MIL-DTL-38999
SERIES III

MILITARY PREFIX	D38999/	20	W	B	16	P	W
CORSAIR PREFIX	CJ14	20	W	B	16	P	W

CONNECTOR CONFIGURATION
20 (20) RECEPTACLE, WALL MOUNT
24 (24) RECEPTACLE, JAM NUT MOUNT
26 (26) PLUG, RFI, STANDARD

CLASS
C ENVIRONMENTAL RESISTING-NON CONDUCTIVE FINISH ANODIC -65°C- +200°C
F ENVIRONMENTAL RESISTING-CONDUCTIVE FINISH ELECTROLESS NICKEL -65°C- +200°C
K ENVIRONMENTAL RESISTING-CORROSION RESISTANT STEEL WITH FIREWALL BARRIER, PASSIVATED -65°C- +200°C
F ENVIRONMENTAL RESISTING-CORROSION RESISTANT STEEL WITH ELECTRODEPOSITED NICKEL -65°C- +200°C
S ENVIRONMENTAL RESISTING-CORROSION RESISTANT STEEL WITH ELECTRODEPOSITED NICKEL & FIREWALL BARRIER -65°C- +200°C
T ENVIRONMENTAL RESISTING-NICKEL FLOUROCARBON POLYMER, CONDUCTIVE FINISH -65°C- +175°C
W ENVIRONMENTAL RESISTING-CORROSION RESISTANT FINISH OLIVE DRAB CADMIUM PLATE OVER UNDERPLATE -65°C- +175°C
Z ENVIRONMENTAL RESISTING-ZINC NICKEL, CONDUCTIVE FINISH -65°C- +175°C

SHELL SIZE
A(9), B(11), C(13), D(15), E(17), F(19), G(21), H(23), J(25)

INSERT ARRANGEMENT
REFER TO LAYOUT PATTERNS PER MIL-DTL-1560

CONTACT TYPE
P PIN
S SOCKET
A CONNECTOR LESS PINS
B CONNECTOR LESS SOCKETS

POLARIZATION
N NORMAL (NOT INCLUDED IN PART NUMBER)
W, X, Y, OR Z ALTERNATE POSITIONS, REFER TO POLARIZATION CHART

GENERAL SPECIFICATIONS
REAR RELEASE CONTACT RETENTION SYSTEM. 9 SHELL SIZES (A TO J) IN OVER 150 INSERT ARRANGEMENTS UTILIZING CONTACT SIZES 22D, 20, 16, 12, 8, 4, AND 0 GAGE CRIMP CONTACTS PER AS39029. USES TRIPLE START THREAD COUPLING MECHANISM. ACCEPTS AS85049 BACKSHELLS

USES HIGH RELIABILITY METAL CONTACT RETENTION CLIPS

OPERATING TEMPERATURE RANGE:
ALUMINIUM: -65° C TO 175 °C
STAINLESS STEEL: -65° C TO 200° C

ENVIRONMENTAL FLOUROSILICONE ELASTOMERS

REFER TO ADDITIONAL CONTACT AND TOOLING INFORMATION

TOLERANCE	TITLE	SHEET	DWG. NO.	REV
XX ± .010 .XXX ± .005 ANGLES ± 1°	MIL-DTL-38999, REAR RELEASE, SERIES III, CORSAIR PART NUMBER CROSS REFERENCE	1 OF 1	M38999	-

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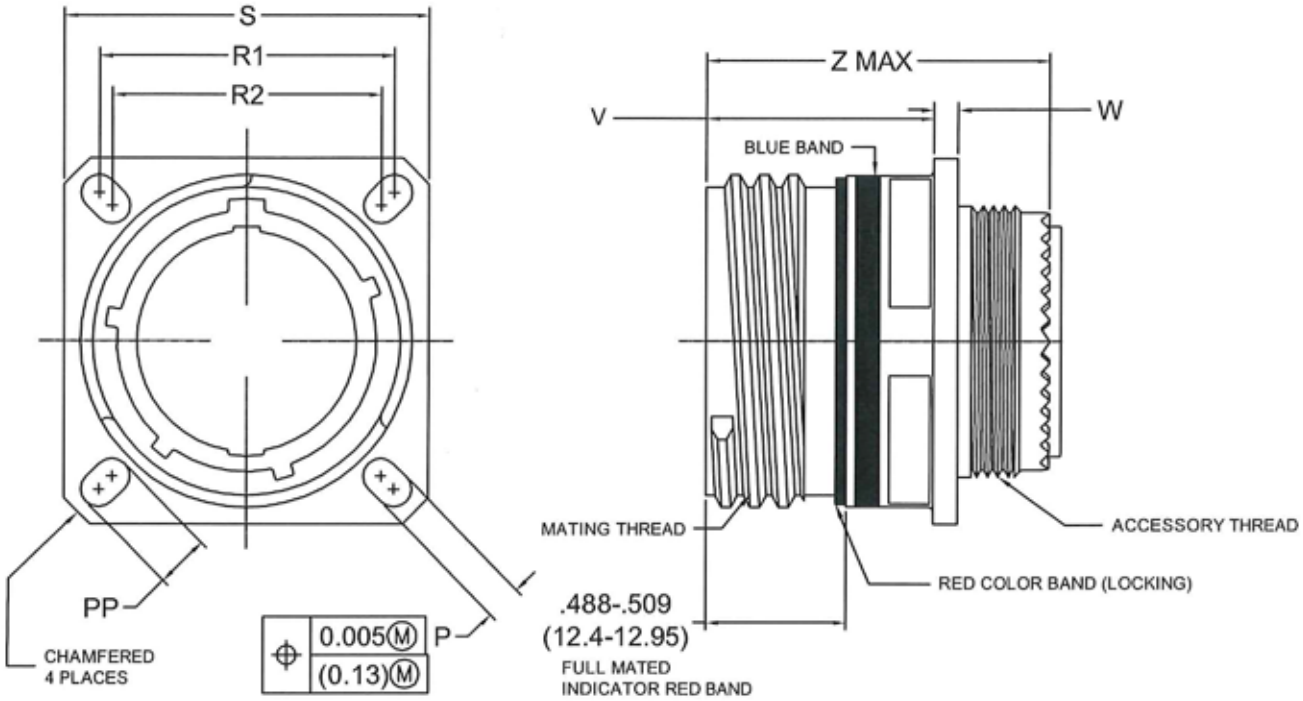
D38999/20

MIL-DTL-38999 SERIES III

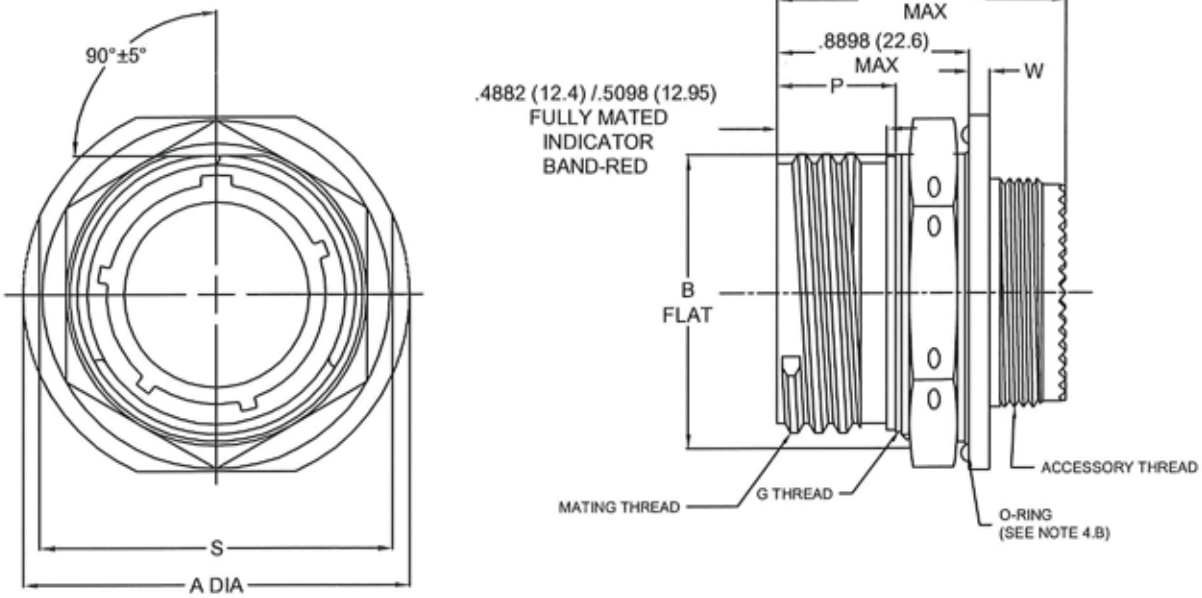


SHELL SIZE	SHELL SIZE CODE	M Max front or rear panel thickness (See note 4.C)	P ±0.20	PP ±0.20	R1 (See note 4.A)	R2 (See note 4.B)	S ±0.3	V +0.00 -1.25	W	Z MAX
9	A	.228 (5.80)	0.128 (3.25)	.216 (5.49)	.719 (18.26)	.594 (15.09)	.937 (23.8)	.820 (20.83)	.098/.083 (2.5/2.1)	1.240 (31.5)
11	B		0.128 (3.25)	.194 (4.93)	20.62 (.812)	.719 (18.26)	1.031 (26.2)	.820 (20.83)	.098/.083 (2.5/2.1)	1.240 (31.5)
13	C		0.128 (3.25)	.194 (4.93)	23.01 (.906)	.812 (20.62)	1.126 (28.6)	.820 (20.83)	.098/.083 (2.5/2.1)	1.240 (31.5)
15	D		0.128 (3.25)	.173 (4.39)	24.61 (.969)	.906 (23.01)	1.220 (31.0)	.820 (20.83)	.098/.083 (2.5/2.1)	1.240 (31.5)
17	E		0.128 (3.25)	.194 (4.93)	1.062 (26.97)	.969 (24.61)	1.311 (33.3)	.820 (20.83)	.098/.083 (2.5/2.1)	1.240 (31.5)
19	F		0.128 (3.25)	.194 (4.93)	1.156 (29.36)	26.97 (1.062)	1.437 (36.5)	.820 (20.83)	.098/.083 (2.5/2.1)	1.240 (31.5)
21	G	.197 (5.00)	0.128 (3.25)	.194 (4.93)	1.250 (31.75)	1.156 (29.36)	1.563 (39.7)	.790 (20.07)	0.126/.083 (3.2/2.1)	1.240 (31.5)
23	H		.154 (3.91)	.242 (6.15)	1.375 (34.93)	1.250 (31.75)	1.689 (42.9)	.790 (20.07)	0.126/.083 (3.2/2.1)	1.240 (31.5)
25	J		.154 (3.91)	.242 (6.15)	1.500 (38.10)	1.375 (34.93)	1.811 (46.0)	.790 (20.07)	0.126/.083 (3.2/2.1)	1.240 (31.5)

TOLERANCE	TITLE	SHEET	DWG. NO.	REV
XX ± .010 .XXX ± .005 ANGLES ± 1°	CONNECTORS, ELECTRICAL, CIRCULAR, RECEPTACLE, THREADED, WALL MOUNTING FLANGE, REMOVABLE CRIMP CONTACTS, SERIES III, MIL-DLT-38999/20	1 OF 1	D38999/20	-

D38999/24

MIL-DTL-38999 SERIES III

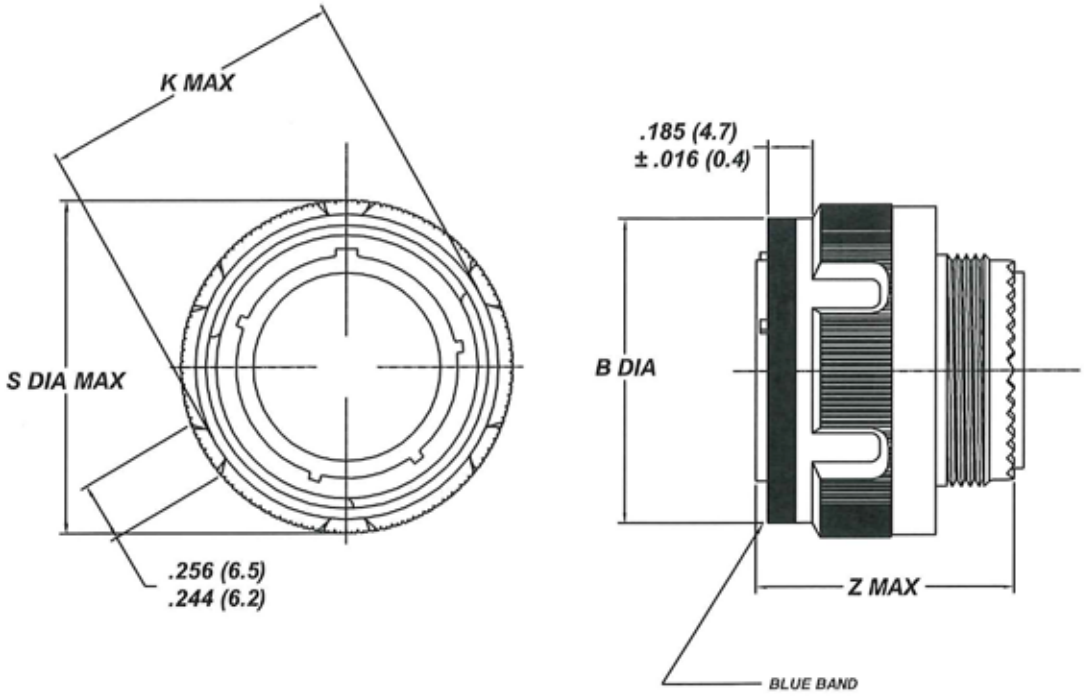


SHELL SIZE	SHELL SIZE CODE	A DIA ±0.012	B FLAT +0.10 -0.15	G THREAD	P +0.6 -0.0	S ±0.04	W +0.035 -0.004	Recommended O-ring SAE-AS3582 (see note 4.D)
9	A	1.189 (30.2)	.651 (16.53)	M17x1-6g 0.100R	.555 (14.1)	1.063 (27.0)	.087 (2.2)	-019
11	B	1.374 (34.9)	.751 (19.07)	M20x1-6g 0.100R	.555 (14.1)	1.252 (31.8)	.087 (2.2)	-022
13	C	1.500 (38.1)	.938 (23.82)	M25x1-6g 0.100R	.555 (14.1)	1.374 (34.9)	.087 (2.2)	-024
15	D	1.626 (41.3)	1.062 (26.97)	M28x1-6g 0.100R	.555 (14.1)	1.500 (38.1)	.087 (2.2)	-026
17	E	1.752 (44.5)	1.187 (30.15)	M32x1-6g 0.100R (see note 4.B)	.555 (14.1)	1.626 (41.3)	.087 (2.2)	-028
19	F	1.937 (49.2)	1.312 (33.32)	M35x1-6g 0.100R	.555 (14.1)	1.811 (46.0)	.118 (3.0)	-128
21	G	2.063 (52.4)	1.437 (36.50)	M38x1-6g 0.100R	.555 (14.1)	1.937 (49.2)	.118 (3.0)	-130
23	H	2.189 (55.6)	1.562 (39.67)	M41x1-6g 0.100R	.555 (14.1)	2.063 (52.4)	.118 (3.0)	-132
25	J	2.311 (58.7)	1.687 (42.85)	M44x1-6g 0.100R	.555 (14.1)	2.189 (55.6)	.118 (3.0)	-134

TOLERANCE	TITLE	SHEET	DWG. NO.	REV
XX ± .010 .XXX ± .005 ANGLES ± 1°	CONNECTORS, ELECTRICAL, CIRCULAR, RECEPTACLE, THREADED, REMOVABLE CRIMP CONTACTS, SERIES III, MIL-DLT-38999/24	1 OF 1	D38999/24	-

D38999/26

MIL-DTL-38999 SERIES III



SHELL SIZE	SHELL SIZE CODE	B DIA +.008 (.2) -0.0	K MAX	S DIA MAX	Z MAX
9	A	.724 (18.4)	.748 (19.0)	.858 (21.8)	1.220 (31.0)
11	B	.830 (21.1)	.862 (21.9)	.984 (25.0)	1.220 (31.0)
13	C	25.4 (.999)	1.03 (26.1)	1.157 (29.4)	1.220 (31.0)
15	D	1.129 (28.7)	1.15 (29.3)	1.27 (32.5)	1.220 (31.0)
17	E	1.26 (32.2)	1.29 (32.8)	1.40 (35.7)	1.220 (31.0)
19	F	1.49 (34.9)	1.39 (35.5)	1.51 (38.5)	1.220 (31.0)
21	G	1.49 (38.1)	1.52 (38.7)	1.64 (41.7)	1.220 (31.0)
23	H	1.61 (41.1)	1.64 (41.7)	1.76 (44.9)	1.220 (31.0)
25	J	1.74 (44.3)	1.76 (44.9)	1.88 (48.0)	1.220 (31.0)

TOLERANCE	TITLE	SHEET	DWG. NO.	REV
XX ± .010 .XXX ± .005 ANGLES ± 1°	CONNECTORS, ELECTRICAL, PLUG, CIRCULAR, THREADED, STRAIGHT, REMOVABLE CRIMP CONTACTS, SERIES III, MIL-DLT-38999/26	1 OF 1	D38999/26	-

MIL-DTL-38999

SERIES I, II & III

Shell Size	Insert Arrangement					Contact Size								Notes
	Series I	Series II	Series III	Service Rating	Total # of Contacts	22D	22M	22	20	16	12	10	8	
8 & 9	9-6	8-6	A-6	M	6		6							
	9-7	N/A	A-7	M	7	7								
	9-35	8-35	A-35	M	6	6								
	9-44	8-44	A-44	M	4			4						
	9-98	8-98	A-98	I	3				3					
10 & 11	11-2	N/A	B-2	I	2					2				
	11-4	N/A	B-4	I	4				4					
	11-5	10-5	B-5	I	5				5					
	11-13	10-13	B-13	M	13		13							
	11-35	10-35	B-35	M	13	13								
	11-98	10-98	B-98	I	6				6					
	11-99	10-99	B-99	I	7				7					
12 & 13	N/A	12-3	N/A	II	3					3				
	13-4	12-4	C-4	I	4					4				
	13-8	12-8	C-8	I	8				8					
	13-22	12-22	C-22	M	22		22							
	13-35	12-35	C-35	M	22	22								
	13-98	12-98	C-98	I	10				10					
14 & 15	15-5	14-5	D-5	II	5					5				
	15-15	14-15	D-15	I	15				14	1				
	15-18	14-18	D18	I	18				18					
	15-19	N/A	D-19	I	19				19					
	15-35	14-35	D-35	M	37	37								
	15-37	14-37	D-37	M	37		37							
	15-97	14-97	D-97	I	12				8	4				
16 & 17	17-2	N/A	E-2	M	39	38							1	①②
	17-6	16-6	E-6	I	6						6			
	N/A	16-7	N/A	II							6			
	17-8	16-8	E-8	II	8					8				
	17-11	N/A	E-11	N	11				8		3			①
	17-26	16-26	E-26	I	26				26					
	17-35	16-35	E-35	M	55	55								
	N/A	16-42	N/A	M	42			42						
	17-55	16-55	E-55	M	55		55							
	17-99	16-99	E-99	I	23				21	2				

TOLERANCE	TITLE	SHEET	DWG. NO.	REV
XX ± .010 .XXX ± .005 ANGLES ± 1°	INSERT ARRANGEMENT, SERIES I, II & III	1 OF 3	MIL-DTL-38999	-

MIL-DTL-38999

SERIES I, II & III

Shell Size	Insert Arrangement					Contact Size								Notes
	Series I	Series II	Series III	Service Rating	Total # of Contacts	22D	22M	22	20	16	12	10	8	
18 & 19	19-11	18-11	F-11	II	11					11				
	19-18	N/A	F-18	M	18	14							4	①②
	19-28	18-28	F-28	I	28				26	2				
	19-30	18-30	F-30	I	30				29	1				
	19-32	18-32	F-32	I	32				32					
	19-35	18-35	F-35	M	66	66								
	19-45	18-45	F-45	M	67	67								
	N/A	18-53	N/A	M	53			53						
	19-66	18-66	F-66	M	66		66							
	19-67	18-67	F-67	M	67		67							
	N/A	18-96	N/A	I	9						9			
20 & 21	21-1	20-1	G-1	M	79		79							
	N/A	20-2	N/A	M	65			65						
	21-11	N/A	G-11	I	11						11			
	21-16	20-16	G-16	II	16					16				
	21-24	20-24	G-24	I	24				24					
	21-25	20-25	G-25	I	25				25					
	21-27	20-27	G-27	I	27				27					
	21-35	20-35	G-35	M	79	79								
	21-39	20-39	G-39	I	39				37	2				
	21-41	20-41	G-41	I	41				41					
	21-75	N/A	G-75	TWINAX	4								4	
22 & 23	23-1	22-1	H-1	M	100		100							
	23-2	22-2	H-2	M	85			85						
	23-21	22-21	H-21	II	21					21				
	23-32	22-32	H-32	I	32				32					
	23-34	22-34	H-34	I	34				34					
	23-35	22-35	H-35	M	100	100								
	23-36	22-36	H-36	I	36				36					
	23-53	22-53	H-53	I	53				53					
	23-55	22-55	H-55	I	55				55					
	23-97	22-97	H-97	I	16					16				
	23-99	22-99	H-99	II	11					11				

MIL-DTL-38999

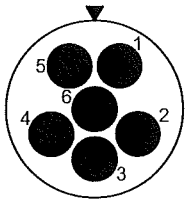
SERIES I, II & III

Shell Size	Insert Arrangement					Contact Size								Notes
	Series I	Series II	Series III	Service Rating	Total # of Contacts	22D	22M	22	20	16	12	10	8	
24 & 25	25-1	24-1	J-1	M	128		128							
	25-2	24-2	J-2	M	100			100						
	25-4	24-4	J-4	I	56				48	8				
	25-7	N/A	J-7	M	99	97							2	①②
	25-8	N/A	J-8	TWINAX	8								8	②
	25-11	N/A	J-11	N	11				2			9		
	25-19	24-19	J-19	I	19						19			
	25-20	N/A	J-20	N	30				10	13		4	3	①②
	25-24	24-24	J-24	I	24					12	12			
	25-29	24-29	J-29	I	29					29				
	25-35	24-35	J-35	M	128	128								
	25-37	N/A	J-37	II	37					37				
	25-43	N/A	J-43	I	43				23	20				
	25-46	N/A	J-46	I	46				40	4			2	①②
	25-61	24-61	J-61	I	61				61					
	25-90	N/A	J-90	I	46				40	4			2	①②

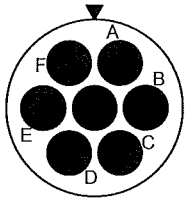
①	Split Service Rating
②	The use of Size 8 SAE-AS39029/90 mand 91 Twinax contacts may derate the Connector with this Insert Arrangement and will require efforts to reduce the splaying of the Contacts. Heat shrink sleeves used with the Size 8 Twinax contacts are rated to 175° C (347° F) maximum.

MIL-DTL-38999

SERIES I, II & III



9-6 / 8-6
A6,
6 #22M, M



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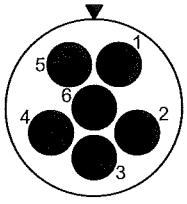
A7,
7 #22D, M



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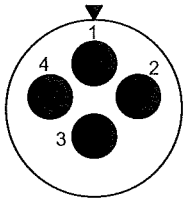
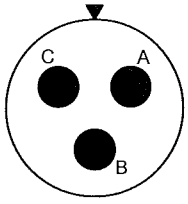
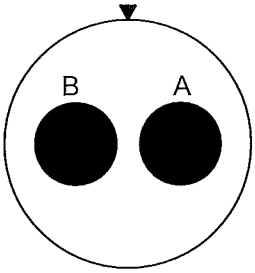
A35,
6 #22D, M



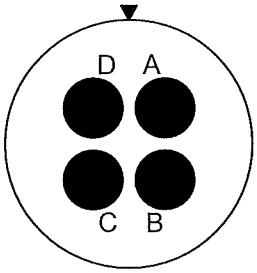
9-44 / 8-44
A44,
4 #22, M



9-98 / 8-98
A98,
3 #20, I



11-2
B2,
2 #16, I



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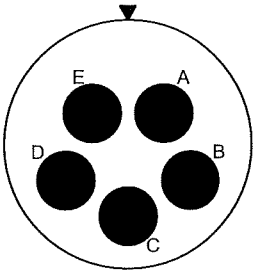
B4,
4 #20, I



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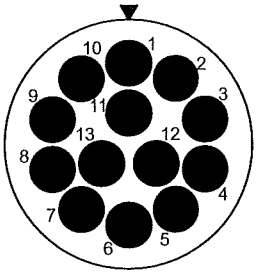
5 #20, I



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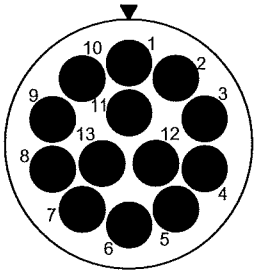
B13,
13 #22M, M



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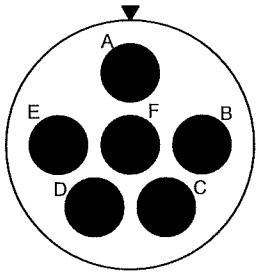
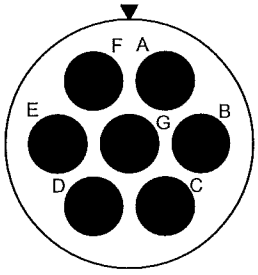
B35,
13 #22D, M



11-98/10-98
B98,
6 #20, I



11-99/10-99
B99,
7 #20, I

CONTACT SIZE LEGEND:

TOLERANCE	TITLE	SHEET	DWG. NO.	REV
XX ± .010 .XXX ± .005 ANGLES ± 1°	MIL-DTL-38999, INSERT ARRANGEMENTS SERIES I, II & III	1 OF 9	MIL-DTL-38999	-

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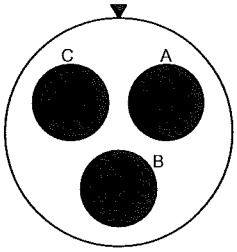
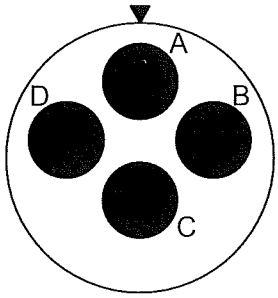
MIL-DTL-38999

SERIES I, II & III

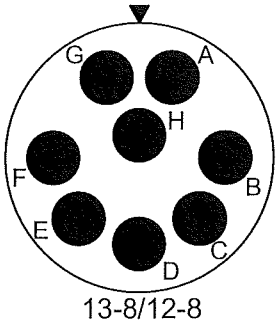


12-3

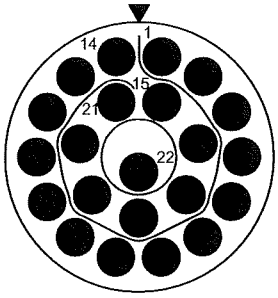
3 #16, II



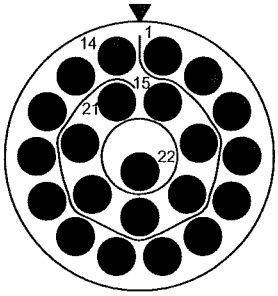
13-4/12-4
C4,
4 #16, I



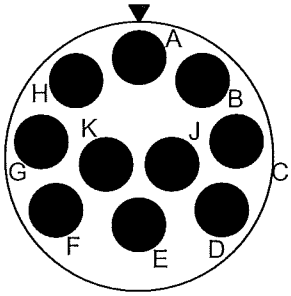
13-8/12-8
C8,
4 #20, I



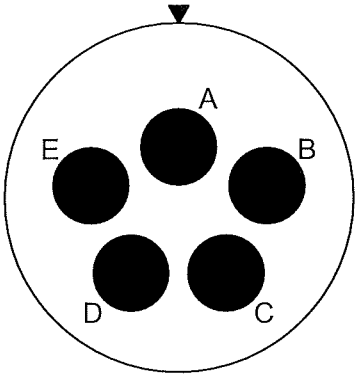
13-22/12-22
C22,
22 #22M, M



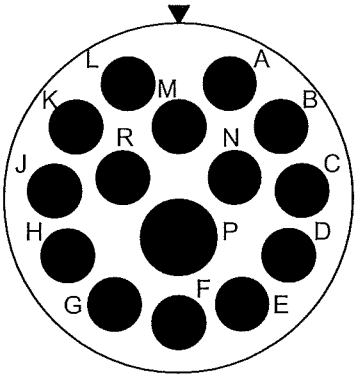
13-35/1235
C35,
22 #22D, M



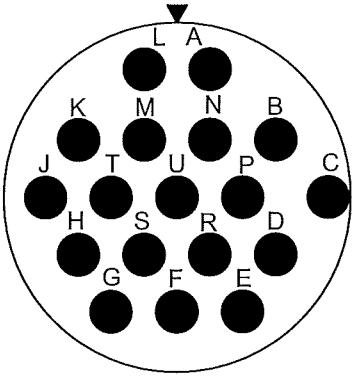
13-98/12-98
C98,
10 #20, I



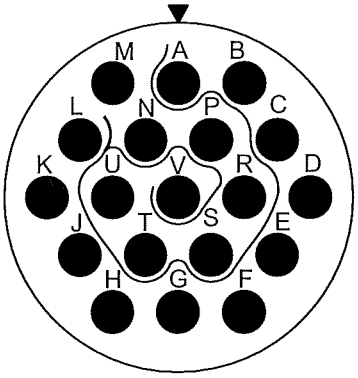
15-5/14-5
D5,
5 #16, II



15-15/14-15
D15,
1 #16, 14 #20, I



15-18/14-18
D18,
18 #20, I



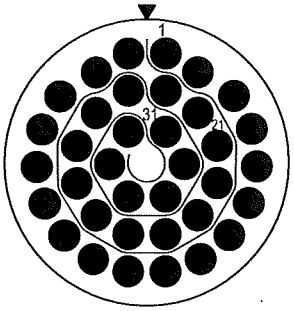
15-19
D19,
19 #20, I

CONTACT SIZE LEGEND: SIZE 22D SIZE 20 SIZE 16 SIZE 12 SIZE 8

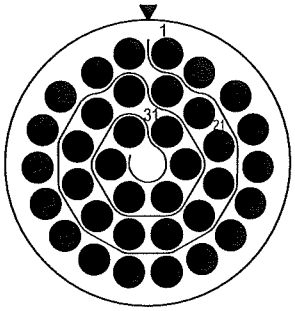
TOLERANCE	TITLE	SHEET	DWG. NO.	REV
XX ± .010 .XXX ± .005 ANGLES ± 1°	MIL-DTL-38999, INSERT ARRANGEMENTS SERIES I, II & III	2 OF 9	MIL-DTL-38999	-

MIL-DTL-38999

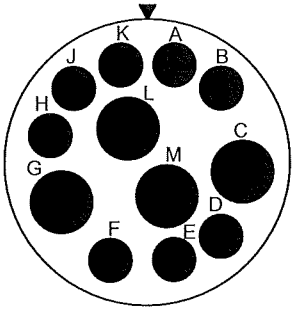
SERIES I, II & III



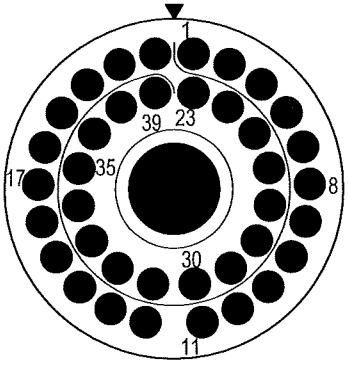
15-35/14-35
D35,
37 #22D, M



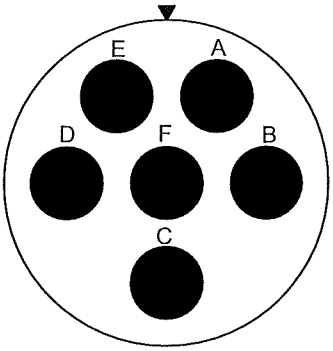
15-37/14-37
D37,
37 #22M, M



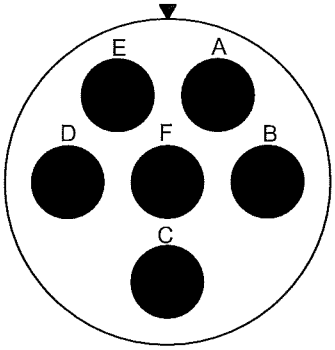
15-97/14-97
D97,
4 #16, 8 #20, I



17-2
E2,
38 #22D, I 1 #8 TWINAX

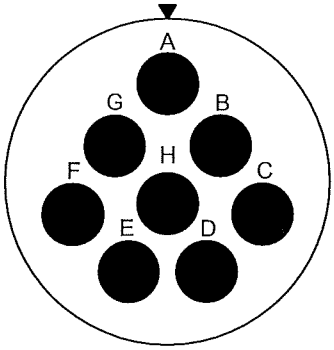


17-6/16-6
E6,
6 #12, I

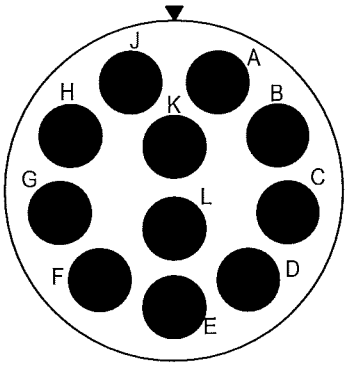


16-7

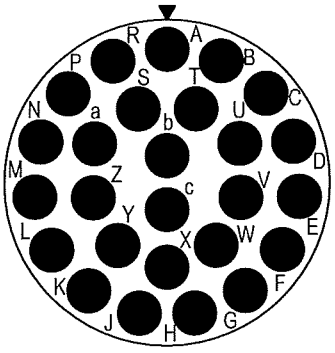
6 #12, II



17-8/16-8
E8,
8 #16, II



17-11
E11,
1 #12 COAX, 2 #12
TWINAX, 8 #20 N



17-26/16-26
E26,
26 #20, I

CONTACT SIZE LEGEND: SIZE 22D SIZE 20 SIZE 16 SIZE 12 SIZE 8

TOLERANCE	TITLE	SHEET	DWG. NO.	REV
XX ± .010 .XXX ± .005 ANGLES ± 1°	MIL-DTL-38999, INSERT ARRANGEMENTS SERIES I, II & III	3 OF 9	MIL-DTL-38999	-

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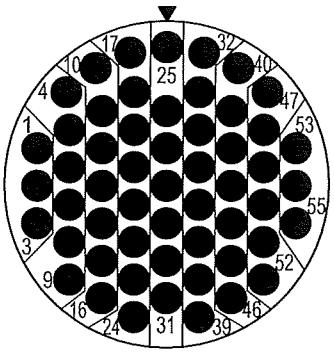
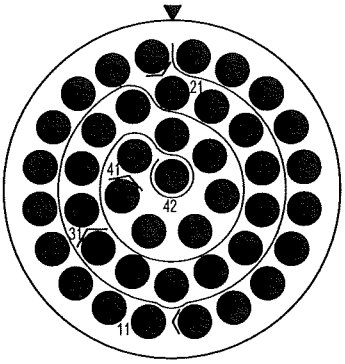
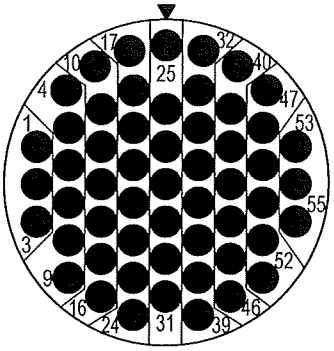
SERIES I, II & III



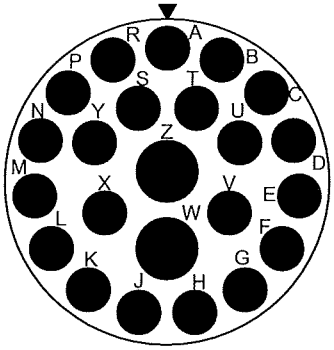
17-35/16-35
E35,
55 #22D, M



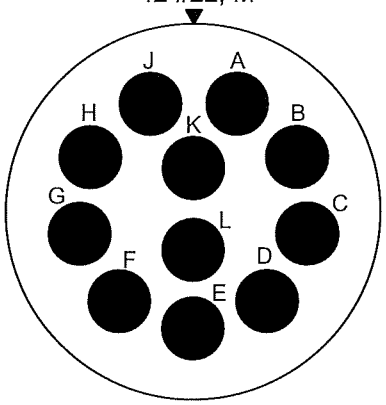
16-42
42 #22, M



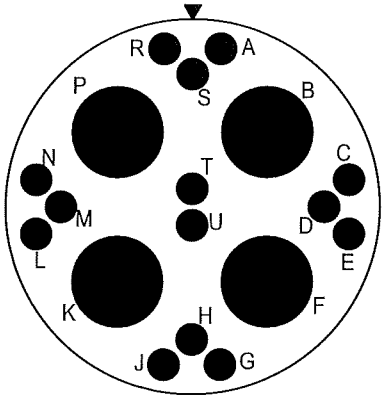
17-55/16-55
E55,
55 #22M, M



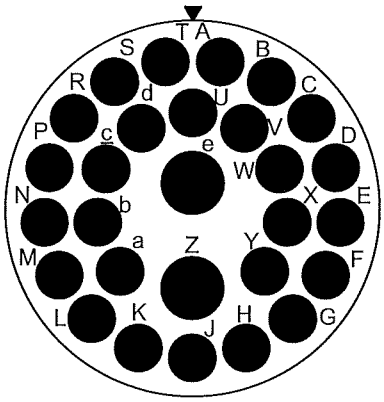
17-99/16-99
E99,
2 #16, 21 #20, I



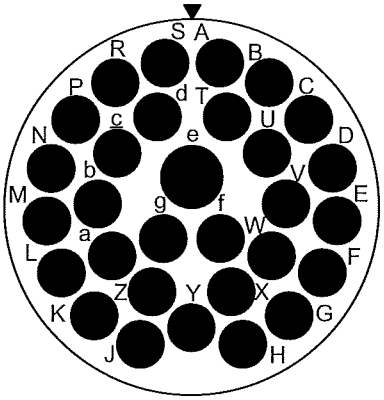
19-11/18-11
F11,
11 #16, II



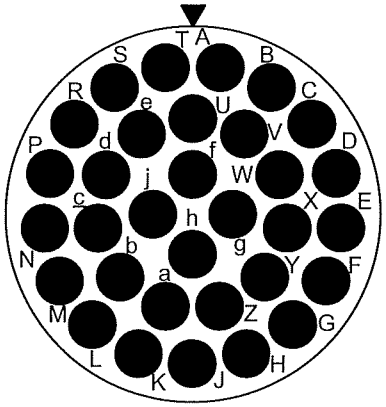
19-18
F18,
4 #8, TWINAX, 14, #22D M



19-28/18-28
F28,
2 #16, 26 #20, I



19-30/18-30
F30,
1 #16, 29 #20, I



19-32/18-32
F32,
32 #20, I

CONTACT SIZE LEGEND:

SIZE 22D SIZE 20 SIZE 16 SIZE 12 SIZE 8

TOLERANCE	TITLE	SHEET	DWG. NO.	REV
XX ± .010 .XXX ± .005 ANGLES ± 1°	MIL-DTL-38999, INSERT ARRANGEMENTS SERIES I, II & III	4 OF 9	MIL-DTL-38999	-

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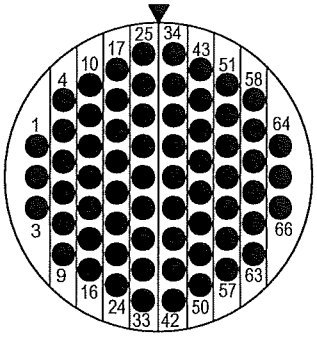
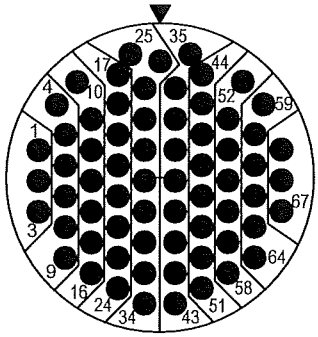
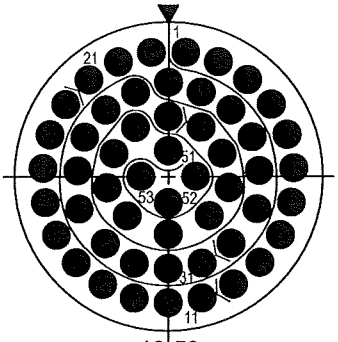
SERIES I, II & III



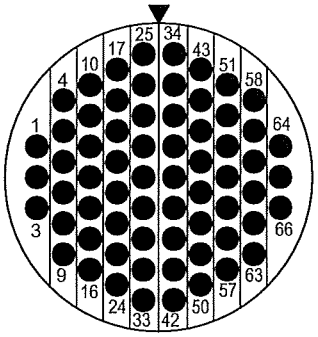
19-35/18-35
F35,
66 #22D, M



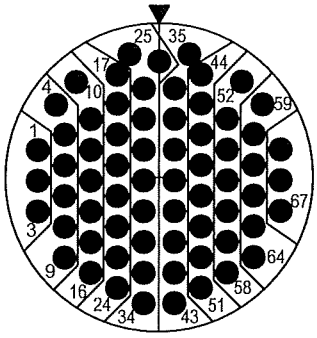
19-45/18-45
F45,
67 #22D, M



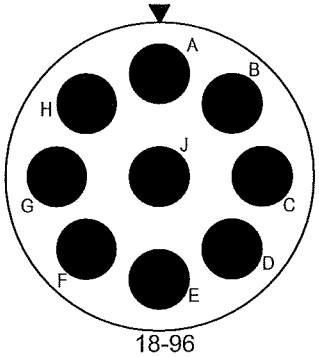
18-53
53 #22, M



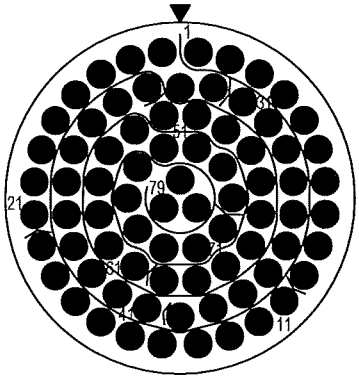
19-66/18-66
F66,
66 #22M, M



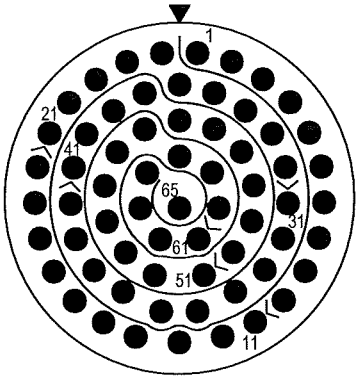
19-67/18-67
F67,
67 #22M, M



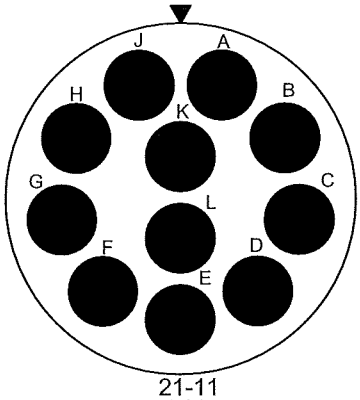
18-96
9 #12, I



21-1/20-1
G1
79 #22M, M



20-2
65 #22, M



21-11
G11,
11 #12, I

CONTACT SIZE LEGEND: SIZE 22D SIZE 20 SIZE 16 SIZE 12 SIZE 8

TOLERANCE	TITLE	SHEET	DWG. NO.	REV
XX ± .010 .XXX ± .005 ANGLES ± 1°	MIL-DTL-38999, INSERT ARRANGEMENTS SERIES I, II & III	5 OF 9	MIL-DTL-38999	-

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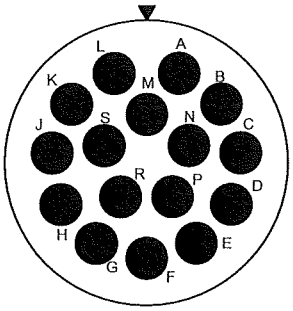
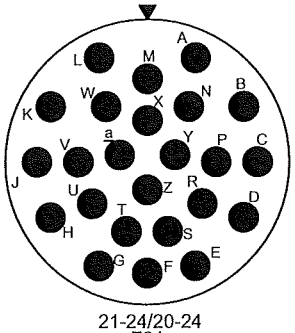
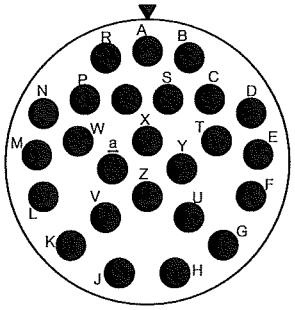
SERIES I, II & III



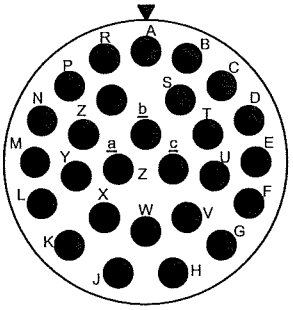
21-16/20-16
G16,
16 #12, II



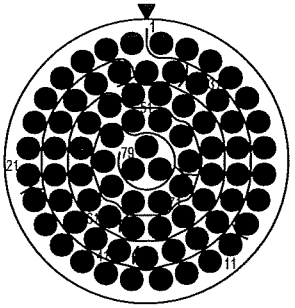
21-24/20-24
F24,
24 #20, I



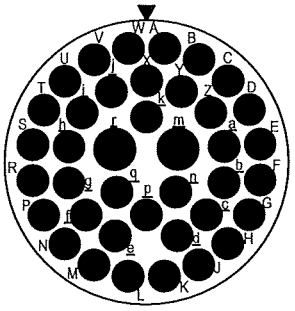
21-25/20-25
F25,
25 #20, I



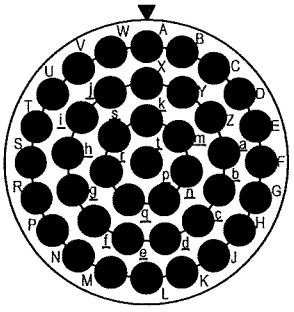
21-27/20-27
F27,
27 #20, I



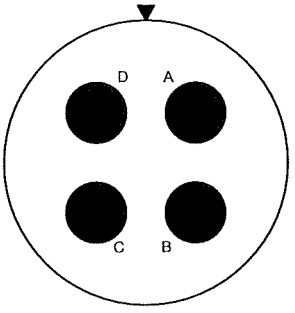
21-35/20-35
G35
79 #22D, M



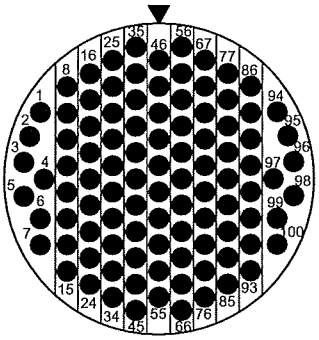
21-39/20-39
G39
2 #16, 37 #20, I



21-41/20-41
G41
41 #20, I



21-75
G75
4 #8 TWINAX



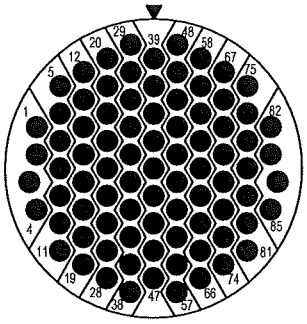
23-1/22-1
H1,
100 #22M, M

CONTACT SIZE LEGEND: SIZE 22D SIZE 20 SIZE 16 SIZE 12 SIZE 8

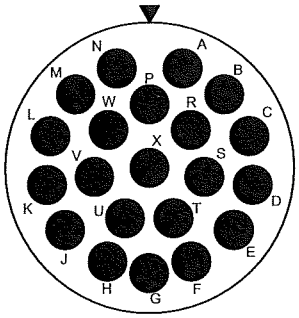
TOLERANCE	TITLE	SHEET	DWG. NO.	REV
XX ± .010 .XXX ± .005 ANGLES ± 1°	MIL-DTL-38999, INSERT ARRANGEMENTS SERIES I, II & III	6 OF 9	MIL-DTL-38999	-

MIL-DTL-38999

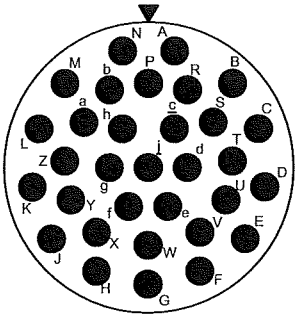
SERIES I, II & III



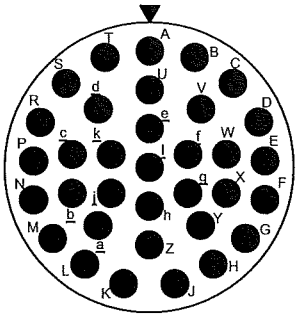
23-2/22-2
H2,
85 #22, M



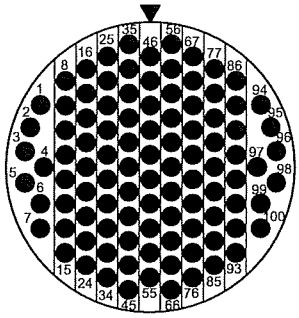
23-21/22-21
H21,
21 #16, II



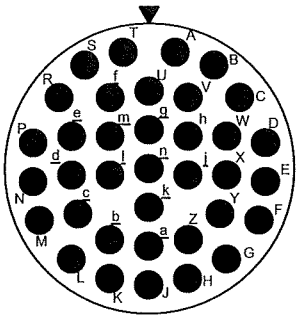
23-32/22-32
H32,
32 #20, I



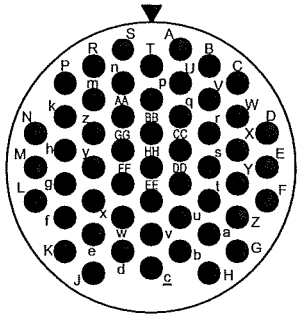
23-34/22-34
H34,
34 #20, I



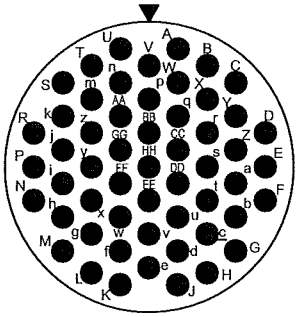
23-35/22-35
H35,
100 #22D, M



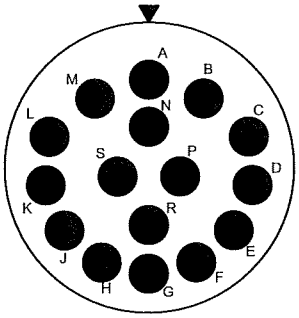
23-36/22-36
H36,
36 #20, I



23-53/22-53
H53,
53 #20, I



23-55/22-55
H55,
55 #20, I



23-97/22-97
H97,
16 #16, I

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TOLERANCE	TITLE	SHEET	DWG. NO.	REV
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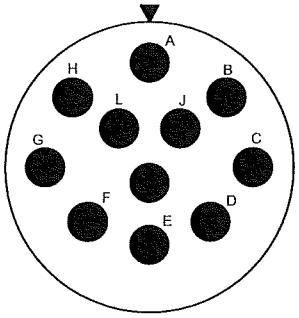
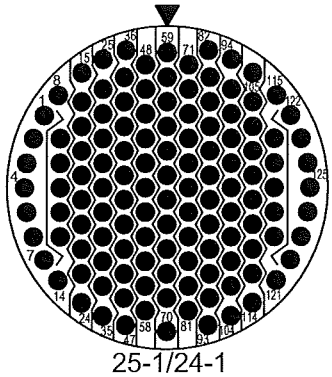
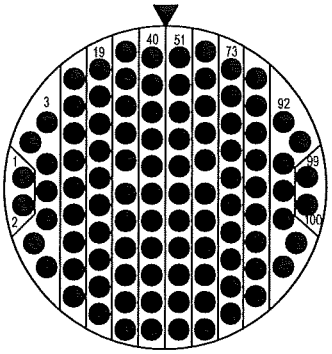


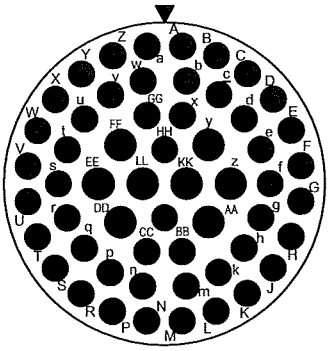
23-99/22-99
H99,
11 #16, II



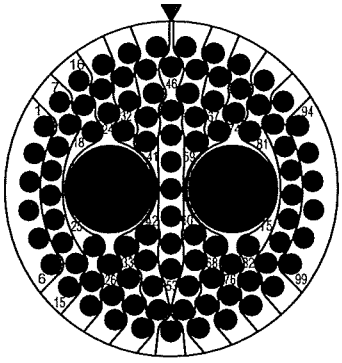
25-1/24-1
J1,
128, #22M, M



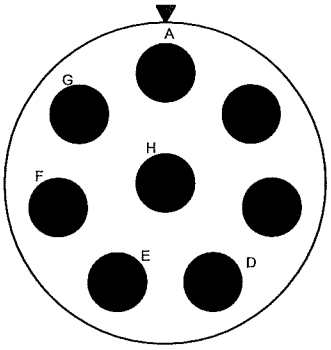
25-2/24-2
J2,
100, #22, M



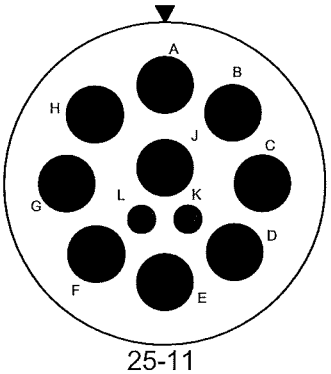
25-4/24-4
J4,
8 #16, 48 #20, I



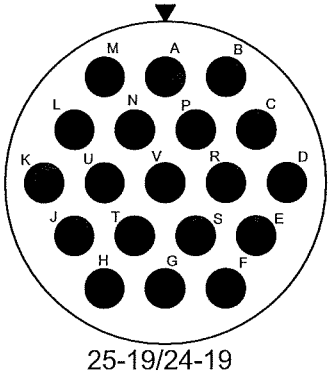
25-7
J7,
2 #8, 97 #22D, M



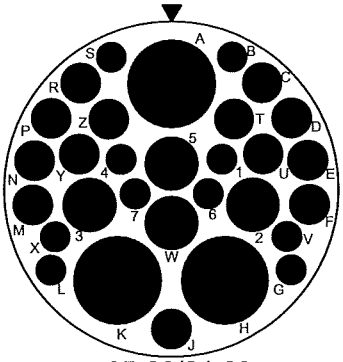
25-8
J8,
8 #12, I TWINAX



25-11
J11,
2 #20 9 #10, N



25-19/24-19
J19,
19 #12, I



25-20/24-20
J20,
3 #8 TWINAX, 4 #12 COAX, 13 #16, 10 #20, M

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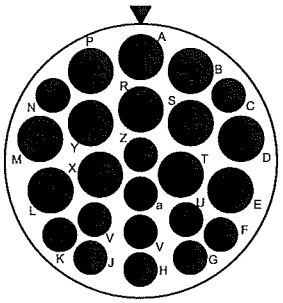
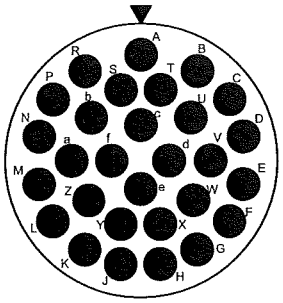
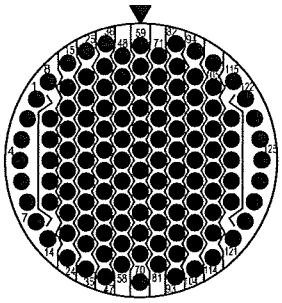


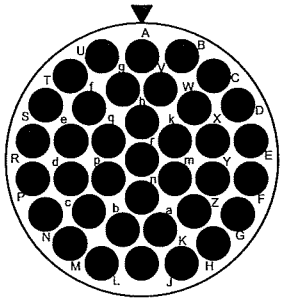
25-24/24-24
J24,
12 #12, 12 #16, I



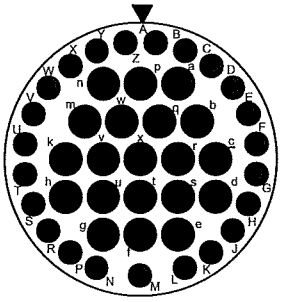
25-29/24-29
J29
29 #16, I



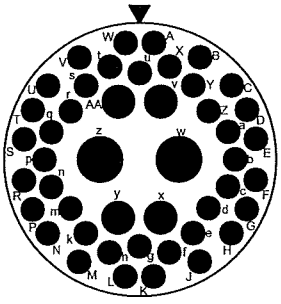
25-35/24-35
J35,
128, #22D, M



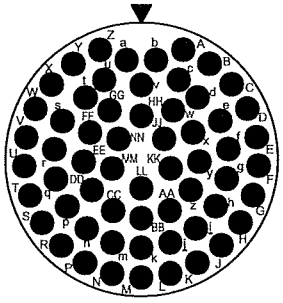
25-37
J37,
37, #16, I



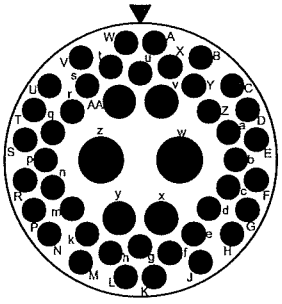
25-43
J43,
20 #16, 23 #20, I



25-46
J46,
2 #8, COAX, 4 #16, 40 #20, I



25-61/24-61
J61,
61 #20, I



25-90
J90,
2 #8, TWINAX, 4 #16, 40 #20, I

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