

JT/LJT

insert availability and identification, alternate positioning

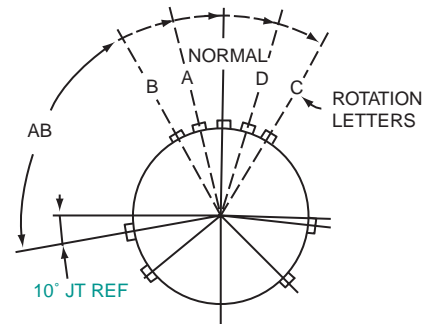
JT	LJT	Solder	Crimp	Hermetics		Service Rating	Total Contacts	Contact Size							
				Class H	Class Y*			22D	22M	22	20	16	12	8 (Coax)	
8-2		P				M	2				2				
8-3		X	N/A	P	P	M	3				3				
	9-3	X													
8-6		X	X	P	P	M	6		6						
	9-6	X	X	P	P										
	9-7	X				M	7		7						
	9-22	X				I	2				2				
8-35			X	P	P	M	6	6							
	9-35		X	P	P										
8-44			X	P	P	M	4			4					
	9-44		X												
8-97		X				M	4		2		2				
8-98		S	X	P	P	I	3				3				
	9-98	X	X	P	P										
	11-2★		X	P**		I	2					2			
10-4			3			I	4				4				
	11-4	X	2												
10-5		X	X	P	P	I	5				5				
	11-5	X	X												
	11-6	S				I	6				6				
10-13		X	X	P	P	M	13		13						
	11-13	X	X	P	P										
10-35			X	P	P	M	13	13							
	11-35		X	P	P										
10-98		X	X	P	P	I	6				6				
	11-98	X	X	P	P										
10-99			X	P	P	I	7				7				
	11-99		P												
12-3		X	X	P	P	II	3					3			
	13-3		P												
12-4		X	X	P	P	I	4				4				
	13-4★	X	X	P	P										
12-8		X	X	P	P	I	8				8				
	13-8	X	X	P	P										
12-22			X	P	P	M	22		22						
	13-22	X	X	P	P										
12-35			X	P	P	M	22	22							
	13-35		X	P	P										
12-98		X	X	P	P	I	10				10				
	13-98	X	X	P	P										
14-4			2			I	4						4		
	15-4		2												
14-5		X	X	P	P	II	5				5				
	15-5★	X	X												
14-15		X	X	P	P	I	15				14	1			
	15-15	X	X	P	P										
14-18		X	X	P	P	I	18				18				
	15-18	X	X	P	P										
14-19		X	X			I	19				19				
	15-19		X												
14-35			X	P	P	M	37	37							
	15-35		X	P	P										
14-37		X	X	P	P	M	37		37						
	15-37	X	X	P	P										
14-68			2			I	8				8				
	15-68	X	3												
14-97			2	P	P	I	12				8	4			
	15-97	X	X	P	P										

JT MASTER KEY/KEYWAY ROTATION

Shell Size	AB ANGLE OF ROTATION (Degrees)				
	Normal	A	B	C	D
8	100°	82°	—	—	118°
10	100°	86°	72°	128°	114°
12	100°	80°	68°	132°	120°
14	100°	79°	66°	134°	121°
16	100°	82°	70°	130°	118°
18	100°	82°	70°	130°	118°
20	100°	82°	70°	130°	118°
22	100°	85°	74°	126°	115°
24	100°	85°	74°	126°	115°

A plug with a given rotation letter will mate with a receptacle with the same rotation letter. The AB angle for a given connector is the same whether it contains pins or sockets. Only the master key/keyway rotates in the shell, and the insert always remains in the same position relative to the minor keys.

AB angles shown are viewed from the front face of the connector, a receptacle is shown below. The angles for the plug are exactly the same except the direction of rotation is opposite of that shown for the receptacle.



RELATIVE POSSIBLE POSITION OF ROTATED MASTER KEYWAY (front face of receptacle shown)

- (P) Pin inserts only (consult Amphenol, Sidney, NY for socket availability)
- (2) Not tooled for RP or O2RE
- (3) Pin inserts only, not tooled for RP or O2RE (consult Amphenol, Sidney, NY for availability)
- * Same as H with interfacial seal
- ** Tooled with special terminal only (consult Amphenol, Sidney, NY for availability of standard terminal)
- ★ Ground plane proprietary option available. See page 55 for further information on ground plane connectors.

JT/LJT

insert availability and identification, alternate positioning

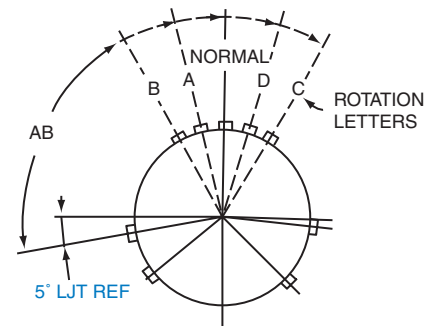
JT	LJT	Solder	Crimp	Hermetics		Service Rating	Total Contacts	Contact Size								
				Class H	Class Y*			22D	22M	22	20	16	12	8 (Coax)	8 (Twinax)	
	17-2		X			M	39	38								1
16-6			X	P	P	I	6						6			
	17-6		X	P	P	I	6						6			
16-8		X	X	P	P	II	8						8			
	17-8★	X	X	P	P	II	8						8			
16-13			2			I	13						13			
	17-13		2			I	13						13			
	17-22					Coax	4						2 Coax	2		
	17-25		2			M	24	22						2		
16-26		X	X	P	P	I	26						26			
	17-26	X	X	P	P	I	26						26			
16-35			X	P	P	M	55	55								
	17-35	X	X	P	P	M	55	55								
16-42			X			M	42				42					
	17-42		P			M	42				42					
16-55		X	X	P	P	M	55		55							
	17-55	X	X	P		M	55		55							
16-99		X	X	P	P	I	23				21	2				
	17-99	X	X			I	23				21	2				
18-11		X	X	P	P	II	11						11			
	19-11★	X	X	P	P	II	11						11			
	19-18		2			M	18	14								4
18-28		X	X	P	P	I	28				26	2				
	19-28	X	P			I	28				26	2				
18-30		X	X			I	30				29	1				
	19-30	X	P			I	30				29	1				
18-32		X	X	P	P	I	32				32					
	19-32	X	X	P	P	I	32				32					
18-35			X	P	P	M	66	66								
	19-35		X	P	P	M	66	66								
18-53		X	X			M	53			53						
	19-53		P			M	53			53						
18-66		X	X	P	P	M	66		66							
	19-66		X	P	P	M	66		66							
	19-67	X	3			M	67		67							
18-68			2			I	18					18				
	19-68		3			I	18					18				
18-96			2			I	9						9			
20-1			X	P		M	79		79							
	21-1		X			M	79		79							
20-2			X			M	65			65						
	21-2		2			M	65			65						
20-11			3			I	11						11			
	21-11★		2			I	11						11			
20-16		X	X	P	P	II	16						16			
	21-16★	X	X	P	P	II	16						16			
	21-24	X				I	24					24				
	21-25	X				I	25					25				
	21-27	X				I	27					27				
20-35			X			M	79		79							
	21-35		X			M	79		79							
20-39		X	X	P	P	I	39				37	2				
	21-39	X	X			I	39				37	2				
20-41		X	X	P	P	I	41						41			
	21-41	X	X			I	41						41			

LJT MASTER KEY/KEYWAY ROTATION

Shell Size	AB ANGLE OF ROTATION (Degrees)				
	Normal	A	B	C	D
9	95°	77°	-	-	113°
11	95°	81°	67°	123°	109°
13	95°	75°	63°	127°	115°
15	95°	74°	61°	129°	116°
17	95°	77°	65°	125°	113°
19	95°	77°	65°	125°	113°
21	95°	77°	65°	125°	113°
23	95°	80°	69°	121°	110°
25	95°	80°	69°	121°	110°

A plug with a given rotation letter will mate with a receptacle with the same rotation letter. The AB angle for a given connector is the same whether it contains pins or sockets. Only the master key/keyway rotates in the shell, and the insert always remains in the same position relative to the minor keys.

AB angles shown are viewed from the front face of the connector, a receptacle is shown below. The angles for the plug are exactly the same except the direction of rotation is opposite of that shown for the receptacle.



RELATIVE POSSIBLE POSITION OF ROTATED MASTER KEYWAY (front face of receptacle shown)

- (P) Pin inserts only (consult Amphenol, Sidney, NY for socket availability)
- (2) Not tooled for RP or O2RE
- (3) Pin inserts only, not tooled for RP or O2RE (consult Amphenol, Sidney, NY for availability)
- * Same as H with interfacial seal
- ★ Ground plane proprietary option available. See page 55 for further information on ground plane connectors.

JT/LJT

insert availability and identification

JT	LJT	Solder	Crimp	Hermetics		Service Rating	Total Contacts	Contact Size										
				Class H	Class Y*			22D	22M	22	20	16	12	8 (Coax)	8†† (Twinax)	10 (Power)	12 Coax	
	21-75★		2			N	4										(See Note 4)	
	21-79		2			II	19	17									(See Note 5)	
22-1			X			M	100		100									
	23-1		X			M	85			85								
22-2		X	X	P	P	M	85			85								
	23-2	X	X	P	P	M	85			85								
	23-6★		P			M	6								6			
22-14			2			I	14						14					
	23-14		2			I	14						14					
22-21		X	X	P	P	II	21					21						
	23-21★	X	X	P	P	II	21					21						
22-32		X	X	P		I	32				32							
	23-32	X	P			I	32				32							
	23-34	X				I	34				34							
22-35			X			M	100	100										
	23-35		X			M	100	100										
22-53			P			I	53				53							
	23-53	X	X	P		I	53				53							
22-55		X	X	P	P	I	55				55							
	23-55		3			I	55				55							
	23-97	X				II	16					16						
	23-99	X				II	11					11						
24-1			X			M	128		128									
	25-1		X			M	128		128									
24-2			X			M	100			100								
	25-2		X			M	100			100								
24-4			X	P	P	I	56				48	8						
	25-4		X			I	56				48	8						
	25-7		2			M	99	97							2			
	25-11		2			N	11				2					9		
24-19			2			I	19						19					
	25-19★		2			I	19						19					
	25-20		2			N	30			10	13			3			4	
24-24			X	P	P	I	24				12	12						
	25-24★		X			I	24				12	12						
24-29			X			I	29					29						
	25-29★	X	X			I	29					29						
24-35			X			M	128	128										
	25-35		X			M	128	128										
24-37			2			I	37					37						
	25-37★		2			I	37					37						
24-43			3			I	43				23	20						
	25-43	X	2	P	P	I	43				23	20						
	25-46		2			I	46				40	4		2†				
24-61		X	X	P	P	I	61				61							
	25-61	X	X	P	P	I	61				61							

(P) Pin inserts only (consult Amphenol, Sidney, NY for socket availability)

(2) Not tooled for RP or 02RE

(3) Pin inserts only, not tooled for RP or 02RE (consult Amphenol, Sidney, NY for availability)

* Same as H with interfacial seal

** Two size 16 contacts dedicated to fiber optics. Consult Amphenol, Sidney, NY or catalog section 12-352 for fiber optic contact information.

† For RG180/U and RG195/U cables only (consult Amphenol, Sidney, NY for other cable applications)

†† Size 8 Coax and Twinax are interchangeable

(4) MS connector 21-75 is supplied with four size 8 twinax contacts.

Proprietary connector 21-75 is supplied with four size 8 coax contacts.

(5) MS connector 21-79 has provision for two size 8 coax contacts. Coax contacts are not supplied unless specified by customer.

★ Ground plane proprietary option available. See page 55 for further information on ground plane connectors.

JT/LJT

insert arrangements

black arrangements – JT or LJT
 green arrangements – JT only
 blue arrangements – LJT only

front face of pin inserts illustrated

Insert Arrangement (JT)	8-2	8-3	8-6			8-35	8-44	8-97	8-98
Insert Arrangement (LJT)		9-3	9-6	9-7	9-22	9-35	9-44		9-98
Service Rating	M	M	M	M	I	M	M	M	I
Number of Contacts	2	3	6	7	2	6	4	2 2	3
Contact Size	20	20	22M	22M	20	22D	22	22M 20	20
Insert Arrangement (JT)		10-4	10-5		10-13	10-35	10-98	10-99	
Insert Arrangement (LJT)	11-2	11-4	11-5	11-6	11-13	11-35	11-98	11-99	
Service Rating	I	I	I	I	M	M	I	I	
Number of Contacts	2	4	5	6	13	13	6	7	
Contact Size	16	20	20	20	22M	22D	20	20	
Insert Arrangement (JT)	12-3	12-4	12-8	12-22	12-35	12-98	14-4	14-5	
Insert Arrangement (LJT)	13-3	13-4	13-8	13-22	13-35	13-98	15-4	15-5	
Service Rating	II	I	I	M	M	I	I	II	
Number of Contacts	3	4	8	22	22	10	4	5	
Contact Size	16	16	20	22M	22D	20	12	16	
Insert Arrangement (JT)	14-15	14-18	14-19	14-35	14-37	14-68	14-97		
Insert Arrangement (LJT)	15-15	15-18	15-19	15-35	15-37	15-68	15-97		
Service Rating	I	I	I	M	M	I	I		
Number of Contacts	14 1	18	19	37	37	8	8 4		
Contact Size	20 16	20	20	22D	22M	16	20 16		

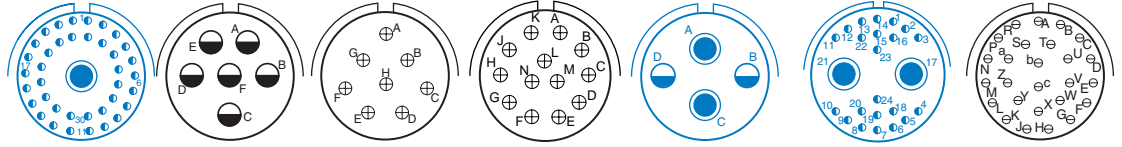


JT/LJT

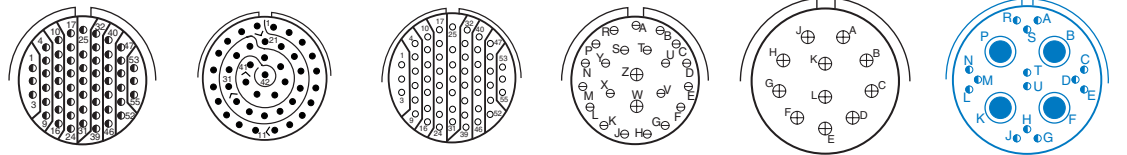
insert arrangements

black arrangements – JT or LJT
 green arrangements – JT only
 blue arrangements – LJT only

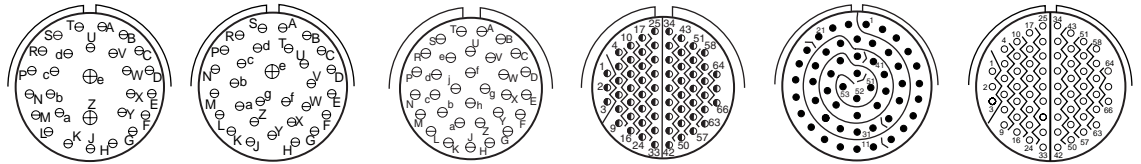
front face of pin inserts illustrated



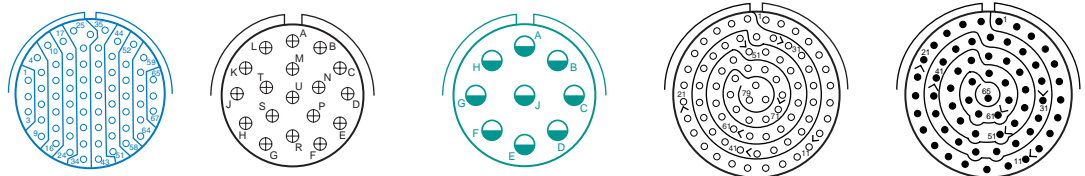
Insert Arrangement (JT)									
Insert Arrangement (LJT)	17-2	16-6	16-8	16-13					16-26
Service Rating	M	I	II	I	Coax	Coax	M		I
Number of Contacts	38	1	6	8	2	2	22	2	26
Contact Size	22D	8 Twinax	12	16	12 Coax	8 Coax	22D	8 Coax	20



Insert Arrangement (JT)	16-35	16-42	16-55	16-99	18-11			
Insert Arrangement (LJT)	17-35	17-42	17-55	17-99	19-11	19-18		
Service Rating	M	M	M	I	II	M		
Number of Contacts	55	42	55	21	2	11	14	4
Contact Size	22D	22	22M	20	16	16	22D	8 Twinax



Insert Arrangement (JT)	18-28	18-30	18-32	18-35	18-53	18-66
Insert Arrangement (LJT)	19-28	19-30	19-32	19-35	19-53	19-66
Service Rating	I	I	I	M	M	M
Number of Contacts	26	29	32	66	53	66
Contact Size	20	16	20	22D	22	22M



Insert Arrangement (JT)		18-68	18-96	20-1	20-2
Insert Arrangement (LJT)	19-67	19-68		21-1	21-2
Service Rating	M	I	I	M	M
Number of Contacts	67	18	9	79	65
Contact Size	22M	16	12	22M	22

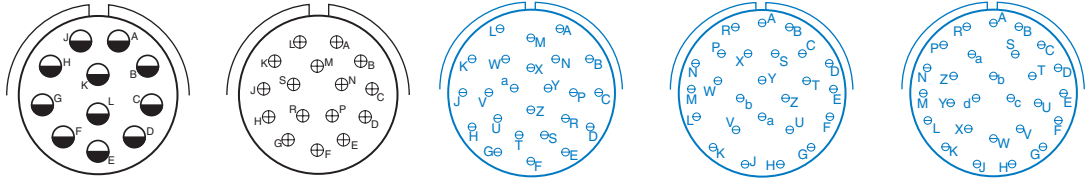


JT/LJT

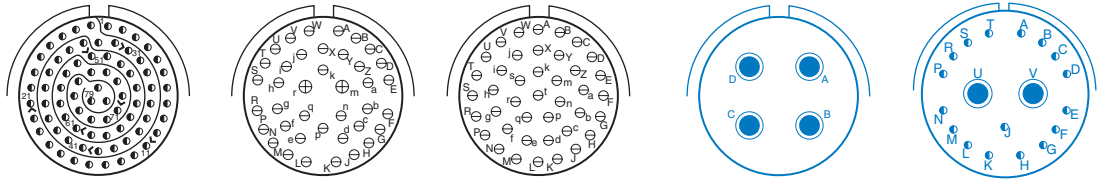
insert arrangements

black arrangements – JT or LJT
 green arrangements – JT only
 blue arrangements – LJT only

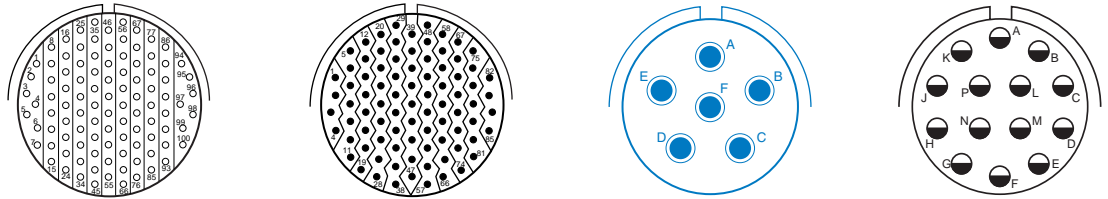
front face of pin inserts illustrated



Insert Arrangement (JT)	20-11	20-16			
Insert Arrangement (LJT)	21-11	21-16	21-24	21-25	21-27
Service Rating	I	II	I	I	I
Number of Contacts	11	16	24	25	27
Contact Size	12	16	20	20	20



Insert Arrangement (JT)	20-35	20-39	20-41		
Insert Arrangement (LJT)	21-35	21-39	21-41	21-75	21-79
Service Rating	M	I	I	N	II
Number of Contacts	79	37 2	41	4	17 (See Note)
Contact Size	22D	20 16	20	(See Note)	22D



Insert Arrangement (JT)	22-1	22-2		22-14
Insert Arrangement (LJT)	23-1	23-2	23-6	23-14
Service Rating	M	M	M	I
Number of Contacts	100	85	6	14
Contact Size	22M	22	8 Twinax	12

Note: MS connector 21-75 is supplied with four size 8 twinax contacts.
 Proprietary connector 21-75 is supplied with four size 8 coax contacts.
 MS connector 21-79 has provision for two size 8 coax contacts.
 Coax contacts are not supplied unless specified by customer.

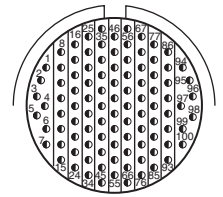
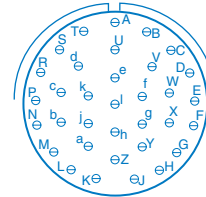
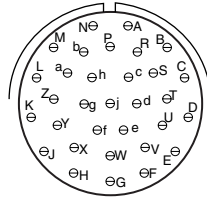
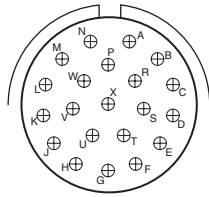


JT/LJT

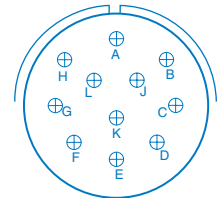
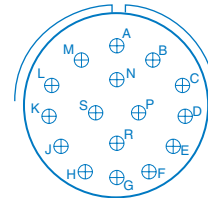
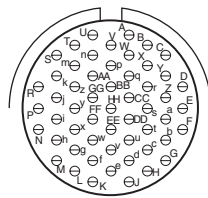
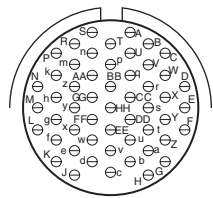
insert arrangements

black arrangements – JT or LJT
 green arrangements – JT only
 blue arrangements – LJT only

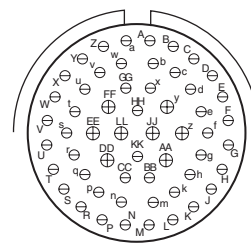
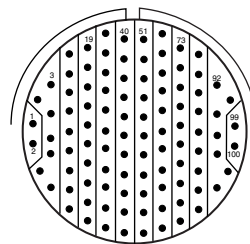
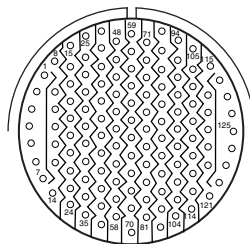
front face of pin inserts illustrated



Insert Arrangement (JT)	22-21	22-32	23-34	22-35
Insert Arrangement (LJT)	23-21	23-32	23-34	23-35
Service Rating	II	I	I	M
Number of Contacts	21	32	34	100
Contact Size	16	20	20	22D



Insert Arrangement (JT)	22-53	22-55	23-97	23-99
Insert Arrangement (LJT)	23-53	23-55	23-97	23-99
Service Rating	I	I	II	II
Number of Contacts	53	55	16	11
Contact Size	20	20	16	16



Insert Arrangement (JT)	24-1	24-2	24-4
Insert Arrangement (LJT)	25-1	25-2	25-4
Service Rating	M	M	I
Number of Contacts	128	100	48 8
Contact Size	22M	22	20 16

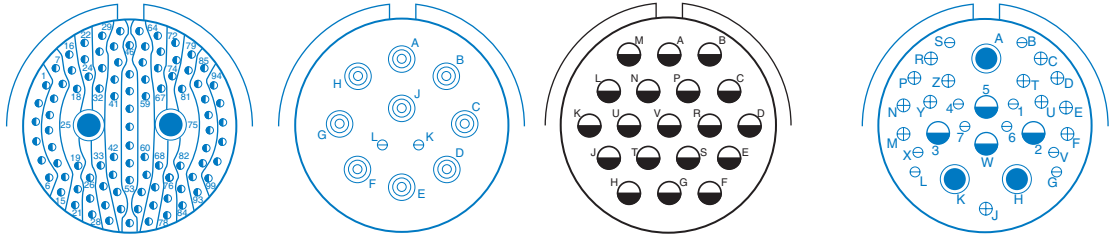


JT/LJT

insert arrangements

black arrangements – JT or LJT
 green arrangements – JT only
 blue arrangements – LJT only

front face of pin inserts illustrated



Insert Arrangement (JT)
 Insert Arrangement (LJT)

Service Rating

Number of Contacts

Contact Size

25-7

M

97 2

22D 8 Twinax

25-11

N

2 9

20 10

24-19

25-19

I

19

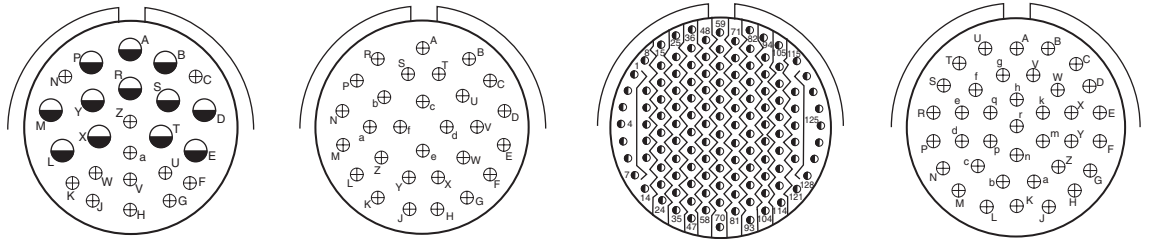
12

25-20

N

10 13 3 4

20 16 8 Twinax 12 Coax
 (Locations U and Y - Dedicated to Fiber Optics)



Insert Arrangement (JT)
 Insert Arrangement (LJT)

Service Rating

Number of Contacts

Contact Size

24-24

25-24

I

12 12

16 12

24-29

25-29

I

29

16

24-35

25-35

M

128

22D

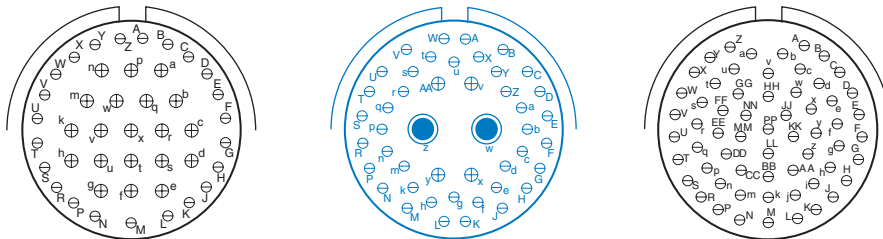
24-37

25-37

I

37

16



Insert Arrangement (JT)
 Insert Arrangement (LJT)

Service Rating

Number of Contacts

Contact Size

24-43

25-43

I

23 20

20 16

25-46

I

40 4 2

20 16 8 Coax†

24-61

25-61

I

61

20

† Coax contacts for RG180 or RG195 cable.

