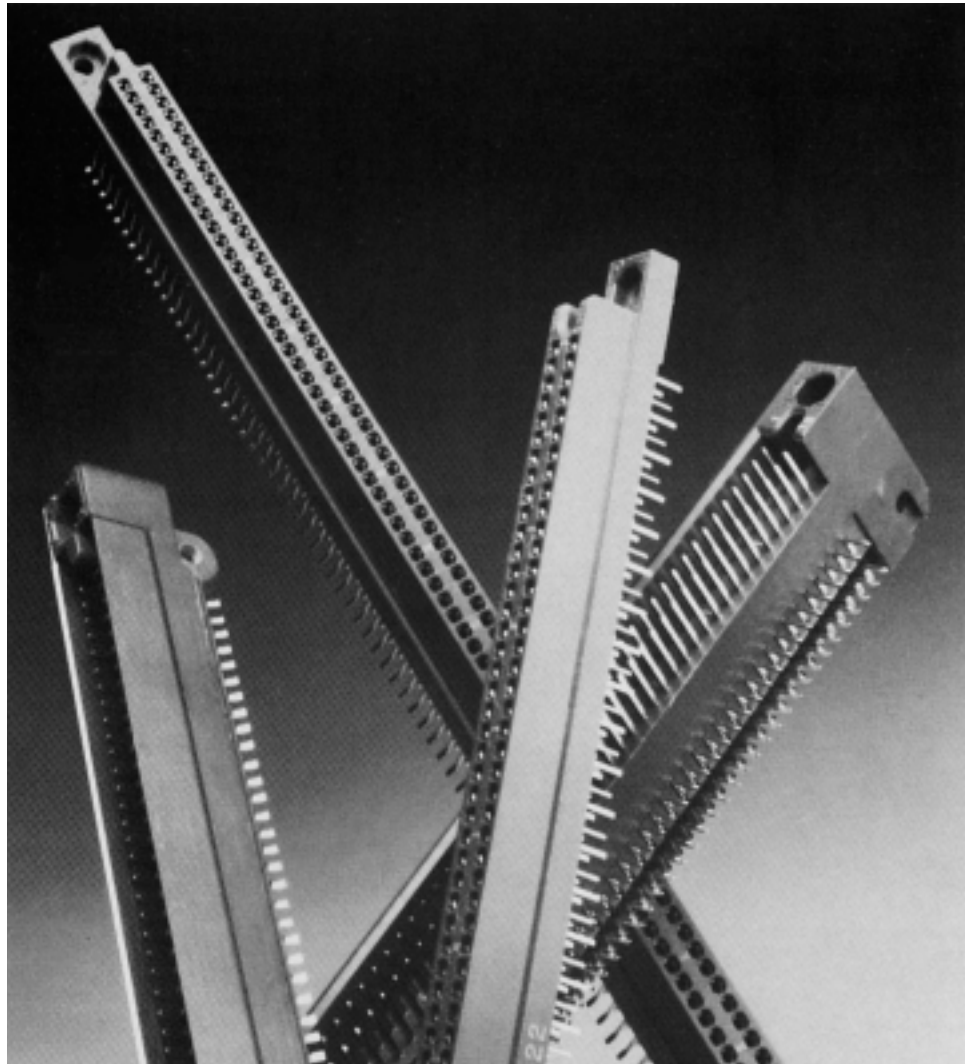


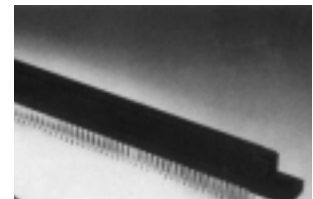
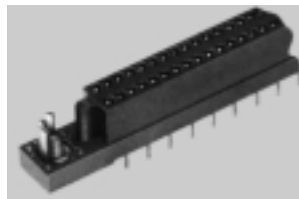
Introduction

Product Facts

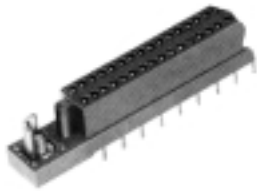
- Contacts are on .075 x .125 [1.91 x 3.18] centers
- Pin headers are provided with pin protectors
- Box receptacle contacts are available in flow solder, solder eyelet and straddle mount styles
- Qualified to MIL-C-55302/24, /25, /23, /156
- Four-beam box-type receptacle contact design provides four areas of contact per connection



The .075 [1.91] centerline Box Connector series is available in a 2-row configuration with pin counts from 10 to 180 positions and uses the reliable four-beam box contact. The tighter centerline spacing provides more pins within a specified distance and the staggered footprint allows for easier manufacturing of the printed circuit board.



Receptacle Assemblies for Flow Soldering — MIL-C-55302 Qualified



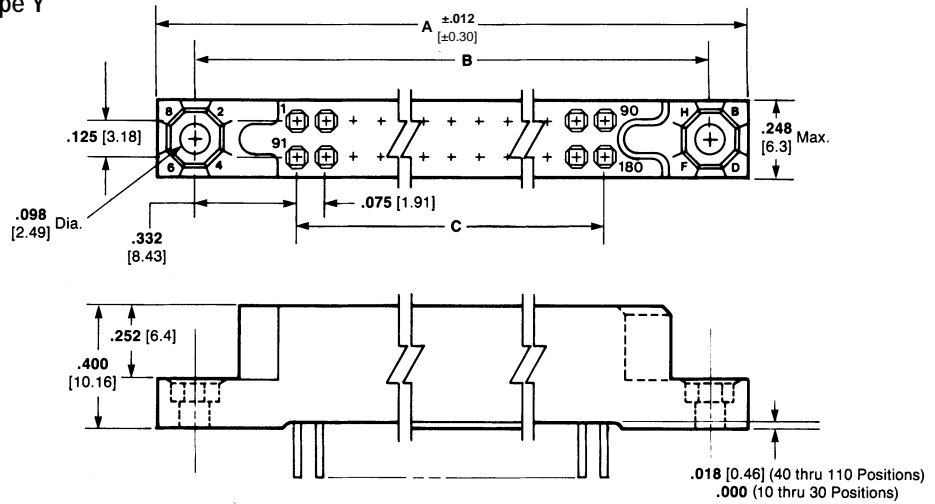
Related Product Data

Mates with — Pin Headers, pages 341 and 342

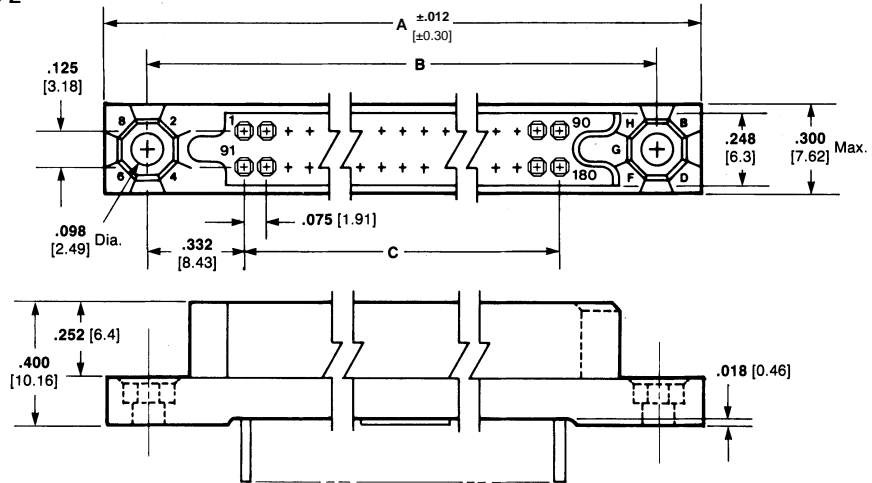
External Keying — page 377

Recommended PC Board Layout — page 344

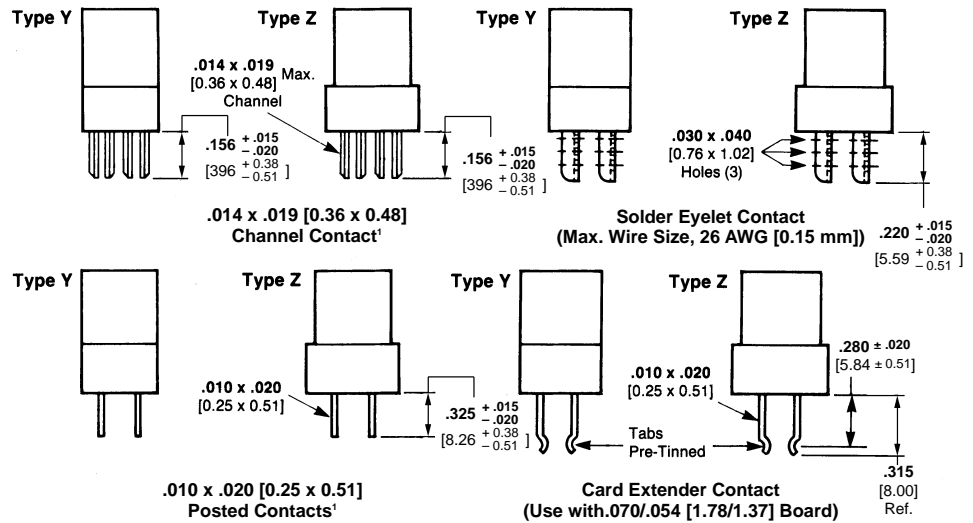
Type Y



Type Z



Contact Styles



4 Printed Circuit Board Connectors

Receptacle Assemblies for Flow Soldering — MIL-C-55302 Qualified (Continued)

Commercial Receptacle Assemblies

Housing Material—In accordance with MIL-C-55302 or MIL-M-24519 type GLCP-30F

Contact Material and Finish—Beryllium copper per QQ-C-533

Channel Contact, Posted Contact and Card Extender Contact—Plated .000030 [0.00076] gold in contact area, .000100 [0.00254] tin-lead on the tails over .000030 [0.00076] nickel on the entire contact.

Solder Eyelet Contact—Plated .000030 [0.00076] gold in the contact area, .000100 [0.00254] tin-lead on the tails over .000030 [0.00076] nickel on the entire contact.

No. of Pos.	Housing Type	Dimensions			.014 x .019 [0.36 x 0.48] Channel Contacts		Solder Eyelet Contacts	.010 x .020 [0.25 x 0.51] Posted Contacts		Card Extender Contacts
		A	B	C	AMP Part No.	AMP Part No.	AMP Part No.	AMP Part No.		
180	Z	7.630 193.8	7.340 186.44	6.675 169.55	531813-4	531811-4	531815-4	531817-4		
160	Z	6.880 174.75	6.590 167.39	5.925 150.5	531813-3	—	—	531817-3		
150	Z	6.505 165.23	6.215 157.86	5.550 140.97	531813-2	—	—	531817-2		
120	Z	5.380 136.65	5.090 129.29	4.425 112.4	—	531811-1	531815-1	531817-1		
100	Y	4.630 117.6	4.340 110.24	3.675 93.35	—	1-531810-0	—	1-531816-0		
80	Y	3.880 98.55	3.590 91.19	2.925 74.3	531812-8	531810-8	—	—		
50	Y	2.755 69.98	2.465 62.61	1.800 45.72	531812-5	531810-5	—	531816-5		
40	Y	2.380 60.45	2.090 53.09	1.425 36.2	531812-4	531810-4	—	531816-4		
30	Y	2.005 50.93	1.715 43.56	1.050 26.67	531812-3	—	—	531816-3		
10	Y	1.255 31.88	.965 24.51	.300 7.62	—	—	531814-1	—		

Military Receptacle Assemblies

Housing Material—In accordance with MIL-C-55302 or MIL-M-24519 type GLCP-30F

Contact Material and Finish—Beryllium copper per QQ-C-533

Channel Contact, Posted Contact and Card Extender Contact—Plated .000050 [0.00127] gold in the contact area, .000100 [0.00254] tin-lead on the tails over .000030 [0.00076] nickel on the entire contact.

Solder Eyelet Contact—Plated .000050 [0.00127] gold in the contact area, .000100 [0.00254] tin-lead on the tails over .000050 [0.00127] nickel on the entire contact.

No. of Pos.	Housing Type	Dimensions			.014 x .019 [0.36 x 0.48] Channel Contacts		Solder Eyelet Contacts		.010 x .020 [0.25 x 0.51] Posted Contacts		Card Extender Contacts	
		A	B	C	MIL-Part No. M55302/	AMP Part No.	MIL-Part No. M55302/	AMP Part No.	MIL-Part No. M55302/	AMP Part No.	MIL-Part No. M55302/	AMP Part No.
180	Z	7.630 193.8	7.340 186.44	6.675 169.55	25-29	531145-4	25-30	531146-4	25-31	531147-4	25-32	531148-4
160	Z	6.880 174.75	6.590 167.39	5.925 150.5	25-25	531145-3	25-26	531146-3	25-27	531147-3	25-28	531148-3
150	Z	6.505 165.23	6.215 157.86	5.550 140.97	25-21	531145-2	25-22	531146-2	25-23	531147-2	25-24	531148-2
120	Z	5.380 136.65	5.090 129.92	4.425 112.4	25-17	531145-1	25-18	531146-1	25-19	531147-1	25-20	531148-1
110	Y	5.005 127.13	4.715 119.76	4.050 102.87	24-85	1-531142-1	24-86	1-531129-1	24-87	1-531143-1	24-88	1-531144-1
100	Y	4.630 117.6	4.340 110.24	3.675 93.35	24-81	1-531142-0	24-82	1-531129-0	24-83	1-531143-0	24-84	1-531144-0
90	Y	4.255 108.08	3.965 100.71	3.300 83.82	24-77	531142-9	24-78	1-531129-2	24-79	531143-9	24-80	531144-9
80	Y	3.880 98.55	3.590 91.19	2.925 74.3	24-73	531142-8	24-74	531129-9	24-75	531143-8	24-76	531144-8
70	Y	3.505 89.03	3.215 81.66	2.550 64.77	24-69	531142-7	24-70	531129-8	24-71	531143-7	24-72	531144-7
60	Y	3.130 79.5	2.840 72.14	2.175 55.25	24-65	531142-6	24-66	531129-7	24-67	531143-6	24-68	531144-6
50	Y	2.755 69.98	2.465 62.61	1.800 45.72	24-61	531142-5	24-62	531129-6	24-63	531143-5	24-64	531144-5
40	Y	2.380 60.45	2.090 53.09	1.425 36.2	24-57	531142-4	24-58	531129-5	24-59	531143-4	24-60	531144-4
30	Y	2.005 50.93	1.715 43.56	1.050 26.67	24-53	531142-3	24-54	531129-4	24-55	531143-3	24-56	531144-3
20	Y	1.630 41.4	1.340 34.04	.675 17.15	24-49	531142-2	24-50	531129-3	24-51	531143-2	24-52	531144-2
10	Y	1.255 31.88	.965 24.51	.300 7.62	24-45	531142-1	24-46	531129-2	24-47	531143-1	24-48	531144-1

Straddle Mount Pin Header Assemblies with Anodized Pin Protectors — MIL-C-55302 Qualified



Related Product Data

Mates with — Receptacles, pages 339 and 340

External Keying — page 377

Recommended PC Board Layout — page 344

Commercial Pin Header Assemblies

Housing Material — In accordance with MIL-C-55302 or MIL-M-24519 Type GLCP-30F

Pin Protector Material — Anodized aluminum per QQ-A-250/1

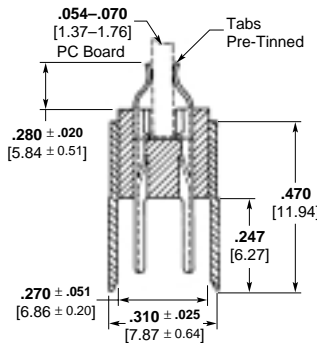
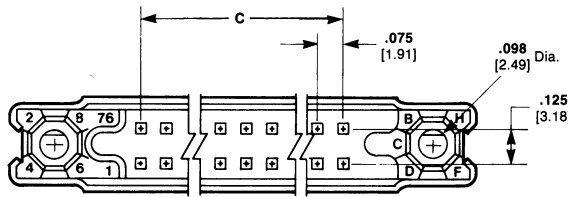
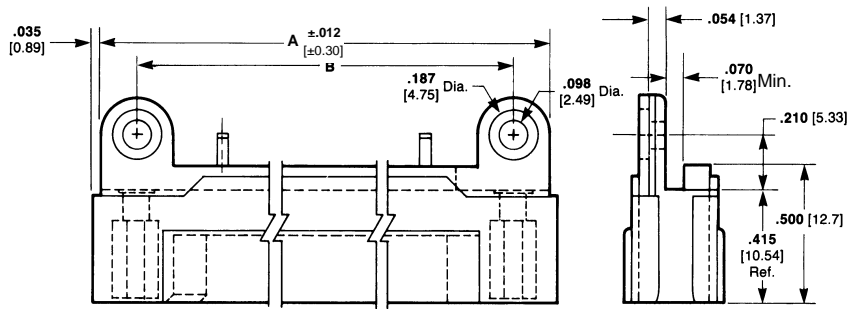
Contact Material and Finish — Brass per QQ-B-626 plated .000030 [0.00076] gold in the contact area, .000100 [0.00254] tin-lead on the tabs over .000050 [0.00127] nickel on the entire contact.

Military Pin Header Assemblies

Housing Material — In accordance with MIL-C-55302 or MIL-M-24519 Type GLCP-30F

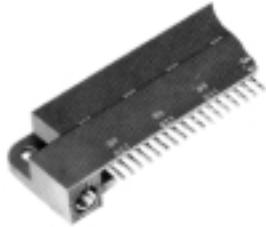
Pin Protector Material — Anodized aluminum per QQ-A-250/1

Contact Material and Finish — Brass per QQ-B-626 plated .000050 [0.000127] gold in the contact area, .000100 [0.00254] tin-lead on the tabs over .000050 [0.00127] nickel on the entire contact.



No. of Pos.	Dimensions			Military Pin Header	
	A	B	C	M55302/	AMP Part No.
180	7.630 193.8	7.340 186.44	6.675 169.55	23-30	530785-4
160	6.880 174.75	6.590 167.39	5.925 150.5	23-29	530785-5
150	6.505 165.23	6.215 157.86	5.550 140.97	23-28	530785-2
120	5.380 136.65	5.090 129.29	4.425 112.4	23-27	530785-6
110	5.005 127.13	4.715 119.76	4.050 102.87	23-26	530785-7
100	4.630 117.6	4.340 110.24	3.675 93.35	23-25	530785-8
90	4.255 108.08	3.965 100.71	3.300 83.82	23-24	1-530785-7
80	3.880 98.55	3.590 91.19	2.925 74.3	23-23	530785-9
70	3.505 89.03	3.215 81.66	2.550 64.77	23-22	1-530785-0
60	3.130 79.5	2.840 72.14	2.175 55.25	23-21	1-530785-1
50	2.755 69.98	2.465 62.61	1.800 45.72	23-20	1-530785-2
40	2.380 60.45	2.090 53.09	1.425 36.2	23-19	1-530785-3
30	2.005 50.93	1.715 43.56	1.050 26.67	23-18	1-530785-4
20	1.630 41.4	1.340 34.04	.675 17.15	23-17	1-530785-5
10	1.255 31.88	.965 24.51	.300 7.62	23-16	1-530785-6

Right-Angle Pin Header Assemblies for Flow Soldering — MIL-C-55302 Qualified



Related Product Data

Mates with — Receptacles, pages 339 and 340

External Keying—page 377

Recommended PC Board Layout — page 344

Commercial Pin Header Assemblies

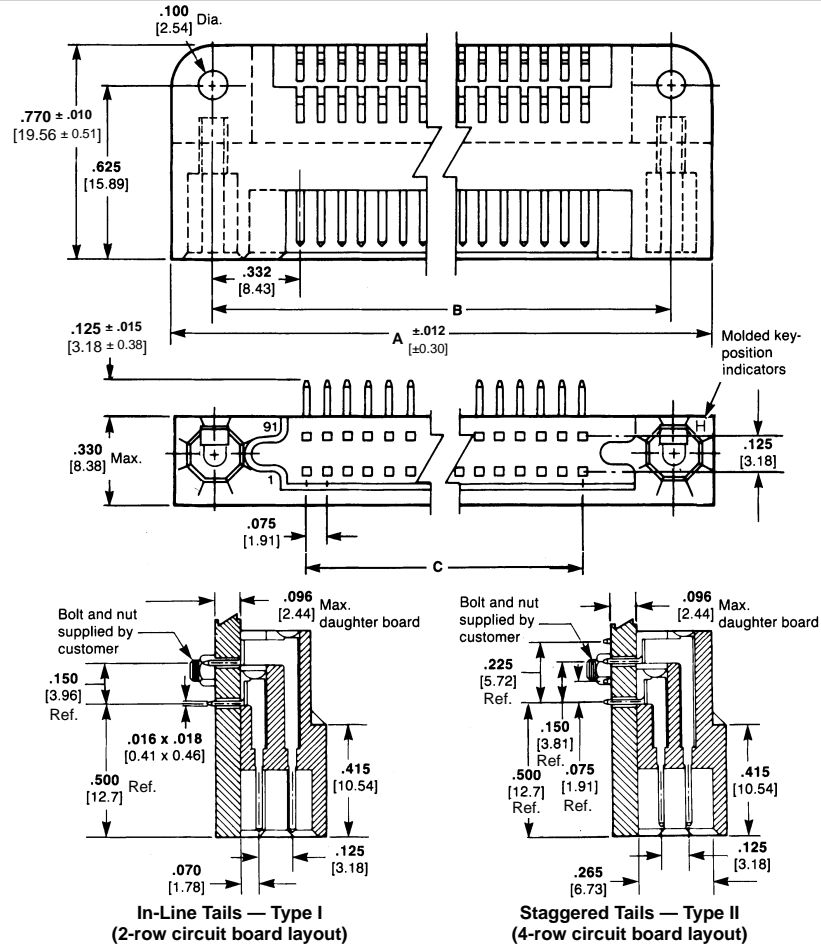
Housing Material — In accordance with MIL-C-55302

Contact Material and Finish — Brass per QQ-B-626 plated .000030 [0.00076] gold in the contact area, .000100 [0.00254] tin-lead on the tails over .000050 [0.00127] nickel on the entire contact

Military Pin Header Assemblies

Housing Material — In accordance with MIL-C-55302

Contact Material and Finish — Brass per QQ-B-626 plated .000050 [0.00127] gold in the contact area, .000100 [0.00254] tin-lead on the tails over .000050 [0.00127] nickel on the entire contact



No. of Positions	Dimensions			In-line, Type I			Staggered, Type II		
	A	B	C	Commercial Part No.	MIL-Part No. M55302/	AMP MIL Part No.	Commercial Part No.	MIL-Part No. M55302/	AMP MIL Part No.
180	7.630 193.8	7.340 186.44	6.675 169.55	—	156-15	1-531719-5	1-531124-5	156-30	1-531720-5
160	6.880 174.75	6.590 167.39	5.925 150.5	1-531127-4	156-14	1-531719-4	—	156-29	1-531720-4
150	6.505 165.23	6.215 157.86	5.550 140.97	—	156-13	1-531719-3	1-531124-3	156-28	1-531720-3
120	5.380 136.65	5.090 129.29	4.425 112.4	—	156-12	1-531719-2	—	156-27	1-531720-2
110	5.005 127.13	4.715 119.76	4.050 102.87	—	156-11	1-531719-1	—	156-26	1-531720-1
100	4.630 117.6	4.340 110.24	3.675 93.35	—	156-10	1-531719-0	—	156-25	1-531720-0
90	4.255 108.08	3.965 100.71	3.300 83.82	—	156-09	531719-9	—	156-24	531720-9
80	3.880 98.55	3.590 91.19	2.925 74.3	—	156-08	531719-8	—	156-23	531720-8
70	3.505 89.03	3.215 81.66	2.550 64.77	—	156-07	531719-7	—	156-22	531720-7
60	3.130 79.5	2.840 72.14	2.175 55.25	—	156-06	531719-6	531124-6	156-21	531720-6
50	2.755 69.98	2.465 62.61	1.800 45.72	—	156-05	531719-5	531124-5	156-20	531720-5
40	2.380 60.45	2.090 53.09	1.425 36.2	—	156-04	531719-4	531124-4	156-19	531720-4
30	2.005 50.93	1.715 43.56	1.050 26.67	—	156-03	531719-3	531124-3	156-18	531720-3
20	1.630 41.4	1.340 34.04	.675 17.15	—	156-02	531719-2	—	156-17	531720-2
10	1.255 31.88	.965 24.51	.300 7.62	—	156-01	531719-1	—	156-16	531720-1

Stacking Connectors

Receptacle Assembly



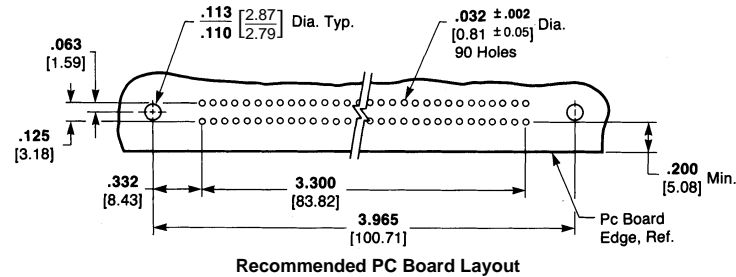
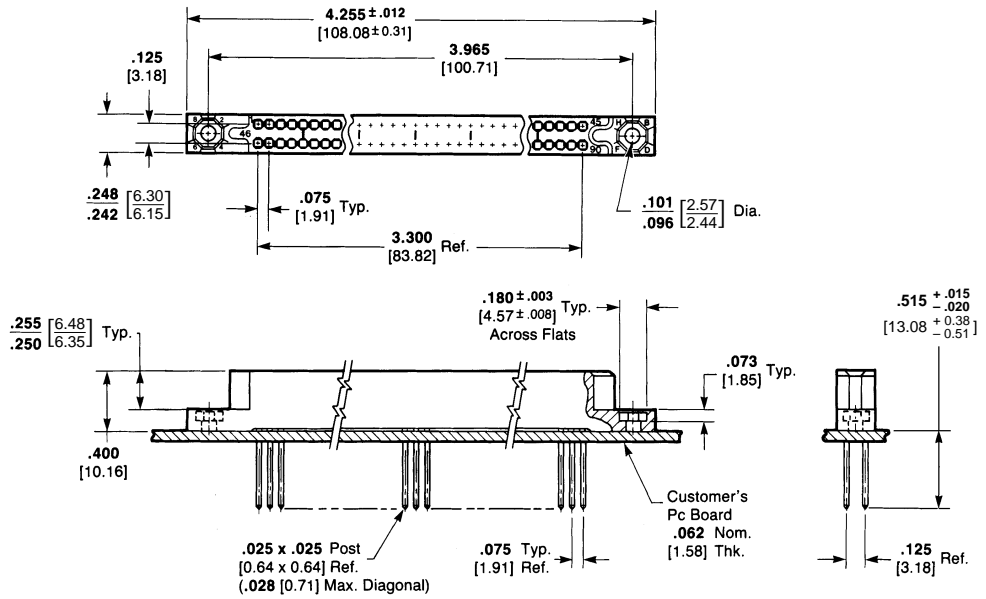
Housing Material — Blue Diallyl Phthalate or MIL-M-24519 Type GLCP-30F

Contact Material and Finish — Beryllium copper, plated gold .000050 [0.00127] thick all over nickel .000030 [0.00076] thick

Related Product Data

Mates with — Pin Shroud Housing

External Keying — page 377



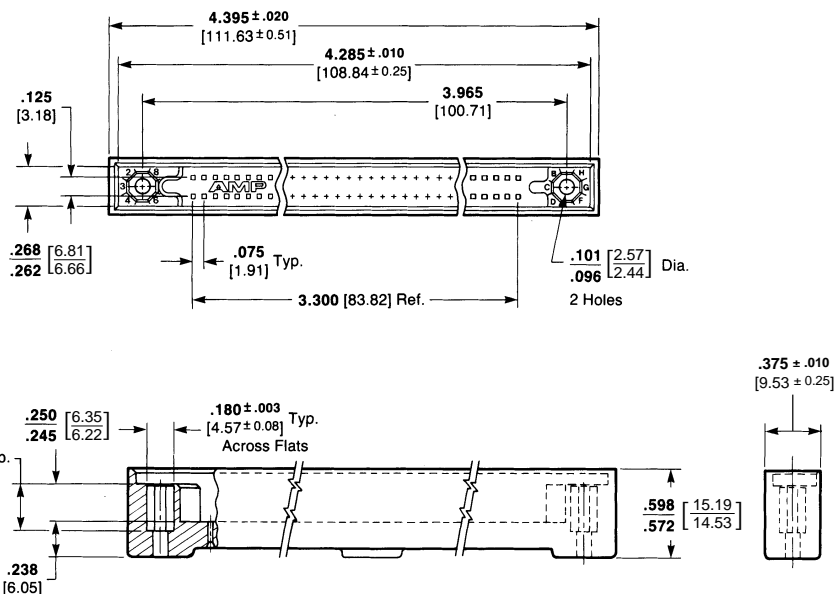
Pin Shroud Housing



Housing Material — Blue Polyester

Related Product Data

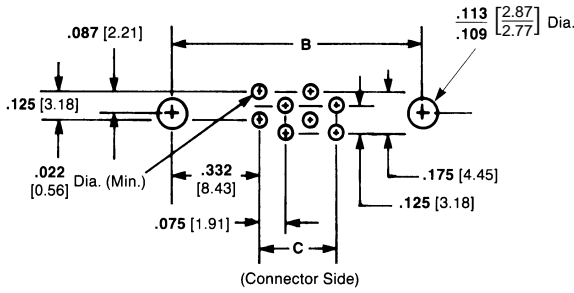
Mates with — Receptacle Assembly



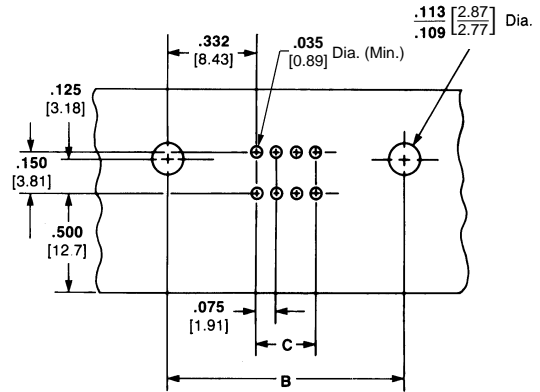
4 Printed Circuit Board Connectors

Recommended Printed Circuit Board Layouts

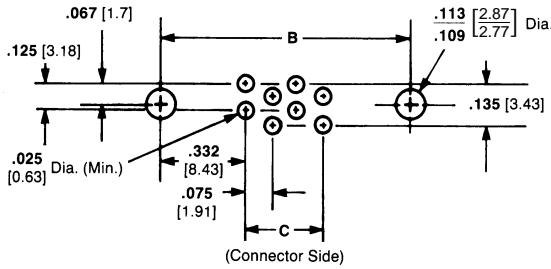
Receptacle Assemblies



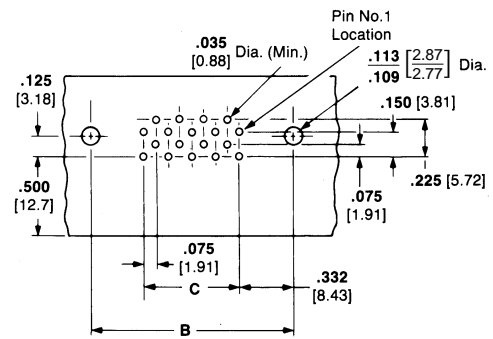
.014 x .019 [0.36 x 0.48]
Channel Contacts



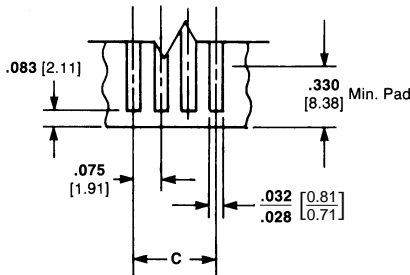
In-Line, Right-Angle



.010 x .020 [0.25 x 0.51]
Posted Contacts

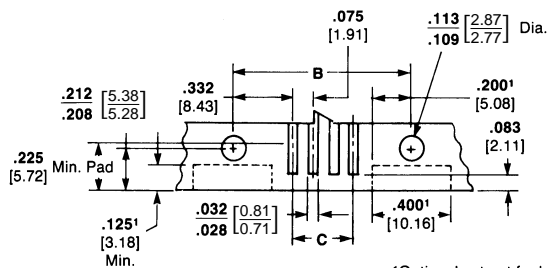


Staggered, Right-Angle
(Connector Side)



Card Extender Contacts

Pin Header Assemblies



¹Optional cut-out for keying after connector is mounted.

Straddle Mount Assembly

No. of Pos.	Dimensions	
	B	C
180	7.340 186.44	6.675 169.55
160	6.590 167.39	5.925 150.5
150	6.215 157.86	5.550 140.97
120	5.090 129.29	4.425 112.4
110	4.715 119.76	4.050 102.87
100	4.340 110.24	3.675 93.35
90	3.965 100.71	3.300 83.82
80	3.590 91.19	2.925 74.3
70	3.215 81.66	2.550 64.77
60	2.840 72.14	2.175 55.25
50	2.465 62.61	1.800 45.72
40	2.090 53.09	1.425 36.2
30	1.715 43.56	1.050 26.67
20	1.340 34.04	.675 17.15
10	.965 24.51	.300 7.62

Note: These drawings are for reference only. Consult Tyco Electronics for board layout details.