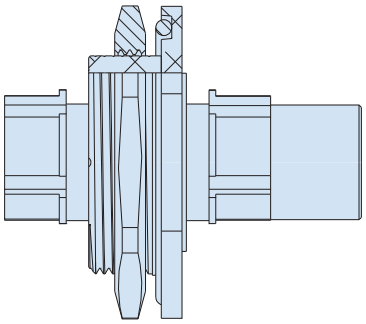
SuperNine® Series IV Environmental

MIL-DTL-38999 Series IV Type
234-212-07 Jam nut feed-thru receptacles with PC tails



"BETTER-THAN-QPL" FEATURES AND BENEFITS

- Secure breech-lock mating connector meets D38999 shock and vibe
- Glenair Signature Tin Zinc finish class is RoHS compliant and cadmium compatible
- Precision-machined key/keyway polarization for reliable mismating protection
- Scoop-proof design prevents pin damage and short circuits
- Fully tooled for all MIL-STD-1560 insert arrangements
- Contact options include size #22D, #20, #16, and #12 (see High-Speed series for Size #8)
- 500 mating cycles exceeds MIL-DTL-38999 specification

HOW TO ORDER

Sample Part Number	234-212	-07	NF	11	-35	P	N	S	N

Basic Part Number	**234-212**
Connector Style	**07** = Jam-Nut
Material/Finish	(See Table I)
Shell Size	**11**, **13**, **15**, **17**, **19**, **21**, **23**, **25**
Insert Arrangement	PER MIL-STD-1560
Contact Style	**P** = Pin Contact Panel Side **S** = Socket Contact Panel Side
Alternate Key Positions	**A**, **B**, **C**, **D**, **K**, **L**, **M**, **R**, **N** = Normal **U** = Universal (Glenair Equivalent Only)
Contact Style	**P** = Pin Contact Panel Side **S** = Socket Contact Panel Side
Alternate Key Positions	**A**, **B**, **C**, **D**, **K**, **L**, **M**, **R**, **N** = Normal **U** = Universal (Glenair Equivalent Only)

TABLE I - MATERIAL/FINISH

Equiv Class	Sym	Material	Finish
W	**NF**	Aluminum Alloy	Cad/O.D. over Electroless Nickel
G*	**MA****		Electroless Nickel, Matte
T*	**MT**		Nickel-PTFE
F	**ME**		Electroless Nickel
AA	**MN**		MegaNickel
V	**TZ**		Tin-Zinc
Z*	**ZR**		Zinc Ni, Black (Tri-Valent CR)
K*	**Z1**	Stainless Steel	Passivate
L*	**ZL**		Electrodeposited Nickel

* = Glenair Equivalent Only

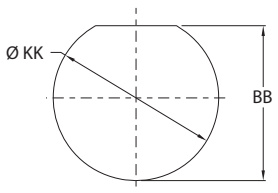
** = Connectors for space applications must be ordered with "MA" finish and mod code "-186T" to conform to the thermal vacuum outgassing requirements of class G.

TABLE II - POLARIZING POSITIONS

	N	A	B	C	D	K	L	M	R	U
X	110°	100°	90°	80°	70°	120°	120°	120°	120°	N/A
Y	250°	260°	270°	280°	290°	255°	265°	275°	285°	N/A

TABLE III - PANEL CUT-OUT

Shell Size	Shell Size Code	ØKK	BB
11	B	1.020 (25.91) 1.010 (25.65)	0.955 (24.26) 0.945 (24.00)
13	C	1.145 (29.08) 1.135 (28.83)	1.085 (27.56) 1.075 (27.31)
15	D	1.270 (32.26) 1.260 (32.00)	1.210 (30.73) 1.200 (30.48)
17	E	1.395 (35.43) 1.385 (35.18)	1.335 (33.91) 1.325 (33.66)
19	F	1.520 (38.61) 1.510 (38.35)	1.460 (37.08) 1.450 (36.83)
21	G	1.645 (41.78) 1.635 (41.53)	1.585 (40.26) 1.575 (40.01)
23	H	1.770 (44.96) 1.760 (44.70)	1.710 (43.43) 1.700 (43.18)
25	J	1.895 (48.13) 1.885 (47.88)	1.835 (46.61) 1.825 (46.36)

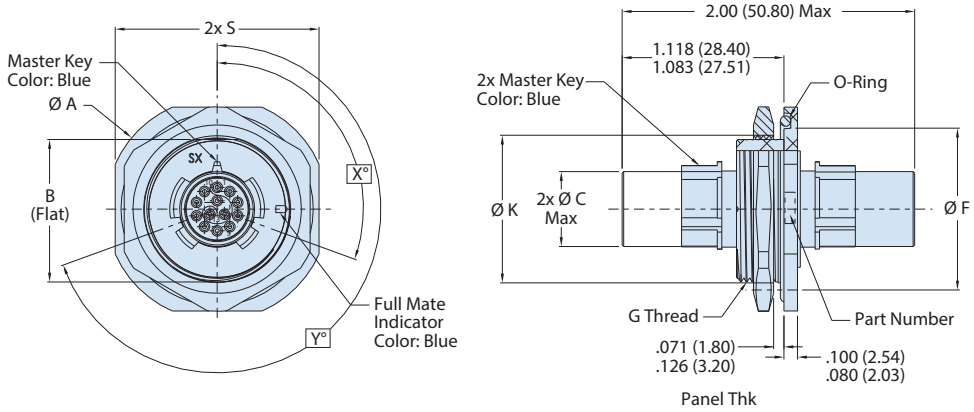


Jam-Nut Receptacle
Recommended panel cut-out

Dimensions in Inches (millimeters) are subject to change without notice.

MIL-DTL-38999 Series IV Type
234-212-07 Jam nut feed-thru receptacles with PC tails

JAM NUT RECEPTACLE 234-105-44 (REF: MIL-DTL-38999/44)



Shell Size	Shell Size Code	ØA	B (Flat)	ØC Max	ØF	G Thread	ØK	S	O-Ring P/N
11	B	1.520 (38.6) 1.480 (37.6)	.942 (23.93) .935 (23.74)	.509 (12.93)	1.096 (27.84) 1.085 (27.55)	M25 X 1.0-6g 0.100R	1.000 (25.40) .990 (25.15)	1.394 (35.4) 1.354 (34.4)	AS3582-024
13	C	1.642 (41.7) 1.602 (40.7)	1.066 (27.08) 1.059 (26.89)	.634 (16.10)	1.221 (31.02) 1.210 (30.73)	M28 X 1.0-6g 0.100R	1.125 (28.58) 1.115 (28.33)	1.520 (38.6) 1.480 (37.6)	AS3582-026
15	D	1.768 (44.9) 1.728 (43.9)	1.191 (30.26) 1.184 (30.07)	.759 (19.28)	1.346 (34.19) 1.335 (33.90)	M31 X 1.0-6g 0.100R	1.250 (31.75) 1.240 (31.50)	1.642 (41.7) 1.602 (40.7)	AS3582-028
17	E	1.957 (49.7) 1.917 (48.7)	1.321 (33.56) 1.314 (33.37)	.885 (22.48)	1.483 (37.67) 1.472 (37.38)	M34 X 1.0-6g 0.100R	1.375 (34.92) 1.365 (34.67)	1.799 (45.7) 1.760 (44.7)	AS3582-029
19	F	2.035 (51.7) 1.996 (50.7)	1.441 (36.61) 1.434 (36.42)	1.009 (25.63)	1.608 (40.85) 1.597 (40.56)	M38 X 1.0-6g 0.100R	1.500 (38.10) 1.490 (37.85)	1.909 (48.5) 1.870 (47.5)	AS3582-030
21	G	2.157 (54.8) 2.118 (53.8)	1.566 (39.78) 1.559 (39.59)	1.134 (28.80)	1.733 (44.02) 1.722 (43.73)	M41 X 1.0-6g 0.100R	1.625 (41.28) 1.615 (41.03)	2.035 (51.7) 1.996 (50.7)	AS3582-031
23	H	2.283 (58.0) 2.244 (57.0)	1.691 (42.96) 1.684 (42.77)	1.259 (31.98)	1.858 (47.20) 1.847 (46.91)	M44 X 1.0-6g 0.100R	1.750 (44.45) 1.740 (44.20)	2.157 (54.8) 2.118 (53.8)	AS3582-032
25	J	2.409 (61.2) 2.370 (60.2)	1.816 (46.13) 1.809 (45.94)	1.384 (35.15)	1.983 (50.37) 1.972 (50.08)	M47 X 1.0-6g 0.100R	1.875 (47.63) 1.865 (47.38)	2.283 (58.0) 2.244 (57.0)	AS3582-033

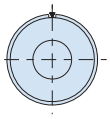
NOTES

1. Materials And Finishes (As Applicable):
   - Shell - Jam Nut (See Table I)
   - Insulator - High Grade Rigid Dielectric.
   - Contacts - IAW AS39029
   - Seals - Fluorosilicone Blend.
2. Insert arrangement in accordance with MIL-STD-1560. Contact factory for additional insert arrangements.
3. Insert arrangement shown is for reference only.
4. Glenair 234-212-07 series connectors are designed to meet the applicable performance and interface requirements of MIL-DTL-38999, Series IV except as noted. Connector mates with any QPL manufacturer's MIL-DTL-38999 Series IV connectors with the same insert arrangement and polarization.
5. Power given to contact on one end will result in power to contact directly opposite regardless of identification letter.
6. Electrical safety limits must be established by user. Peak voltage, switching surge, and transient etc, should be used to detrmine the safety application.

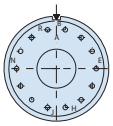
SuperNine® Series IV Environmental

MIL-DTL-38999 Series IV Type
234-217 High-speed plug, and panel mount and jam nut receptacles ins. arrangements

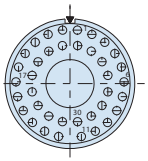
HIGH-SPEED AND HYBRID INSERT ARRANGEMENTS



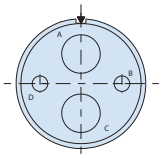
Arrangement 11-1
1x Size 8



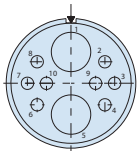
Arrangement 13-14
1x Size 8
14x Size 23



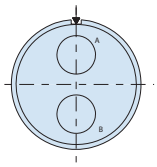
Arrangement 17-2
1x Size 8
38x Size 22



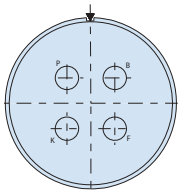
Arrangement 17-22
2x Size 8
2x Size 12



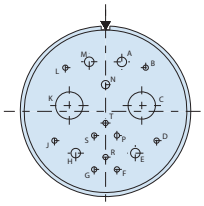
Arrangement 17-60
2x Size 8
8x Size 22



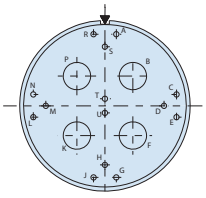
Arrangement 17-75
2x Size 8



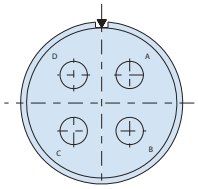
Arrangement 19-4
4x Size 8



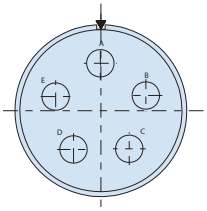
Arrangement 19-17
10x Size 22D
1x Size 20
4x Size 16
2x Size 8



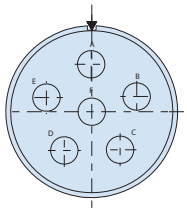
Arrangement 19-18
14x Size 22D
4x Size 8



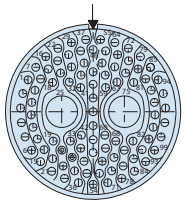
Arrangement 21-75
4x Size 8



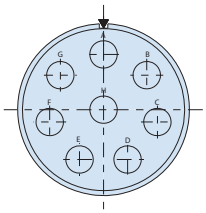
Arrangement 23-5
5x Size 8



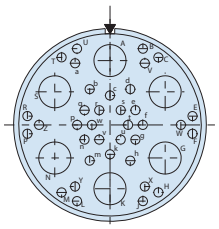
Arrangement 23-6
6x Size 8



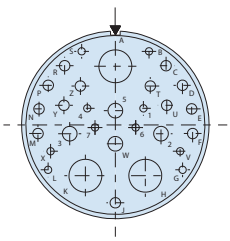
Arrangement 25-7
97x Size 22
2x Size 8



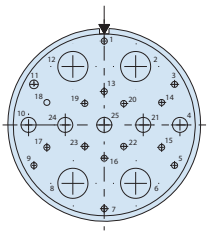
Arrangement 25-8
8x Size 8



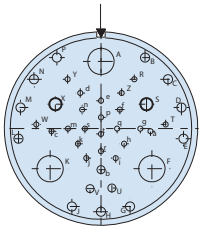
Arrangement 25-17
36x Size 22
6x Size 8



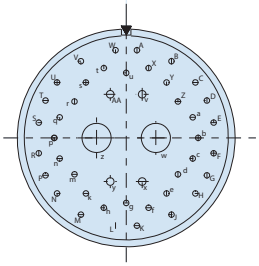
Arrangement 25-20
10x Size 20
13x Size 16
4x Size 12
3x Size 8



Arrangement 25-26
16x Size 20
5x Size 12
4x Size 8



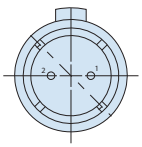
Arrangement 25-41
22x Size 22D
3x Size 20
11x Size 16
2x Size 12
3x Size 8



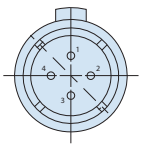
Arrangement 25-46
40x Size 20
4x Size 16
2x Size 8

Insert arrangements, mating face of pin insert shown. Replace X with C, D, E,Q, P, or T (See Table III).

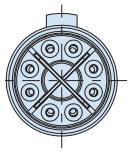
CONTACT INNER PIN ORIENTATION



Differential
Twinax



Quadrax

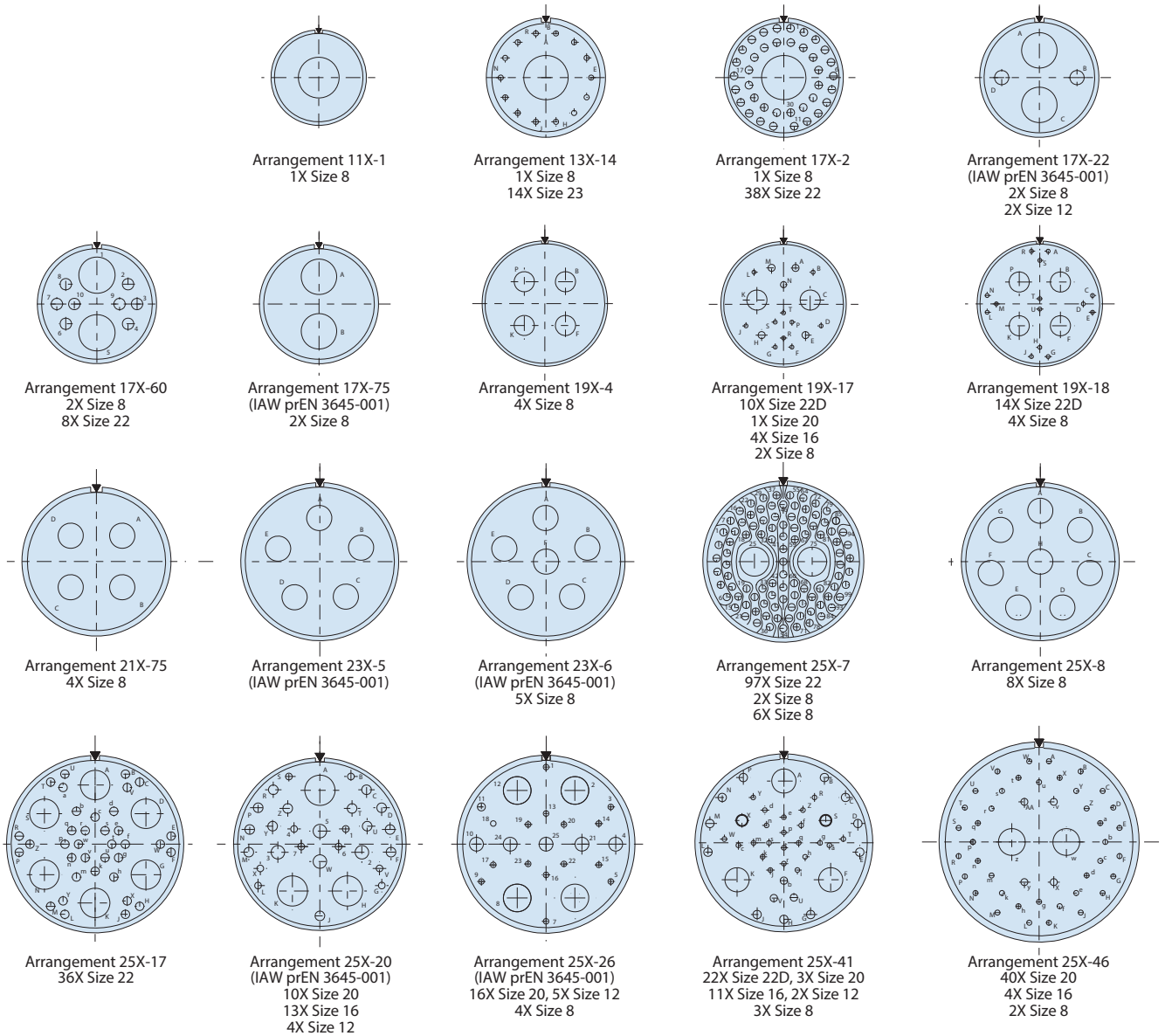


El Ochito

SuperNine® Series IV Environmental

MIL-DTL-38999 Series IV Type
234-218 High-speed panel mount receptacles, PC tail insert arrangements

FIGURE 1 - INSERT ARRANGEMENTS



Arrangement 11X-1
1X Size 8

Arrangement 13X-14
1X Size 8
14X Size 23

Arrangement 17X-2
1X Size 8
38X Size 22

Arrangement 17X-22
(IAW prEN 3645-001)
2X Size 8
2X Size 12

Arrangement 17X-60
2X Size 8
8X Size 22

Arrangement 17X-75
(IAW prEN 3645-001)
2X Size 8

Arrangement 19X-4
4X Size 8

Arrangement 19X-17
10X Size 22D
1X Size 20
4X Size 16
2X Size 8

Arrangement 19X-18
14X Size 22D
4X Size 8

Arrangement 21X-75
4X Size 8

Arrangement 23X-5
(IAW prEN 3645-001)

Arrangement 23X-6
(IAW prEN 3645-001)
5X Size 8

Arrangement 25X-7
97X Size 22
2X Size 8
6X Size 8

Arrangement 25X-8
8X Size 8

Arrangement 25X-17
36X Size 22

Arrangement 25X-20
(IAW prEN 3645-001)
10X Size 20
13X Size 16
4X Size 12
3X Size 8

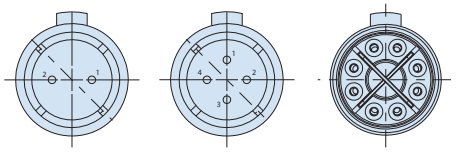
Arrangement 25X-26
(IAW prEN 3645-001)
16X Size 20, 5X Size 12
4X Size 8

Arrangement 25X-41
22X Size 22D, 3X Size 20
11X Size 16, 2X Size 12
3X Size 8

Arrangement 25X-46
40X Size 20
4X Size 16
2X Size 8

Figure 1
Insert arrangements, mating face of pin insert shown. Replace X with C, D, E, Q or T (See Table VI)

FIGURE 2 - CONTACT INNER PIN ORIENTATION



Differential Twinax

Quadrax

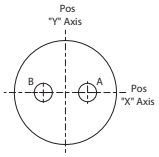
El Ochito

PCB Footprints: Standard

PCB FOOTPRINTS

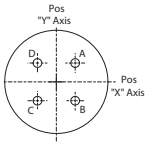
Mating face of pin insert shown (socket will be opposite)

11-2
2 #16



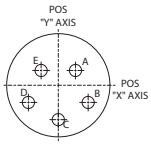
I.D. No.	Location	
	X	Y
A	.095	.000
B	-.095	.000

11-4
4 #20



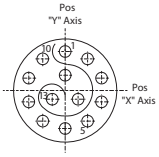
I.D. No.	Location	
	X	Y
A	.065	.065
B	.065	-.065
C	-.065	-.065
D	-.065	.065

11-5
5 #20



I.D. No.	Location	
	X	Y
A	.065	.056
B	.113	-.065
C	.000	-.130
D	-.113	-.065
E	-.065	.056

11-35
13 #22D

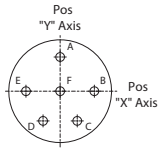


I.D. No.	Location		I.D. No.	Location	
	X	Y		X	Y
1	.000	.146	8	-.138	-.045
2	.085	.118	9	-.138	.045
3	.138	.045	10	-.085	.118
4	.138	-.045	11	.000	.056
5	.085	-.118	12	.049	-.035
6	.000	-.146	13	-.049	-.035
7	-.085	-.118			

PCB Footprints: Standard

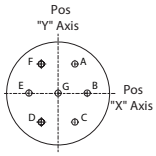
Mating face of pin insert shown (socket will be opposite)

11-98
6 #20



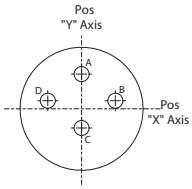
I.D. No.	Location	
	X	Y
A	.000	.130
B	.130	.000
C	.065	-.113
D	-.065	-.113
E	-.130	.000
F	.000	.000

11-99
7 #20



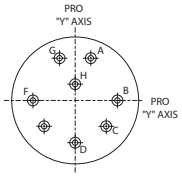
I.D. No.	Location		I.D. No.	Location	
	X	Y		X	Y
A	.065	.113	E	-.130	.000
B	.130	.000	F	-.065	.113
C	.065	-.113	G	.000	.000
D	-.065	-.113			

13-4
4 #16



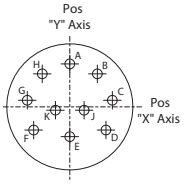
I.D. No.	Location	
	X	Y
A	.000	.150
B	.146	.035
C	.000	-.083
D	-.146	.035

13-8
8 #20



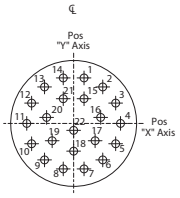
I.D. No.	Location		I.D. No.	Location	
	X	Y		X	Y
A	.065	.157	E	-.120	-.120
B	.170	.000	F	-.170	.000
C	.120	-.120	G	-.065	.157
D	.000	-.170	H	.000	.044

13-98
10 #20



I.D. No.	Location		I.D. No.	Location	
	X	Y		X	Y
A	.000	.195	F	-.164	-.105
B	.125	.150	G	-.193	.030
C	.193	.030	H	-.125	.150
D	.164	-.105	J	.065	-.015
E	.000	-.135	K	-.065	-.015

13-35
22 #22D



I.D. No.	Location		I.D. No.	Location	
	X	Y		X	Y
1	.045	.197	12	-.182	.088
2	.126	.158	13	-.126	.158
3	.182	.088	14	-.045	.197
4	.203	.000	15	.045	.107
5	.182	-.088	16	.117	.026
6	.126	-.158	17	.093	-.075
7	.045	-.197	18	.000	-.120
8	-.045	-.197	19	-.093	-.075
9	-.126	-.158	20	-.117	.026
10	-.182	-.088	21	-.045	.107
11	-..203	.000	22	.000	-.030

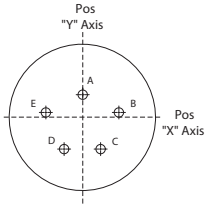
Dimensions in Inches (millimeters) are subject to change without notice.

PCB Footprints: Standard

PCB FOOTPRINTS

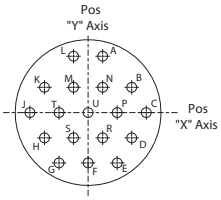
Mating face of pin insert shown (socket will be opposite)

15-5
5 #16



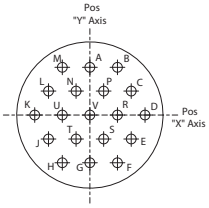
I.D. No.	Location	
	X	Y
A	.000	.100
B	.174	.024
C	.094	-.148
D	-.094	-.148
E	-.174	.024

15-18
18 #20



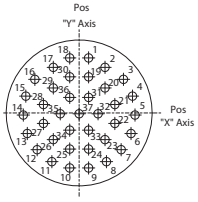
I.D. No.	Location		I.D. No.	Location	
	X	Y		X	Y
A	.065	.252	K	-.195	.113
B	.195	.113	L	-.065	.252
C	.260	.000	M	-.065	.113
D	.195	-.113	N	.065	.113
E	.130	-.225	P	.130	.000
F	.000	-.225	R	.065	-.113
G	-.130	-.225	S	-.065	-.113
H	-.195	-.113	T	-.130	.000
J	-.260	.000	U	.000	.000

15-19
19 #20



I.D. No.	Location		I.D. No.	Location	
	X	Y		X	Y
A	.000	.225	L	-.195	.113
B	.130	.225	M	-.130	.225
C	.195	.113	N	-.065	.113
D	.260	.000	P	.065	.113
E	.195	-.113	R	.130	.000
F	.130	-.225	S	.065	-.113
G	.000	-.225	T	-.065	-.113
H	-.130	-.225	U	-.130	.000
J	-.195	-.113	Y	.000	.000
K	-.260	.000			

15-35
37 #22D



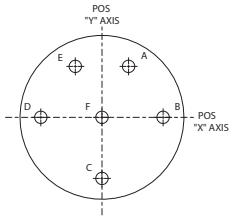
I.D. No.	Location		I.D. No.	Location	
	X	Y		X	Y
1	.045	.262	20	.123	.119
2	.123	.217	21	.170	.040
3	.211	.160	22	.170	-.050
4	.254	.080	23	.123	-.127
5	.266	-.010	24	.045	-.172
6	.247	-.098	25	-.045	-.172
7	.200	-.175	26	-.123	-.127
8	.130	-.232	27	-.170	-.050
9	.045	-.262	28	-.170	.040
10	-.045	-.262	29	-.123	.119
11	-.130	-.232	30	-.045	.172
12	-.200	-.175	31	.045	.074
13	-.247	-.098	32	.090	-.004
14	-.266	-.010	33	.045	-.082
15	-.254	.080	34	-.045	-.082
16	-.211	.160	35	-.090	-.004
17	-.123	.217	36	-.045	.074
18	-.045	.262	37	.000	-.004
19	.045	.172			

PCB Footprints: Standard

Mating face of pin insert shown (socket will be opposite)

17-6

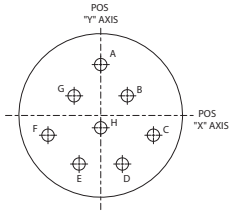
6 #12



I.D. No.	Location	
	X	Y
A	.121	.209
B	.241	.000
C	.000	-.241
D	-.241	.000
E	-.121	.209

17-8

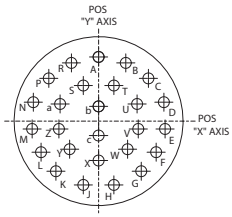
8 #16



I.D. No.	Location		I.D. No.	Location	
	X	Y		X	Y
A	.000	.236	E	-.094	-.216
B	.128	.086	F	-.230	-.078
C	.230	-.078	G	-.128	.086
D	.094	-.216	H	.000	-.052

17-26

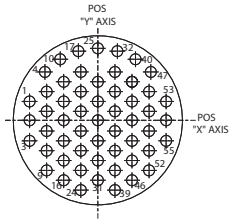
26 #20



I.D. No.	Location		I.D. No.	Location	
	X	Y		X	Y
A	.000	.321	P	-.239	.214
B	.131	.293	R	-.131	.293
C	.239	.214	S	-.070	.177
D	.305	.099	T	.070	.177
E	.319	-.034	U	.175	.094
F	.278	-.161	V	.178	-.036
G	.189	-.260	W	.119	-.151
H	.067	-.314	X	.000	-.203
J	-.067	-.314	Y	-.119	-.151
K	-.189	-.260	Z	-.178	-.036
L	-.278	-.161	a	-.175	.094
M	-.319	-.034	b	.000	.065
N	-.305	.099	c	.000	-.065

17-35

55 #22D



I.D. No.	Location		I.D. No.	Location		I.D. No.	Location	
	X	Y		X	Y		X	Y
1	-.312	.086	20	-.078	.041	39	.078	-.319
2	-.312	-.004	21	-.078	-.049	40	.172	.279
3	-.312	-.094	22	-.078	-.139	41	.156	.176
4	-.242	.221	23	-.078	-.229	42	.156	.086
5	-.234	.131	24	-.078	-.319	43	.156	-.004
6	-.234	.041	25	.000	.329	44	.156	-.094
7	-.234	-.049	26	.000	.176	45	.156	-.184
8	-.234	-.139	27	.000	.086	46	.156	-.274
9	-.234	-.229	28	.000	-.004	47	.242	.221
10	-.172	.279	29	.000	-.094	48	.234	.131
11	-.156	.176	30	.000	-.184	49	.234	.041
12	-.156	.086	31	.000	-.274	50	.234	-.049
13	-.156	-.004	32	.089	.316	51	.234	-.139
14	-.156	-.094	33	.078	.221	52	.234	-.229
15	-.156	-.184	34	.078	.131	53	.312	.086
16	-.156	-.274	35	.078	.041	54	.312	-.004
17	-.089	.316	36	.078	-.049	55	.312	-.094
18	-.078	.221	37	.078	-.139			
19	-.078	.131	38	.078	-.229			

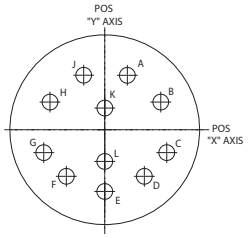
PCB Footprints: Standard

PCB FOOTPRINTS

Mating face of pin insert shown (socket will be opposite)

19-11

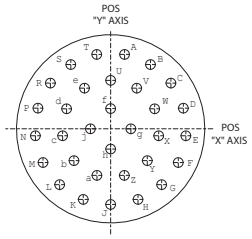
11 #16



I.D. No.	Location		I.D. No.	Location	
	X	Y		X	Y
A	0.105	0.26	G	-0.275	-0.053
B	0.25	0.132	H	-0.25	0.132
C	0.275	-0.053	J	-0.105	0.26
D	0.179	-0.215	K	0	0.105
E	0	-0.281	L	0	-0.092
F	-0.179	-0.215	--	--	--

19-32

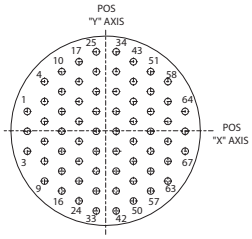
32 #20



I.D. No.	-Location		I.D. No.	Location	
	X	Y		X	Y
A	.066	.353	T	-.066	.353
B	.189	.305	U	0	.230
C	.286	.217	V	.124	.193
D	.345	.098	W	.209	.095
E	.357	-.033	X	.228	-.033
F	.321	-.160	Y	.174	-.151
G	.242	-.265	Z	.065	-.221
H	.130	-.335	a	-.065	-.221
J	0	-.359	b	-.174	-.151
K	-.130	-.335	c	.228	-.033
L	-.242	-.265	d	-.209	.095
M	-.321	-.160	e	-.124	.193
N	-.357	-.033	f	0	.096
P	-.345	.098	g	.096	0
R	-.286	.217	h	0	-.096
S	-.189	.305	j	-.096	0

19-35

66 #22D



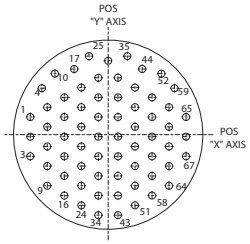
I.D. No.	-Location		I.D. No.	Location		I.D. No.	Location	
	X	Y		X	Y		X	Y
1	-.357	.090	23	-.123	-.225	45	.123	.135
2	-.357	.000	24	-.123	-.315	46	.123	.045
3	-.357	-.090	25	-.045	.360	47	.123	-.045
4	-.279	.225	26	-.045	.270	48	.123	-.135
5	-.279	.135	27	-.045	.180	45	.123	-.225
6	-.279	.045	28	-.045	.090	50	.123	-.315
7	-.279	-.045	29	-.045	.000	51	.201	.270
8	-.279	-.135	30	-.045	-.090	52	.201	.180
9	-.279	-.225	31	-.045	-.180	53	.201	.090
10	-.201	.270	32	-.045	-.270	54	.201	.000
11	-.201	.180	33	-.045	-.360	55	.201	-.090
12	-.201	.090	34	.045	.360	56	.201	-.180
13	-.201	.000	35	.045	.270	57	.201	-.270
14	-.201	-.090	36	.045	.180	58	.279	.225
15	-.201	-.180	37	.045	.090	59	.279	.135
16	-.201	-.270	38	.045	.000	60	.279	.045
17	-.123	.315	39	.045	-.090	61	.279	-.045
18	-.123	.225	40	.045	-.180	62	.279	-.135
19	-.123	.135	41	.045	-.270	63	.279	-.225
20	-.123	.045	42	.045	-.360	64	.357	.090
21	-.123	-.045	43	.123	.315	65	.357	.000
22	-.123	-.135	44	.123	.225	66	.357	-.090

PCB Footprints: Standard

Mating face of pin insert shown (socket will be opposite)

19-45

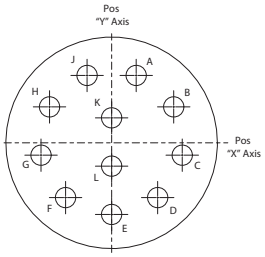
67 #22D



I.D. No.	-Location X	-Location Y	I.D. No.	Location X	Location Y	I.D. No.	Location X	Location Y
1	-.357	.081	24	-.123	-.324	47	.123	.036
2	-.357	-.009	25	-.088	.360	48	.123	-.054
3	-.357	-.099	26	.000	.339	45	.123	-.144
4	-.304	.213	27	-.045	.261	50	.123	-.234
5	-.279	.126	28	-.045	.171	51	.123	-.324
6	-.279	.036	29	-.045	.081	52	.244	.280
7	-.279	-.054	30	-.045	-.009	53	.201	.171
8	-.279	-.144	31	-.045	-.099	54	.201	.081
9	-.279	-.234	32	-.045	-.189	55	.201	-.009
10	-.244	.280	33	-.045	-.279	56	.201	-.099
11	-.201	.171	34	-.045	-.369	57	.201	-.189
12	-.201	.081	35	.088	.360	58	.201	-.279
13	-.201	-.009	36	.045	.261	59	.304	.213
14	-.201	-.099	37	.045	.171	60	.279	.126
15	-.201	-.189	38	.045	.081	61	.279	.036
16	-.201	-.279	39	.045	-.009	62	.279	-.054
17	-.156	.301	40	.045	-.099	63	.279	-.144
18	-.123	.216	41	.045	-.189	64	.279	-.234
19	-.123	.126	42	.045	-.279	65	.357	.081
20	-.123	.036	43	.045	-.369	66	.357	-.009
21	-.123	-.054	44	.156	.301	67	.357	-.099
22	-.123	-.144	45	.123	.216			
23	-.123	-.234	46	.123	.126			

21-11

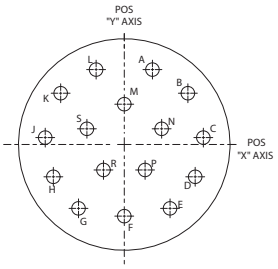
11 #12



I.D. No.	Location X	Location Y	I.D. No.	Location X	Location Y
A	.121	.332	G	-.348	-.061
B	.306	.177	H	-.306	.177
C	.348	-.061	J	-.121	.332
D	.227	-.270	K	.000	.123
E	.000	-.353	L	.000	-.115
F	-.227	-.270			

21-16

16 #16



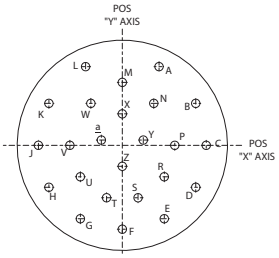
I.D. No.	Location X	Location Y	I.D. No.	Location X	Location Y
A	.118	.322	J	-.341	.036
B	.271	.211	K	-.271	.211
C	.341	.036	L	-.118	.322
D	.308	-.150	M	.000	.175
E	.182	-.290	N	.154	.062
F	.000	-.343	P	.094	-.122
G	-.182	-.290	R	-.094	-.122
H	-.308	-.150	S	-.154	.062

PCB Footprints: Standard

PCB FOOTPRINTS

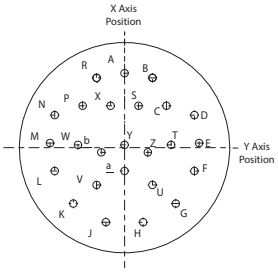
Mating face of pin insert shown (socket will be opposite)

21-24
24 #20



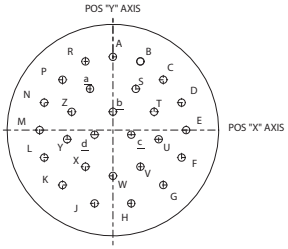
I.D. No	-Location		I.D. No.	Location	
	X	Y		X	Y
A	.175	.375	P	.250	.000
B	.350	.200	R	.200	-.150
C	.400	.000	S	.075	-.250
D	.350	.200	T	-.075	-.250
E	.200	.350	U	-.200	-.150
F	.000	.400	V	-.250	.000
G	.200	-.350	W	-.150	-.200
H	-.350	-.200	X	.000	.150
J	-.400	.000	Y	.100	.025
K	-.350	.200	Z	.000	-.100
L	-.175	.375	a	-.100	.025
M	.000	.300			
N	.150	.200			

21-25
25 #20



I.D. No	-Location		I.D. No.	Location	
	X	Y		X	Y
A	.000	.400	P	-.225	.225
B	.150	.375	R	-.150	.375
C	.225	.225	S	.075	-.225
D	.375	.175	T	.250	.075
E	.400	.025	U	.150	-.200
F	.375	-.125	V	-.150	-.200
G	.275	-.300	W	-.250	.075
H	.100	-.400	X	-.075	.225
J	-.100	-.400	Y	.000	.075
K	-.275	-.300	Z	.125	-.025
L	-.375	-.125	a	.000	-.125
M	-400	.025	b	-.125	-.025
N	-.375	.175			

21-27
27 #20



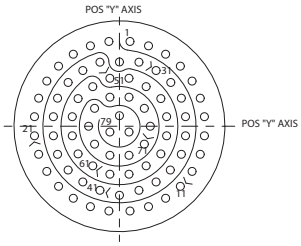
I.D. No	-Location		I.D. No.	Location	
	X	Y		X	Y
A	.000	.400	R	-.150	.375
B	.150	.375	S	.125	.225
C	.275	.275	T	.225	.100
D	.375	.150	U	.250	-.050
E	.400	.025	V	-.150	-.200
F	.375	-.150	W	-.000	-.250
G	.275	-.300	X	-.150	-.200
H	.100	-.400	Y	-.250	-.050
J	-.100	-.400	Z	-.225	-.100
K	-.275	-.300	a	-.125	.225
L	-.375	-.150	b	.000	.100
M	-400	.000	c	.100	-.025
N	-.375	.150	d	-.100	-.025
P	-.150	.275			

PCB Footprints: Standard

Mating face of pin insert shown (socket will be opposite)

21-35

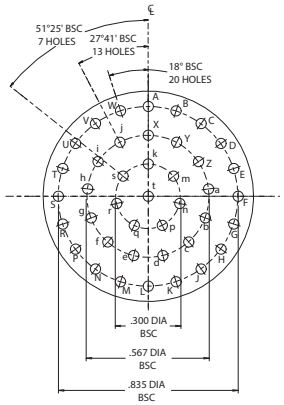
79 #22D



I.D. No.	-Location		I.D. No.	Location		I.D. No.	Location	
	X	Y		X	Y		X	Y
1	.053	.426	28	-.053	.426	55	.237	.048
2	.146	.404	29	.000	.323	56	.237	-.048
3	.232	.362	30	.098	.322	57	.208	-.139
4	.306	.302	31	.184	.280	58	.134	-.199
5	.365	.227	32	.258	.220	59	.048	-.241
6	.406	.141	33	.311	.141	60	-.048	-.241
7	.427	.048	34	.332	.048	61	-.134	-.199
8	.427	-.048	35	.332	-.048	62	-.208	-.139
9	.406	-.141	36	.311	-.141	63	-.237	-.048
10	.365	-.227	37	.258	-.220	64	-.237	.048
11	.306	-.302	38	.184	-.280	65	-.208	.139
12	.232	-.362	39	.098	-.322	66	-.134	.199
13	.146	-.404	40	.000	-.347	67	-.048	.146
14	.053	-.426	41	-.098	-.322	68	.048	.146
15	-.053	-.426	42	-.184	-.280	69	.125	.090
16	-.146	-.404	43	-.258	-.220	70	.155	.000
17	-.232	-.362	44	-.311	-.141	71	.125	-.090
18	-.306	-.302	45	-.332	-.048	72	.048	-.146
19	-.365	-.227	46	-.332	.048	73	-.048	-.146
20	-.406	-.141	47	-.311	.141	74	-.125	-.090
21	-.427	-.048	48	-.258	.220	75	-.155	.000
22	-.427	.048	49	-.184	.280	76	-.125	.090
23	-.406	.141	50	-.098	.322	77	.000	.053
24	-.365	.227	51	-.048	.241	78	.048	-.029
25	-.306	.302	52	.048	.241	79	-.048	-.029
26	-.232	.362	53	.134	.199			
27	-.146	.404	54	.208	.139			

21-41

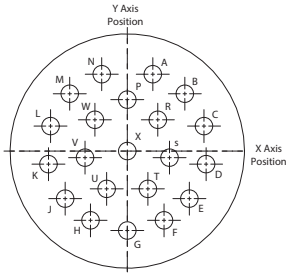
41 #20



PCB Footprints: Standard

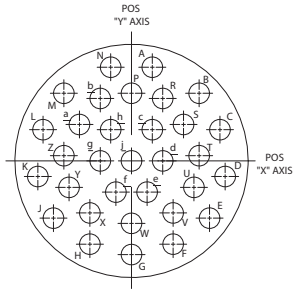
Mating face of pin insert shown (socket will be opposite)

23-21
21 #16



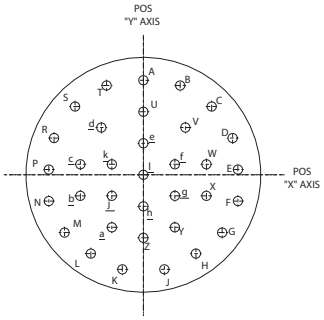
I.D. No	Location X	Location Y	I.D. No.	Location X	Location Y
A	.128	.385	M	-.289	.285
B	.289	.285	N	-.128	.385
C	.386	.123	P	.000	.245
D	.400	-.065	R	.160	.146
E	.328	-.239	S	.214	-.035
F	.183	-.362	T	.094	-.194
G	.000	-.406	U	-.094	-.194
H	-.183	-.362	V	-.214	-.035
J	-.328	-.239	W	-.160	.146
K	-.400	-.065	X	.000	.000
L	-.386	.123			

23-32
32 #20



I.D. No	Location X	Location Y	I.D. No.	Location X	Location Y
A	.100 (2.54)	.450 (11.43)	T	.325 (8.26)	.025 (0.64)
B	.325 (8.26)	.325 (8.26)	U	.300 (7.62)	-.125 (3.18)
C	.425 (10.80)	.150 (3.81)	V	.200 (5.08)	-.250 (6.35)
D	.450 (11.43)	-.075 (1.91)	W	.000 (0.00)	-.300 (7.62)
E	.375 (9.53)	-.275 (6.99)	X	-.200 (5.08)	-.250 (6.35)
F	.200 (5.08)	-.400 (10.16)	Y	-.300 (7.62)	-.125 (3.18)
G	.000 (0.00)	-.450 (11.43)	Z	-.325 (8.26)	.025 (0.64)
H	-.200 (5.08)	-.400 (10.16)	a	-.250 (6.35)	.175 (4.45)
J	-.375 (9.53)	-.275 (6.99)	b	-.150 (3.81)	.300 (7.62)
K	-.450 (11.43)	-.075 (1.91)	c	.100 (2.54)	.150 (3.81)
L	-.425 (10.80)	.150 (3.81)	d	.150 (3.81)	.000 (0.00)
M	-.325 (8.26)	.325 (8.26)	e	.075 (1.91)	-.150 (3.81)
N	-.100 (2.54)	.450 (11.43)	f	-.075 (1.91)	-.150 (3.81)
P	.000 (0.00)	.325 (8.26)	g	-.150 (3.81)	.000 (0.00)
R	.150 (3.81)	.300 (7.62)	h	-.100 (2.54)	.150 (3.81)
S	.250 (6.35)	.175 (4.45)	J	.000 (0.00)	.000 (0.00)

23-34
34 #20



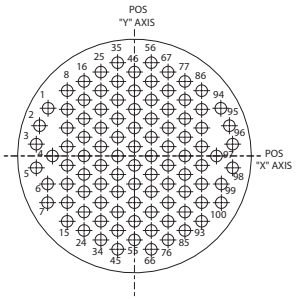
I.D. No	Location X	Location Y	I.D. No.	Location X	Location Y
A	.000	.450	U	.000	.300
B	.175	.425	V	.200	.225
C	.325	.325	W	.300	.050
D	.425	.175	X	.300	-.100
E	.450	.025	Y	.150	-.250
F	.450	-.125	Z	.000	-.300
G	.375	-.275	a	-.150	-.25
H	.250	-.375	b	-.300	-.100
J	.100	-.450	c	-.300	.050
K	-.100	-.450	d	-.200	.225
L	-.250	-.375	e	.000	.150
M	-.375	-.275	f	.150	.050
N	-.450	-.125	g	.150	-.100
P	-.450	.025	h	.000	-.150
R	-.425	.175	j	-.150	-.100
S	-.325	.325	k	-.150	.050
T	-.175	.425	l	.000	.000

PCB Footprints: Standard

Mating face of pin insert shown (socket will be opposite)

23-35

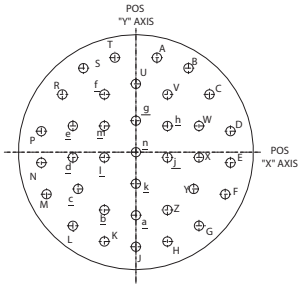
100 #22D



I.D. No.	Location		I.D. No.	Location		I.D. No.	Location	
	X	Y		X	Y		X	Y
1	-.428	.241	34	-.166	-.427	67	.166	.428
2	-.467	.154	35	-.083	.475	68	.166	.333
3	-.488	.061	36	-.083	.380	69	.166	.238
4	-.415	.000	37	-.083	.285	70	.166	.143
5	-.488	-.061	38	-.083	.190	71	.166	.048
6	-.428	-.142	39	-.083	.095	72	.166	-.047
7	-.428	-.237	40	-.083	.000	73	.166	-.142
8	-.332	.333	41	-.083	-.095	74	.166	-.237
9	-.332	.238	42	-.083	-.190	75	.166	-.332
10	-.332	.143	43	-.083	-.285	76	.166	-.427
11	-.332	.048	44	-.083	-.380	77	.249	.380
12	-.332	-.047	45	-.083	-.475	78	.249	.285
13	-.332	-.142	46	.000	.428	79	.249	.190
14	-.332	-.237	47	.000	.333	80	.249	.095
15	-.332	-.332	48	.000	.238	81	.249	.000
16	-.249	.380	49	.000	.143	82	.249	-.095
17	-.249	.285	50	.000	.048	83	.249	-.190
18	-.249	.190	51	.000	-.047	84	.249	-.285
19	-.249	.095	52	.000	-.142	85	.249	-.380
20	-.249	.000	53	.000	-.237	86	.332	.333
21	-.249	-.095	54	.000	-.332	87	.332	.238
22	-.249	-.190	55	.000	-.427	88	.332	.143
23	-.249	-.285	56	.083	.475	89	.332	.048
24	-.249	-.380	57	.083	.380	90	.332	-.047
25	-.166	.428	58	.083	.285	91	.332	-.142
26	-.166	.333	59	.083	.190	92	.332	-.237
27	-.166	.238	60	.083	.095	93	.332	-.332
28	-.166	.143	61	.083	.000	94	.428	.241
29	-.166	.048	62	.083	-.095	95	.467	.154
30	-.166	-.047	63	.083	-.190	96	.488	.061
31	-.166	-.142	64	.083	-.285	97	.415	.000
32	-.166	-.237	65	.083	-.380	98	.488	-.061
33	-.166	-.332	66	.083	-.475	99	.428	-.142
						100	.428	-.237

23-36

36 #20



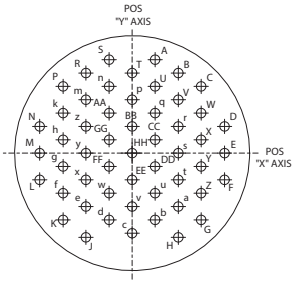
I.D. No.	Location		I.D. No.	Location	
	X	Y		X	Y
A	.100	.450	V	.150	.275
B	.250	.400	W	.300	.125
C	.350	.275	X	.300	-.025
D	.450	.100	Y	.275	-.175
E	.450	-.050	Z	.150	-.275
F	.425	-.200	a	.000	-.300
G	.300	-.350	b	-.150	-.275
H	.150	-.425	c	-.275	-.175
J	.000	-.450	d	-.300	-.025
K	-.150	-.425	e	-.300	.125
L	-.300	-.350	f	-.150	.275
M	-.425	-.200	g	.000	.150
N	-.450	-.050	h	.150	.125
P	-.450	.100	j	.150	-.025
R	-.350	.275	k	.000	-.150
S	-.250	.400	l	-.150	-.025
T	-.100	.450	m	-.150	.125
U	.000	.325	n	.000	.000

PCB Footprints: Standard

Mating face of pin insert shown (socket will be opposite)

23-53

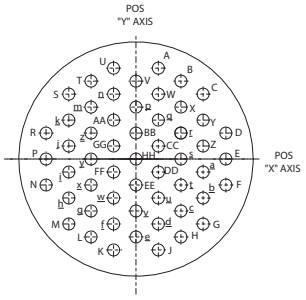
53 #20



I.D. No.	Location		I.D. No.	Location		I.D. No.	Location	
	X	Y		X	Y		X	Y
A	.112	.455	V	.225	.260	r	.225	.130
B	.225	.390	W	.336	.195	s	.225	.000
C	.336	.325	X	.336	.065	t	.225	-.130
D	.450	.130	Y	.336	-.065	u	.112	-.195
E	.450	.000	Z	.336	-.195	v	.000	-.260
F	.450	-.130	a	.225	-.260	w	-.112	-.195
G	.336	-.325	b	.112	-.325	x	-.225	-.130
H	.225	-.410	c	.000	-.390	y	-.225	.000
J	-.225	-.410	d	-.112	-.325	z	-.225	.130
K	-.336	-.325	e	-.225	-.260	AA	-.112	.195
L	-.450	-.130	f	-.336	-.195	BB	.000	.130
M	-.450	.000	g	-.336	-.065	CC	.112	.065
N	-.450	.130	h	-.336	.065	DD	.112	-.065
P	-.336	.325	k	-.336	.195	EE	.000	-.130
R	-.225	.390	m	-.225	.260	FF	-.112	-.065
S	-.112	.455	n	-.112	.325	GG	-.112	.065
T	.000	.390	p	.000	.260	HH	.000	.000
U	.112	.325	q	.112	.195			

23-55

55 #20

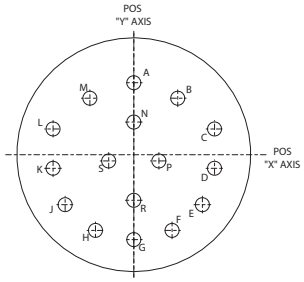


I.D. No.	Location		I.D. No.	Location	
	X	Y		X	Y
A	.112	.455	f	-.225	-.325
B	.225	.390	g	-.336	-.260
C	.336	.325	h	-.336	-.195
D	.450	.130	i	-.336	-.065
E	.450	.000	j	-.336	.065
F	.450	-.130	k	-.336	.195
G	.336	-.325	m	-.225	.260
H	.225	-.390	n	-.112	.325
J	.112	-.455	p	.000	.260
K	-.112	-.455	q	.112	.195
L	-.225	-.390	r	.225	.130
M	-.336	-.325	s	.225	.000
N	-.450	-.130	t	.225	-.130
P	-.450	.000	u	.112	-.195
R	-.450	.130	v	.000	-.260
S	-.336	.325	w	-.112	-.195
T	-.225	.390	x	-.225	-.130
U	-.112	.455	y	-.225	.000
V	.000	.390	z	-.225	.130
W	.112	.325	AA	-.112	.195
X	.225	.260	BB	.000	.130
Y	.336	.195	CC	.112	.065
Z	.336	.065	DD	.112	-.065
a	.336	-.065	EE	.000	-.130
b	.336	-.195	FF	-.112	-.065
c	.225	-.260	GG	-.112	.065
d	.112	-.325	HH	.000	.000
e	-.000	-.390			

PCB Footprints: Standard

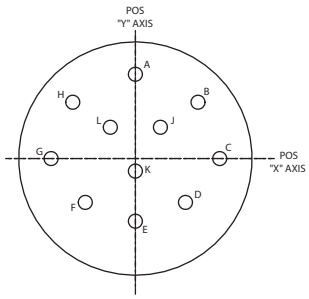
Mating face of pin insert shown (socket will be opposite)

23-97
16 #16



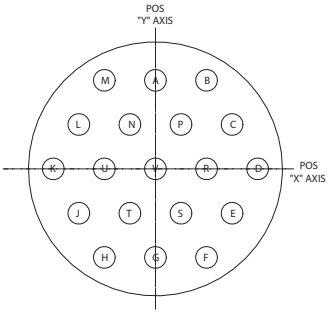
I.D. No.	Location		I.D. No.	Location	
	X	Y		X	Y
A	.000	.344	J	-.328	-.239
B	.210	.270	K	-.400	-.065
C	.386	.123	L	-.386	.123
D	.400	-.065	M	-.210	.270
E	.328	-.239	N	.000	.156
F	.183	-.362	P	.120	-.030
G	.000	-.406	R	.000	-.218
H	-.183	-.362	S	-.120	-.030

23-99
11 #16



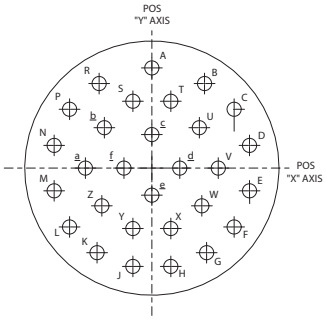
I.D. No.	Location		I.D. No.	Location	
	X	Y		X	Y
A	.000	.404	G	-.404	.000
B	.300	.270	H	-.300	.270
C	.404	.000	J	.120	.150
D	.240	-.210	K	.000	-.060
E	.000	-.300	L	-.120	.150
F	-.240	-.210			

25-19
19 #12



I.D. No.	Location		I.D. No.	Location	
	X	Y		X	Y
A	0	.409	L	-.354	.205
B	.236	.409	M	-.236	.409
C	.354	.205	N	-.118	.205
D	.472	0	P	.118	.205
E	.354	-.205	R	.236	0
F	.236	-.409	S	.118	-.205
G	0	-.409	T	-.118	-.205
H	-.236	-.409	U	-.236	0
J	-.354	-.205	V	0	0
K	-.472	0			

25-29
29 #16



I.D. No.	Location				
	X	Y			
A	.000	.481	S	-.091	.321
B	.258	.406	T	.091	.321
C	.395	.277	U	.228	.194
D	.469	.109	V	.319	.000
E	.469	-.109	W	.240	-.181
F	.395	-.277	X	.091	-.290
G	.263	-.406	Y	-.091	-.290
H	.091	-.472	Z	-.240	-.181
J	-.091	-.472	a	-.319	.000
K	-.263	-.406	b	-.228	.194
L	-.395	-.277	c	.000	.161
M	-.469	-.109	d	.134	.000
N	-.469	.109	e	.000	-.130
P	-.395	.277	f	-.134	.000
R	-.258	.406			

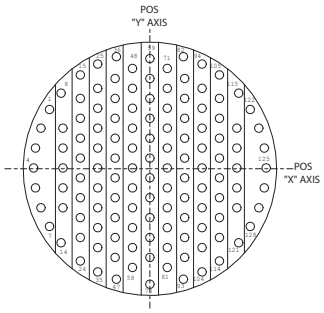
PCB Footprints: Standard

PCB FOOTPRINTS

Mating face of pin insert shown (socket will be opposite)

25-35

128 #22D



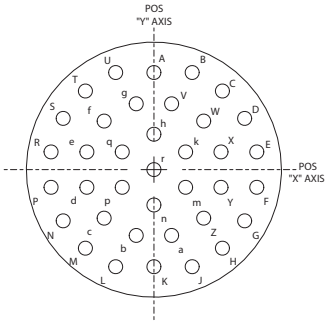
I.D. No.	Location		I.D. No.	Location		I.D. No.	Location	
	X	Y		X	Y		X	Y
1	-.479	.279	44	-.166	-.237	87	.166	.047
2	-.520	.190	45	-.166	-.332	88	.166	-.047
3	-.546	.095	46	-.166	-.427	89	.166	-.142
4	-.555	.000	47	-.166	-.522	90	.166	-.237
5	-.546	-.095	48	-.083	.475	91	.166	-.332
6	-.520	-.190	49	-.083	.380	92	.166	-.427
7	-.479	-.279	50	-.083	.285	93	.166	-.522
8	-.424	.357	51	-.083	.190	94	.249	.496
9	-.415	.190	52	-.083	.095	95	.249	.380
10	-.415	.095	53	-.083	.000	96	.249	.285
11	-.415	.000	54	-.083	-.095	97	.249	.190
12	-.415	-.095	55	-.083	-.190	98	.249	-.095
13	-.415	-.190	56	-.083	-.285	99	.249	.000
14	-.424	-.357	57	-.083	-.380	100	.249	-.095
15	-.332	.444	58	-.083	-.475	101	.249	-.190
16	-.332	.332	59	.000	.522	102	.249	-.285
17	-.332	.237	60	.000	.427	103	.249	-.380
18	-.332	.142	61	.000	.332	104	.249	-.475
19	-.332	.047	62	.000	.237	105	.332	.444
20	-.332	-.047	63	.000	.142	106	.332	.332
21	-.332	-.142	64	.000	.047	107	.332	.237
22	-.332	-.237	65	.000	-.047	108	.332	.142
23	-.332	-.332	66	.000	-.142	109	.332	.047
24	-.332	-.427	67	.000	-.237	110	.332	-.047
25	-.249	.496	68	.000	-.332	111	.332	-.142
26	-.249	.380	69	.000	-.427	112	.332	-.237
27	-.249	.285	70	.000	-.555	113	.332	-.332
28	-.249	.190	71	.083	.475	114	.332	-.427
29	-.249	.095	72	.083	.380	115	.424	.357
30	-.249	.000	73	.083	.285	116	.415	.190
31	-.249	-.095	74	.083	.190	117	.415	.095
32	-.249	-.190	75	.083	.095	118	.415	.000
33	-.249	-.285	76	.083	.000	119	.415	-.095
34	-.249	-.380	77	.083	-.095	120	.415	-.190
35	-.249	-.475	78	.083	-.190	121	.424	-.357
36	-.160	.531	79	.083	-.285	122	.479	.279
37	-.166	.427	80	.083	-.380	123	.520	.190
38	-.166	.332	81	.083	-.475	124	.546	.095
39	-.166	.237	82	.160	.531	125	.555	.000
40	-.166	.142	83	.166	.427	126	.546	-.095
41	-.166	.047	84	.166	.332	127	.520	-.190
42	-.166	-.047	85	.166	.237	128	.479	-.279
43	-.166	-.142	86	.166	.142			

PCB Footprints: Standard

Mating face of pin insert shown (socket will be opposite)

25-37

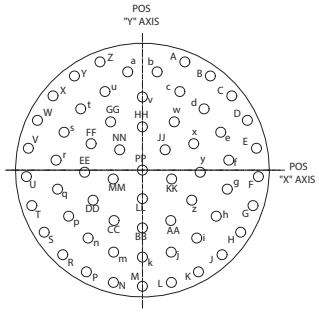
37 #16



I.D. No.	Location X	Location Y	I.D. No.	Location X	Location Y	I.D. No.	Location X	Location Y
A	.000	.472	P	-.500	-.086	d	-.326	-.086
B	.186	.472	R	-.500	.086	e	-.326	.086
C	.333	.382	S	-.441	.249	f	-.242	.236
D	.441	.249	T	-.333	.382	g	-.086	.320
E	.500	.086	U	-.186	.472	h	.000	.172
F	.500	-.086	V	.086	.320	k	.154	.086
G	.441	-.249	W	.242	.236	m	.154	-.086
H	.333	-.382	X	.326	.086	n	.000	-.172
J	.186	-.472	Y	.326	-.086	p	-.154	-.086
K	.000	-.472	Z	.242	-.236	q	-.154	.086
L	-.186	-.472	a	.086	-.320	r	.000	.000
M	-.333	-.382	b	-.086	-.320			
N	-.441	-.249	c	-.242	-.236			

25-61

61 #20



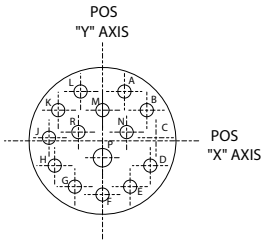
I.D. No.	Location X	Location Y	I.D. No.	Location X	Location Y
A	.196	.500	i	.251	-.314
B	.314	.435	j	.133	-.379
C	.413	.343	k	.000	-.402
D	.485	.230	m	-.133	-.379
E	.527	.101	n	-.251	-.314
F	.536	-.030	p	-.341	-.213
G	.511	-.164	q	-.392	-.088
H	.454	-.287	r	-.399	.046
J	.368	-.391	s	-.362	.175
K	.259	-.470	t	-.285	.283
L	.134	-.519	u	-.173	.363
M	.000	-.537	v	.000	.338
N	-.134	-.519	w	.147	.223
P	-.259	-.470	x	.237	.122
R	-.368	-.391	y	.267	-.010
S	-.454	-.287	z	.228	-.139
T	-.511	-.164	AA	.131	-.233
U	-.536	-.030	BB	.000	-.267
V	-.527	.101	CC	-.131	-.233
W	-.485	.230	DD	-.228	-.139
X	-.413	.343	EE	-.267	-.010
Y	-.314	.435	FF	-.237	.122
Z	-.196	.500	GG	-.147	.223
a	-.068	.454	HH	.000	.200
b	.068	.454	JJ	.105	.094
c	.173	.363	KK	.135	-.041
d	.285	.283	LL	.000	-.132
e	.362	.175	MM	-.135	-.041
f	.399	.046	NN	-.105	.094
g	.392	-.088	PP	.000	.000
h	.341	-.213			

PCB Footprints: Combo

Mating face of pin insert shown (socket will be opposite)

15-15

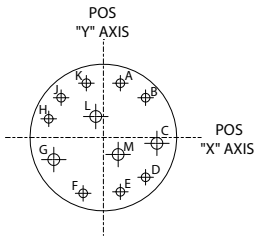
1x #16
14X #20



I.D. NO.	LOCATION		GAGE
	X	Y	
A	0.100	0.225	NO. 20
B	0.202	0.140	NO. 20
C	0.244	0.014	NO. 20
D	0.218	-0.113	NO. 20
E	0.126	-0.209	NO. 20
F	0.000	-0.245	NO. 20
G	-0.126	-0.209	NO. 20
H	-0.218	-0.113	NO. 20
J	-0.244	0.014	NO. 20
K	-0.202	0.140	NO. 20
L	-0.100	0.225	NO. 20
M	0.000	0.140	NO. 20
N	0.110	0.040	NO. 20
P	0.000	-0.077	NO. 16
R	-0.110	0.040	NO. 20

15-97

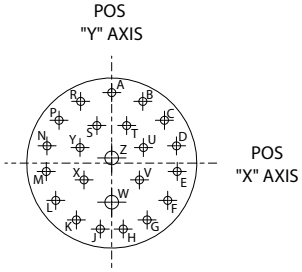
4X #16
8X #20



I.D. NO.	LOCATION		GAGE
	X	Y	
A	0.065	0.234	NO. 16
B	0.178	0.178	NO. 16
C	0.230	-0.023	NO. 20
D	0.178	-0.178	NO. 16
E	0.065	-0.234	NO. 16
F	-0.089	-0.235	NO. 16
G	-0.207	-0.095	NO. 20
H	-0.234	0.065	NO. 16
J	-0.178	0.178	NO. 16
K	-0.065	0.234	NO. 16
L	-0.047	0.081	NO. 20
M	0.047	-0.081	NO. 20

17-99

2X #16
37X #20



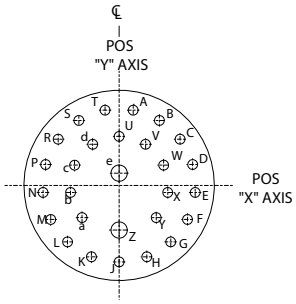
I.D. NO.	LOCATION		GAGE	I.D. NO. X	LOCATION		GAGE
	X	Y			X	Y	
A	0.000	0.321	NO. 20	N	-0.305	0.099	NO. 20
B	0.131	0.293	NO. 20	P	-0.239	0.214	NO. 20
C	0.239	0.214	NO. 20	R	-0.131	0.293	NO. 20
D	0.305	0.099	NO. 20	S	-0.070	0.177	NO. 20
E	0.319	-0.034	NO. 20	T	0.070	0.177	NO. 20
F	0.278	-0.161	NO. 20	U	0.175	0.094	NO. 20
G	0.189	-0.260	NO. 20	V	0.150	-0.075	NO. 20
H	0.067	-0.314	NO. 20	W	0.000	-0.161	NO. 16
J	-0.067	-0.314	NO. 20	X	-0.150	-0.075	NO. 20
K	-0.189	-0.260	NO. 20	Y	-0.175	0.094	NO. 20
L	-0.278	-0.161	NO. 20	Z	0.000	0.025	NO. 16
M	-0.319	-0.034	NO. 20				

PCB Footprints: Combo

Mating face of pin insert shown (socket will be opposite)

19-28

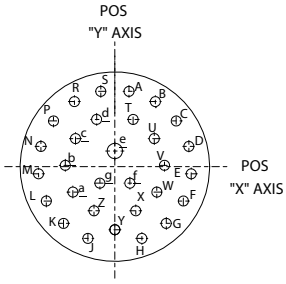
2X #16
26X #20



I.D. NO.	LOCATION X	LOCATION Y	GAGE	I.D. NO.	LOCATION X	LOCATION Y	GAGE
A	0.066	0.353	NO. 20	R	-0.286	0.217	NO. 20
B	0.189	0.305	NO. 20	S	-0.189	0.305	NO. 20
C	0.286	0.217	NO. 20	T	-0.066	0.353	NO. 20
D	0.345	0.098	NO. 20	U	0	0.230	NO. 20
E	0.357	-0.033	NO. 20	V	0.124	0.193	NO. 20
F	0.321	-0.160	NO. 20	W	0.209	0.095	NO. 20
G	0.242	-0.265	NO. 20	X	0.228	-0.033	NO. 20
H	0.130	-0.335	NO. 20	Y	0.174	-0.151	NO. 20
J	0	-0.359	NO. 20	Z	0	-0.191	NO. 16
K	-0.130	-0.335	NO. 20	a	-0.174	-0.151	NO. 20
L	-0.242	-0.265	NO. 20	b	-0.228	-0.033	NO. 20
M	-0.321	-0.160	NO. 20	c	-0.209	0.095	NO. 20
N	-0.357	-0.033	NO. 20	d	-0.124	0.193	NO. 20
P	-0.345	0.098	NO. 20	e	0	0.062	NO. 16

19-30

1X #16
29X #20



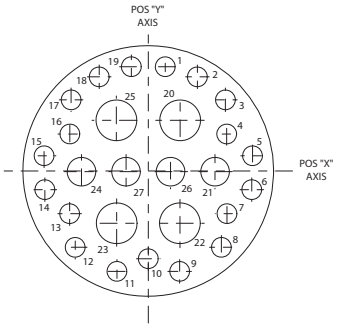
I.D. NO.	LOCATION X	LOCATION Y	GAGE	I.D. NO.	LOCATION X	LOCATION Y	GAGE
A	0.065	0.346	NO. 20	S	-0.065	0.346	NO. 20
B	0.186	0.299	NO. 20	T	0.084	0.217	NO. 20
C	0.282	0.210	NO. 20	U	0.181	0.129	NO. 20
D	0.340	0.093	NO. 20	V	0.228	0.008	NO. 20
E	0.351	-0.033	NO. 20	W	0.193	-0.117	NO. 20
F	0.315	-0.158	NO. 20	X	0.096	-0.203	NO. 20
G	0.236	-0.261	NO. 20	Y	0.000	-0.290	NO. 20
H	0.124	-0.330	NO. 20	Z	-0.096	-0.203	NO. 20
J	-0.124	-0.330	NO. 20	a	-0.193	-0.117	NO. 20
K	-0.236	-0.261	NO. 20	b	-0.228	0.008	NO. 20
L	-0.315	-0.158	NO. 20	c	-0.181	0.129	NO. 20
M	-0.351	-0.033	NO. 20	d	-0.084	0.217	NO. 20
N	-0.340	0.093	NO. 20	e	0.000	0.072	NO. 16
P	-0.282	0.210	NO. 20	f	0.069	-0.076	NO. 20
R	-0.186	0.299	NO. 20	g	-0.069	-0.076	NO. 20

PCB Footprints: Combo

Mating face of pin insert shown (socket will be opposite)

21-29

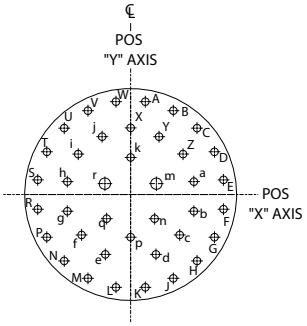
4X #12
4X #16
19X #20



I.D. NO.	LOCATION X	LOCATION Y	GAGE	I.D. NO.	LOCATION X	LOCATION Y	GAGE
1	+.067	+.412	NO. 20	15	-0.412	+.060	NO. 20
2	+.194	+.372	NO. 20	16	-0.310	+.146	NO. 20
3	+.305	+.281	NO. 20	17	-0.305	+.281	NO. 20
4	+.310	+.146	NO. 20	18	-0.194	+.372	NO. 20
5	+.412	+.060	NO. 20	19	-0.067	+.412	NO. 20
6	+.409	-0.074	NO. 20	20	+.126	+.200	NO. 12
7	+.311	-0.169	NO. 20	21	+.264	-0.003	NO. 16
8	+.289	-0.302	NO. 20	22	+.125	-0.207	NO. 12
9	+.124	-0.397	NO. 20	23	-0.125	-0.207	NO. 12
10	0.000	-0.347	NO. 20	24	-0.264	-0.003	NO. 16
11	-124	-0.397	NO. 20	25	-0.126	+.200	NO. 12
12	-0.289	-0.302	NO. 20	26	+.088	-0.003	NO. 16
13	-0.311	-0.169	NO. 20	27	-0.088	-0.003	NO. 16
14	-0.409	-0.074	NO. 20				

21-39

2X #16
37X #20



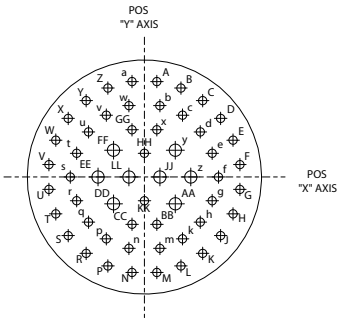
I.D. NO.	LOCATION X	LOCATION Y	GAGE	I.D. NO.	LOCATION X	LOCATION Y	GAGE
A	0.065	0.411	NO. 20	a	0.280	0.057	NO. 20
B	0.189	0.371	NO. 20	b	0.280	-0.074	NO. 20
C	0.294	0.294	NO. 20	c	0.217	-0.189	NO. 20
D	0.371	0.189	NO. 20	d	0.112	-0.265	NO. 20
E	0.411	0.065	NO. 20	e	-0.112	-0.265	NO. 20
F	0.411	-0.065	NO. 20	f	-0.217	-0.189	NO. 20
G	0.371	-0.189	NO. 20	g	-0.280	-0.074	NO. 20
H	0.294	-0.294	NO. 20	h	-0.280	0.057	NO. 20
J	0.189	-0.371	NO. 20	i	-0.232	0.179	NO. 20
K	0.065	-0.411	NO. 20	j	-0.126	0.256	NO. 20
L	-0.065	-0.411	NO. 20	k	0	0.164	NO. 20
M	-0.189	-0.371	NO. 20	m	0.114	0.048	NO. 16
N	-0.294	-0.294	NO. 20	n	0.106	-0.107	NO. 20
P	-0.371	-0.189	NO. 20	p	0	-0.189	NO. 20
R	-0.411	-0.065	NO. 20	q	-0.106	-0.107	NO. 20
S	-0.411	0.065	NO. 20	r	-0.114	0.048	NO. 16
T	-0.371	0.189	NO. 20				
U	-0.294	0.294	NO. 20				
V	-0.189	0.371	NO. 20				
W	-0.065	0.411	NO. 20				
X	0	0.295	NO. 20				
Y	0.126	0.256	NO. 20				
Z	0.232	0.179	NO. 20				

PCB Footprints: Combo

Mating face of pin insert shown (socket will be opposite)

25-4

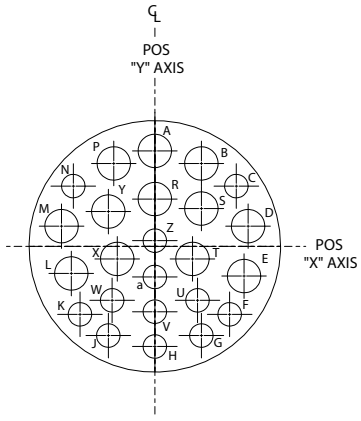
8X #16
48X #20



I.D. NO.	LOCATION		GAGE	I.D. NO.	LOCATION		GAGE
	X	Y			X	Y	
A	0.069	0.531	NO. 20	f	0.412	0.000	NO. 20
B	0.203	0.495	NO. 20	g	0.377	-0.132	NO. 20
C	0.324	0.425	NO. 20	h	0.311	-0.251	NO. 20
D	0.424	0.326	NO. 20	k	0.212	-0.344	NO. 20
E	0.493	0.205	NO. 20	m	0.086	-0.397	NO. 20
F	0.531	0.069	NO. 20	n	-0.086	-0.397	NO. 20
G	0.531	-0.069	NO. 20	p	-0.212	-0.344	NO. 20
H	0.493	-0.205	NO. 20	q	-0.311	-0.251	NO. 20
J	0.424	-0.326	NO. 20	r	-0.377	-0.132	NO. 20
K	0.324	-0.425	NO. 20	s	-0.412	0.000	NO. 20
L	0.203	-0.495	NO. 20	t	-0.377	0.132	NO. 20
M	0.069	-0.531	NO. 20	u	-0.311	0.251	NO. 20
N	-0.069	-0.531	NO. 20	v	-0.212	0.344	NO. 20
P	-0.203	-0.495	NO. 20	w	-0.086	0.397	NO. 20
R	-0.324	-0.425	NO. 20	x	0.069	0.263	NO. 20
S	-0.424	-0.326	NO. 20	y	0.172	0.149	NO. 20
T	-0.493	-0.205	NO. 20	z	0.258	0.000	NO. 20
U	-0.531	-0.069	NO. 20	AA	0.172	-0.149	NO. 16
V	-0.531	0.069	NO. 20	BB	0.069	-0.263	NO. 16
W	-0.493	0.205	NO. 20	CC	-0.069	-0.263	NO. 16
X	-0.424	0.326	NO. 20	DD	-0.172	-0.149	NO. 16
Y	-0.324	0.425	NO. 20	EE	-0.258	0.000	NO. 16
Z	-0.203	0.495	NO. 20	FF	-0.172	0.149	NO. 16
a	-0.069	0.531	NO. 20	GG	-0.069	0.263	NO. 16
b	0.086	0.397	NO. 20	HH	0.000	0.132	NO. 16
c	0.212	0.344	NO. 20	JJ	0.086	0.000	NO. 16
d	0.311	0.251	NO. 20	KK	0.000	-0.132	NO. 16
e	0.377	0.132	NO. 20	LL	-0.086	0.000	NO. 16

25-24

12X #16
12X #12



I.D. NO.	LOCATION		GAGE	I.D. NO.	LOCATION		GAGE
	X	Y			X	Y	
A	+.000	+.472	NO. 12	N	-.403	+.298	NO. 16
B	+.230	+.410	NO. 12	P	-.230	+.410	NO. 12
C	+.403	+.298	NO. 16	R	+.000	+.234	NO. 12
D	+.461	+.100	NO. 12	S	+.230	+.172	NO. 12
E	+.413	-.134	NO. 12	T	+.186	-.062	NO. 12
F	+.370	-.336	NO. 16	U	+.211	-.267	NO. 16
G	+.230	-.441	NO. 16	V	+.000	-.323	NO. 16
H	+.000	-.495	NO. 16	W	-.211	-.267	NO. 16
J	-.230	-.441	NO. 16	X	-.186	-.062	NO. 12
K	-.370	-.336	NO. 16	Y	-.230	+.172	NO. 12
L	-.413	-.134	NO. 16	Z	+.000	+.028	NO. 16
M	-.461	+.100	NO. 12	a	+.000	-.151	NO. 16

PCB Footprints: Combo

Mating face of pin insert shown (socket will be opposite)

25-43

20X #16
23X #20