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CONNECTORS, AMPHENOL 126 SERIES

GENERAL AND TECHNICAL INFORMATION

BY COMMAND OF THE DEFENCE COUNCIL

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CONNECTORS, AMPHENOL 126 SERIES

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ILLUSTRATIONS

LEADING PARTICULARS

Voltage rating

Standard rectangular	900*V r.m.s. at sea level*
Miniature rectangular Type A and B	700*V r.m.s. at sea level*
Type C and D	600*V r.m.s. at sea level*
Miniature hexagonal	500*V r.m.s. at sea level*

Contact rating

Size 20 *contacts*	7·5*A*
16 *flattened and pierced*	13*A*
16 *solder bucket*	17*A*
12	23*A*

Dielectric material — *Standard rectangular Mica-filled phenolic*
Miniature rectangular Melamine
Miniature hexagonal Diallyl phthalate

Insulation resistance at 500*V* — 20 *megohms*

Temperature range

Standard rectangular	0 *deg. C. to* +105 *deg. C.*
Miniature rectangular	−55 *deg. C. to* +105 *deg. C.*
Miniature hexagonal	−60 *deg. C. to* +125 *deg. C.*

Millivolt drop between contacts at full rated current

Standard rectangular connectors

Contact size	*Rated current*	*mV drop*
20	7·5*A*	37·5*mV*
16	13 *A*	65 *mV*
12	23 *A*	46 *mV*

Miniature rectangular connectors

Contact size	*Rated current*	*mV drop*
20	7·5*A*	37·5*mV*
16	17 *A*	37·5*mV*

Miniature hexagonal connectors

Contact size	*Rated current*	*mV drop*
20	7·5*A*	37·5*mV*

Introduction

1. The 126 Series range of rack and panel connectors is divided into three types: standard rectangular, miniature rectangular and miniature hexagonal.

DESCRIPTION

Standard rectangular connectors

2. 126 Series standard rectangular connectors (fig. 1) have eyelets inserted in the mounting holes for added strength. The male contacts are moulded into the insert and have flattened and pierced terminations. To prevent accidental shorting, the connectors have interlocking barriers.

3. In addition to their use as rack and panel connectors, most of the pin and socket inserts in this part of the range are available with housings having top entry cable clamps. These give facilities for cable to chassis and cable to cable inter-connection. Socket inserts are float-mounted in the moulding to ensure easy mating. Contact sizes and part numbers are given in Table 1.

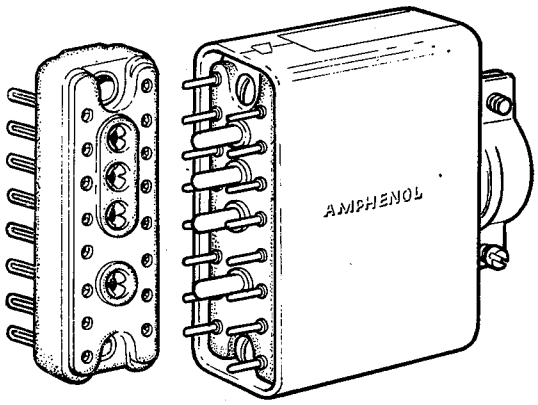

Fig. 1. Typical mating pair, standard rectangular

TABLE 1

Shell types—Standard rectangular connectors

Contact size and current rating			Insert with shell		Insert only	
			Male	Female	Male	Female
12 AWG 23A	16 AWG 13A	20 AWG 7·5A				
2	—	9	126—809	126—808	126—804*	126—805*
3	—	12	126—152	126—153	126—151	126—150
4	—	16	126—811	126—810	126—806*	126—807*
—	20	—	—	—	126—813	126—812

* Shells with side cable outlets available for these inserts.

Miniature rectangular connectors

4. This part of the range is used for rack and panel connection only. Types A and B are of similar construction and a typical connector is illustrated at fig. 2. Types C and D are also of similar construction and a Type C mated pair is illustrated at fig. 3. Dielectric bodies are of melamine and contacts and polarizing pins are of gold

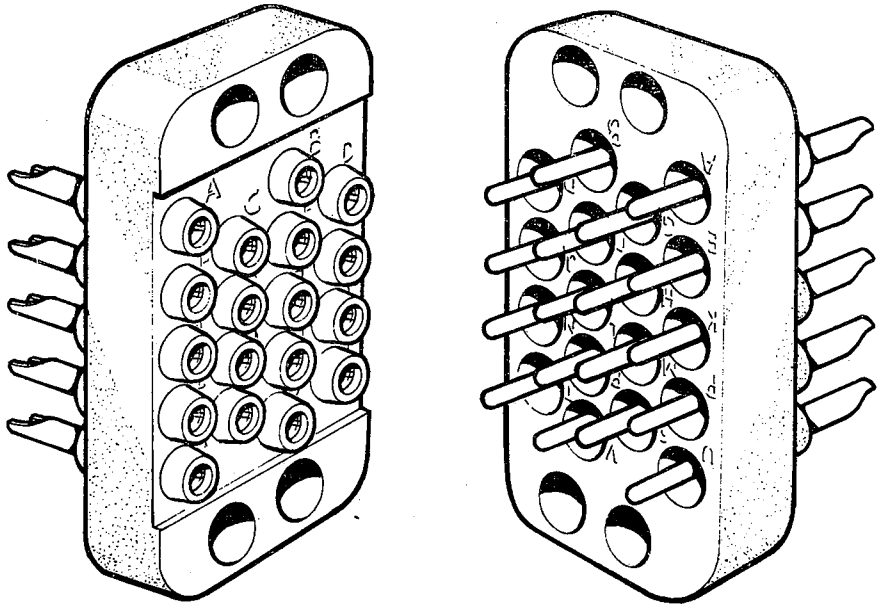

Fig. 2. Typical mating pair, miniature rectangular Type B

plate over silver. Contacts have solder buckets for cable connection. Contact details and manufacturers part numbers are listed in Table 2. Current rating for Types A and B is 17A, for Types C and D 7·5A.

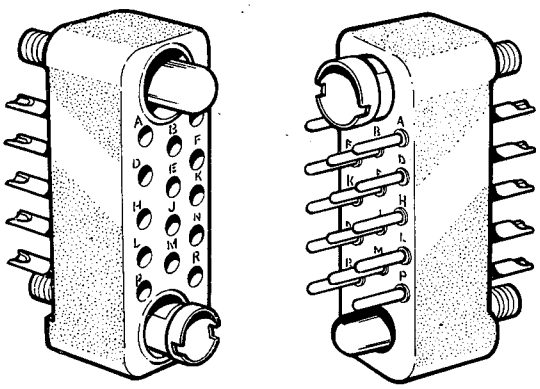

Fig. 3. Typical mating pair, miniature rectangular Type C

TABLE 2

Miniature rectangular connectors (Solder bucket contacts)

Type	Number of contacts, contact size and current rating		Insert only	
			Pin contacts	Socket contacts
	16 AWG 17A	20 AWG 7·5A		
A	7		126—016	126—017
	15		126—204	126—205
B	18		126—206	126—207
C		14	126—173	126—174
		18	126—199	126—189
		21	126—171	126—172
D		34	126—188	126—187

Miniature hexagonal connectors

5. Typical examples of this type of connector are illustrated in fig. 4. The hexagon nut type has a moulded thread and mounting nut and is available with either pin or socket contacts. An alternative chassis mounted receptacle with locking clip is available for cable to chassis inter-connection and mates with a plug fitted with hood and cable clamp. Contacts are gold plated for easy soldering. Table 3 lists part numbers and constructional details.

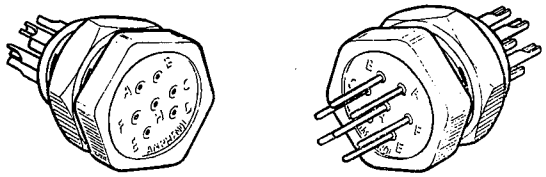

Fig. 4. Miniature hexagonal connectors

TABLE 3

Miniature hexagonal connectors

No. and type of contacts	Insert with hexagon nut	Insert with locking clip	with hood and clamp
4 pin		126—214	
4 socket			126—215 hood only
5 pin	126—010	126—216	126—217
5 socket	126—011	126—218	126—223
7 pin	126—191	126—197	126—195
7 socket	126—192	126—198	126—196
9 pin	126—012	126—219	126—220
9 socket	126—013	126—221	126—222

TABLE 4

NATO and Stores Ref. Numbers

Plugs	NATO No. or Ref. No.
126—151	10H/22703
126—152	5935-99-932-1556
126—804	10H/24605
126—806	10H/22704
126—811	5935-99-932-1792
126-GB-806-2001	5935-99-932-2421
Sockets	
126-GB-807-2002	5935-99-940-2181
126—150	10H/22706
126—153	5935-99-932-1557
126—222	5935-99-101-9794
126—805	10H/24606
126—807	10H/22705
126—810	5935-99-932-1793

SERVICING

6. Servicing is restricted to a physical examination for damage to contacts, dielectric material and hardware. Should cleaning be necessary, due to contamination with oil, grease, etc., any approved cleaning agent may be used, e.g. Inhibisol.

Contact resistance test

7. This may be checked by measuring the mV drop across mated contacts with the full rated current flowing. The reading obtained should not be less than the relevant figure indicated under leading particulars.

Insulation resistance test

8. Using a 500V insulation resistance tester, measure the insulation resistance between adjacent contacts and the shell (where applicable). The reading should not be less than 20 megohms.