

MS/Standard

insert arrangements

Insert Arrangement	Service Rating	Total Contacts	Contact Size				
			0	4	8	12	16
8S-1	A	1					1
10S-2	A	1					1
10SL-3	A	3					3
10SL-4†	A	2					2
12S-3	A	2					2
12S-4	D	1					1
12-5	D	1				1	
14S-1	A	3					3
14S-2	Inst.	4					4
14S-4	D	1					1
14S-5	Inst.	5					5
14S-6	Inst.	6					6
14S-7	A	3					3
14S-9	A	2					2
14S-10	Inst.	4					4
14S-12	A	3					3
14-3	A	1			1		
16S-1	A	7					7
16S-3	B	1					1
16S-4	D	2					2
16S-5	A	3					3
16S-6	A	3					3
16S-8	A	5					5
16-2	E	1				1	
16-7	A	3			1		2
16-9	A	4				2	2
16-10	A	3				3	
16-11	A	2				2	
16-12	A	1		1			
16-13	A	2				2	
18-1	A/Inst.	10					10
18-3	D	2				2	
18-4	D	4					4
18-5	D	3				2	1
18-6	D	1		1			
18-7	B	1			1		
18-8	A	8				1	7
18-9	Inst.	7				2	5
18-10	A	4				4	
18-11	A	5				5	
18-12	A	6					6
18-13	A	4			1	3	
18-14	A	2		1			1
18-15	A	4				4	
18-16	C	1				1	
18-17	Inst.	7				2	5
18-19	A	10					10
18-20	A	5					5
18-22	D	3					3
18-24	A/Inst.	10					10
18-29	A	5					5
18-30	A	5					5

Insert Arrangement	Service Rating	Total Contacts	Contact Size				
			0	4	8	12	16
18-31	A	5					5
20-2	D	1	1				
20-3	D	3				3	
20-4	D	4				4	
20-6	D	3					3
20-7	D/A	8					8
20-8	Inst.	6			2		4
20-9	D/A	8				1	7
20-11	Inst.	13					13
20-12	A	2		1			1
20-14	A	5			2	3	
20-15	A	7				7	
20-16	A	9				2	7
20-17	A	6				5	1
20-18	A	9				3	6
20-19	A	3			3		
20-20	A	4		1		3	
20-21	A	9				1	8
20-22	A	6			3		3
20-23	A	2			2		
20-24	A	4			2		2
20-25	Inst.	13					13
20-27	A	14					14
20-29	A	17					17
20-30	Inst.	13					13
20-33	A	11					11
22-1	D	2			2		
22-2	D	3			3		
22-4	A	4			2	2	
22-5	D	6				2	4
22-6	D	3			2		1
22-7	E	1	1				
22-8	E	2				2	
22-9	E	3				3	
22-10	E	4					4
22-11	B	2					2
22-12	D	5			2		3
22-13	D/A	5				4	1
22-14	A	19					19
22-15	E/A	6				5	1
22-16	A	9				3	6
22-17	D/A	9				1	8
22-18	D/A	8					8
22-19	A	14					14
22-20	A	9					9
22-21	A	3	1				2
22-22	A	4			4		
22-23	D/A	8				8	
22-24	D/A	6				2	4
22-27	D/A	9			1		8
22-28	A	7				7	

† 10SL-4 arrangement available only with pin contacts in receptacle and socket contacts in plug

MS/Standard

insert arrangements, cont.

Insert Arrangement	Service Rating	Total Contacts	Contact Size				
			0	4	8	12	16
22-33	D/A	7					7
22-34	D	5				3	2
22-36	D/A	8				8	
24-2	D	7				7	
24-3	D	7				2	5
24-5	A	16					16
24-6	D/A	8				8	
24-7	A	16				2	14
24-9	A	2		2			
24-10	A	7			7		
24-11	A	9			3	6	
24-12	A	5		2		3	
24-16	D/A	7			1	3	3
24-17	D	5				2	3
24-20	D	11				2	9
24-21	D	10			1		9
24-22	D	4			4		
24-27	E	7					7
24-28	Inst.	24					24
28-1	D/A	9			3	6	
28-2	D	14				2	12
28-3	E	3			3		
28-4	E/D	9				2	7
28-5	D	5		2		1	2
28-6	D	3		3			
28-7	D	2		2			
28-8	E/D/A	12				2	10
28-9	D	12				6	6
28-10	D/A	7		2	2	3	
28-11	A	22				4	18
28-12	A	26					26
28-13	A	26					26
28-15	A	35					35
28-16	A	20					20
28-17	B/D/A	15					15
28-18	C/D/A/Inst.	12					12
28-19	B/D/A	10				4	6
28-20	A	14				10	4
28-21	A	37					37
28-22	D	6		3			3

Insert Arrangement	Service Rating	Total Contacts	Contact Size				
			0	4	8	12	16
32-1	E/D	5	2			3	
32-2	E	5		3			2
32-3	D	9	1	2		2	4
32-4	A/D	14				2	12
32-5	D	2	2				
32-6	A	23		2	3	2	16
32-7	Inst./A	35				7	28
32-8	A	30				6	24
32-9	D	14		2			12
32-10	E/B/D/A	7		2	2		3
32-12	A/D	15				5	10
32-13	D	23				5	18
32-15	D	8	2			6	
32-16	A	23		2	3	2	16
32-17	D	4		4			
32-22	A	54					54
36-1	D	22				4	18
36-3	D	6	3			3	
36-4	D/A	3	3				
36-5	A	4	4				
36-6	A	6	2	4			
36-7	A	47				7	40
36-8	A	47				1	46
36-9	A	31		1	2	14	14
36-10	A	48					48
36-11	A	48					48
36-12	A	48					48
36-13	E/A	17				2	15
36-14	D	16			5	5	6
36-15	D/A	35					35
36-16	A	47				7	40
36-17	A	47				7	40
36-18	A	31		1	2	14	14
36-20	A	34			2	2	30
36-52	A	52					52
40-1	D	30				6	24
40-9	A	47			1	22	24
40-56	A	85					85
48-62	D	85					85

MS/Standard

special insert arrangements

Insert Arrange- ment	Service Rating	Total Con- tacts	Contact Size											
			4/0	2/0	0	4	8	12	16	Coax**				
										0	4	8	12	
14S-A7	A	7							7					
16-59	A	4						4						
20-26	A	19							19					
20-51	A	3					3							
20-57	A	7						7*						
20-58	A	10						5	5					
20-59	A	3					3*							
20-66	A	6						5*	1					
20-79	A/D	8						1	7					
22-63	A	12						4	8					
22-65	A/D	8						8*						
22-70	A	13						8	5					
22-80	A	3					3*							
24-19	A	12							12					
24-51	A	5					5							
24-52	Hi Volt.	1						1						
24-53	A	5					5							
24-58	A	13					3	3	7					
24-59	A	14						7	7					
24-60	A	7					7*							
24-65	A	15						11	4					
24-66	D	7						7						
24-67	Inst.	19						19						
24-71	A	7					7*							
24-75	A	7					7*							
24-79	A	5					5							
24-80	Inst.	23							23					
24-84	A	19						1					18	
24-96	Inst.	28							28					
24-AJ	A	25							25					
28-51	A	12						12						
28-59	A	17						7	10					
28-66	A	16					2	14						
28-72	Coax	3									3			
28-74	A	16					7*		9					
28-75	A	16					7*		9					
28-79	A	16					7		9					
28-82	D	6					2	4						
28-84	A	9					9							
28-AY	A	9				4			5					
32-14	D	13						13						
32-25	A	25						25						
32-31	A	31							31					
32-48	Inst.	48							48					
32-52	D	8			2			6						
32-53	Inst./E	42						5	37					
32-56	A	30						6*	24					
32-57	Coax	8						6		2				
32-58	Coax	4									4			
32-59	A	42							40			2		
32-60	A	23							15			8		
32-62	Coax	23				2	1	2	16			2		
32-64	Inst.	54							54					
32-68	A	16							12		4			
32-73	A	46							46					
32-75	Coax	9						2				7		
32-76	A	19						19						
32-79	D	5				4	1							
32-82	A	16				4			12					

* Crimp contacts accommodate wire the same size as the contact as well as wire of the next smaller, even size. Arrangements identified with an asterisk (*) are exceptions. See insert arrangement drawings on pages 38-48 for application wire size.

** Coaxial cable data can be found on insert arrangement drawings, pages 38-48. For further information on coaxial contacts and cable see catalog 12-130. Consult Sidney, NY for alternate rotations not covered on page 25.

Insert Arrange- ment	Service Rating	Total Con- tacts	Contact Size											
			4/0	2/0	0	4	8	12	16	Coax**				
										0	4	8	12	
32-AF	A	55							55					
36-22	D	22						22						
36-51	D	4			2	2								
36-54	A	39					8		31					
36-55	A	39					8*		31					
36-59	A	53						3*	50					
36-60	A	47						7*	40					
36-64	Coax	4								4				
36-65	Coax	4								4				
36-71	A	53						3	50					
36-73	Coax	7									7			
36-74	A	44							43			1		
36-75	A	48							48*					
36-76	A	47							47					
36-77	D	7				7								
36-78	A	14					12		2					
36-79	A	20						20						
36-80	A	20						20*						
36-83	Coax	7									7			
36-85	A/D	35							35*					
36-97	C	1	1											
36-99	D	12				3	3	3	3					
36-AF	A	48							48					
40-5	A	5			5									
40-10	A	29				4	9		16					
40-30	A	30				1		29						
40-35	D	35						35						
40-53	A	60							60					
40-57	E	4			4									
40-61	A	59					1	3	55					
40-62	A	60							60					
40-63	A	61							61*					
40-64	Coax	36						3	20			13		
40-66	Coax	4								4				
40-67	A	11							1		10			
40-68	A	21					21							
40-70	A	61							61					
40-72	A	11							1		10			
40-73	A	61							61					
40-74	A	6						1		4	1			
40-75	E	5			4			1						
40-80	A	11				10			1					
40-81	A	62							62*					
40-82	A	62							62					
40-85	A	60							60*					
40-86	E	4								4				
40-87	D	7				7								
40-AD	A	8			4		4							
40-AG	A	38						38						
40-AP	E	2	2											
40-AR	Inst.	13			3	3		7						
40-AS	A	40						25	15					
40-AT	A	43					1	24	18					
40-AU	A	14				3	10		1					
40-AV	D	3		3										
44-52	A	104							104					
44-53	A	36							18			18		
48-51	A	56					10		42	4				
48-52	A	61							56	5				
48-53	D	37						37						
48-54	A	56					10		42	4				
48-55	A	78				6	2	2	68					
48-57	A	56			4		10		42					
48-60	A	56					10		42	4				



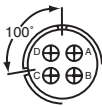
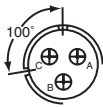
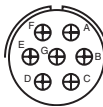
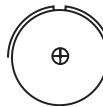
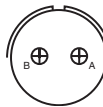
MS/Standard

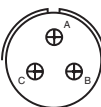
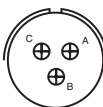
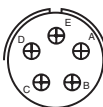
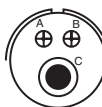
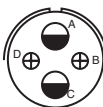
contact arrangements

front face of pin insert or rear face of socket insert illustrated

							
			Front of Socket Insert	Front of Socket Insert			
Insert Arrangement	8S-1	10S-2	10SL-3	10SL-4	12S-3	12S-4	12-5
Service Rating	A	A	A	A	A	D	D
Number of Contacts	1	1	3	2	2	1	1
Contact Size	16	16	16	16	16	16	12

							
Insert Arrangement	14S-1	14S-2	14S-4	14S-5	14S-6	14S-7	14S-9
Service Rating	A	Inst.	D	Inst.	Inst.	A	A
Number of Contacts	3	4	1	5	6	3	2
Contact Size	16	16	16	16	16	16	16

						
	100° Rotation of 14S-2	100° Rotation of 14S-7				
Insert Arrangement	14S-10	14S-12	14-3	16S-1	16S-3	16S-4
Service Rating	Inst.	A	A	A	B	D
Number of Contacts	4	3	1	7	1	2
Contact Size	16	16	8	16	16	16

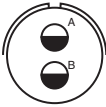
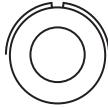
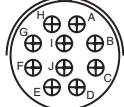
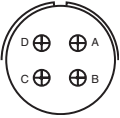
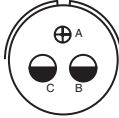
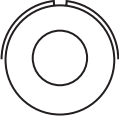
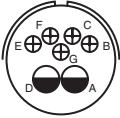
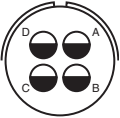
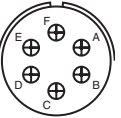
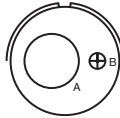
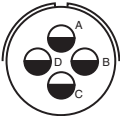
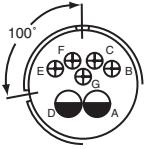
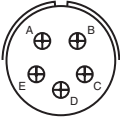
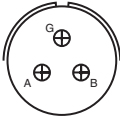
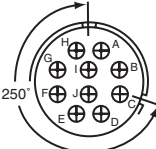
						
Insert Arrangement	16S-5	16S-6	16S-8	16-2	16-7	16-9
Service Rating	A	A	A	E	A	A
Number of Contacts	3	3	5	1	1 2	2 2
Contact Size	16	16	16	12	8 16	12 16

				
16	12	8	4	0

CONTACT LEGEND

MS/Standard contact arrangements

front face of pin insert or rear face of socket insert illustrated

						
Insert Arrangement	16-10	16-11	16-12	16-13	18-1	18-3
Service Rating	A	A	A	A	B, C, F, G = A; Bal. = Inst.	D
Number of Contacts	3	2	1	2*	10	2
Contact Size	12	12	4	12	16	12
						
Insert Arrangement	18-4	18-5	18-6	18-7	18-8	18-9
Service Rating	D	D	D	B	A	Inst.
Number of Contacts	4	2 1	1	1	1 7	2 5
Contact Size	16	12 16	4	8	12 16	12 16
						
Insert Arrangement	18-10	18-11	18-12	18-13	18-14	18-15
Service Rating	A	A	A	A	A	A
Number of Contacts	4	5	6	1 3	1 1	4**
Contact Size	12	12	16	8 12	4 16	12
						
Insert Arrangement	18-16	18-17	18-19	18-20	18-22	18-24
Service Rating	C	Inst.	A	A	D	B, C, F, G = A; Bal. = Inst.
Number of Contacts	1	2 5	10	5	3	10
Contact Size	12	12 16	16	16	16	16

* A = Iron; B = Constantan
 ** A, C = Iron; B, D = Constantan



CONTACT LEGEND

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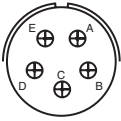
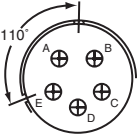
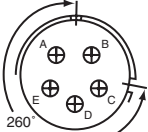
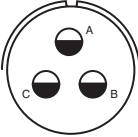
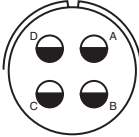
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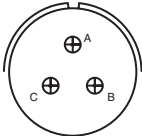
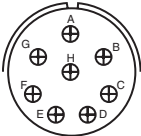
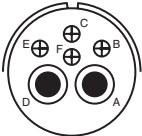
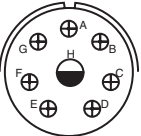
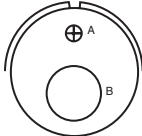
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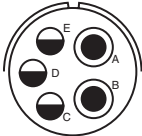
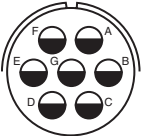
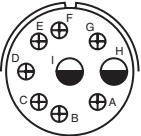
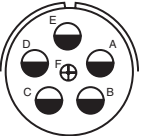
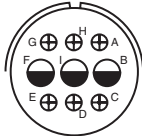
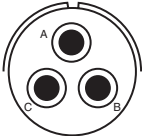
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MS/Standard contact arrangements

front face of pin insert or rear face of socket insert illustrated

						
		110° Rotation of 18-20	260° Rotation of 18-20			
Insert Arrangement	18-29	18-30	18-31	20-2	20-3	20-4
Service Rating	A	A	A	D	D	D
Number of Contacts	5	5	5	1	3	4
Contact Size	16	16	16	0	12	12

						
		A, B, H, G = D; C, D, E, F = A				
Insert Arrangement	20-6	20-7	20-8	20-9	20-11	20-12
Service Rating	D	A, B, H, G = D; C, D, E, F = A	Inst.	H = D; Bal. = A	Inst.	A
Number of Contacts	3	8	2 4	1 7	13	1 1
Contact Size	16	16	8 16	12 16	16	4 16

						
Insert Arrangement	20-14	20-15	20-16	20-17	20-18	20-19
Service Rating	A	A	A	A	A	A
Number of Contacts	2 3	7	2 7	5 1	3 6	3
Contact Size	8 12	12	12 16	12 16	12 16	8



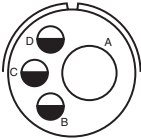
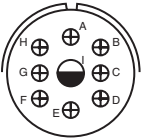
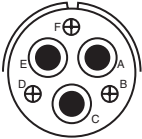
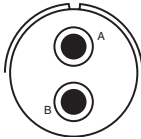
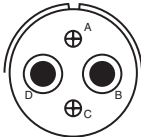
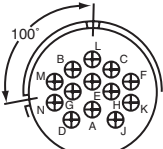


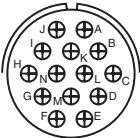
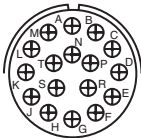
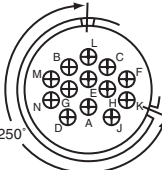
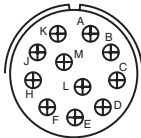
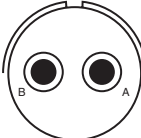
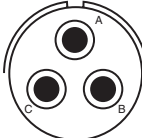


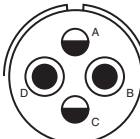
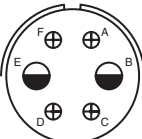
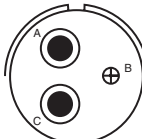
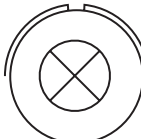
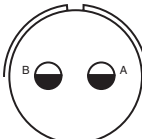
CONTACT LEGEND
16
12
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MS/Standard contact arrangements

front face of pin insert or rear face of socket insert illustrated

						
Insert Arrangement	20-20	20-21	20-22	20-23	20-24	20-25
Service Rating	A	A	A	A	A	Inst.
Number of Contacts	1 3	1 8	3 3	2	2 2	13
Contact Size	4 12	12 16	8 16	8	8 16	16

						
Insert Arrangement	20-27	20-29	20-30	20-33	22-1	22-2
Service Rating	A	A	Inst.	A	D	D
Number of Contacts	14	17	13	11	2	3
Contact Size	16	16	16	16	8	8

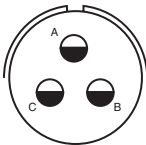
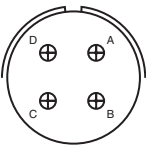
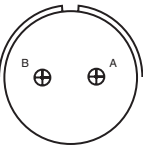
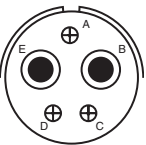
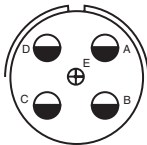
					
Insert Arrangement	22-4	22-5	22-6	22-7	22-8
Service Rating	A	D	D	E	E
Number of Contacts	2 2	2 4	2 1	1	2
Contact Size	8 12	12 16	8 16	0	12

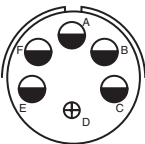
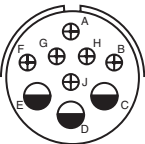
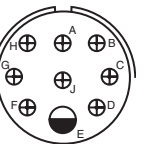
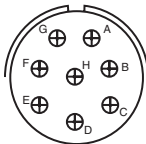
				
16	12	8	4	0

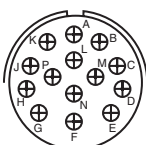
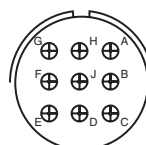
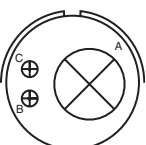
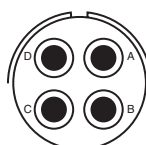
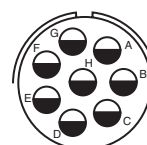
CONTACT LEGEND

MS/Standard contact arrangements

front face of pin insert or rear face of socket insert illustrated

					
Insert Arrangement	22-9	22-10	22-11	22-12	22-13
Service Rating	E	E	B	D	E = D; A, B, C, D = A
Number of Contacts	3	4	2	2 3	4 1
Contact Size	12	16	16	8 16	12 16

					
Insert Arrangement	22-14	22-15	22-16	22-17	22-18
Service Rating	A	D = E; A, B, C, E, F = A	A	A = D; Bal. = A	A, B, F, G, H = D; C, D, E = A
Number of Contacts	19	5 1	3 6	1 8	8
Contact Size	16	12 16	12 16	12 16	16

					
Insert Arrangement	22-19	22-20	22-21	22-22	22-23
Service Rating	A	A	A	A	H = D; Bal. = A
Number of Contacts	14	9	1 2	4	8
Contact Size	16	16	0 16	8	12

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CONTACT LEGEND
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MS/Standard contact arrangements

front face of pin insert or rear face of socket insert illustrated

Insert Arrangement	22-24	22-27	22-28	22-33	22-36
Service Rating	C, D, E = D; A, B, F = A	J = D; Bal. = A	A	A, B, C, D = D; E, F, G = A	H = D; Bal. = A*
Number of Contacts	2 4	1 8	7	7	8
Contact Size	12 16	8 16	12	16	12
Insert Arrangement	22-34	24-2	24-3	24-5	24-6
Service Rating	D	D	D	A	A, G, H = D; Bal. = A
Number of Contacts	3 2	7	2 5	16	8
Contact Size	12 16	12	12 16	16	12
Insert Arrangement	24-7	24-9	24-10	24-11	24-12
Service Rating	A	A	A	A	A
Number of Contacts	2 14	2	7	3 6	2 3
Contact Size	12 16	4	8	8 12	4 12

* A, C, E, G = Iron
B, D, F, H = Constantan

CONTACT LEGEND

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MS/Standard

contact arrangements

front face of pin insert or rear face of socket insert illustrated

Insert Arrangement	24-16	24-17	24-20	24-21	24-22
Service Rating	A, B, F, G = D; C, D, E, = A	D	D	D	D
Number of Contacts	1 3 3	2 3	2 9	1 9	4
Contact Size	8 12 16	12 16	12 16	8 16	8

Insert Arrangement	24-27	24-28	28-1	28-2	28-3
Service Rating	E	Inst.	A, J, E = D; Bal. = A	D	E
Number of Contacts	7	24	3 6	2 12	3
Contact Size	16	16	8 12	12 16	8

Insert Arrangement	28-4	28-5	28-6	28-7
Service Rating	G, P, S = E; Bal. = D	D	D	D
Number of Contacts	2 7	2 1 2	3	2
Contact Size	12 16	4 12 16	4	4

CONTACT LEGEND

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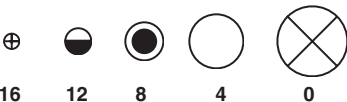
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MS/Standard

contact arrangements

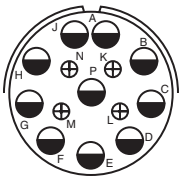
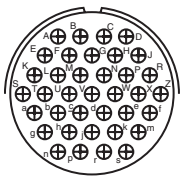
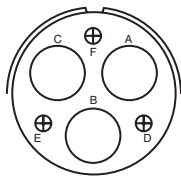
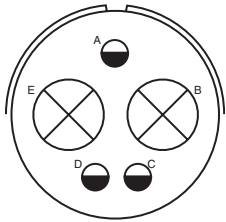
front face of pin insert or rear face of socket insert illustrated

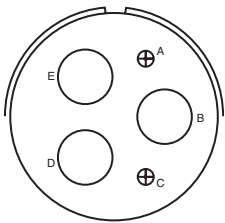
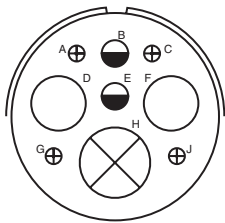
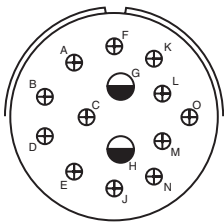
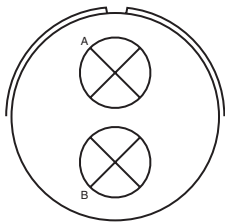
Insert Arrangement	28-8	28-9	28-10	28-11			
Service Rating	L, M = E; B = D; Bal. = A	D	G = D; Bal. = A	A			
Number of Contacts	2 10	6 6	2 2 3	4 18			
Contact Size	12 16	12 16	4 8 12	12 16			
Insert Arrangement	28-12	28-13	28-15	28-16			
Service Rating	A	A	A	A			
Number of Contacts	26	26	35	20			
Contact Size	16	16	16	16			
Insert Arrangement	28-17	28-18	28-19				
Service Rating	R = B; M, N, P = D; A to L = A	M = C; G, H, J, K, L = D; A, B = A; Bal. = Inst.	H, M = B; A, B = D; Bal. = A				
Number of Contacts	15	12	4 6				
Contact Size	16	16	12 16				

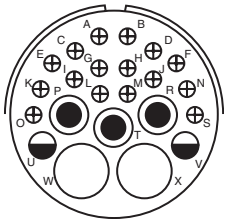
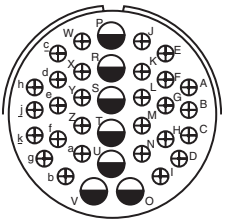
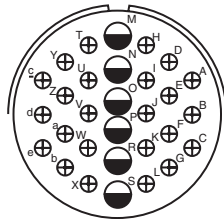
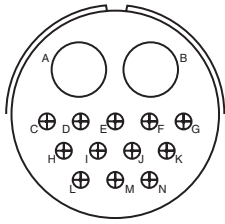


MS/Standard contact arrangements

front face of pin insert or rear face of socket insert illustrated

				
Insert Arrangement	28-20	28-21	28-22	32-1
Service Rating	A	A	D	A = E; B, C, D, E = D
Number of Contacts	10 4	37	3 3	2 3
Contact Size	12 16	16	4 16	0 12

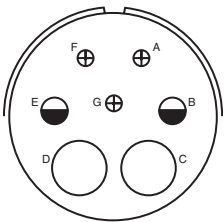
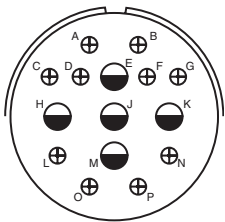
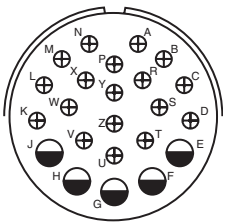
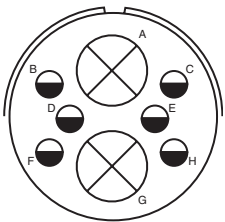
				
Insert Arrangement	32-2	32-3	32-4	32-5
Service Rating	E	D	F, J, K, N = A; Bal. = D	D
Number of Contacts	3 2	1 2 2 4	2 12	2
Contact Size	4 16	0 4 12 16	12 16	0

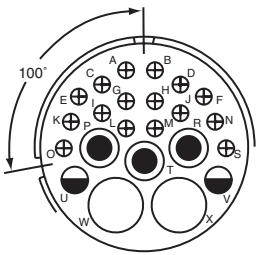
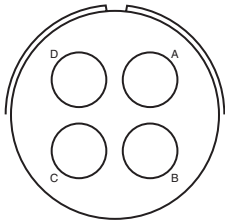
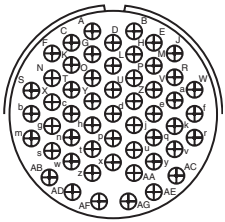
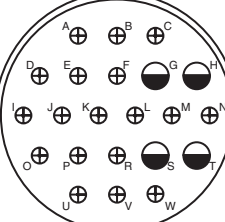
				
Insert Arrangement	32-6	32-7	32-8	32-9
Service Rating	A	A, B, h, j = Inst.; Bal. = A	A	D
Number of Contacts	2 3 2 16	7 28	6 24	2 12
Contact Size	4 8 12 16	12 16	12 16	4 16

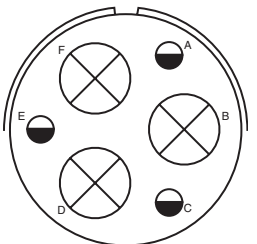
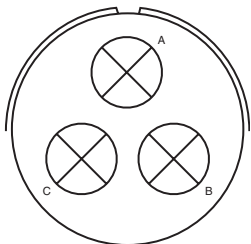
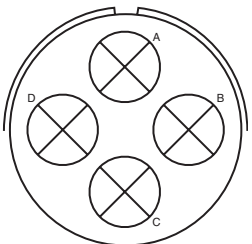
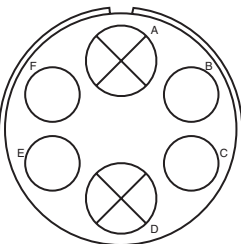
					
CONTACT LEGEND	16	12	8	4	0

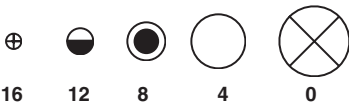
MS/Standard contact arrangements

front face of pin insert or rear face of socket insert illustrated

				
Insert Arrangement	32-10	32-12	32-13	32-15
Service Rating	A, F = E; G = B; B, E = D; C, D = A	C, D, E, F, G = A; Bal. = D	D	D
Number of Contacts	2 2 3	5 10	5 18	2 6
Contact Size	4 8 16	12 16	12 16	0 12

				
	100° Rotation of 32-6			
Insert Arrangement	32-16	32-17	32-22	36-1
Service Rating	A	D	A	D
Number of Contacts	2 3 2 16	4	54	4 18
Contact Size	4 8 12 16	4	16	12 16

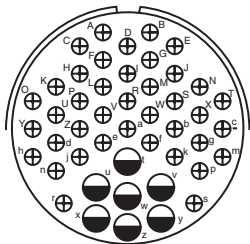
				
Insert Arrangement	36-3	36-4	36-5	36-6
Service Rating	D	A = D; B, C = A	A	A
Number of Contacts	3 3	3	4	2 4
Contact Size	0 12	0	0	0 4



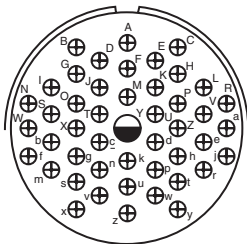
MS/Standard

contact arrangements

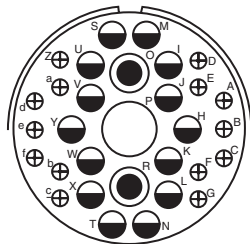
front face of pin insert or rear face of socket insert illustrated



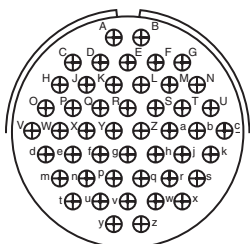
Insert Arrangement	36-7
Service Rating	A
Number of Contacts	7 40
Contact Size	12 16



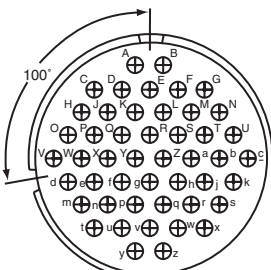
36-8
A
1 46
12 16



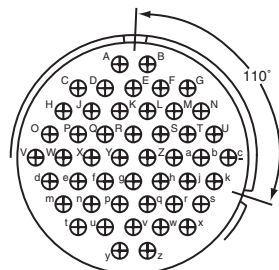
36-9
A
1 2 14 14
4 8 12 16



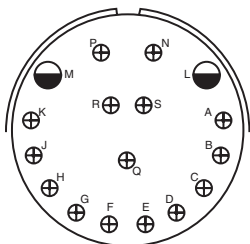
Insert Arrangement	36-10
Service Rating	A
Number of Contacts	48
Contact Size	16



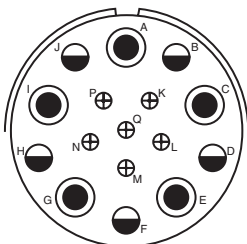
100° Rotation of 36-10
36-11
A
48
16



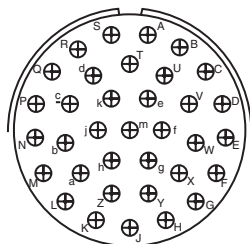
110° Rotation of 36-10
36-12
A
48
16



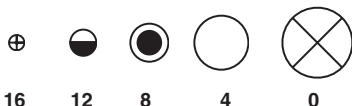
Insert Arrangement	36-13
Service Rating	N, P, Q = E; Bal. = A
Number of Contacts	2 15
Contact Size	12 16



36-14
D
5 5 6
8 12 16

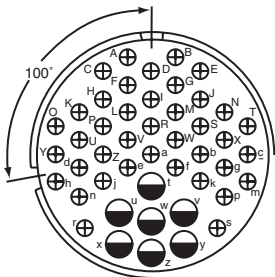


36-15
M = D; Bal. = A
35
16



MS/Standard contact arrangements

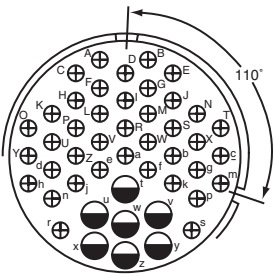
front face of pin insert or rear face of socket insert illustrated



100° Rotation
of 36-7
36-16

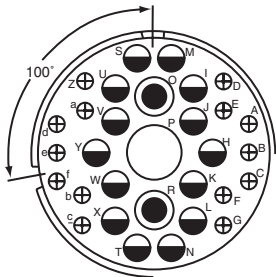
Insert Arrangement
Service Rating
Number of Contacts
Contact Size

A
7 40
12 16



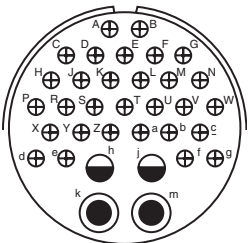
110° Rotation
of 36-9
36-17

A
7 40
12 16



100° Rotation
of 36-9
36-18

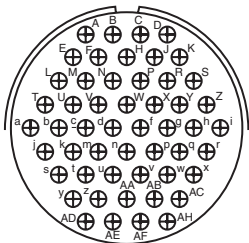
A
1 2 14 14
4 8 12 16



36-20

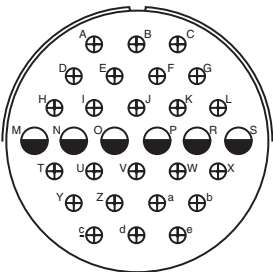
Insert Arrangement
Service Rating
Number of Contacts
Contact Size

A
2 2 30
8 12 16



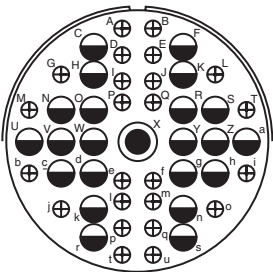
36-52

A
52
16



40-1

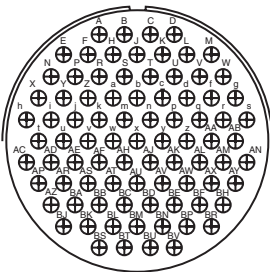
D
6 24
12 16



40-9

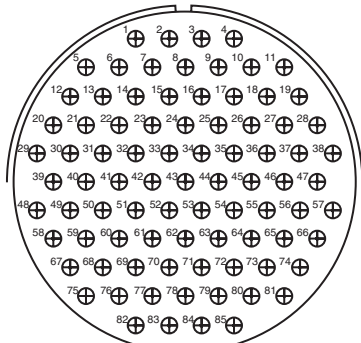
Insert Arrangement
Service Rating
Number of Contacts
Contact Size

A
1 22 24
8 12 16



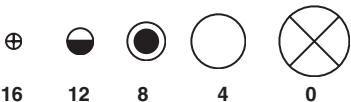
48-62

A
85
16



48-62

D
85
16

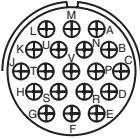
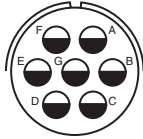
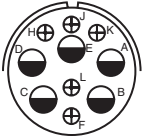


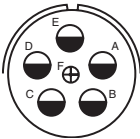
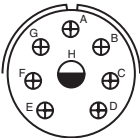
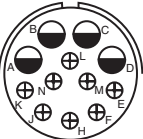
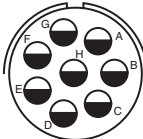
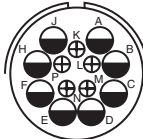
Special contact arrangements

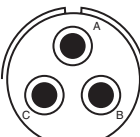
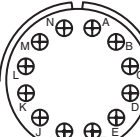
Requirements for more complex circuits prompted Amphenol to provide inserts not covered by the MS drawings. Illustrated here and on the following pages are insert layouts which have from one contact (high tension) to the 104 contact insert in shell size 44.

Many of these special inserts are also available in alternate keyway arrangements. Please contact Amphenol, Sidney, NY for additional information on special circuit application requirements.

front face of pin insert or rear face of socket insert illustrated

						
Insert Arrangement	14S-A7	16-59	20-26	20-51	20-57	20-58
Service Rating	A	A	A	A	A	A
Number of Contacts	7	4	19	3*	7*	5 5
Contact Size	16	12	16	8	12 for #14 or 16 wire	12 16

						
Insert Arrangement	20-59	20-66	20-79	22-63	22-65	22-70
Service Rating	A	A	H = D; Bal. = A	A	H = D; Bal. = A	A
Number of Contacts	3*	1 5	7* 1*	4 8	8*	8 5
Contact Size	8 for #10 or 12 wire	16 12 for #10 wire	16 12 for #16 wire	12 16	12 for #14 or 16 wire	12 16

						
Insert Arrangement	22-80	24-19	24-51	24-52	24-53	24-58
Service Rating	A	A	A	Hi-Volt	A	A
Number of Contacts	3*	12	5*	1	5*	3 3 7
Contact Size	8 for #10 or 12 wire	16	B, E for AN #10 or 12 wire A, C, D for AN #8 wire	12	8	8 12 16

* Solderless



CONTACT LEGEND

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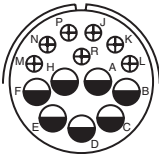
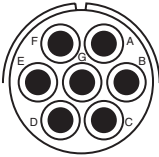
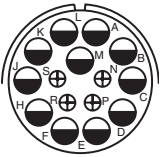
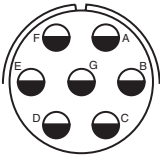
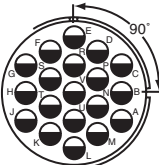
8

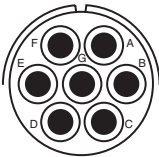
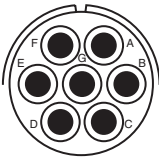
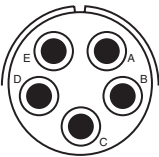
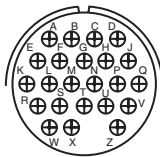
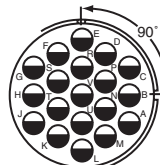
4

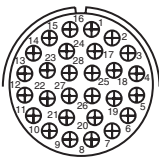
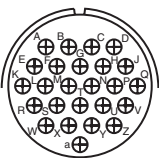
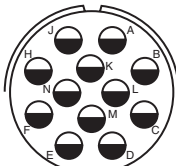
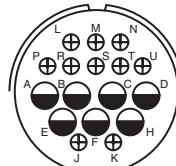
0

Special contact arrangements

front face of pin insert or rear face of socket insert illustrated

					
Insert Arrangement	24-59	24-60	24-65	24-66	24-67
Service Rating	A	A	A	D	Inst.
Number of Contacts	7 7	7*	11 4	7	19
Contact Size	12 16	8 for #10 or 12 wire	12 16	12	12

					
Insert Arrangement	24-71	24-75	24-79	24-80	24-84
Service Rating	A	A	A	Inst.	A
Number of Contacts	2* 5*	5 2	5	23	1 18
Contact Size	8 8 for #10 or 12 wire	8 8 for #16 wire	8	16	12 12 (Coax) RG-188/U or RG-174/U

				
Insert Arrangement	24-96	24-AJ	28-51	28-59
Service Rating	Inst.	A	A	A
Number of Contacts	28	25	12	7 10
Contact Size	16	16	12	12 16

* Solderless



CONTACT LEGEND

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12

8

4

0

Special contact arrangements

front face of pin insert or rear face of socket insert illustrated

Insert Arrangement	28-66	28-72	28-74	28-75	28-79
Service Rating	A	—	A	A	A
Number of Contacts	2 14	3	9* 4* 3*	9* 7*	7 9
Contact Size	8 12	4 (Coax) RG-59A/U or RG-62A/U	16 8 8 for #10 wire (S, T, R)	16 8 for #10 wire	8 16

Insert Arrangement	28-82	28-84	28-AY	32-14	32-25
Service Rating	D	A	A	D	A
Number of Contacts	2 4	9	4 5	13	25
Contact Size	8 12	8	4 16	12	12

Insert Arrangement	32-31	32-48	32-52	32-53
Service Rating	A	Inst.	D	t, u = E; Bal. = Inst.
Number of Contacts	31	48	6 2	5 37
Contact Size	16	16	12 0	12 16

* Solderless



CONTACT LEGEND

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12

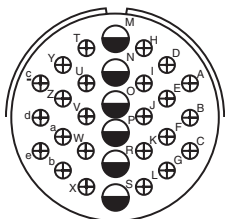
8

4

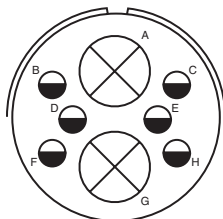
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Special contact arrangements

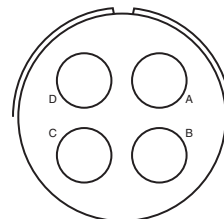
front face of pin insert or rear face of socket insert illustrated



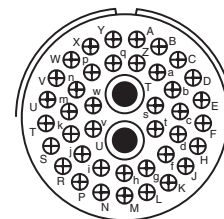
32-56



32-57



32-58



32-59

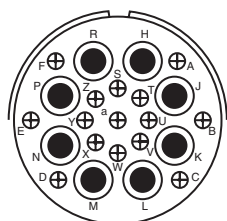
Insert Arrangement
Service Rating
Number of Contacts
Contact Size

A
24 6
16 12 for #10 wire

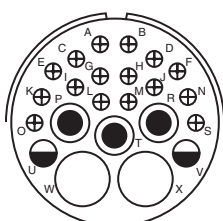
**
6 2
12 0 (Coax) RG-71/U

—
4
4 (Coax) RG-161/U
or RG-179/U

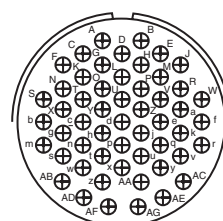
A
40 2
16 8 (Coax) RG-161/U



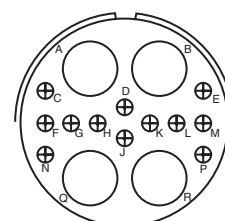
32-60



32-62



32-64



32-68

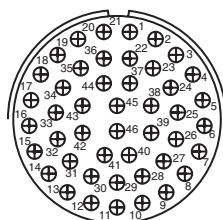
Insert Arrangement
Service Rating
Number of Contacts
Contact Size

A
15 8
16 8 (Coax) RG-124/U

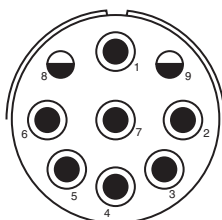
**
2 1 2 16 2
4 8 12 16 8 (Coax) RG-124/U

Inst.
54
16

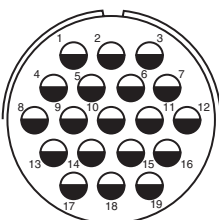
A
12 4
16 4 (Coax) RG-58C/U



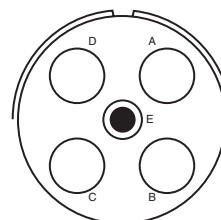
32-73



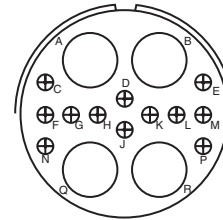
32-75



32-76



32-79



32-82

Insert Arrangement
Service Rating
Number of Contacts
Contact Size

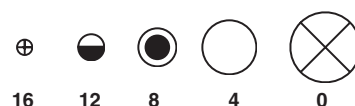
A
46
16

8, 9 = D
2 7
12 8 (Coax) RG-180B/U

A
19
12

D
4 1
4 8

A
4 12
4 16



** Consult Amphenol, Sidney, NY for service rating of power contacts.

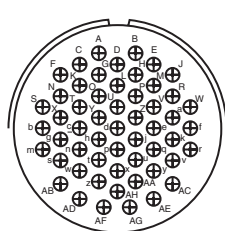


CONTACT LEGEND

16 12 8 4 0

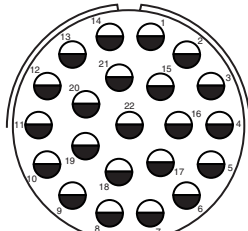
Special contact arrangements

front face of pin insert or rear face of socket insert illustrated

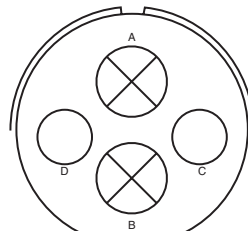


Insert Arrangement
Service Rating
Number of Contacts
Contact Size

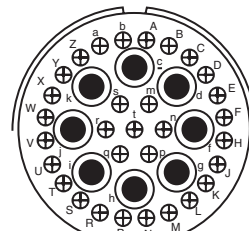
32-AF
A
55
16



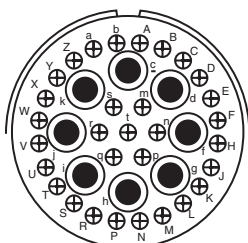
36-22
D
22
12



36-51
D
2 2
0 4

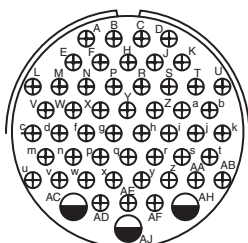


36-54
A
8 31
8 16

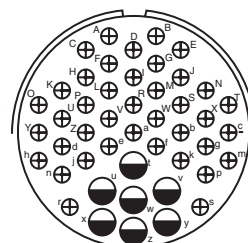


Insert Arrangement
Service Rating
Number of Contacts
Contact Size

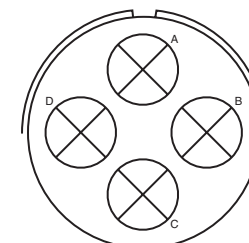
36-55
A
31 8
16 8 for #6 wire



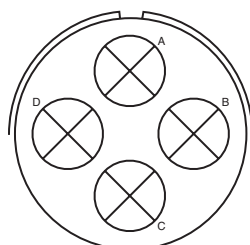
36-59
A
50 3
16 12 for #10 wire



36-60
**
40 7
16 12 for #10 wire

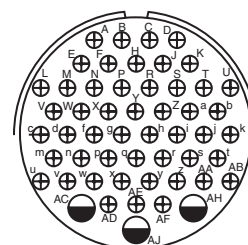


36-64
—
4
0 (Coax) RG-11/U,
RG-12/U or RG-13/U

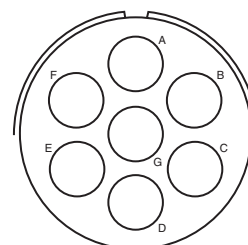


Insert Arrangement
Service Rating
Number of Contacts
Contact Size

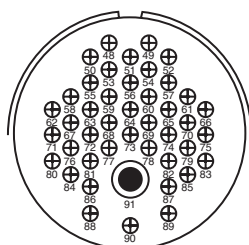
36-65
—
4
0 (Coax) RG-59/U, RG-62/U
or RG-71/U



36-71
A
3 50
12 16



36-73
—
7
4 (Coax) RG-62B/U

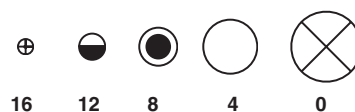


36-74
A
43 1
16 8 (Coax) RG-187/U

** Consult Amphenol, Sidney, NY for service rating of power contacts.

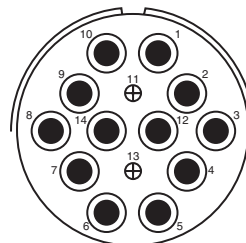
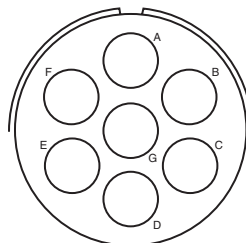
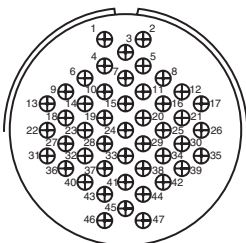
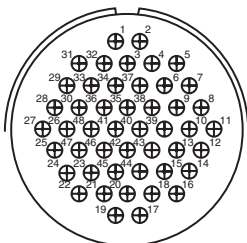


CONTACT LEGEND

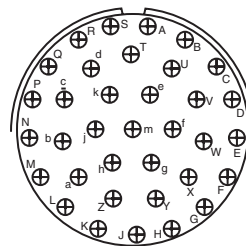
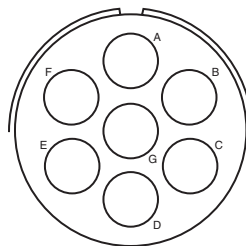
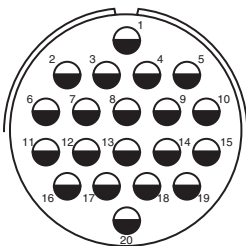
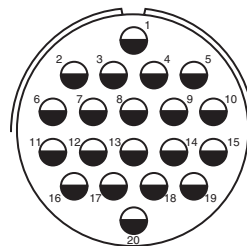


Special contact arrangements

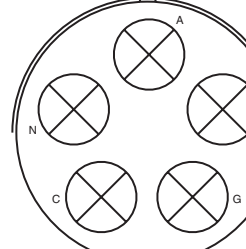
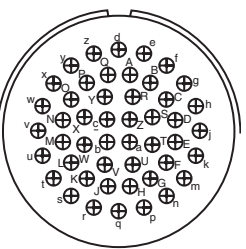
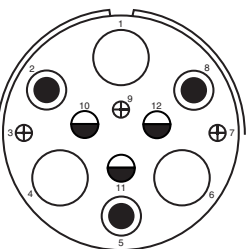
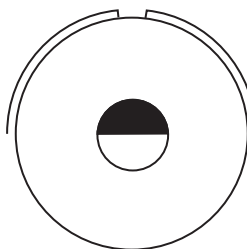
front face of pin insert or rear face of socket insert illustrated



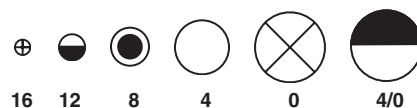
Insert Arrangement	36-75	36-76	36-77	36-78
Service Rating	A	A	D	A
Number of Contacts	48	47	7	2 12
Contact Size	16 for #14 wire	16	4	16 8



Insert Arrangement	36-79	36-80	36-83	36-85
Service Rating	A	A	–	M = D; Bal. = A
Number of Contacts	20	20	7	35
Contact Size	12	12 for #10 wire	4 (Coax) RG-58/U	16 for #12 wire



Insert Arrangement	36-97	36-99				36-AF	40-5
Service Rating	C	D				A	A
Number of Contacts	1	3	3	3	3	48	5
Contact Size	4/0	4	8	12	16	16	0



CONTACT LEGEND

Special contact arrangements

front face of pin insert or rear face of socket insert illustrated

Insert Arrangement	40-10	40-30	40-35	40-53
Service Rating	A	A	D	A
Number of Contacts	4 9 16	29 1	35	60
Contact Size	4 8 16	12 4	12	16

Insert Arrangement	40-57	40-61	40-62
Service Rating	E	A	A
Number of Contacts	4	1 3 55	60
Contact Size	0	8 12 16	16

Insert Arrangement	40-63	40-64	40-66
Service Rating	A	-	-
Number of Contacts	61	3 20 13	4
Contact Size	16 for #14 wire	12 16 8 (Coax) RG-124/U	0 (Coax) RG-63B/U

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CONTACT LEGEND

16

12

8

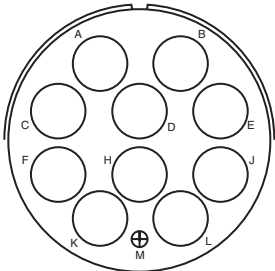
4

0

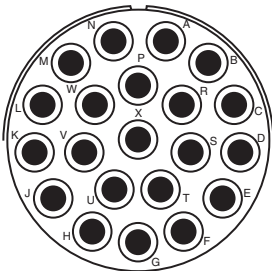
Special contact arrangements

front face of pin insert or rear face of socket insert illustrated

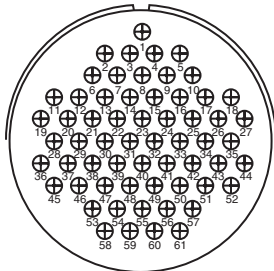
Insert Arrangement	40-67
Service Rating	A
Number of Contacts	1 10
Contact Size	16 4 (Coax) RG-59/U



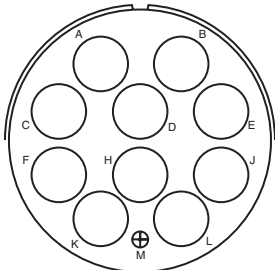
40-68
A
21
8



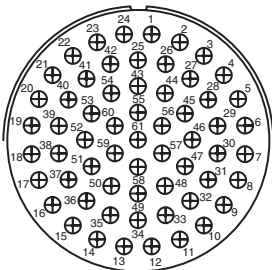
40-70
A
61
16



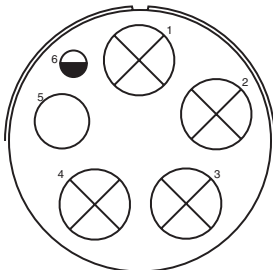
Insert Arrangement	40-72
Service Rating	A
Number of Contacts	1 10
Contact Size	16 4 (Coax) RG-9B/U



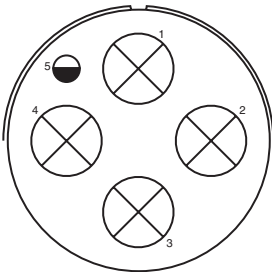
40-73
A
61
16



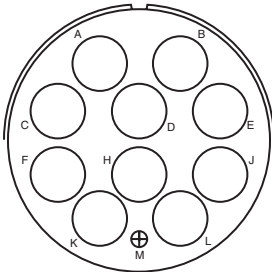
40-74
A
1 1 4
12 4 (Coax) RG-62/U 0 (Coax) RG-9B/U or RG-214/U



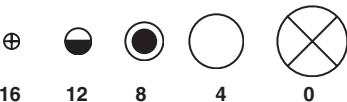
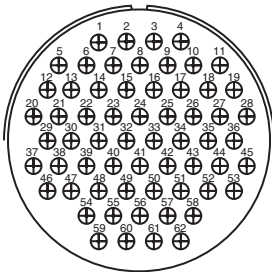
Insert Arrangement	40-75
Service Rating	E
Number of Contacts	1 4
Contact Size	12 0



40-80
A
1 10
16 4

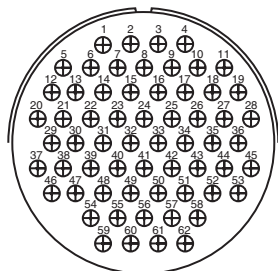


40-81
A
62
16 for #14 wire

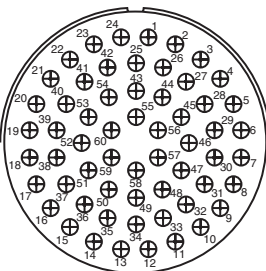


Special contact arrangements

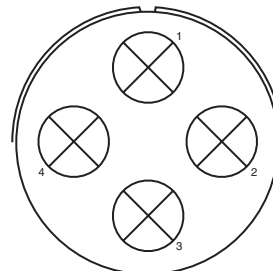
front face of pin insert or rear face of socket insert illustrated



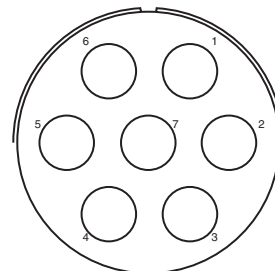
Insert Arrangement 40-82
Service Rating A
Number of Contacts 62
Contact Size 16



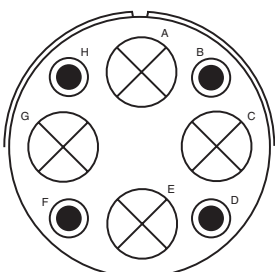
Insert Arrangement 40-85
Service Rating A
Number of Contacts 60
Contact Size 16 for #14 wire



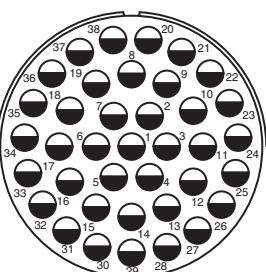
Insert Arrangement 40-86
Service Rating —
Number of Contacts 4
Contact Size 0 (Coax) RG-115A/U



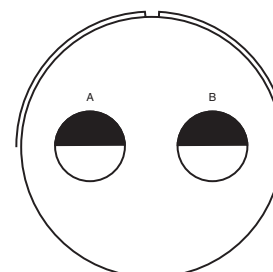
Insert Arrangement 40-87
Service Rating D
Number of Contacts 7
Contact Size 4



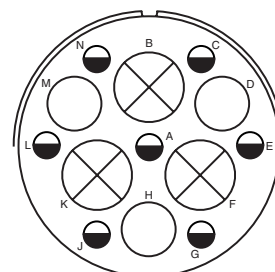
Insert Arrangement 40-AD
Service Rating A
Number of Contacts 4 4
Contact Size 8 0



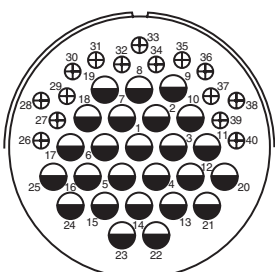
Insert Arrangement 40-AG
Service Rating A
Number of Contacts 38
Contact Size 12



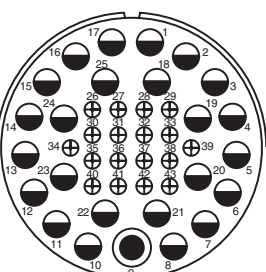
Insert Arrangement 40-AP
Service Rating E
Number of Contacts 2
Contact Size 4/0



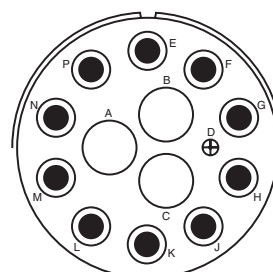
Insert Arrangement 40-AR
Service Rating Inst.
Number of Contacts 7 3 3
Contact Size 12 4 0



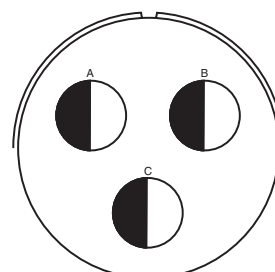
Insert Arrangement 40-AS
Service Rating A
Number of Contacts 15 25
Contact Size 16 12



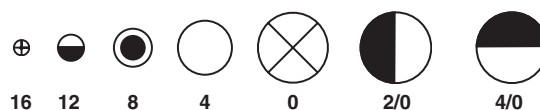
Insert Arrangement 40-AT
Service Rating A
Number of Contacts 24 18 1
Contact Size 12 16 8



Insert Arrangement 40-AU
Service Rating A
Number of Contacts 3 10 1
Contact Size 4 8 16



Insert Arrangement 40-AV
Service Rating D
Number of Contacts 3
Contact Size 2/0

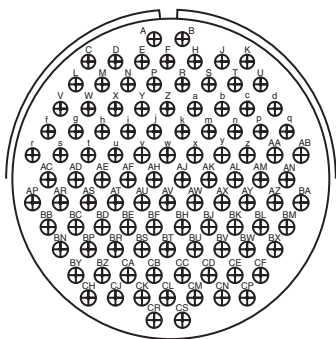


CONTACT LEGEND

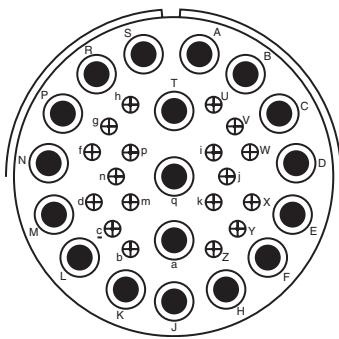


Special contact arrangements

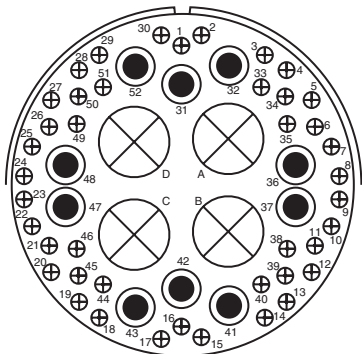
front face of pin insert or rear face of socket insert illustrated



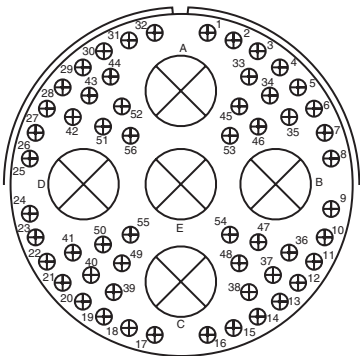
Insert Arrangement	44-52
Service Rating	A
Number of Contacts	104
Contact Size	16



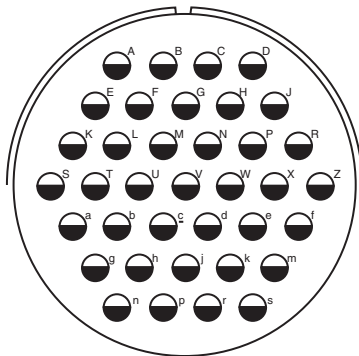
Insert Arrangement	44-53
Service Rating	A
Number of Contacts	18 18
Contact Size	16 8 (Coax) RG-124/U



Insert Arrangement	48-51
Service Rating	A
Number of Contacts	42 10 4
Contact Size	16 8 0 (Coax) RG-41/U



Insert Arrangement	48-52
Service Rating	A
Number of Contacts	56 5
Contact Size	16 0 (Coax) RG-41/U

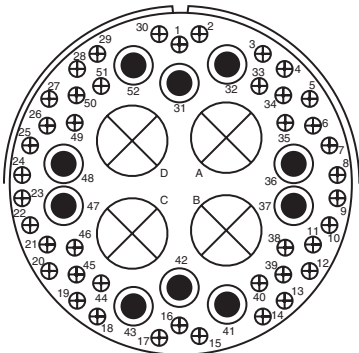


Insert Arrangement	48-53
Service Rating	D
Number of Contacts	37
Contact Size	12



Special contact arrangements

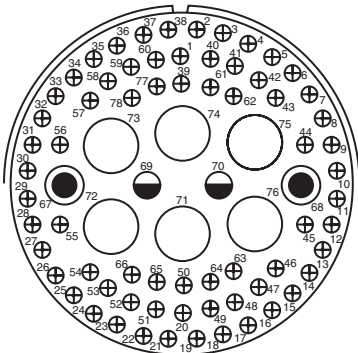
front face of pin insert or rear face of socket insert illustrated



48-54

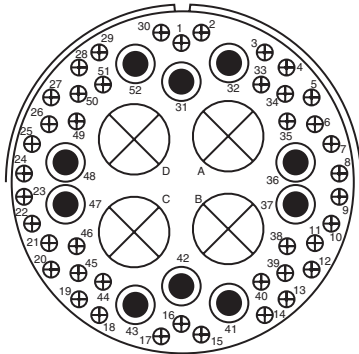
Insert Arrangement
Service Rating
Number of Contacts
Contact Size

A			
42	10	4	
16	8	0 (Coax)	RG-59/U



48-55

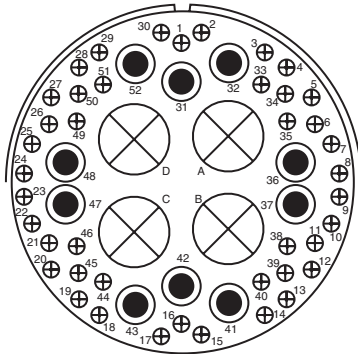
A			
68	2	2	6
16	12	8	4



48-57

Insert Arrangement
Service Rating
Number of Contacts
Contact Size

A			
42	10	4	
16	8	0	



48-60

A			
42	10	4	
16	8	0 (Coax)	RG-214/U



CONTACT LEGEND 16 12 8 4 0

Thermocouple contact availability

A complete line of cylindrical connectors containing thermocouple insert arrangements is available. The contact layout for a particular arrangement will be found in either the MS/Standard contact arrangement section, pages 26-37, or the Special contact arrangement section, pages 38-48. All thermocouple contact layouts may contain either iron, alumel, chromel, constantan, standard (copper) or brass (dummy) contacts. See the thermocouple tabulations on the following pages.

The following abbreviations are used in the contact material column in the charts that follow. Also, thermocouple contacts are color coded as shown. (This identification is made by means of small dots of stain on the solder well end of the contact).

Abbreviation	Material	Color Code
Ir.	Iron	Black
Con.	Constantan	Yellow
Cu.	Copper Alloy	N/A
Ch.	Chromel	White
Al.	Alumel	Green
Dummy	Brass	N/A

WIRE WELL DATA

Contact Size	Well Inside Dia. +.004 -.002	Well Depth +.031 -.000	Solder Well Barrel Outside Dia.
12	.125	.250	.166 ±.003
16	.094	.188	.125 ^{+.002} -.004

RECOMMENDED WIRE

I Chromel - Alumel	Use wire in accordance with MIL-W-5848
II Iron - Constantan	Use wire in accordance with MIL-W-5845

Thermocouple contact arrangements

Shell Size and Arrg.	Similar to MS Arrg.	Total Contacts	Contact Size		Pin Insert Rotation C W	Contact Material
			12	16		
10SL-51	10SL-4	2		2	45°	A = Ir.; B = Con.
10SL-52	10SL-4	2		2	45°	A = Cu.; B = Con.
10SL-53	10SL-4	2		2	45°	A = Al.; B = Ch.
10SL-54	10SL-3	3		3	None	A = Ir.; B = Con.; C = Cu.
10SL-55	10SL-3	3		3	None	A = Al.; B = Ch.; C = Cu.
10SL-56	10SL-4	2		2	None	A = Al.; B = Ch.
10SL-57	10SL-4	2		2	None	A = Ch.; B = Con.
10SL-58	10SL-3	3		3	None	A = Ch.; B = Al.; C = Cu.
10SL-59	10SL-4	2		2	None	A = Ch.; B = Al.
10SL-60	10SL-4	2		2	None	A = Ir.; B = Con.
10SL-61	10SL-4	2		2	None	A = Cu.; B = Con.
10SL-62	10SL-3	3		3	None	A = Cu.; B = Al.; C = Ir.
10SL-63	10SL-3	3		3	None	A, C = Con.; B = Ch.
10SL-64	10SL-3	3		3	None	A, C = Ch.; B = Al.
12S-51	12S-3	2		2	315°	A = Ch.; B = Al.
12S-54	12S-3	2		2	315°	A = Ir.; B = Con.
12S-55	12S-3	2		2	45°	A = Cu.; B = Con.
12S-56	12S-3	2		2	None	A = Al.; B = Ch.
12S-57	12S-3	2		2	60°	A = Ch.; B = Al.
12S-58	12S-3	2		2	120°	A = Ir.; B = Con.
12S-59	12S-3	2		2	None	A = Ir.; B = Con.
12S-60	12S-3	2		2	None	A = Cu.; B = Con.
12S-61	12S-3	2		2	None	A = Ch.; B = Con.
12S-62	12S-3	2		2	None	A = Ch.; B = Al.
14S-51	14S-9	2		2	90°	A = Al.; B = Ch.
14S-52	14S-2	4		4	45°	A, B = Cu.; C = Al.; D = Ch.
14S-53	14S-9	2		2	90°	A = Ir.; B = Con.
14S-54	14S-6	6		6	45°	A, C, E = Ir.; B, D, F = Con.
14S-55	14S-2	4		4	45°	A, C = Ir.; B, D = Con.
14S-56	14S-2	4		4	45°	A = Ir.; B = Con.; C, D = Cu.
14S-57	14S-2	4		4	45°	A, C = Al.; B, D = Ch.
14S-58	14S-7	3		3	45°	A = Al.; B = Ch.; C = Cu.
14S-59	14S-9	2		2	90°	A = Cu.; B = Con.
14S-60	14S-9	2		2	None	A = Al.; B = Ch.
14S-61	14S-6	6		6	45°	A = Al.; B = Ch.; C = Ir.; D = Con.; E, F = Cu.
14S-63	14S-6	6		6	None	A, C = Al.; B, D = Ch.; E = Ir.; F = Con.
14S-64	14S-2	4		4	None	A, C = Con.; B, D = Cu.
14S-65	14S-6	6		6	None	A, C, E = Cu.; B, D, F = Con.
14S-67	14S-6	6		6	None	A = Al.; B = Ch.; Balance = Cu.
14S-68	14S-2	4		4	45°	A = Ch.; B = Con.; C, D = Cu.
14S-69	14S-7	3		3	None	A = Con.; B = Ch.; C = Cu.
14S-70	14S-2	4		4	None	A, D = Ch.; B, C = Al.
14S-71	14S-2	4		4	None	A, B, D = Cu.; C = Con.
14S-72	14S-9	2		2	None	A = Con.; B = Cu.
14S-73	14S-2	4		4	None	A, B = Cu.; C = Al.; D = Ch.

Thermocouple contact arrangements

Shell Size and Arrg.	Similar to MS Arrg.	Total Contacts	Contact Size		Pin Insert Rotation C W	Contact Material
			12	16		
14S-74	14S-2	4		4	None	A, B = Ch.; C, D = Al.
14S-75	14S-2	4		4	None	A, B = Cu.; C, D = Con.
14S-76	14S-2	4		4	None	A, C = Al.; B, D = Ch.
14S-77	14S-2	4		4	None	A, D = Al.; B, C = Ch.
14S-78	14S-9	2		2	None	A = Ch.; B = Al.
16S-52	16S-4	2		2	None	A = Ch.; B = Al.
16S-54	16S-1	7		7	None	A = Al.; B = Ch.; Balance = Cu.
16S-55	16S-1	7		7	None	A = Con.; Balance = Cu.
16-52	16-11	2	2		90°	A = Al.; B = Ch.
16-53	16-9	4	2	2	70°	A = Al.; C = Ch.; B, D = Cu.
16-55	16-10	3	3		45°	A = Al.; B = Ch.; C = Cu.
16-56	16-13	2	2		90°	A = Con.; B = Cu.
16-57	16-10	3	3		None	A = Al.; B = Cu.; C = Ch.
16-58	16-10	3	3		None	A = Con.; B, C = Cu.
16-60	16-13	2	2		None	A = Al.; B = Ch.
16-62	16-11	2	2		None	A = Con.; B = Cu.
18-51	18-12	6		6	None	A = Ir.; B, E = Con.; D = Cu.; C, F = Dummy
18-52	18-11	5	5		None	A = Ir.; B = Con.; C = Ch.; D = Al.; E = Dummy
18-53	18-12	6		6	None	A, D = Ir.; B, E = Con.; C, F = Dummy
18-54	18-15	4	4		None	A, C = Al.; B, D = Ch.
18-56	18-1	10		10	45°	A, C, E, G, I = Ir.; B, D, F, H, J = Con.
18-57	18-12	6		6	45°	A, C, E = Al.; B, D, F = Ch.
18-59	18-12	6		6	45°	A, C = Ir.; B, E, F = Con.; D = Cu.
18-60	18-11	5	5		45°	A, D = Al.; B, C = Ch.; E = Cu.
18-61	18-12	6		6	None	A, C = Ir.; B, D = Con.; E = Ch.; F = Al.
18-62	18-12	6		6	None	A, B, C = Ir.; D, E, F = Con.
18-63	18-15	4	4		None	A, C = Con.; B, D = Cu.
18-65	18-12	6		6	None	A = Ir.; B = Con.; Balance = Cu.
18-66	18-1	10		10	None	A, C, E, G, I = Cu.; B, D, F, H, J = Con.
18-67	18-12	6		6	None	A, C, E = Cu.; B, D, F = Con.
18-68	18-11	5	5		None	A, D = Al.; B, C = Ch.; E = Cu.
18-69	18-1	10		10	None	A = Al.; B = Ch.; Balance = Cu.
18-70	18-11	5	5		None	A = Ir.; B = Con.; C = Ch.; D = Al.; E = Cu.
18-71	18-15	4	4		None	A = Con.; Balance = Cu.
18-72	18-15	4	4		None	D = Con.; Balance = Cu.
18-73	18-9	7	2	5	None	A = Al.; D = Ch.; Balance = Cu.
18-74	18-12	6		6	None	A = Ch.; B = Al.; D = Ir.; E = Cu.; C, F = Con.
20-52	20-4	4	4		315°	A = Ir.; B = Con.; C = Ch.; D = Al.
20-56	20-7	8		8	45°	A, B, G, H = Ir.; C, D, E, F = Con.
20-60	20-7	8		8	45°	D = Ch.; E = Al.; Balance = Cu.
20-61	20-29	17		17	45°	A, B, M = Cu.; Balance = Con.
20-62	20-15	7	7		80°	A, C, E = Al.; B, D, F = Ch.; G = Cu.
20-64	20-27	14		14	None	A = Al.; C = Ch.; Balance = Cu.

Thermocouple contact arrangements

Shell Size and Arrg.	Similar to MS Arrg.	Total Contacts	Contact Size		Pin Insert Rotation C W	Contact Material
			12	16		
20-65	20-27	14		14	None	A, B, C, D, E, F, G = Ir.; H, I, J, K, L, M, N = Con.
20-67	20-16	9	2	7	None	H = Al.; I = Ch.; Balance = Cu.
20-68	20-7	8		8	None	A, B, G, H = Con.; C, D, E, F = Cu.
20-69	20-27	14		14	None	A, B, C, D, E, F, G = Cu.; H, I, J, K, L, M, N = Con.
20-70	20-29	17		17	None	A, C, E, G, J, L, N, R, T = Ir.; B, D, F, H, K, M, P, S = Con.
20-71	20-29	17		17	None	S = Al.; R = Ch.; Balance = Cu.
20-74	20-29	17		17	None	A, C, E, G, J, L, N, R = Ir.; B, D, F, H, K, M, P, S = Con.; T = Cu.
20-75	20-15	7	7		None	G = Al.; Balance = Ch.
20-77	20-16	9	2	7	None	A = Con.; Balance = Std.
20-80	20-27	14		14	None	A, C, E, G, I, K, M = Cu.; B, D, F, H, J, L, N = Con.
20-81	20-27	14		14	None	A, C, E, G, I, K, M = Ch.; B, D, F, H, J, L, N = Al.
20-82	20-29	17		17	None	A, C, E, G, J, L, N, R = Al.; B, D, F, H, K, M, P, S = Ch.; T = Cu.
22-36	22-23	8	8		347°	A, C, E, G = Ir.; B, D, F, H = Con.
22-57	22-14	19		19	45°	A, C, E, G, J, L, N, R = Ir.; B, D, F, H, K, M, P, S = Con.; T, U, V = Cu.
22-60	22-14	19		19	45°	U = Al.; N = Ch.; Balance = Cu.
22-62	22-23	8	8		60°	A, B, F, G = Al.; C, D, E, H = Ch.
22-68	22-19	14		14	45°	A, C, E, G, J, L, M = Ir.; B, D, F, H, K, P, N = Con.
22-69	22-19	14		14	45°	A, C, E, G, J, L, M = Cu.; B, D, F, H, K, P, N = Con.
22-71	22-14	19		19	None	V = Al.; U = Ch.; Balance = Cu.
22-72	22-5	6	2	4	None	B = Al.; E = Ch.; Balance = Cu.
22-73	22-5	6	2	4	None	E = Al.; B = Ch.; Balance = Cu.
22-74	22-23	8	8		None	A, C, E, G = Ir.; B, D, F, H = Con.
22-75	22-23	8	8		None	A = Al.; B, D, G, H = Cu.; C = Ch.; E = Ir.; F = Con.
22-76		21		21	None	W = Con.; Balance = Cu.
22-77	22-19	14		14	None	B, D, F, H, J, K, M, P = Cu.; A, E, L = Ir.; C, G, N = Con.
22-78	22-14	19		19	None	A, C, E, G, H, K, M, P, R, T = Con.; Balance = Cu.
22-79	22-10	4		4	None	A, C = Con.; B, D = Cu.
24-56	24-20	11	2	9	45°	E = Al.; F = Ch.; Balance = Cu.
24-57	24-28	24		24	45°	A, C, J, V, Y, W, K, E, H, U, S, M = Ch.; Balance = Al.
24-62	24-28	24		24	None	A, C, E, G = Ir.; B, D, F, H = Con.; R, T = Ch.; S, U = Al.; Balance = Cu.
24-63	24-28	24		24	None	A, C, E, G, J, L, K, N, S, U, W, Y = Cu.; B, D, F, H, Q, R, M, P, T, V, X, Z = Con.
24-64	24-5	16		16	None	A, B, C, D, E, F, G, H = Ir.; J, K, L, M, N, P, R, S = Con.
24-68	24-28	24		24	None	D = Con.; Balance = Cu.
24-81	24-7	16	2	14	None	A, C, E, G, I, K, M, N, P = Cu.; B, D, F, H, J, L, O = Con.
28-53	28-11	22	4	18	45°	J, L = Al.; K, M = Ch.; Balance = Cu.
28-58	28-20	14	10	4	45°	A, C, E, G, K, M = Al.; B, D, F, H, L, N = Ch.; J, P = Cu.
28-61	28-21	37		37	45°	A, C, J, Z, m, r, n, a, K, F, H, X, k, h, T, M, N, d = Ir.; Balance = Con.
28-63	28-20	14	10	4	45°	A, C, E, G, J = Al.; B, D, F, H, P = Ch.; Balance = Cu.
28-64	28-15	35		35	None	A, d = Al.; B, j = Ch.; C, D, E, F, G, N, P, R, S, H, J, K, L, M, W, X, Y, Z = Con.; Balance = Cu.
28-65	28-12	26		26	None	A, C, E, G, J, L, N, R, T, V = Ir.; X, Z = Al.; B, D, F, H, K, M, P, S, U, W = Con.; Y, a = Ch.; b, d = Cu.
28-67	28-16	20		20	None	U = Con.; Balance = Cu.
28-68	28-15	35		35	45°	T = Al.; U = Ch.; Balance = Cu.

Thermocouple contact arrangements

[illegible]

* Amphenol arrangement

