

MIL-DTL-38999 Series III Type Environmental Connectors**Signal, power, and RF contacts plus insert arrangements**

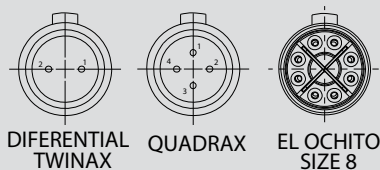
Crimp Contacts										
Size #22 - #12 Contacts										
Contact Size	#23		#22D		#20		#16		#12	#8
Wire Gauge	#22 - #28 AWG		#22 - #28 AWG		#20-#24 AWG		#16 - #20 AWG		#12 - #14 AWG	#8 AWG
Max Current	5 amps		5 amps		7.5 amps		13 amps		23 amps	46 amps
Pin	857-189		857-151-22		857-151-20		857-151-16		857-151-12	850-014
Socket	857-190		857-150-22		857-150-20		857-150-16		857-150-12	850-013
Size #8 Contacts										
Contact Size	#8 Coax 50Ω	#8 Coax 75Ω*	#12 Coax	#16 Coax	#8 Conc. Twinax	#8 Diff. Twinax	#8 Quadrax	#12 Pneumatic	#8 Optoelectronic	
Pin	Depends on Cable	Depends on Cable	Depends on Cable	852-008	853-003	853-014	854-001	830-003	050-301 Tx	
Socket	Depends on Cable	Depends on Cable	Depends on Cable	852-009	853-004	853-013	854-002	830-005	050-301 Rx	
Size #8 El Ochito Contacts										
Contact Size	#8 El Ochito White, Type I		#8 El Ochito White, Type II		#8 El Ochito Blue, Type I		#8 El Ochito Blue, Type II		#8 El Ochito Red, Type I	#8 El Ochito Red, Type II
Pin	858-003		858-005		858-028		858-069		858-030	858-063
Socket	858-004		858-006		858-029		858-070		858-031	858-064

*Contact factory for ordering details

Size 8 High-Speed Insert Arrangements*		
Shell Size	#8	Shell Size - Insert Arr.
9	1	9G5
11	1	11-1
17	2	17-75
19	4	19-4
21	4	21-75
23	5	23-5
23	6	23-6
25	8	25-8

*Note that any size #8 High-Speed contact can be substituted for size #8 power contact. See page C-4 for typical High-Speed contact applications.

Combo High-Speed Insert Arrangements*							
Shell Size	Number of Contacts						Shell Size - Insert Arr.
	#23	#22D	#20	#16	#12	#8	
13	14					1	13-14
17		38		2		1	17-2
17					2	2	17-22
17		8				2	17-60
19		10	1	4		2	19-17
19		14				4	19-18
25		97				2	25-7
25		36				6	25-17
25			10	13	4	3	25-20
25			16		5	4	25-26
25		22	3	11	2	3	25-41
25			40	4		2	25-46

FIGURE 2: CONTACT INNER PIN ORIENTATION

MIL-DTL-38999 Series III Type Environmental Connectors

Signal, power, and RF contact layouts

HIGH-SPEED CONNECTORS

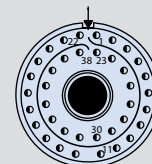
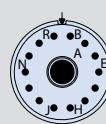
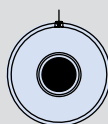
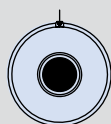
Contact Legend

#23 • #22D ◦

#16 ⊕ #20 ⊖

#12 ◐ #10 ◑

#8 ●



Insert Arrangement

9G5*

11-1

13-14

17-2

No. of Contacts

1x #8

1x #8

1x #8

14x #23

1x #8

38x #22D

*Only available with ground plane option

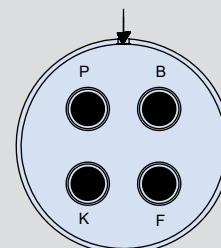
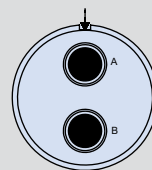
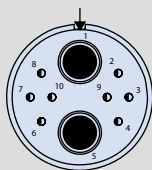
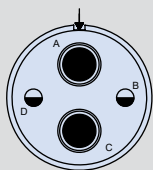
Contact Legend

#23 • #22D ◦

#16 ⊕ #20 ⊖

#12 ◐ #10 ◑

#8 ●



Insert Arrangement

17-22

17-60

17-75

19-4

No. of Contacts

2x #8

2x #12

2x #8

8x #22D

2x #8

4x #8

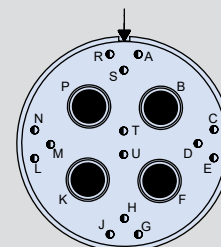
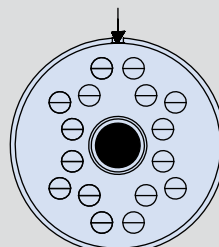
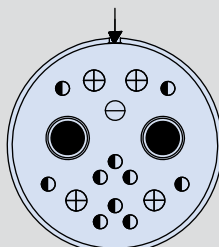
Contact Legend

#23 • #22D ◦

#16 ⊕ #20 ⊖

#12 ◐ #10 ◑

#8 ●



Insert Arrangement

19-17

19A-17

19-18

No. of Contacts

2x #8

4x #16

1x #20

10x #22D

1x #8

16x #20

4x #8

14x #22D

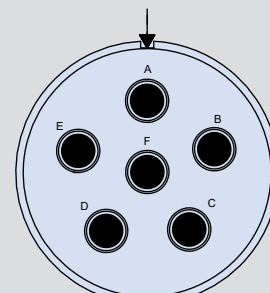
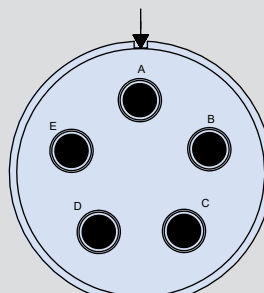
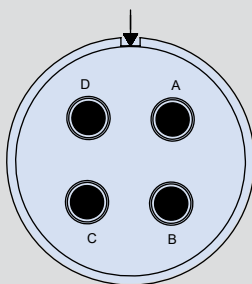
Contact Legend

#23 • #22D ◦

#16 ⊕ #20 ⊖

#12 ◐ #10 ◑

#8 ●



Insert Arrangement

21-75

23-5

23-6

No. of Contacts and Size

4x #8

5x #8

6x #8

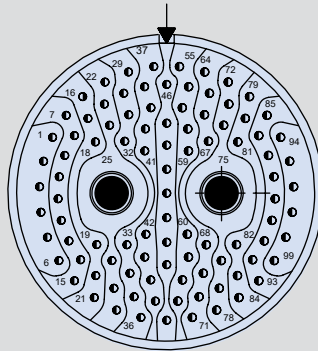
MIL-DTL-38999 Series III Type Environmental Connectors

Signal, power, and RF contact layouts

HIGH-SPEED CONNECTORS

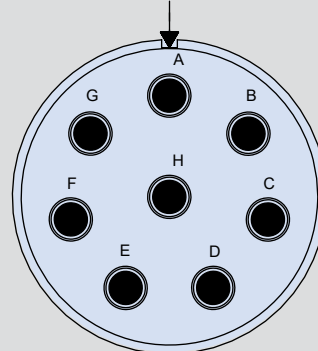
Contact Legend

#23 • #22D ◦
 #16 ⊕ #20 ⊖
 #12 ◐ #10 ◑
 #8 ●

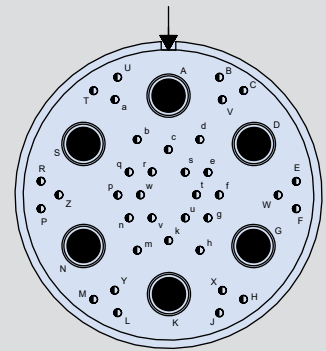


Insert Arrangement
No. of Contacts and Size

25-7	
2x #8	97x #22D



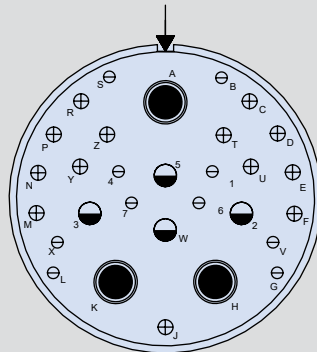
25-8	
8x #8	



25-17	
6x #8	36x #22D

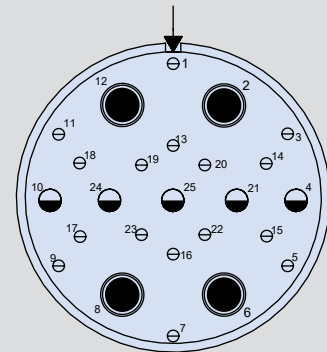
Contact Legend

#23 • #22D ◦
 #16 ⊕ #20 ⊖
 #12 ◐ #10 ◑
 #8 ●



Insert Arrangement
No. of Contacts and Size

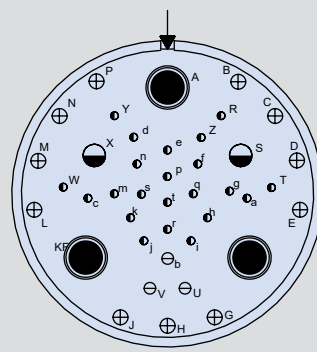
25-20			
3x #8	4x #12	13x #16	10x #20



25-26		
4x #8	5x #12	16x #20

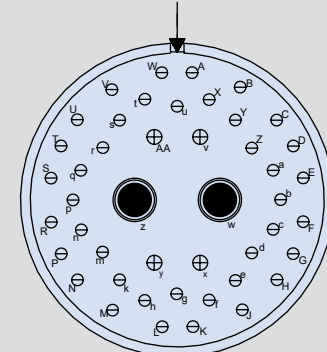
Contact Legend

#23 • #22D ◦
 #16 ⊕ #20 ⊖
 #12 ◐ #10 ◑
 #8 ●



Insert Arrangement
No. of Contacts and Size

25-41				
3x #8	2x #12	11x #16	3x #20	22x #22D



25-46 and 25-90	
2x #8	40x #20