealing ring and 1 collet. Additionally, dependant on the connector/cable combination, they will contain as appropriate : Plugs, protective, dust and moisture seal (Filler plugs); Ferrules, screened cable (inner and outer); and heat shrinkable solder sleeves with earthing link.

TABLE I (G)
STANDARD RANGE
DUMMY ELECTRICAL PLUG-SOCKET
(STOWAGE SHELL SQUARE FLANGE)

PAGE ITEM NO	SHELL SIZE	STYLE REFERENCE	NATO STOCK NUMBER 5935-99-
	(a)	(b)	(c)
1	8	CC/1567/001	015-1205
2	10	/002	015-1206
3	12	/003	015-1207
4	14	/004	015-1208
5	16	/005	015-1209
6	18	/006	015-1210
7	20	/007	015-1211
8	22	/008	015-1212
9	24	/009	015-1213



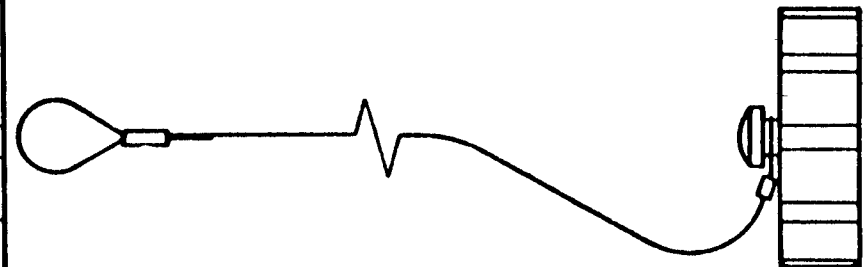
Note: Each stowage connector is supplied with fixing bolts, nuts, and washers.

For outline dimensions see page 46

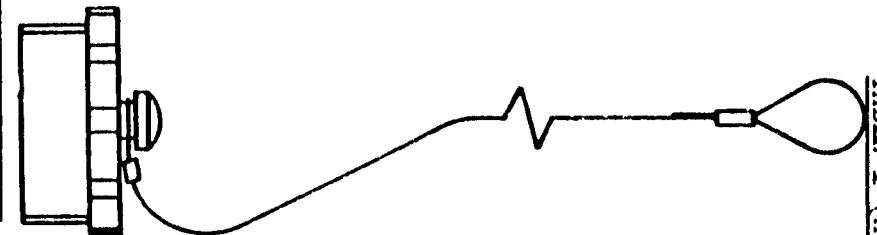
TABLE I (H)
STANDARD RANGE
COVERS, ELECTRICAL PLUG-SOCKET

PAGE ITEM NO	SHELL SIZE	COVER FOR FIXED CONNECTOR (FEMALE THREAD)		COVER FOR FREE CONNECTOR (MALE THREAD)	
		STYLE REFERENCE	NATO STOCK NUMBER 5935-99-	STYLE REFERENCE	NATO STOCK NUMBER 5935-99-
	(a)	(b)	(c)	(d)	(e)
1	8	CC/1577/001	015-1214	CC/1578/001	015-1223
2	10	/002	015-1215	/002	015-1224
3	12	/003	015-1216	/003	015-1225
4	14	/004	015-1217	/004	015-1226
5	16	/005	015-1218	/005	015-1227
6	18	/006	015-1219	/006	015-1228
7	20	/007	015-1220	/007	015-1229
8	22	/008	015-1221	/008	015-1230
9	24	/009	015-1222	/009	015-1231

COVER FOR FIXED CONNECTOR (FEMALE THREAD)



COVER FOR FREE CONNECTOR (MALE THREAD)

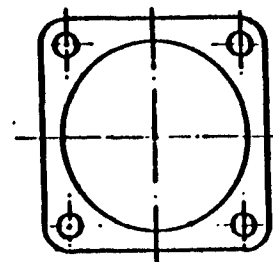


DEF STAN 59-35 (PART 5)/2
TABLE I (H)

For outline dimensions see page 47.

TABLE I (I)
STANDARD RANGE
GASKETS

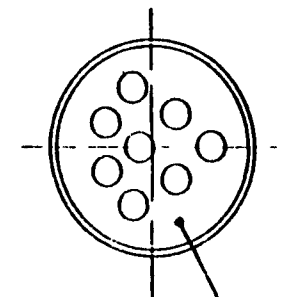
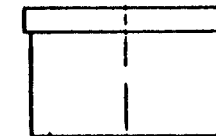
PAGE ITEM NO	SHELL SIZE	STYLE REFERENCE	NATO STOCK NUMBER 5330-99-
	(a)	(b)	(c)
1	8	CC/1583/001	015-1254
2	10	/002	015-1255
3	12	/003	015-1256
4	14	/004	015-1257
5	16	/005	015-1258
6	18	/006	015-1259
7	20	/007	015-1260
8	22	/008	015-1261
9	24	/009	015-1262



For outline dimensions see page 48

TABLE I (K)
STANDARD RANGE
PUSHINGS, RUBBER
(GROMMET MOISTURE SEAL (SOLDER VERSIONS))

PAGE ITEM NO	CONTACT ARRANGEMENT	STYLE REFERENCE	NATO STOCK NUMBER 5365-99-	WIRE HOLE POSITIONS AND ARRANGEMENTS SEE CONTROL DWG NO
	(a)	(b)	(c)	(d)
1	8-33	CC/1580/001	015-1238	CC/1565
2	10-2	/003	015-1239	CC/1566
3	10-6	/004	015-1240	CC/1566
4	12-3	/005	015-1241	CC/1567
5	12-10	/007	015-1242	CC/1567
6	14-5	/008	015-1243	CC/1568
7	14-19	/011	015-1244	CC/1568
8	16-4	/013	015-1360	CC/1569
9	16-8	/014	015-1245	CC/1569
10	16-26	/015	015-1246	CC/1569
11	18-11	/017	015-1247	CC/1570
12	18-32	/018	015-1248	CC/1570
13	20-16	/019	015-1249	CC/1571
14	20-41	/021	015-1250	CC/1571
15	22-21	/025	015-1251	CC/1572
16	22-55	/027	015-1252	CC/1572
17	24-61	/029	015-1253	CC/1573



TYPICAL LAYOUT FOR WIRE HOLE
POSITIONS AND ARRANGEMENTS
SEE RELATIVE CONTROL
DRAWING

DEF STAN 59-35 (PART 5)/2
TABLE I (K)

For outline dimensions see page 49

Note: When outlet assemblies, straight or angled, are required for use with free or fixed square flange connectors (solder style), a suitable moisture seal grommet must be selected from the above.

TABLE I (N)
STANDARD RANGE
ADAPTORS, CABLE TO ELECTRICAL PLUG-SOCKET
FOR PLUGS AND SOCKETS, SINGLE HOLE MOUNTING
WITH GROMMET SEAL

PAGE ITEM NO	SHELL SIZE	STYLE REFERENCE	NATO STOCK NUMBER 5935-99-
	(a)	(b)	(c)
1	8	CC/1587/001	015-1620
2	10	/002	015-1621
3	12	/003	015-1622
4	14	/004	015-1623
5	16	/005	015-1624
6	18	/006	015-1625
7	20	/007	015-1626
8	22	/008	015-1627
9	24	/009	015-1628

For outline dimensions see page 56.

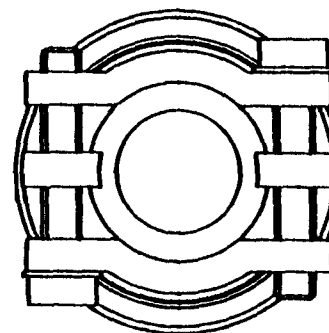
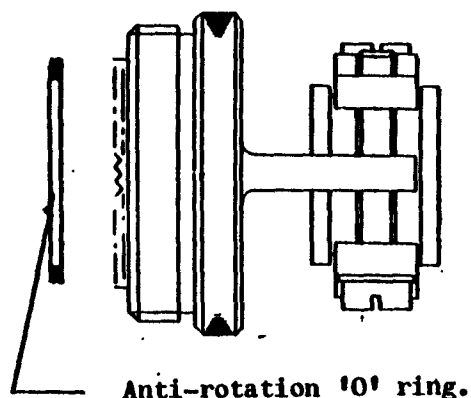


TABLE I (P)
STANDARD RANGE
ADAPTORS, CABLE TO ELECTRICAL PLUG-SOCKET
FOR PLUGS AND SOCKETS, FREE, AND
FIXED SQUARE FLANGE

PAGE ITEM NO	SHELL SIZE	STYLE REFERENCE	NATO STOCK NUMBER 5935-99-
	(a)	(b)	(c)
1	8	CC/1588/001	015-1629
2	10	/002	015-1630
3	12	/003	015-1631
4	14	/004	015-1632
5	16	/005	015-1633
6	18	/006	015-1634
7	20	/007	015-1635
8	22	/008	015-1636
9	24	/009	015-1637

For outline dimensions see page 57

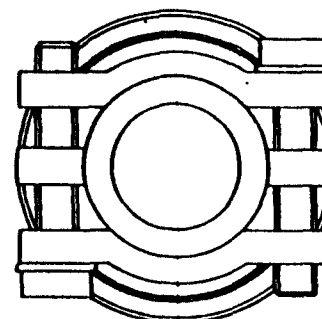
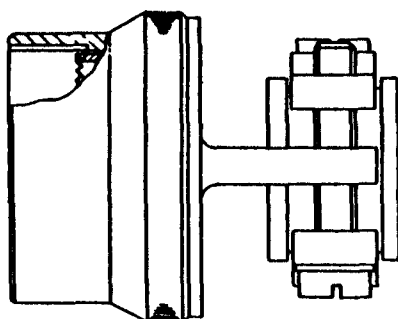


TABLE I (Q)
STANDARD RANGE
ADAPTORS (ANGLED), CABLE TO ELECTRICAL PLUG-SOCKET
FOR PLUGS AND SOCKETS, FIXED, SQUARE FLANGE

PAGE ITEM NO	SHELL SIZE	STYLE REFERENCE	NATO STOCK NUMBER 5935-99-
	(a)	(b)	(c)
1	8	CC/1589/001	015-1638
2	10	/002	015-1639
3	12	/003	015-1640
4	14	/004	015-1641
5	16	/005	015-1642
6	18	/006	015-1643
7	20	/007	015-1644
8	22	/008	015-1645
9	24	/009	015-1646

For outline dimensions see page 58

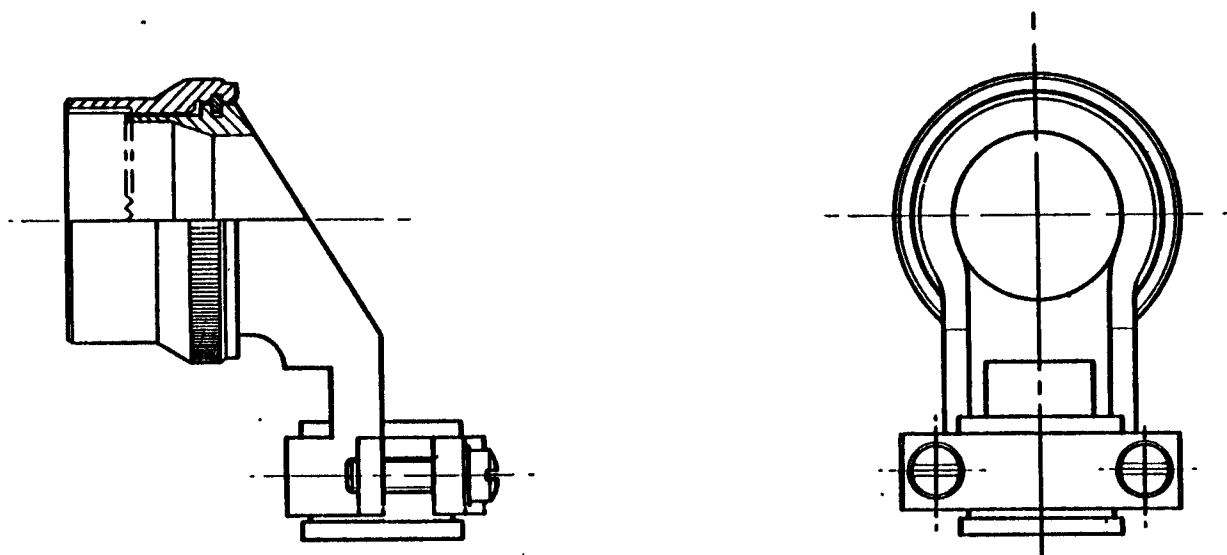


TABLE A
SPARES, ACCESSORIES, AND TOOLS

CONTACT, ELECTRICAL		
(PIN CONTACTS (CRIMP))		
SIZE	STYLE REFERENCE	NATO STOCK NUMBER 5999-99-
20	CC/1584/001	015-1232
16	/002	015-1233
12	/003	015-1285
(SOCKET CONTACTS (CRIMP))		
SIZE	STYLE REFERENCE	NATO STOCK NUMBER 5999-99-
20	CC/1584/004	015-1234
16	/005	015-1235
12	/006	015-1286

Notes:

1. Spare contacts provided against the above reference are in packets of 25 for size 16 and 20 contacts; and packets of 12 for size 12 contacts.
2. All connectors are normally supplied with a full complement of contacts
3. For outline dimensions see pages 53 and 54.

PLUG, PROTECTIVE, DUST AND MOISTURE SEAL		
(FILLER PLUGS)		
SIZE	STYLE REFERENCE	NATO STOCK NUMBER 5340-99-
20	CC/1579/001	015-1236
16	/002	015-1237
12	/003	015-1287

Notes:

1. Spare filler plugs provided against the above reference are in packets of 25
2. For outline dimensions see page 55

RINGS, SEALING, TOROIDAL - 'O' RINGS (For use with Adaptors, cable to electrical plug-socket for plugs and sockets, single hole mounting - See page 56 and Table I(N))		
SHELL SIZE	BS 4518 REFERENCE	NATO STOCK NUMBER 5330-99-
8	0081-16	821-2510
10	0111-16	821-2519
12	0141-16	821-2521
14	0171-16	821-2524
16	0191-16	821-2526
18	0221-16	821-2527
20	0251-16	821-2528
22	0291-16	821-2530
24	0321-16	821-2531

TOOLS		
DESCRIPTION	STYLE REFERENCE	NATO STOCK NUMBER
CONTACT INSERTION TOOL (SIZE 20)	CC/1581/001	5935-99-015-1263
CONTACT INSERTION TOOL (SIZE 16)	/002	5935-99-015-1264
CONTACT INSERTION TOOL (SIZE 12)	/003	5935-99-015-1288
CONTACT WITHDRAWAL TOOL (SIZE 20)	CC/1582/001	5935-99-015-1265
CONTACT WITHDRAWAL TOOL (SIZE 16)	/002	5935-99-015-1266
CONTACT WITHDRAWAL TOOL (SIZE 12)	/003	5935-99-015-1269

Note: For outline dimensions see page 59

TABLE B

TABLE B

INSTALLATION TOOL KIT

1.

NATO STOCK NUMBER : 5180-99-136-1081

ITEM LIST

Contact withdrawal tools, sizes 20, 16, and 12.
Contact insertion tools, sizes 20, 16, and 12.
Connector coupling spanners, shell sizes 8 to 24.
Connector uncoupling spanners, shell sizes 8 to 24.
Hexagon box spanners, shell sizes 8 to 24.
Connector holding spanners, shell sizes 8 to 24.
Clamp - connector holding.
Support bar - clamp.
Hexagon headed socket wrench.
Open ended spanners, sizes A (2 off), B, C, D, E, F, G, H, and J.
Tommy bar - hexagon box spanners.
Crimping tool assembly.
In-service gauge.
Extractor - outlet ferrule.
Bottle of sleeve lubricant.
10cc dispenser thread locking fluid.
Accessories : Male and female contacts, filler plugs, sleeves (each in packets of 12, 25, or 100 as applicable).

2.

CRIMP TOOL SET

NATO STOCK NUMBER : 5180-99-136-9447

ITEM LIST

Contact withdrawal tools, sizes 20, 16, and 12.
Contact insertion tools, sizes 20, 16, and 12.
Hexagon headed socket wrench.
Crimping tool assembly.
In-service gauge.

3.

CONNECTOR MAINTENANCE KIT

NATO STOCK NUMBER : 5180-99-136-9448

ITEM LIST

Connector coupling spanners, shell sizes 8 to 24.
Connector uncoupling spanners, shell sizes 8 to 24.
Connector holding spanners, shell sizes 8 to 24.
Extractor - outlet ferrule.

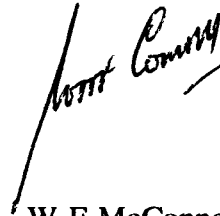
CONNECTORS, ELECTRICAL - PART 7: 13A ALL-INSULATED SEALED TYPES

AMENDMENT 1

1. Remove: Pages 13/14
 Insert: Page 13/New Page 14

2. Make a note of this amendment in the amendment record page.

D/DSTAN/318/27/08



W F McConnell
15 November 1996
Ministry of Defence
Directorate of Standardization
Kentigern house
65 Brown Street
GLASGOW G2 8EX

9.4 Toxicity

9.4.1 The test specimen shall be subjected to the test detailed in NES 713.

9.4.2 The toxicity index expressed in terms of 100 g of material shall not exceed a value of 5.

9.5 Mould growth

9.5.1 The test specimen shall comply with the requirements of BS 5772 (IEC 512): Part 6, Test 11e, variant 2 for a period of 28 days.

9.5.2 All specimens (rigid and other materials) shall be subjected to:

9.5.2.1 Visual examination for swelling, blistering and general degradation that would impair performance. The assessed extent of growth shall not exceed scale 1 as described in clause 10.3 of IEC 68-2-10.

9.5.2.2 Insulation Resistance test in accordance with BS 771 clause 6.7. The Insulation Resistance shall not be less than 10 MΩ.

9.6 Flammability

9.6.1 The test specimen shall be subjected to the test detailed in Annex L of CECC 75201.007.

9.6.2 There shall be no ignition of the tissue paper below the specimen. Burning and afterglow shall extinguish within 30 seconds after removal of the flame.

9.7 Drop test, low temperature

9.7.1 The temperature of the fixed and free connectors shall be reduced to -31°C in accordance with BS EN 60068-2-1: Test Aa. Whilst still at the reduced temperature the connector(s) shall be subjected to the drop test at 8.3.1.

9.7.2 There shall be no damage that would impair operation or compromise safe use of the connector.

Plugs and Sockets Electrical, All-Insulated Sealed TypesTable I(A) Standard Range - Plugs, Electrical (Primarily for Field Power Applications)

ITEM NO	NATO STOCK NUMBER 5935-99-	ITEM NAME	FIXED OR FREE	NUMBER OF CONTACTS	TYPE OF CONTACTS	CURRENT RATING (AMPS)	VOLTAGE RATING (VOLTS)	OUTLINE SHAPE	SHELL MALE OR FEMALE	TYPE OF MOUNTING	SPECIAL FEATURES
1	328-8646	Plug, Electrical	Free	3	Male	13	240V ac	Fig 4	Female	Cable	Non Fused
2	722-2532		Free	3	Male	13	240V ac	Fig 5	Female	Cable	Non Fused
3	831-8158		Fixed	3	Male	13	240V ac	Fig 6	Female	Panel	Non Fused

NOTES:

- The 13 amp non-fused plugs in the above table shall not be used in domestic 13 amp ring main circuits.

Plugs and Sockets Electrical, All-Insulated Sealed TypesTable I(B) Standard Range - Sockets, Electrical (Primarily for Field Power Applications)

ITEM NO	NATO STOCK NUMBER 5935-99-	ITEM NAME	FIXED OR FREE	NUMBER OF CONTACTS	TYPE OF CONTACTS	CURRENT RATING (AMPS)	VOLTAGE RATING (VOLTS)	OUTLINE SHAPE	SHELL MALE OR FEMALE	TYPE OF MOUNTING
1	327-4024	Socket, Electrical	Fixed	3	Female	13	240V ac	Fig 3	Male	Panel
2	227-8581		Free	3	Female	13	240V ac	Fig 2	Male	Cable
3	810-4052		Free	3	Female	13	240V ac	Fig 1	Male	Cable

Ministry of Defence

Defence Standard

59-35(Part 7)/Issue 1

25 AUGUST 1995

CONNECTORS, ELECTRICAL

PART 7: 13A ALL-INSULATED SEALED TYPES

This Defence Standard supersedes
Def Stan 59-4(Part 3)/Issue 1
dated 11 September 1967

AMENDMENTS ISSUED SINCE PUBLICATION

AMD NO	DATE OF ISSUE	TEXT AFFECTED	SIGNATURE & DATE

Revision Note

Historical Record

Def Stan 59-4 (Part 3)/1 dated 11 September 1967 specified a range of tables I, II and III connectors for use by the Navy, Army and RAF. This Defence Standard superseded SSM(L)9-41, Issue 13, Part 5 dated 1 March 1966.

CONNECTORS, ELECTRICAL

PART 7: 13A ALL-INSULATED SEALED TYPES

PREFACE

This Defence Standard supersedes
Def Stan 59-4 (Part 3)/Issue 1
dated 11 September 1967

- i This Part of the Defence Standard relates to electrical connectors, primarily for use on Field Power Applications.
- ii This Part of the Defence Standard has been prepared because there is no suitable British or CECC Standard acceptable to the Ministry of Defence (MOD). When a suitable British or CECC Standard becomes available this Defence Standard will be amended to implement the British or CECC Standard for MOD use.
- iii This Part of the Defence Standard has been prepared by the Defence Electrical and Electronic Standardization Committee (DELSC) Working Party L9/8.
- iv Users of this Part of the Standard shall note that these items and procedures may be claimed to be subject to patent/copyright/design rights in this or in other countries.
- v This Part of the Standard has been agreed by the authorities concerned with its use and is intended to be used whenever relevant in all future designs, contracts, orders etc and whenever practicable by amendment to those already in existence. If any difficulty arises which prevents application of the Defence Standard, the Directorate of Standardization shall be informed so that a remedy may be sought.
- vi Any enquiries regarding this Part of the Standard in relation to an invitation to tender or a contract in which it is incorporated are to be addressed to the responsible technical or supervising authority named in the invitation to tender or contract.
- vii This Part of the Standard has been devised for the use of the Crown and its contractors in the execution of contracts for the Crown. The Crown hereby excludes all liability (other than liability for death or personal injury) whatsoever and howsoever arising (including, but without limitation, negligence on the part of the Crown its servants or agents) for any loss or damage however caused where the Standard is used for any other purpose.

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CONNECTORS, ELECTRICALPART 7: 13A ALL-INSULATED SEALED TYPES

Section One. General1 Scope

1.1 This Part of the Defence Standard specifies the minimum MOD requirements for electrical connectors, primarily intended for use on Field Power Applications.

1.2 The specification replaces the production drawing package against which all components have been produced to date. Connectors produced by either method are to be completely intermateable.

1.3 This Part of the Defence Standard details the general requirements, test methods and requirements and additional requirements on electrical connectors for MOD use.

1.4 The connectors are an all-insulated robust type with three 13 Amp contacts conforming to BS 1363 and coarse ribbed coupling nuts. The design provides barrier and panel sealing, M 3.5 x 0.6 stud terminals and back end fittings capable of accommodating circular, covered three-core cable up to 2.5 sq mm cross-sectional area.

1.5 The outer housing (shell) has a standard colour finish of olive green drab to BS 381C. Should this conflict with the process or material selected then a neutral colour such as black is acceptable.

1.6 Table I lists the standard range of connectors to be used where sealed connectors are required in all future designs of equipment. There are no table II items.

2 WARNING

This Part of the Standard calls for the use of substances and/or procedures that may be injurious to health if adequate precautions are not taken. It refers only to technical suitability and in no way absolves either the designer, the producer, the supplier or the user from statutory and all other legal obligations relating to health and safety at any stage of manufacture or use.

3 Related Documents

3.1 The following documents and publications are referred to in the text of this Part of the Standard:

ISO 179	Plastics - determination of Charpy impact strength
IEC 68-2-10	Mould growth - Test J
CECC 75 201.007	Specification for Multi Contact, heavy duty electrical connectors with insulated outer housing
BS EN 60068-2-1	Test A. Cold

3.1 (Contd)

BS EN 60068-2-61	Climatic sequence
BS 381C	Specification for colours for identification, coding and special purposes
BS 771	Specification for phenolic moulding materials
BS 1363	Specification for 13A fused plugs and switched and unswitched socket-outlets
BS 2011 (IEC 68)	Basic Environmental Testing procedures
BS 4343	Specification for industrial plugs, socket-outlets and couplers for a.c and d.c supplies
BS 5772 (IEC 512)	Specification for Electromechanical Components for electronic equipment: basic testing procedures and measuring methods
BS 6001 Part 1	Sampling plans indexed by Acceptable Quality Level (AQL) for lot-by-lot inspection
Def Stan 61-12 (Part 0)	Wires, Cords and Cables electrical metric units, General requirements and test methods for qualification approval
Def Stan 61-12 (Part 27)	Wires, Cords and Cables electrical metric units, cables and wires, electrical for power connections to mobile equipment
NES 713	Determination of the toxicity index of the products of combustion from small specimens of materials

3.2 Reference in this Part of the Standard to any related documents means in any invitation to tender or contract the edition and all amendments current at the date of such tender or contract unless a specific edition is indicated.

3.3 Copies of related specifications and documents are obtainable from:

DOCUMENT	SOURCE
IEC ISO EN Publications CECC Publications British Standards	BSI Customer Services BSI Standards 389 Chiswick High Road LONDON W4 4AL
Defence Standards	Directorate of Standardization Kentigern House 65 Brown Street GLASGOW G2 8EX
Naval Engineering Standards (NES)	MOD Library Block E Foxhill BATH BA1 5AB

4 Patent Rights, Registered Designs and Copyrights

Users of this Part of the Standard shall note that these items and procedures may be claimed to be subject to patent/copyright/design rights in this or in other countries.

5 Ordering Information

The ordering information shall include: Item(s); Identification(s); Total quantity(ies); Delivery date(s); Delivery rate(s); QA requirements and packaging level(s).

6 Packaging and Labelling

As required by the purchase contract.

Section Two. General Requirements

7 General Requirements

7.1 Standard atmospheric conditions. Conditions for measurements and tests shall be in accordance with BS 2011 (IEC 68) clause 5.3.

7.2 Recovery conditions. Shall be in accordance with BS 2011 (IEC 68) clause 5.4.

7.3 Recording of measurements. Where measurements are specified, the actual values obtained shall be recorded together with the estimated uncertainty of measurement of the equipment used to make the measurement.

7.4 Mounting

7.4.1 Unless otherwise specified by the individual test methods of this standard, connectors shall be mounted by their normal mounting means.

7.4.2 Fixed connectors shall make full use of the facilities provided for mounting. Free connectors shall be coupled with an appropriate fixed mated half. No further fixing/clamping shall be provided for free items.

7.5 Conditioning sequence. After pre-test examination, conditioning shall be applied in the order in which they appear in 8.3.

7.6 Determination of Charpy impact strength of rigid plastics materials. The impact strength shall be determined in accordance with BS 771: 1992 Table 2 for the appropriate grades of material used.

7.7 Production routine tests. Every connector, fixed or free, shall be subjected to the post-conditioning test in accordance with 8.2.2. Additionally, the remaining tests of 8.2 shall be applied on a lot-by-lot basis in accordance with BS 6001 Part 1.

7.8 Electrical cable. Where cable is required for a test, the cable used shall be to Def Stan 61-12 (Part 27) (NSN 6145-99-892-0288), Table IE, and the terminations shall be tightened to a torque of 0.8 Nm for testing purposes.

7.9 Gauging. The manufacturer shall provide any gauges deemed necessary by him to aid inspection and test procedures. Any such gauges shall have traceable identification and configuration control documentation to support independent audit of their inspection/calibration and use.

7.10 Identification. NATO Stock Numbers shall be permanently marked and readily visible.

8 Test Methods and Requirements

8.1 Pre-test examination

8.1.1 General examination. The connector(s) shall be visually examined, there shall be no loosening of parts mechanical/physical damage, that would impair performance.

8.1.2 Dimensions

8.1.2.1 The connectors shall be inspected to ensure conformance with the dimensions laid down in annex B.

8.1.2.2 Dimensions in annex B are in millimetres. Drawings are not to scale.

8.2 Post-conditioning test

8.2.1 Visual examination. There shall be no loosening of parts or mechanical/physical damage, that would impair performance.

8.2.2 Insulation resistance

8.2.2.1 Fixed connectors shall be fitted to a metal plate of sufficient size to exceed the outside dimensions of the connector.

8.2.2.2 Free connectors shall be wired with an appropriate length of cable.

8.2.2.3 The Insulation Resistance is to be measured with sockets and plugs uncovered, using a dc voltage of not less than 500 volts, applied for sufficient time for the reading to become stable. The Insulation Resistance is measured consecutively between:

- (a) line and neutral terminals;
- (b) line and neutral terminals connected together and;
 - (i) a metal foil in intimate contact with the entire accessible external surface, including any metal part or anchorage;
 - (ii) the earth pin.

8.2.2.4 The Insulation Resistance of any measurement shall not be less than 10 M Ω .

8.2.3 Contact resistance

8.2.3.1 The connector(s) shall be subjected to the requirements of BS 5772 (IEC 512): Part 2, Test 2B: Contact Resistance - Specified Test Current Method. The current for the test shall be 10 amps dc.

8.2.3.2 All connectors for the test shall be prepared by wiring with an appropriate length of cable.

8.2.3.3 The resistance of each mated pair of contacts shall be measured.

8.2.3.4 The contact resistance of each mated pair of contacts (derived from the voltage drop) shall be less than 25 milliohms.

8.2.4 Voltage proof

8.2.4.1 Fixed connectors shall be fitted to a metal plate of sufficient size to exceed the outside dimensions of the connector.

8.2.4.2 Free connectors shall be wired with an appropriate length of cable.

8.2.4.3 The connector(s) shall be subjected to the requirements of BS 5772 (IEC 512): Part 2, Test 4A, at a voltage of 2000 volts dc between:

- (a) line and neutral terminals;
- (b) line and neutral terminals connected together and;
 - (i) a metal foil in intimate contact with the entire accessible external surface;
 - (ii) the earth terminal;
 - (iii) any metal part or anchorage;
 - (iv) the metal mounting plate.

8.2.4.4 During the application of the voltage at the points detailed above there shall be no leakage of current in excess of 1 mA, or flashover.

8.3 Conditioning

8.3.1 Drop test

8.3.1.1 Free connectors. The free connector(s) shall be subjected to the requirements of BS 5772 (IEC 512): Part 5, Test 7b: Mechanical Strength Impact. The connector shall be dropped in a random attitude for a total of six drops, with an attachment height of 1.5 metres.

8.3.1.2 The free connector(s) shall be subjected to the tests of 8.2.

8.3.1.3 Fixed connectors. This test is not applicable.

8.3.2 Bump

8.3.2.1 The fixed connector(s) shall be mounted to a suitable jig (see 7.4) and shall be coupled with a suitable free mating connector.

8.3.2.2 The connector(s) shall be subjected to the requirements of BS 2011 (IEC 68): Part 2.1, Test Eb, 1333 bumps in each of the three mutually perpendicular axes at a severity 40 g, 6 mS.

8.3.2.3 The connector(s) shall then be subjected to the tests of 8.2.

8.3.3 Vibration

8.3.3.1 The fixed connector(s) shall be mounted to a suitable jig (see 7.4) and shall be coupled with a suitable free mating connector.

8.3.3.2 The connector(s) shall be subjected to the requirements of BS 2011 (IEC 68): Part 2.1, Test Fc (Sinusoidal Vibration) Endurance by Sweeping, over the frequency range 10 to 500 Hz at a level of 0.75 mm/10 g at a sweep rate of 1 octave per minute $\pm$ 10%. The duration shall be a total of 30 hours equally divided between three mutually perpendicular axes. The connector mated pair shall be monitored and the contact resistance shall not exceed 10 k Ω for a continuous period in excess of 10 μ s.

8.3.3.3 The connector(s) shall be subjected to the tests of 8.2.

8.3.4 Cable fixing

8.3.4.1 Grip

8.3.4.1.1 The free connector(s) shall be subjected to the requirements of BS 5772 (IEC 512): Part 9, Test 17c. The force applied shall be 80 N. During the test the body of the connector shall be clamped in a vertical attitude.

8.3.4.1.2 The cable shall not be displaced by more than 3 mm.

8.3.4.2 Abrasion

8.3.4.2.1 The free connector(s) shall be subjected to the requirements of BS 5772 (IEC 512): Part 9, Test 17b. There shall be a total of 10 rotations at a speed not greater than 10 rotations per minute.

8.3.4.2.2 The cable shall then be examined and there shall be no damage to the external surface that would impair operation.

8.3.5 Climatic sequence

8.3.5.1 The connector(s) shall be subjected to the requirements of BS EN 60068-2-61: Part 2, Test Z/ABDM, Method 1, with the following exceptions:

- (a) the low air pressure test shall be omitted;
- (b) the cyclic humidity test shall be performed at a temperature of +40°C;
- (c) upper category temperature = +49°C;
- (d) lower category temperature = -31°C.

8.3.5.2 Following the test the connector(s) shall be subjected to standard recovery conditions for a period of 1 hour.

8.3.5.3 Within a further 30 minutes the connector(s) shall be subjected to the tests of 8.2.

8.3.6 Sealing immersion

8.3.6.1 The free connector(s) shall be immersed in tap water at a pressure of 34 kPa (or equivalent depth) in a horizontal attitude, for a period of 1 hour. They shall be withdrawn from the water at the end of the period and shaken so as to remove droplets; additionally, residual water may be removed with the aid of absorbent paper tissue.

8.3.6.1 (Contd)

In order to fully evaluate all protective seals, the connector(s) shall be immersed in each of the following configurations:

- (a) with covers in place;
- (b) with covers removed.

8.3.6.2 Within 30 minutes of removal from the water the connector(s) shall be subjected to the tests of 8.2.2.

8.3.7 Salt spray

8.3.7.1 The connector(s) shall be subjected to the requirements of BS 2011 (IEC 68): Part 2.1, Test Kb.

8.3.7.2 The connector(s) shall be tested with protective covers removed to enable exposure of metal parts/contacts. Fixed connectors shall be mounted to a sealed container.

8.3.7.3 The salt solution used shall conform to the National Appendix A of BS 2011 (IEC 68): Part 2.1, Test Kb (Test for a Marine Environment).

8.3.7.4 The severity of test shall be Severity 1.

8.3.7.5 Following the test the connector(s) shall be subjected to standard recovery conditions for a period of 1 hour.

8.3.7.6 Within a further 30 minutes the connector(s) shall be subjected to the tests of 8.2.

8.3.8 Dust test

8.3.8.1 The connector(s), with covers removed, shall be subjected to the test of Annex K of CECC 75201.007.

8.3.8.2 There shall be no ingress of sand and dust that would impair normal operations.

8.3.9 Damp heat, cyclic

8.3.9.1 The connector(s) shall be subjected to the requirements of BS 2011 (IEC 68): Part 2.1, Test Db, Variant 1 (40°C, 21 days).

8.3.9.2 Following the test, the connector(s) shall be subjected to standard recovery conditions for a period of 1 hour.

8.3.9.3 Within a further 30 minutes the connector(s) shall be subjected to the tests of 8.2.

8.3.10 Temperature rise test

8.3.10.1 The connector(s) shall be subjected to the requirements of BS 4343 clause 22, with the following exceptions:

- (a) the test current shall be 18 amps;
- (b) the cable shall be as specified at 7.8.

8.3.10.2 The temperature rise shall not exceed 45°C, and visual examination shall be in accordance with 8.2.1.

8.3.11 Barrier/Panel test - fixed connector(s)

8.3.11.1 The connector(s) with covers removed shall be subjected to the requirements of BS 2011 (IEC 68): Part 2.1, Test Qf.

8.3.11.2 The connector(s) shall be mounted by their normal means to the lid of a sealed container.

8.3.11.3 The container shall be immersed in tap water to a pressure of 34 kPa (or equivalent depth) for a period of 1 hour.

8.3.11.4 At the conclusion of the test the mounted connector(s) shall be examined for water penetration.

8.3.11.5 Within 30 minutes of removal from the water the connector(s) shall be subjected to the tests of 8.2.2.

8.3.12 Engagement and Disengagement

8.3.12.1 Mating pairs of connectors shall be subjected to the requirements of BS 5772 (IEC 512): Part 7, Test 13a. The rate of application of force shall not exceed 10 N/s.

8.3.12.2 The mated connectors shall be subjected to 500 coupling operations at a rate not exceeding 10 couplings per minute.

8.3.12.3 The mating pairs of connectors shall be retested as in 8.3.12.1.

8.3.12.4 The forces required for engagement and disengagement shall be in the range of 2 to 6 kilograms. Visual examination shall be in accordance with 8.2.1.

8.3.12.5 The mated pairs of connectors shall then be subjected to the requirements of 8.2.3.

9 Additional requirements

9.1 When non-metallic material which does not comply with BS 771 is used, the material shall satisfy the requirements of the tests detailed below. Separate specimens shall be provided for each test. The tests are not sequential.

9.1.1 For rigid plastic materials the tests shall be carried out using specimens (with the exception of the Drop test, low temperature) as described by ISO 179 for Charpy impact tests.

9.1.2 For all other materials an actual piece part or suitable test piece shall be used.

9.2 Resistance to fluids.

9.2.1 The test specimen(s) shall be subjected to the test specified in annex D of CECC 75201.007.

9.2.2 Following conditioning, the test specimens shall be subjected to:

9.2.2.1 For rigid specimens:

(a) Determination of Charpy impact strength tests of BS 771 to the limits specified in BS 771 Table 2.

(b) Visual examination for swelling, blistering and general degradation that would impair performance.

(c) Insulation Resistance test in accordance with BS 771 clause 6.7. The Insulation Resistance shall not be less than 10 MΩ.

9.2.2.2 For all other materials:

(a) Visual examination for swelling, blistering and general degradation that would impair performance;

(b) Insulation Resistance test in accordance with BS 771 clause 6.7. The Insulation Resistance shall not be less than 10 MΩ.

9.3 Resistance to ultraviolet

9.3.1 The test specimen(s) shall be subjected to the conditions specified in Def Stan 61-12 (Part 0), clause 16.16. The lamps shall be UV-B, the test cycle shall be 8 hours UV at 55°C ± 3°C, 4 hours humidity period at 40°C ± 3°C and the total test period shall be 1000 hours.

9.3.2 Within 24 hours of the completion of the resistance to ultraviolet test, the specimen(s) shall be subjected to:

9.3.2.1 For rigid specimens:

(a) Determination of Charpy impact strength tests of BS 771 to the limits specified in BS 771 Table 2.

(b) Visual examination for swelling, blistering and general degradation that would impair performance.

(c) Insulation Resistance test in accordance with BS 771 clause 6.7. The Insulation Resistance shall not be less than 10 MΩ.

9.3.2.2 For all other materials:

(a) Visual examination for swelling, blistering and general degradation that would impair performance.

(b) Insulation Resistance test in accordance with BS 771 clause 6.7. The Insulation Resistance shall not be less than 10 MΩ.

9.4 Toxicity

9.4.1 The test specimen shall be subjected to the test detailed in NES 713.

9.4.2 The toxicity index expressed in terms of 100 g of material shall not exceed a value of 5.

9.5 Mould growth

9.5.1 The test specimen shall comply with the requirements of BS 5772 (IEC 512): Part 6, Test 11e, variant 2 for a period of 28 days.

9.5.2 All specimens (rigid and other materials) shall be subjected to:

9.5.2.1 Visual examination for swelling, blistering and general degradation that would impair performance. The assessed extent of growth shall not exceed scale 1 as described in clause 10.3 of IEC 68-2-10.

9.5.2.2 Insulation Resistance test in accordance with BS 771 clause 6.7. The Insulation Resistance shall not be less than 10 MΩ.

9.6 Flammability

9.6.1 The test specimen shall be subjected to the test detailed in Annex L of CECC 75201.007.

9.6.2 There shall be no ignition of the tissue paper below the specimen. Burning and afterglow shall extinguish within 30 seconds after removal of the flame.

9.7 Drop test, low temperature

9.7.1 The temperature of the fixed and free connectors shall be reduced to -31°C in accordance with BS EN 60068-2-1: Test Aa. Whilst still at the reduced temperature the connector(s) shall be subjected to the drop test at 8.3.1.

9.7.2 There shall be no damage that would impair operation or compromise safe use of the connector.

Plugs and Sockets Electrical, All-Insulated Sealed TypesTable I(A) Standard Range - Plugs, Electrical (Primarily for Field Power Applications)

ITEM NO	NATO STOCK NUMBER 5935-99-	ITEM NAME	FIXED OR FREE	NUMBER OF CONTACTS	SHAPE OF CONTACTS	CURRENT RATING (AMPS)	VOLTAGE RATING (VOLTS)	OUTLINE SHAPE	SHELL MALE OR FEMALE	TYPE OF MOUNTING	SPECIAL FEATURES
1	328-8646	Plug,	Free	3	Rectangular	13	240V ac	Straight	Female	Cable	Non Fused
2	722-2532	Electrical	Free	3	Rectangular	13	240V ac	90° Angle	Female	Cable	Non Fused
3	831-8158		Fixed	3	Rectangular	13	240V ac	Straight	Female	Panel	Non Fused

NOTES:

- The 13 amp non-fused plugs in the above table shall not be used in domestic 13 amp ring main circuits.

Plugs and Sockets Electrical, All-Insulated Sealed TypesTable I(B) Standard Range - Sockets, Electrical (Primarily for Field Power Applications)

ITEM NO	NATO STOCK NUMBER 5935-99-	ITEM NAME	FIXED OR FREE	NUMBER OF CONTACTS	SHAPE OF CONTACTS	CURRENT RATING (AMPS)	VOLTAGE RATING (VOLTS)	OUTLINE SHAPE	SHELL MALE OR FEMALE	TYPE OF MOUNTING
1	327-4024	Socket,	Fixed	3	Rectangular	13	240V ac	Straight	Male	Panel
2	227-8581	Electrical	Free	3	Rectangular	13	240V ac	90° Angle	Male	Cable
3	810-4052		Free	3	Rectangular	13	240V ac	Straight	Male	Cable

NATO STOCK NUMBERS OF CONNECTORS, ELECTRICAL
WHICH ARE INTERMATEABLE

PLUG, ELECTRICAL			SOCKET, ELECTRICAL		
NATO STOCK NUMBER 5935-99-	TABLE NO	ITEM NO	NATO STOCK NUMBER 5935-99-	TABLE NO	ITEM NO
722-2532	I(A)	2	810-4052 227-8581 327-4024	I(B) I(B) I(B)	3 2 1
831-8158	I(A)	3	810-4052 227-8581	I(B) I(B)	3 2
328-8646	I(A)	1	810-4052 227-8581 327-4024	I(B) I(B) I(B)	3 2 1
722-2532 831-8158 328-8646	I(A) I(A) I(A)	2 3 1	810-4052 227-8581	I(B) I(B)	3 2
722-2532 328-8646	I(A) I(A)	2 1	327-4024	I(B)	1

RUBBER GLANDS FOR USE WITH 13 AMP CONNECTORS

NATO STOCK NUMBER 5975-99-	GLANDS	REMARKS
940-2248	Cable, Rubber.	For use with 13 amp plugs and sockets
940-2249	Cable, Rubber.	

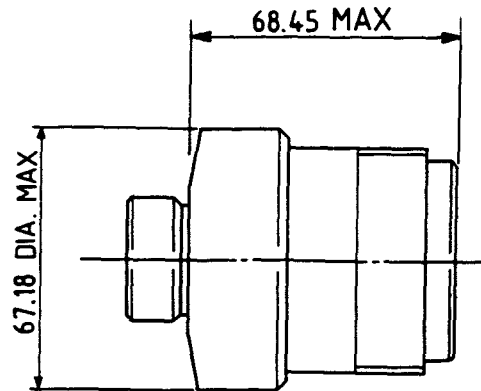


Fig 1 Connector, Free Electrical 5935-99-810-4052

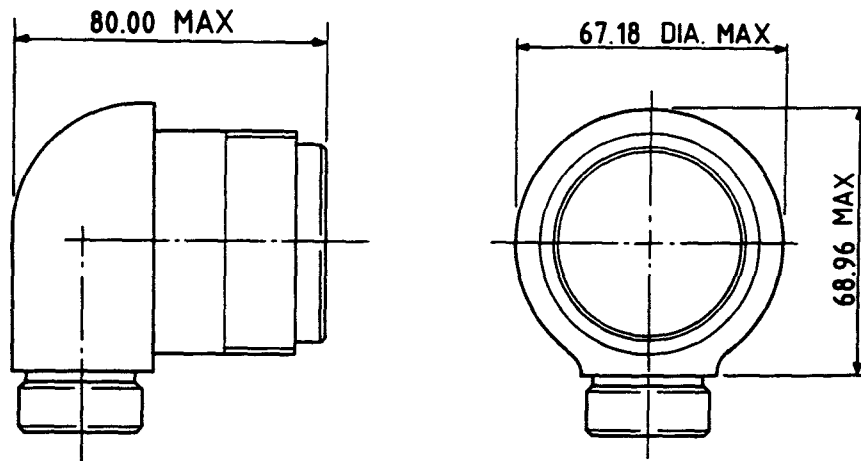


Fig 2 Connector, Free Electrical 5935-99-227-8581

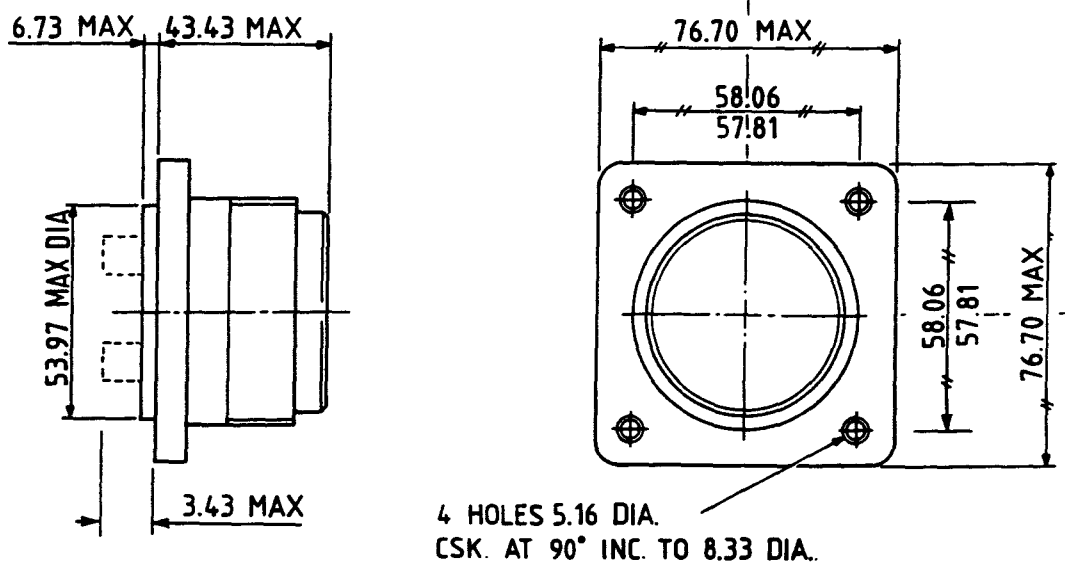


Fig 3 Connector, Fixed Electrical 5935-99-327-4024

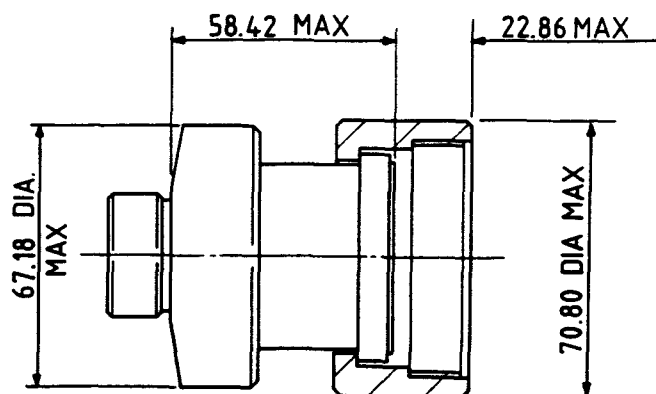


Fig 4 Connector, Free Electrical 5935-99-328-8646

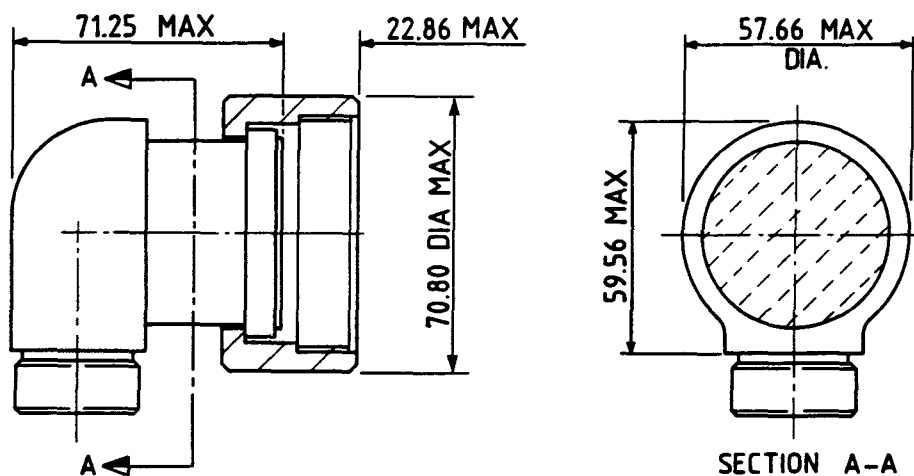


Fig 5 Connector, Free Electrical 5935-99-722-2532

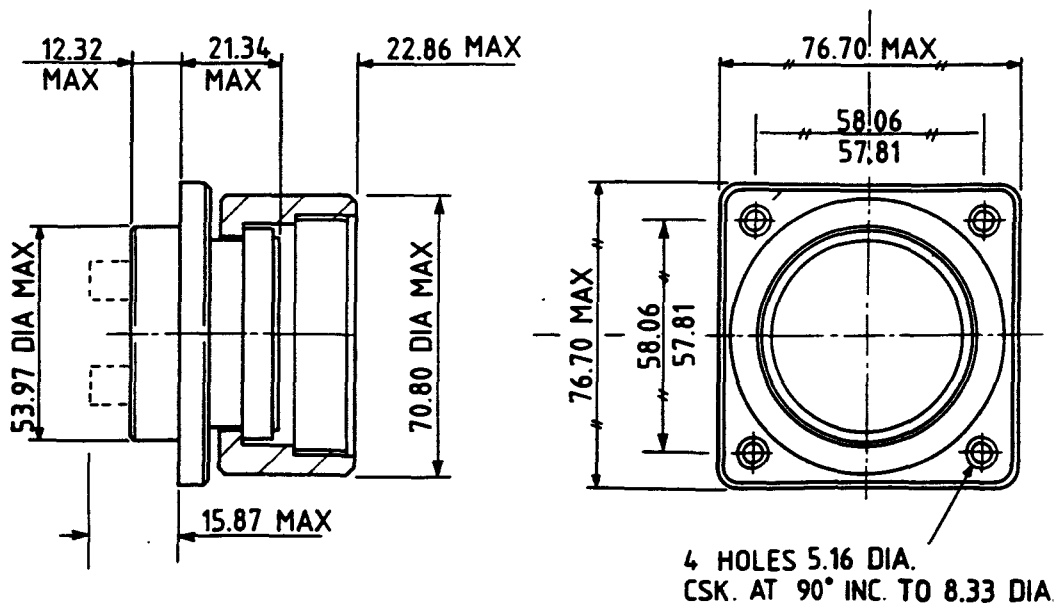


Fig 6 Connector, Fixed Electrical 5935-99-831-8158

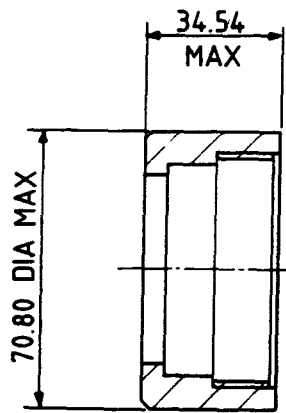


Fig 7 Nut, Coupling
5935-99-850-0204

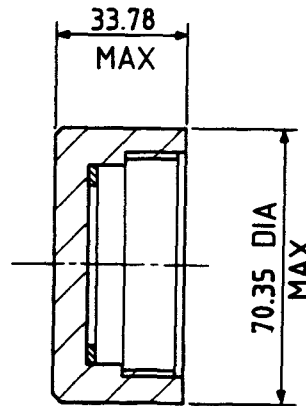


Fig 8 Cover, Electrical Connector
5935-99-840-2843

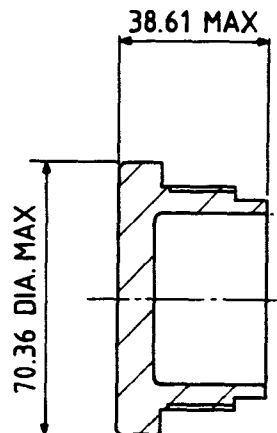


Fig 9 Cover, Electrical Connector 5935-99-761-0978

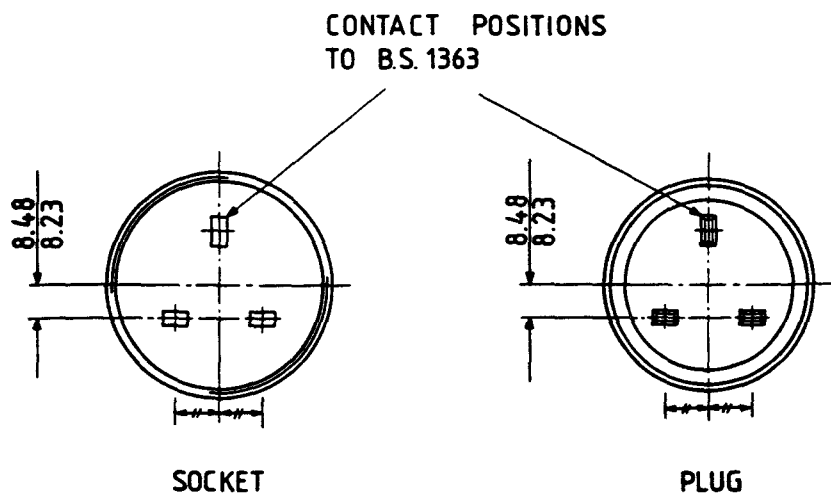


Fig 10 Contact Position Detail

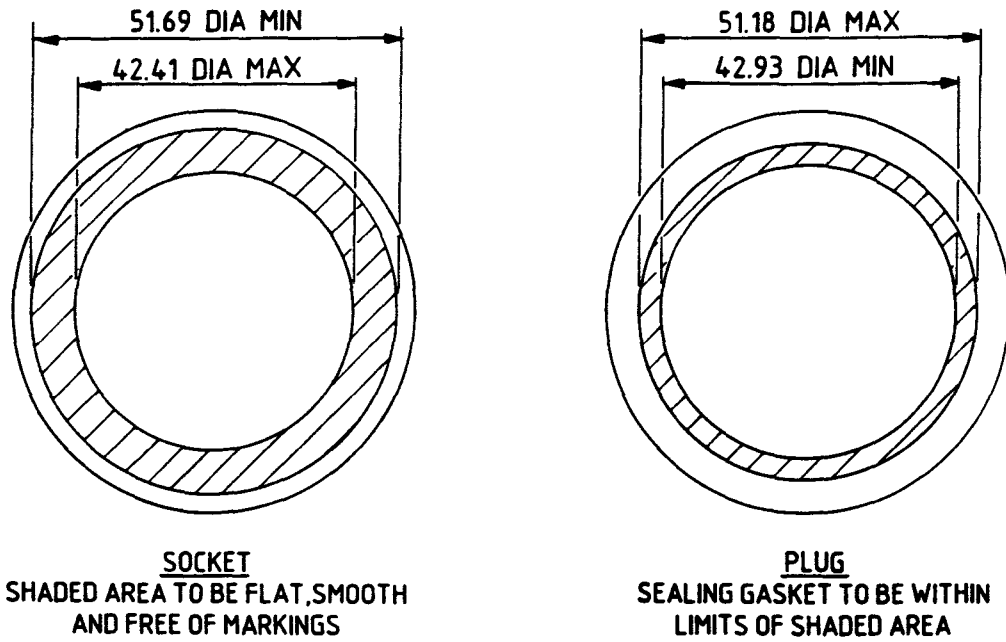


Fig 11 Mating Face Sealing

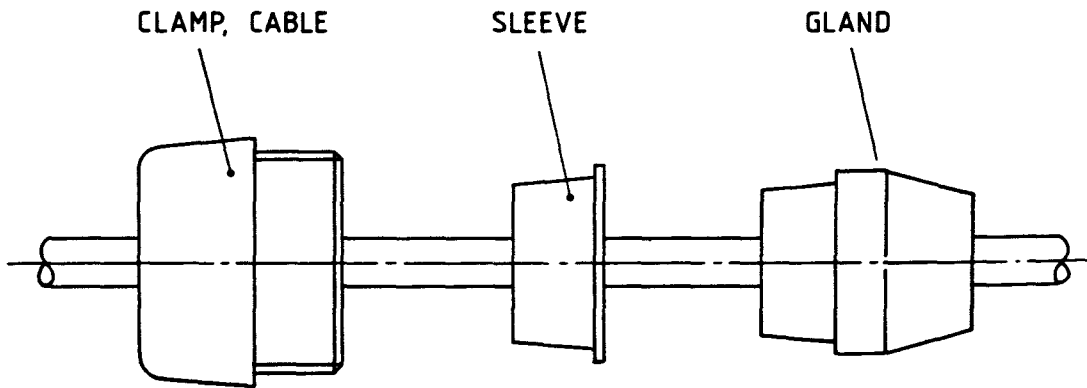


Fig 12 Cable Glanding and Clamping Detail

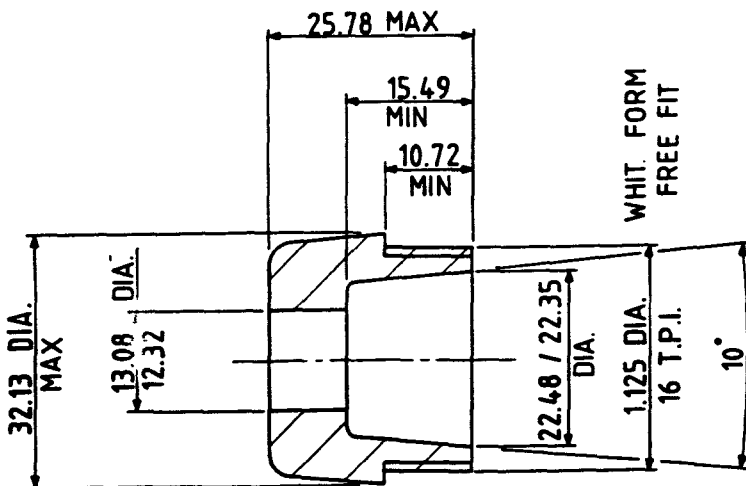
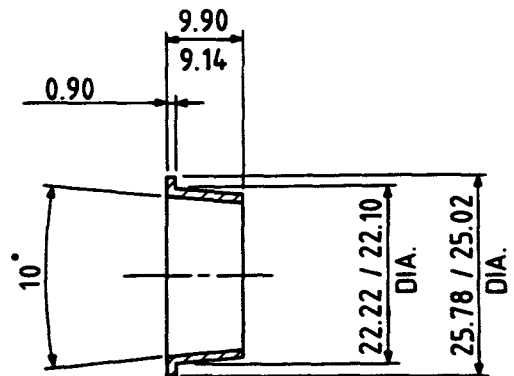
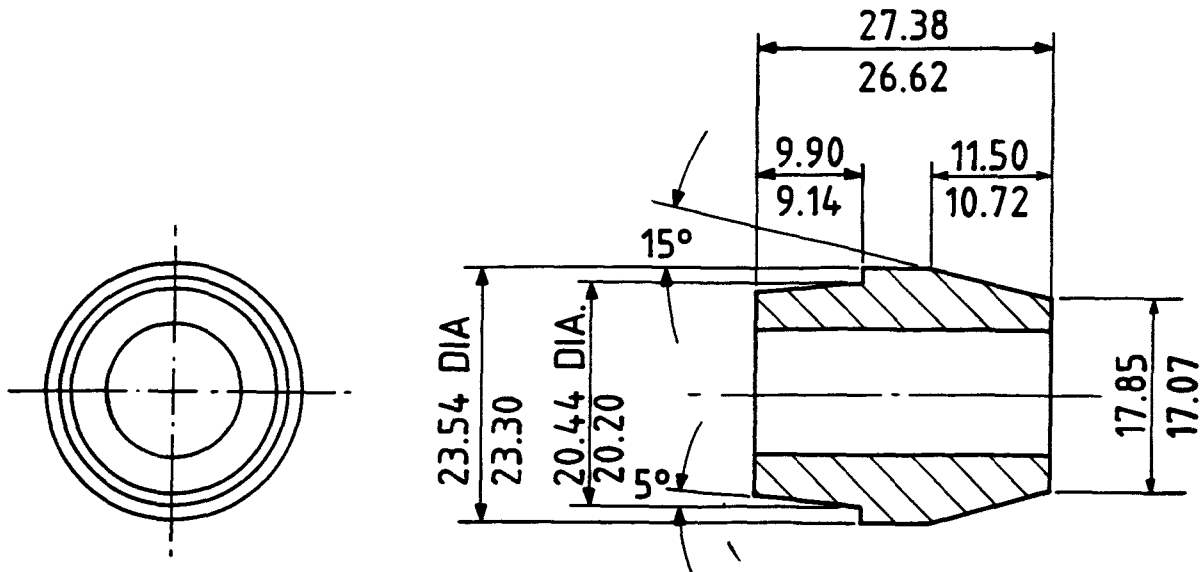


Fig 13 Clamp Cable, Electrical Connector



CL SECTION

Fig 14 Sleeve, Electrical
Plug/Socket
5935-99-451-2833

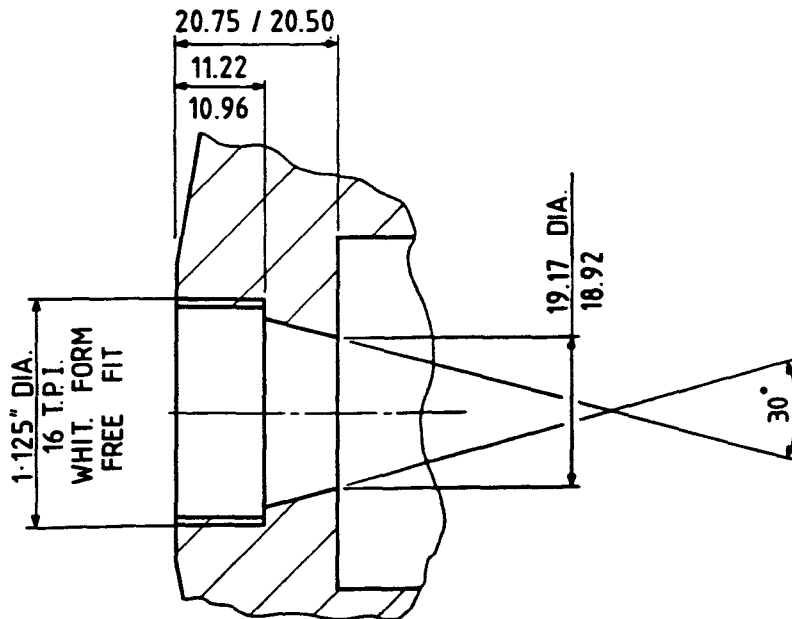


GLAND, CABLE, RUBBER

TYPE 1, 7.49 DIA. BORE 5975-99-940-2248

" 11.43 DIA. BORE 5975-99-940-2249

Fig 15



FREE CONNECTOR CABLE ENTRY DETAIL

Fig 16

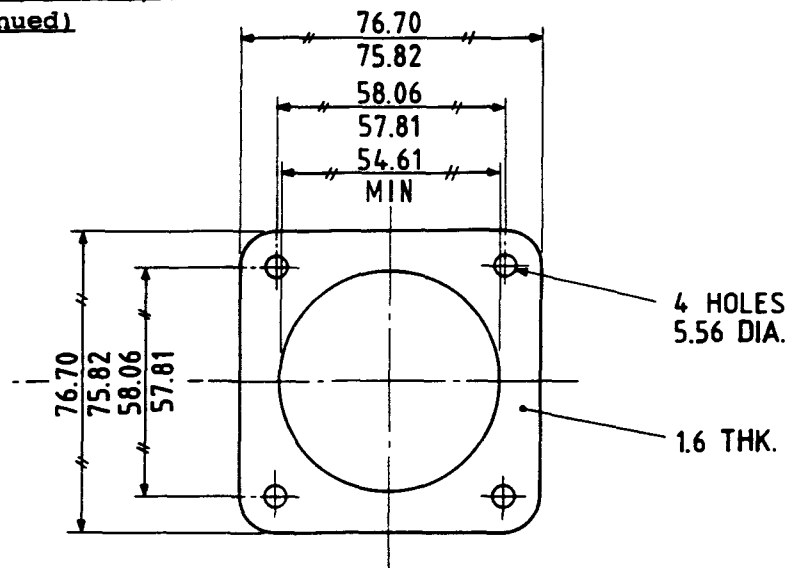


Fig 17 Gasket, 6115-99-101-9180

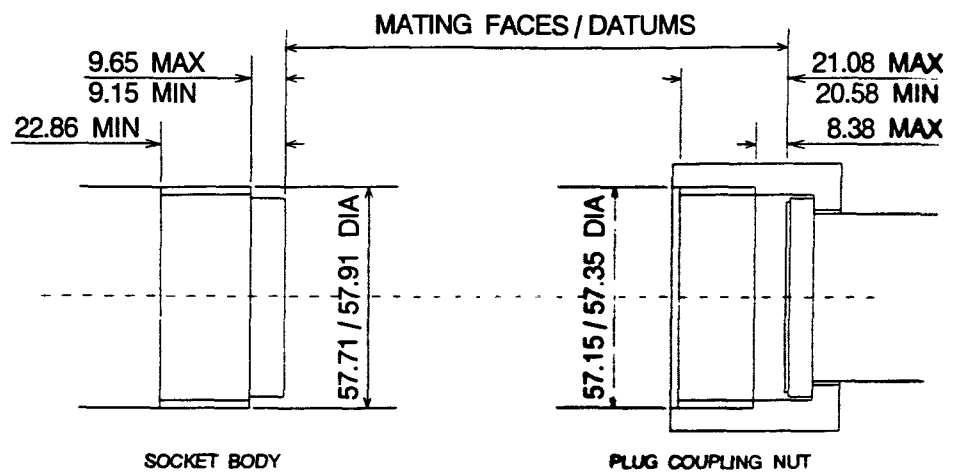


Fig 18 Male and Female Thread Dimensions

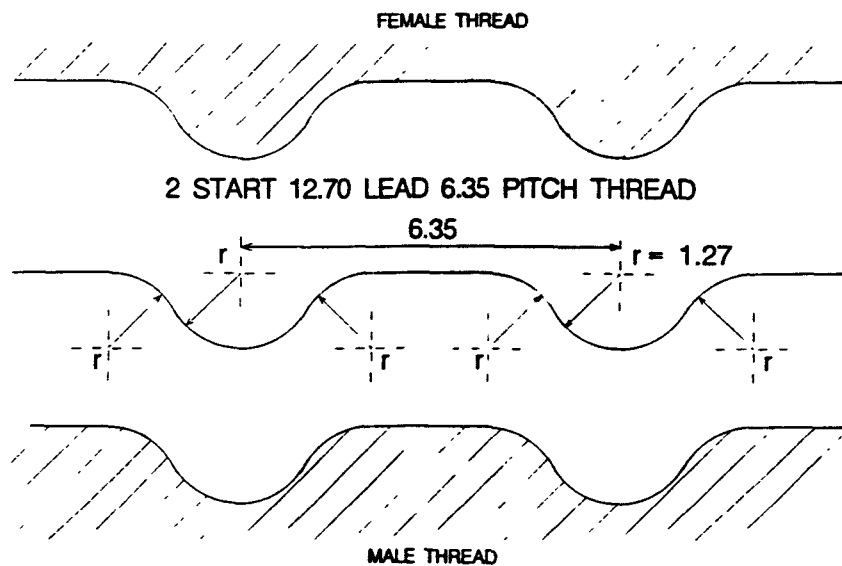
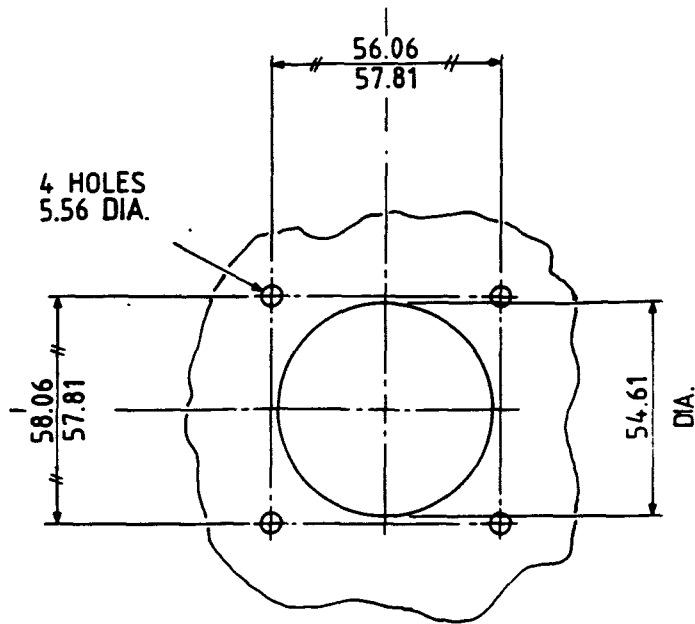


Fig 19 Thread Form and Pitch Details



Plug, Fixed 5935-99-831-8158
Socket, Fixed 5935-99-327-4024

Fig 20 Panel Piercing Details

OBSOLESCE

Ministry of Defence

Defence Standard

59-35(PART 4)

SECTION 9B/Issue 1

17th May 1982

CONNECTORS, ELECTRICAL

PART 4: RADIO FREQUENCY COAXIAL

CONNECTORS

SECTION 9B: PATTERN 9210 N0006

(SERIES SMA UNSEALED)

OBSOLESCE

**THIS DEFENCE STANDARD WILL NOT BE UPDATED AND IS
NOT TO BE USED FOR THE PURCHASE OF NEW EQUIPMENT**

CONNECTORS, ELECTRICAL

PART 4: RADIO FREQUENCY COAXIAL CONNECTORS

SECTION 9B: PATTERN 9210 N0006 (SERIES SMA UNSEALED)

- 1 This Section of Defence Standard 59-35 (PART 4) implements BS 9210 N0006 'Detail specification for radio frequency connectors of assessed quality, series SMA, unsealed, soldered, 50 ohm, full assessment level'. It is for Ministry of Defence use.
- 2 This Section of the Standard is to be used in conjunction with DEF STAN 59-35 'Connectors, electrical, PART 4: Radio frequency coaxial connectors' and BS 9210 'Specification for radio frequency connectors of assessed quality'. All the requirements are applicable unless stated herein.
- 3 Table I(A) lists the standard range of connectors, electrical, from which selection shall be made for all new requirements for connectors covered by BS 9210 N0006. Table I(B) lists the associated covers, electrical.
- 4 At the time of publication this Section of the Standard contains no Table II or Table III but it is intended to add these by amendment action later.
- 5 This Section of the Standard has been agreed on behalf of the Ministry of Defence by the Master Specification Officer (MSO), see Annex B.
- 6 This Section of the Standard has been agreed by authorities concerned. It is to be implemented, wherever practicable, in all designs, contracts, orders, etc commencing after its date of publication. If a difficulty arises which prevents application of the Defence Standard, the Directorate of Standardization shall be informed so that a remedy can be sought.
- 7 Any enquiries regarding this Section of the Standard in relation to an invitation to tender or a contract in which it is invoked are to be addressed to the responsible technical or supervising authority named in that invitation to tender or contract.

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CONNECTORS, ELECTRICAL. RADIO FREQUENCY CONNECTORS SERIES SMA,
 PATTERN 9210 N0006. GENERAL INFORMATION 3

CONNECTORS, ELECTRICAL

TABLE I(A)	)	(	CONNECTORS, ELECTRICAL, RADIO FREQUENCY	
	) STANDARD	(	50 OHM, SERIES SMA, UNSEALED, SOLDERED,	6-8
	) RANGE	(	GOLD PLATED, TO BS 9210 N0006	

ACCESSORIES

TABLE I(B)	)	(	COVERS, ELECTRICAL, FOR CONNECTORS,	
	) STANDARD	(	ELECTRICAL, RADIO FREQUENCY, SERIES SMA,	8
	) RANGE	(	GOLD PLATED, TO BS 9210 N0006	

TABLE II	(	
TABLE III	(	NOT APPLICABLE

ANNEX A - OUTLINES OF ITEMS IN TABLES I(A) AND I(B)	9
ANNEX B - MASTER SPECIFICATION OFFICER FOR RADIO FREQUENCY CONNECTORS	10
ANNEX C - RELATED SPECIFICATIONS AND DOCUMENTS	10

CONNECTORS, ELECTRICAL

RADIO FREQUENCY CONNECTORS SERIES SMA, PATTERN 9210 N0006

GENERAL INFORMATION

1 SCOPE

This Section of Defence Standard 59-35 (PART 4) lists details of radio frequency connectors of the type described in clause 1 on page 1. Their climatic category is 55/155/21.

2 WARNING

2.1 This Section of the Standard calls for the use of substances and/or test procedures that may be injurious to health if adequate precautions are not taken. It refers only to technical suitability and in no way absolves either the supplier or the user from statutory obligations relating to health and safety at any stage of manufacture or use.

2.2 Particular attention is drawn to the following hazards although the list may not necessarily be exhaustive:

2.2.1 The toxic fumes emitted by polytetrafluoroethylene (PTFE) when it is heated to the temperature required for soldering.

2.2.2 The dangers of handling cigarettes and tobacco in areas which may contain pieces of PTFE insulation stripped from cables or wire.

2.3 This Section of the Standard has been devised for the use of the Crown and of its contractors in the execution of contracts for the Crown and, subject to the Unfair Contract Terms Act 1977, the Crown will not be liable in any way whatever (including but without limitation negligence on the part of the Crown its servants or agents) where the Standard is used for other purposes.

3 QUALIFICATION APPROVAL

3.1 It is essential that having selected a particular component from the standard ranges listed in this Section of the Standard reference is made to:

DEF STAN 59-59 'Electrical/Electronic components for Defence use.
Services qualified products list' or

PD 9002 'BS 9000 and BS CECC Qualified products list'

to ascertain that a Qualification Approval certificate is extant for the item concerned. If there is no such certificate at the time of selection then the relevant NATO Stock Number(s) listed herein shall not be used for ordering that item.

- 3.2 Where no Qualification Approval exists or selection from Table I cannot be made then the procedure given in DEF STAN 59-36 (PART 2) shall apply.

4 ORDERING INFORMATION

- 4.1 When ordering connectors, electrical listed in this Section of the Standard, the ordering information required by BS 9210 N0006, Clause 6, this Defence Standard number and the NATO Stock Number(s) shall be stated, together with the packaging requirements.

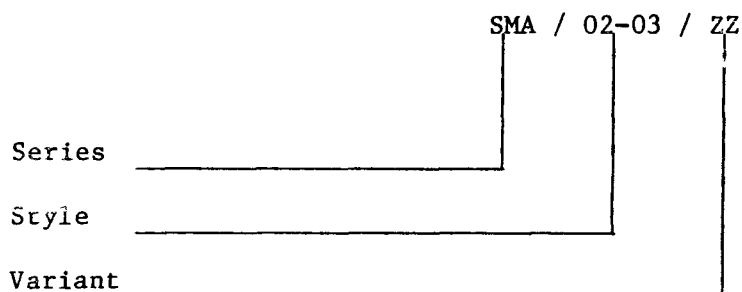
- 4.2 If any difficulties arise from the identification of connectors, electrical against NATO Stock Numbers, clarification should be sought from:

The Defence Codification Authority
Ministry of Defence
Leysdown Road
Mottingham
LONDON SE9 3NN

4.3 Style and variant references

- 4.3.1 The style and variant references used in this Section of the Standard are in accordance with DEF STAN 59-35 (PART 4) and BS 9210.

EXAMPLE OF CODED CONNECTOR DESCRIPTION



- 4.3.2 The above example corresponds to a series SMA connector, fixed, straight, with female centre contact, four hole fixing, and solder bucket for the connection of equipment wire.

4.4 Example for ordering

Connector, electrical, fixed BS 9210 N0006 and DEF STAN 59-35 (PART 4) Section 9B Issue 0, Style SMA/02-03/ZZ/55/155/21/Au, NATO Stock Number 5935-99-XXX-XXXX.

Note: 0 indicates that the current Issue No is applicable.

5 PACKAGING INSTRUCTIONS

- 5.1 The packaging of connectors, electrical is to be in accordance with the packaging instructions given in CPU Packaging Specification No CPU/PIP/109, unless otherwise stated in any tender or contract.
- 5.2 Additional requirements for marking and packaging of Pattern 9210 N0006 connectors, electrical for Service use are given in DEF STAN 59-35 (PART 4).

6 DIMENSIONS

For all requirements IT IS ESSENTIAL THAT EQUIPMENT DESIGNERS WORK TO THE DIMENSIONS SHOWN IN BS 9210 N0006 AND NOT TO INDIVIDUAL SPECIMENS.

7 SUPPLEMENTARY INFORMATION

Additional requirements to those specified by BS 9210 and associated rules/documents may be included where these have been agreed by the Master Specification Officer.

8 RELATIONSHIP BETWEEN DEFENCE STANDARDS AND CECC/BS 9000 SERIES

For details of the relationship between Defence Standards and CECC/British Standard 9000 series reference should be made to DEF STAN 59-36 (PART 1).

9 IMPLEMENTATION OF CECC/BS HARMONIZED SPECIFICATIONS

When CECC/BS Harmonized Sectional and Detail Specifications relevant to this Section of the Standard are published and their implementation is agreed by the MSO then this Section will be amended to give details of the CECC documents concerned.

TABLE I(A)

STANDARD RANGE

CONNECTORS, ELECTRICAL, RADIO FREQUENCY, 50 OHM, SERIES SMA, UNSEALED, SOLDERED, GOLD PLATE, TO BS 9210 N0006

PAGE ITEM NO	NATO STOCK NUMBER 5935-99-	SERVICE MANAGMENT CODE			ITEM NAME	STYLE	DESCRIPTION	VARIANT	MASS MAX gram	SUITABLE CABLE, RADIO FREQUENCY OF MIL-C-17
		NAVY	ARMY	AIR FORCE						
	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(j)	(k)
1	+ notes 2 and 3	--	--	--	CONNECTOR, ELECTRICAL, FREE	01-03 (for semi- rigid cable)	Connector coupler, free, straight, with female centre contact	PK	6	RG 405/U (NWR 46)
2	+ notes 2 and 3	--	--	--				PM		RG 402/U (NWR 49)
3	+ notes 2 and 3	--	--	--		06-02 (for semi- rigid cable)	Connector, free, straight, with male centre contact	PK	8	RG 405/U (NWR 46)
4	+ notes 2 and 3	--	--	--				PM		RG 402/U (NWR 49)
5	+ notes 2 and 3	--	--	--		08-02 (for semi- rigid cable)	Connector, free, right angle, with male centre contact	PK	9	RG 405/U (NWR 46)
6	+ notes 2 and 3	--	--	--				PM		RG 402/U (NWR 49)

- Notes: 1 The radio frequency cables shown in column (k) are of USA origin and are listed among those in NATO Electronic Parts Recommendation (NEPR) No 3. As NATO preferred radio frequency cables they are also referred to by the NWR numbers shown in brackets. There is no equivalent cable of UK origin in respect of either of the items in column (k).
- 2 The connectors listed above are normally fitted to semi-rigid radio frequency cables which then form part of a cable assembly to which a NATO Stock Number (NSN) is allocated. It is unnecessary therefore to allocate a NSN to the connector. The other items in Tables I(A) and I (B) are to be scaled as maintenance spares and will attract a NSN which will be allocated upon application by the Design Authority to the appropriate Codification Authority.
- 3 + indicates that a NSN has not been allocated to the item.
- 4 -- indicates that at the date of publication of the Standard, the Service concerned has not notified D Stan of the introduction of the BS 9210 N0006 item into Service stores.

TABLE I(A) - CONTINUED

PAGE ITEM NO	NATO STOCK NUMBER 5935-99-	SERVICE MANAGEMENT CODE			ITEM NAME	STYLE	DESCRIPTION	VARIANT	MASS MAX gram
		NAVY	ARMY	AIR FORCE					
(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(j)	
1	+	-	-	-	CONNECTOR, ELECTRICAL, FIXED	02-03	Connector, fixed, straight, four hole fixing, solder bucket, with female centre contact	ZZ	8
2	+	-	-	-		10-03	Connector, fixed, right angle, four hole fixing, solder bucket, with female centre contact	ZZ	10
3	+	-	-	-		24-03	Connector, fixed, straight, component mounting, four hole fixing, stub contact, extended dielectric, with female centre contact	ZZ	10
4	+	-	-	-		25-03	Connector, fixed, straight, component mounting, two hole fixing, stub contact, extended dielectric, with female centre contact	ZZ	8
5	+	-	-	-		26-03	Connector, fixed, straight, single hole rear mounting, solder bucket, with female centre contact	ZZ	6

22 In column (h) indicates that the item is for use with equipment wire.

Notes 3 and 4 on page 6 also apply to this part of Table I(A)

SEP 28 1963-35 (PART 4)
SECRET
CONFIDENTIAL (CONTD)

TABLE I(A) - CONTINUED

PAGE ITEM NO	NATO STOCK NUMBER 5935-99-	SERVICE MANAGEMENT CODE			ITEM NAME	STYLE	DESCRIPTION	MASS MAX gram
		NAVY	ARMY	AIR FORCE				
	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(j)
1	+	--	--	--	CONNECTOR, ELECTRICAL, ADAPTOR	15-04	Adaptor connector, free, straight, two male centre contacts	8
2	+	--	--	--		15-05	Adaptor connector, free, straight, two female centre contacts	-
3	+	--	--	--		18-05	Adaptor connector, fixed, straight, single hole mounting, two female centre contacts	8

Notes 3 and 4 on page 6 also apply to this part of Table I(A)

TABLE I(B)

STANDARD RANGE

COVERS, ELECTRICAL, FOR CONNECTORS, ELECTRICAL, RADIO FREQUENCY, SERIES SMA, GOLD PLATED,

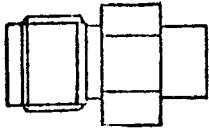
TO BS 9210 N0006

PAGE ITEM NO	NATO STOCK NUMBER 5935-99-	SERVICE MANAGEMENT CODE			ITEM NAME	STYLE	DESCRIPTION	MASS MAX gram
		NAVY	ARMY	AIR FORCE				
	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(j)
4	+	--	--	--	COVER, ELECTRICAL	98-12	Cover electrically protective for connector fixed and connector coupler free	8

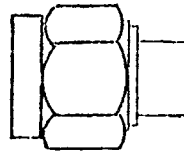
Notes 3 and 4 on page 6 also apply to Table I(B)

ANNEX A

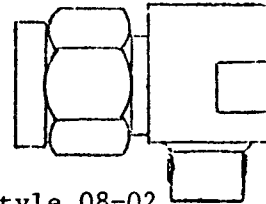
OUTLINES OF ITEMS IN TABLES I(A) AND I(B)
(Not to scale)



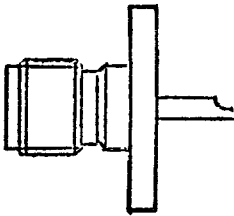
Style 01-03
(semi-rigid cable)



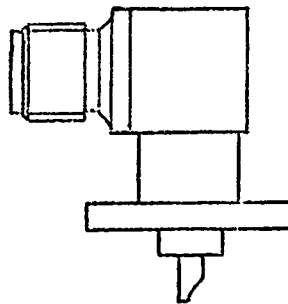
Style 06-02
(semi-rigid cable)



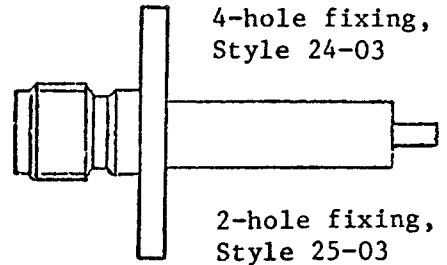
Style 08-02
(semi-rigid cable)



Style 10-03

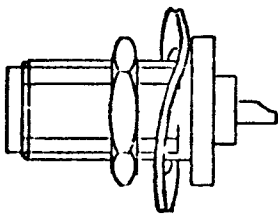


Style 02-03

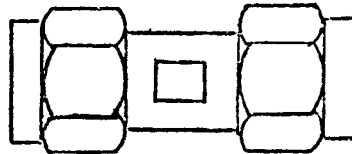


4-hole fixing,
Style 24-03

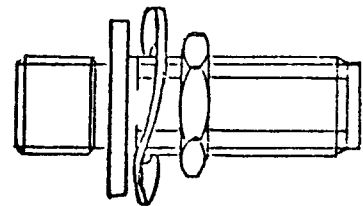
2-hole fixing,
Style 25-03



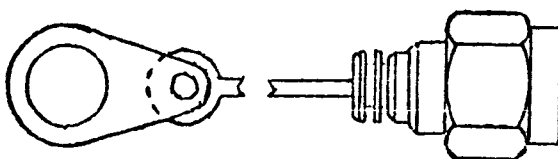
Style 26-03



Style 15-04



Style 18-05



Style 98-12



Style 15-05

ANNEX B

MASTER SPECIFICATION OFFICER FOR RADIO FREQUENCY CONNECTORS

The Master Specification Officer (MSO) is the consulting authority for connectors, electrical, (RF) on behalf of the Ministry of Defence who may be contacted at the following address:

Director Surface Weapons Projects (Naval), MOD(PE)
ASWE Extension
Eastney Fort East
Royal Marine Barracks
Portsmouth
Hants
PO4 9PP

ANNEX C

C.1 RELATED SPECIFICATIONS AND DOCUMENTS

C.1.1 Reference is made in this Section of the Standard to:

BS 9000	'General requirements for electronic components of assessed quality'
BS 9210	'Specification for radio frequency connectors of assessed quality'
BS 9210 N0006	'Detail specification for radio frequency connectors of assessed quality, series SMA, unsealed, soldered, 50 ohm, full assessment level'
PD 9002	'BS 9000 and BS CECC: Qualified products list'
DEF STAN 59-35 (PART 4)	'Radio frequency coaxial connectors'
DEF STAN 59-36 (PART 1)	'Electronic components for Defence purposes. PART 1: The role of Defence Standards in relation to the BS 9000 series of specifications'
DEF STAN 59-36 (PART 2)	'Electronic components for Defence purposes. PART 2: Procedure for the selection and specification of electronic components for use in Defence equipment and a procedure for dealing with any non-standard components selected'
DEF STAN 59-59	'Electrical/Electronic components for Defence use - Services qualified products list'

C.1.1 (Contd)

MIL-C-17	'General specification for cables, radio frequency, flexible and semi-rigid'
NEPR No 3	'Standardization of radio frequency co-axial Cables'
CPU/PIP/109	'Specification for the packaging of connectors electrical'

C.1.2 Reference in this Section of the Standard to any related document means, in any tender or contract, the edition current at the date of such tender or contract unless a specific edition is indicated.

C.2 The following documents and specifications are obtainable from the addresses shown:

C.2.1 Copies of British Standards:

British Standards Institution
Sales Office
Newton House
101 Pentonville Road
London N1 9ND.

C.2.2 Copies of Packaging Specification No CPU/PIP/109:

Procurement Executive
Ministry of Defence
Central Packaging Unit
Garland Road
Plumstead
London SE18 2PW

C.2.3 Copies of PD 9002:

British Standards Institution
Sales Office
Maylands Avenue
Hemel Hempstead
Herts HP1 1BR

C.2.4 Copies of Defence Standards:

Directorate of Standardization (Stan 13)
First Avenue House
High Holborn
London WC1V 6HE