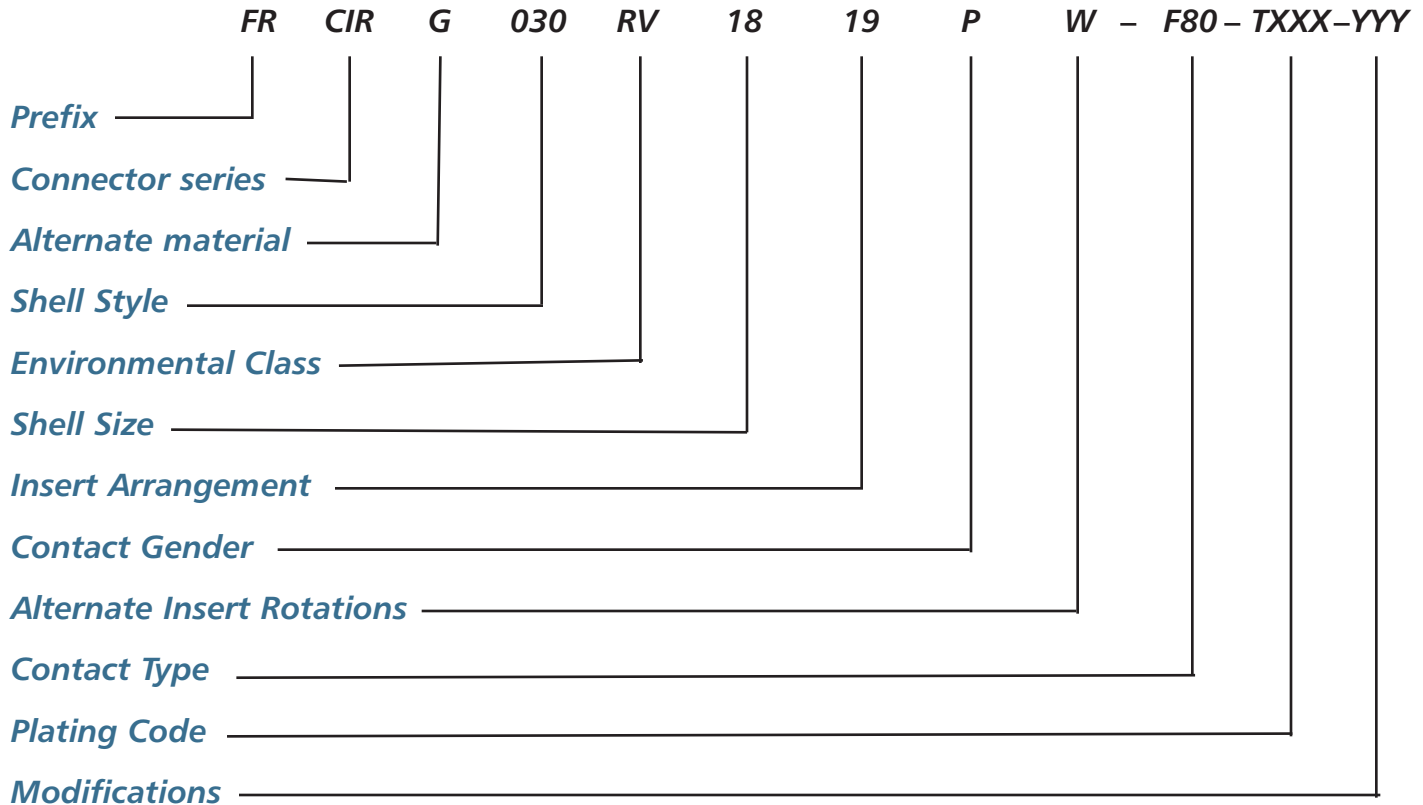


Standard Part Number Generation - Line Configurator



PREFIX

FR.....Flame retardant materials

CONNECTOR SERIES

CIR....Bayonet coupling

ALTERNATE MATERIAL

- G.....Plug with RFI grounding
- V.....Fluoroelastomers
- P..... Plastic connector shells
- SP.... Plastic receptacle shell without ramp rings

SHELL STYLE

- 01/010.....In-line receptacle-Round flange with flats
- 020/00.....Front panel mount receptacle, rear thread
- 02.....Front panel mount receptacle, no rear thread
- 03.....Rear panel mount receptacle, no rear thread
- 030.....Rear panel mount receptacle, rear thread
- 038.....Rear/Front mount receptacle with 90° backshells
- 05.....Dummy receptacle
- 07.....Single hole mount jamnut receptacle, no read thread
- 070.....Single hole mount jamnut receptacle, read thread
- 078.....Single hole mount jamnut receptacle with 90° backshells
- TB.....Thru-bulkhead receptacle
- 06.....Straight plug connector
- 065.....Straight plug connector with heavy duty coupling nut
- 26/064PP...Panel plug
- 08.....90 degree plug connector

ENVIRONMENTAL CLASS

Different classes are based on the type of backshell, sealing capability and accessories. Refer to page 49

SHELL SIZE

10SL, 14S, 16S, 16, 18, 20, 22, 24, 28, 32, 36, 40

INSERT ARRANGEMENT

Defined by the quantity and size of the contacts. For the layouts refer to pages... For the service rating and other electrical data refer to pages...

CONTACT GENDER

- P..... Male contacts
- S..... Female contacts
- PS.....Thru-bulkhead contacts (female-male)
- PP - Thru-bulkhead contacts (male-male)

ALTERNATE INSERT POSITION

W, X, Y, Z, Q - Refer to pages....

CONTACT TYPE

- F80.....Crimp for AWG wire (used in F80 insert)
- CR.....Crimp for metric wire (used in metric insert)
- CR1.....Crimp for AWG wire (used in metric insert)
- PC.....Pneumatic contacts
- VO.....Contacts not supplied
- NO SUFFIX.....Solder (standard class)

PLATING CODE OF SHELLS

- T29.....Electroless Nickel
 - T39.....Black epoxyurhethanic varnish
 - T89.....Black hard anodize
 - T100.....Zinc/cobalt Ecogreen
 - T108.....Zinc/cobalt Ecoblack
- Other plating available. Please consult the factory.

MODIFICATIONS

- VO.....Supplied less contacts
- Consult factory



Contact Disengaging Force Meets or Exceeds MIL-C-39029

Contact Size F80	Ounces	Newtons
18-20	.7	.19
16-16S	2.0	.56
12	3.0	.83
8	5.0	1.39
4	10.0	2.78
0	15.0	4.17
4/0*	15.0	4.17

CIR Coupling - Uncoupling Torque Values per VG95234

Shell Size	Coupling Maximum		Uncoupling Minimum	
	KgCm	In. lb	KgCm	In. lb
10SL	13.8	12.0	1.15	1.0
14S	23.0	20.0	3.5	3.0
16S	27.6	23.9	4.6	4.0
16	27.6	23.9	4.6	4.0
18	32.2	27.9	5.75	4.9
20	36.8	31.9	6.9	5.9
22	41.4	35.9	8.0	6.9
24	50.6	43.9	8.0	6.9
28	60.0	52.0	9.2	8.0
32	75.0	65.0	10.3	8.9
36	85.0	73.7	10.3	8.9
40	85.0	73.7	15.0	13.0

Backshell / Clamp Torque Forces

Recommended Torque Forces Connector Backshells/Clamps			
Size	In. lb Min/Max	Size	In. lb Min/Max
10SL	26/31	22	87/104
14S	44/49	24	96/130
16	57/66	28	121/165
16S	57/66	32	130/182
18	61/69	36	165/235
20	69/87	40	182/347

Connector and Contact Ratings

Insert Arrangement Service Rating

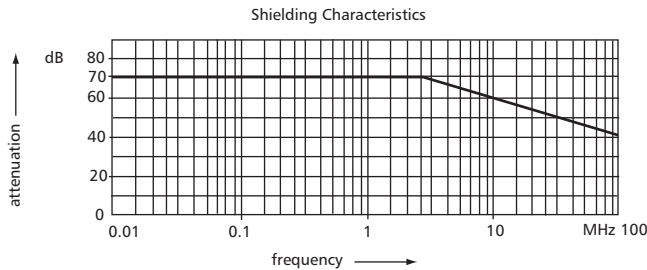
Service Rating	Operating Voltage DC (at sea level)	Operating Voltage AC (at sea level)
I	250 V	200 V
A	700 V	500 V
D	1250 V	900 V
E	1750 V	1250 V
B	2450 V	1750 V
C	4200 V	3000 V

Contact Rating

Contact Size F80	Maximum Current	Rated And Test Current *	Potential Drop Millivolts Maximum *
20	7.5 A	7.5 A	83 mV
18	10 A	7.5 A	83 mV
16-16S	22 A	13 A	74 mV
12	41 A	23 A	63 mV
8	73 A	46 A	65 mV
4	135 A	80 A	58 mV
0	245 A	150 A	53 mV
4/0	350 A	225 A	53 mV

Dielectric Strength (Standard at Sea Level Conditions)

Service Rating	Minimum Flashover AC RMS	Test Voltage AC RMS (Hi Pot)
I	1400 V	1000 V
A	2800 V	2000 V
D	3600 V	2800 V
E	4500 V	3500 V
B	5700 V	4500 V
C	8500 V	7000 V



Contact Quantity	Insert Arrangement	Standard Contact / Current Rating / Wire Size								Service Rating
		20 7.5 A 20 AWG	18 7.5 A 18 AWG	16 13 A 16 AWG	12 23 A 12 AWG	8 46 A 8 AWG	4 80 A 4 AWG	0 150 A 0 AWG	4/0 225 A 4/0 AWG	
47	36-8			46	1					A
47	36-16 (36-7x100°)			40	7					A
47	36-17 (36-7x110°)			40	7					A
47	40-9			24	22	1				A
47	40A-47			24	22	1				A
48	32A-48			48						I
48	36-10			48						A
48	36-11 (36-10x100°)			48						A
48	36-12 (36-10x110°)			48						A
48	36A-48			48						I
54	32-22			54						A
55	24A-55	55								I
55	32A-55			55						A
55	40-55 *			35	19	1				I
56	36-66			52	4					A
58	40-58 *			38	19	1				I
60	40A-60			60						A
61	32A-69 (CR)	41		20						A
61	40-63 *			61						A
62	40A-62			60		2				A
72	28-72	72								I
72	36A-72		52	16	4					I
85	40-56			85						A
85	40A-56			85						A
100	40A-100		100							A
101	32-101	101								I
130	40A-130		114	12	4					I
150	40A-150 *		150							I
159	40T-159 *	159								I

* Note: For insert arrangements in blue, consult our Customer Service Department.

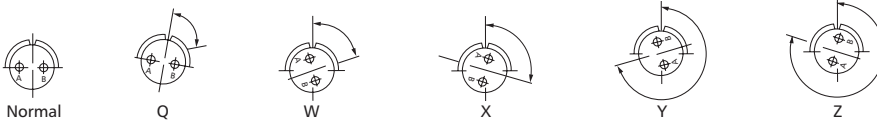
Insert Arrangements Listed by Shell Sizes and Arrangement Numbers

Insert Arrangement	Total Contacts	Contact Size					Service Rating	
		0	4	8	12	16		
36-3	6	3			3		D	
36-5	4	4					A	
36-6	6	2	4				A	
36-7	47				7	40	A	
36-8	47				1	46	A	
36-9	31		1	2	14	14	A	
36-10	48					48	A	
36-11(36-10x100°)	48					48	A	
36-12(36-10x110°)	48					48	A	
36-15	35					35	*	
36-16(36-7x100°)	47				7	40	A	
36-17(36-7x110°)	47				7	40	A	
36-18(36-9x100°)	31		1	2	14	14	A	
36-54	39			8		31	A	
36-66	56				4	52	A	
36-74 *	44			1		43	A	
36-77	7		7				D	
36-78*	14			12		2	D	
36A-1 *	1	SIZE 4/0						C
36A-2	2	2					A	
36A-10 *	10		2	8			A	
36A-12	12		2	10			A	
36A-22	22				22		D	
36A-48	48					48	I	
36A-51	6	3	2			1	D	
36A-61 *	6		2		4		E	
36A-72	72	4 SIZE 12, 16 SIZE 16, 52 SIZE 18						I
36B-6	6			3	1	2	B	
36B-10*	10		2	8			A	
36B-12	12		3	3	3	3	D	
36B-61	6		2		4		E	
36B-78	14			12		2	D	
36D-78	14			10		4	D	
40-9	47			1	22	24	A	
40-10	29		4	9		16	A	
40-19	19		2		17		A	
40-55	55			1	19	35	I	
40-56	85					85	A	
40-58 *	58			1	19	38	I	
40-63	61					61	A	
40A-2 *	2			1	1 SIZE 4/0		D	
40A-3 *	5	3			2		E	
40A-4	6	4			2		A	
40A-5 (GM)	5	5					A	
40A-7 *	7	5			2		A	
40A-8	8	4				4	E	
40A-10	8		4			4	D	
40A-14 *	14		8		6		A	
40A-19	19		2	17			A	
40A-20	20			2	18		D	

Insert Arrangement	Total Contacts	Contact Size					Service Rating		
		0	4	8	12	16			
40A-21	21		1		20		*		
40A-24	24			8	16		D		
40A-25	25		1		24		A		
40A-27	27		2		25		A		
40A-29 *	29			6	18	5	A		
40A-30	30		1		29		A		
40A-31	31				31		D		
40A-34 *	34			1	33		I		
40A-35	35				35		D		
40A-38	38				38		A		
40A-47	47			1	22	24	A		
40A-56	85					85	A		
40A-60	60					60	A		
40A-62	62			2		60	A		
40A-100	100	ALL SIZE 18						A	
40A-130	130	114 SIZE 18					4	12	I
40A-150*	150	ALL SIZE 18							I
40B-5 *	5	3	1		1		A		
40B-19	19			19			A		
40B-37	37				37		A		
40D-4	4			4			C		
40D-37 *	37				37		A		
40T-159*	159	ALL SIZE 20						I	

*Note: For insert arrangements in blue, consult our Customer Service Department.
For pictorial insert arrangements refer to pages 33-46.





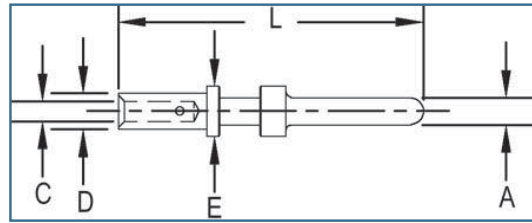
Alternate Positions of Insert Arrangements (Key Stationary - Insert Rotated)

Front View of Pin Insert

Insert Type	Degrees For Alternate Positions				
	Q	W	X	Y	Z
32-1	-	80	110	250	280
32-2	-	70	145	215	290
32-5	-	35	110	250	325
32-6	-	80	110	250	280
32-7	-	80	125	235	280
32-8	-	80	125	235	280
32-9	-	80	110	250	280
32-13	-	80	110	250	280
32-15	80	35	110	250	280
32-17	-	45	110	250	-
32-22	-	80	110	250	280
32-31	-	80	125	215	280
32-40	-	35	130	-	-
32-59	-	36	108	252	324
32-68	-	65	135	225	275
32-76	-	80	110	250	280
32-101	-	30	142	-	-
32A-3	-	22	44	76	98
32A-5	-	90	180	270	-
32A-8	-	35	122	-	315
32A-13	-	65	130	230	295
32A-14	-	35	90	-	-
32A-22	-	55	135	230	295
32A-25	-	60	120	-	-
32A-27	-	30	115	285	335
32A-30	-	65	-	-	-
32A-40	-	35	130	-	-
32A-48	-	80	-	-	-
32A-55	-	80	110	250	280
32A-69	-	-	110	250	-
32B-22	-	35	110	250	325
32D-2	-	80	110	-	-
36-3	-	70	145	215	290
36-5	-	45	120	240	-
36-6	-	35	110	250	325
36-7	-	80	110	250	280
36-8	-	80	110	250	280
36-9	-	80	125	235	280
36-10	-	80	125	235	280
36-15	-	60	125	245	305
36-54	-	67	-	-	-
36-66	-	110	250	260	280
36-77	-	-	90	-	-
36-78	-	35	106	254	325
36B-78	-	35	106	254	325
36D-78	-	35	106	254	325
36A-2	-	35	110	250	325
36A-10	-	45	110	250	315
36A-22	-	80	110	250	280
36A-48	-	65	-	-	-
36A-51	-	45	135	225	315
36A-61	-	80	-	-	280
36A-72	-	-	110	-	-
36-66	-	110	250	260	280

Insert Type	Degrees For Alternate Positions				
	Q	W	X	Y	Z
40-9	-	65	125	225	310
40-10	-	65	125	225	310
40-19	-	35	110	250	325
40-56	150	72	144	216	288
40-58	-	80	-	-	-
40-63	-	80	110	250	280
40A-2	-	35	110	250	325
40A-3	-	70	145	215	290
40A-4	-	50	120	240	325
40A-5	-	33	-	-	270
40A-7	-	108	-	-	-
40A-8	-	35	110	250	325
40A-14	-	80	135	195	-
40A-20	-	80	110	250	280
40A-21	-	50	130	260	280
40A-25	-	50	130	260	280
40A-27	-	45	110	250	315
40A-30	-	30	-	-	295
40A-31	-	80	110	250	280
40A-35	-	70	130	230	290
40A-37	-	80	110	250	280
40A-56	-	72	144	216	288
40A-60	-	80	110	250	280
40A-62	-	80	130	230	280
40A-100	-	30	105	230	315
40A-130	-	45	113	-	309
40B-19	-	35	105	225	325
40B-37	-	30	135	-	-
40D-4	-	45	110	-	-
40D-37	-	80	110	250	280

Male
(Pin)



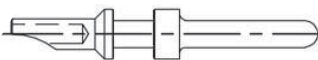
* When ordering add suffix: T9 for Silver • T12 for Gold - For other platings, consult our Customer Service Department.

VEAM Part Number*	Contact Size	Wire Size (AWG)	Approximate Wire Diameter		A		C		D		E		L	
			mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch
27915	8	8	3.5-4.37		3.6		4.5		6.8		7.8		40.7	
			.138-.172			.14		.18		.27		.31		1.60
27915-26	8	12-14	2.18		3.6		2.5		3.2		7.8		40.7	
			.086			.14		.10		.13		.31		1.60
27915-26-62	8	12-14	2.18		3.6		2.5		6.2		7.8		40.7	
			.086			.14		.10		.24		.31		1.60
27915-30	8	4mm ²	2.26		3.72		3.0		4.8		7.8		40.7	
			.089			.15		.12		.19		.31		1.60
27915-38	8	10	3.2		3.6		3.6		4.8		7.8		40.7	
			.126			.14		.14		.19		.31		1.60
27915-58	8	6	4.83-5.41		3.72		5.8		7.8		7.8		40.7	
			.190-.213			.15		.23		.31		.31		1.60
27916	4	4	4.83-6.88		5.71		7.2		9.5		11.0		41.25	
			.190-.270			.22		.28		.37		.43		1.62
27916-22	4	2.5mm ²	1.78		5.83		2.2		3.8		11.0		41.2	
			.070			.23		.09		.15		.43		1.62
27916-62	4	16mm ²	5.76-6.02		5.83		6.2		9.5		11.0		41.2	
			.227-.237			.23		.24		.37		.43		1.62
27917V	0	0	10.5-11		9.06		11.5		14.4		15		46.5	
			.413-.433			.36		.45		.56		.59		1.83
27917-45	0	8	3.5-4.37		9.06		4.5		6.8		15		44.5	
			.138-.172			.36		.18		.27		.59		1.75
27917-50	0	10mm ²	4.16-4.86		9.06		5.0		7.0		15		44.5	
			.164-.191			.36		.19		.28		.59		1.75
27917-62	0	16mm ²	6-6.17		9.06		6.2		9.5		15		44.5	
			.236-.243			.36		.24		.37		.59		1.75
27917-78	0	25mm ²	7.48		9.06		7.8		9.5		15		44.5	
			.294			.36		.31		.37		.59		1.75
27917-90	0	35mm ²	8.76		9.06		9.0		14.4		15		44.5	
			.345			.36		.35		.56		.59		1.75
27917-107	0	50mm ²	10.57		9.06		10.7		14.4		15		44.5	
			.416			.36		.42		.56		.59		1.75
46646-0	0	4	6.6-6.86		9.06		7.2		9.5		15		47.5	
			.260-.270			.36		.28		.37		.59		1.87
47107-90*	4/0	2	8.13-8.53		12.69		9.0		14.4		20.0		58.0	
			.320-.336			.50		.35		.56		.79		2.28
47107-115	4/0	1/0 (0)	10.5-11		12.69		11.5		14.4		20.0		56.3	
			.413-.433			.50		.45		.56		.79		2.22
47107-135	4/0	2/0	11.0-12.9		12.69		13.5		16.5		20.0		58.0	
			.433-.508			.50		.53		.65		.79		2.28
47107-144*	4/0	70mm ²	12.48		12.69		14.4		20.0		20.0		63.0	
			.491			.50		.57		.79		.79		2.48
47107-155	4/0	95mm ²	14.6		12.69		15.5		20.0		20.0		63.0	
			.575			.50		.61		.79		.79		2.48
47107-165	4/0	4/0	14.7-15		12.69		16.5		20.0		20.0		63.0	
			.579-.591			.50		.65		.79		.79		2.48

*Contact Customer Service Department if used with inserts 32A-1 or 36A-1.

Contact Part Numbers - Solder

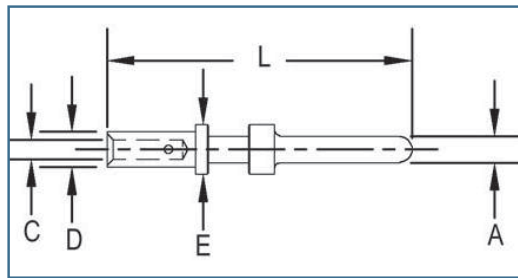
Male (Pin) Solder



Contact Type	Wire Size Max	Solder	
		Male (Pin)	Female (Socket)
20	20	44242	44244
18	18	13342	13341
16S	16	27901	27951
16	16	27903	27953
12	12	27904	27954
8	8	27905	27925M
4	4	27906	27926
0	0 (1/0)	27907	27927

Female (Socket) Solder





Male (Pin)

* When ordering add suffix: T9 for Silver • T12 for Gold - For other platings, consult our Customer Service Department.

VEAM Part Number*	Contact Size	Wire Size (AWG)	Approximate Wire Diameter		A		C		D		E		L
			mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	
46730-20P	20	20-26	0.96-1.02 .038-.040	1.0 .04	1.3 .05	1.93 .07	2 .08	27.0					
46740P	18	20-26	1.16-1.27 .046-.050	1.42 .05	1.3 .05	1.93 .07	2.2 .086	29.6					
46740-15P	18	20-22	0.76-1.02 .030-.040	1.42 .05	1.2 .05	1.93 .07	2.2 .086	29.6					
46740-22P	18	16-18	1.45-1.52 .057-.060	1.42 .05	1.7 .07	2.6 .10	2.6 .10	31.75					
27911	16S	16-18	1.45-1.52 .057-.060	1.58 .06	1.7 .07	2.6 .10	3.2 .13	26.6					
27911-13	16S	20-26	0.61-1.02 .024-.040	1.58 .06	1.3 .05	1.93 .07	3.2 .13	26.6					
27911-15	16S	18	0.96-1.27 .038-.050	1.58 .06	1.5 .06	2.6 .10	3.2 .13	26.6					
27911-20	16S	14	1.45-1.9 .057-.075	1.58 .06	2.0 .08	2.9 .11	3.2 .13	26.6					
27911-26	16S	12	2.18 .086	1.58 .06	2.5 .10	3.8 .15	3.2 .13	26.6					
27913	16	16-18	1.45-1.52 .057-.060	1.58 .06	1.7 .07	2.6 .10	3.2 .13	31.75					
27913-08	16	24-26	0.61-0.63 .024-.025	1.58 .06	.85 .03	1.55 .06	3.2 .13	31.75					
27913-12	16	-	0.76-1.02 .030-.040	1.58 .06	1.2 .05	2.6 .10	3.2 .13	31.75					
27913-13	16	20-26	0.61-1.02 .024-.040	1.58 .06	1.3 .05	1.93 .07	3.2 .13	31.75					
27913-15	16	18	0.96-1.27 .038-.050	1.58 .06	1.5 .06	2.6 .10	3.2 .13	31.75					
27913-20	16	14	1.45-1.9 .057-.075	1.58 .06	2.0 .08	2.9 .11	3.2 .13	31.75					
27913-26	16	12	2.18 .086	1.58 .06	2.5 .10	3.8 .15	3.2 .13	31.75					
27914-8	12	8	3.5-4.37 .138-.172	2.38 .09	4.55 .18	6.8 .27	4.8 .19	42.5					
27914-12	12	-	0.76-1.02 .030-.040	2.38 .09	1.2 .05	2.6 .10	4.8 .19	37.5					
27914-20	12	14-18	1.16-1.9 .046-.075	2.38 .09	2.0 .08	3.8 .15	4.8 .19	37.5					
27914-22	12	-	1.78 .070	2.38 .09	2.2 .09	3.8 .15	4.8 .19	37.5					
27914-26	12	12	2.18 .086	2.38 .09	2.5 .10	3.8 .15	4.8 .19	37.5					
27914-30	12		2.26 .089	2.38 .09	3.0 .12	4.8 .19	4.8 .19	37.5					
27914-38	12	10	3.2 .126	2.38 .09	3.6 .14	4.8 .19	4.8 .19	37.5					

Front View Of Male Insert • 47-58 Contacts

Contact Legend



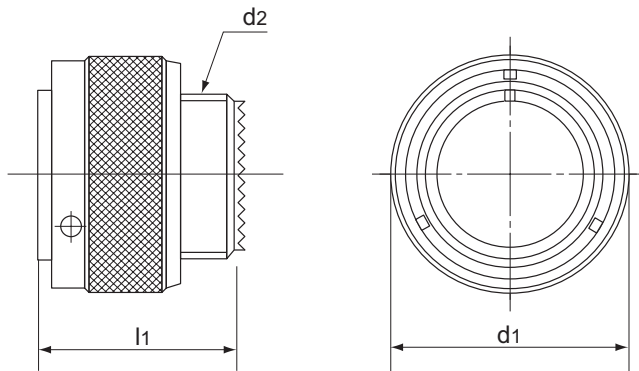
Insert Arrangement	36-8	36-16	36-17	40-9
Number of Contacts	47	47	47	47
Size of Contacts	1-12, 46-16	7-12, 40-16	7-12, 40-16	1-8, 22-12, 24-16
Service Rating	A	A	A	A
		(36-7 rotated by 100°) (36-7 rotated by 110°)		

Insert Arrangement	40A-47	32A-48	36-10	36-11
Number of Contacts	47	48	48	48
Size of Contacts	1-8, 22-12, 24-16	16	16	16
Service Rating	A	I	A	A
			(36-10 rotated by 100°)	

Insert Arrangement	36-12	36A-48	32-22	24A-55	32A-55
Number of Contacts	48	48	54	55	55
Size of Contacts	16	16	16	20	16
Service Rating	A (36-10 rotated by 110°)	I	A	I	A

Insert Arrangement	40-55	36-66	40-58
Number of Contacts	55	56	58
Size of Contacts	1-8, 19-12, 35-16	4-12, 52-16	1-8, 19-12, 38-16
Service Rating	I	A	I

Plug without accessories. CIRG type has "RFI" shield spring (for shielding characteristics see page 11).



IMPORTANT

Above connectors are supplied (as in the picture) only when accessories are ordered separately. Consult factory.

Shell Size	d1 max.	d2 Thread in inches	l1 ± 0,3
10SL	22,8 0.90	5/8 - 24 UNEF-2A	24,6 0.97
14S	29,2 1.15	3/4 - 20 UNEF-2A	24,6 0.97
16S	32 1.26	7/8 - 20 UNEF-2A	24,6 0.97
16	32 1.26	7/8 - 20 UNEF-2A	34,1 1.34
18	36,5 1.44	1" - 20 UNEF-2A	34,1 1.34
20	39,9 1.57	1 1/8 - 18 UNEF-2A	34,1 1.34
22	43,1 1.70	1 1/4 - 18 UNEF-2A	34,1 1.34
24	46,6 1.83	1 3/8 - 18 UNEF-2A	35,7 1.40
28	53,4 2.10	1 5/8 - 18 UNEF-2A	35,7 1.40
32	60,1 2.37	1 7/8 - 16 UN-2A	37,3 1.47
36	66,3 2.61	2" 1/16 - 16 UN-2A	37,3 1.47
40	72,5 2.85	2 5/16 - 16 UN-2A	37,3 1.47

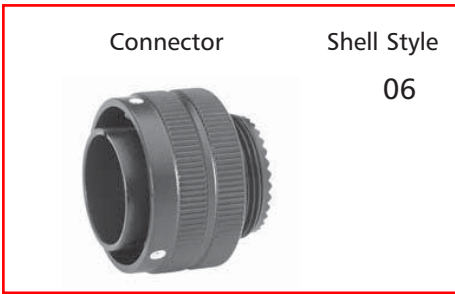
Dimensions are mm. over inches

Connector

Shell Style

Description

Reference Drawing Page



06

Straight Plug..... Page 116-156



065

Straight Plug With Extended Heavy Duty Coupling Nut
.....Page 157-159



06GG

Straight Plug With Rubber Covered Coupling Nut.....
.....Page 120, 127, 130, 132, 134, 136, 142,147



26/064

Panel Plug..... Page 179



08

Right Angle Plug..... Page 160-174

Connector Type	Mates With
CIR 06	CIR 01, 00/020, 030, 07, 070, TB
CIR 08	CIR 030, 00/020, 07, 070, TB
CIR 26/064	CIR 01
CIR 065	CIR 01, 00/020, 03, 030, 07, 070, TB
CIR 06..GG	CIR...00/020 RFS