

Mark 4 Connectors

Aluminium and brass

Plessey Mark 4 plugs and sockets in brass or aluminium can be issued "on release" from SASCO under Ministry of Aviation Supply procedures as manufacturers' proprietary items.

Characteristics

Pressure sealed against 20 lb per square in gauge pressure, with a leakage rate not exceeding 1 cc per hour.

Range of operating temperatures -40 °C to +85 °C Normal ranges. -40 °C to +85 °C Single piece gasket ranges.

Voltage ratings from 250 V a.c. to 2.5 kV peak. (Ministry of Defence High Tension Ratings are 500 V lower.)

Current ratings of 5, 12, 19, 35 and 60 A. (Ministry of Defence Ratings 2.5, 12, 16, 35 and 60 A respectively.)

Insulation resistance between any contact and earth is in excess of 10 M Ω at 500 V d.c. under worst conditions.

Dielectric Phenolic.

Plug and socket contacts silver-plated brass giving a maximum contact resistance of 2 m Ω .

Vibration proof Proof tested to meet the vibration requirements of R.C.S.11 sec. 6.2.

Housings Aluminium alloy, or brass cadmium plated and passivated.

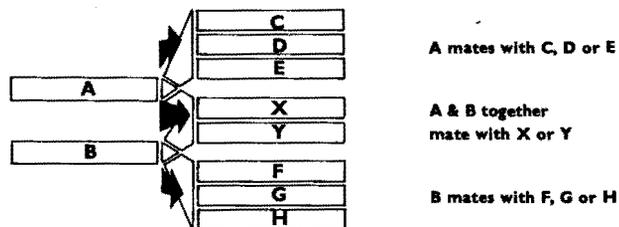
Cable fittings Cable fittings ensure adequate weather-proofing at entry and are available for both multicore and single core cables. Complete screening is provided for, and mechanical strain is taken on the outer covering of the cable and not by the electrical connections. All types of multicore cable to Ministry of Defence specification D.E.F.10 are accommodated in addition to uncore cable, and Uniradio cables to specification D.E.F.14, Type IBI. Cable entry fittings are **not** supplied as part of a plug or socket and **must** be ordered separately.

Mismating Reorientation feature eliminates mismating between adjacent plugs or sockets of similar contact arrangement.

Contact arrangement From 2 contacts to 25 contacts housed in three sizes of shell: Group 1 (small), Group 2 (medium), and Group 3 (large).

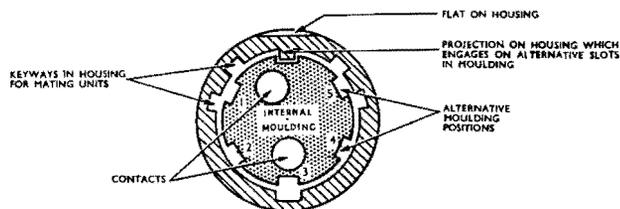
Types of plugs and sockets There are five different types of component as illustrated below.

The complete range of Mk. 4 Plugs and Sockets is catalogued in this section and all units with the same contact arrangement are shown grouped together. The units are listed in order of number of contacts and layout is arranged so that mating components can be seen at a glance. There are no other mating combinations apart from those shown. Thus:



The diagram at the side of each group shows the Plug contact arrangement, the contact coding and moulding characteristics of the mating face of a Fixed Plug. All coding of sockets is reversed, i.e. a mirror image of the plug coding.

A unique feature of Plessey Mk. 4 Plugs and Sockets is that the internal moulding carrying the contacts may be located in any one of six radial positions relative to the keyways in the outer shell. This facility eliminates the possibility of mismating adjacent plugs and sockets of the same contact arrangement. The sixth position is known as "neutral" (as shown in all diagrams) and orientations 1 to 5 are marked accordingly on the moulding. Unless



Mating face of a fixed plug showing typical contact arrangement in neutral position

otherwise stated when ordering, all Plugs and Sockets will be supplied in the neutral position. Orientated units are identified by the last digit in the suffix of the part number (**1, **2, etc.).

Only orientations of the same last digit, in the suffix of the part number, can be mated together.

It is not recommended that orientation, i.e. changing the location of a moulding in a Unit already supplied, be undertaken by users, as the dismantling of the Plug or Socket may destroy the pressure seal.

Attention is drawn to the 3 contact, 5 A range of Plugs and Sockets in which only the neutral and 5th orientation variations are available.

Neutral and orientated Part Numbers are allotted individual Joint Service Reference Nos.