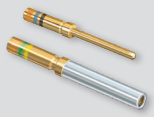
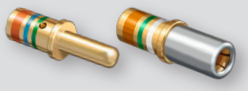
MIL-DTL-38999 Series III and IV

MIL-STD-1560 standard power and signal contact arrangements For environmental and hermetic connectors

Contacts			
Contact Size (environmental contacts shown in pictures below)			
Size #22D Environmental: 5 Amp Max. Current Hermetic: 3 Amp Max. Current #22-#28 AWG	Size #20 Contacts Environmental: 7.5 Amp Max. Current Hermetic: 5 Amp Max. Current #20-#24 AWG	Size #16 Contacts Environmental 13 Amp Max. Current Hermetic: 10 Amp Max. Current #16-#20 AWG	Size #12 Contacts Environmental 23 Amp Max. Current Hermetic: 17 Amp Max. Current #12-#14 AWG
			

Contact Size 22D		
Number of Conctacts	D38999 Sr III	D38999 Sr IV
6	A35	
13	B35	B35
22	C35	C35
37	D35	D35
55	E35	E35
66	F35	F35
67	F45	F45
79	G35	G35
100	H35	H35
128	J35	J35

Contact Size 16		
Number of Conctacts	D38999 Sr III	D38999 Sr IV
2	B2	B2
4	C4	C4
5	D5	D5
8	E8	E8
11	F11	F11
16	G16	G16
21	H21	H21
16	H97	H97
11	H99	H99
29	J29	J29
37	J37	J37

38999 Series III and IV Shell Size Code Reference					
Shell size	Code letter	Shell size	Code letter	Shell size	Code letter
9	A	15	D	21	G
11	B	17	E	23	H
13	C	19	F	25	J

Contact Size 20		
Number of Conctacts	D38999 Sr III	D38999 Sr IV
3	A98	
4	B4	B4
5	B5	B5
6	B98	B98
7	B99	B99
8	C8	C8
10	C98	C98
18	D18	D18
19	D19	D19
26	E26	E26
32	F32	F32
24	G24	G24
25	G25	G25
27	G27	G27
41	G41	G41
32	H32	H32
34	H34	H34
36	H36	H36
53	H53	H53
55	H55	H55
61	J61	J61

Contact Size 12		
Number of Conctacts	D38999 Sr III	D38999 Sr IV
6	E6	E6
11	G11	G11
19	J19	J19

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MIL-DTL-38999 Series III and IV

MIL-STD-1560 standard power and signal contact arrangements
For environmental and hermetic connectors - pin front view

Contact Legend
#22D ● #16 ⊕
#20 ⊖ #12 ◒

Insert Arrangement	A35	A98	B2	B4	B5	B98	B99
No. of Contacts and Contact Size	6 #22D	3 #20	2 #16	4 #20	5 #20	6 #20	7 #20
Service Rating	M	I	I	I	I	I	I

Contact Legend
#22D ● #16 ⊕
#20 ⊖ #12 ◒

Insert Arrangement	B35	C4	C8	C98	C35	D5
No. of Contacts and Contact Size	13 #22D	4 #16	8 #20	10 #20	22 #22D	5 #16
Service Rating	M	I	I	I	M	II

Contact Legend
#22D ● #16 ⊕
#20 ⊖ #12 ◒

Insert Arrangement	D18	D19	D35	E6	E8
No. of Contacts and Contact Size	18 #20	19 #20	37 #22D	6 #12	8 #16
Service Rating	I	I	M	I	II

Contact Legend
#22D ● #16 ⊕
#20 ⊖ #12 ◒

Insert Arrangement	E26	E35	F11	F32
No. of Contacts and Contact Size	26 #20	55 #22D	11 #16	32 #20
Service Rating	I	M	II	I

Contact Legend
#22D ● #16 ⊕
#20 ⊖ #12 ◒

Insert Arrangement	F35	F45	G11	G16
No. of Contacts and Contact Size	66 #22D	67 #22D	11 #12	16 #16
Service Rating	M	M	I	II

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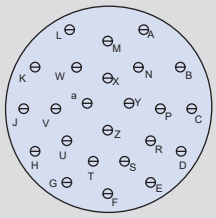
MIL-STD-1560 standard power and signal contact arrangements
For environmental and hermetic connectors - pin front view

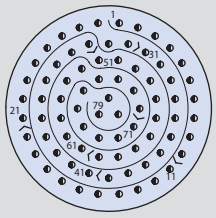
REFERENCE INFORMATION

Contact Legend
#22D ⊕ #16 ⊕
#20 ⊖ #12 ◒



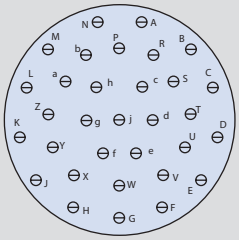
Insert Arrangement	G24	G25	G27	G41
No. of Contacts and Contact Size	24 #20	25 #20	27 #20	41 #20
Service Rating	I	I	I	I

Contact Legend
#22D ⊕ #16 ⊕
#20 ⊖ #12 ◒



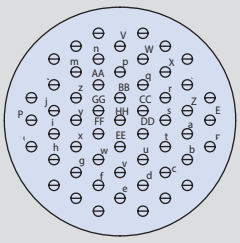
Insert Arrangement	G35	H97	H99	H21
No. of Contacts and Contact Size	79 #22D	16 #16	11 #16	21 #16
Service Rating	M	I	II	II

Contact Legend
#22D ⊕ #16 ⊕
#20 ⊖ #12 ◒



Insert Arrangement	H32	H34	H36	H53
No. of Contacts and Contact Size	32 #20	34 #20	36 #20	53 #20
Service Rating	I	I	I	I

Contact Legend
#22D ⊕ #16 ⊕
#20 ⊖ #12 ◒



Insert Arrangement	H55	H35	J19
No. of Contacts and Contact Size	55 #20	100 #22D	19 #12
Service Rating	I	M	I

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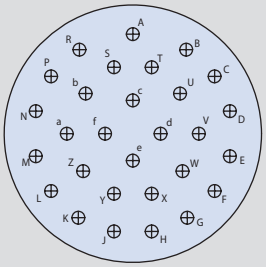
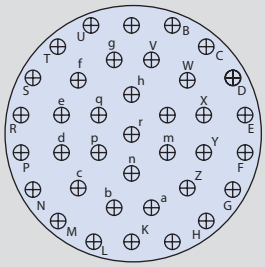
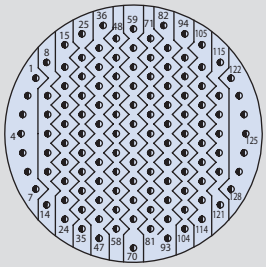
Contact Legend

#22D	•	#16	⊕
#20	⊖	#12	◒



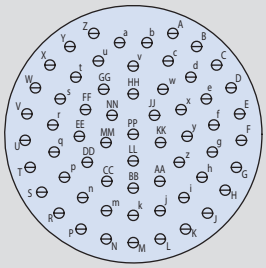




	J29	J37	J35
Insert Arrangement			
No. of Contacts and Contact Size	29 #16	37 #16	128 #22D
Service Rating	I	II	M

Contact Legend

#22D	•	#16	⊕
#20	⊖	#12	◒



	J61
Insert Arrangement	
No. of Contacts and Contact Size	61 #20
Service Rating	I

	Suggested Operating Voltage		Test Voltage AC RMS 60Hz							
	(Sea Level)		Sea Level		50,000 Ft.		70,000 Ft.		100,000 Ft	
Service Rating	AC (RMS)	DC	unmated	mated	unmated	mated	unmated	mated	unmated	mated
M	400	550	1300	1300	550	800	350	800	200	800
N	300	450	1000	1000	400	600	260	600	200	600
I	600	850	1800	1800	600	1000	400	1000	200	1000
II	900	1250	2300	2300	800	1000	500	1000	200	1000

Note: The establishment of electrical safety factors is left entirely to the designer, as he is in the position to know exactly what peak voltages, switching currents, transients, etc. can be expected in a particular circuit

38999 Series III and IV Shell Size Code Reference					
Shell size	Code letter	Shell size	Code letter	Shell size	Code letter
9	A	15	D	21	G
11	B	17	E	23	H
13	C	19	F	25	J

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