

Tri-Start

insert availability and identification

AMPHENOL TRI-START INSERT ARRANGEMENTS

Shell Size/Arrg.	Military Shell	Crimp	Hermetics*	Service Rating	Total Contacts	Contact Size								
						22D	20	16	12	12 (Coax)	10 (Power)	8 (Coax)	8†† (Twinax)	
9-5★	A			Grounded	1									1
9-35	A	X	P	M	6	6								
9-94■	A	◆		M	2		2							
9-98	A	X	P	I	3		3							
11-2★	B	◆		I	2			2						
11-5	B	◆	P	I	5		5							
11-35	B	X	P	M	13	13								
11-54	B	X		II	4	4								
11-98	B	X	P	I	6		6							
11-99	B	X		I	7		7							
13-4★	C	X	P	I	4			4						
13-8	C	X	P	I	8		8							
13-13	C			I, Fiber Optic	4			2	2					
13-35	C	X	P	M	22	22								
13-98	C	X	P	I	10		10							
15-4■	D	◆		I	4				4					
15-5★	D	X	P	II	5			5						
15-15	D	X	P	I	15		14	1						
15-18	D	X	P	I	18		18							
15-19	D	◆	P	I	19		19							
15-35	D	X	P	M	37	37								
15-97	D	X	P	I	12		8	4						
17-2	E	X		M	39	38								1
17-6	E	X	P	I	6				6					
17-8★	E	X	P	II	8			8						
17-22★	E	◆		Coax	4					2		2		
17-26	E	X	P	I	26		26							
17-35	E	X	P	M	55	55								
17-99	E	X		I	23		21	2						
19-11★	F	X	P	II	11			11						
19-18	F	X		M	18	14								4
19-28	F	X		I	28		26	2						
19-31	F	◆		M	15	12			1			2		
19-32	F	X	P	I	32		32							
19-35	F	X	P	M	66	66								
21-11★	G	X		I	11				11					
21-16★	G	X	P	II	16			16						
21-29	G	X		I	27		19	4	4					
21-35	G	X	P	M	79	79								
21-39	G	X	P	I	39		37	2						
21-41	G	X	P	I	41		41							
21-75★◇	G	X		M	4							4	(See note)	
21-79	G	X		II	19	17						2		
23-6★■	H	P		M	6									6
23-14	H	◆		I	14				14					
23-21★	H	X	P	II	21			21						

- X Completely tooled.
 - Majority of tooling is completed (contact Amphenol Aerospace for availability).
 - ◆ Not tooled for 02-R.
 - P Pin inserts only (contact Amphenol Aerospace for socket availability).
 - ★ Ground plane proprietary option available. Arrg. 9-5 is exclusively ground plane type. See pg. 49 for further information on ground plane connectors.
 - Not Mil-Qualified.
 - ◇ 21-75 is Mil-Qualified with twinax contacts only.
- Note: MS connector 21-75 is supplied with size 8 twinax.
Proprietary connector 21-75 is supplied with size 8 coax.

- * Hermetic inserts - solder termination standard. (Contact Amphenol Aerospace for optional PCB or eyelet termination).
- ** Two size 16 contacts dedicated to fiber optics. Consult Amphenol Aerospace catalog 12-352 for fiber optic information.
- *** For use in MIL-STD-1760 applications (see pages 31 & 32).
- † For RG 180/U and RG 195/U cables only.
- †† Size 8 Coax and Twinax are interchangeable.



Tri-Start and Specials

insert availability and identification

TRI-START ARRANGEMENTS, CONT.

Shell Size/Arrg.	Military Shell	Crimp	Hermetics*	Service Rating	Total Contacts	Contact Size							
						22D	20	16	12	12 (Coax)	10 (Power)	8 (Coax)	8†† (Twinax)
23-35	H	X	P	M	100	100							
23-53	H	X	P	I	53		53						
23-54 ■	H	◆		M	53	40		9	4				
23-55	H	◆	P	I	55		55						
25-4	J	X	P	I	56		48	8					
25-7	J	◆		Twinax	99	97							2
25-8★	J	◆		Twinax	8								8
25-11***	J	◆		N	11		2				9		
25-17 ■	J	◆		M	42	36							6
25-19★	J	X	P	I	19				19				
25-20***	J	◆		N	30		10	13**		4			3
25-24★	J	X	P	I	24			12	12				
25-26 ■	J	◆		I	25		16		5			4	
25-29★	J	X		I	29			29					
25-35	J	X	P	M	128	128							
25-37★ ■	J	◆		I	37			37					
25-41	J	X		N/Inst.	41	22	3	11		2			3
25-43	J	◆		I	43		23	20					
25-46 ■	J	◆		I	46		40	4				2†	
25-61	J	X	P	I	61		61						
25-90	J	X		I	46		40	4					2
25-F4	J	◆		M/I	66	49		13	4				

SPECIAL ARRANGEMENTS

Shell Size/Arrg.	Military Shell	Crimp	Hermetics*	Service Rating	Total Contacts	Comments	Contact Size						
							22D	20	16	12	8†† (Twinax)		
9-2	A	X		I	2	formerly Pyle		2					
15-4	D	X		II	4	formerly Pyle			4				
15-25	D	X		M	25	formerly Pyle	22		3				
17-20	E	X		M	20	formerly Pyle	16				4		
21-12	G	X		I	12	formerly Pyle		3			9		
21-21	G	X		M/Inst.	41	improved sealing	32				9		
21-99	G	X		M	16	formerly Pyle	5				11		
25-90	J	X		I	46	formerly Pyle		40	4				2
25-92	J	X		M	101	formerly Pyle	92		9				
25-97	J	X		M	42	formerly Pyle	26		3	13			

SPECIAL ARRANGEMENTS

(insert arrangements requiring non-standard shells or larger contacts)

Shell Size/Arrg.	Crimp	Hermetics*	Service Rating	Total Contacts	Contact Size				
					22D	20	8	4	0
25-16	X		M	8	6			2	
25-155	X		M	155	155				
25L-3	X		II	3		1		2	
25L-7	X		II	7		7			
33-3	X		II	3				1	2
33-5	X		II	5				5	
33-6	X		II	6		2		4	
37-5	X		II	4					4



- X Completely tooled.
 - Majority of tooling is completed (contact Amphenol Aerospace for availability).
 - ◆ Not tooled for 02-R.
 - P Pin inserts only (contact Amphenol Aerospace for socket availability).
 - ★ Ground plane proprietary option available. Arrangement 9-5 is exclusively ground plane type.
 - Not Mil-Qualified.
 - * Hermetic inserts - solder termination standard. (Contact Amphenol Aerospace for optional PCB or eyelet termination).
 - ** Two size 16 contacts dedicated to fiber optics. Consult Amphenol Aerospace catalog 12-352 for fiber optic information.
 - *** For use in MIL-STD-1760 applications (pgs. 31 & 32).
 - † For RG 180/U and RG 195/U cables only.
 - †† Size 8 Coax and Twinax are interchangeable.
- Note: 25L-3 and 25L-7 require larger shells.

Tri-Start

insert arrangements

front face of pin inserts illustrated

Insert Arrangement	9-5	9-35	9-94	9-98	11-2	11-5	11-35	11-54
Service Rating	Grounded	M	M	I	I	I	M	II
Number of Contacts	1	6	2	3	2	5	13	4
Contact Size	8 Twinax	22D	20	20	16	20	22D	22D

Insert Arrangement	11-98	11-99	13-4	13-8	13-13	13-35	13-98	15-4
Service Rating	I	I	I	I	I, Fiber Optic	M	I	I
Number of Contacts	6	7	4	8	2 2	22	10	4
Contact Size	20	20	16	20	16 12	22D	20	12

Dedicated to
Fiber Optics

Insert Arrangement	15-5	15-15	15-18	15-19	15-35	15-97	15-97
Service Rating	II	I	I	I	M	I	I
Number of Contacts	5	14 1	18	19	37	8 4	4
Contact Size	16	20 16	20	20	22D	20 16	16

Insert Arrangement	17-2	17-6	17-8	17-22	17-26
Service Rating	M	I	II	Coax	I
Number of Contacts	38 1	6	8	2 2	26
Contact Size	22D 8 Twinax	12	16	12 Coax 8 Coax	20



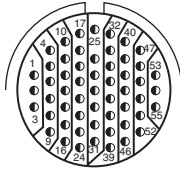
CONTACT LEGEND

8	10	12	16	20	22D

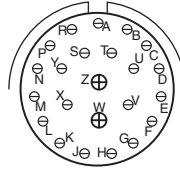
Tri-Start

insert arrangements

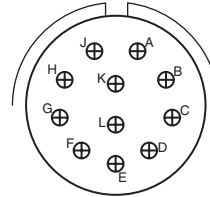
front face of pin inserts illustrated



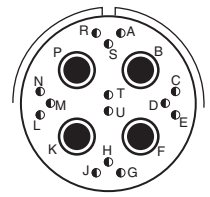
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19-11



19-18



19-28

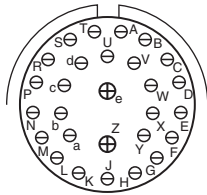
Insert Arrangement
Service Rating
Number of Contacts
Contact Size

M
55
22D

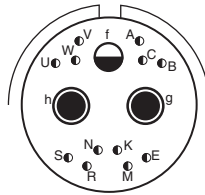
I
21 **2**
20 **16**

II
11
16

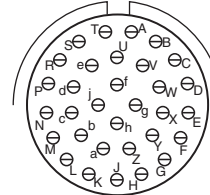
M
14 **4**
22D **8 Twinax**



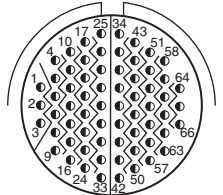
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19-32



19-35



21-11

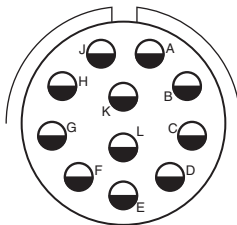
Insert Arrangement
Service Rating
Number of Contacts
Contact Size

I
26 **2**
20 **16**

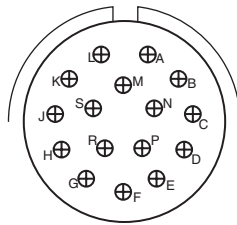
M
2 **1** **12**
8 Coax **12** **22D**

I
32
20

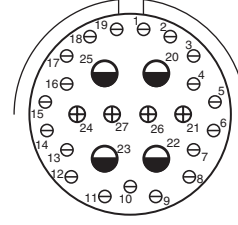
M
66
22D



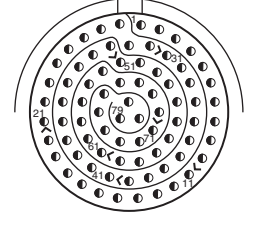
21-16



21-29



21-35



21-11

Insert Arrangement
Service Rating
Number of Contacts
Contact Size

I
11
12

II
16
16

I
19 **4** **4**
20 **16** **12**

M
79
22D



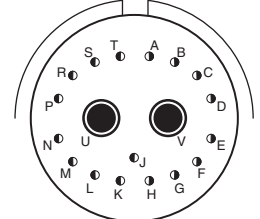
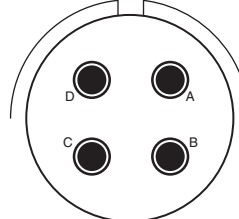
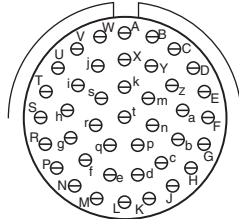
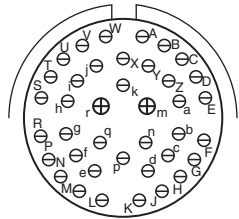
CONTACT LEGEND



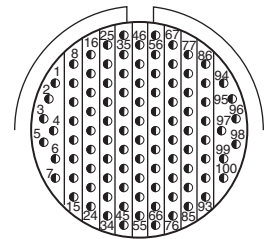
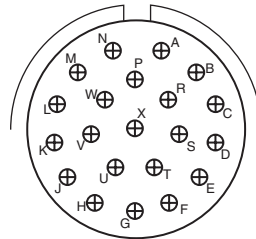
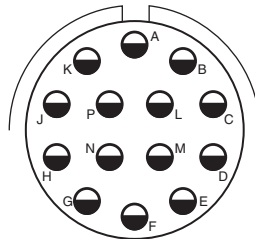
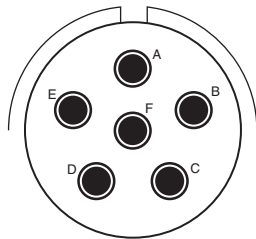
Tri-Start

insert arrangements

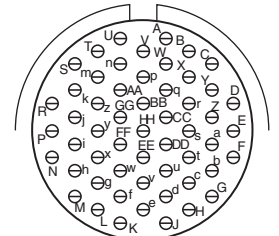
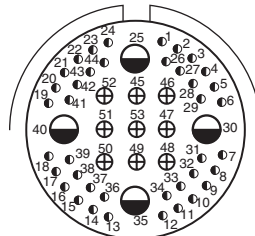
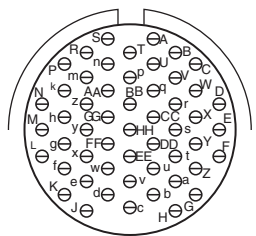
front face of pin inserts illustrated



Insert Arrangement	21-39		21-41		21-75		21-79	
Service Rating	I		I		M		II	
Number of Contacts	37	2	41		4		17	2
Contact Size	20	16	20		8 Twinax		22D	8 Coax



Insert Arrangement	23-6		23-14		23-21		23-35	
Service Rating	M		I		II		M	
Number of Contacts	6		14		21		100	
Contact Size	8 Twinax		12		16		22D	



Insert Arrangement	23-53		23-54		23-55		
Service Rating	I		M		I		
Number of Contacts	53		40	9	4		55
Contact Size	20		22D	16	12		20



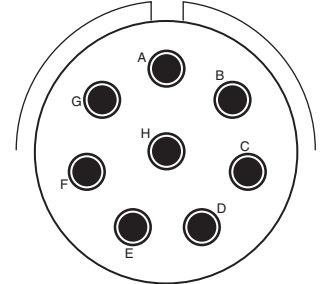
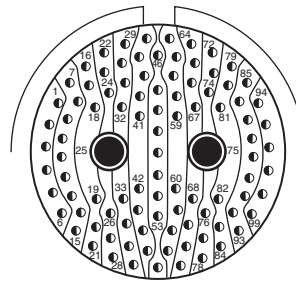
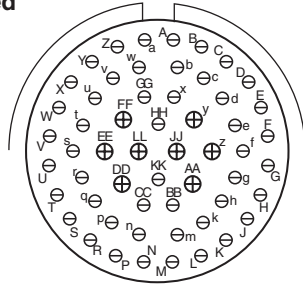
CONTACT LEGEND



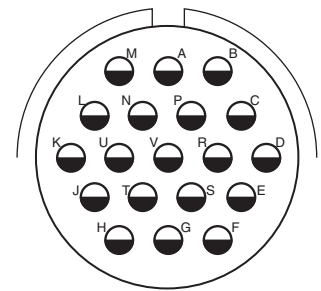
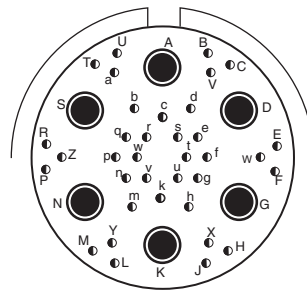
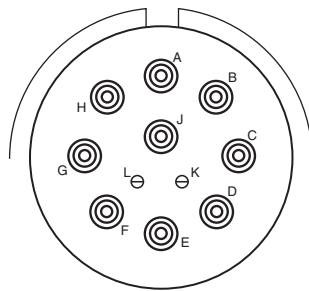
Tri-Start

insert arrangements

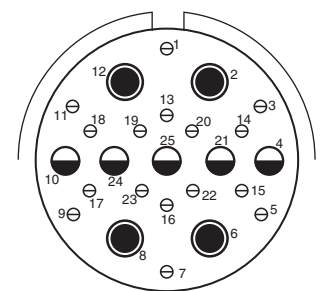
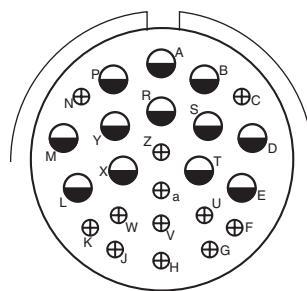
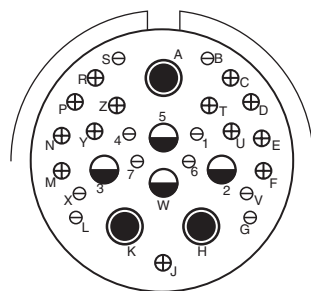
front face of pin inserts illustrated



Insert Arrangement	25-4		25-7		25-8	
Service Rating	I		Twinax		Twinax	
Number of Contacts	48	8	97	2	8	
Contact Size	20	16	22D	8 Twinax	8 Twinax	



Insert Arrangement	25-11***		25-17		25-19	
Service Rating	N		M		I	
Number of Contacts	2	9	36	6	19	
Contact Size	20	10 Power	22D	8 Twinax	12	



Insert Arrangement	25-20***				25-24		25-26		
Service Rating	N				I		I		
Number of Contacts	10	13	3	4	12	12	16	5	4
Contact Size	20	16	8 Twinax	12 Coax	16	12	20	12	8 Coax

(With Matched Impedance)

*** For use in MIL-STD-1760 applications (see pages 31 and 32).



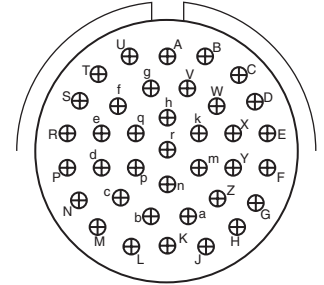
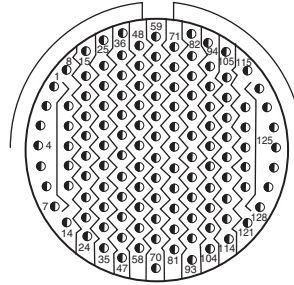
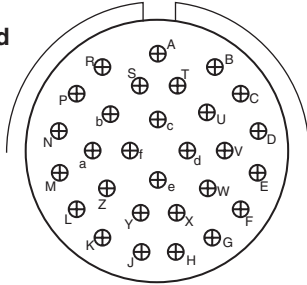
CONTACT LEGEND



Tri-Start

insert arrangements

front face of pin inserts illustrated

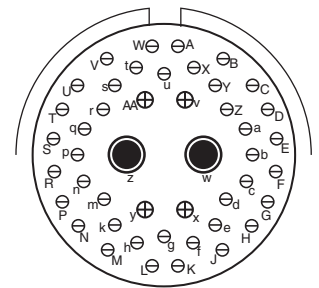
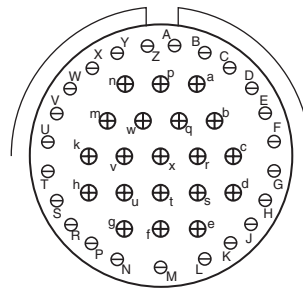
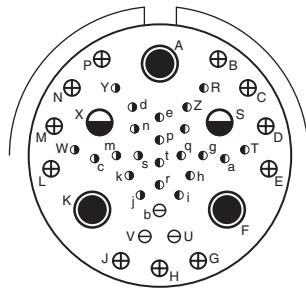


Insert Arrangement
Service Rating
Number of Contacts
Contact Size

25-29
I
29
16

25-35
M
128
22D

25-37
I
37
16

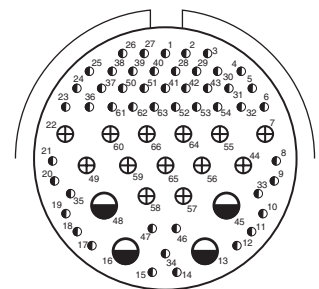
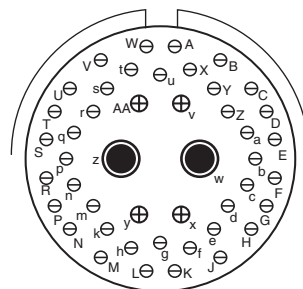
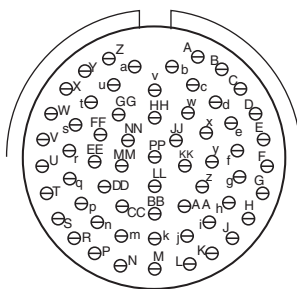


Insert Arrangement
Service Rating
Number of Contacts
Contact Size

25-41
N/Inst.
22 **3** **11** **2** **3**
22D **20** **16** **12 Coax** **8 Twinax**

25-43
I
23 **20**
20 **16**

25-46
I
40 **4** **2**
20 **16** **8 Coax†**



Insert Arrangement
Service Rating
Number of Contacts
Contact Size

25-61
I
61
20

25-90
I
40 **4** **2**
20 **16** **8 Twinax**

25-F4
Size 22D = M, Balance = I
49 **13** **4**
22D **16** **12**

† Coax contacts for RG180/U or RG195/U cable.



CONTACT LEGEND

