

MIL-C-38999 SERIES III

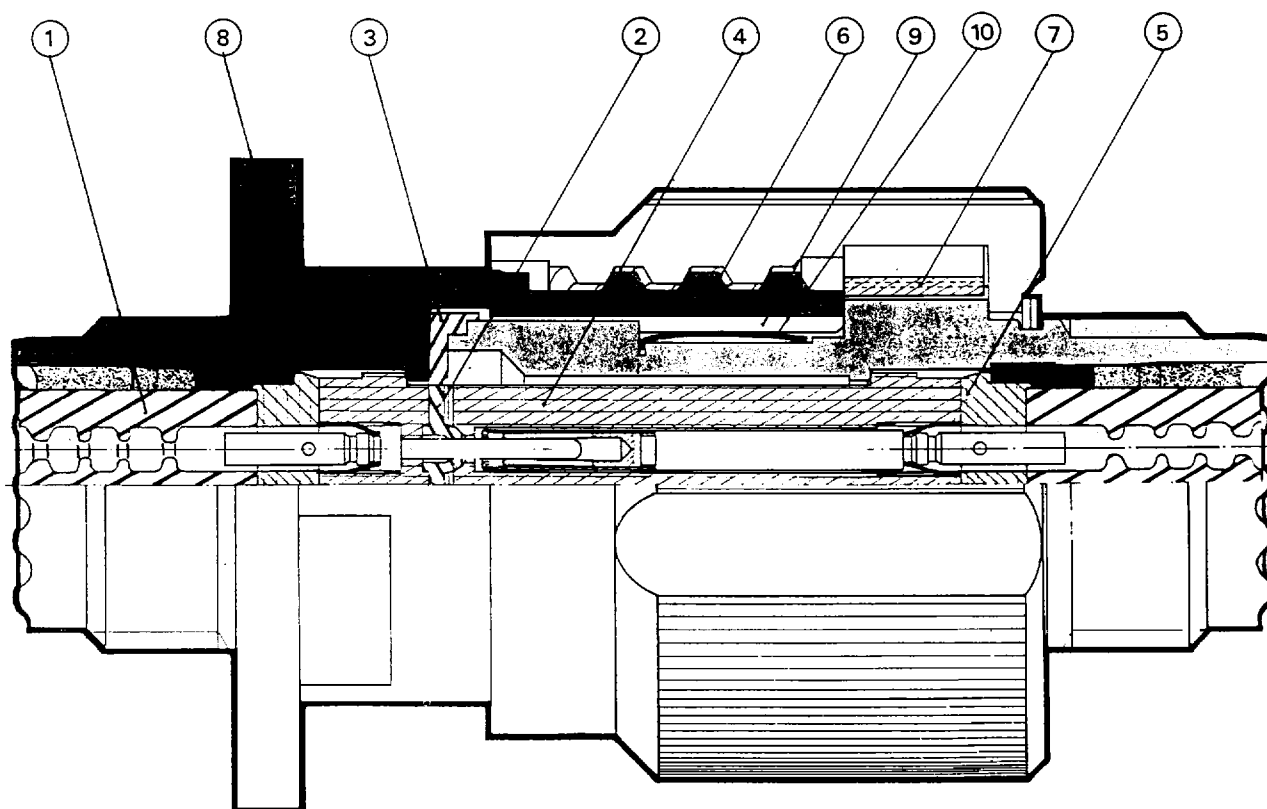
Features:

The 8D Series Connectors conform to MIL-C-38999, Series III, Classes F and W.

Features Of These Connectors Include:

1. Grommet seal – fluid resistance to MIL C 38999.
2. Interfacial seal – sealing around each pair of mated contacts.
3. Mating seal – sealing between plug and receptacle shells.
4. Restricted entry female insulator for female contact protection.
5. Metal retainer clip – reliable contact insertion and extraction.
6. Quick coupling threaded, full mating at approximately 360° rotation.
7. Anti-decoupling device maintains 1:2 ratio of coupling to uncoupling detent force after 500 cycles of use.
8. Scoop-proof shell design male contacts are recessed into the connector body to prevent mismatching damage (especially in the case of access problems).
9. Shells have 5 polarizing key positions – for proper alignment of contacts at mating.
10. Shell-to-shell continuity ensured by engagement of grounding fingers prior to contact mating EMI shielding provided.

SOURIAU
an FCI Company



Military

8D 0-11 W 35 P N

Basic Series

Shell Style

0: Square Flange Receptacle
7: Jam Nut Receptacle
5: Plug With RFI Shielding

Shell Size

09, 11, 13, 15, 17, 19, 21, 23, 25

Finish

W: Olive drab cadmium (-65°C to +175°C)
F: Nickel (-65°C to +200°C)

Contact Arrangement

Contact Style

P: Male
A: Male Connector Supplied Less Contacts For Use With Special Contacts
S: Female
B: Female Connector Supplied Less Contacts For Use With Special Contacts

Polarization

N: Normal
A, B, C, D, E: See chart

Commercial

D38999/20 W B 35 P N

Basic Reference

Shell Style

20: Square Flange Receptacle
24: Jam Nut Receptacle
26: Plug With RFI Shielding

Finish

W: Olive Drab Cadmium (-65°C to +175°C)
F: Nickel (-65°C to +200°C)

Shell Size Code

09 11 13 15 17 19 21 23 25
A B C D E F G H J

Contact Arrangement

Contact Style

P: Male
A: Male Connector Supplied Less Contacts For Use With Special Contacts
S: Female
B: Female Connector Supplied Less Contacts For Use With Special Contacts

Polarization

N: Normal
A, B, C, D, E: See chart

1-18

D38999/20 – Receptacle Type 0



Shell Size	MS Shell Size	A Max	B Max	C Max	D Thread	E - .012	I	G	H - .008	J - .008
09	A	.823	.421	.098	M12 x 1-6g	0.937	0.719	0.594	.128	.216
11	B	.823	.421	.098	M15 x 1-6g	1.032	0.812	0.719	.128	.216
13	C	.823	.421	.098	M18 x 1-6g	1.126	0.906	0.812	.128	.216
15	D	.823	.421	.098	M22 x 1-6g	1.221	0.969	0.906	.128	.216
17	E	.823	.421	.098	M25 x 1-6g	1.311	1.062	0.969	.128	.216
19	F	.823	.421	.098	M28 x 1-6g	1.437	1.156	1.062	.128	.216
21	G	.791	.453	.126	M31 x 1-6g	1.563	1.250	1.156	.128	.216
23	H	.791	.453	.126	M34 x 1-6g	1.689	1.375	1.250	.154	.242
25	J	.791	.453	.126	M37 x 1-6g	1.811	1.500	1.375	.154	.242

D38999/24 – Receptacle Type 7



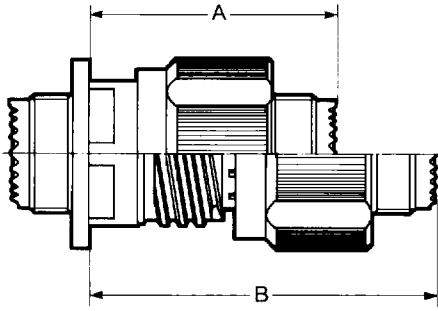
Shell Size	MS Shell Size	A + .004 - .006	B Max	C Max	D Max	E Max	F - .016	G Thread
09	A	0.651	.390	.126	1.201	0.945	1.063	M12 x 1-6g
11	B	0.751	.390	.126	1.386	1.063	1.252	M15 x 1-6g
13	C	0.938	.390	.126	1.512	1.260	1.374	M18 x 1-6g
15	D	1.062	.390	.126	1.638	1.417	1.500	M22 x 1-6g
17	E	1.187	.390	.126	1.764	1.457	1.626	M25 x 1-6g
19	F	1.312	.390	.126	1.949	1.614	1.811	M28 x 1-6g
21	G	1.437	.390	.126	2.075	1.811	1.937	M31 x 1-6g
23	H	1.562	.390	.126	2.201	1.969	2.063	M34 x 1-6g
25	J	1.687	.390	.126	2.323	2.017	2.189	M37 x 1-6g

D38999/26 – Plug Type 5

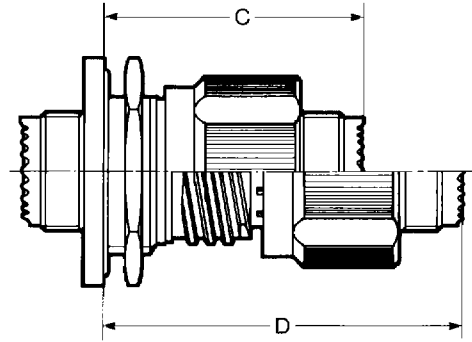


Shell Size	MS Shell Size	A Max	B Thread	C Max
09	A	1.221	M12 x 1-6g	0.858
11	B	1.221	M15 x 1-6g	0.984
13	C	1.221	M18 x 1-6g	1.158
15	D	1.221	M22 x 1-6g	1.280
17	E	1.221	M25 x 1-6g	1.406
19	F	1.221	M28 x 1-6g	1.516
21	G	1.221	M31 x 1-6g	1.642
23	H	1.221	M34 x 1-6g	1.768
25	J	1.221	M37 x 1-6g	1.890

Mated Connector Dimensions



**Square flange
receptacle
Type 0
with plug**



**Jam nut
receptacle
Type 7
with plug**

Shell Size	MS Shell Size	A Max	B Max	C Max	D Max
09	A	1.457	2.059	1.508	2.110
11	B	1.457	2.059	1.508	2.110
13	C	1.457	2.059	1.516	2.118
15	D	1.457	2.059	1.516	2.118
17	E	1.457	2.059	1.516	2.118
19	F	1.457	2.059	1.516	2.118
21	G	1.417	2.020	1.516	2.118
23	H	1.417	2.020	1.516	2.118
25	J	1.417	2.020	1.516	2.118

MIL-C-38999 SERIES III

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Insert Arrangements

A/09

09-35
6 no. 22D contacts
Service M



09-98
3 no. 20 contacts
Service I



B/11

11-35
13 no. 22D contacts
Service M



11-98
6 no. 20 contacts
Service I



11-05*
5 no. 20 contacts
Service I



C/13

13-35
22 no. 22D contacts
Service M



13-98*
10 no. 20 contacts
Service I

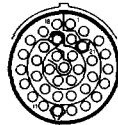


13-08*
8 no. 20 contacts
Service I

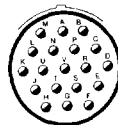


D/15

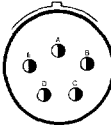
15-35
37 no. 22D contacts
Service M



15-19*
19 no. 20 contacts
Service I



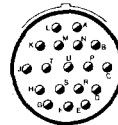
15-05
5 no. 16 contacts
Service II



15-97*
8 no. 20 contacts
4 no. 16 contacts
Service I

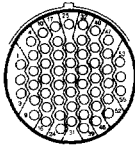


15-18
18 no. 20 contacts
Service I

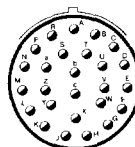


E/17

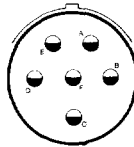
17-35
55 no. 22D contacts
Service M



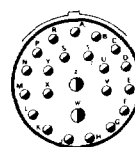
17-26*
26 no. 20 contacts
Service I



17-06
6 no. 12 contacts
Service I

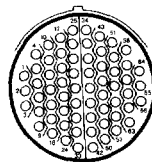


17-99*
2 no. 16 contacts
21 no. 20 contacts
Service I

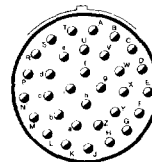


F/19

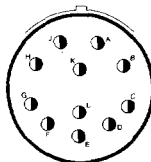
19-35
66 no. 22D contacts
Service M



19-32
32 no. 20 contacts
Service I



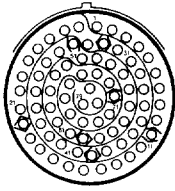
19-11
8 no. 16 contacts
Service II



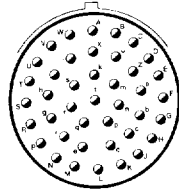
Insert Arrangements

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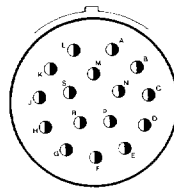
21-35
79 no. 22D contacts
Service M



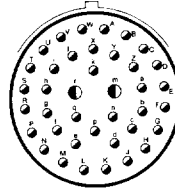
21-41*
41 no. 20 contacts
Service I



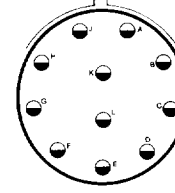
21-16
11 no. 16 contacts
Service II



21-39*
37 no. 20 contacts
2 no. 16 contacts
Service I

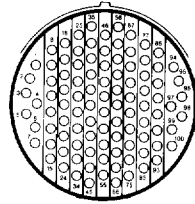


21-11*
11 no. 12 contacts
Service II

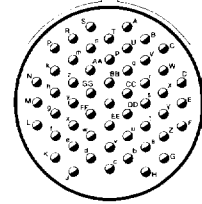


H/23

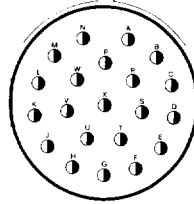
23-35
100 no. 22D contacts
Service M



23-53*
53 no. 20 contacts
Service I

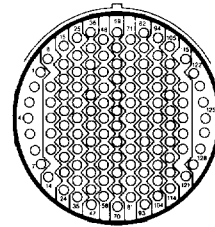


23-21
16 no. 16 contacts
Service II

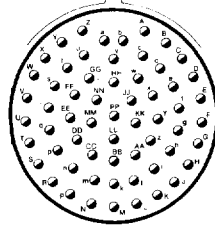


J/25

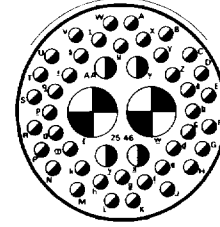
25-35
128 no. 22D contacts
Service M



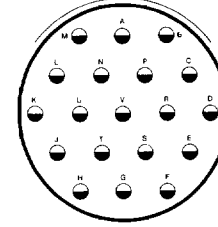
25-61*
61 no. 20 contacts
Service I



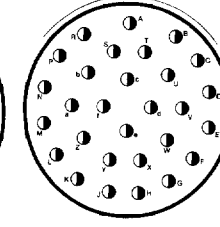
25-46*
2 no. 8 contacts
40 no. 20 contacts
4 no. 16 contacts
Service N



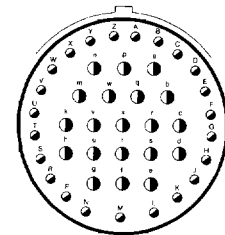
25-19
19 no. 12 contacts
Service I



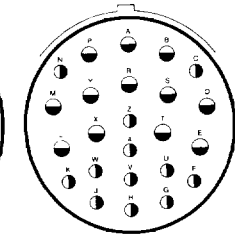
25-29
29 no. 16 contacts
Service I



25-43*
23 no. 20 contacts
20 no. 16 contacts
Service I



25-24*
12 no. 16 contacts
12 no. 12 contacts
Service I



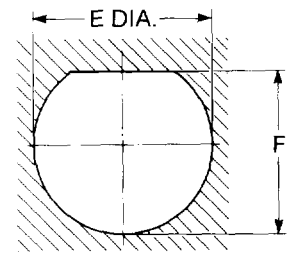
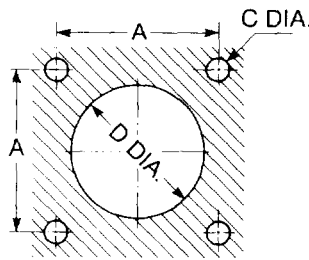
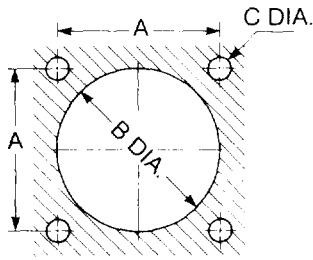
- size 22 contacts
- size 20 contacts
- size 16 contacts
- size 12 contacts
- size 8 triaxial contacts

* Consult factory

MIL-C-38999 SERIES III

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Panel Cut Out - Series III



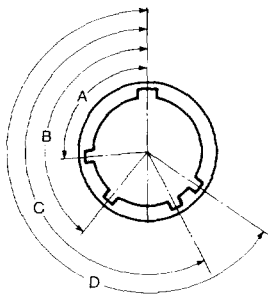
Rear mounting

Front mounting

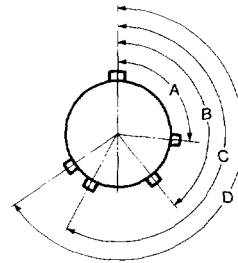
Jam nut receptacle

Shell Size	MS Shell Size	A	B Min	C 00s	D Min	F + .010 0	F - 0 010
09	A	0.719	0.656	.128	0.516	0.697	0.669
11	B	0.812	0.796	.128	0.625	0.822	0.769
13	C	0.906	0.922	.128	0.750	1.007	0.955
15	D	0.969	1.047	.128	0.906	1.134	1.084
17	E	1.062	1.219	.128	1.016	1.259	1.208
19	F	1.156	1.297	.128	1.141	1.384	1.333
21	G	1.250	1.422	.128	1.266	1.507	1.459
23	H	1.375	1.547	.154	1.375	1.634	1.584
25	J	1.500	1.672	.154	1.484	1.759	1.709

Series III Polarizations



Viewed from face of receptacle



Viewed from front of plug

Shell Size	MS Shell Size	Angles	N	A	B	C	D	E
09	A	A°	105	102	80	35	64	91
		B°	140	132	118	140	155	131
		C°	215	248	230	205	234	197
		D°	265	320	312	275	304	240
11	B	A°	95	113	90	53	119	51
		B°	141	156	145	156	146	141
		C°	208	182	195	220	176	184
		D°	236	292	252	255	298	242
13	C	A°	95	113	90	53	119	51
		B°	141	156	145	156	146	141
		C°	208	182	195	220	176	184
		D°	236	292	252	255	298	242
15	D	A°	95	113	90	53	119	51
		B°	141	156	145	156	146	141
		C°	208	182	195	220	176	184
		D°	236	292	252	255	298	242
17	E	A°	80	135	49	66	62	79
		B°	142	170	169	140	145	153
		C°	196	200	200	200	180	197
		D°	293	310	244	257	280	272
19	F	A°	80	135	49	66	62	79
		B°	142	170	169	140	145	153
		C°	196	200	200	200	180	197
		D°	293	310	244	257	280	272
21	G	A°	80	135	49	66	62	79
		B°	142	170	169	140	145	153
		C°	196	200	200	200	180	197
		D°	293	310	244	257	280	272
23	H	A°	80	135	49	66	62	79
		B°	142	170	169	140	145	153
		C°	196	200	200	200	180	197
		D°	293	310	244	257	280	272
25	J	A°	80	135	49	66	62	79
		B°	142	170	169	140	145	153
		C°	196	200	200	200	180	197
		D°	293	310	244	257	280	272