



UKAN

Fine Screw Coupling Connectors

 **TT electronics**

AB Connectors Limited

Company Profile



AB Connectors Limited, is a recognised market leader in the design and manufacture of interconnection systems where high performance and reliability are mandatory requirements. From its' principal site in South Wales UK, the company has developed further dedicated assembly facilities in the USA and China. Together with a co-ordinated global sales and distribution network, it is able to offer customers an unrivalled service.

With over 50 years experience as a pioneer of hostile environment connector design, AB Connectors, a subsidiary of TT electronics plc, has through continuous research, product development, extensive test facilities, manufacturing investment and industrial competence, been able to exceed the exacting requirements of the transportation, military, industrial, entertainment and commercial markets.

The Company holds Quality Assurance approval to ISO 9001 and offers a comprehensive standard product range, many of which are qualified to BS9000, CECC and IECQ. From its commitment to the modern mass transportation industry, at an early stage the company adopted into its' designs the use of low toxicity materials fully type tested to the relevant sections of British Standard 6853 and French specification NF F 16-101.

With a strong technical expertise coupled with state-of-art CAD/CAM facilities, rapid prototype techniques and modern CNC equipment, the main product types can be used as platforms to provide custom engineered solutions, thereby significantly reducing customer development time, costs and risks.

AB Connectors total commitment to providing customers with high levels of service, cost effectiveness, quality and innovative solutions in interconnection products, make it the ideal first choice supply partner.

UK-AN Connectors

UK-AN Connectors

The AB range of UK-AN connectors is presented in this form to assist users in the selection of the correct connector for the purpose.

A series of numbers, each of which is used to indicate a particular feature, allows cable entry fittings to be specified as an integral part of the connector. Each shell style is allocated a particular number which also indicates the shell material and, within each shell style, the variation of cable entry fittings is indicated by altering the second digit, whilst the third and fourth digits are used to denote the size and cable clamp.

This scheme reduces the numbers of items to be ordered or specified on wiring diagrams and also lends itself to the introduction of simple symbols which are used to denote that a special kerosene-resistant insulator is required in the connector. All items carry the easily recognised MS contact arrangement number. Due to the need for a series of contacts which may be used on various sizes of wires with a compression joint, it has not yet been found possible to include the contacts with the connectors. The correct contacts must be selected and specified separately on all orders.

All connectors are coded with the relevant shell size/contact arrangement, orientation and E.T. when applicable. The average weights have been included for each shell size and style – these are intended for general guidance only. The actual weight for any specific assembly can be obtained on request.

Historical Background

During the late 1930's, the American armed forces drew up a specification established as the Army-Navy standard for the procurement of electrical connectors. This was the first of many steps taken towards the standardisation that exists today in the series known as AN or MS connectors. During and after World War II, the AN connector became increasingly common in Great Britain.

This connector based on the American military specifications not only meets the specification requirements including interchange or intermate with many AN types but also meets the requirements of the most advanced British specifications.

By maintaining the majority of the contact arrangements of the MS range, plus the critical contact centres, coupling threads and dimensions, the UK-AN connector can be used as an alternative to almost any American AN connector. Moreover, the design of the UK-AN connector has not been limited to merely creating yet another version of the AN types. The UK-AN has been produced to simplify

selecting the correct connector for every purpose. The salient features of several different AN types have been incorporated and careful design of the housings has allowed the number of shell styles to be limited.

The standard range of UK-AN Connectors

Although the majority of requirements expected of such connectors will be met by a versatile lightweight version, special applications such as fireproofing have not been overlooked. Therefore the first range of connectors shown in this publication is manufactured with robust housings in aluminium alloy and is considered to be the standard range.

Fireproof Connectors

The second section of this publication is devoted to a similar range in which the housings are of mild steel, cadmium plated with olive drab passivation and designed to meet the requirements of the specifications for fireproof connectors. Basically the steel UK-AN connector differs very slightly from its aluminium counterpart, apart from the integral flange and the rear of the fixed unit, which is of a size similar to that of the mating free unit. In addition, a flameproof baffle washer is always supplied with fireproof types and is manufactured to suit each individual contact arrangement. This washer is for use when the connector is required to be flameproof or fireproof and fits into a machined recess in the outlet immediately at the rear of the moulding. When a fireproof connector is required, it is essential that the fireproof connector is specified together with the correct outlet accessory set. These items, when correctly assembled, will withstand a flame temperature of 1100°C for a period not less than 20 minutes, in accordance with specification MIL-C-5015D.

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Wiring Method

The method of wiring a UK-AN connector is one of its outstanding features, as provision has been made to enable the cable and contact to be either soldered or crimped prior to insertion into the plug or socket. This dispenses with the skilled and intricate operation of soldering contacts in position, which often needs to be carried out in confined spaces. The compression joint is becoming increasingly popular in most branches of industry today, and to enable full advantage to be taken of this manner of wiring, both size-16 and size-12 contacts are available with three different sizes of conductor well. This system enables a range of equipment wires to be used in a size-16 contact with a compression joint, thus dispensing with the use of sleeves, or thimbles, to increase the diameter of the conductor. A simple system of identification of such contacts has been evolved by the machining of a series of grooves on the rear of the contact. A similar method is also used for the identification of thermocouple contacts, but here an additional code of colour bands is used to denote the differing materials. These contacts are of standard design and may be used in any connector.

A series of special insertion tools has been designed to enable the contacts to be assembled to the connector without damage to the mouldings. Full details of their use are given in a stage-by-stage procedure in this publication. With a broad variety of contacts now available for each individual connector, the contacts can no longer be considered part of the connector for ordering purposes. Special attention should be paid to page 27, which gives full information on how to select the correct contact for the entry cable.

Insulation

Work in the Allen Clark Research Centre at Caswell and the Rubber Laboratory at Swindon resulted in the development of a resilient insulator capable of withstanding extended temperatures whilst being resistant to the effects of many fluids. Research and development continue on new fluids as they are introduced into the latest issues of connector specifications. High grade mouldings of this special insulator are incorporated in all UK-AN connectors, whether aluminium or steel housing, and by creating a seal on the faces of mating mouldings, plus a tapered orifice at the rear to accept up to $\frac{3}{8}$ " diameter cable (approximately), extremely high voltages can be withstood by the exclusion of all air and moisture. Special attention has been given to the design of the contacts which, when assembled in the approved manner, ensure correct alignment and conductivity. Effective pressure sealing can be achieved subject to an appropriate method of assembly. Details may be obtained on request.

A range of packing sleeves has been provided in a similar material to the insulator to enable a waterproof seal to be maintained on cables of comparatively small outside

diameter. With standardisation in mind, these are of sufficient length to enable them to be used also as circuit identification markers, thus reducing the number of stock items.

Outlets and Flanges

An internal clamp is formed by a pair of split cones around which braiding may be turned and earthed for continuity of screening.

To meet the requirements of the British specifications, it is necessary to provide a pressure seal at the panel fixing and, in order to obtain this, a round flange and gasket are supplied on certain aluminium fixed units. To maintain interchangeability with the AN types, units with loose square flanges are obtainable — these incorporate the fixing centres and general dimensions of AN types. The steel version has an integral flange machined to the dimensions of the AN types.

DESIGN AND ELECTRICAL FEATURES

Specification:	Manufactured in accordance with the conditions specified in EL1987, DEF5321 and MIL-C-5015D.
Voltage rating:	One standard voltage rating of 2kV r.m.s. irrespective of contact spacing.
Current rating:	Contacts have nominal ratings of 12 amp (size 16), 24 amp (size 12), 50 amp (size 8) and 100 amp (size 4). The types, numbers and sizes of cable used in any given arrangement determine total connector ratings. Relevant cable specifications should be consulted and ratings determined, bearing in mind that the maximum continuous operating temperature of these connectors is 190°C.
Contact resistance:	Pins and socket contacts are manufactured from copper alloys, silver or gold plated to give a contact resistance of less than 10 milliohms for any mated plug and socket regardless of size.
Insulation resistance:	Between any contact and earth, in excess of 10 ⁵ megohms at 500 volts.
Temperature:	Proved satisfactory at working temperatures from -55°C to +190°C.
Humidity:	Successfully passed humidity tests up to 100%, including conditions producing condensation on equipment.
Vibration proof:	Successfully tested to the conditions of specification DES. 1 (see Sec. 1/4 zone C).
Shockproof:	Successfully tested to the conditions of specification DES. 1 (clause 3(e) (iv)).
Fireproof:	A special connector with housings of steel has been designed to withstand a flame temperature of 1100°C for a period of not less than 20 minutes in accordance with specification MIL-C-5015D. Outlet accessory sets are essential on all fireproof assemblies.
Insulation:	A non-tracking dielectric of silicone rubber is incorporated to give moisture-proof and heat-resisting mouldings in standard and E.T. types.
Housing:	Manufactured from an aluminium alloy with Alocrom 1200 finish for maximum performance with a minimum of weight, or from mild steel, cadmium plated with olive drab passivation for strength and resistance to fire.
Coupling method:	A coupling nut of corrosion resistant brass (cadmium plated and passivated) is incorporated in all aluminium free units and, being of a dissimilar metal to the shell, prevents seizure of threads.
Shell design:	Available only as fixed units or free units, the former being suitable for use as a free coupler unit if required.
Mounting (aluminium range):	The fixed unit is available for mounting with a 4 hole fixing by the provision of two loose square flanges with fixing centres of AN connectors, or a round flange and attachment nut.
Mismating:	To avoid mismating when several similar connectors are mounted adjacent to each other, in strict conformity with MS drawings and MIL-C-5015D, certain mouldings are capable of being assembled into alternative positions relative to the keyway. In critical circuits this safety factor alone should not be relied upon.
Interchangeability:	Plug or socket mouldings permit the use of the socket for the live side of all connections with the exception of assemblies in shell size 10's the socket then being always the free unit.
Cable fittings:	Primarily designed for open wiring on which no accessories are considered necessary, but a range of straight and rightangle outlets incorporating a clamping device has been designed for multicore cables or continuity of screening.
Thread lubrication:	A small quantity of Gredag 1546/G approved lubricant should be used on all engaging threads.

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SPECIAL KEROSENE RESISTANT TYPES

The adverse effect of fuels and oils on the majority of electrical connectors employing resilient mouldings as insulators is a factor which can neither be overlooked nor underestimated, especially in the aircraft and associated industries where a high degree of contamination is often possible.

To combat this hazard, a special resilient insulator has been developed with identical electrical and mechanical properties and which can be supplied in lieu of the standard high-grade silicone rubber contained in the normal range of UK-AN connectors. This special insulator remains virtually unimpaired even after comparatively heavy contamination with any kerosene-base fluid and is immune to the disintegrating effects of ozone and ultra-violet light.

How to Order

A typical complete UK-AN code number is:

UK-AN-9206-18-1-S

This number specified a unit in the following manner:

UK-AN

designates the type of shell conforming to British specifications and is interchangeable with the American AN or MS type.

9206

the first two digits denote the shell material, style and type of cable entry fittings, whilst the third and fourth digits denote the size of the split cones which form the cable clamp within the outlet.

18

designates the shell size and specifies the size of the coupling thread in 16th of an inch.

1

designates the contact arrangement as shown on pages 6-9 but does not specify the numbers of contacts.

S designates a moulding with socket inserts.

P designates a moulding with plug pin inserts.

The letters W, X, Y or Z may be added as a suffix to the code number where alternative positions of the mouldings are desired.

Full information about these positions is available on page 5.

UK-AN (E.T.) CONNECTORS — salient features

This type of kerosene resistant connector has a moulding of special silicone rubber which permits the high performance of the standard range to be attained plus resistance to kerosene-base fluids. It is available in any required contact arrangement and can be specified by simply including the symbol (E.T.) in the code number — e.g. UK-AN (E.T.)-8212-22-19P.

Voltage rating:

2kV r.m.s. irrespective of contact spacing.

Working temperature range — -55°C to $+190^{\circ}\text{C}$.

Unless the symbol "E.T." is specified in the code number, it will be assumed that connectors are not required to be kerosene resistant and the standard insulator will be supplied.

E.T.

This symbol may be included in the code number to specify that the special kerosene-resistant type is required. Full details are given above.

Contacts

Considerable care should be devoted to the selection of the correct contacts for each connector as the choice is governed by the type and size of the cable to be used. The subject is dealt with in detail on page 27. Contacts should always be specified separately, as they cannot be considered part of an assembly ordered in the manner described above.

Sleeves

Packing sleeves should always be used where cables of comparatively small diameter are employed, in order that a waterproof cable entry is maintained. The subject is dealt with in detail on page 28.

Insertion tools

The UK-AN insertion tools shown on page 26 are essential in order that wired contacts can be correctly assembled to the connector without damaging the insulator.

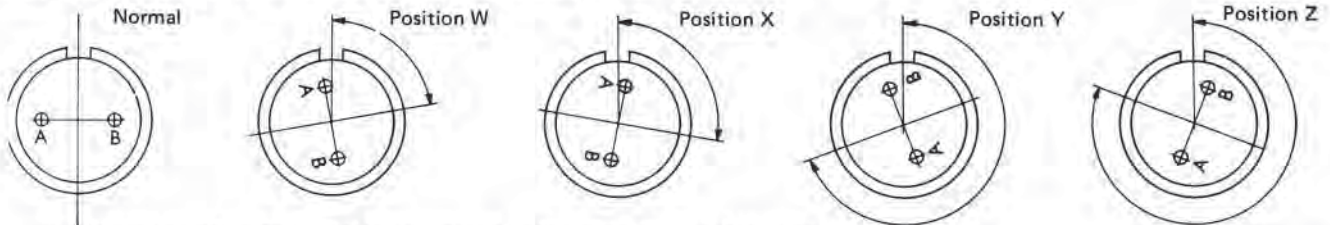
ORIENTATION

To avoid mismatching when several similar connectors are mounted adjacent to each other, certain mouldings are capable of being assembled into an alternative position, relative to the keyway.

The American military specifications provide for various orientated position, details of which are given below.

When ordering a plug or socket in a reorientated position, the appropriate letter W, X, Y or Z should be added as a

suffix to the code number. In common with all contemporary AN connectors, the reorientation of an assembly is a specialised operation and requires special equipment. Where alteration to an orientation is required, the connectors should be returned to AB Connectors Limited, Kingsthorpe, Northampton NN2 6NA or to any Plessey agent, and the necessary work will be undertaken at a nominal charge.



All views are looking into the front of a pin moulding. NOTE: Refer to pages 6 to 9 for coding position.

Contact arrangement	Number of contacts	DEGREES			
		W	X	Y	Z
12s - 3	2	70	145	215	290
*14s - 2	4	-	120	240	-
- 5	1	-	110	-	-
- 7	3	90	180	270	-
* - 9	2	70	145	215	290
16 - 1	7	80	-	-	280
- 7	3	80	110	250	280
- 8	5	-	170	265	-
- 9	2	35	110	250	325
- 10	3	90	180	270	-
- 11	2	35	110	250	325
18 - 1	10	70	145	215	290
- 3	2	35	110	250	325
- 4	4	35	110	250	325
- 5	3	80	110	250	280
- 8	8	70	-	-	290
* - 9	7	80	110	250	280
- 10	4	-	120	240	-
* - 11	5	-	170	265	-
- 12	6	80	-	-	280
- 13	4	80	110	250	280
- 14	2	80	110	250	280
* - 20	5	90	180	270	-
- 22	3	70	145	215	290
* - 29	5	90	180	270	-
*20 - 3	3	70	145	215	290
- 4	4	45	110	250	-
- 5	2	35	110	250	325
- 6	3	70	145	215	290
- 7	8	80	110	250	280
- 8	6	80	110	250	280

Contact arrangement	Number of contacts	DEGREES			
		W	X	Y	Z
20 - 9	8	80	110	250	280
- 12	2	80	110	250	280
- 14	5	80	110	250	280
- 15	7	80	-	-	280
- 16	9	80	110	250	280
- 17	6	90	180	270	-
- 18	9	35	110	250	325
* - 19	3	90	180	270	-
- 20	4	80	110	250	280
- 21	9	35	110	250	325
- 22	6	80	110	250	280
* - 23	2	35	110	250	325
- 24	4	35	110	250	325
- 27	14	35	110	250	325
* - 29	17	80	-	-	280
*22 - 1	2	35	110	250	325
- 2	3	70	145	215	290
- 3	2	80	110	250	280
* - 4	4	35	110	250	325
- 5	6	35	110	250	325
* - 6	3	80	110	250	280
* - 8	2	35	110	250	325
- 9	3	70	145	215	290
- 10	4	35	110	250	325
- 11	2	35	110	250	325
- 12	5	80	110	250	280
* - 13	5	35	110	250	325
- 14	19	80	110	250	280
- 15	6	80	110	250	280
* - 16	9	80	110	250	280
- 17	9	80	110	250	280
- 18	8	80	110	250	280
* - 19	14	80	110	250	280
* - 20	9	35	110	250	325

Contact arrangement	Number of contacts	DEGREES			
		W	X	Y	Z
22 - 22	4	-	110	250	-
- 23	8	35	-	250	-
* - 24	6	80	110	250	280
- 27	9	80	-	250	280
* - 28	7	80	-	-	280
* - 29	7	80	110	250	280
* - 33	7	80	110	250	280
- 34	5	80	110	250	280
- 36	8	90	-	270	-
24 - 2	7	80	-	-	280
* - 3	7	80	110	250	280
* - 5	16	80	110	250	280
- 6	8	80	110	250	280
* - 7	16	80	110	250	280
* - 9	2	35	110	250	325
- 10	7	80	-	-	280
- 11	9	35	110	250	325
- 12	5	80	110	250	280
- 16	7	80	110	250	280
* - 17	5	80	110	250	280
- 20	11	80	110	250	280
- 21	10	80	110	250	280
- 22	4	45	110	250	-
- 23	5	80	110	250	280
- 27	7	80	-	-	280
- 28	24	80	110	250	280
28 - 1	9	80	110	250	280
- 2	14	35	110	250	325
- 3	3	70	145	215	290
- 4	9	80	110	250	280
- 5	5	35	110	250	325
* - 6	3	70	145	215	290
* - 7	2	35	110	250	325

Contact arrangement	Number of contacts	DEGREES			
		W	X	Y	Z
28 - 8	12	80	110	250	280
- 9	12	80	110	250	280
- 10	7	80	110	250	280
- 11	22	80	110	250	280
- 12	26	90	180	270	-
- 15	35	80	110	250	280
* - 14	11	80	110	250	280
- 15	35	80	110	250	280
* - 16	20	80	110	250	280
- 17	15	80	110	250	280
- 18	12	70	145	215	290
- 19	10	80	110	250	280
- 20	14	80	110	250	280
- 21	37	80	110	250	280
- 22	6	70	145	215	290
32 - 2	5	70	145	215	290
- 4	14	80	110	250	280
- 6	23	80	110	250	280
- 7	35	80	125	235	280
* - 8	30	80	125	235	280
- 9	14	80	110	250	280
- 10	7	80	110	250	280
* - 12	15	80	110	250	280
- 13	23	80	110	250	280
- 14	7	35	110	250	325
- 17	4	45	110	250	-
*36 - 1	22	80	110	250	280
- 7	47	80	110	250	280
- 8	47	80	110	250	280
- 9	31	80	125	235	280
- 10	48	80	125	235	280
- 13	17	80	110	250	280
- 14	16	90	180	270	-
- 15	35	60	125	245	305

The following contact arrangements are available only in the position shown (pages 6 to 9).

10s - 3	3	*14s - 4	1	18 - 6	1	*18 - 25	2	*20 - 11	13	*22 - 30	19	*28 - 13	26	*36 - 11	48
- 4	2	* - 6	6	- 7	1	* - 26	2	- 11	13	* - 32	6	- 16	23	* - 12	48
*12s - 1	2	* - 10	4	- 16	1	* - 27	3	* - 25	13	* - 30	13	*16 - 16	23	* - 16	47
- 2	2	* - 11	4	* - 17	7	* - 28	3	* - 32	8	*24 - 15	16	* - 18	14	* - 17	47
- 4	1	16 - 2	1	* - 18	7	* - 30	5	* - 33	11	* - 24	16	* - 20	23	* - 18	31
		- 12	1	* - 23	10	* - 31	5			* - 25	8			* - 20	34
				* - 24	10					* - 26	8			* - 21	31

* NOTE: Inactive for new designs. Listed for reference only. Not shown pictorially.

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CONTACT ARRANGEMENTS

All views are looking into the face of a pin moulding.

1 Contact



Arrangement Number
Contacts

12s-4
1 size 16

16-2
1 size 12

16-12
1 size 4

18-6
1 size 4

18-7
1 size 8

18-16
1 size 12
(Not intermateable
with MS types)

Alternative Positions

NIL

NIL

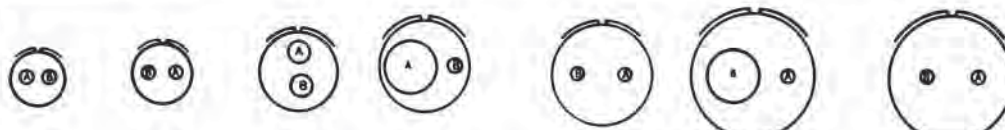
NIL

NIL

NIL

NIL

2 Contacts



10s-4
2 size 16

12s-3
2 size 16

16-11
2 size 12

18-14
1 size 4
1 size 16

20-5
2 size 16

22-3
1 size 4
1 size 16

22-11
2 size 16

NIL

W X Y Z

W X Y Z

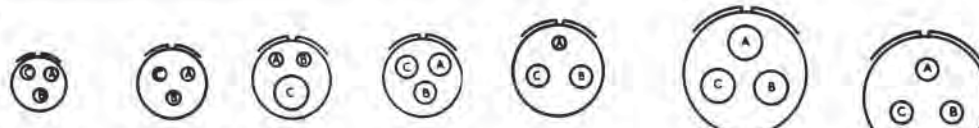
W X Y Z

W X Y Z

W X Y Z

W X Y Z

3 Contacts



10s-3
3 size 16

14s-7
3 size 16

16-7
1 size 8

16-10
3 size 12

18-5
2 size 12
1 size 16

22-2
3 size 8

22-9
3 size 12

NIL

W X Y Z

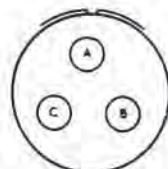
W X Y Z

W X Y

W X Y Z

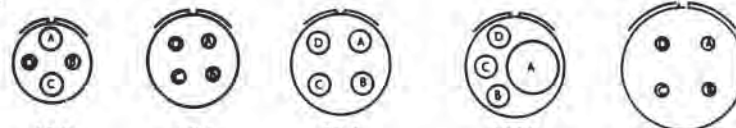
W X Y Z

W X Y Z



28-3
3 size 16
W X Y Z

4 Contacts



16-9
2 size 12
2 size 16

18-4
4 size 16

20-4
4 size 12

20-20
1 size 4
3 size 12

22-10
4 size 16

W X Y Z

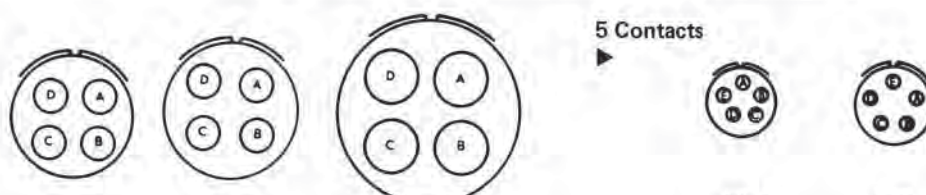
W X Y Z

W X Y

W X Y Z

W X Y Z

5 Contacts



22-22
4 size 8
X Y

24-22
4 size 8
W X Y

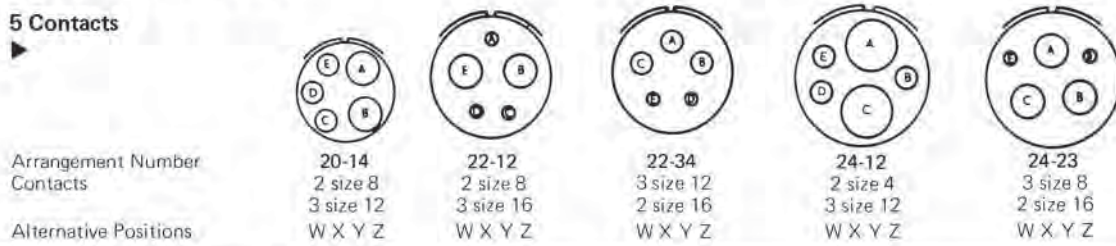
32-17
4 size 4
W X Y

14s-5
5 size 16
X

16-8
5 size 16
X Y

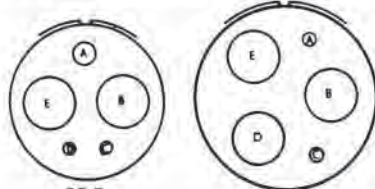
CONTACT ARRANGEMENTS

5 Contacts



Arrangement Number
Contacts

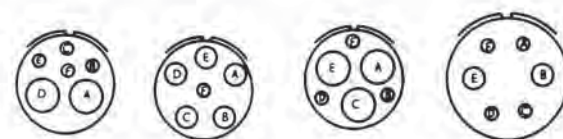
Alternative Positions



28-5
2 size 4
1 size 12
2 size 16
W X Y Z

32-2
3 size 4
2 size 16
W X Y Z

6 Contacts

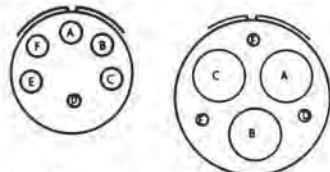


20-8
2 size 8
4 size 16
W X Y Z

20-17
5 size 12
1 size 16
W X Y

20-22
3 size 8
3 size 16
W X Y Z

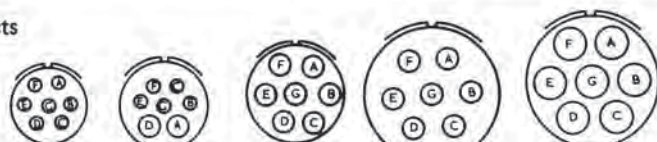
22-5
2 size 12
4 size 16
W X Y Z



22-15
5 size 12
1 size 16
W X Y Z

28-22
3 size 4
3 size 16
W X Y Z

7 Contacts



16-1
7 size 16
W Z

18-9
2 size 12
5 size 16
W X Y Z

20-15
7 size 12
W Z

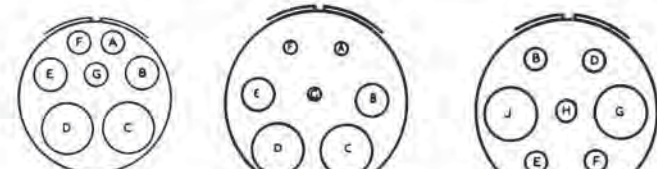
24-2
7 size 12
W Z

24-10
7 size 8
W Z



24-16
1 size 8
3 size 12
3 size 16
W X Y Z

24-27
7 size 16
W Z



28-10
2 size 4
2 size 8
3 size 12
W X Y Z

32-10
2 size 4
2 size 8
3 size 16
W X Y Z

32-14
2 size 4
5 size 12
W X Y Z

8 Contacts



18-8
1 size 12
7 size 16
W Z

20-7
8 size 16
W X Y Z

20-9
1 size 12
7 size 16
W X Y Z

22-18
8 size 16
W X Y Z

22-23
8 size 12
W Y

22-36
8 size 12
W Y

24-6
8 size 12
W X Y Z

CONTACT ARRANGEMENTS

9 Contacts

Arrangement Number	20-16	20-18	20-21	22-27	24-11	28-1	28-4
Contacts	2 size 12 7 size 16	3 size 12 6 size 16	1 size 12 8 size 16	1 size 8 8 size 16	3 size 8 6 size 12	3 size 8 6 size 12	2 size 12 7 size 16
Alternative Positions	W X Y Z	W X Y Z	W X Y Z	W Y Z	W X Y Z	W X Y Z	W X Y Z

10 Contacts

18-1	24-21	28-19
10 size 16	1 size 8 9 size 16	4 size 12 6 size 16
W X Y Z	W X Y Z	W X Y Z

11 Contacts

20-33	24-20
11 size 16	2 size 12 9 size 16
NIL	W X Y Z

12 Contacts

28-8	28-9	28-18
2 size 12 10 size 16	6 size 12 6 size 16	12 size 16
W X Y Z	W X Y Z	W X Y Z

14 Contacts

20-27	22-19
14 size 16	14 size 16
W X Y Z	W X Y Z

28-2	28-20	32-9
2 size 12 12 size 16	10 size 12 4 size 16	2 size 4 12 size 16
W X Y Z	W X Y Z	W X Y Z

15 Contacts

28-17
15 size 16
W X Y Z

16 Contacts

24-7
2 size 12 14 size 16
W X Y Z

36-14
5 size 8 5 size 12 6 size 16
W X Y

17 Contacts

36-13
2 size 12 15 size 16
W X Y Z

19 Contacts

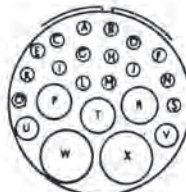
22-14
19 size 16
W X Y Z

22 Contacts

28-11
4 size 12 18 size 16
W X Y Z

CONTACT ARRANGEMENTS

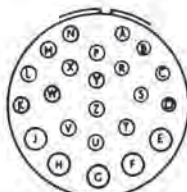
23 Contacts



Arrangement Number **32-6**
 2 size 4
 3 size 8
 2 size 12
 16 size 16

Alternative Positions W X Y Z

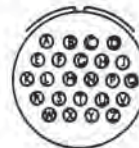
24 Contacts



Arrangement Number **32-13**
 5 size 12
 18 size 16

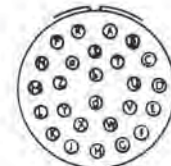
Alternative Positions W X Y Z

26 Contacts



Arrangement Number **24-28**
 24 size 16

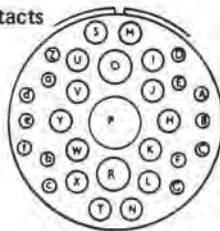
Alternative Positions W X Y Z



Arrangement Number **28-12**
 26 size 16

Alternative Positions W X Y

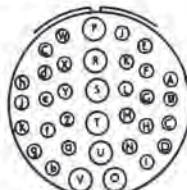
31 Contacts



Arrangement Number **36-9**
 1 size 4
 2 size 8
 14 size 12
 14 size 16

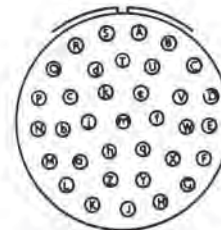
Alternative Positions W X Y Z

35 Contacts



Arrangement Number **32-7**
 7 size 12
 28 size 16

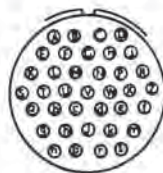
Alternative Positions W X Y Z



Arrangement Number **36-15**
 35 size 16

Alternative Positions W X Y Z

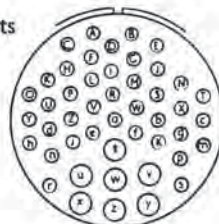
37 Contacts



Arrangement Number **28-21**
 37 size 16

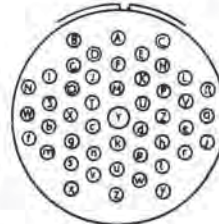
Alternative Positions W X Y Z

47 Contacts



Arrangement Number **36-7**
 7 size 12
 40 size 16

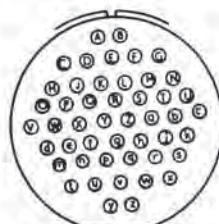
Alternative Positions W X Y Z



Arrangement Number **36-8**
 1 size 12
 46 size 16

Alternative Positions W X Y Z

48 Contacts



Arrangement Number **36-10**
 48 size 16

Alternative Positions W X Y Z

CIRCULAR CONNECTORS



UK-AN

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ALUMINIUM RANGE

The units illustrated can contain either plug pins or socket inserts. When fully assembled in the manner described on later pages, the contacts are waterproofed, seals being formed at the cable entry by the tapered hole in the resilient moulding.

Cable fittings are not essential when using open wiring or single-core cables, but it is desirable to fit a short length of sleeving over the cables, as closely as possible to the rear of the connector.

Straight and right-angle outlet accessory sets are available where continuity of screening is desired. These rear fittings require the selection of split cones to suit respective cable diameters. Also available are bell clamps and elbow clamps. These preferred rear fittings require no associated accessories.

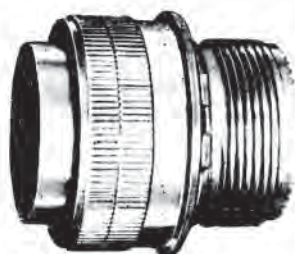
Free unit is the item which is normally removable after uncoupling.

Fixed unit is the item which is normally fixed to a supporting surface. This unit may also be used as an "in line" coupler without being fixed. The UK-AN fixed unit is supplied complete with a mounting ring, gasket and locknut which will provide a pressure seal whether mounted from the front or rear of the panel, or with square flanges to give a 4-hole fixing, but this cannot be pressure sealed to normal British standards.

UK-AN SHELL STYLES

Capable of replacing any true AN or MS type, UK-AN connectors will also mate and operate efficiently with any compatible MIL-C-5015D connector.

Shell Style 9000 Free Unit



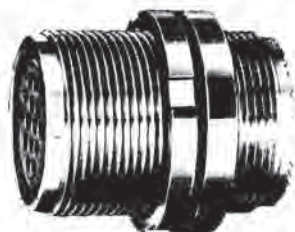
Shell Style 9600



Shell Style 9800



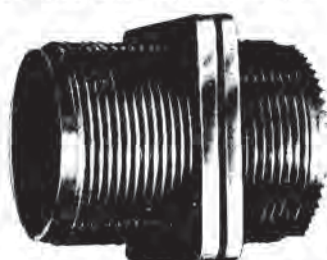
Shell Style 8000 Fixed Unit (Round Flange)



Shell Style 8600



Shell Style 7000 Fixed Unit (Square Flange)



Shell Style 7600



Shell Style 7800

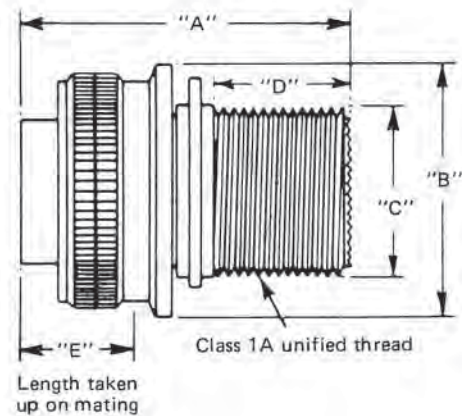
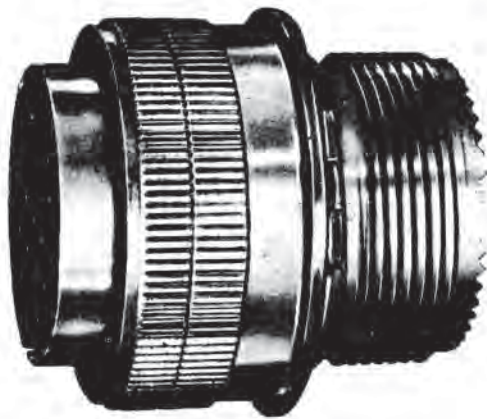


ALUMINIUM RANGE

Shell Style 9000

FREE UNIT

Shell style 9000 is the basic free unit of the range of aluminium UK-AN connectors and can be supplied as either a socket in all shell sizes or as a plug in sizes 12s to 36 inclusive.



UK-AN Code Number by Shell Size	Overall Length A	Coupling Nut Diameter B	Thread Dimensions C	Rear Thread D	Length of Engagement E	Average Weight (Ounces)	
						Plug	Socket
UK-AN-9000-10s†	1.45"	0.85"	0.500" x 24 TPI	0.468"	0.54"	0.7	0.7
UK-AN-9000-12s†	1.50"	0.97"	0.625" x 24 TPI	0.665"	0.54"	0.8	0.9
UK-AN-9000-14s†	1.50"	1.09"	0.750" x 20 TPI	0.655"	0.54"	1.0	1.1
UK-AN-9000-16†	1.67"	1.23"	0.875" x 20 TPI	0.594"	0.73"	1.6	1.8
UK-AN-9000-18†	1.67"	1.35"	1.000" x 20 TPI	0.594"	0.73"	1.9	2.2
UK-AN-9000-20†	1.67"	1.48"	1.125" x 18 TPI	0.582"	0.73"	2.3	2.6
UK-AN-9000-22†	1.67"	1.60"	1.250" x 18 TPI	0.582"	0.73"	2.7	3.2
UK-AN-9000-24†	1.67"	1.73"	1.375" x 18 TPI	0.582"	0.73"	3.0	3.5
UK-AN-9000-28†	1.67"	1.98"	1.625" x 18 TPI	0.572"	0.73"	4.2	4.8
UK-AN-9000-32†	1.67"	2.20"	1.750" x 18 TPI	0.572"	0.73"	4.9	6.7
UK-AN-9000-36†	1.67"	2.48"	2.000" x 18 TPI	0.582"	0.73"	5.6	7.1

† Contact arrangements (see pages 6 to 9) and 'P' or 'S' to denote plug or socket must be added to complete the UK-AN code number.

A typical code number is UK-AN-9000-16-11-S.

Unless otherwise specified, all units will contain an insulator of high-grade silicone rubber to provide maximum general performance. A special kerosene resistant unit can be

obtained by specifying the symbol "E.T." in the code number. Further details are given on page 4.

CIRCULAR CONNECTORS



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ALUMINIUM RANGE

FREE UNIT

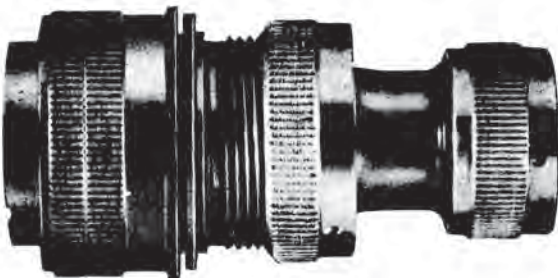
The shell styles below show how a basic connector may be ordered complete with any of the outlet fittings.

As with the basic unit it can be supplied as either a socket in all shell sizes or as a plug in sizes 12s to 36 inclusive.

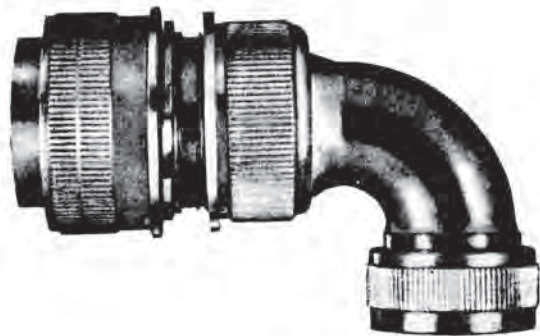
Preferred styles 9600 Bell Clamp Free Unit and 9800 Elbow Clamp Free Unit require no associated accessories and may be ordered by quoting the appropriate shell style number in lieu of the basic 9000 figure.

† Contact arrangements (see pages 6 to 9) and 'P' or 'S' to denote plug or socket must be added to complete the UK-AN code number.

SHELL STYLE 9100
Straight Free Unit



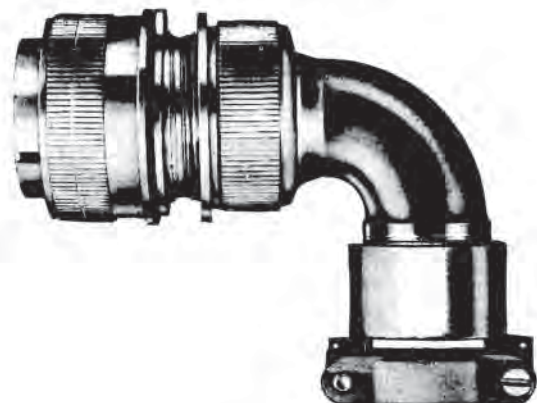
SHELL STYLE 9200
Right-Angle Free Unit



SHELL STYLE 9600
Bell Clamp Free Unit



SHELL STYLE 9800
Elbow Clamp Free Unit



See pages 21 to 24 for basic end fittings.

Associated Shell Styles

Shell styles 9100 Straight Free Unit and 9200 Right-Angle Free Unit, require split-cone sizes selected from the table on page 20 and the two appropriate digits inserted in lieu of the 00 digits, i.e., a Right-Angle Free Unit shell size 12s with fittings to suit 0.240/0.280" dia. cable should be specified as a UK-AN-9203-12s†.

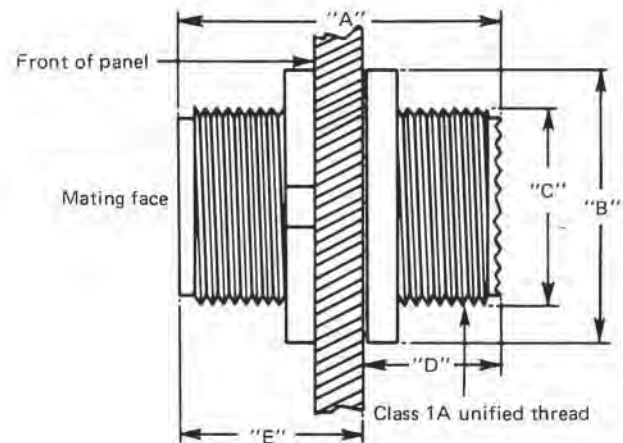
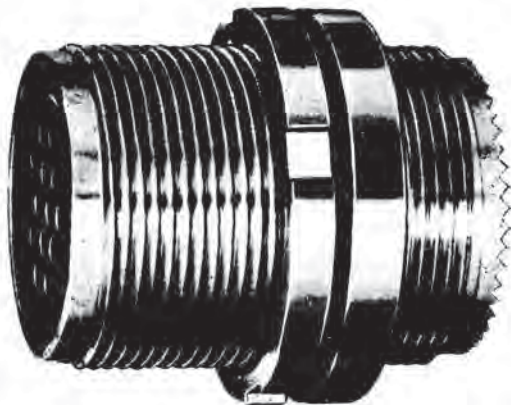
ALUMINIUM RANGE

Shell Style 8000

FIXED UNIT (Round Flange)

Shell style 8000 is the basic fixed unit of the range of aluminium UK-AN connectors and can be supplied as either a plug in all shell sizes or as a socket in sizes 12s to 36 inclusive.

A pressure seal is maintained when mounting from either the front or the rear of a panel.



UK-AN Code Number by Shell Size	Overall Length 'A'	Mounting Ring Dia. 'B'	Thread Dimensions 'C'	Dimension 'D'	Dimension 'E'	Average Weight (Ounces)		Maximum Panel Thickness Mounted From Rear
						Plug	Socket	
UK-AN-8000-10s†	1.45"	0.97"	0.625" x 24 TPI	0.62"	0.83"	0.7	0.7	0.320"
UK-AN-8000-12s†	1.50"	1.09"	0.750" x 20 TPI	0.67"	0.83"	0.9	1.0	0.300"
UK-AN-8000-14s†	1.50"	1.18"	0.875" x 20 TPI	0.67"	0.83"	1.1	1.2	0.300"
UK-AN-8000-16†	1.67"	1.31"	1.000" x 20 TPI	0.67"	1.00"	1.5	1.6	0.230"
UK-AN-8000-18†	1.67"	1.43"	1.125" x 18 TPI	0.67"	1.00"	1.7	1.9	0.230"
UK-AN-8000-20†	1.67"	1.53"	1.250" x 18 TPI	0.67"	1.00"	2.0	2.4	0.230"
UK-AN-8000-22†	1.67"	1.71"	1.375" x 18 TPI	0.67"	1.00"	2.2	2.8	0.230"
UK-AN-8000-24†	1.67"	1.82"	1.500" x 18 TPI	0.67"	1.00"	2.6	3.2	0.230"
UK-AN-8000-28†	1.67"	2.03"	1.750" x 18 TPI	0.67"	1.00"	3.5	4.4	0.230"
UK-AN-8000-32†	1.67"	2.28"	2.000" x 18 TPI	0.67"	1.00"	5.3	6.3	0.190"
UK-AN-8000-36†	1.67"	2.52"	2.250" x 16 TPI	0.67"	1.00"	6.0	7.4	0.190"

† Contact arrangements (see pages 6 to 9) and 'P' or 'S' to denote plug or socket must be added to complete the UK-AN code number.

A typical code number is UK-AN-8000-28-15-S.

Unless otherwise specified, all units will contain an insulator of high-grade silicone rubber to provide maximum general performance. A special kerosene-resistant unit can be

obtained by specifying the symbol "E.T." in the code number. Further details are given on page 4.

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ALUMINIUM RANGE

FIXED UNIT (Round Flange)

The shell styles below show how a basic connector may be ordered complete with any of the outlet fittings.

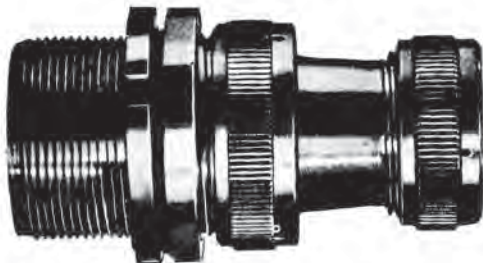
As with the basic unit it can be supplied as either a socket in all shell sizes or as a plug in sizes 12s to 36 inclusive.

Preferred styles 8600 Bell Clamp Fixed Unit and 8800 Elbow Clamp Fixed Unit require no associated accessories and may be ordered by quoting the appropriate shell style number in lieu of the basic 8000 figure.

Shell styles 8100 Straight Fixed Unit and 8200 Right Angle Fixed Unit, require split cone sizes selected from the table on page 20 and the two appropriate digits inserted in lieu of the 00 digits i.e., a Straight Fixed Unit (Round Flange), shell size 18 with fittings to suit 0.360/0.400" dia. cable should be specified as a UK-AN-8106-18[†].

[†] Contact arrangements (see pages 6 to 9) and 'P' or 'S' to denote plug or socket must be added to complete the UK-AN code number.

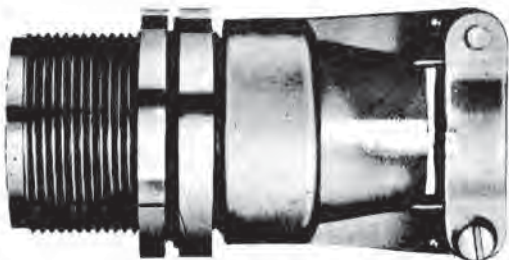
SHELL STYLE 8100
Straight Fixed Unit (Round Flange)



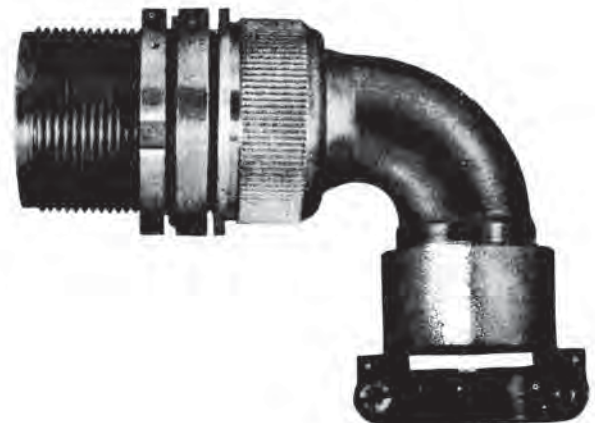
SHELL STYLE 8200
Right-Angle Fixed Unit (Round Flange)



SHELL STYLE 8600
Bell Clamp Fixed Unit (Round Flange)



SHELL STYLE 8800
Elbow Clamp Fixed Unit (Round Flange)



See pages 21 to 24 for basic end fittings.

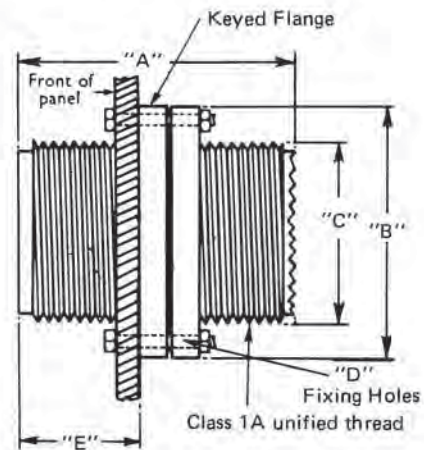
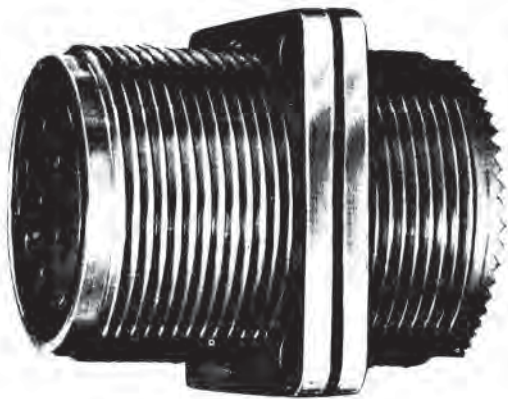
ALUMINIUM RANGE

Shell Style 7000

FIXED UNIT (Square Flange)

Shell style 7000 is the fixed unit, supplied complete with two square flanges, one keyed and one threaded to allow the unit to be mounted with 4 fixing bolts. This feature allows interchangeability with contemporary AN or MS connectors, but a pressure seal meeting the requirements of British Standards cannot be maintained.

This item can be supplied as a socket in all shell sizes or as a plug in sizes 12s to 36 inclusive.



UK-AN Code Number by Shell Size	Overall Length 'A'	Square Flanges 'B'	Thread Dimensions 'C'	Fixing Holes 'D'	Dimension 'E'	Average Weight (Ounces)		Maximum Panel Thickness Mounted From Rear
						Plug	Socket	
UK-AN-7000-10s†	1.45"	1.00"	0.625" x 24 TPI	0.120"	0.77"	0.6	0.7	0.335"
UK-AN-7000-12s†	1.50"	1.09"	0.750" x 20 TPI	0.120"	0.77"	0.8	0.9	0.335"
UK-AN-7000-14s†	1.50"	1.18"	0.875" x 20 TPI	0.120"	0.77"	1.1	1.1	0.335"
UK-AN-7000-16†	1.67"	1.28"	1.000" x 20 TPI	0.120"	0.94"	1.4	1.6	0.335"
UK-AN-7000-18†	1.67"	1.37"	1.125" x 18 TPI	0.120"	0.94"	1.6	1.9	0.335"
UK-AN-7000-20†	1.67"	1.50"	1.250" x 18 TPI	0.120"	0.94"	2.0	2.3	0.335"
UK-AN-7000-22†	1.67"	1.62"	1.375" x 18 TPI	0.120"	0.94"	2.1	2.8	0.335"
UK-AN-7000-24†	1.67"	1.75"	1.500" x 18 TPI	0.147"	0.94"	2.6	3.1	0.335"
UK-AN-7000-28†	1.67"	2.00"	1.750" x 18 TPI	0.147"	0.94"	3.8	4.4	0.335"
UK-AN-7000-32†	1.67"	2.25"	2.000" x 18 TPI	0.189"	0.94"	5.2	6.3	0.335"
UK-AN-7000-36†	1.67"	2.50"	2.250" x 16 TPI	0.189"	0.94"	5.9	7.3	0.335"

† Contact arrangements (see pages 6 to 9) and 'P' or 'S' to denote plug or socket must be added to complete the UK-AN code number.

A typical code number is UK-AN-7000-20-8-S.

Unless otherwise specified, all units will contain an insulator of high-grade silicone rubber to provide maximum general performance. A special kerosene-resistant unit

can be obtained by specifying the symbol "E.T." in the code number. Further details are given on page 4.

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ALUMINIUM RANGE

Associated Shell Styles

FIXED UNIT (Square Flange)

The shell styles below show how a basic connector may be ordered complete with any of the outlet fittings.

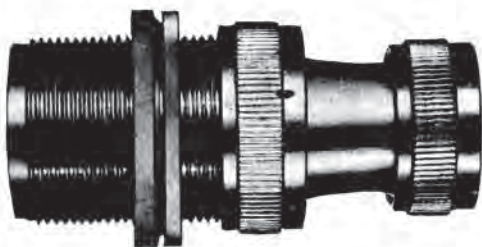
As with the basic unit, it can be supplied as either a socket in all shell sizes or as a plug in sizes 12s to 36 inclusive.

Preferred styles 7600 Bell Clamp Fixed Unit and 7800 Elbow Clamp Fixed Unit require no associated accessories and may be ordered by quoting the appropriate shell style number in lieu of the basic 7000 figure.

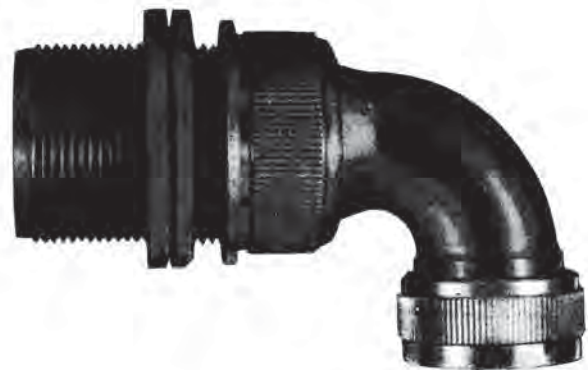
Shell styles 7100 Straight Fixed Unit and 7200 Right-Angle Fixed Unit require split cone sizes selected from the table on page 20 and the two appropriate digits inserted in lieu of the 00 digits, i.e. a Right-Angle Fixed Unit (Square Flange), shell size 36 with fittings to suit 1.105/1.145" dia. cable, should be specified as a UK-AN-7217-36[†].

[†] Contact arrangements (see pages 6 to 9) and 'P' or 'S' to denote plug or socket must be added to complete the UK-AN code number.

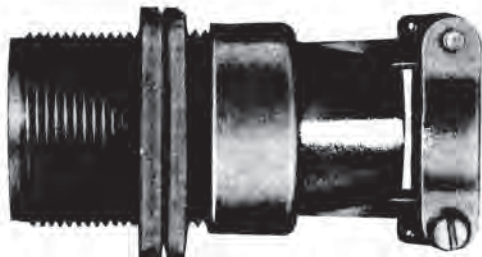
SHELL STYLE 7100 Straight Fixed Unit (Square Flange)



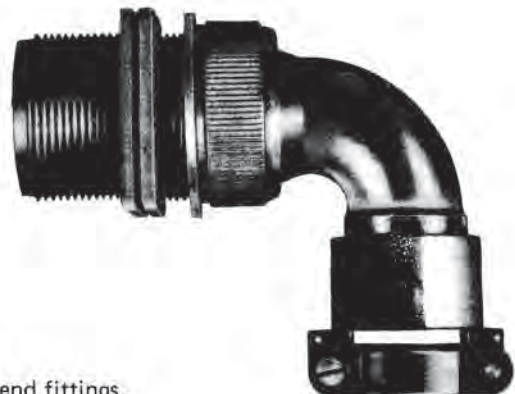
SHELL STYLE 7200 Right-Angle Fixed Unit (Square Flange)



SHELL STYLE 7600 Bell Clamp Fixed Unit (Square Flange)



SHELL STYLE 7800 Elbow Clamp Fixed Unit (Square Flange)



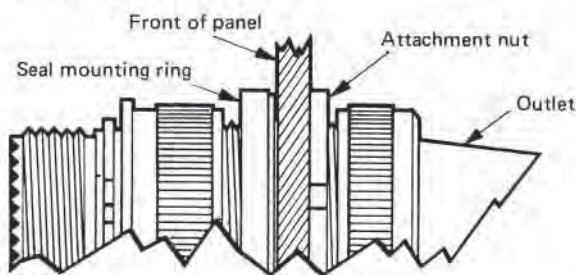
See pages 21 to 24 for basic end fittings.

ALUMINIUM RANGE

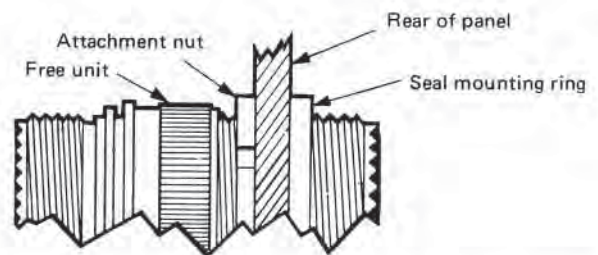
Round Flange

PANEL MOUNTING DATA

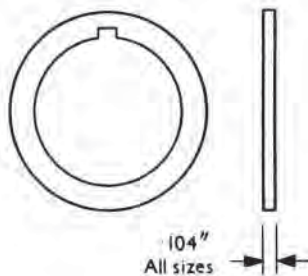
Methods of Mounting



Mounting from the front when using cable fittings is limited to panels up to a maximum thickness of 0.135 inch for shell sizes 12s to 36, and 0.080 inch for shell size 10s. Panels of a greater thickness will prevent locking of the outlet nut.



Mounting from the rear is limited to panels up to maximum thickness of 0.320 inch for 10s, 0.300 inch for 12s and 14s, 0.230 inch for 16 to 28, and 0.190 inch for shells 32 and 36. Panels of a greater thickness will prevent the free unit from mating to the correct extent.

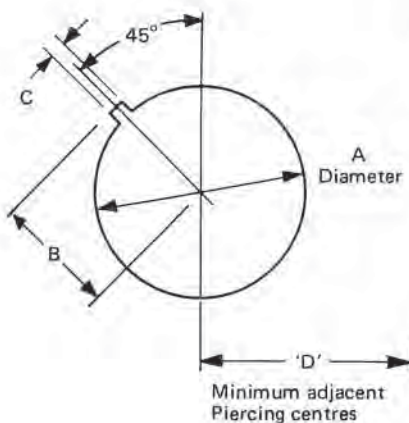


Panel Packing Washer (Aluminium)

Shell Size	Part Number	Shell Size	Part Number	Shell Size	Part Number
10s	508/2/15590/002	18	508/2/15594/002	28	508/2/15598/002
12s	508/2/15591/002	20	508/2/15595/002	32	508/2/15599/002
14s	508/2/15592/002	22	508/2/15596/002	36	508/2/15600/002
16	508/2/15593/002	24	508/2/15597/002		

The correct panel packing washer should always be used when mounting on panels less than $\frac{1}{16}$ inch thick.

Panel Piercing Dimensions



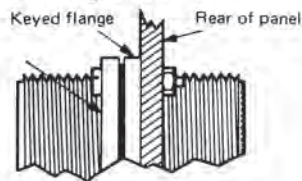
Shell Size	'A' Diameter Inches		'B' Dimension Inches		'C' Dimension Inches		'D' Dimension Minimum
	Min.	Max.	Min.	Max.	Min.	Max.	
10s	0.626	0.628	0.365	0.370	0.126	0.131	1.1
12s	0.751	0.753	0.425	0.430	0.126	0.131	1.2
14s	0.876	0.878	0.487	0.492	0.126	0.131	1.3
16	1.001	1.003	0.561	0.565	0.126	0.131	1.4
18	1.126	1.128	0.613	0.618	0.126	0.131	1.5
20	1.251	1.253	0.677	0.682	0.126	0.131	1.6
22	1.376	1.378	0.738	0.743	0.126	0.131	1.8
24	1.501	1.503	0.807	0.902	0.126	0.131	1.9
28	1.751	1.753	0.927	0.932	0.126	0.131	2.1
32	2.001	2.003	1.052	1.057	0.126	0.131	2.3
36	2.251	2.253	1.177	1.182	0.126	0.131	2.6

Dimensions for mounting square flanges are given on page 18.

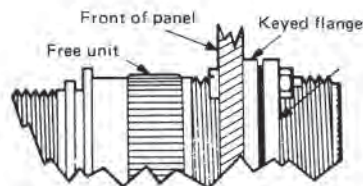
UK-AN

ALUMINIUM RANGE

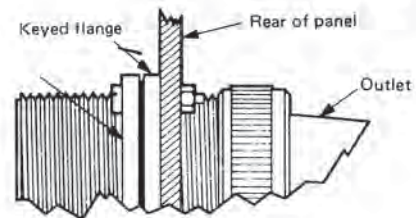
Panel Mounting Data



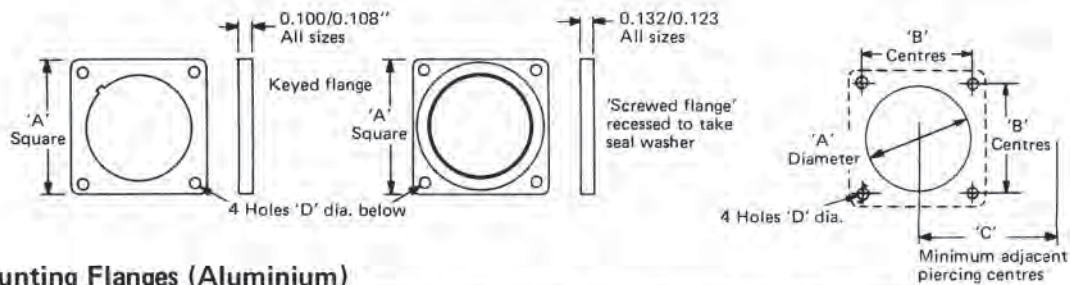
Mounting from the rear when no cable fittings are required allows the fixed unit to be used on a panel of any desired thickness.



Mounting from the rear is limited to panels up to a maximum thickness of 0.335 inch. Panels of a greater thickness will prevent the free unit from mating to the correct extent.



Mounting from the front when using cable fittings is limited to panels up to maximum thicknesses of 0.210 inch on shell size 10s and 0.265 inch for all larger shell sizes. Panels of a greater thickness will prevent locking of the outlet nut.



Square Mounting Flanges (Aluminium)

Shell Size	Part Number	'A' Dimension Inches	Shell Size	Part Number	'A' Dimension Inches	Shell Size	Part Number	'A' Dimension Inches
10s	508/1/15640	1.00	18	508/1/15644	1.37	28	508/1/15648	2.00
12s	508/1/15641	1.09	20	508/15645	1.50	32	508/1/15649	2.25
14s	508/1/15642	1.18	22	508/1/15646	1.62	36	508/1/15650	2.50
16	508/1/15643	1.28	24	508/1/15647	1.75			

Each part number shown constitutes one pair of flanges as illustrated.

To maintain interchangeability with AN connectors, the two loose flanges can be supplied, but cannot be pressure sealed to British Standards.

Panel Piercing Dimensions

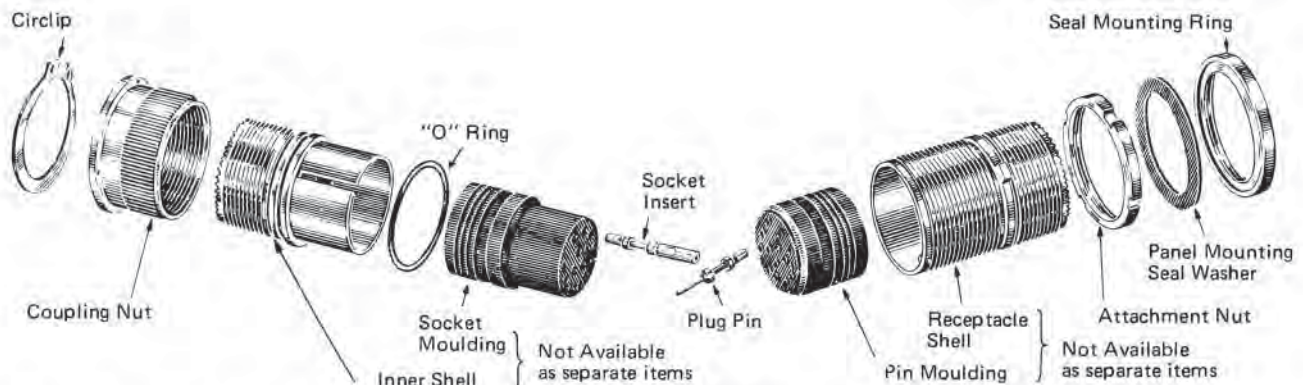
Shell Size	'A' Diameter Inches		'B' Centres Inches		'C' Dimension Inches Minimum	'D' Diameter Inches and Clearance
	Min.	Max.	Min.	Max.		
10s	0.626	0.628	0.717	0.721	1.1	0.120" 6BA Clearance
12s	0.751	0.753	0.810	0.814	1.2	0.120" 6BA Clearance
14s	0.876	0.878	0.904	0.908	1.3	0.120" 6BA Clearance
16	1.001	1.003	0.967	0.971	1.4	0.120" 6BA Clearance
18	1.126	1.128	1.061	1.064	1.5	0.120" 6BA Clearance
20	1.251	1.253	1.154	1.158	1.6	0.120" 6BA Clearance
22	1.376	1.378	1.248	1.252	1.8	0.120" 6BA Clearance
24	1.501	1.503	1.373	1.377	1.9	0.147" 4BA Clearance
28	1.751	1.753	1.560	1.564	2.1	0.147" 4BA Clearance
32	2.001	2.003	1.748	1.752	2.3	0.189" 2BA Clearance
36	2.251	2.253	1.936	1.940	2.6	0.189" 2BA Clearance

Dimensions for mounting round flanges are given on page 17.

ALUMINIUM RANGE

A typical UK-AN plug and socket

Spares and replacement items



See also page 45 for Anti-Chafe Rings and Retaining Nuts common to aluminium and steel UK-AN ranges

	Shell Size	Part Number	Shell Size	Part Number	Shell Size	Part Number
PANEL MOUNTING SEAL WASHER *Add suffix 100 for silicone rubber (standard), add suffix 300 for kerosene-resistant (E.T.) Used on fixed units only	10s	508/2/04798/*	18	508/2/04802/*	28	508/2/04806/*
	12s	508/2/04799/*	20	508/2/04803/*	32	508/2/04807/*
	14s	508/2/04800/*	22	508/2/04804/*	36	508/2/04808/*
	16	508/2/04801/*	24	508/2/04805/*		
ATTACHMENT NUT Aluminium Used on fixed units only	10s	508/2/09485/002	18	508/2/09468/002	28	508/2/09471/002
	12s	508/2/09477/002	20	508/2/08729/002	32	508/2/09489/002
	14s	508/2/09479/002	22	508/2/09474/002	36	508/2/09490/002
	16	508/2/09482/002	24	508/2/09488/002		
SEAL MOUNTING RING Aluminium Used on fixed units only	10s	508/2/09365/002	18	508/2/09403/002	28	508/2/09407/002
	12s	508/2/09400/002	20	508/2/09404/002	32	508/2/09408/002
	14s	508/2/09401/002	22	508/2/09405/002	36	508/2/09409/002
	16	508/2/09402/002	24	508/2/09406/002		
COUPLING NUT Brass (cadmium plated and passivated) Used on free units only	10s	508/2/09486/005	18	508/2/09469/005	28	508/2/09472/005
	12s	508/2/09478/005	20	508/2/08730/005	32	508/2/09367/005
	14s	508/2/09480/005	22	508/2/09475/005	36	508/2/09371/005
	16	508/2/09483/005	24	508/2/09366/005		
CIRCLIP Spring steel (nickel plated) Used on free units only These part numbers replace those previously shown	10s	999/4/01348/024	18	999/4/01348/049	28	999/4/01348/074
	12s	999/4/01348/030	20	999/4/01348/053	32	999/4/01348/078
	14s	999/4/01348/038	22	999/4/01348/058	36	999/4/01348/085
	16	999/4/01348/044	24	999/4/01348/063		
'O' RING Silicone rubber (kerosene resistant) Used on free units only 'O' Rings are now supplied with aluminium connectors These part numbers are for replacement purposes only	10s	508/2/00092/001	18	508/2/00092/005	28	508/2/00092/009
	12s	508/2/00092/002	20	508/2/00092/006	32	508/2/00092/010
	14s	508/2/00092/003	22	508/2/00092/007	36	508/2/00092/011
	16	508/2/00092/004	24	508/2/00092/008		

UK-AN

ALUMINIUM RANGE

For outlet accessory sets

Split Cone Sizes

By virtue of its design, the UK-AN connector needs no accessories or cable fittings when in normal use with single core cables or "open" wiring, other than the normal short length of sleeving positioned as closely as possible to the rear of the connector. This simple manner of securing cables is recommended to eliminate the possibility of accidental removal of contacts by snagging loose wires, although a pull of approximately 15lb. is required to dislodge a contact from its seating. In order to accommodate multicore cables where the continuity of screening must be provided for, a series of outlet accessory sets incorporating a cable clamp has been designed.

Each shell style and size has been provided with one short straight and one short right-angle outlet which are designed to accept a pair of split cones, the latter being obtainable in various bore sizes to suit the ranges of cables in common use.

The simplicity of the fittings permits free access for wiring, as all fittings may be pushed along the cable away from soldering irons or crimping tools.

Full details of the accessory sets, together with the recommended methods of wiring, are shown on the following pages.



A typical example of a mated pair with full outlet accessory sets fitted.

Straight and right-angle outlet accessory sets each contain two split cones (three on those marked for use with 3 way tersil 16). Minimum and maximum sizes of cables that each pair of split cones will accept are shown in the following table. A stage-by-stage procedure of wiring is given on pages 28 to 33.

Shell	MINIMUM/MAXIMUM CABLE SIZE (IN INCHES)																
	*-/001	-/002	-/003	-/004	-/005	-/006	-/007	-/008	-/009	-/010	-/011	-/012	-/013	-/014	-/015	-/016	-/017
10s Free	0.110/ 0.150	0.215/ 0.255	0.240/ 0.280	2 way† Tersil 16	3 way† Tersil 16												
10s Fix or 12s Free	0.110/ 0.150	0.215/ 0.255	0.240/ 0.280	2 way† Tersil 16	3 way† Tersil 16												
12s Fix or 14s Free	0.110/ 0.150	0.215/ 0.255	0.250/ 0.290	0.280/ 0.320	0.315/ 0.355												
14s Fix or 16 Free	0.110/ 0.150	0.215/ 0.255	0.250/ 0.290	0.280/ 0.320	0.315/ 0.355	0.360/ 0.400	DEF10 2R										
16 Fix or 18 Free	0.110/ 0.150	0.215/ 0.255	0.250/ 0.290	0.280/ 0.320	0.315/ 0.355	0.360/ 0.400	0.410/ 0.450	0.440/ 0.480	0.480/ 0.520	DEF10 2R							
18 Fix or 20 Free	0.110/ 0.150	0.215/ 0.255	0.250/ 0.290	0.280/ 0.320	0.315/ 0.355	0.360/ 0.400	0.410/ 0.450	0.440/ 0.480	0.480/ 0.520	0.530/ 0.570	0.580/ 0.620						
20 Fix or 22 Free	0.110/ 0.150	0.215/ 0.255	0.250/ 0.290	0.280/ 0.320	0.315/ 0.355	0.360/ 0.400	0.410/ 0.450	0.440/ 0.480	0.480/ 0.520	0.530/ 0.570	0.580/ 0.620	0.630/ 0.670	0.700/ 0.740				
22 Fix or 24 Free	0.110/ 0.150	0.215/ 0.255	0.250/ 0.290	0.280/ 0.320	0.315/ 0.355	0.360/ 0.400	0.410/ 0.450	0.440/ 0.480	0.480/ 0.520	0.530/ 0.570	0.580/ 0.620	0.630/ 0.670	0.700/ 0.740				
24 Fix	0.110/ 0.150	0.215/ 0.255	0.250/ 0.290	0.280/ 0.320	0.315/ 0.355	0.360/ 0.400	0.410/ 0.450	0.440/ 0.480	0.480/ 0.520	0.530/ 0.570	0.580/ 0.620	0.630/ 0.670	0.700/ 0.740				
28 Free	0.110/ 0.150	0.215/ 0.255	0.250/ 0.290	0.280/ 0.320	0.315/ 0.355	0.360/ 0.400	0.410/ 0.450	0.440/ 0.480	0.480/ 0.520	0.530/ 0.570	0.580/ 0.620	0.630/ 0.670	0.720/ 0.760	0.830/ 0.870	0.880/ 0.920	0.980/ 1.020	
28 Fix or 32 Free	0.110/ 0.150	0.215/ 0.255	0.250/ 0.290	0.280/ 0.320	0.315/ 0.355	0.360/ 0.400	0.410/ 0.450	0.440/ 0.480	0.480/ 0.520	0.530/ 0.570	0.580/ 0.620	0.630/ 0.670	0.720/ 0.760	0.830/ 0.870	0.880/ 0.920	0.980/ 1.020	1.105/ 1.145
32 Fix or 36 Free	0.110/ 0.150	0.215/ 0.255	0.250/ 0.290	0.280/ 0.320	0.315/ 0.355	0.360/ 0.400	0.410/ 0.450	0.440/ 0.480	0.480/ 0.520	0.530/ 0.570	0.580/ 0.620	0.630/ 0.670	0.720/ 0.760	0.830/ 0.870	0.880/ 0.920	0.980/ 1.020	1.105/ 1.145
36 Fix	0.110/ 0.150	0.215/ 0.255	0.250/ 0.290	0.280/ 0.320	0.315/ 0.355	0.360/ 0.400	0.410/ 0.450	0.440/ 0.480	0.480/ 0.520	0.530/ 0.570	0.580/ 0.620	0.630/ 0.670	0.720/ 0.760	0.830/ 0.870	0.880/ 0.920	0.980/ 1.020	1.105/ 1.145

The use of an outlet accessory set is desirable when a near 90° bend is made in the cable close to the rear of a connector.

Where fittings are used with single-core cables, the clamp formed by the split cones is only effective on an even group of cables as near round as possible. Any irregularities must be removed by packing with sections of rubber or

similar material and covering with a short length of sleeving. The whole must then be measured to determine the correct size of split cones required in the outlet accessory set.

* Dimensions and part numbers of the component parts are shown on pages 21 and 22.

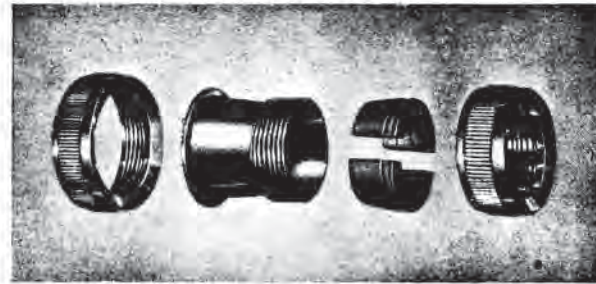
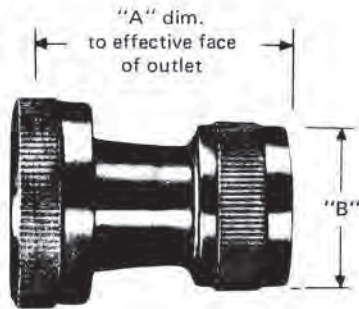
ALUMINIUM RANGE

Accessory Set

Straight Outlet

Each outlet accessory set consists of the items illustrated below. The pair of split cones are obtainable in various bore sizes to suit ranges of cables in common use and the required size should be specified by adding the relevant

number from page 20 to the code number of the outlet accessory set. Example: 508/1/08740/003 suits shell sizes 10s Fix or 12s Free. Cable size 0.240/0.280" dia.



OUTLET NUT (Aluminium)

OUTLET (Aluminium)

SPLIT CONES (Brass)

CABLE CLAMPING NUT (Aluminium)

Accessory Set Part Number	Shell	Cable Clamping Nut 'B'	Outlet Length 'A'	COMPONENT PARTS OF OUTLET ACCESSORY SET				Approx. Weight (Ounces)
				Outlet Nut	Outlet	Split Cones 2 per outlet	Cable Clamping Nut	
508/1/08739/*	10s Free	0.49"	0.85"	508/2/09487/002	508/2/08796/002	508/2/15651/*	508/2/08752/002	0.9
508/1/08740/*	10s Fix or 12s Free	0.56"	1.00"	508/2/08798/002	508/2/08797/002	508/2/15652/*	508/2/08753/002	1.3
508/1/08741/*	12s Fix or 14s Free	0.66"	1.00"	508/2/09481/002	508/2/08724/002	508/2/15653/*	508/2/09487/002	1.5
508/1/08742/*	14s Fix or 16 Free	0.78"	1.12"	508/2/09484/002	508/2/08725/002	508/2/15654/*	508/2/08798/002	1.7
508/1/08743/*	16 Fix or 18 Free	0.91"	1.30"	508/2/09470/002	508/2/08787/002	508/2/15655/*	508/2/09481/002	2.5
508/1/08744/*	18 Fix or 20 Free	1.03"	1.50"	508/2/09466/002	508/2/08788/002	508/2/15656/*	508/2/09484/002	3.0
508/1/08745/*	20 Fix or 22 Free	1.16"	1.50"	508/2/09476/002	508/2/08789/002	508/2/15657/*	508/2/09470/002	3.6
508/1/08746/*	22 Fix or 24 Free	1.28"	1.50"	508/2/08726/002	508/2/08790/002	508/2/15658/*	508/2/09466/002	4.1
508/1/08747/*	24 Fix	1.28"	1.50"	508/2/08731/002	508/2/08791/002	508/2/15658/*	508/2/09466/002	4.6
508/1/08748/*	28 Free	1.53"	1.50"	508/2/09473/002	508/2/08792/002	508/2/15659/*	508/2/08726/002	5.1
508/1/08749/*	28 Fix or 32 Free	1.66"	1.50"	508/2/09467/002	508/2/08793/002	508/2/15660/*	508/2/08731/002	5.7
508/1/08750/*	32 Fix or 36 Free	1.91"	1.50"	508/2/08727/002	508/2/08794/002	508/2/15661/*	508/2/09467/002	6.4
508/1/08751/*	36 Fix	1.91"	1.50"	508/2/08728/002	508/2/08795/002	508/2/15661/*	508/2/09467/002	7.0

* Add relevant cable size ex page 20 as a suffix. Wire locking holes are provided on all nuts.

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ALUMINIUM RANGE

Accessory Set

Right-angle outlet

Each outlet accessory set consists of the items illustrated below. The pair of split cones are obtainable in various bore sizes to suit ranges of cables in common use and the required size should be specified by adding the relevant/

number from page 20 to the code number of the outlet accessory set. Example: 508/1/00723/009. Suits shell sizes 20 Fix or 22 Free. Cable size 0.480/0.520" dia.

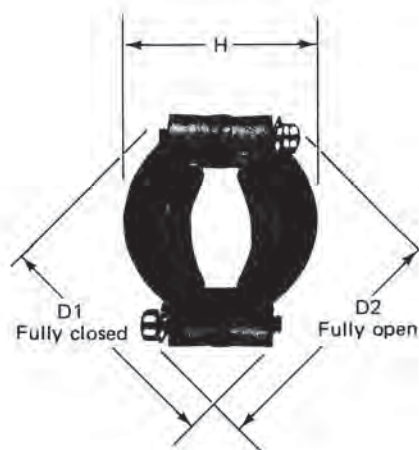
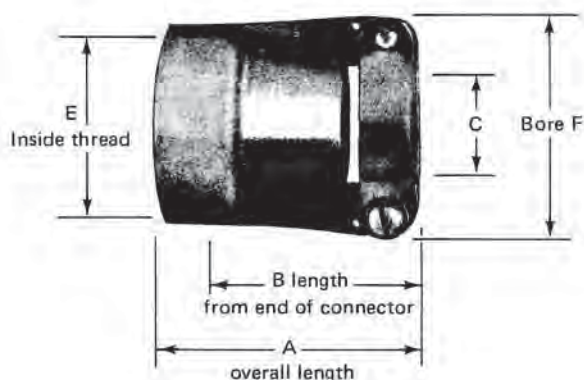


Accessory Set Part Number	Shell	'A' Dimension inches	'B' Dimension inches	COMPONENT PARTS OF OUTLET ACCESSORY SET			Approx. Weight (Ounces)
				Outlet & Nut Assembly	Split Cones 2 per outlet	Cable Clamping Nut	
508/1/00717/*	10s Free	0.86	0.49	508/1/04487	508/2/15651/*	508/2/08752/002	1.9
508/1/00718/*	10s Fix or 12s Free	0.96	0.56	508/1/04488	508/2/15652/*	508/2/08753/002	2.4
508/1/00719/*	12s Fix or 14s Free	1.08	0.66	508/1/04489	508/2/15653/*	508/2/09487/002	3.1
508/1/00720/*	14s Fix or 16 Free	1.21	0.78	508/1/04490	508/2/15654/*	508/2/08798/002	3.6
508/1/00721/*	16 Fix or 18 Free	1.41	0.91	508/1/04491	508/2/15655/*	508/2/09481/002	4.0
508/1/00722/*	18 Fix or 20 Free	1.60	1.03	508/1/04492	508/2/15656/*	508/2/09484/002	5.3
508/1/00723/*	20 Fix or 22 Free	1.80	1.16	508/1/04493	508/2/15657/*	508/2/09470/002	6.3
508/1/00724/*	22 Fix or 24 Free	2.12	1.28	508/1/04494	508/2/15658/*	508/2/09466/002	7.5
508/1/00725/*	24 Fix	2.12	1.28	508/1/04495	508/2/15658/*	508/2/09466/002	8.7
508/1/00726/*	28 Free	2.41	1.53	508/1/04496	508/2/15659/*	508/2/08726/002	9.7
508/1/00727/*	28 Fix or 32 Free	2.55	1.66	508/1/04497	508/2/15660/*	508/2/08731/002	10.7
508/1/00728/*	32 Fix or 36 Free	2.92	1.91	508/1/04498	508/2/15661/*	508/2/09467/002	12.7
508/1/00729/*	36 Fix	2.92	1.91	508/1/04499	508/2/15661/*	508/2/09467/002	14.5

* Add relevant cable size ex page 20 as a suffix. Wire-locking holes are provided on all nuts.

Bell Clamps

Aluminium cable fitting type 600 has an anodized finish. It will fit at the rear of any basic aluminium UK-AN connector. Fluorinated silicone rubber sleeves are supplied with each bell clamp to assist in the clamping of single-core or multicore cables.



Bell Clamp Part Number	Shell	A	B	C Max.	C Min.	D ₁	D ₂	E	F	H	Approx.
		ins.	ins.	ins.	ins.	ins.	ins.	Unified Class 1B Dia. x T.P.I. ins.	ins.	ins.	
508/1/05253	10s Free	1.27	0.89	0.290	0.126	1.00	1.20	0.500 x 24	0.77	0.63	0.6
508/1/05254	10s Fix or 12s Free	1.33	1.15	0.310	0.126	1.06	1.22	0.625 x 24	0.87	0.75	0.7
508/1/05255	12s Fix or 14s Free	1.33	1.15	0.382	0.126	1.20	1.40	0.750 x 20	1.00	0.88	0.7
508/1/05256	14s Fix or 16 Free	1.46	1.08	0.445	0.126	1.30	1.50	0.875 x 20	1.12	1.00	0.8
508/1/05257	16 Fix or 18 Free	1.60	1.22	0.555	0.222	1.45	1.75	1.000 x 20	1.25	1.13	1.2
508/1/05258	18 Fix or 20 Free	1.60	1.22	0.685	0.222	1.63	1.90	1.125 x 18	1.37	1.25	1.2
508/1/05259	20 Fix or 22 Free	1.65	1.27	0.805	0.222	1.82	2.05	1.250 x 18	1.50	1.38	1.3
508/1/05260	22 Fix or 24 Free	1.65	1.27	0.925	0.322	1.82	2.12	1.375 x 18	1.62	1.50	1.4
508/1/05261	24 Fix	1.65	1.27	0.925	0.322	1.94	2.18	1.500 x 18	1.75	1.63	1.5
508/1/05262	28 Free	1.65	1.27	1.175	0.422	2.36	2.54	1.625 x 18	1.87	1.75	1.6
508/1/05263	28 Fix or 32 Free	1.65	1.27	1.305	0.422	2.30	2.62	1.750 x 18	2.00	1.88	1.8
508/1/05264	32 Fix or 36 Free	1.65	1.27	1.555	0.510	2.55	2.85	2.000 x 18	2.25	2.13	2.0
508/1/05265	36 Fix	1.65	1.27	1.555	0.510	2.72	3.02	2.250 x 16	2.50	2.38	2.4

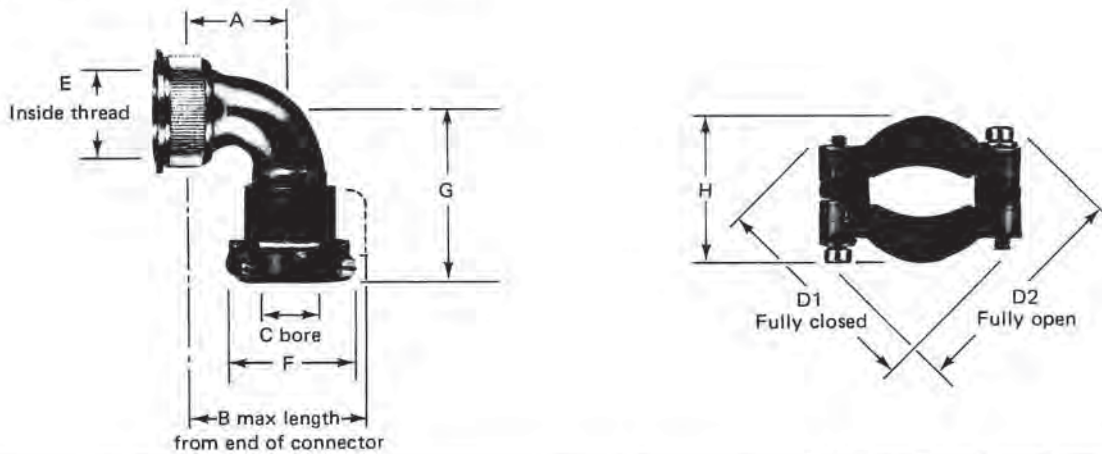
UK-AN

ALUMINIUM RANGE

Elbow Clamps

Aluminium cable fitting type 800 has an alocrom finish. It will fit at the rear of any basic aluminium UK-AN connector.

Fluorinated silicone rubber sleeves are supplied with each elbow clamp to assist in the clamping of single-core or multicore cables.

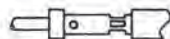
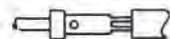


Elbow Clamp Part Number	Shell	A	B	C Max.	C Min.	D ₁	D ₂	E Unified Class 1B Dia. x T.P.I.	F	G	H Dia.	Approx. Weight (Ounces)
		ins.	ins.	ins.	ins.	ins.	ins.	ins.	ins.	ins.	ins.	
508/1/04474	10s Free	0.55	0.94	0.290	0.126	1.00	1.20	0.500 x 24	0.77	1.36	0.50	0.6
508/1/04475	10s Fix or 12s Free	0.68	1.12	0.310	0.126	1.06	1.22	0.625 x 24	0.87	1.36	0.56	0.8
508/1/04476	12s Fix or 14s Free	0.75	1.25	0.382	0.126	1.20	1.40	0.750 x 20	1.00	1.42	0.63	0.9
508/1/04477	14s Fix or 16 Free	0.82	1.38	0.445	0.126	1.30	1.50	0.875 x 20	1.12	1.46	0.75	1.1
508/1/04478	16 Fix or 18 Free	0.95	1.58	0.555	0.222	1.45	1.75	1.000 x 20	1.25	1.84	0.88	1.6
508/1/04479	18 Fix or 20 Free	1.08	1.76	0.685	0.222	1.63	1.90	1.125 x 18	1.37	1.94	1.00	1.9
508/1/04480	20 Fix or 22 Free	1.22	1.97	0.805	0.222	1.82	2.05	1.250 x 18	1.50	2.07	1.13	2.2
508/1/04481	22 Fix or 24 Free	1.48	2.29	0.925	0.322	1.82	2.12	1.375 x 18	1.62	2.32	1.25	2.8
508/1/04482	24 Fix	1.48	2.29	0.925	0.322	1.94	2.18	1.500 x 18	1.62	2.32	1.25	3.0
508/1/04483	28 Free	1.65	2.46	0.925	0.322	2.36	2.54	1.625 x 18	1.62	2.44	1.50	3.3
508/1/04484	28 Fix or 32 Free	1.71	2.71	1.305	0.422	2.30	2.62	1.750 x 18	2.00	2.50	1.63	3.7
508/1/04485	32 Fix or 36 Free	1.97	2.97	1.305	0.422	2.55	2.85	2.000 x 18	2.00	2.76	1.87	4.5
508/1/04486	36 Fix	1.95	2.97	1.305	0.422	2.72	3.02	2.250 x 16	2.00	2.76	1.87	5.5

Crimping of Contacts

Fit the contact over the bared conductor end, ensuring that all strands enter the contact bucket to the full depth. When using Hand Crimping Tool (558/1/00636) or

Hydraulic Crimping Tool (558/1/00692) the dies in the following table must be used.

Contact Size	Crimping Tool	Square Form Dies	Position of crimp
16	*HX4/GB401 (558/1/00636)	*Y298 (558/2/00031) Top (558/2/00032) Bottom	 $\frac{1}{32}$ " from end
12	*HX4/GB401 (558/1/00636)	*Y365 (558/2/00120) Top (558/2/00121) Bottom	
8	**19600 (558/1/00692)	**20052 & 19652L (558/1/00142)	 at end
4	**19600 (558/1/00692)	**20053 & 19653L (558/1/00143)	

*Obtainable from Miles Roystone Ltd
 Priory Works, Mansfield Woodhouse,
 Mansfield, Notts.
 Tel: (0623) 27157

**Obtainable from ERMA Ltd
 Mount Pleasant, Alperton,
 Wembley, Middlesex.
 Tel: 01 903 4561

Hand Crimping Tool 558/1/00636. Fit the appropriate dies to the tool ensuring that when the dies are closed, the adjustment is such that no gap is visible. With the pliers fully open, the contact (with cable inserted) is placed between the dies in such a position that the dies will close over the bucket of the contact approximately $\frac{1}{32}$ in. from the rear. Partial closing of the pliers grips the contact

firmly between the dies. Fully closing the pliers forms a square crimped joint. Push the release lever outwards to open the pliers.

Hydraulic Crimping Tool 558/1/00692. The crimping of contacts should be carried out in accordance with the procedure contained within the instruction manual supplied.

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INSERTION TOOLS (Field Service Type)

The field service insertion tools have been designed to enable UK-AN connectors to be assembled or serviced on site. Full details on the use of these tools may be found on pages 29 and 30.



Each field service insertion tool has a coloured sleeve to provide easy identification of the correct size.

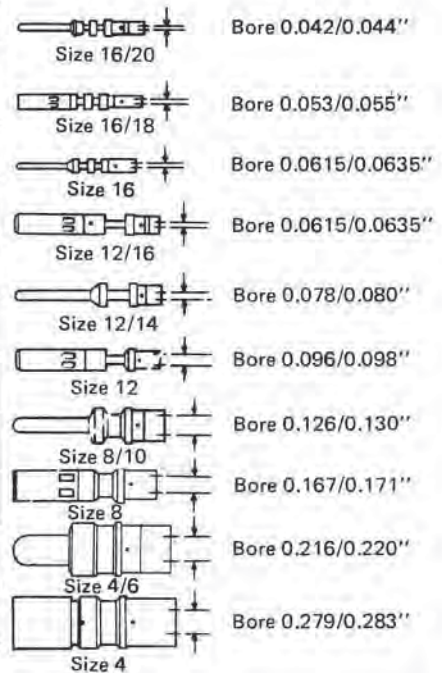


Assembling wired contacts to a UK-AN connector.

CONTACT	INSERTION TOOL	EJECTION TOOL	
Size 16 plug pin	558/1/00579 (Red)	558/1/00601 (Red)	} May be ordered separately or as a complete set — Part No. 558/1/00578.
Size 16 socket insert (Shell sizes 10s, 12s & 14s)	558/1/00580 (Red)	} 558/1/00599 (Red)	
Size 16 socket insert (Shell sizes 16 to 36)	558/1/00581 (Blue)		
Size 12 plug pin	558/1/00583 (Green)	558/1/00602 (Green)	} May be ordered separately or as a complete set — Part No. 558/1/00584.
Size 12 socket insert	558/1/00582 (Green)	558/1/00600 (Green)	
Size 8 plug pin	558/1/00585 (White)		
Size 8 socket insert	558/1/00586 (White)		
Size 4 plug pin	558/1/00588 (Yellow)		
Size 4 socket insert	558/1/00587 (Yellow)		

Contacts

CABLE CONDUCTOR		CONTACTS			
Stranding	Area (square inches)	Size	Part Numbers†		Identification
19/0.0076"	0.00086	16/20	Plug Pin Socket Insert	508/2/05604 508/1/05602	Two Grooves
23/0.0076" 33/0.0076"	0.001 0.0015	16/18	Plug Pin Socket Insert	508/2/05603 508/1/05601	One Groove
40/0.0076"	0.0018	16	Plug Pin Socket Insert	508/2/03547 508/1/04585	Nil
70/0.0076"	0.0032	12/14	Plug Pin Socket Insert	508/2/09361 508/1/09374	One Groove
110/0.0076"	0.0050	12	Plug Pin Socket Insert	508/2/09360 508/1/09373	Nil
73/0.012"	0.0083	8/10	Plug Pin Socket Insert	508/2/00409 508/1/00407	One Groove
120/0.012"	0.0136	8	Plug Pin Socket Insert	508/2/09363 508/1/09376	Nil
182/0.012"	0.206	4/6	Plug Pin Socket Insert	508/2/00406 508/1/00404	One Groove
294/0.012"	0.0335	4	Plug Pin Socket Insert	508/2/09364 508/1/09377	Nil



† Add /001 for gold plated or /002 for silver plated.

Experience gained over many years has proved that contacts carefully machined from the finest quality brass, and silver or gold plated are ideally suited for the conditions encountered in normal usage; the advanced design of the socket insert with the internal spring and solid ring entry has proved to be without parallel in its field, ensuring perfect contact and low resistance to the flow of current with minimum voltage drop.

The range of contacts for the UK-AN connector has also been designed to allow a crimped joint on a wide range of cables without the use of sleeves. Both the size 16 and size 12 contacts are available with three different sizes of conductor well to accommodate the smaller cables, and to facilitate identification, a series of grooves is machined at the conductor well end. Details of the whole range of contacts are given above together with dimensions of cables to which a crimped connection may safely be made.

Selection of contacts

In view of the variations of contacts which are available, it is not possible to supply any connector complete with contacts under one part number.

Therefore it is essential that all contacts are specified separately when ordering UK-AN connectors.

Selection of suitable contacts must be governed by (a) the size of the contact as defined by the contact arrangement and (b) the dimensions of the conductor of the cable to be used.

Although the following table gives details of a variety of cables which may be crimped, any other cable of similar conductor area and diameter may also be used.

The use of size 16 square form crimping dies allows the small equipment wires to be crimped without doubling the conductor. Square form crimping dies should always be used for crimping cables with nickel plated conductors or where connectors are used at temperatures above +150°C.

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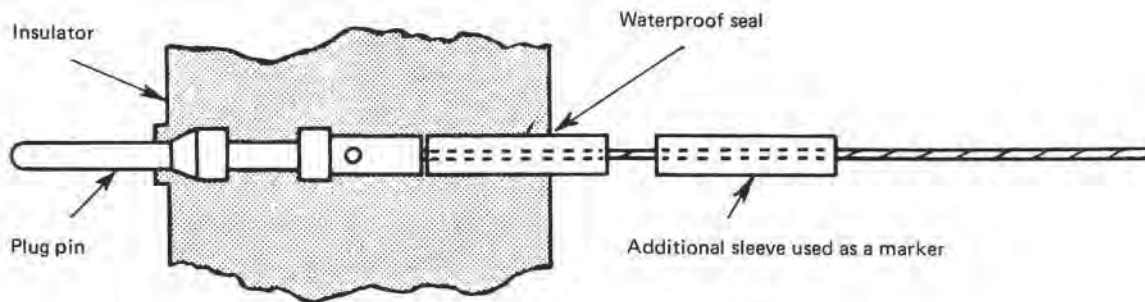
Packing Sleeves

In conjunction with the provision of modified contacts to allow crimped connections to be made on the range of smaller cables, the problem of maintaining an effective waterproof seal on the cable at the point of entry into the insulator has been overcome by providing a series of packing sleeves.

These sleeves, which are supplied in colours to assist easy recognition of the correct size, are designed to fit over the cable dielectric immediately to the rear of the contact. They

are of a sufficient length and diameter to allow the insulator of the connector to form a perfect waterproof seal over any cable within the relevant dimensions given below.

In order to ensure that performance shall not be impaired when operating at extreme temperatures, or contaminated by fuels or oils, these sleeves are of the special kerosene-resistant silicone rubber. The illustration shows how a very small cable may be used with a size 12 contact and an effective waterproof seal still maintained.



An additional sleeve can be used as a marker for circuit identification, eliminating extra stock items.

DIAMETER OF CABLE		SIZE 16, 16/18 or 16/20 CONTACTS		SIZE 12, 12/14 or 12/16 CONTACTS	
Min.	Max.	Part Number	Colour	Part Number	Colour
0.040"	0.060"	508/2/15663	Pink	508/2/15665	Yellow
0.060"	0.080"	508/2/15662	Green	508/2/15666	Orange
0.080"	0.100"	508/2/15664	Blue	508/2/15667	White
0.100"	0.130"	Not required	—	508/2/15668	Red
0.130"	0.150"	Not required	—	508/2/15669	Black
DIAMETER OF CABLE		SIZE 8 or 8/10 CONTACTS		SIZE 4 or 4/6 CONTACTS	
0.180"	0.200"	508/2/15670	Brown	—	—
0.290"	0.310"	—	—	508/2/15671	Violet

Cable Preparation

Prepare the cable in accordance with the method shown for the various types on pages 31 and 33 and strip the individual cable insulation to the dimension shown in the following table, taking care that none of the conductor strands are severed in the process.



CONTACT	16	12	8	4
STRIPPING LENGTH	0.18"	0.18"	0.23"	0.37"

Soldering of Contacts

Lightly tin the conductor ends and contact well with a solder to BS219 grade 95A. Insert the conductor into the well of the contact and solder firmly in position. Care

should be taken to ensure that there is no overflow of solder from the joint.

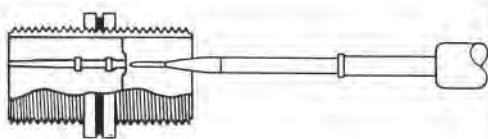
Insertion of Contacts

Select the appropriate insertion tool – details of which may be found in the following table.

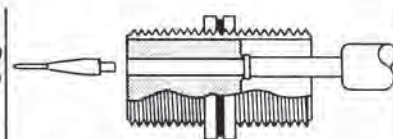
CONTACT SIZE	16	16	12	8	4
Shell Size	10s – 14s	16 – 36	10s – 36	16 – 36	16 – 36
Plug Pin	558/1/00579	558/1/00579	558/1/00583	558/1/00585	558/1/00588
Colour Code	Red	Red	Green	White	Yellow
Socket Insert	558/1/00580	558/1/00581	558/1/00582	558/1/00586	558/1/00587
Colour Code	Red	Blue	Green	White	Yellow

Important. It must be clearly understood that care is needed in using these insertion tools if damage to a connector or tool is to be avoided. Only the tip of the insertion tool should be lubricated with a minute quantity of D.C. 282 fluid. The use of too much lubricant may lead to loss of performance and all traces

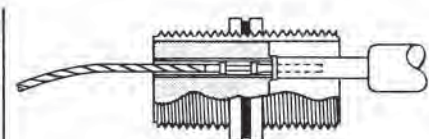
should be removed from the moulding face by carefully wiping with a clean cloth moistened with Inhibisol or Genklene. (Both solvents are 1.1.1 Trichlorethane suitably inhibited or stabilised.) Ensure complete evaporation of cleaning solvent before coupling connectors.



Fit the leader to the nose of the tool and insert the point into the appropriate hole in the front of the moulding.



Push the tool through with a steady, even pressure, keeping in line with the axis of the hole until the collar of the tool meets the face of the moulding.



Remove the leader, leaving the mouth of the tool flush with the rear face of the moulding. Insert the wired contact ensuring that it enters to its fullest extent.

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Wiring

Grip the connector shell firmly and maintaining a light hold on the cable to ensure that it remains in position, remove the tool with a steady, even pull, leaving the contact in position. A slight "push and pull" action on the cable will ensure that the contact is correctly seated in the moulding.

It is recommended that any large contacts are inserted first and wherever possible, insertions should be made outwards from the centre.

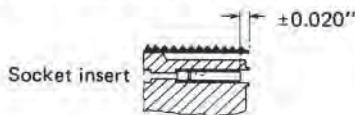
In order to maintain correct alignment of contacts, it is

essential that all are inserted. Where pressure sealing is required filler plugs must be fitted in unwired contacts (SEE FILLER PLUGS BELOW).

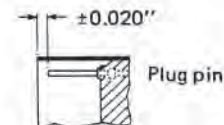
When cables having a smaller overall diameter than those equivalent to the nominal size of the contact are used, the sealing of the cable entry should be maintained by positioning a suitable silicone rubber packing sleeve over the cable prior to insertion. A series of these sleeves is available and full details may be found on page 28.

Inspection

When all contacts have been inserted, the complete assembly may be checked by measuring the distance (as illustrated) from the front face of the shell to the end of the contacts.



SOCKET INSERT FIXED OR FREE Shell Size	CONTACT SIZE			
	16	12	8	4
10s (free only)	0.040"	—	—	—
12s – 14s	0.095"	—	—	—
16 – 36	0.140"	0.060"	0.135"	0.135"



PLUG PIN FIXED OR FREE Shell Size	CONTACT SIZE			
	16	12	8	4
10s (fixed only)	0.097"	—	—	—
12s – 14s	0.123"	—	—	—
16 – 36	0.293"	0.073"	0.048"	0.048"

Removal of Contacts

Ejection tools for the removal of size 16 and 12 contacts are shown in the table. The tools may be ordered together with insertion tools as a complete set as shown on page 26.

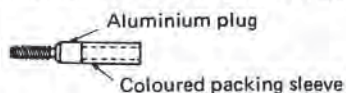
CONTACT	TOOL	COLOUR
Size 16 plug pin	558/1/00601	Red
Size 16 socket insert	558/1/00599	Red
Size 12 plug pin	558/1/00602	Green
Size 12 socket insert	558/1/00600	Green

Filler Plugs

In order to maintain even compression of the resilient insulator used in UK-AN connectors, it is necessary to insert all contacts even though they may not be used in the wiring circuit. A filler plug should be screwed directly into the conductor well of the contact and inserted into the insulator in the normal manner using the appropriate

insertion tool. The filler plug is aluminium and has a standard packing sleeve fitted over the rear end – this also serves to indicate the size of the contact should it be found necessary to wire the contact.

An alternative form of filler plug made of nylon can be used in lieu of contacts. This type of dummy contact is to replace size 12 and 16 contacts. Availability of these items should be checked with our Sales Department prior to ordering.



PART NO. 508/1/05577/	COLOUR	CONTACT
001	Pink	16/20
002	Green	16/18
003	Blue	16
004	Red	12/16
005	Black	12/14
006	Yellow	12
007	Brown	8/10
008	Orange	8
009	Violet	4/6
010	White	4

PART NO.	COLOUR	CONTACT SIZE	SHELL SIZE
508/2/08581	Natural		10s plug
508/2/08582	Red	16	12s & 14s plug 10s socket
508/2/08583	Blue		16 to 36 plug 12s & 14s socket
508/2/08584	Yellow		16 to 36 socket
508/2/08580	Green		16 to 36 plug or socket

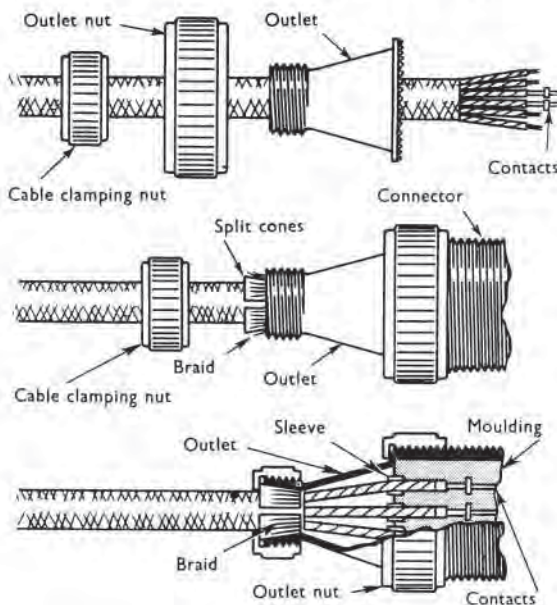
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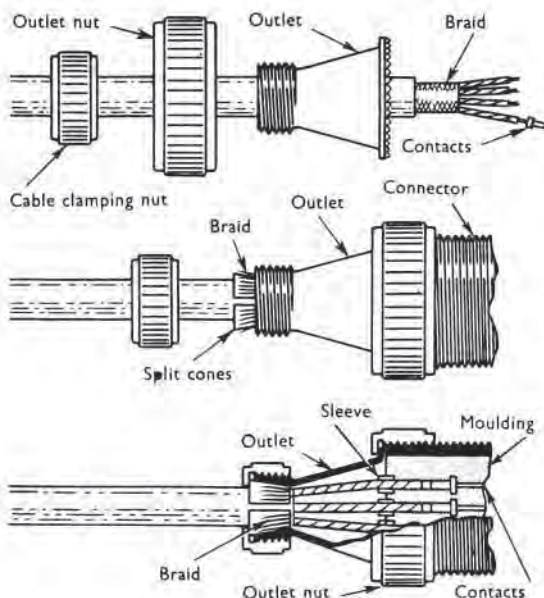
TYPE Q CABLE DEF-10 ONLY TYPE B CABLE DEF-STAN.61-12 (Part 5)



Multicore Cable with outer collective screen only (Vinmetsmall Type)

- 1 Strip braid, P.V.C. sheathing and tape. Strip conductor ends and tin dip if a soldered connection is to be made. Thread on cable clamping nut, outlet nut and outlet and crimp or solder the contacts to the conductor ends. Assemble the contacts to the moulding in accordance with the procedure on page 29.
- 2 Comb out the braid back over the cable and lightly tape in position. Slide the outlet up to the rear of the connector shell and lock into position with the outlet nut. Remove the tape, insert the split cones under the braid in the mouth of the outlet and trim the braid to length.
- 3 Slide the cable clamping nut up to the outlet and screw home, locking the split cones into position and thereby securely clamping both the braid and cable.

DEF-STAN.61-12 (Part 5) TYPE C & R CABLE



Multicore Cable with inner collective screen only (Metvinsmall Type) and Uniradio type cable to specification BS.2316

- 1 Strip braid, P.V.C. sheathing and tape. Strip conductor ends and tin dip if a soldered connection is to be made. Thread on cable clamping nut, outlet nut and outlet and crimp or solder the contacts to the conductor ends. Assemble the contacts to the moulding in accordance with the procedure on page 29.
- 2 Comb out the braid back over the cable and lightly tape in position. Slide the outlet up to the rear of the connector shell and lock into position with the outlet nut. Remove the tape, insert the split cones under the braid in the mouth of the outlet and trim the braid to length.
- 3 Slide the cable clamping nut up to the outlet and screw home, locking the split cones into position and thereby securely clamping both the braid and cable.

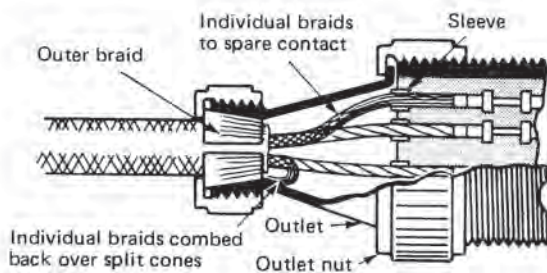
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DEF-10 ONLY TYPE H CABLE



Multicore Cable with outer collective screen and individually screened leads (Corevinmetsmall Type)

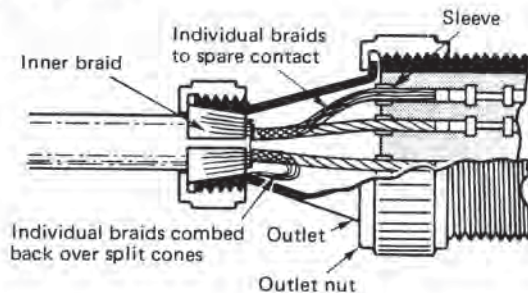
Proceed as for D E F 10 type B and Q, but before bringing the outlet into contact with the shell, proceed as follows: Comb out the outer collective braid and the individual braids of the screened leads back over the cable and lightly tape in position.

or

Comb out the individual braids of the screened leads, twist to form a tail, crimp or solder to a spare contact and assemble to the moulding.

Proceed as for D E F 10 type B and Q cables.

DEF-STAN.61-12 (Part 5) TYPE J CABLE



Multicore Cable with inner collective screen and individually screened leads (Coremetvinsmall Type)

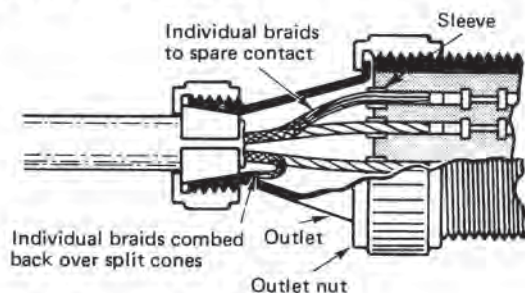
Proceed as for D E F 10 type C and R, but before bringing the outlet into contact with the shell, proceed as follows: Comb out the inner collective braid and the individual braids of the screened leads back over the cable and lightly tape in position.

or

Comb out the individual braids of the screened leads, twist to form a tail, crimp or solder to a spare contact and assemble to the moulding.

Proceed as for D E F 10 type C and R cables.

DEF-STAN.61-12 (Part 5) TYPE D, E & F CABLE



Multicore Cable with all individually screened leads. No collective screen (Corevinsmall Type)

Proceed as for D E F 10 type C and R but modify as follows: Comb out the individual braids of the screened leads back over the cable and lightly tape in position.

or

Comb out the individual braids of the screened leads, twist to form tails, crimp or solder to a spare contact and assemble to the moulding.

Proceed as for D E F 10 type C and R cables.

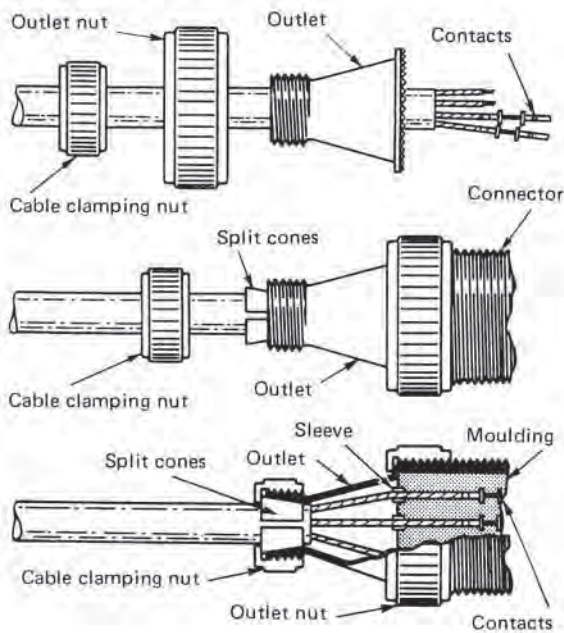
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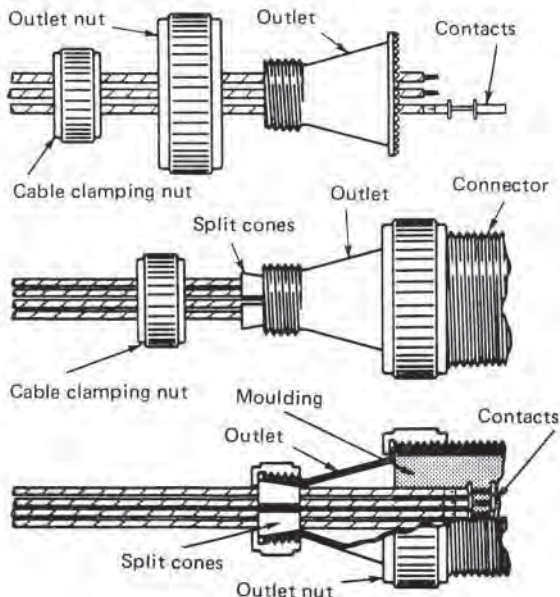
DEF-STAN.61-12 (Part 5) TYPE A & P CABLE



Multicore Cable totally unscreened (Vinsmall Type)

- 1 Strip P.V.C. sheathing and tape. Strip conductor ends and tin dip if a soldered connection is to be made. Thread on cable clamping nut, outlet nut and outlet and crimp or solder the contacts to the conductor ends. Assemble the contacts to the moulding in accordance with the procedure on page 29.
- 2 Slide the outlet up to the rear of the connector shell and lock into position with the outlet nut. Insert the split cones into the mouth of the outlet.
- 3 Slide the cable clamping nut up to the outlet and screw home, locking the split cones into position and thereby securely clamping the cable.

SINGLE-CORE CABLES



Totally unscreened

- 1 Strip conductor ends and tin dip if a soldered connection is to be made. Thread on cable-clamping nut, outlet nut and outlet and crimp or solder the contacts to the conductor ends. Assemble the contacts to the moulding in accordance with the procedure on page 29.
- 2 Slide the outlet up to the rear of the connector shell and lock into position with the outlet nut. Insert the split cones into the mouth of the outlet.
- 3 Slide the cable-clamping nut up to the outlet and screw home, locking the split cones into position and thereby securely clamping the cables.

Note: When using P.V.C. or similarly covered cables, it is desirable to sleeve the bunch at the point to be gripped by the split cones. Due allowance must be made for this when specifying the outlet accessory set required.

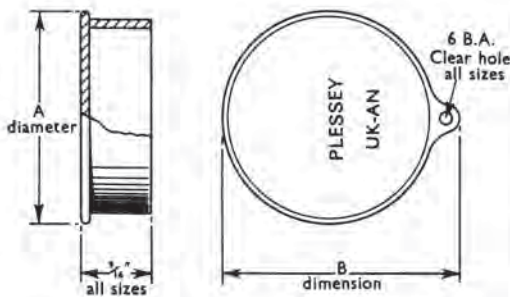
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ACCESSORIES

Transit Caps (Plastic)

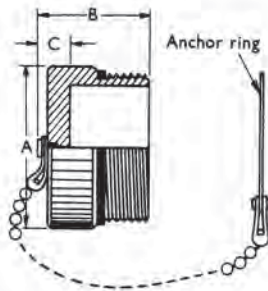


The range of transit caps for UK-AN connectors is designed to be a "push on" fit and to exclude dust, etc., when the connector is not in use. A 6BA clearance hole is provided on all sizes for use when a simple captive cover is required. Now supplied with all units when purchased.

SHELL SIZE		Part Number	A Dia.	B Dim.	SHELL SIZE		Part Number	A Dia.	B Dim.
Free	Fixed				Free	Fixed			
10s	—	508/2/08754	0.76	0.96	28	—	508/2/08762	1.87	2.07
12s	10s	508/2/08755	0.87	1.07	32	—	508/2/08763	2.12	2.32
14s	12s	508/2/08756	1.00	1.20	36	—	508/2/08764	2.37	2.57
16	14s	508/2/08757	1.12	1.32	—	24	508/2/08765	1.75	1.95
18	16	508/2/08758	1.25	1.45	—	28	508/2/08766	2.00	2.20
20	18	508/2/08759	1.37	1.57	—	32	508/2/08767	2.25	2.45
22	20	508/2/08760	1.50	1.70	—	36	508/2/08768	2.50	2.70
24	22	508/2/08761	1.62	1.82					

Protective Caps (Aluminium)

CAP FOR FREE UNITS



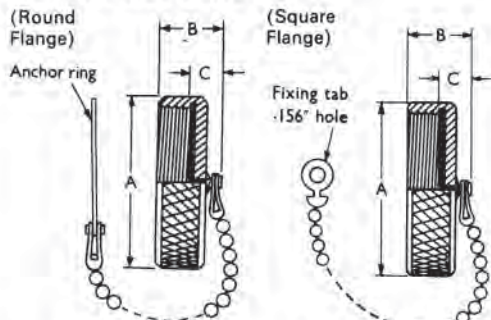
The anchor ring is designed to screw on the thread at the rear of the Free Unit.

The ranges of metal Protective Caps have been designed to give maximum protection to the connectors when they are disengaged. Each cap has a short length of brass ball chain with an anchor ring or tab to enable it to be made captive to the connector or panel.

Shell Size	Part Number	A Dia.	B Dim.	C Dim.
10s	508/1/03490/*	0.76	0.94	0.33
12s	508/1/03491/*	0.88	0.94	0.33
14s	508/1/03492/*	1.00	0.94	0.33
16	508/1/03493/*	1.14	1.11	0.33
18	508/1/03494/*	1.26	1.11	0.33
20	508/1/03495/*	1.39	1.11	0.33
22	508/1/03496/*	1.51	1.11	0.33
24	508/1/03497/*	1.64	1.11	0.33
28	508/1/03498/*	1.89	1.11	0.33
32	508/1/03499/*	2.14	1.11	0.33
36	508/1/03500/*	2.39	1.11	0.33

* Add suffix 100 for standard type or 300 for kerosene resistant type.

CAP FOR FIXED UNITS



This anchor ring is designed to screw on the thread at the rear of the Fixed Unit.

The cap is anchored to the connector by securing the metal tab at any convenient point on the panel.

Shell Size	Part Number Round Flange	Part Number Square Flange	A Dia.	B Dim.	C Dim.
10s	508/1/15040/*	508/1/04860/*	0.76	0.658	0.288
12s	508/1/15041/*	508/1/04861/*	0.95	0.658	0.288
14s	508/1/15042/*	508/1/04862/*	1.07	0.658	0.288
16	508/1/15043/*	508/1/04863/*	1.20	0.658	0.288
18	508/1/15044/*	508/1/04864/*	1.38	0.658	0.288
20	508/1/15045/*	508/1/04865/*	1.51	0.658	0.288
22	508/1/15046/*	508/1/04866/*	1.64	0.658	0.288
24	508/1/15047/*	508/1/04867/*	1.76	0.658	0.288
28	508/1/15048/*	508/1/04868/*	2.01	0.658	0.288
32	508/1/15049/*	508/1/04869/*	2.26	0.658	0.288
36	508/1/15050/*	508/1/04870/*	2.51	0.658	0.288

* Add suffix 100 for standard type or 300 for kerosene resistant type.

All dimensions are in inches.

CIRCULAR CONNECTORS

UK-AN

STEEL AND FIREPROOF RANGE

Introduction

The AB range of UK-AN connectors has been extended and modified to provide a similar connector for use under conditions where aluminium housings would prove unsuitable. Such conditions may be found on the engine bulkheads of modern aircraft where it is an essential condition that such connectors will resist a flame of 1100°C for a period of 20 minutes in accordance with the conditions of the specification MIL-C-5015D.

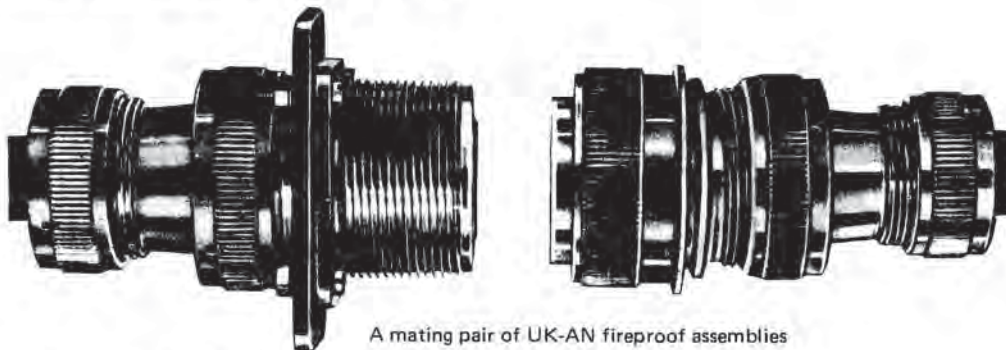
The range of fireproof UK-AN connectors described in the following pages is designed to fulfil this requirement even under the most severe vibration, plus retaining the salient features of its counterpart in the aluminium range. Certain refinements have been found necessary and here again the requirements of both the British and American specifications have been carefully studied.

Housings of these connectors are machined from mild steel, cadmium plated with olive drab passivation and an integral square flange has been incorporated on all fixed units with dimensions of the range of AN connectors. The insulation used in the aluminium range has been incorporated, but an

additional safeguard against the penetration of fuels and subsequent damage has been added in the form of an "O" ring, moulded from a kerosene-resistant silicone rubber. This is fitted to the free unit and a corresponding chamfer has been provided on the mating face of the fixed unit to form the seal. In order to maintain the degree of standardisation aimed at, the outside diameter of the rear portion of the fixed unit has been reduced to be identical to that of the free unit.

Where a fireproof connector is required, it is essential that the correct outlet accessory set is used and whilst being generally similar to the aluminium version, the outlet has a machined recess to accept the baffle washer which is always supplied with the fireproof connector.

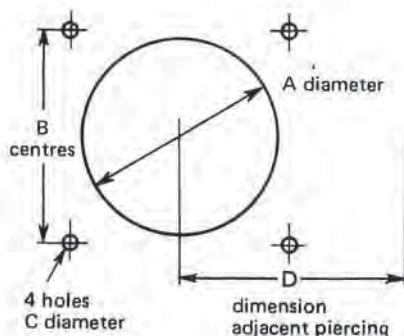
It must be emphasised that whilst these connectors are designed to be as foolproof as possible, considerable care must be taken in the course of assembly and the recommended methods described in this publication should be followed.



A mating pair of UK-AN fireproof assemblies

FIREPROOF CONNECTORS ARE SHOWN ON PAGES 41 TO 44

Panel-Piercing Dimensions



SHELL SIZE	A DIAMETER	B CENTRES	C CLEARANCE	D DIMENSION
10s	0.688	0.719	0.150	1.1
12s	0.812	0.812	0.150	1.2
14s	0.938	0.906	0.150	1.3
16	1.062	0.969	0.150	1.4
18	1.188	1.063	0.177	1.5
20	1.310	1.156	0.177	1.6
22	1.438	1.250	0.177	1.8
24	1.560	1.375	0.177	1.9
28	1.812	1.562	0.177	2.1
32	2.062	1.750	0.209	2.3
36	2.312	1.938	0.209	2.6

All dimensions shown are in inches and are applicable to units mounted either from the front or the rear of the panel, allowing units complete with cable fittings to be mounted from the front of a panel without being dismantled.

CIRCULAR CONNECTORS

UK-AN

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Steel and Fireproof Range

Assembly

The stage-by-stage procedure presented on pages 29 to 33 should be strictly adhered to, and only the specified lubricant should be used on the insertion tools. A careful inspection of each joint should be made to ensure reliability.

Wiring

If the UK-AN (STEEL) connector is to be used where fireproofing is a necessary requirement, attention must be paid to the choice of the type of cable to be used to ensure full protection. The correct outlet accessory sets must be used, and only by using the appropriate fireproof baffle washer can a fireproof assembly be obtained. Should any form of packing or sleeving be used with the outlet accessory set, it is essential that this is of a fireproof material. Should vibration be anticipated, the whole assembly should be wired to prevent loosening of the nuts.

Tools

The range of tools shown on page 26 is also required for the range of UK-AN (STEEL) connectors, and care should always be taken to ensure that the insertion tools are not damaged in any way.

Contact Arrangements

On pages 6 to 9 will be found a section devoted entirely to contact arrangements available in the UK-AN range of aluminium connectors. Each individual combination shown can be utilised in the UK-AN (STEEL) range of connectors specified in the latest Issue of DEF 59-4 (Part 8) issued by the Ministry of Defence, St. Giles Court, London, WC2. Due consideration will be given to requirements for arrangements not included in this SDM, but a protracted delivery and increased price may be unavoidable.

Contacts

The contacts used in UK-AN (STEEL) connectors are identical to those used in the aluminium range and selection should be made by reference to page 27. Careful consideration should be given to the selection of contacts bearing in mind the size and type of cable to be used as a compression joint is essential when a fireproof connector is to be used. The packing sleeves must be used in all cases where cables of smaller dimensions are employed, as the use of incorrect material could impair the reliability of the connector.

SHELL STYLES

Free Unit

The unit illustrated can contain either plug pins or socket inserts and is the item which is normally removable after uncoupling.

When fully assembled in the manner described within this publication, the contacts are waterproofed, seal being formed at the cable entry.

A fireproof unit is always supplied with a baffle washer to suit the specified contact arrangement.

If a fireproof connector is required, the correct outlet accessory set must be chosen, the baffle washer included and the whole assembled in the approved manner.

This unit will mate with the corresponding UK-AN (STEEL) free unit.

A new anti-vibration device is now a standard fitting on all free units in the steel and fireproof ranges.

Fixed Unit

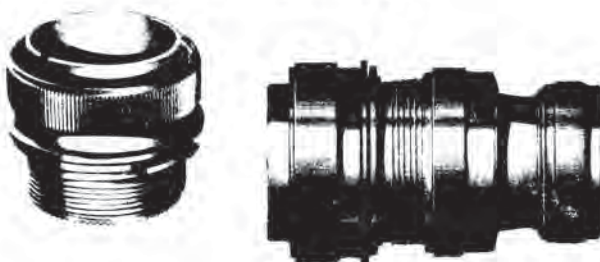
The unit illustrated can contain either plug pins or socket inserts and is the item which is normally fixed to a supporting surface.

This unit may also be used as an "in line" coupler without being fixed. When fully assembled in the manner described in this publication, the unit is waterproofed, seal being formed at the cable entry.

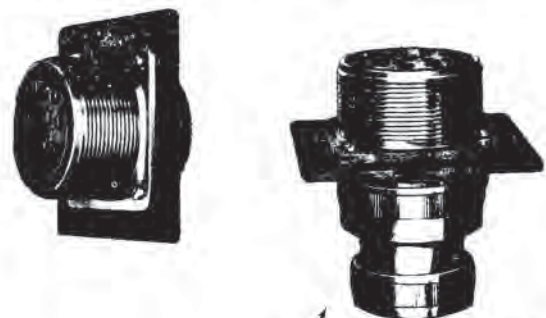
A fireproof unit is always supplied with a baffle washer to suit the specified contact arrangement.

If a fireproof connector is required, the correct outlet accessory set must be chosen, the baffle washer included and the whole assembled in the approved manner.

This unit will mate with the corresponding UK-AN (STEEL) free unit.



Fireproof type assembly



Fireproof type assembly

CIRCULAR CONNECTORS

UK-AN

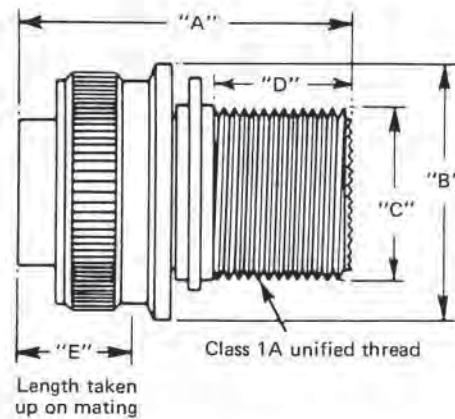
STEEL RANGE

Shell Style 6000

Free Unit

Shell style 6000 is the basic free unit of the range of Steel UK-AN connectors and can be supplied as a socket in all shell sizes or as a plug in sizes 12s to 36 inclusive. A new anti-vibration device is now incorporated.

This style is not fireproof



UK-AN CODE NUMBER BY SHELL SIZE	Overall Length 'A'	Coupling Nut Diameter 'B'	Thread Dimensions 'C'	Rear Thread 'D'	Length of Engagement 'E'	AVERAGE WEIGHT (Ounces)	
						Plug	Socket
UK-AN - 6000 - 10s - †	1.45"	0.85"	0.500" x 24 TPI	0.468"	0.54"	1.1	1.2
UK-AN - 6000 - 12s - †	1.50"	0.97"	0.625" x 24 TPI	0.665"	0.54"	1.4	1.4
UK-AN - 6000 - 14s - †	1.50"	1.09"	0.750" x 20 TPI	0.657"	0.54"	1.6	1.7
UK-AN - 6000 - 16 - †	1.67"	1.23"	0.875" x 20 TPI	0.594"	0.73"	2.3	2.5
UK-AN - 6000 - 18 - †	1.67"	1.35"	1.000" x 20 TPI	0.594"	0.73"	2.6	2.9
UK-AN - 6000 - 20 - †	1.67"	1.46"	1.125" x 18 TPI	0.582"	0.73"	3.1	3.4
UK-AN - 6000 - 22 - †	1.67"	1.60"	1.250" x 18 TPI	0.582"	0.73"	3.6	4.0
UK-AN - 6000 - 24 - †	1.67"	1.71"	1.375" x 18 TPI	0.582"	0.73"	4.0	4.4
UK-AN - 6000 - 28 - †	1.67"	1.98"	1.625" x 18 TPI	0.572"	0.73"	5.8	6.3
UK-AN - 6000 - 32 - †	1.67"	2.21"	1.750" x 18 TPI	0.572"	0.73"	6.7	8.5
UK-AN - 6000 - 36 - †	1.67"	2.46"	2.000" x 18 TPI	0.582"	0.73"	7.4	8.8

† Contact arrangements (see pages 6 to 9) and 'P' or 'S' to denote plug or socket must be added to complete the UK-AN code number.

A typical code number is UK-AN - 6000 - 12s - 3 - P.

Unless otherwise specified, all units will contain an insulator of high-grade silicone rubber to provide maximum general performance. A special kerosene-resistant unit can

be obtained by specifying the symbol "E.T." in the code number. Further details are given on page 4.

CIRCULAR CONNECTORS

UK-AN

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STEEL RANGE

Associated Shell Size

Free Unit

The shell styles below show how a basic connector may be ordered complete with any of the outlet fittings.

As with the basic unit, it can be supplied as either a socket in all shell sizes or as a plug in sizes 12s to 36 inclusive.

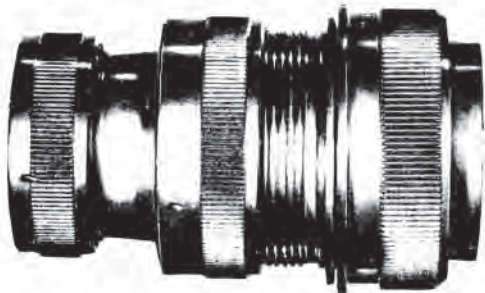
Preferred styles 6600 Bell Clamp Free Unit and 6800 Elbow Clamp Free Unit require no associated accessories and may be ordered by quoting the appropriate shell style number in lieu of the basic 6000 figure.

Shell styles 6100 Straight Free Unit and 6200 Right-Angle Free Unit, require split cone sizes selected from the table on page 46 and the two appropriate digits selected in lieu of the 00 digits, i.e., a Straight Free Unit shell size 10s with fittings to suit 2-way Tersil 16 cable should be specified as a UK-AN-6104-10s-t.

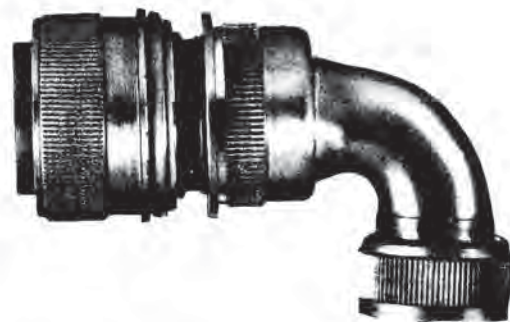
† Contact arrangements (see pages 6 to 9) and 'P' or 'S' to denote plug or socket must be added to complete the UK-AN code number.

THESE STYLES ARE NOT FIREPROOF

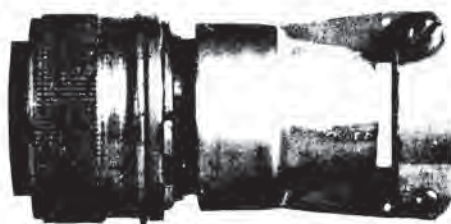
SHELL STYLE 6100
Straight Free Unit



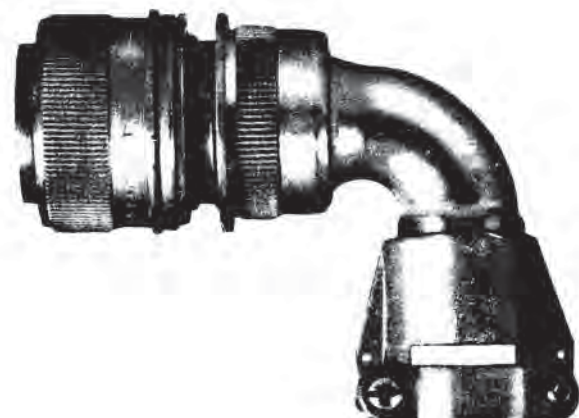
SHELL STYLE 6200
Right-Angle Free Unit



SHELL STYLE 6600
Bell Clamp Free Unit



SHELL STYLE 6800
Elbow Clamp Free Unit



See pages 47 to 50 for basic end fittings.

CIRCULAR CONNECTORS

UK-AN

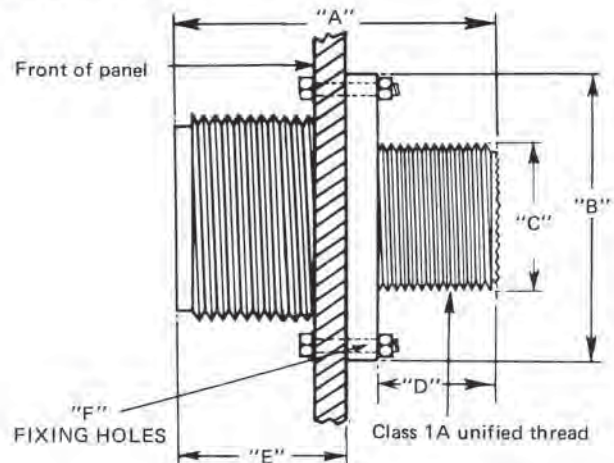
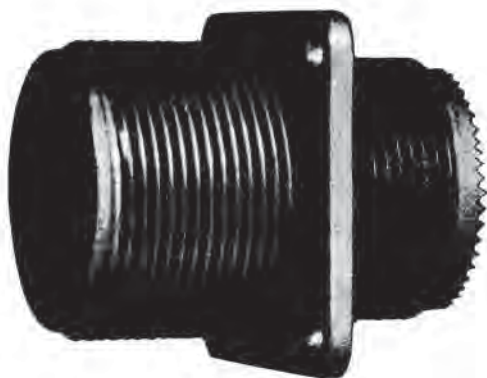
STEEL RANGE

Shell Style 5000

Fixed Unit

Shell style 5000 is the basic fixed unit of the range of steel UK-AN connectors and has an integral square flange to give a 4-bolt panel fixing. This unit can be supplied as a plug in all shell sizes or as a socket in sizes 12s to 36 inclusive.

THIS STYLE IS NOT FIREPROOF



UK-AN CODE NUMBER BY SHELL SIZE	Overall Length 'A'	Square Flange 'B'	Rear Thread Dimensions 'C'	Dimension 'D'	Dimension 'E'	Fixing Holes 'F'	Average Weight (Ounces)		Maximum Panel Thickness Mounted From Rear
							Plug	Socket	
UK-AN-5000-10s-t	1.45"	1.00"	0.500" x 24 TPI	0.61"	0.74"	0.150"	1.1	1.2	0.380"
UK-AN-5000-12s-t	1.50"	1.09"	0.625" x 24 TPI	0.66"	0.74"	0.150"	1.4	1.4	0.380"
UK-AN-5000-14s-t	1.50"	1.18"	0.750" x 20 TPI	0.66"	0.74"	0.150"	1.7	1.8	0.380"
UK-AN-5000-16-t	1.67"	1.28"	0.875" x 20 TPI	0.67"	0.90"	0.150"	2.2	2.3	0.320"
UK-AN-5000-18-t	1.67"	1.37"	1.000" x 20 TPI	0.67"	0.90"	0.177"	2.5	2.7	0.320"
UK-AN-5000-20-t	1.67"	1.50"	1.125" x 18 TPI	0.67"	0.90"	0.177"	3.0	3.3	0.320"
UK-AN-5000-22-t	1.67"	1.62"	1.250" x 18 TPI	0.67"	0.90"	0.177"	3.2	3.8	0.320"
UK-AN-5000-24-t	1.67"	1.75"	1.375" x 18 TPI	0.67"	0.90"	0.177"	4.0	4.5	0.320"
UK-AN-5000-28-t	1.67"	2.00"	1.625" x 18 TPI	0.67"	0.90"	0.177"	5.6	6.5	0.320"
UK-AN-5000-32-t	1.67"	2.25"	1.750" x 18 TPI	0.67"	0.86"	0.209"	7.5	8.5	0.280"
UK-AN-5000-36-t	1.67"	2.50"	2.000" x 18 TPI	0.67"	0.86"	0.209"	8.8	10.2	0.280"

† Contact arrangements (see pages 6 to 9) and 'P' or 'S' to denote plug or socket must be added to complete the UK-AN code number. A typical code number is UK-AN-5000-16-11-S.

Unless otherwise specified, all units will contain an insulator of high-grade silicone rubber to provide maximum general performance. A special kerosene-resistant unit can be

obtained by specifying the symbol "E.T." in the code number. Further details are given on page 4.

CIRCULAR CONNECTORS

UK-AN

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STEEL RANGE

Associated Shell Styles

Fixed Unit square flange

The shell styles below show how basic connector may be ordered complete with any of the outlet fittings.

As with the basic unit, it can be supplied as either a socket in all shell sizes or as a plug in sizes 12s to 36 inclusive.

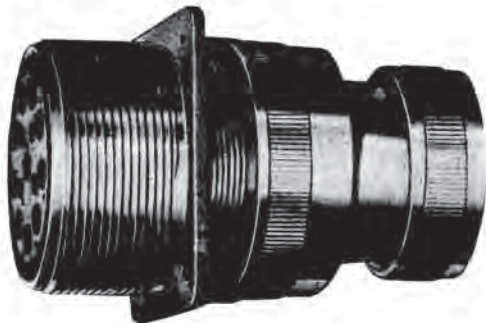
Preferred styles 5600 Bell Clamp Fixed Unit and 5800 Elbow Clamp Fixed Unit require no associated accessories and may be ordered by quoting the appropriate shell style number in lieu of the basic 5000 figure.

Shell styles 5100 Straight Fixed Unit and 5200 Right-Angle Fixed Unit, require split cone sizes selected from the table on page 46 and the two appropriate digits selected in lieu of the 00 digits, i.e. a Right-Angle Fixed Unit (Square Flange) shell size size 14s to suit 0.110/0.150" dia. cable should be specified as a UK-AN-5101-14s-t.

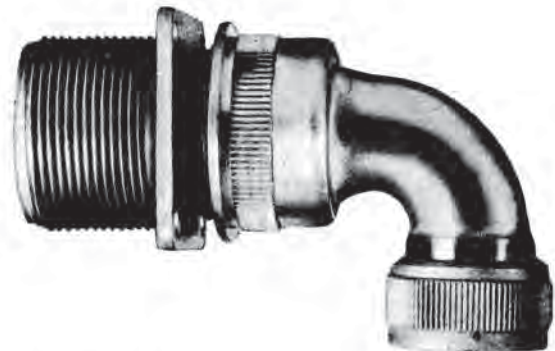
† Contact arrangements (see pages 6 to 9) and 'P' or 'S' to denote plug or socket must be added to complete the UK-AN code number.

THESE STYLES ARE NOT FIREPROOF

SHELL STYLE 5100
Straight Fixed Unit



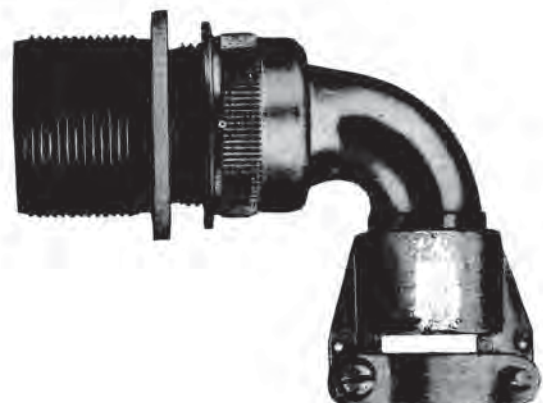
SHELL STYLE 5200
Right-Angle Fixed Unit



SHELL STYLE 5600
Bell Clamp Fixed Unit



SHELL STYLE 5800
Elbow Clamp Fixed Unit



See pages 47 to 50 for basic end fittings.

CIRCULAR CONNECTORS

UK-AN

FIREPROOF RANGE

Shell Style 6300

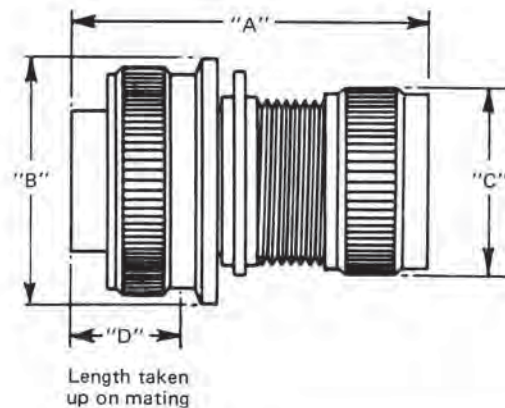
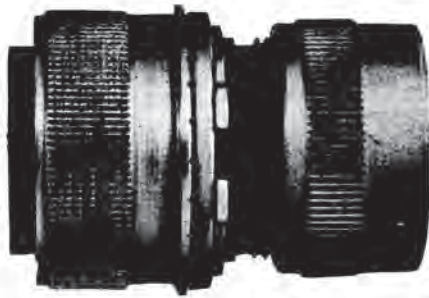
Free Unit fireproof

Shell style 6300 is the basic free unit of the range of Fireproof UK-AN connectors and will withstand a flame temperature of 1100°C for not less than 20 minutes in accordance with the specification MIL-C-5015D. This unit is supplied complete with a fireproof baffle washer to suit the specified contact arrangement. A new anti-vibration

device is now incorporated.

This item can be supplied as a socket in all shell sizes or as a plug in sizes 12s to 36 inclusive.

Where a combination of flame and vibration is likely to be encountered, we strongly recommend the use of cable clamp styles 6400, 6500, 6700 or 6900 for extra security.



UK-AN CODE NUMBER BY SHELL SIZE	Overall Length 'A'	Coupling Nut Diameter 'B'	Outlet Nut Diameter 'C'	Length of Engagement 'D'	Average Weight (Ounces)	
					Plug	Socket
UK-AN-6300-10s-†	1.80"	0.85"	0.66"	0.54"	1.4	1.5
UK-AN-6300-12s-†	1.86"	0.97"	0.78"	0.54"	1.8	1.9
UK-AN-6300-14s-†	1.86"	1.09"	0.91"	0.54"	2.1	2.2
UK-AN-6300-16-†	2.03"	1.23"	1.03"	0.73"	2.9	3.1
UK-AN-6300-18-†	2.03"	1.35"	1.16"	0.73"	3.5	3.7
UK-AN-6300-20-†	2.03"	1.46"	1.28"	0.73"	4.1	4.4
UK-AN-6300-22-†	2.03"	1.60"	1.41"	0.73"	4.8	5.2
UK-AN-6300-24-†	2.03"	1.71"	1.53"	0.73"	5.3	5.7
UK-AN-6300-28-†	2.03"	1.98"	1.78"	0.73"	7.5	8.0
UK-AN-6300-32-†	2.03"	2.21"	1.91"	0.73"	8.6	10.3
UK-AN-6300-36-†	2.03"	2.46"	2.16"	0.73"	9.5	10.9

† Contact arrangements (see pages 6 to 9) and 'P' or 'S' to denote plug or socket must be added to complete the UK-AN code number.

A typical code number is UK-AN-6300-18-1-S.

Unless otherwise specified all units will contain an insulator of high-grade silicone rubber to provide maximum general performance. A special kerosene-resistant unit can be

obtained by specifying the symbol "E.T." in the code number. Further details are given on page 4.

CIRCULAR CONNECTORS



UK-AN

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FIREPROOF RANGE

Associated Shell Styles

Free Unit fireproof

The shell styles below show how a basic connector may be ordered complete with any of the outlet fittings.

As with the basic unit, it can be supplied as either a socket in all shell sizes or as a plug in sizes 12s to 36 inclusive.

Preferred styles 6700 Bell Clamp Free Unit and 6900 Elbow Clamp Free Unit require no associated accessories and may be ordered by quoting the appropriate shell style number in lieu of the basic 6300 figure.

Shell styles 6400 Straight Free Unit and 6500 Right-Angle Free Unit, require split cone sizes selected from the table on page 46 and the two appropriate digits selected in lieu of the 00 digits, i.e. a Fireproof Straight Free Unit shell size 20 to suit 0.580/0.620" dia. cable should be specified as a UK-AN-6411-20-t.

† Contact arrangements (see pages 6 to 9) and 'P' or 'S' to denote plug or socket must be added to complete the UK-AN code number.

SHELL STYLE 6400
Fireproof Straight Free Unit



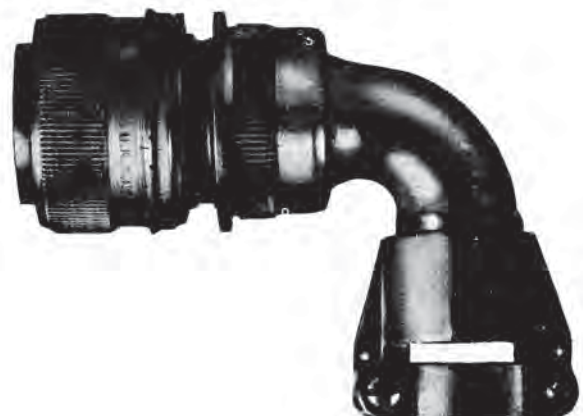
SHELL STYLE 6500
Fireproof Right-Angle Free Unit



SHELL STYLE 6700
Fireproof Bell Clamp Free Unit



SHELL STYLE 6900
Fireproof Elbow Clamp Free Unit



See pages 47 to 50 for basic end fittings.

FIREPROOF RANGE

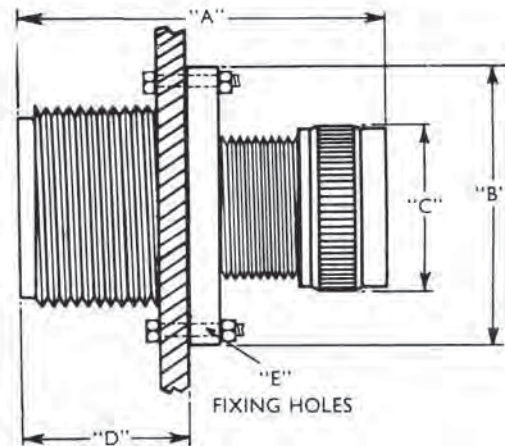
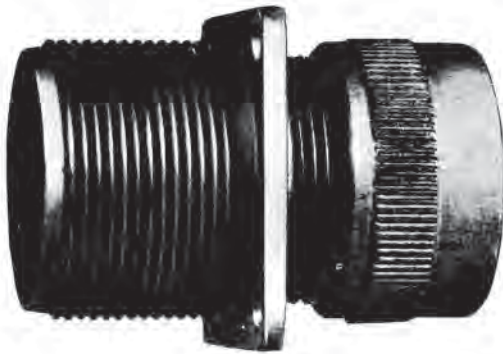
Shell Style 5300

Fixed Unit fireproof

Shell style 5300 is the basic fixed unit of the range of fireproof UK- AN connectors and will withstand a flame temperature of 1100°C for not less than 20 minutes in accordance with the specification MIL-C-5015D.

This unit is supplied complete with a fireproof baffle washer to suit the specified contact arrangement.

This item can be supplied as a socket in all shell sizes or as a plug in 12s to 36 inclusive.



UK-AN CODE NUMBER BY SHELL SIZE	Overall Length 'A'	Square Flange 'B'	Outlet Nut 'C'	Dimension 'D'	Fixing Holes 'E'	Average Weight (Ounces)		Maximum Panel Thickness Mounted From Rear
						Plug	Socket	
UK-AN-5300-10s-t	1.80"	1.00"	0.66"	0.74"	0.150"	1.4	1.5	0.380"
UK-AN-5300-12s-t	1.86"	1.09"	0.78"	0.74"	0.150"	1.8	1.9	0.380"
UK-AN-5300-14s-t	1.86"	1.18"	0.91"	0.74"	0.150"	2.2	2.3	0.380"
UK-AN-5300-16-t	2.03"	1.28"	1.03"	0.90"	0.150"	2.7	2.8	0.320"
UK-AN-5300-18-t	2.03"	1.37"	1.16"	0.90"	0.177"	3.3	3.5	0.320"
UK-AN-5300-20-t	2.03"	1.50"	1.28"	0.90"	0.177"	4.0	4.3	0.320"
UK-AN-5300-22-t	2.03"	1.62"	1.41"	0.90"	0.177"	4.4	5.0	0.320"
UK-AN-5300-24-t	2.03"	1.75"	1.53"	0.90"	0.177"	5.3	5.9	0.320"
UK-AN-5300-28-t	2.03"	2.00"	1.78"	0.90"	0.177"	7.3	8.2	0.320"
UK-AN-5300-32-t	2.03"	2.25"	1.91"	0.86"	0.209"	9.3	10.4	0.280"
UK-AN-5300-36-t	2.03"	2.50"	2.16"	0.86"	0.209"	10.9	12.3	0.280"

† Contact arrangements (see pages 6 to 9) and 'P' or 'S' to denote plug or socket must be added to complete the UK-AN code number.

A typical code number is UK-AN-5300-18-1-P.

Unless otherwise specified, all units will contain an insulator of high-grade silicone rubber to provide maximum general performance. A special kerosene-resistant unit can be

obtained by specifying the symbol "E.T." in the code number. Further details are given on page 4.

CIRCULAR CONNECTORS



UK-AN

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FIREPROOF RANGE

Associated Shell Styles

Fixed Unit fireproof

The shell styles below show how a basic connector may be ordered complete with any of the outlet fittings.

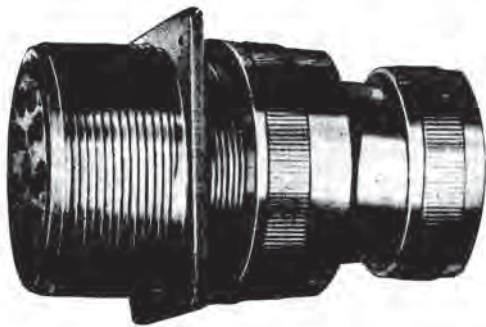
As with the basic unit, it can be supplied as either a socket in all shell sizes or as a plug in sizes 12s to 36 inclusive.

Preferred styles 5700 Bell Clamp Fixed Unit and 5900 Elbow Clamp Fixed Unit require no associated accessories and may be ordered by quoting the appropriate shell style number in lieu of the basic 5300 figure.

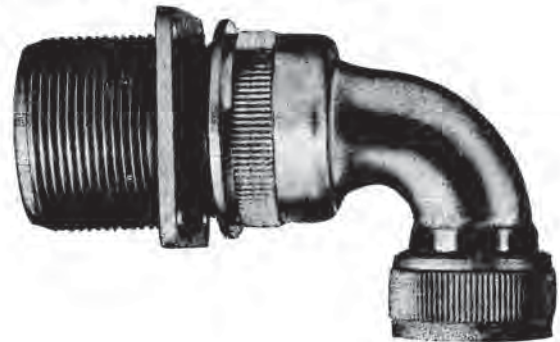
Shell styles 5400 Straight Fixed Unit and 5500 Right-Angle Fixed Unit, require split cone sizes selected from the table on page 46 and the two appropriate digits selected in lieu of the 00 digits, i.e. a Fireproof Right-Angle Fixed Unit shell style 28 to suit 0.880/0.920" dia. cable should be specified as a UK-AN-5515-28-t.

† Contact arrangements (see pages 6 to 9) and 'P' or 'S' to denote plug or socket must be added to complete the UK-AN code number.

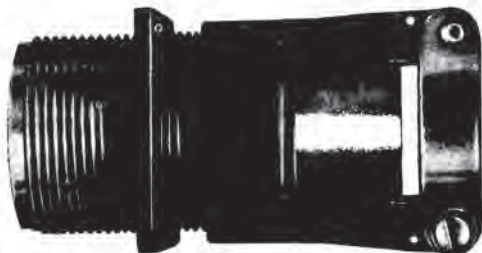
SHELL STYLE 5400
Fireproof Straight Fixed Unit



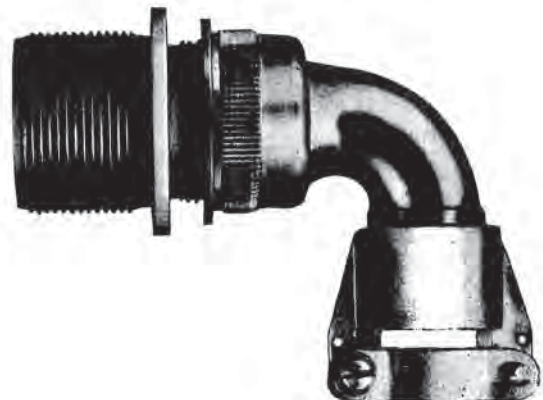
SHELL STYLE 5500
Fireproof Right-Angle Fixed Unit



SHELL STYLE 5700
Fireproof Bell Clamp Fixed Unit



SHELL STYLE 5900
Fireproof Elbow Clamp Fixed Unit

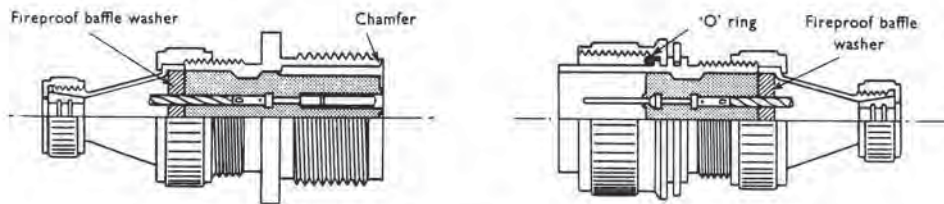


See pages 47 to 50 for basic end fittings.

STEEL AND FIREPROOF RANGE

SPARES AND REPLACEMENT ITEMS

UK-AN (Steel) Fireproof Connector



The above shows a fixed socket and free plug fully assembled with outlet accessory sets and suitable for use where a fireproof connector is required. The fireproof baffle washers are supplied to suit each individual contact arrangement. A new anti-vibration device is now incorporated on all free units.

'O' Ring

Silicone rubber (kerosene resistant)
Used on free units only

Shell Size	Part Number	Shell Size	Part Number	Shell Size	Part Number
10s	508/2/00092/001	18	508/2/00092/005	28	508/2/00092/009
12s	508/2/00092/002	20	508/2/00092/006	32	508/2/00092/010
14s	508/2/00092/003	22	508/2/00092/007	36	508/2/00092/011
16	508/2/00092/004	24	508/2/00092/008		

Anti-chafe Ring

A nylon moulded ring designed to be a press-fit on the rear of UK-AN connectors. It is a recommended fitting on connectors operating below 125°C where cable fittings are not used and there is a possibility of cables chafing on the rear of the connector.

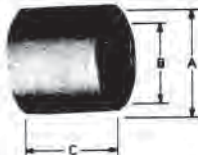


Shell Size	Part Number	Shell Size	Part Number	Shell Size	Part Number
10s	508/2/05851/001	18	508/2/05851/005	28	508/2/05851/010
12s	508/2/05851/002	20	508/2/05851/006	32	508/2/05851/011
14s	508/2/05851/003	22	508/2/05851/007	36	508/2/05851/012
16	508/2/05851/004	24	508/2/05851/008		

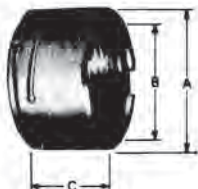
FOR ALL STEEL SHELLS, AND ALUMINIUM FREE STYLE SHELLS ONLY.

Retaining Nut

For fireproof and other applications above +125°, retaining nuts are recommended rear fittings. Three types are available for use where wire locking is not practicable. The first version, currently in use on actuators, requires a small quantity of Loctite on the class B thread.



Self-locking types which have radial slots as shown, are intended primarily for engine applications. Fireproof types have larger overall length to accommodate baffle washer and thrust ring supplied with fireproof connectors.



Shell Size	Part Numbers			Dimensions				
	Loctite*	Self-locking‡	Self-locking (Fireproof types)§	A	B	*	C †	§
10s	508/2/00990	508/2/03532	508/2/07885	0.585	0.385	0.735	0.625	0.705
12s	508/2/00991	508/2/03533	508/2/07886	0.710	0.485	0.735	0.625	0.705
14s	508/2/00992	508/2/03534	508/2/07887	0.835	0.594	0.735	0.625	0.705
16	508/2/00993	508/2/03535	508/2/07888	0.960	0.715	0.735	0.625	0.705
18	508/2/00994	508/2/03536	508/2/07889	1.085	0.840	0.735	0.625	0.705
20	508/2/00995	508/2/03537	508/2/07890	1.210	0.935	0.815	0.625	0.785
22	508/2/00996	508/2/03538	508/2/07891	1.335	1.060	0.815	0.625	0.785
24	508/2/00997	508/2/03539	508/2/07892	1.460	1.185	0.815	0.625	0.785
28	508/2/00998	508/2/03540	508/2/07893	1.710	1.440	0.815	0.625	0.785
32	508/2/00999	508/2/03541	508/2/07894	1.835	1.560	0.815	0.625	0.785
36	508/2/01000	508/2/03542	508/2/07895	2.085	1.810	0.815	0.625	0.785

Dimensions C are after 0.030" axial compression is applied.

CIRCULAR CONNECTORS



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STEEL AND FIREPROOF RANGE

For Outlet Accessory Sets

Split Cone Sizes

Bell Clamps and Elbow Clamps may be ordered together with any fixed or free, steel or fireproof connector as shown on pages 38 to 44. They may be alternatively ordered as separate items as indicated on pages 49 and 50. These types of outlet fittings require no associated accessories. Straight and Right-Angle Outlet accessory sets which may be ordered together with the basic connectors (pages 38 to

44), or as separate items (pages 47 and 48) each include a pair of split cones (three on those marked for use with 3 way tersil 16) obtainable in various bore sizes to suit the ranges of cables in common use. Minimum and maximum sizes of cables that each pair of split cones will accept are shown in the following table. A stage-by-stage procedure for wiring is given on pages 30 to 33.



Shell Size	MINIMUM/MAXIMUM CABLE SIZE (IN INCHES)																
	*/001	-/002	-/003	-/004	-/005	-/006	-/007	-/008	-/009	-/010	-/011	-/012	-/013	-/014	-/015	-/016	-/017
10s	0.110/ 0.150	0.215/ 0.255	0.240/ 0.280	2 way † Tersil 16	3 way † Tersil 16												
12s	0.110/ 0.150	0.215/ 0.255	0.240/ 0.280	2 way † Tersil 16	3 way † Tersil 16						† Or any cable of similar dimensions.						
14s	0.110/ 0.150	0.215/ 0.255	0.250/ 0.290	0.280/ 0.320	0.315/ 0.355												
16	0.110/ 0.150	0.215/ 0.255	0.250/ 0.290	0.280/ 0.320	0.315/ 0.355	0.360/ 0.400											
18	0.110/ 0.150	0.215/ 0.255	0.250/ 0.290	0.280/ 0.320	0.315/ 0.355	0.360/ 0.400	0.410/ 0.450	0.440/ 0.480	0.480/ 0.520								
20	0.110/ 0.150	0.215/ 0.255	0.250/ 0.290	0.280/ 0.320	0.315/ 0.355	0.360/ 0.400	0.410/ 0.450	0.440/ 0.480	0.480/ 0.520	0.530/ 0.570	0.580/ 0.620						
22	0.110/ 0.150	0.215/ 0.255	0.250/ 0.290	0.280/ 0.320	0.315/ 0.355	0.360/ 0.400	0.410/ 0.450	0.440/ 0.480	0.480/ 0.520	0.530/ 0.570	0.580/ 0.620	0.630/ 0.670	0.700/ 0.740				
24	0.110/ 0.150	0.215/ 0.255	0.250/ 0.290	0.280/ 0.320	0.315/ 0.355	0.360/ 0.400	0.410/ 0.450	0.440/ 0.480	0.480/ 0.520	0.530/ 0.570	0.580/ 0.620	0.630/ 0.670	0.700/ 0.740	0.830/ 0.870			
28	0.110/ 0.150	0.215/ 0.255	0.250/ 0.290	0.280/ 0.320	0.315/ 0.355	0.360/ 0.400	0.410/ 0.450	0.440/ 0.480	0.480/ 0.520	0.530/ 0.570	0.580/ 0.620	0.630/ 0.670	0.720/ 0.760	0.830/ 0.870	0.880/ 0.920	0.980/ 1.020	
32	0.110/ 0.150	0.215/ 0.255	0.250/ 0.290	0.280/ 0.320	0.315/ 0.355	0.360/ 0.400	0.410/ 0.450	0.440/ 0.480	0.480/ 0.520	0.530/ 0.570	0.580/ 0.620	0.630/ 0.670	0.720/ 0.760	0.830/ 0.870	0.880/ 0.920	0.980/ 1.020	1.105/ 1.145
36	0.110/ 0.150	0.215/ 0.255	0.250/ 0.290	0.280/ 0.320	0.315/ 0.355	0.360/ 0.400	0.410/ 0.450	0.440/ 0.480	0.480/ 0.520	0.530/ 0.570	0.580/ 0.620	0.630/ 0.670	0.720/ 0.760	0.830/ 0.870	0.880/ 0.920	0.980/ 1.020	1.105/ 1.145

* Dimension and part numbers of the component parts are shown on pages 47 and 48.

The use of an outlet accessory set is desirable when a near 90° bend in the cable is made close to the rear of a connector. All dimensions shown are in inches. A machined recess is provided in the mouth of each outlet

to accept the fireproof baffle washer which is an essential part of all fireproof assemblies. Wire-locking holes are provided on all nuts.

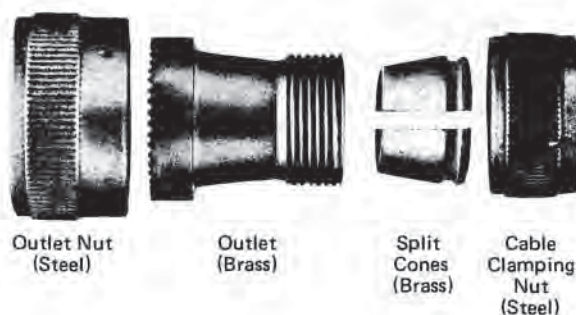
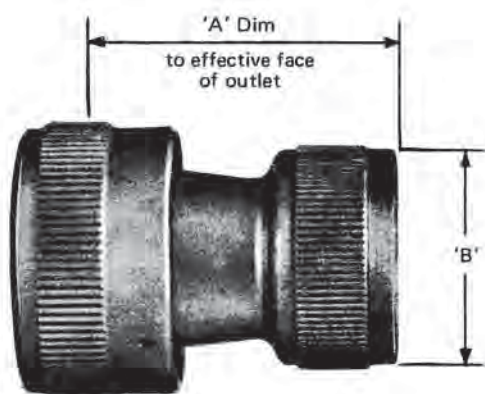
STEEL AND FIREPROOF RANGE

Accessory Set

Straight Outlet

Each outlet accessory set consists of the items illustrated below. The pair of split cones is obtainable in various bore sizes to suit ranges of cables in common use and the required size should be specified by adding the

relevant number from page 46 to complete the accessory set part number. Example: 508/1/00054/008 suits shell sizes 18. Cable size 0.440"/0.480" dia.



Accessory Set Part Number	Shell Size	Cable Clamping Nut 'B'	Outlet Length 'A'	COMPONENT PARTS OF OUTLET ACCESSORY SET				Approx. Weight (oz.)
				Outlet Nut	Straight Outlet	Split Cones 2 per outlet	Cable Clamping Nut	
508/1/00050/*	10s	0.49"	0.85"	508/2/00037/021	508/2/00063/021	508/2/15651/*	508/2/00076/021	1.5
508/1/00051/*	12s	0.56"	1.00"	508/2/00038/021	508/2/00064/021	508/2/15652/*	508/2/00077/021	2.0
508/1/00052/*	14s	0.66"	1.00"	508/2/00039/021	508/2/00065/021	508/2/15653/*	508/2/00078/021	2.4
508/1/00053/*	16	0.78"	1.12"	508/2/00040/021	508/2/00066/021	508/2/15654/*	508/2/00079/021	2.6
508/1/00054/*	18	0.91"	1.30"	508/2/00041/021	508/2/00067/021	508/2/15655/*	508/2/00080/021	4.3
508/1/00055/*	20	1.03"	1.50"	508/2/00042/021	508/2/00068/021	508/2/15656/*	508/2/00081/021	5.2
508/1/00056/*	22	1.16"	1.50"	508/2/00043/021	508/2/00069/021	508/2/15657/*	508/2/00082/021	6.3
508/1/00057/*	24	1.28"	1.50"	508/2/00044/021	508/2/00070/021	508/2/15658/*	508/2/00083/021	7.2
508/1/00059/*	28	1.53"	1.50"	508/2/00046/021	508/2/00072/021	508/2/15659/*	508/2/00084/021	7.4
508/1/00060/*	32	1.66"	1.50"	508/2/00047/021	508/2/00073/021	508/2/15660/*	508/2/00085/021	9.5
508/1/00061/*	36	1.50"	1.50"	508/2/00048/021	508/2/00074/021	508/2/15661/*	508/2/00086/021	10.9

* Add relevant cable size ex page 46 as a suffix. Wire-locking holes are provided on all nuts.

CIRCULAR CONNECTORS



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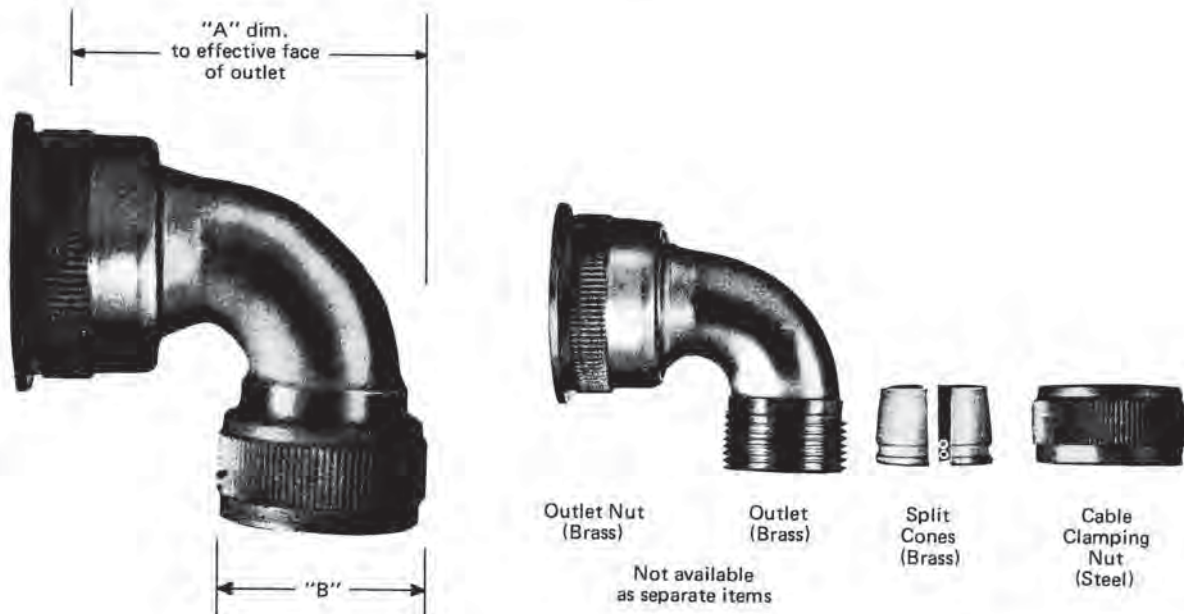
STEEL AND FIREPROOF RANGE

Accessory Set

Right-Angle Outlet

Each outlet accessory set consists of the items illustrated below. The pair of split cones are obtainable in various bore sizes to suit ranges of cables in common use and the required size should be specified by adding the relevant

number from page 46 to complete the accessory set part number. Example: 508/1/00785/015 suits shell size 32. Cable size 0.880"/0.920" dia.



Accessory Set Part Number	Shell Size	Cable Clamping Nut 'B'	Outlet Length 'A'	COMPONENT PARTS OF OUTLET ACCESSORY SET			Approx. Weight (oz.)
				Right-Angle Outlet and Nut Assembly	Split Cones 2 per outlet	Cable-Clamping Nut	
508/1/00776/*	10s	0.49"	0.86"	508/1/00765/021	508/2/15651/*	508/2/00076/021	3.3
508/1/00777/*	12s	0.56"	0.96"	508/1/00766/021	508/2/15652/*	508/2/00077/021	4.2
508/1/00778/*	14s	0.66"	1.08"	508/1/00767/021	508/2/15653/*	508/2/00078/021	5.1
508/1/00779/*	16	0.78"	1.21"	508/1/00768/021	508/2/15654/*	508/2/00079/021	5.6
508/1/00780/*	18	0.91"	1.41"	508/1/00769/021	508/2/15655/*	508/2/00080/021	7.5
508/1/00781/*	20	1.03"	1.60"	508/1/00770/021	508/2/15656/*	508/2/00081/021	8.9
508/1/00782/*	22	1.16"	1.80"	508/1/00771/021	508/2/15657/*	508/2/00082/021	10.5
508/1/00783/*	24	1.28"	2.12"	508/1/00772/021	508/2/15658/*	508/2/00083/021	12.3
508/1/00784/*	28	1.53"	2.41"	508/1/00773/021	508/2/15659/*	508/2/00084/021	15.5
508/1/00785/*	32	1.66"	2.54"	508/1/00774/021	508/2/15660/*	508/2/00085/021	18.0
508/1/00786/*	36	1.91"	2.92"	508/1/00775/021	508/2/15661/*	508/2/00086/021	20.8

* Add relevant cable size ex page 46 as a suffix. Wire-locking holes are provided on all nuts.

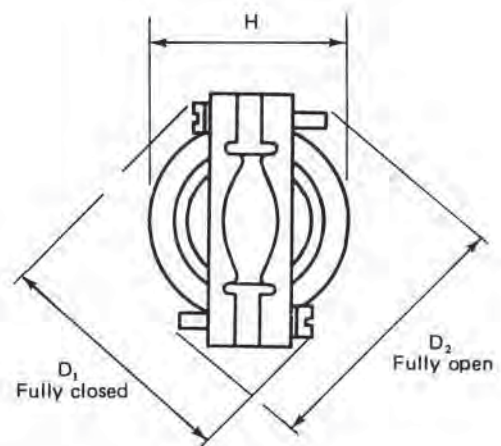
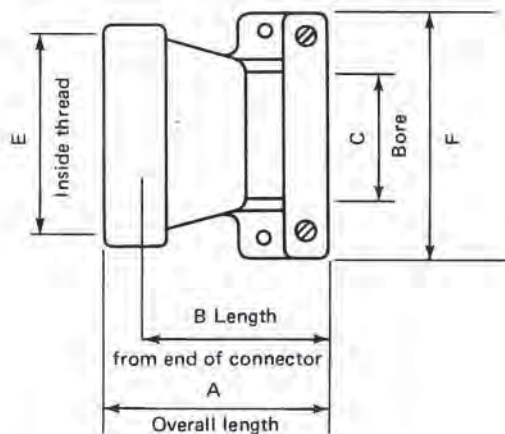
STEEL AND FIREPROOF RANGE

Bell Clamps

Brass cable fitting type 600 has a cadmium plate olive drab passivate finish. The short lightweight design will fit at the rear of any basic steel UK-AN connector.

Fluorinated silicone rubber sleeves are supplied with each bell clamp to assist in the clamping of single-core or multi-core cables.

Type 700 is of identical manufacture and is intended for fireproof types. It includes a cup washer to retain the fireproof baffle washer contained in fireproof connector assemblies.



Bell Clamp Part Number	Shell Size	A	B*	C Max.	C Min.	D ₁	D ₂	E Unified Class 1B Dia. x T.P.I.	F	H Dia.	Approx. Weight (oz.)
508/1/05277/021	10s	1.32	0.82	0.290	0.126	1.00	1.20	0.500 x 24	0.77	0.63	1.2
508/1/05278/021	12s	1.38	0.88	0.310	0.126	1.06	1.22	0.625 x 24	0.87	0.75	1.4
508/1/05279/021	14s	1.38	0.88	0.382	0.126	1.20	1.40	0.750 x 20	1.00	0.88	1.6
508/1/05280/021	16	1.51	1.01	0.445	0.126	1.30	1.50	0.875 x 20	1.12	1.00	1.8
508/1/05281/021	18	1.65	1.15	0.555	0.222	1.45	1.75	1.000 x 20	1.25	1.13	2.5
508/1/05282/021	20	1.65	1.15	0.685	0.222	1.63	1.90	1.125 x 18	1.37	1.25	2.8
508/1/05283/021	22	1.70	1.20	0.805	0.222	1.82	2.05	1.250 x 18	1.50	1.38	3.1
508/1/05284/021	24	1.70	1.20	0.925	0.322	1.82	2.12	1.375 x 18	1.62	1.50	3.5
508/1/05285/021	28	1.70	1.20	1.175	0.422	2.36	2.54	1.625 x 18	1.87	1.75	4.3
508/1/05286/021	32	1.70	1.20	1.305	0.422	2.30	2.62	1.750 x 18	2.00	1.88	4.7
508/1/05287/021	36	1.70	1.20	1.555	0.510	2.55	2.85	2.000 x 18	2.25	2.13	5.0

* Dimension 'B' increases by 0.20" when used with fireproof types.

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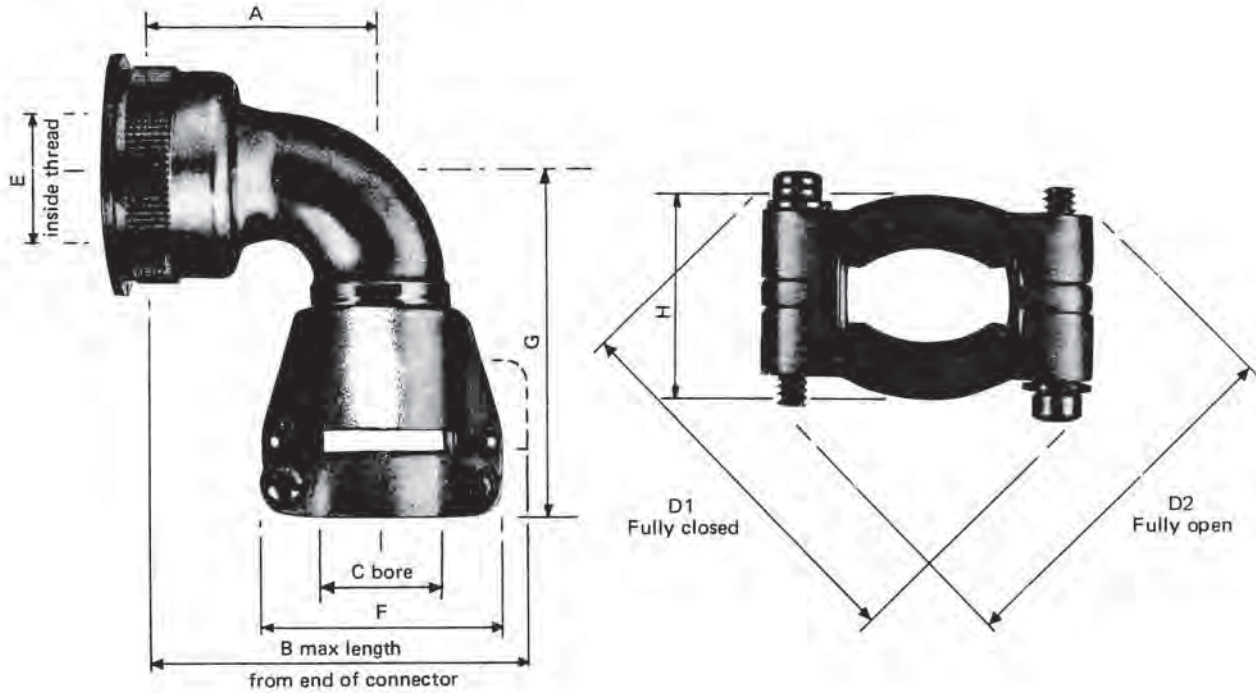
STEEL AND FIREPROOF RANGE

Elbow Clamps

Brass cable fitting type 600 has a cadmium plate olive drab passivate finish. The short lightweight design will fit at the rear of any basic steel UK-AN connector.

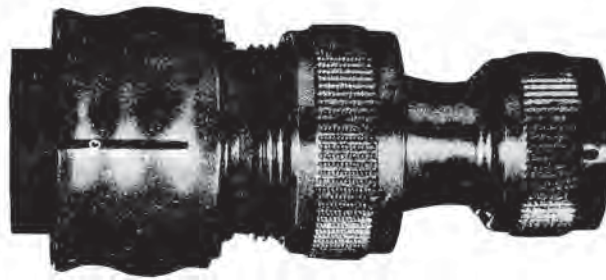
Fluorinated silicone rubber sleeves are supplied with each elbow clamp to assist in the clamping of single-core or multi-core cables.

Type 900 is of identical manufacture and is intended for fireproof types. It includes a cup washer to retain the fireproof baffle washer contained in fireproof connector assemblies.



Elbow Clamp Part Number	Shell	A	B	C Max.	C Min.	D ₁	D ₂	E Unified Class 1B Dia. x T.P.I.	F	G	H Dia.	Approx. Weight (oz.)
508/1/05288/021	10s	0.56	0.95	0.290	0.126	1.00	1.20	0.500 x 24	0.77	1.29	0.50	1.3
508/1/05289/021	12s	0.65	1.09	0.310	0.126	1.06	1.22	0.625 x 24	0.87	1.29	0.56	1.6
508/1/05290/021	14s	0.76	1.26	0.382	0.126	1.20	1.40	0.750 x 20	1.00	1.32	0.63	2.2
508/1/05291/021	16	0.83	1.39	0.445	0.126	1.30	1.50	0.875 x 20	1.12	1.39	0.75	2.4
508/1/05292/021	18	0.96	1.51	0.555	0.222	1.45	1.75	1.000 x 20	1.25	1.78	0.88	3.5
508/1/05293/021	20	1.09	1.78	0.685	0.222	1.63	1.90	1.125 x 18	1.37	1.88	1.00	3.7
508/1/05294/021	22	1.23	1.98	0.805	0.222	1.82	2.05	1.250 x 18	1.50	2.00	1.13	4.2
508/1/05295/021	24	1.49	2.30	0.925	0.322	1.82	2.12	1.375 x 18	1.62	2.23	1.25	4.9
508/1/05296/021	28	1.66	2.47	0.925	0.322	2.36	2.54	1.625 x 18	1.62	2.35	1.50	6.7
508/1/05297/021	32	1.72	2.72	1.305	0.422	2.30	2.62	1.750 x 18	2.00	2.41	1.63	6.8
508/1/05298/021	36	1.98	2.98	1.305	0.422	2.55	2.85	2.000 x 18	2.00	2.67	1.88	8.2

All dimensions in inches

**Quick-Release
UK-AN Connectors**

Aluminium or steel free units may now be obtained with an alternative tulip-shaped coupling nut.

Basically similar to that of the MS3107 American connector, it allows the nut to expand and ride over the mating thread of the fixed unit. It is retained in position by its own flexure and can be demated in an instant by a sharp pull.

If firmly anchored to the cable by the correct form of outlet, it may be allowed to demate itself when the stress on the cable becomes too great.

The following sizes are immediately available; other sizes can be supplied but protracted delivery may be unavoidable. Aluminium shell sizes: 16, 18, 22, 24, 32. Steel shell sizes: 14s, 18, 22, 28.

HOW TO ORDER

Use the normal UK-AN code number plus the suffix QR, e.g. UK-AN-9112-22-19P QR.

Information on Product Safety

This information is to be used in conjunction with the Product Catalogue and Product Specification. Products may be safely used in the applications for which they have been designed and within the specified ratings and environments. If products are exposed to conditions outside the performance ratings or specified environments they may constitute a hazard. In particular it should be noted that:—

1. Material Content of Products. Circular Connectors generally use metalwork parts made of copper, brass, aluminium, aluminium-bronze, phosphor-bronze or steel, which, dependant on the particular application, may be passivated and protected with cadmium or zinc plate — in conjunction with chromated or anodised surface finishes. The insulating materials can be either natural or synthetic rubber, together with plastic or glass filled plastic moulded parts. Contact materials vary with product type but are usually made of copper, brass, nickel, phosphor-bronze, alumel, chromel or steel.

Rectangular connectors are generally made using plastic or glass filled plastic moulded insulators and contact materials of plated phosphor-bronze, brass or copper.

2. Electric Shock, Burns and Fire. Hazard can occur if the product is used outside the specified parameters or if the product is damaged, wrongly wired or poorly assembled, or poorly integrated into larger equipments, or contaminated with conductive fluids. Live circuit terminations must be protected and live circuits never broken by demating products.

Hotspots may be created when resistance is increased due to damage or incorrect integration particularly soldering, crimping or loose terminations. Overheating can cause breakdown of insulation, electric shock, burns or, ultimately, fire. In the event of fire noxious and/or toxic fumes may be released and, in these circumstances, any fire involving the product should be dealt with by personnel properly equipped.

Connector products with exposed terminations or contacts should not be used on the current supply side of a circuit with exposed contacts on an unmated product. Before making a circuit live, the product and wiring should be checked to ensure that there is no damage and no electrically conducting debris present. Circuit resistance checks should also be conducted before making the circuit live. Always ensure that the correct tools, (specified by AB Controls and Connectors Ltd.) are employed for crimping and that connectors are assembled and wired by properly trained personnel.

3. Disposal of Products. Products should not be burnt.

4. Use Transport and Storage of Products. Care must be exercised to avoid damage to any part of the products during transporting, storage or use. The products, as manufactured, are free of sharp edges. Abnormal transit or storage conditions and abuse during installation can give rise to damage. Products should not be used in a damaged condition.

Improper storage (particularly of damaged products) can give rise to additional hazards particularly corrosion. Your attention is specifically drawn to the need for proper storage of products containing cadmium and you are advised to see the Guidance Note from the Health and Safety Executive on Cadmium — Health and Safety Precautions.

SAFETY RULES

1. FOLLOW THESE GUIDELINES.
2. ALWAYS PROTECT LIVE CIRCUITS AND NEVER DEMATE A LIVE CONNECTOR.
3. NEVER USE A DAMAGED CONNECTOR.
4. NEVER BURN DISCARDED CONNECTORS.

N.B. Additional information on the products and the materials used in them may be obtained from the Sales Department of AB Connectors (Northampton) Ltd.