

QWL

insert arrangements - selection guide

Insert Arrangement	Service Rating	Total Contacts	Contact Size				
			0	4	8	12	16
10S-2	A	1					1
12S-3	A	2					2
12S-4	D	1					1
12S-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
18-31	A	5					5

Insert Arrangement	Service Rating	Total Contacts	Contact Size				
			0	4	8	12	16
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	

QWL

insert arrangements, cont.

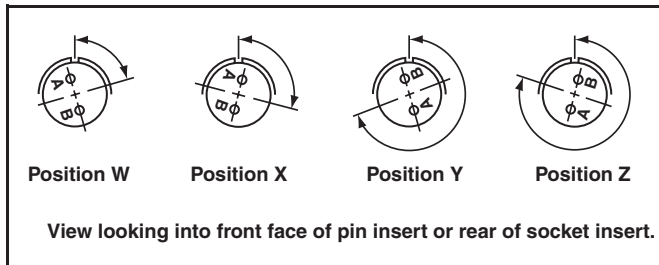
Insert Arrangement	Service Rating	Total Contacts	Contact Size				
			0	4	8	12	16
22-33	D/A	7					7
22-34	D	5				3	2
22-36	D/A	8				8	
24-2	D	7				7	
24-3	D	7				2	5
24-5	A	16					16
24-6	D/A	8				8	
24-7	A	16				2	14
24-9	A	2		2			
24-10	A	7			7		
24-11	A	9			3	6	
24-12	A	5		2		3	
24-16	D/A	7			1	3	3
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

QWL alternate positioning

To avoid cross-plugging problems in applications requiring the use of more than one connector of the same size and arrangement, alternate rotations are available as indicated in the accompanying charts.

As shown in the diagram below, the front face of the pin insert is rotated within the shell in a clockwise direction from the normal shell key. The socket insert would be rotated counter-clockwise the same number of degrees in respect to the normal shell key.



The following insert arrangements have the same alternate insert rotations for W, X, Y and Z, which are:

Degrees			
W	X	Y	Z
80	110	250	280

16-7	20-22	22-29	24-17	28-16	32-13
18-5	22-6	22-33	24-20	28-17	32-22
18-9	22-12	22-34	24-21	28-19	32-AF
18-13	22-14	24-1	24-28	28-20	36-1
18-14	22-15	24-3	28-1	28-21	36-7
20-7	22-16	24-4	28-4	32-1	36-8
20-8	22-17	24-5	28-8	32-3	36-13
20-9	22-18	24-6	28-9	32-4	40-AR
20-12	22-19	24-7	28-10	32-6	40-AS
20-14	22-21	24-12	28-11	32-9	40-AT
20-16	22-24	24-14	28-14	32-10	40-AU
20-20	22-25	24-16	28-15	32-12	

Insert Arrangement	Degrees			
	W	X	Y	Z
10SL-4	63	-	-	-
12S-3	70	145	215	290
14S-2	-	120	240	-
14S-5	-	110	-	-
14S-7	90	180	270	-
14S-9	70	145	215	290
16-9	35	110	250	325
16-10	90	180	270	-
16-11	35	110	250	325
16-13	35	110	250	325
16S-1	80	-	-	280
16S-4	35	110	250	325
16S-5	70	145	215	290
16S-6	90	180	270	-
16S-8	-	170	265	-
18-1	70	145	215	290
18-3	35	110	250	325
18-4	35	110	250	325
18-8	70	-	-	290
18-10	-	120	240	-
18-11	-	170	265	-
18-12	80	-	-	280
18-15	-	120	240	-
18-20	90	180	270	-
18-22	70	145	215	290
18-29	90	180	270	-
20-3	70	145	215	290
20-4	45	110	250	-
20-5	35	110	250	325
20-6	70	145	215	290
20-15	80	-	-	280
20-17	90	180	270	-

Insert Arrangement	Degrees			
	W	X	Y	Z
20-18	35	110	250	325
20-19	90	180	270	-
20-21	35	110	250	325
20-23	35	110	250	325
20-24	35	110	250	325
20-27	35	110	250	325
20-29	80	-	-	280
22-1	35	110	250	325
22-2	70	145	215	290
22-4	35	110	250	325
22-5	35	110	250	325
22-8	35	110	250	325
22-9	70	145	215	290
22-10	35	110	250	325
22-11	35	110	250	325
22-13	35	110	250	325
22-20	35	110	250	325
22-22	-	110	250	-
22-23	35	-	250	-
22-27	80	-	250	280
22-28	80	-	-	280
22-63	20	-	-	-
24-2	80	-	-	280
24-9	35	110	250	325
24-10	80	-	-	280
24-11	35	110	250	325
24-22	45	110	250	-
24-27	80	-	-	280
28-2	35	110	250	325
28-3	70	145	215	290
28-5	35	110	250	325
28-6	70	145	215	290

Insert Arrangement	Degrees			
	W	X	Y	Z
28-7	35	110	250	325
28-12	90	180	270	-
28-18	70	145	215	290
28-22	70	145	215	290
28-AY	45	110	250	-
32-2	70	145	215	290
32-5	35	110	250	325
32-7	80	125	235	280
32-8	80	125	235	280
32-15	35	110	250	280
32-17	45	110	250	-
32-25	60	120	-	-
32-48	80	-	-	-
32-64	80	100	110	250
32-68	30	-	-	-
32-82	30	-	-	-
36-3	70	145	215	290
36-4	70	145	215	290
36-5	-	120	240	-
36-6	35	110	250	325
36-9	80	125	235	280
36-10	80	125	235	280
36-14	90	180	270	-
36-15	60	125	245	305
36-AF	65	-	-	-
40-1	65	130	235	300
40-5	33	-	-	270
40-9	65	125	225	310
40-10	65	125	225	310
40-35	70	130	230	290
40-AD	45	-	-	-
40-AG	37	74	285	322
40-AP	35	110	250	325
40-AV	90	180	270	-

QWL

contact arrangements

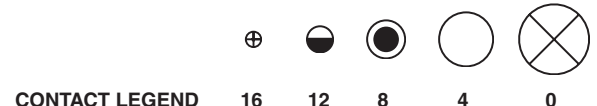
front face of pin insert or rear face of socket insert illustrated

Insert Arrangement	10S-2	12S-3	12S-4	12-5	14S-1	14S-2
Service Rating	A	A	A	D	A	Inst.
Number of Contacts	1	2	1	1	3	4
Contact Size	16	16	16	12	16	16

Insert Arrangement	14S-4	14S-5	14S-6	14S-7	14S-9	14S-10
Service Rating	D	Inst.	Inst.	A	A	Inst.
Number of Contacts	1	5	6	3	2	4
Contact Size	16	16	16	16	16	16

Insert Arrangement	14S-12	14-3	16S-1	16S-3	16S-4	16S-5
Service Rating	A	A	A	B	D	A
Number of Contacts	3	1	7	1	2	3
Contact Size	16	8	16	16	16	16

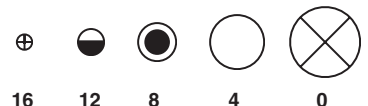
Insert Arrangement	16S-6	16S-8	16-2	16-7	16-9
Service Rating	A	A	E	A	A
Number of Contacts	3	5	1	1 2	2 2
Contact Size	16	16	12	8 16	12 16



QWL contact arrangements

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

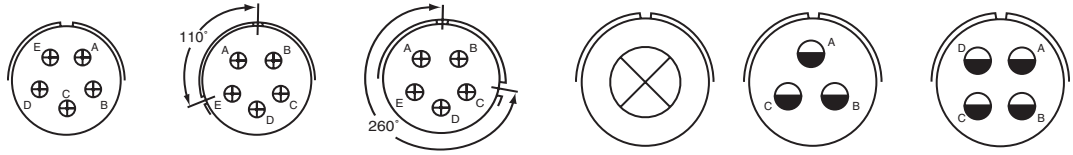
Insert Arrangement	16-10	16-11	16-12	16-13	18-1	18-3
Service Rating	A	A	A	A	B, C, F, G = A; Bal. = Inst.	D
Number of Contacts	3	2	1	2*	10	2
Contact Size	12	12	4	12	16	12
Insert Arrangement	18-4	18-5	18-6	18-7	18-8	18-9
Service Rating	D	D	D	B	A	Inst.
Number of Contacts	4	2 1	1	1	1 7	2 5
Contact Size	16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



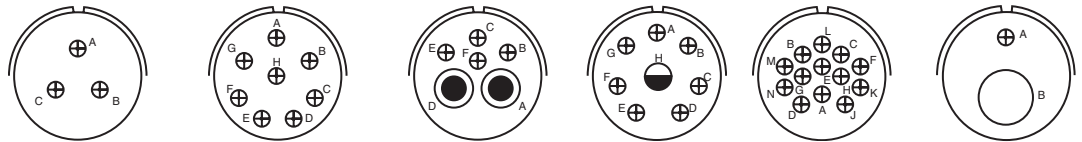
* A = Iron; B = Constantan
 ** A, C = Iron; B, D = Constantan

QWL contact arrangements

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



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



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



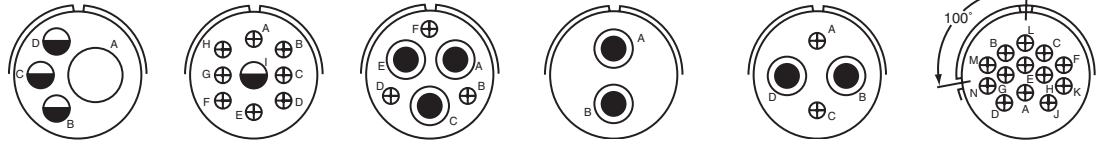
Insert Arrangement	20-14	20-15	20-16	20-17	20-18	20-19
Service Rating	A	A	A	A	A	A
Number of Contacts	2 3	7	2 7	5 1	3 6	3
Contact Size	8 12	12	12 16	12 16	12 16	8



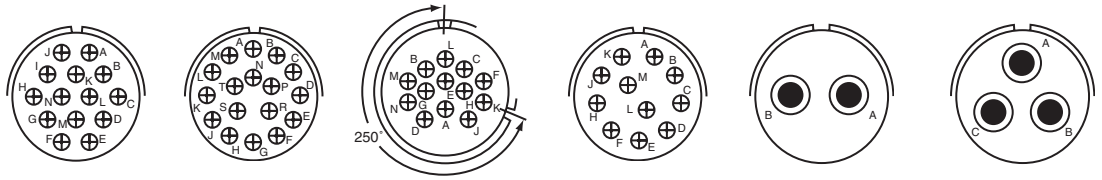
CONTACT LEGEND 16 12 8 4 0

QWL contact arrangements

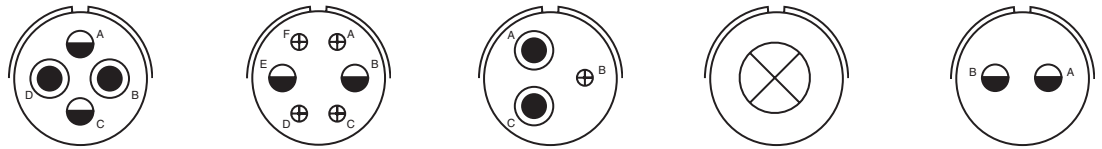
front face of pin insert or rear face of socket insert illustrated



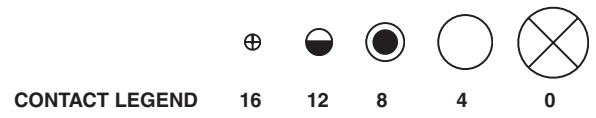
Insert Arrangement	20-20	20-21	20-22	20-23	20-24	20-25
Service Rating	A	A	A	A	A	Inst.
Number of Contacts	1 3	1 8	3 3	2	2 2	13
Contact Size	4 12	12 16	8 16	8	8 16	16



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



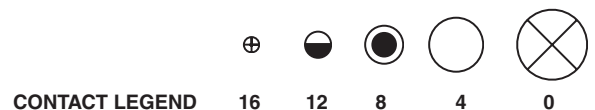
QWL contact arrangements

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

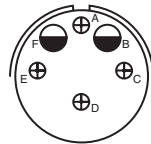
Insert Arrangement	22-14	22-15	22-16	22-17	22-18
Service Rating	A	D = E; A, B, C, E, F = A	A	A = D; Bal. = A	A, B, F, G, H = D; C, D, E = A
Number of Contacts	19	5 1	3 6	1 8	8
Contact Size	16	12 16	12 16	12 16	16

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



QWL contact arrangements

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

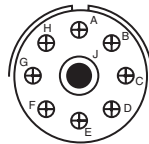


22-24

C, D, E = D; A, B, F = A

2 4

12 16

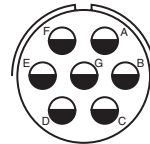


22-27

J = D; Bal. = A

1 8

8 16

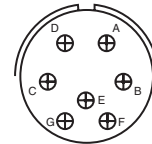


22-28

A

7

12

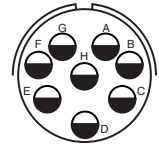


22-33

A, B, C, D = D; E, F, G = A

7

16



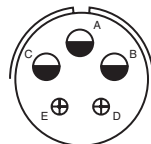
22-36

H = D; Bal. = A*

8

12

Insert Arrangement
Service Rating
Number of Contacts
Contact Size

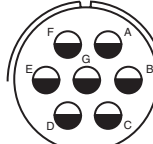


22-34

D

3 2

12 16

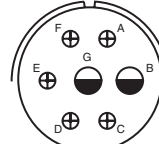


24-2

D

7

12

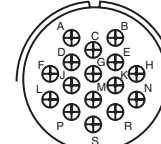


24-3

D

2 5

12 16

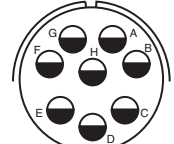


24-5

A

16

16



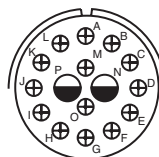
24-6

A, G, H = D; Bal. = A

8

12

Insert Arrangement
Service Rating
Number of Contacts
Contact Size

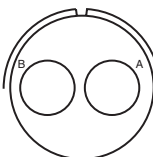


24-7

A

2 14

12 16

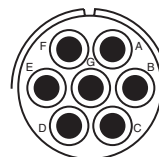


24-9

A

2

4

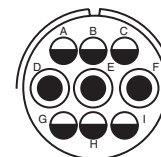


24-10

A

7

8

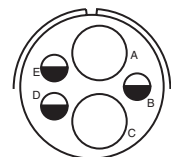


24-11

A

3 6

8 12



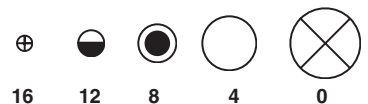
24-12

A

2 3

4 12

Insert Arrangement
Service Rating
Number of Contacts
Contact Size



CONTACT LEGEND

16

12

8

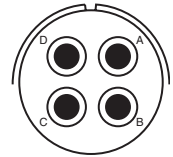
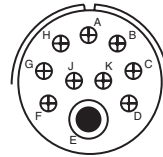
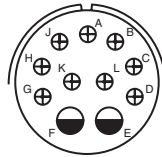
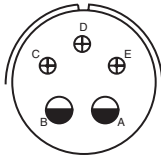
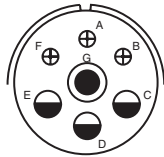
4

0

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

QWL contact arrangements

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



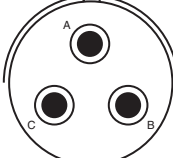
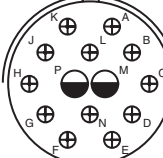
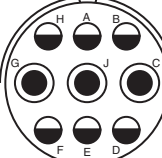
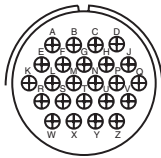
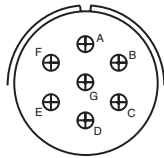
Insert Arrangement	24-16		
Service Rating	A, B, F, G = D; C, D, E, = A		
Number of Contacts	1	3	3
Contact Size	8	12	16

Insert Arrangement	24-17	
Service Rating	D	
Number of Contacts	2	3
Contact Size	12	16

Insert Arrangement	24-20		
Service Rating	D		
Number of Contacts	2	9	
Contact Size	12	16	

Insert Arrangement	24-21		
Service Rating	D		
Number of Contacts	1	9	
Contact Size	8	16	

Insert Arrangement	24-22		
Service Rating	D		
Number of Contacts	4		
Contact Size	8		



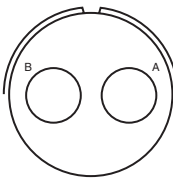
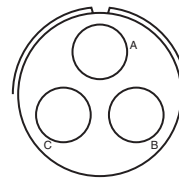
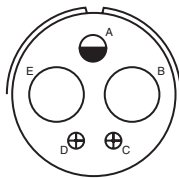
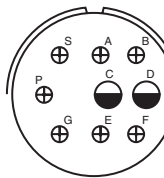
Insert Arrangement	24-27	
Service Rating	E	
Number of Contacts	7	
Contact Size	16	

Insert Arrangement	24-28		
Service Rating	Inst.		
Number of Contacts	24		
Contact Size	16		

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

Insert Arrangement	28-2		
Service Rating	D		
Number of Contacts	2	12	
Contact Size	12	16	

Insert Arrangement	28-3		
Service Rating	E		
Number of Contacts	3		
Contact Size	8		



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

Insert Arrangement	28-5		
Service Rating	D		
Number of Contacts	2	1	2
Contact Size	4	12	16

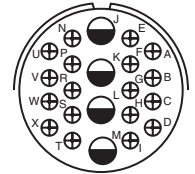
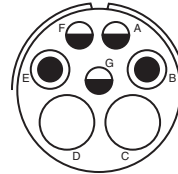
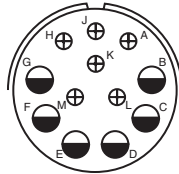
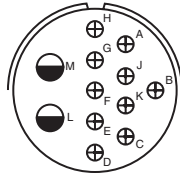
Insert Arrangement	28-6		
Service Rating	D		
Number of Contacts	3		
Contact Size	4		

Insert Arrangement	28-7		
Service Rating	D		
Number of Contacts	2		
Contact Size	4		



QWL contact arrangements

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

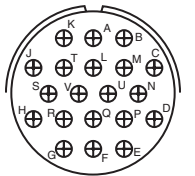
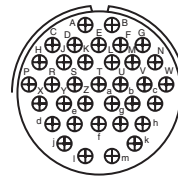
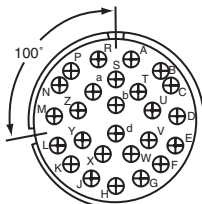
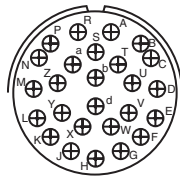


Insert Arrangement	28-8
Service Rating	L, M = E; B = D; Bal. = A
Number of Contacts	2 10
Contact Size	12 16

28-9
D
6 6
12 16

28-10
G = D; Bal. = A
2 2 3
4 8 12

28-11
A
4 18
12 16



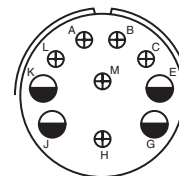
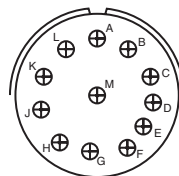
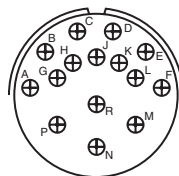
Insert Arrangement	28-12
Service Rating	A
Number of Contacts	26
Contact Size	16

100° Rotation
of 28-12

28-13
A
26
16

28-15
A
35
16

28-16
A
20
16



Insert Arrangement	28-17
Service Rating	R = B; M, N, P = D; A to L = A
Number of Contacts	15
Contact Size	16

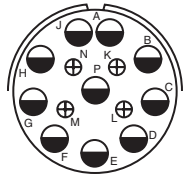
28-18
M = C; G, H, J, K, L = D; A, B = A; Bal. = Inst.
12
16

28-19
H, M = B; A, B = D; Bal. = A
4 6
12 16

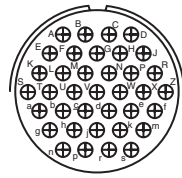


QWL contact arrangements

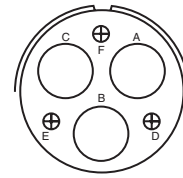
front face of pin insert or rear face of socket insert illustrated



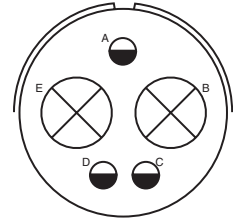
28-20



28-21



28-22



32-1

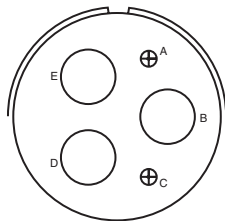
Insert Arrangement
Service Rating
Number of Contacts
Contact Size

A
10 4
12 16

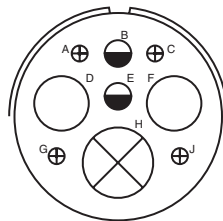
A
37
16

D
3 3
4 16

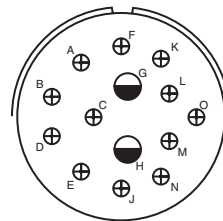
A = E; B, C, D, E = D
2 3
0 12



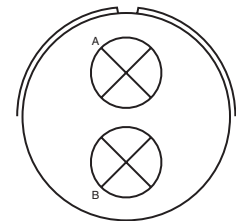
32-2



32-3



32-4



32-5

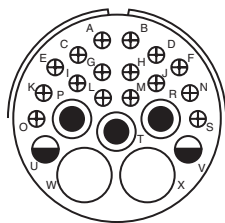
Insert Arrangement
Service Rating
Number of Contacts
Contact Size

E
3 2
4 16

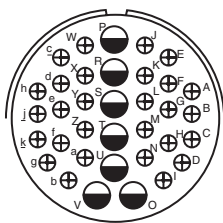
D
1 2 2 4
0 4 12 16

F, J, K, N = A; Bal. = D
2 12
12 16

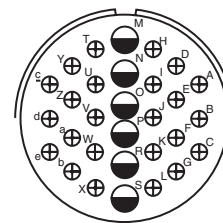
D
2
0



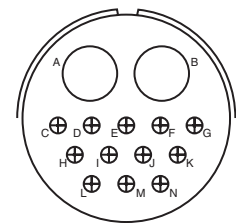
32-6



32-7



32-8



32-9

Insert Arrangement
Service Rating
Number of Contacts
Contact Size

A
2 3 2 16
4 8 12 16

A, B, h, j = Inst.; Bal. = A
7 28
12 16

A
6 24
12 16

D
2 12
4 16

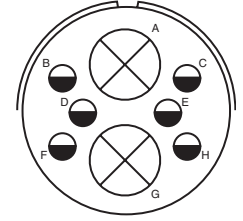
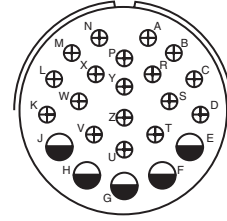
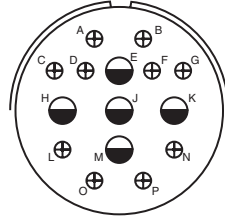
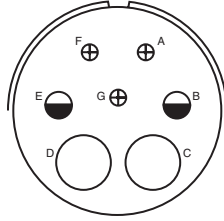


CONTACT LEGEND

16 12 8 4 0

QWL contact arrangements

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



Insert Arrangement

Service Rating

Number of Contacts

Contact Size

32-10

A, F = E; G = B; B, E = D; C, D = A

2 2 3

4 8 16

32-12

C, D, E, F, G = A; Bal. = D

5 10

12 16

32-13

D

5 18

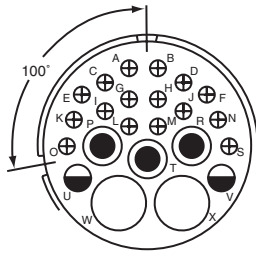
12 16

32-15

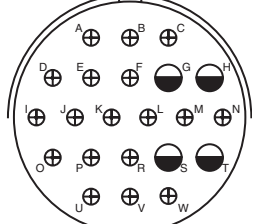
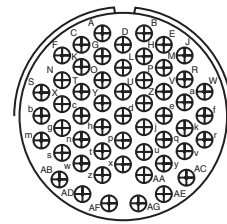
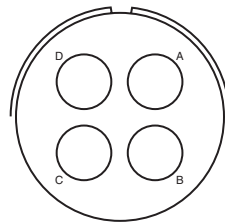
D

2 6

0 12



100° Rotation
of 32-6



Insert Arrangement

Service Rating

Number of Contacts

Contact Size

32-16

A

2 3 2 16

4 8 12 16

32-17

D

4

4

32-22

A

54

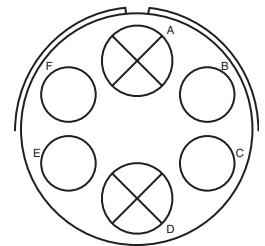
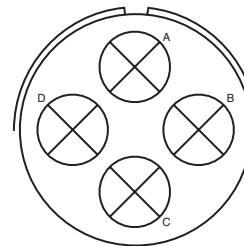
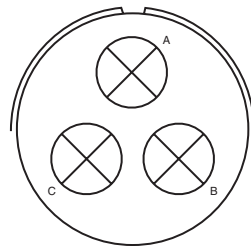
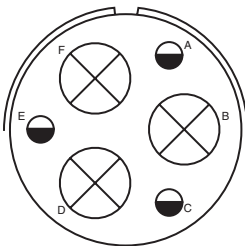
16

36-1

D

4 18

12 16



Insert Arrangement

Service Rating

Number of Contacts

Contact Size

36-3

D

3 3

0 12

36-4

A = D; B, C = A

3

0

36-5

A

4

0

36-6

A

2 4

0 4



CONTACT LEGEND

16

12

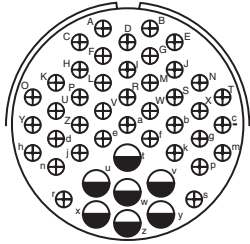
8

4

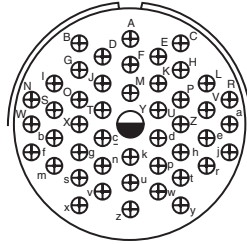
0

QWL contact arrangements

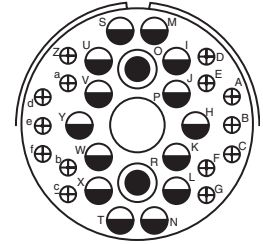
front face of pin insert or rear face of socket insert illustrated



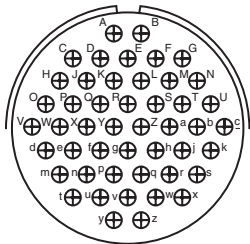
Insert Arrangement	36-7
Service Rating	A
Number of Contacts	7 40
Contact Size	12 16



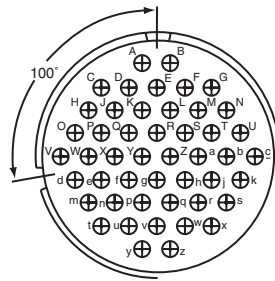
Insert Arrangement	36-8
Service Rating	A
Number of Contacts	1 46
Contact Size	12 16



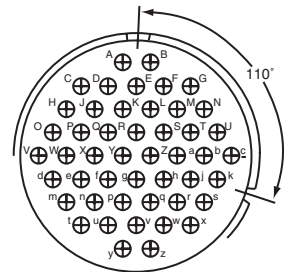
Insert Arrangement	36-9
Service Rating	A
Number of Contacts	1 2 14 14
Contact Size	4 8 12 16



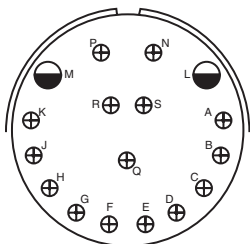
Insert Arrangement	36-10
Service Rating	A
Number of Contacts	48
Contact Size	16



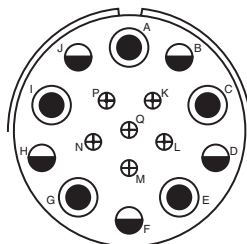
Insert Arrangement	36-11
Service Rating	A
Number of Contacts	48
Contact Size	16



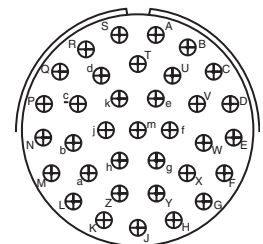
Insert Arrangement	36-12
Service Rating	A
Number of Contacts	48
Contact Size	16



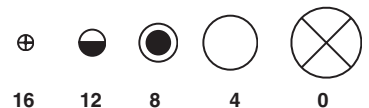
Insert Arrangement	36-13
Service Rating	N, P, Q = E; Bal. = A
Number of Contacts	2 15
Contact Size	12 16



Insert Arrangement	36-14
Service Rating	D
Number of Contacts	5 5 6
Contact Size	8 12 16



Insert Arrangement	36-15
Service Rating	M = D; Bal. = A
Number of Contacts	35
Contact Size	16

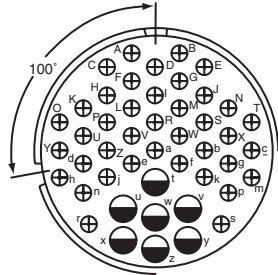


CONTACT LEGEND

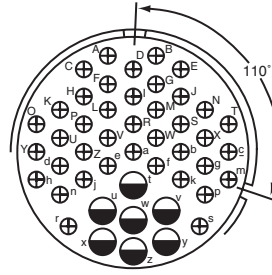
16 12 8 4 0

QWL contact arrangements

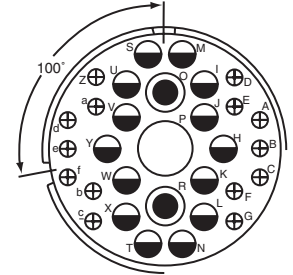
front face of pin insert or rear face of socket insert illustrated



100° Rotation
of 36-7
36-16
A
7 40
12 16

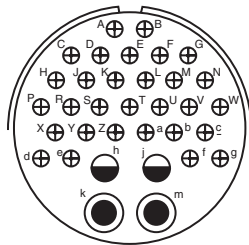


110° Rotation
of 36-7
36-17
A
7 40
12 16

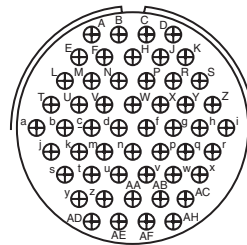


100° Rotation
of 36-9
36-18
A
1 2 14 14
4 8 12 16

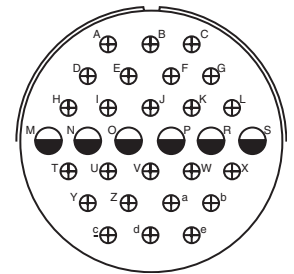
Insert Arrangement
Service Rating
Number of Contacts
Contact Size



36-20
A
2 2 30
8 12 16

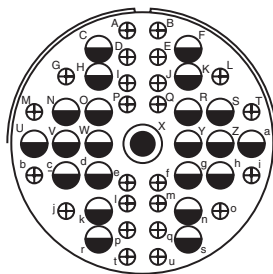


36-52
A
52
16

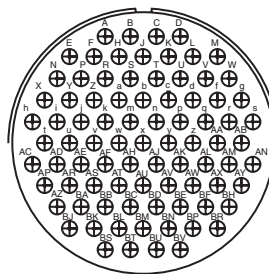


40-1
D
6 24
12 16

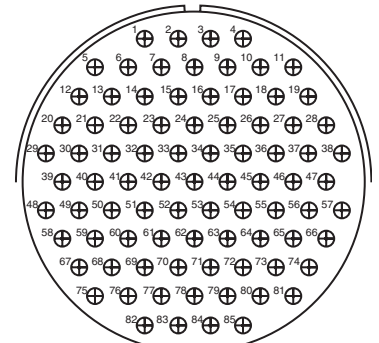
Insert Arrangement
Service Rating
Number of Contacts
Contact Size



40-9
A
1 22 24
8 12 16

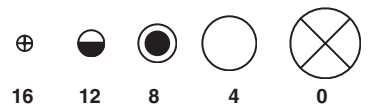


40-56
A
85
16



48-62
D
85
16

Insert Arrangement
Service Rating
Number of Contacts
Contact Size



CONTACT LEGEND

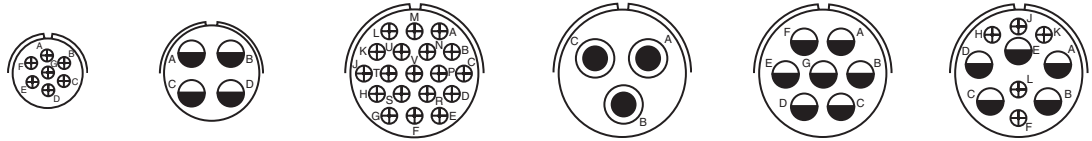
16 12 8 4 0

Special contact arrangements

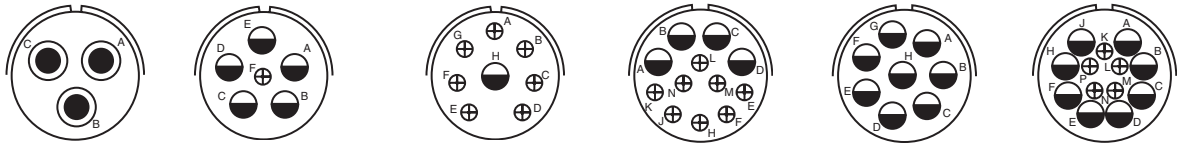
Requirements for more complex circuits prompted Amphenol to provide inserts not covered by the MS drawings. Illustrated here and on the following pages are insert layouts which have from one contact (high tension) to the 104 contact insert in shell size 44.

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.

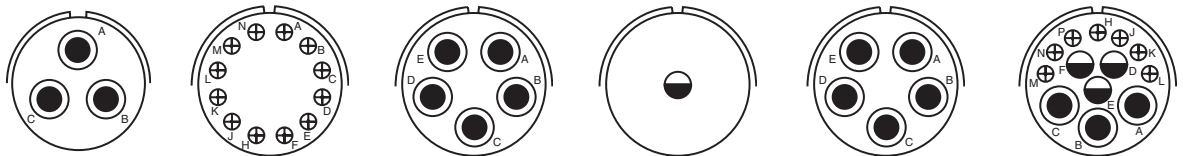
front face of pin insert or rear face of socket insert illustrated



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

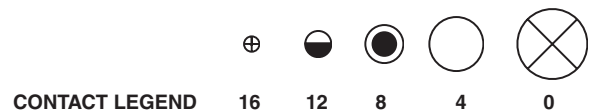


Insert Arrangement	20-59	20-66	20-79	22-63	22-65	22-70
Service Rating	A	A	H = D; Bal. = A	A	H = D; Bal. = A	A
Number of Contacts	3*	1 5	7* 1*	4 8	8*	8 5
Contact Size	8 for #10 or 12 wire	16 12 for #10 wire	16 12 for #16 wire	12 16	12 for #14 or 16 wire	12 16



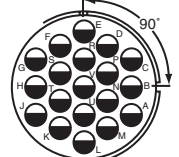
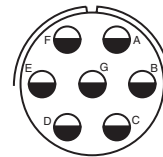
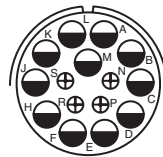
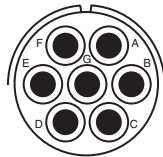
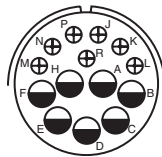
Insert Arrangement	22-80	24-19	24-51	24-52	24-53	24-58
Service Rating	A	A	A	Hi-Volt	A	A
Number of Contacts	3*	12	5*	1	5*	3 3 7
Contact Size	8 for #10 or 12 wire	16	B, E for AN #10 or 12 wire A, C, D for AN #8 wire	12	8	8 12 16

* Solderless

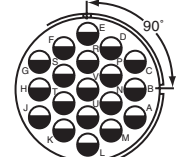
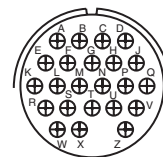
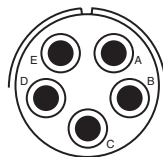
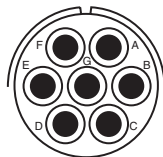
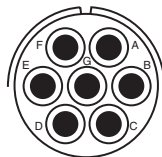


Special contact arrangements

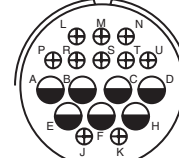
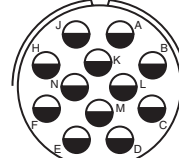
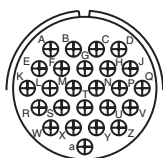
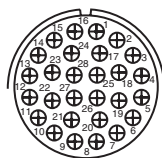
front face of pin insert or rear face of socket insert illustrated



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



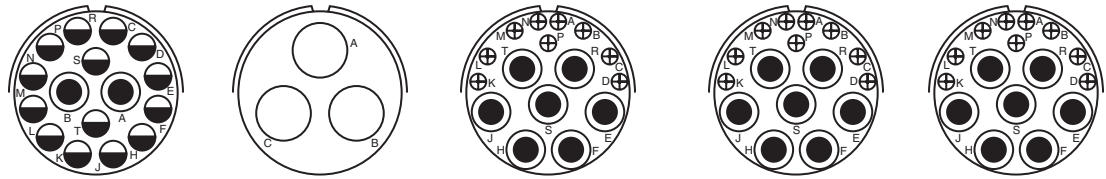
Insert Arrangement	24-96	24-AJ	28-51	28-59
Service Rating	Inst.	A	A	A
Number of Contacts	28	25	12	7 10
Contact Size	16	16	12	12 16

* Solderless

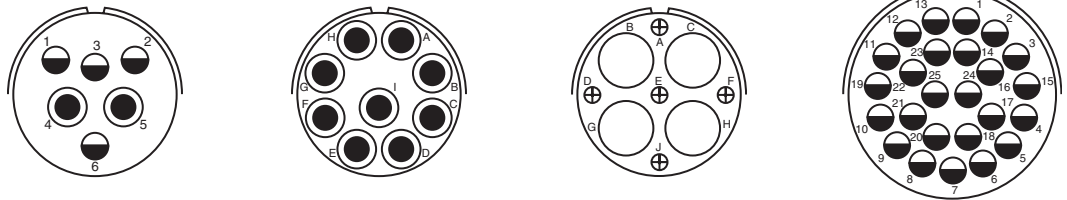


Special contact arrangements

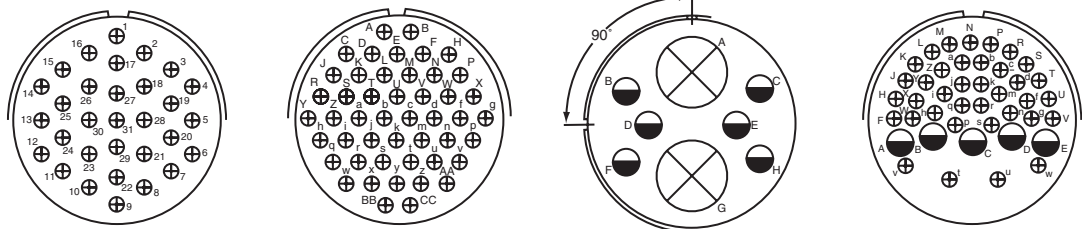
front face of pin insert or rear face of socket insert illustrated



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	32-25
Service Rating	D	A	A	A
Number of Contacts	2 4	9	4 5	25
Contact Size	8 12	8	4 16	12



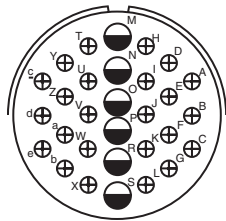
Insert Arrangement	32-31	32-48	32-52	32-53
Service Rating	A	Inst.	D	t, u = E; Bal. = Inst.
Number of Contacts	31	48	6 2	5 37
Contact Size	16	16	12 0	12 16

* Solderless

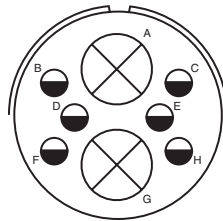


Special contact arrangements

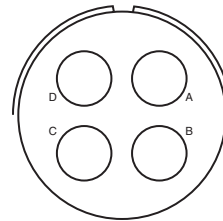
front face of pin insert or rear face of socket insert illustrated



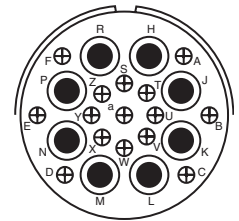
32-56



32-57



32-58



32-60

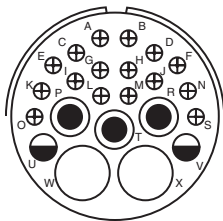
Insert Arrangement
Service Rating
Number of Contacts
Contact Size

A
24 6
16 12 for #10 wire

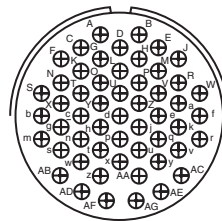
**
6 2
12 0 (Coax) RG-71/U

—
4
4 (Coax) RG-161/U
or RG-179/U

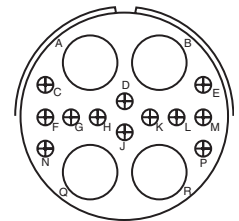
A
15 8
16 8 (Coax) RG-124/U



32-62



32-64



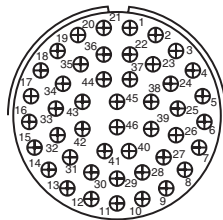
32-68

Insert Arrangement
Service Rating
Number of Contacts
Contact Size

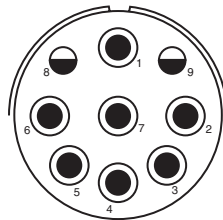
**
2 1 2 16 2
4 8 12 16 8 (Coax) RG-124/U

Inst.
54
16

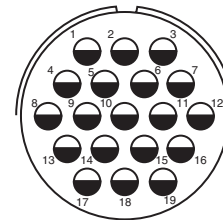
A
12 4
16 4 (Coax) RG-58C/U



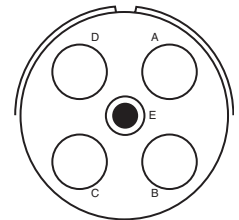
32-73



32-75



32-76



32-79

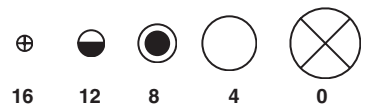
Insert Arrangement
Service Rating
Number of Contacts
Contact Size

A
46
16

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

A
19
12

D
4 1
4 8



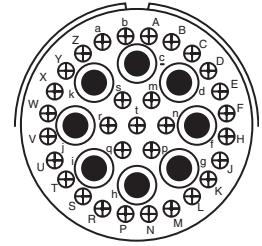
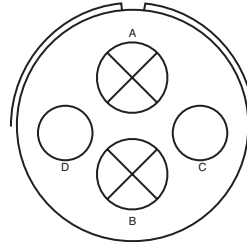
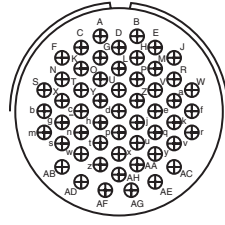
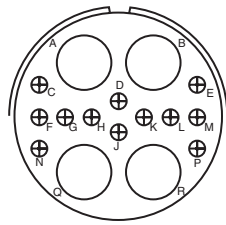
CONTACT LEGEND

16 12 8 4 0

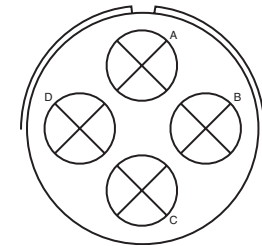
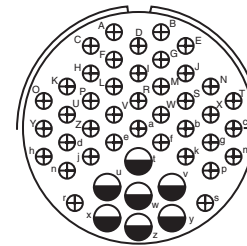
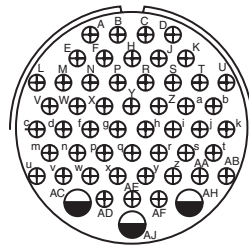
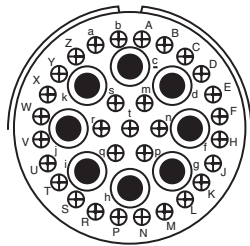
** Consult Amphenol, Sidney, NY for service rating of power contacts.

Special contact arrangements

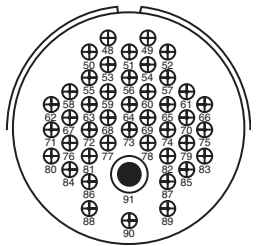
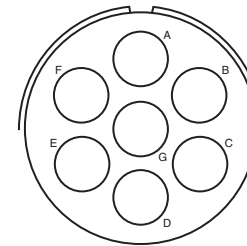
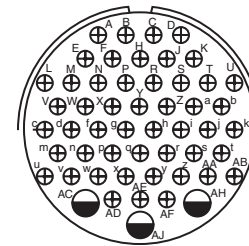
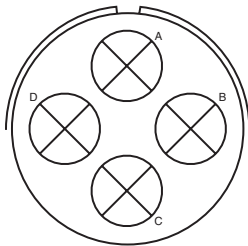
front face of pin insert or rear face of socket insert illustrated



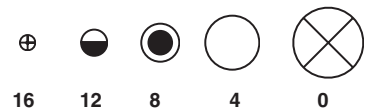
Insert Arrangement	32-82	32-AF	36-51	36-54
Service Rating	A	A	D	A
Number of Contacts	4 12	55	2 2	8 31
Contact Size	4 16	16	0 4	8 16



Insert Arrangement	36-55	36-59	36-60	36-64
Service Rating	A	A	**	-
Number of Contacts	31 8	50 3	40 7	4
Contact Size	16 8 for #6 wire	16 12 for #10 wire	16 12 for #10 wire	0 (Coax) RG-11/U, RG-12/U or RG-13/U



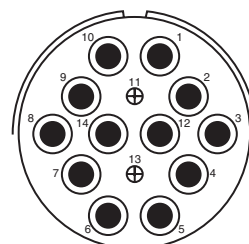
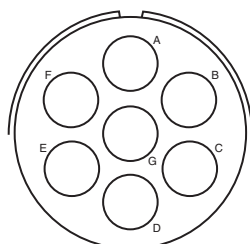
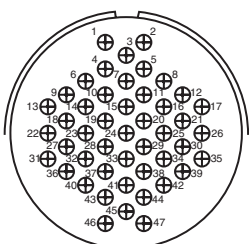
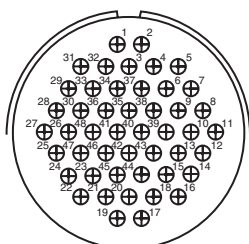
Insert Arrangement	36-65	36-71	36-73	36-74
Service Rating	-	A	-	A
Number of Contacts	4	3 50	7	43 1
Contact Size	0 (Coax) RG-59/U, RG-62/U or RG-71/U	12 16	4 (Coax) RG-62B/U	16 8 (Coax) RG-187/U



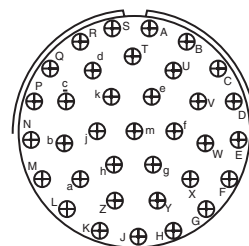
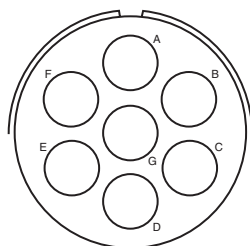
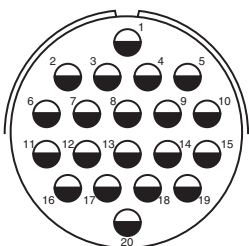
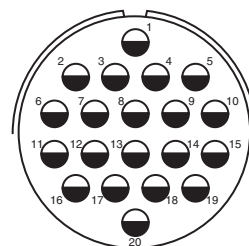
** Consult Amphenol, Sidney, NY for service rating of power contacts.

Special contact arrangements

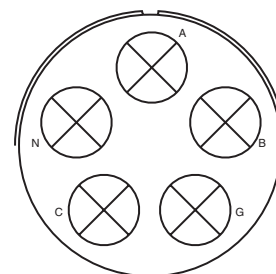
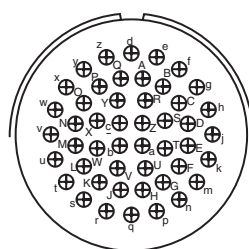
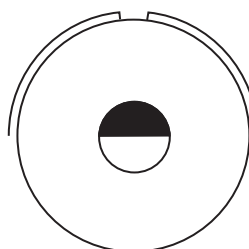
front face of pin insert or rear face of socket insert illustrated



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

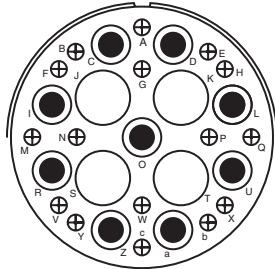


Insert Arrangement	36-97	36-AF	40-5
Service Rating	C	A	A
Number of Contacts	1	48	5
Contact Size	4/0	16	0

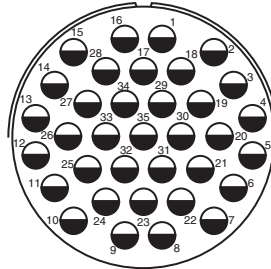


Special contact arrangements

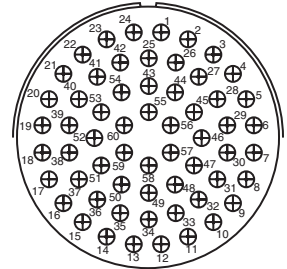
front face of pin insert or rear face of socket insert illustrated



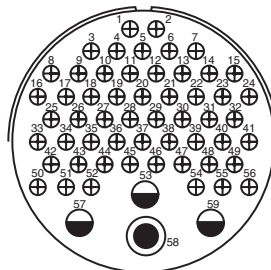
Insert Arrangement 40-10
Service Rating A
Number of Contacts 4 9 16
Contact Size 4 8 16



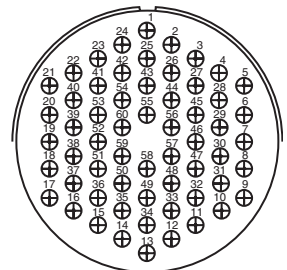
Insert Arrangement 40-35
Service Rating D
Number of Contacts 35
Contact Size 12



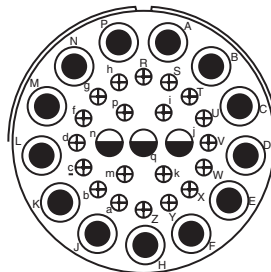
Insert Arrangement 40-57
Service Rating E
Number of Contacts 4
Contact Size 0



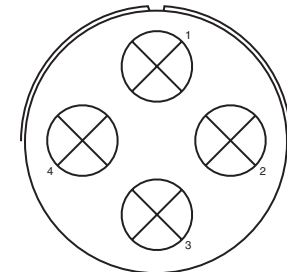
Insert Arrangement 40-61
Service Rating A
Number of Contacts 1 3 55
Contact Size 8 12 16



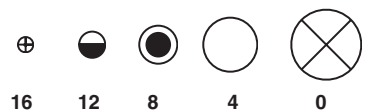
Insert Arrangement 40-63
Service Rating A
Number of Contacts 61
Contact Size 16 for #14 wire



Insert Arrangement 40-64
Service Rating -
Number of Contacts 3 20 13
Contact Size 12 16 8 (Coax) RG-124/U



Insert Arrangement 40-66
Service Rating -
Number of Contacts 4
Contact Size 0 (Coax) RG-63B/U

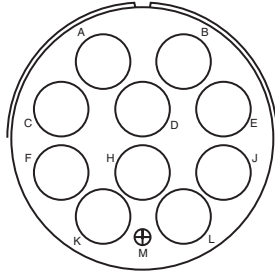


CONTACT LEGEND

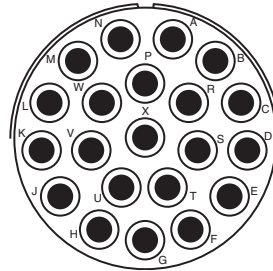
16 12 8 4 0

Special contact arrangements

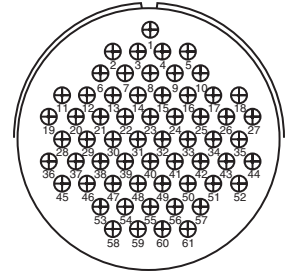
front face of pin insert or rear face of socket insert illustrated



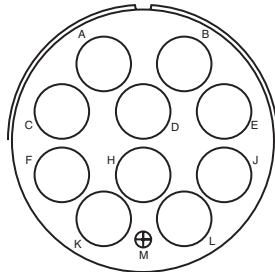
Insert Arrangement 40-67
Service Rating A
Number of Contacts 1 10
Contact Size 16 4 (Coax) RG-59/U



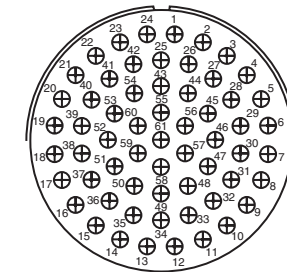
Insert Arrangement 40-68
Service Rating A
Number of Contacts 21 8



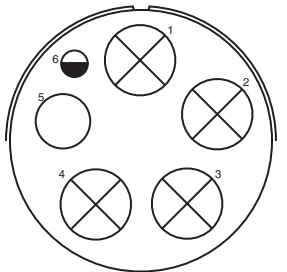
Insert Arrangement 40-70
Service Rating A
Number of Contacts 61 16



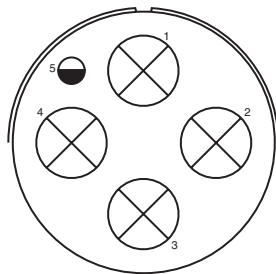
Insert Arrangement 40-72
Service Rating A
Number of Contacts 1 10
Contact Size 16 4 (Coax) RG-9B/U



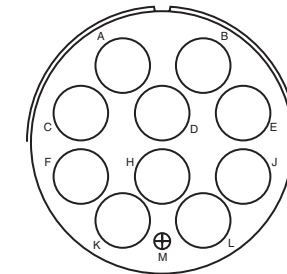
Insert Arrangement 40-73
Service Rating A
Number of Contacts 61 16



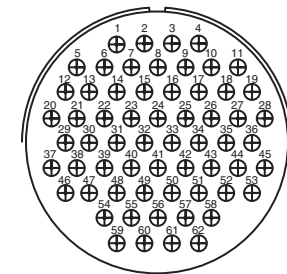
Insert Arrangement 40-74
Service Rating A
Number of Contacts 1 1 4
Contact Size 12 4 (Coax) RG-62/U 0 (Coax) RG-9B/U or RG-214/U



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



Insert Arrangement 40-80
Service Rating A
Number of Contacts 1 10
Contact Size 16 4

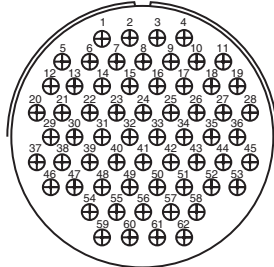


Insert Arrangement 40-81
Service Rating A
Number of Contacts 62
Contact Size 16 for #14 wire



Special contact arrangements

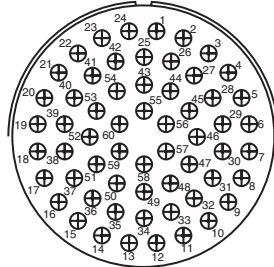
front face of pin insert or rear face of socket insert illustrated



40-82

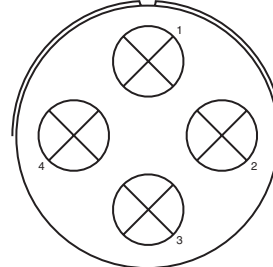
Insert Arrangement
Service Rating
Number of Contacts
Contact Size

A
62
16



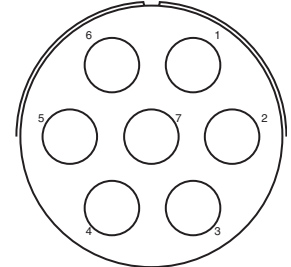
40-85

A
60
16 for #14 wire



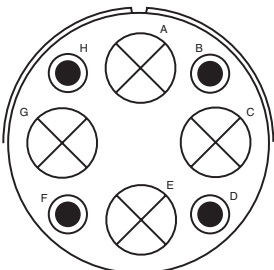
40-86

-
4
0(Coax) RG-115A/U



40-87

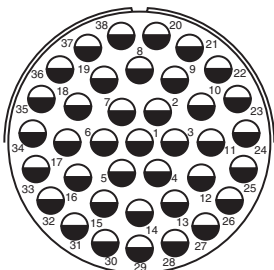
D
7
4



40-AD

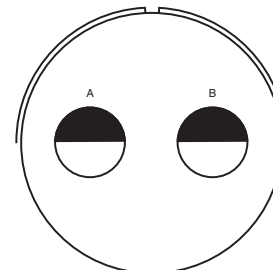
Insert Arrangement
Service Rating
Number of Contacts
Contact Size

A
4 4
8 0



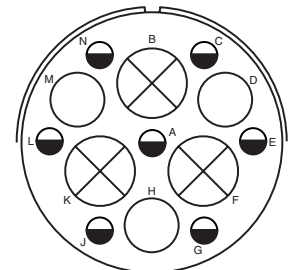
40-AG

A
38
12



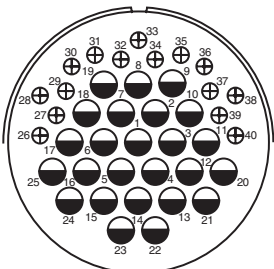
40-AP

E
2
4/0



40-AR

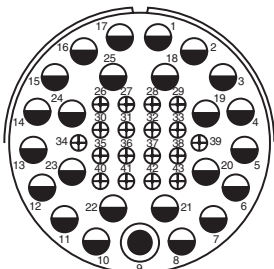
Inst.
7 3 3
12 4 0



40-AS

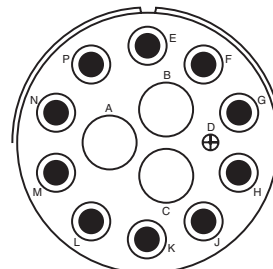
Insert Arrangement
Service Rating
Number of Contacts
Contact Size

A
15 25
16 12



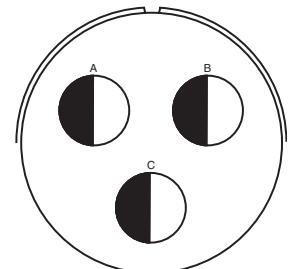
40-AT

A
24 18 1
12 16 8



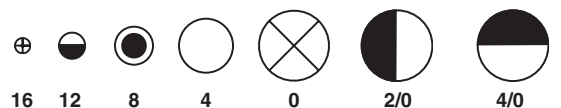
40-AU

A
3 10 1
4 8 16



40-AV

D
3
2/0

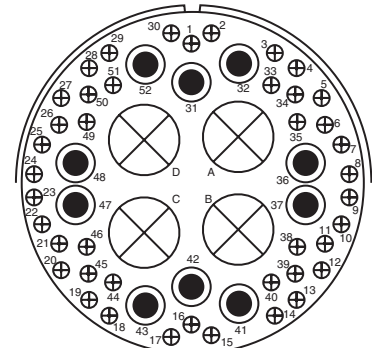
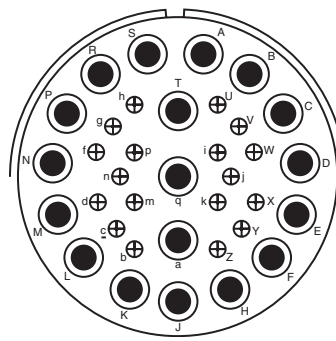
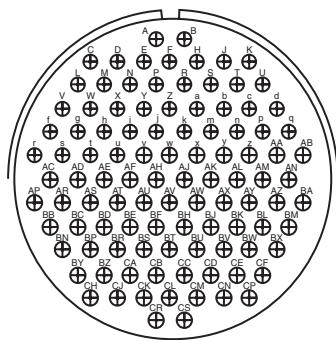


CONTACT LEGEND

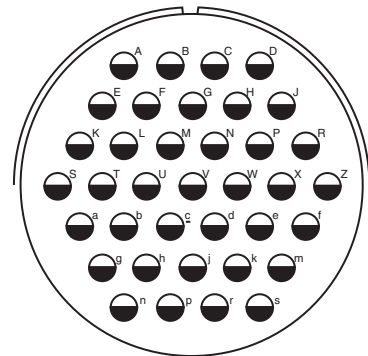
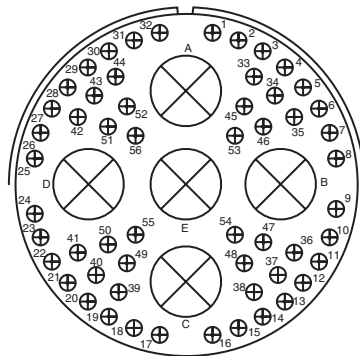
16 12 8 4 0 2/0 4/0

Special contact arrangements

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



Insert Arrangement	44-52	44-53	48-51
Service Rating	A	A	A
Number of Contacts	104	18	42 10 4
Contact Size	16	16 8 (Coax) RG-124/U	16 8 0 (Coax) RG-41/U

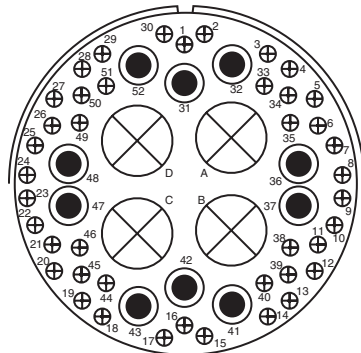


Insert Arrangement	48-52	48-53
Service Rating	A	D
Number of Contacts	56 5	37
Contact Size	16 0 (Coax) RG-41/U	12



Special contact arrangements

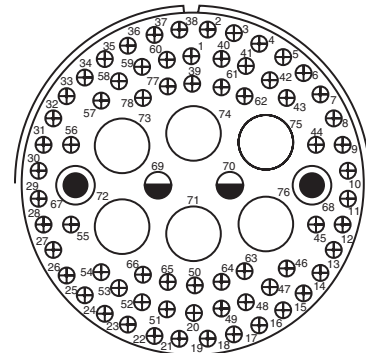
front face of pin insert or rear face of socket insert illustrated



48-54

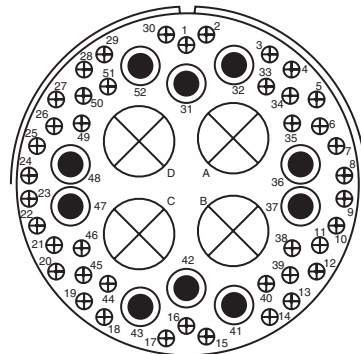
Insert Arrangement
Service Rating
Number of Contacts
Contact Size

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



48-55

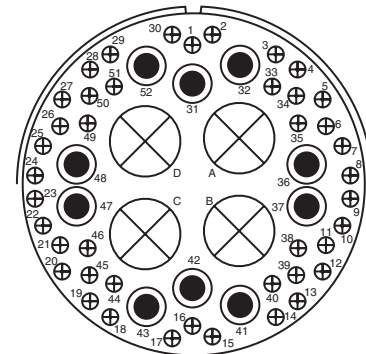
A
68 2 2 6
16 12 8 4



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