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HELLERMANN DEUTSCH DM SERIES CONNECTORS

GENERAL AND TECHNICAL INFORMATION

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J. Dunnitt

Ministry of Defence

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ROYAL NAVY
ROYAL AIR FORCE



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1 HELLERMANN Deutsch DM series connectors

Chapter 1

HELLERMANN DEUTSCH DM SERIES CONNECTORS

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LEADING PARTICULARS

Deutsch DM series connectors	Table 1
<i>Contact rating (maximum)</i>	
Size 20 contacts	7.5A
Size 16 contacts	25A
Size 12 contacts	40A

LEADING PARTICULARS (Contd.)

<i>Contact millivolt drop (maximum)</i>									
<i>Size 20 contacts</i>	...	...	...	...	...	...	...	...	9.7mV at 7.5A
<i>Size 16 contacts</i>	...	...	...	...	...	...	...	...	18mV at 25A
<i>Size 12 contacts</i>	...	...	...	...	...	...	...	...	13mV at 40A
<i>Flashover voltage</i>	...	...	...	...	...	...	...	...	2500V d.c. at sea level
<i>Insulation resistance</i>	...	...	...	...	...	...	...	...	5000 megohms
<i>Durability</i>	...	...	...	...	...	...	...	...	500 cycles of engagement
<i>Wire sizes (nominal)</i>	...	...	...	...	...	...	...	...	0.081 in. to 0.02 in. to suit contacts
<i>Air leakage</i>	...	...	...	...	...	...	...	...	Less than 1 in. ³ /hr at 30 lb. in. ²
<i>Temperature range</i>	...	...	...	...	...	...	...	...	-67 deg. F to +257 deg. F
<i>Altitude (maximum)</i>	...	...	...	...	...	...	...	...	100,000 ft.
<i>Humidity</i>	...	...	...	...	...	...	...	...	D.T.D.1085C
<i>Deceleration</i>	...	...	...	...	...	...	...	...	100G
<i>Lubricant</i>	...	...	...	...	...	...	...	...	ZX-36 Ref. No. 34B/1459

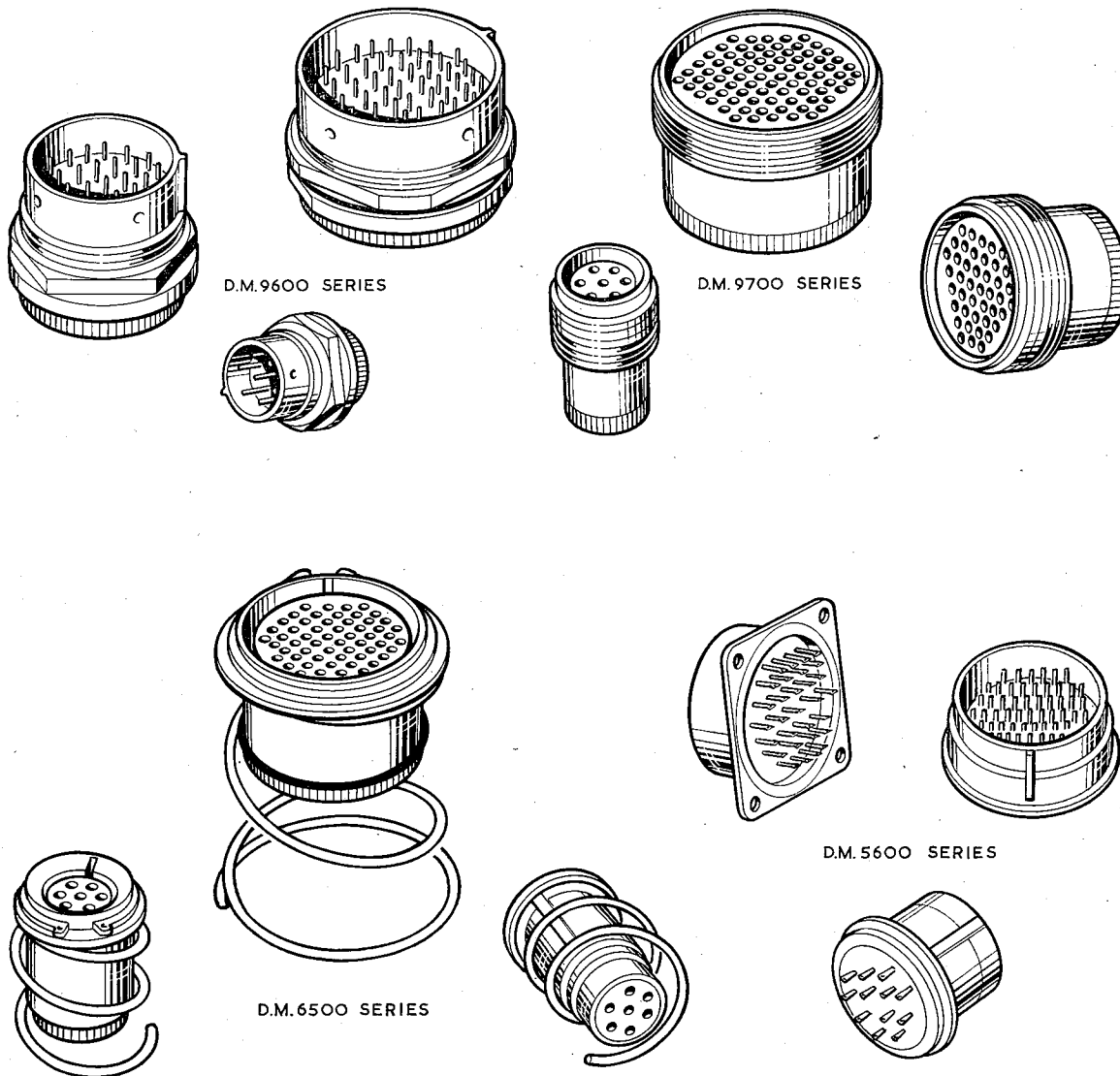


Fig. 1. Typical connectors DM series

Introduction

1. The Deutsch DM series of connectors provide a range of miniature electrical connectors for use in confined or blind installation conditions. Facility is provided, by soldered contacts, for the inter-connection of multi-cored cables of from three to sixty one cores, including co-axial cable cores.

2. The DM connectors in the series are:—

- (1) DM9600 series push-pull receptacles.
- (2) DM9700 series push-pull plugs.
- (3) DM6500 series rack and panel plugs.
- (4) DM5600 series hermetic receptacles.

(1) DM— denotes a Deutsch DM series miniature electrical connector.

(2) 9601— denotes the DM series connector shell style (fig. 3, 4, 7 and 8).

(3) 37— denotes the shell diameter in $\frac{1}{16}$ of an inch, i.e. in this case the shell diameter is $\frac{37}{16}$ in.

(4) 19— denotes the contact arrangement (fig. 10a and 10b).

(5) P— denotes pin contacts for plug connectors or S would denote a socket contact for socket connectors.

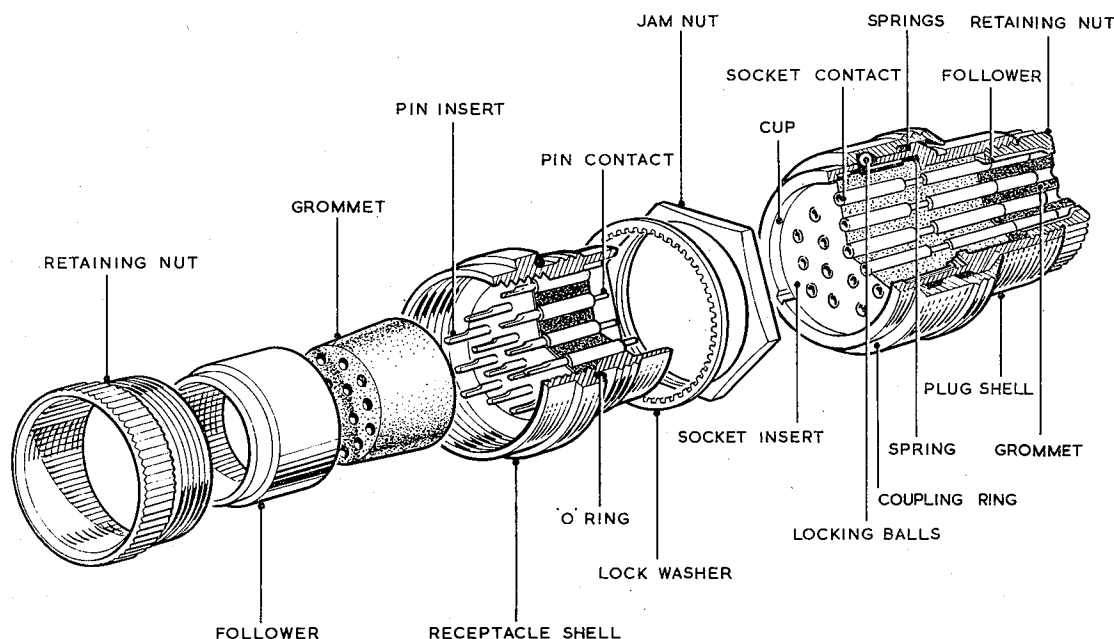


Fig. 2. Exploded view of plug and receptacle

3. Mating and de-mating of the plugs and sockets is achieved by a simple push-pull action as locking is achieved by use of a spring loaded ball lock coupling ring. All the connectors are inter-matable. The DM5600 series are fitted with sealed in glass inserts to provide efficient hermetic seating.

4. Typical connectors of each of the DM series are given in fig. 1 and an exploded view of a plug and socket mated unit is given in fig. 2. The contact size of the DM9600, 9700 and 6500 series may be varied to suit the size of individual cores of the cable, fig. 10a and 10b contact arrangements.

DESCRIPTION

Connector part numbers

5. A complete connector is designated by a six group part number, comprising letters or figures, e.g. DM-9601-3719-P-W-002, in the case of co-axial connections a seventh group is added to indicate the specific co-axial contacts required (Table 5). The significance of each group is as follows:—

(6) W— denotes the insert orientation (fig. 5 and Table 4).

(7) 002— indicates a variation from the standard design (Table 2).

Shell styles

6. The shell styles available in the DM9600, DM9700, DM6500 and DM5600 series of connectors are shown in fig. 3, 4, 8a, 8b, 9a and 9b respectively, also shown are the associated protective caps and dummy connectors.

DM9600 series receptacles (fig. 8a and 8b)

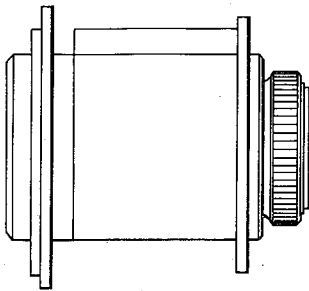
7. The DM9600 series of receptacles comprise two basic types, through panel mounting or square flange mounting. Two types of protective caps may be fitted one with a retaining ring that requires a special tool for cap removal, and the other without a retaining ring. In addition to the two basic types, modified versions with cable clamps or modified shells are also available as shown.

DM9700 series plugs (fig. 9a and 9b)

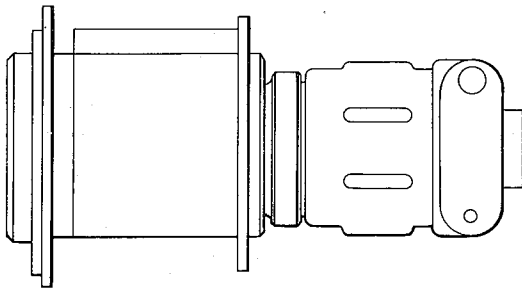
8. The DM9700 series of connectors are of the free type, they may be fitted with cable clamps or lanyards as shown. Protective caps are available, one for use with plugs fitted with socket inserts and the other for use with plugs fitted with pin inserts.

DM6500 series plugs (fig. 3)

9. The DM6500 series of connectors are spring mounted rack and panel type. The spring mounting allows a limited freedom of connector movement to allow the connector to be self aligning with the mating fixed connector. A bevel lead-in is provided at the front of the connector to assist the location of the plug to the fixed mating receptacle.



D.M.6502



D.M.6506
WITH CABLE CLAMP

Fig. 3. DM6500 series shell styles

DM5600 series receptacles (fig. 4)

10. The DM5600 series of receptacles are hermetically sealed and fitted with glass inserts. These receptacles may not be dismantled. They may be either square flanged or hexagonal flanged. The protective caps used with the DM5600 series of connectors may also be used with the series.

Contacts

11. Standard contacts are made from copper alloy plated first with silver and then gold, special contacts may be plated with different materials to suit the required application, i.e. rhodium over nickel, etc. The socket contacts are spring loaded to ensure good contact and thus low contact resistance. The contacts are made in a range of

sizes from size 12 down to size 20, connections to the rear of the contacts are made via solder pot or solder eyes.

Inserts and sealing

12. The pin and socket contacts are housed in a synthetic rubber insert (Neoprene), moulded to suit the appropriate contact arrangement, and shaped for either pin or socket contact as required. The insert together with the contact is inserted into the appropriate shell. When plug or receptacle connectors are wired, the individual cables pass through holes in the grommet and are soldered to the rear of the contacts, the grommet and cables are then secured by a follower and retaining nut.

13. When a plug and receptacle are mated, pushing the plug into the receptacle operates the ball lock coupling ring of the plug to provide a positive lock and sealing of the mated connectors. Visual confirmation of the connector mating may be ascertained by checking to see that the groove in the plug shell is visible at the rear of the shell front connector.

Contact arrangements

14. The possible contact arrangements are given in fig. 10a and 10b in ascending order of shell size.

Orientation of inserts

15. To avoid mis-mating adjacent connectors of similar shell sizes and contact arrangements, provision is made for the orientation of the moulded inserts to be varied. The angular orientation of the insert relative to the shell, is given in fig. 5. The angle of orientation varies with the shell size and contact arrangement, this is detailed in (Table 4).

16. In the normal position the indexing radius coincides with the centre line of the keyway of the shell. For pin inserts the insert is rotated α degrees clockwise relative to the keyway of the shell. For socket inserts the insert is rotated α degrees counter-clockwise relative to the centre line of the keyway of the shell.

Variation from standard connectors

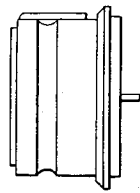
17. Connectors which vary from the standard design are denoted by a group of three figures, appended as a suffix to the part number, these suffixes are detailed in Table 2.

Accessories

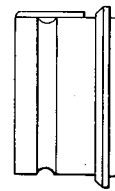
18. Details of accessories for the connectors, which enable them to be adapted for various applications, are shown in fig. 6, details of the sealing plugs required for blanking off unused contact holes in the insert are given in Table 8, and shown in (fig. 7).

Cable preparation

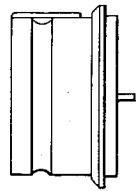
19. The cable should be inserted through the appropriate holes in the insert after sliding the retaining nut and the follower over the cable. The insulation of the cables should be stripped sufficiently to insert the beared end fully into the contact solder pots or eyes.



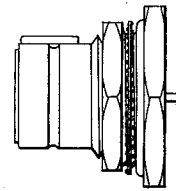
DM. 5600



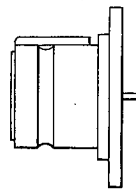
DM.5601



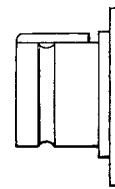
DM.5602



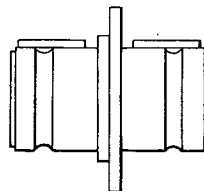
DM.5605
HEXAGONAL FLANGE MOUNTING



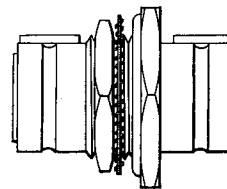
DM.5606
SQUARE FLANGE MOUNTING



DM.5607
SQUARE FLANGE MOUNTING



DM.5616
SQUARE FLANGE MOUNTING



DM.5612
HEXAGONAL FLANGE MOUNTING

Fig. 4. DM5600 series shell styles

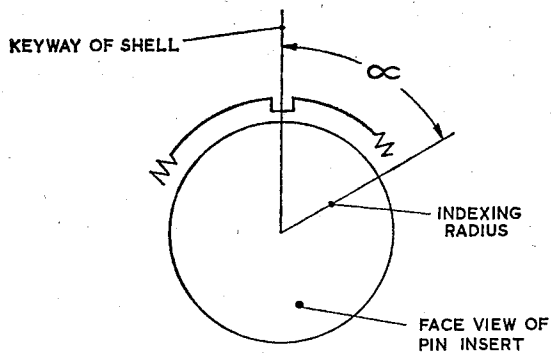


Fig. 5. Insert orientation

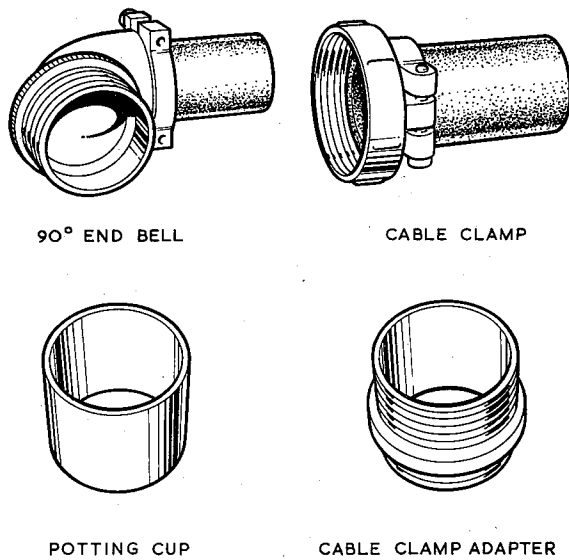


Fig. 6. Cable accessories

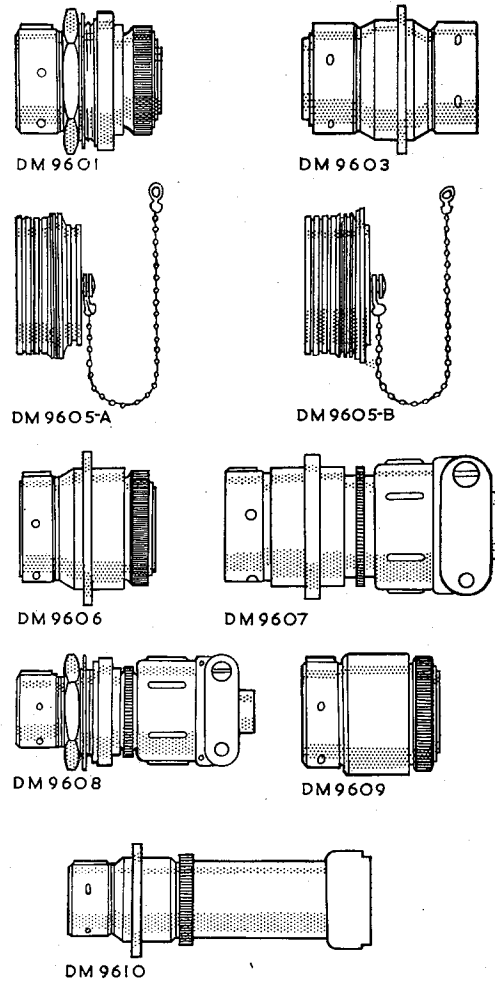


Fig. 8a. DM9601—9610 series shell styles

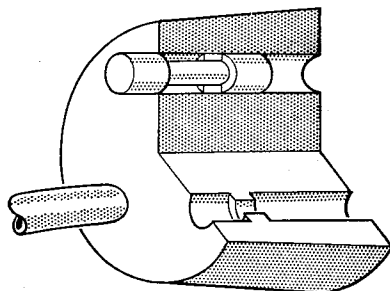


Fig. 7. Installed sealing plug

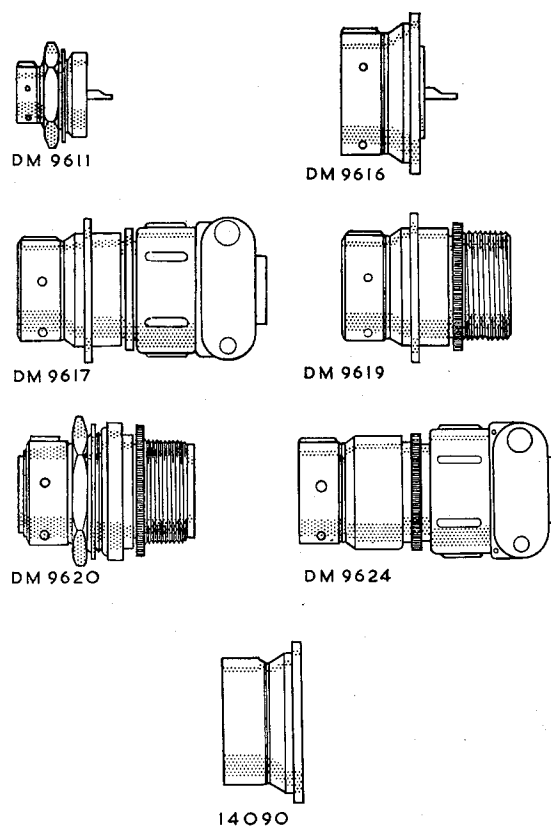
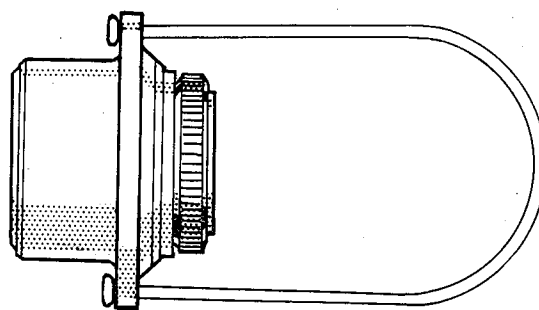
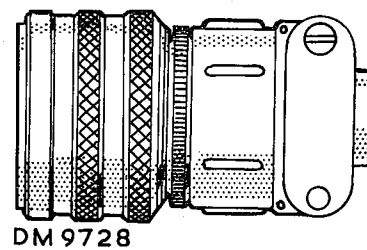
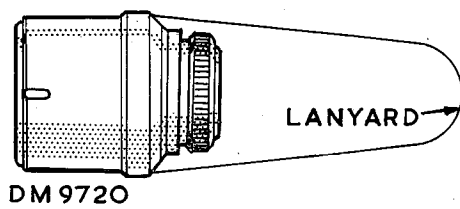
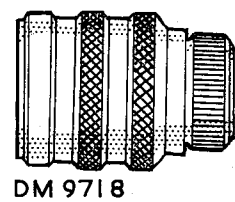
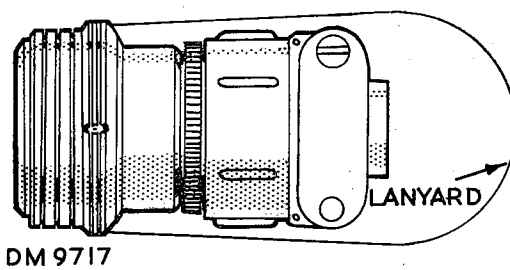
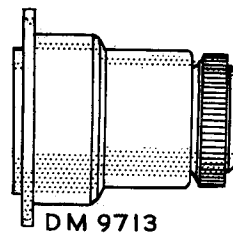
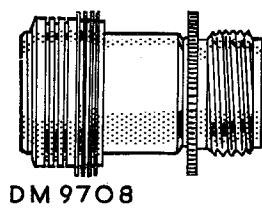


Fig. 8b. DM9611—9624 series shell styles



14946

Fig. 9a. DM9700—9705 series shell styles

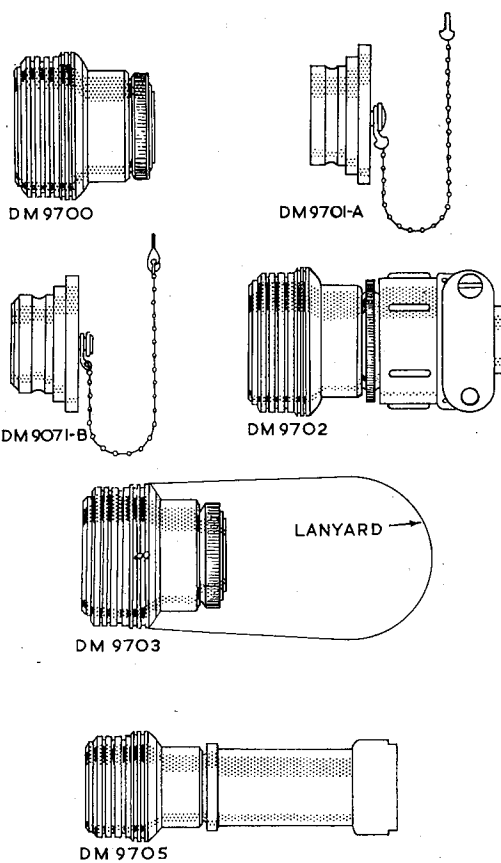


Fig. 9b. DM9708—9728 series shell styles

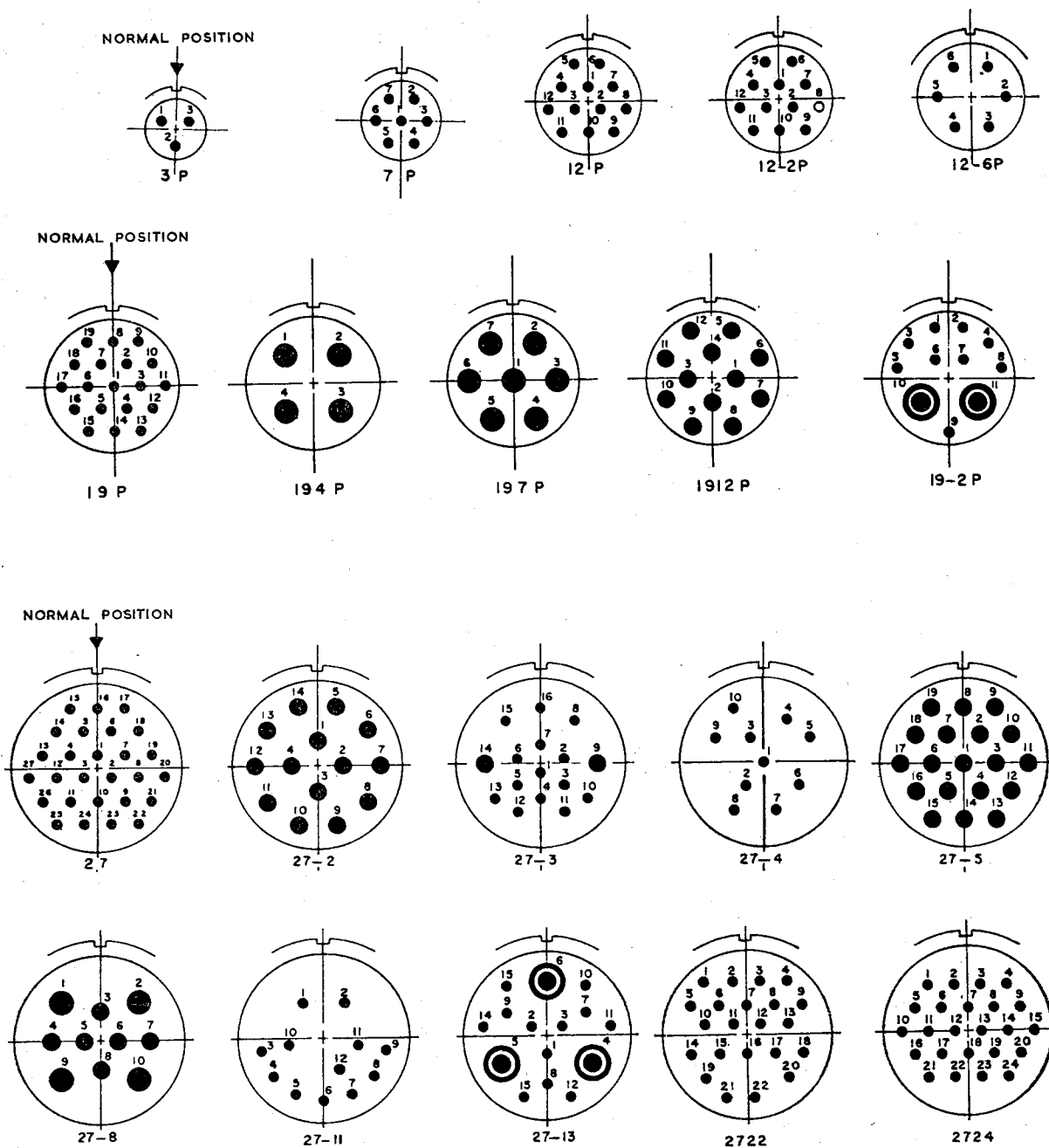


Fig. 10a. Contact arrangements shell size 3-27

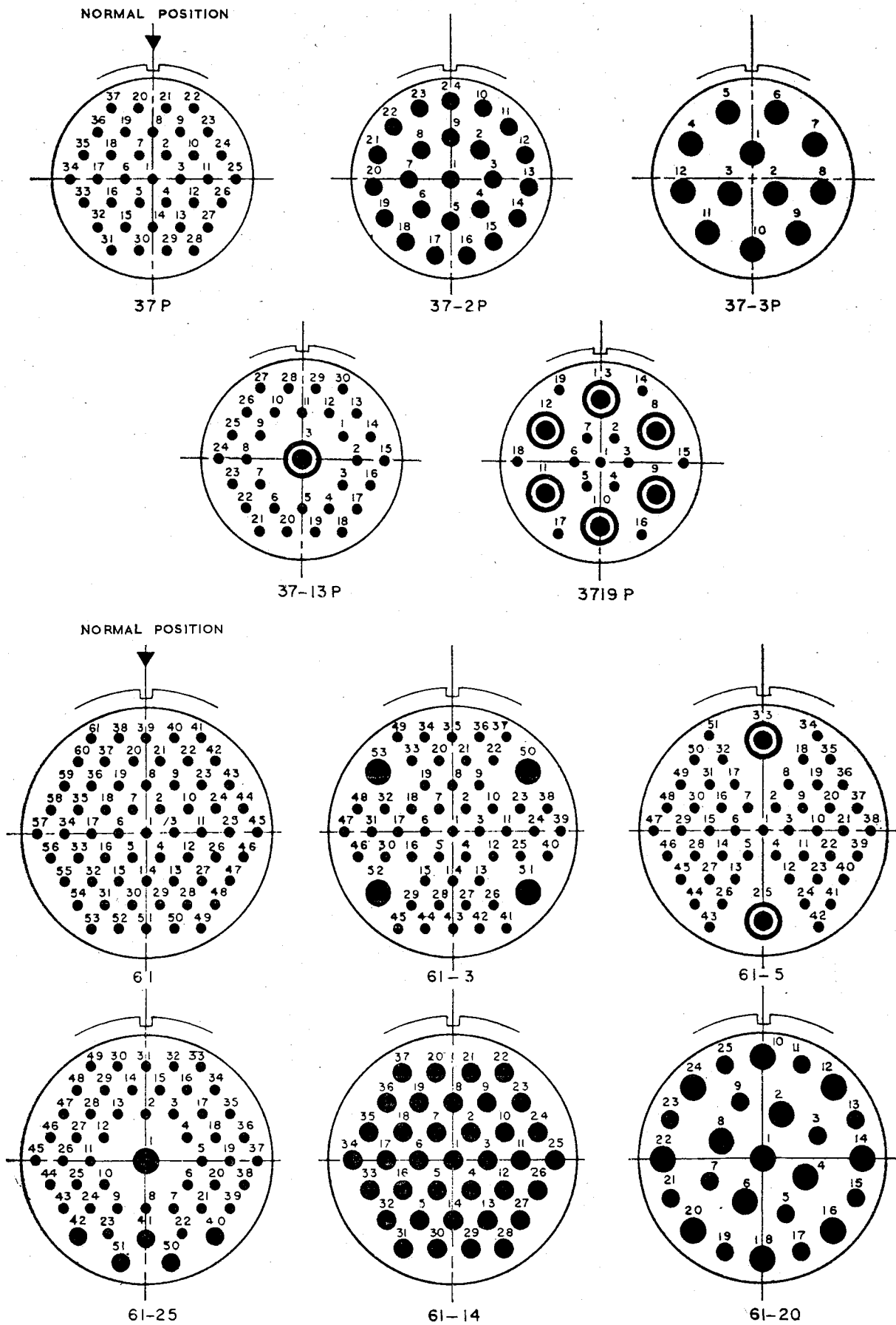


TABLE 1
Deutsch DM Series Connectors

Part No.	Nomen.	Features
DM 9601	Receptacle	Single hole bulkhead mounting.
DM 9603	Receptacle	Square flange mounting, through bulkhead connector, pin to socket.
DM 9605-A	Cap protective	Without retaining ring.
DM 9605-B	Cap protective	With retaining ring.
DM 9606	Receptacle	Miniature square flange mounting.
DM 9607	Receptacle	Cable connecting, modified DM 9601. Type with cable clamp.
DM 9608	Receptacle	Bulkhead, single hole mounting with cable clamp.
DM 9609	Receptacle	Miniature, quick disconnect. Line type (modified DM 9601 type).
DM 9601	Receptacle	Miniature connector with jacketed cable for watertight seal.
DM 9611	Receptacle	Single hole panel mounting, miniature connector.
DM 9616	Receptacle	Shell less grommet, follower and retaining nut.
DM 9617	Receptacle	Square flange mounting, modified DM 9606 with cable clamp.
DM 9619	Receptacle	Square flange mounting, miniature with conduit adapter.
DM 9620	Receptacle	Single hole panel mounting, miniature with conduit adapter.
DM 9624	Receptacle	Cable connecting, modified DM 9606 type with cable clamp.
14090	Receptacle dummy	Square flange mounting.
DM 9700	Plug	Miniature, quick disconnect.
DM 9701-A	Cap protective	For use with socket contacts.
DM 9701-B	Cap protective	For use with pin contacts, with cable clamp, quick disconnect, push-pull type.
DM 9702	Plug	Miniature, push-pull type with lanyard.
DM 9703	Plug	With jacketed cable for watertight seal. Miniature.
DM 9705	Plug	Miniature, quick disconnect.
DM 9708	Plug	With square flange coupling ring. Miniature connector.
DM 9713	Plug	With cable clamp, quick disconnect, push-pull type.
DM 9717	Plug	Miniature, quick disconnect.
DM 9718	Plug	Miniature, push-pull type with lanyard.
DM 9720	Plug	With cable clamp, quick disconnect, push-pull type.
DM 9728	Plug	Push-pull type, with heavy duty lanyard.
14946	Plug	Rack and panel, miniature connector.
DM 6502	Plug	Rack and panel with cable clamp.
DM 6506	Plug	Hermetic, miniature, solder mount type.
DM 5600	Receptacle	Hermetic, solder mount type plug.
DM 5601	Receptacle	Hermetic, miniature solder mount type plug.
DM 5602	Receptacle	Hermetic, single hole panel mounting with hexagonal flange.
DM 5605	Receptacle	Hermetic, square flange mounting type.
DM 5606	Receptacle	Hermetic, square flange mounting type plug.
DM 5607	Receptacle	Through bulkhead fitting, square flange mounting, hermetically sealed.
DM 5616	Receptacle	Through bulkhead fitting, single hole mounting, hermetically sealed.

TABLE 2
Significance of suffixes

Suffix	Significance
002	90° end bell for jacketed type cable
003	90° end bell with clamp for wire bundle
004	Standard unit to be supplied with potting cap
006	Minimum 0.0001 gold plating on contacts
010	Standard unit, with cable clamp
016	Adapter for jacketed cable
023	Connectors, cadmium plate olive drab colour
025	Standard connector with lanyard
052	Special grommet to accommodate 0.056/0.084 dia. wire
055	Standard, resilient insert connections less grommet

TABLE 3
Shell Sizes and Dimensions

Connector Type	Contact arrangement	Overall length (in)	Overall dia. (in)	Mounting hole dia. (in)
DM 9601	3	1-218	0-75	0-571
DM 9601	7	1-234	0-875	0-696
DM 9601	12	1-234	1-062	0-818
DM 9601	19	1-234	1-156	1-010
DM 9601	27	1-234	1-321	1-135
DM 9601	37	1-234	1-420	1-260
DM 9601	61	1-218	1-849	1-630
DM 9603	3	1-312	0-875	0-562
DM 9603	7	1-312	1-000	0-6719
DM 9603	12	1-312	1-0937	0-8125
DM 9603	19	1-312	1-1875	0-9375
DM 9603	27	1-312	1-2818	1-1250
DM 9603	37	1-312	1-4375	1-2500
DM 9603	61	1-312	1-7812	1-5625
DM 9606	3	1-125	0-6094	0-5625
DM 9606	7	1-125	0-6875	0-6719
DM 9606	12	1-125	0-8125	0-8125
DM 9606	19	1-125	0-9375	0-9315
DM 9606	27	1-125	1-0625	1-1250
DM 9606	37	1-125	1-2500	1-2500
DM 9606	61	1-125	1-5625	1-5025
DM 9607	3	2-0	0-8125	0-5625
DM 9607	7	2-0	0-8750	0-6875
DM 9607	12	2-0625	1-0625	0-8125
DM 9607	19	2-1250	1-1562	1-0000
DM 9607	27	2-1250	1-2500	1-2150
DM 9607	37	2-1250	1-4687	1-2500
DM 9607	61	2-2500	1-6875	1-6250
DM 9608	3	2-0000	0-8125	0-571
DM 9608	7	2-0000	0-8750	0-696
DM 9608	12	1-0625	1-0625	0-818
DM 9608	19	1-1250	1-562	1-010
DM 9608	27	1-1250	1-2500	1-135
DM 9608	37	1-1250	1-4687	1-260
DM 9608	61	1-2500	1-6875	1-630
DM 9609	3	1-125	0-5625	
DM 9609	7	1-125	0-6875	
DM 9609	12	1-125	0-8125	
DM 9609	19	1-125	0-9375	
DM 9609	27	1-125	1-1250	
DM 9609	37	1-125	1-250	
DM 9609	61	1-125	1-6250	
DM 9610	3	1-6406	0-8750	0-5625
DM 9610	7	2-6250	1-000	0-6719
DM 9610	7-1	2-0469	1-000	0-6719
DM 9610	7-2	2-2656	1-000	0-6719
DM 9610	7-3	1-7656	1-000	0-6719
DM 9610	7-4	2-1875	1-000	0-6719
DM 9610	7-5	2-6250	1-000	0-6719
DM 9610	12	3-0469	1-0937	0-8125
DM 9610	12-1	3-0469	1-0937	0-8125
DM 9610	19	3-1250	1-1850	0-9375
DM 9610	19-1	3-1250	1-1875	0-9375
DM 9610	19-2	3-1250	1-1875	0-9375
DM 9610	19-4	3-1250	1-1875	0-9375
DM 9610	19-7	3-1250	1-1875	0-9375
DM 9610	19-12	3-1250	1-0938	0-9375
DM 9610	27	3-1250	1-2812	1-1250

Table 3 (Contd.)

Connector Type	Contact arrangement	Overall length (in)	Overall dia. (in)	Mounting hole dia. (in)
DM 9610	27-8	3.1250	1.2812	1.1250
DM 9610	37	3.1562	1.4375	1.250
DM 9611	3	0.7654	0.7500	0.571
DM 9611	7	0.8122	0.8750	0.696
DM 9611	12	0.8122	1.0625	0.818
DM 9611	19	0.8122	1.1875	1.010
DM 9611	27	0.8122	1.3125	1.135
DM 9611	37	0.8122	1.5000	1.260
DM 9611	61	0.8904	1.8750	1.630
DM 9616	3	0.8281	0.8750	0.5625
DM 9616	7	0.8281	1.0000	0.6719
DM 9616	12	0.8281	1.0469	0.8125
DM 9616	19	0.8281	1.1875	0.9375
DM 9616	27	0.8281	1.2812	1.1250
DM 9616	37	0.8281	1.4375	1.250
DM 9616	61	0.8281	1.7812	1.5625
DM 9617	3	2.0000	0.8125	0.5625
DM 9617	7	2.0000	0.8750	0.6719
DM 9617	12	2.0625	1.0625	0.8125
DM 9617	19	2.1250	1.1563	0.9375
DM 9617	27	2.1250	1.2500	1.1250
DM 9617	37	2.1250	1.4687	1.2500
DM 9617	61	2.2500	1.6875	1.5625
DM 9619	3-8	1.4375	0.8750	0.5625
DM 9619	3-10	1.4375	0.8750	0.5625
DM 9619	7-10	1.4375	1.0000	0.6719
DM 9619	7-12	1.4375	1.0000	0.6719
DM 9619	12-12	1.4375	1.0938	0.8125
DM 9619	12-14	1.4375	1.0938	0.8125
DM 9619	19-14	1.4375	1.1875	0.9375
DM 9619	19-16	1.4375	1.1875	0.9375
DM 9619	27-16	1.4375	1.2813	1.1250
DM 9619	27-19	1.4375	1.2813	1.1250
DM 9619	37-19	1.4375	1.4375	1.2500
DM 9619	37-23	1.4375	1.4375	1.2500
DM 9619	61-23	1.6250	1.7813	1.5625
DM 9620	3-8	1.4375	0.7500	0.5710
DM 9620	3-10	1.4375	0.7500	0.5710
DM 9620	7-10	1.4375	0.8750	0.6960
DM 9620	7-12	1.4375	0.8750	0.6960
DM 9620	12-12	1.4375	1.0625	0.8180
DM 9620	12-14	1.4375	1.0625	0.8180
DM 9620	19-14	1.4375	1.1875	1.0100
DM 9620	19-16	1.4375	1.1875	1.0100
DM 9620	27-16	1.4375	1.3125	1.1350
DM 9620	27-19	1.4375	1.3125	1.1350
DM 9620	37-19	1.4375	1.5000	1.2600
DM 9620	37-23	1.4375	1.5000	1.2600
DM 9620	61-23	1.6250	1.8750	1.6300
DM 9624	3	2.0000	0.8125	0.6094
DM 9624	7	2.0000	0.8750	0.6719
DM 9624	12	2.0625	1.0625	0.8125
DM 9624	19	2.1250	1.562	0.9375
DM 9624	27	2.1250	1.2500	1.1250
DM 9624	37	2.1250	1.4687	1.2500
DM 9624	61	2.2500	1.6875	1.5625
14090 (dummy)	3	0.5937	0.8750	0.5625
14090 (dummy)	7	0.5937	1.0000	0.6719
14090 (dummy)	12	0.5937	1.0937	0.8125
14090 (dummy)	19	0.5937	1.1875	0.9375
14090 (dummy)	27	0.5937	1.2812	1.1250
14090 (dummy)	37	0.5937	1.4375	1.2500
14090 (dummy)	61	0.5937	1.7812	1.5626

Table 3 (Contd.)

Connector Type	Contact arrangement	Overall length (in)	Overall dia. (in)	Mounting hole dia. (in)
DM 9700	3	1-2031	0-7187	
DM 9700	7	1-2031	0-9062	
DM 9700	12	1-2031	1-0625	
DM 9700	19	1-2031	1-1875	
DM 9700	27	1-2031	1-3594	
DM 9700	37	1-2031	1-5000	
DM 9700	61	1-2031	1-8281	
DM 9702	3	2-0937	0-7187	
DM 9702	7	2-0937	0-9062	
DM 9702	12	2-1562	1-0625	
DM 9702	19	2-2187	1-1875	
DM 9702	27	2-2187	1-3594	
DM 9702	37	2-2187	1-5000	
DM 9705	3	1-7344	0-7188	
DM 9705	7	2-7188	0-9063	
DM 9705	7-1	2-1407	0-9063	
DM 9705	7-2	2-3594	0-9063	
DM 9705	7-3	1-8594	0-9063	
DM 9705	7-4	2-2813	0-9063	
DM 9705	7-5	2-7188	0-9063	
DM 9705	12	3-1875	1-0625	
DM 9705	12-1	3-1875	1-0625	
DM 9705	19	3-2188	1-1875	
DM 9705	19-1	3-2188	1-1875	
DM 9705	19-2	3-2188	1-1875	
DM 9705	19-4	3-2188	1-1875	
DM 9705	19-7	3-2188	1-1875	
DM 9705	27	3-2188	1-3594	
DM 9705	27-8	3-2188	1-3574	
DM 9705	37	3-2500	1-5000	
DM 9705	19-12	3-2188	1-1875	
DM 9708	3-8	1-5000	0-7188	
DM 9708	3-10	1-5000	0-7188	
DM 9708	7-10	1-5000	0-9063	
DM 9708	7-12	1-5000	0-9063	
DM 9708	12-12	1-5000	1-0625	
DM 9708	12-14	1-5000	1-0625	
DM 9708	19-14	1-5000	1-1875	
DM 9708	19-16	1-5000	1-1875	
DM 9708	27-16	1-5000	1-3594	
DM 9708	27-19	1-5000	1-3594	
DM 9708	37-19	1-5000	1-5000	
DM 9708	37-23	1-5000	1-5000	
DM 9708	61-23	1-7188	1-8281	
DM 9713	3	1-2031	0-8650	0-7187
DM 9713	7	1-2031	1-0625	0-8906
DM 9713	12	1-2031	1-2812	1-0312
DM 9713	19	1-2031	1-3125	1-1562
DM 9713	27	1-2031	1-5000	1-3125
DM 9713	37	1-2031	1-6250	1-4687
DM 9713	61	1-2031	2-0000	1-8125
DM 9717	3	2-0937	0-8125	
DM 9717	7	2-0937	0-8750	
DM 9717	12	2-1562	1-0625	
DM 9717	19	2-2187	1-1562	
DM 9717	27	2-2187	1-250	
DM 9717	37	2-2187	1-4687	
DM 9717	61	2-3750	1-6875	
DM 9718	3	1-2031	0-7344	
DM 9718	7	1-2031	0-9214	

Table 3 (Contd.)

Connector Type	Contact arrangement	Overall length (in)	Overall dia. (in)	Mounting hole dia. (in)
DM 9718	12	1-2031	1-0781	
DM 9718	19	1-2031	1-2031	
DM 9718	27	1-2031	1-3437	
DM 9718	37	1-2031	1-4844	
DM 9718	61	1-2031	1-8125	
DM 9720	3	1-2031	0-806	
DM 9720	7	1-2031	0-938	
DM 9720	12	1-2031	1-061	
DM 9720	19	1-2031	1-246	
DM 9720	27	1-2031	1-424	
DM 9720	37	1-2031	1-559	
DM 9720	61	1-2031	1-866	
DM 9728	3	2-0937	0-7344	
DM 9728	7	2-0937	0-9271	
DM 9728	12	2-1562	1-0781	
DM 9728	19	2-2187	1-2031	
DM 9728	27	2-2187	1-3437	
DM 9728	37	2-2187	1-4844	
DM 9728	61	2-3750	1-8125	
14946	3	1-2031	1-2500	
14946	7	1-2031	1-4062	
14946	12	1-2031	1-5156	
14946	19	1-2031	1-6719	
14946	27	1-2031	1-8125	
14946	37	1-2031	1-9062	
14946	61	1-2031	2-2187	
DM 6502	7	1-2500	1-1562	0-8125
DM 6502	12	1-2500	1-2500	0-9531
DM 6502	19	1-2500	1-3750	0-0625
DM 6502	27	1-2500	1-5156	0-2031
DM 6502	37	1-2500	1-7989	1-3750
DM 6502	61	1-2500	2-1406	1-6875
DM 6506	7	2-1875	1-0937	0-8125
DM 6506	12	2-2500	1-2500	0-9531
DM 6506	19	1-3125	1-3750	1-0625
DM 6506	27	2-3125	1-5156	1-2031
DM 6506	37	2-3125	1-7969	1-3750
DM 6506	61	2-4375	2-1406	1-6875
DM 5600	3	0-9216	0-5937	0-5312
DM 5600	7	0-9216	0-7500	0-6875
DM 5600	12	0-9216	0-8750	0-8125
DM 5600	19	0-9216	1-0000	0-9375
DM 5600	27	0-9216	1-1875	1-1250
DM 5600	37	0-9216	1-2812	1-2187
DM 5601	3	0-5781	0-5937	0-5312
DM 5601	7	0-5781	0-7500	0-6875
DM 5601	12	0-5781	0-8750	0-8125
DM 5601	19	0-5781	1-0000	0-9375
DM 5601	27	0-5781	1-1875	1-1250
DM 5601	37	0-5781	1-2812	1-2187
DM 5602	3	0-8281	0-5625	0-5312
DM 5602	7	0-8281	0-7500	0-6875
DM 5602	12	0-8281	0-8750	0-8125
DM 5602	19	0-8281	1-0000	0-9375
DM 5602	27	0-8281	1-1875	1-1250
DM 5602	37	0-8281	1-2812	1-2187
DM 5605	3	0-9062	0-8750	0-571
DM 5605	7	0-9062	1-0000	0-696
DM 5605	12	0-9062	1-1250	0-818
DM 5605	19	0-9062	1-3125	1-010
DM 5605	27	0-9062	1-4375	1-135
DM 5605	37	0-9062	1-5625	1-260
DM 5606	3	0-8592	0-8750	0-5312

Table 3 (Contd.)

Connector Type	Contact arrangement	Overall length (in)	Overall dia. (in)	Mounting hole dia. (in)
DM 5606	7	0.8592	1.0000	0.6719
DM 5606	12	0.8592	1.0937	0.8125
DM 5606	19	0.8592	1.1875	0.9375
DM 5606	27	0.8592	1.2812	1.1250
DM 5606	37	0.8592	1.4375	1.2187
DM 5607	3	0.5781	0.8750	0.5312
DM 5607	7	0.5781	1.0000	0.6719
DM 5607	12	0.5781	1.0937	0.8125
DM 5607	19	0.5781	1.1875	0.9375
DM 5607	27	0.5781	1.2812	1.1250
DM 5607	37	0.5781	1.4375	1.2187
DM 5616	3	1.0312	0.8750	0.5312
DM 5616	7	1.0312	1.0000	0.6719
DM 5616	12	1.0312	1.0937	0.8125
DM 5616	19	1.0312	1.1875	0.9375
DM 5616	27	1.0312	1.2812	1.1250
DM 5616	37	1.0312	1.4375	1.2187
DM 5621	3	1.2344	0.8750	0.571
DM 5621	7	1.2344	1.0000	0.696
DM 5621	12	1.2344	1.1250	0.818
DM 5621	19	1.2344	1.3125	1.010
DM 5621	27	1.2344	1.4375	1.135
DM 5621	37	1.2344	1.5625	1.260

TABLE 4

Insert Orientation and Contact Arrangements

Contact arrangement	Contact sizes			Co-axial	Insert		Orientation		degrees C
	20	16	12		W	X	Y	B	
3	3	—	—	—	25	50	75	150	220
7	7	—	—	—	27½	47½	75	150	225
12	12	—	—	—	15	50	75	150	225
12-2	11	—	—	—	15	50	75	150	225
12-6	6	—	—	—	25	45	80	150	220
19	19	—	—	—	—	—	75	150	225
194	—	—	4	—	—	—	22½	135	247½
197	—	—	7	—	—	—	75	150	225
1912	—	12	—	—	25	50	75	150	225
19-2	9	—	—	2	25	50	75	150	225
27	27	—	—	—	25	50	75	150	225
27-2	—	14	—	—	25	50	75	150	225
27-3	14	2	—	—	25	50	75	150	225
27-4	10	—	—	—	25	50	75	150	225
27-5	—	19	—	—	—	—	75	150	225
27-8	—	6	4	—	25	50	75	150	225
27-11	12	—	—	—	25	50	75	150	225
27-13	12	—	—	—	25	50	75	150	225
2722	22	—	—	—	25	50	75	150	225
2724	24	—	—	—	25	50	75	150	225
37	37	—	—	—	—	—	75	150	225
37-2	—	24	—	—	25	145	227½	—	—
37-3	—	—	12	—	20	70	—	—	—
37-13	30	—	—	1	—	—	75	150	225

Table 4 (Contd.)

Contact arrangement	Contact sizes			Co-axial	Insert W	X	Orientation		degrees C
	20	16	12				Y	B	
3719	13	—	—	6	—	—	75	150	225
61	61	—	—	—	—	—	75	150	225
61-3	49	—	4	—	25	50	75	150	225
61-5	49	—	—	2	25	50	75	150	225
61-25	45	5	1	—	25	50	75	150	225
61-14	—	37	—	—	—	—	75	150	225
61-20	—	12	13	—	—	—	75	150	225

TABLE 5

Co-axial Contacts

Contact	Co-axial cable Type	Nominal impedance ohms	Remarks
Basic	RG.178/U	50	Supplied as standard co-axial contacts with D.M. connectors.
	RG.179/U	70	
	RG.196/U	50	
1	RG.180/U	93	For connectors having 6 co-axial contacts: 4 contacts to accept RG.174, 187, or 188/U cables and 2 contacts to accept RG.180 or 195/U cables.
	RG.195/U	95	
2	RG.195/U	95	
	RG.180/U	93	
	RG.174/U	50	
	RG.187/U	75	
	RG.188/U	50	
4	RG.174/U	50	
	RG.187/U	75	
	RG.188/U	50	
5	RG.141/U	50	
	RG.174/U	50	For connectors to 3719 contact arrangement; 3 contacts to accept RG.174, 187 or 188/U cables and 3 contacts to accept RG.180 or 195/U cables.
7	RG.188/U	93	
	RG.187/U	75	
	RG.180/U	50	
	RG.195/U	95	

TABLE 6

Protective Caps

Connector Pt. No.	Connector Arrangement	Overall Length (ins)	Overall Diameter (ins)
DM 9605	3A	0.7813	0.7188
DM 9605	7A	0.7031	0.9063
DM 9605	12A	0.7813	1.0625
DM 9605	19A	0.7031	1.1875
DM 9605	27A	0.7813	1.3594
DM 9605	37A	0.7031	1.5000
DM 9605	61A	0.7813	1.8125
DM 9605	3B	0.7813	0.7500
DM 9605	7B	0.7031	0.9063
DM 9605	12B	0.7813	1.0313
DM 9605	19B	0.7031	1.1875
DM 9605	27B	0.7813	1.4063
DM 9605	37B	0.7031	1.5469

Table 6 (Contd.)

Connector Pt. No.	Connector Arrangement	Overall Length (ins)	Overall Diameter (ins)
DM 9605	61B	0.7813	1.9375
DM 9701	3A	0.7188	0.7188
DM 9701	7A	0.7188	0.8750
DM 9701	12A	0.7188	1.0625
DM 9701	19A	0.7188	1.1875
DM 9701	27A	0.7188	1.3438
DM 9701	37A	0.7188	1.5000
DM 9701	61A	0.7188	1.8750
DM 9701	3B	0.7969	0.7188
DM 9701	7B	0.7969	0.8750
DM 9701	12B	0.7969	1.0625
DM 9701	19B	0.7969	1.1875
DM 9701	27B	0.7969	1.3438
DM 9701	37B	0.7969	1.5000
DM 9701	61B	0.7969	1.8750

TABLE 7

Insertion and Extraction Tools

Part No.	Contact Size	Description	Colour Code
15513-20	20	Insertion tool	Grey handle/Red.
15513-16	16	Insertion tool	Grey handle/Blue.
15513-12	12	Insertion tool	Grey handle/Yellow.
15513-25	Co-axial	Insertion tool	Grey handle/Green.
M 15514-20	20	Removal tool	Grey handle/Red.
M 15514-16	16	Removal tool	Grey handle/Blue.
M 15514-12	12	Removal tool	Grey handle/Yellow.
M 15514-25	Co-axial	Removal tool	Grey handle/Green.

TABLE 8

Sealing Plugs

Part No.	Contact size	Colour	Reference No.
CP100.B4	20	Red	
CP100.B4.2	20	White	
CP100.1B	16	Black	
CP100.2B	12	Green	
CP100.2B.2	12	White	
CP100.B2.1	12	White	
CP100.B5	Co-axial	White	
CP100.B6	Co-axial	White	
CP100.1B.2	16	White	

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