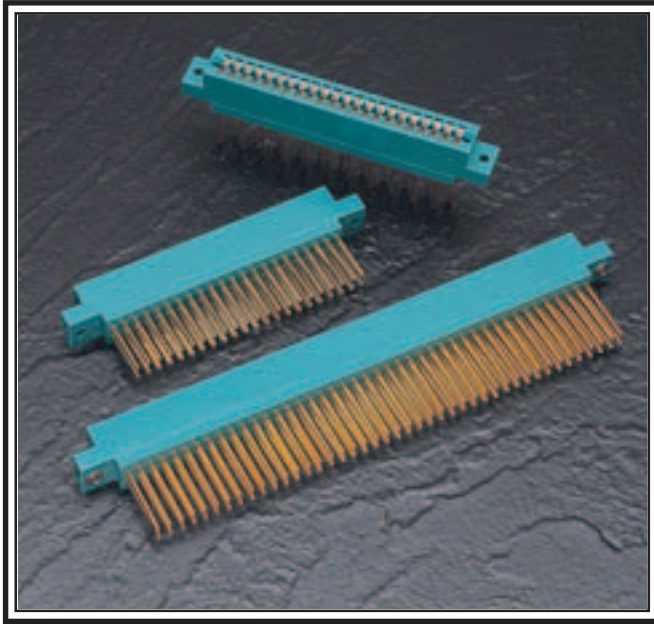


317 SERIES CARD EDGE CONNECTOR

.156" (3.96mm) Contact Spacing



FEATURES

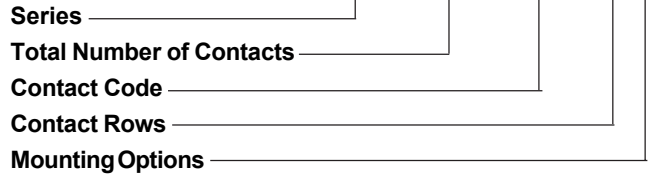
- .156 (3.96) Contact Spacing x .200 (5.08) Row Spacing
- Accepts .062 (1.57) Nominal Thickness P.C. Board
- High Profile Insulator Body, .720 (18.29)
- Contact Termination .045 (1.14) Square Wire Wrap
- Single or Dual Row Configurations
- Large Variety of Mounting Options
- Pre-assembled Card Guides Available
- Accepts Between Contact and In-Contact Polarizing Keys

SPECIFICATIONS

- ◆ Insulator Material: Polyphenylene Sulphide, UL 94V-0, Colour: Green
- ◆ Contact Material: Phosphor Bronze Alloy CA-510
- ◆ Contact Plating: Gold over Nickel for Entire Contact
- ◆ Current Rating: 5 Amperes Continuous
- ◆ Contact Resistance: 10 Milliohms Maximum
- ◆ Dielectric Withstanding Voltage: 1800 V AC rms at Sea Level Between Adjacent Contacts
- ◆ Insulation Resistance: 5000 Megohms Minimum
- ◆ Operating Temperature: -65 to +105 Degrees C
- ◆ Insertion Force: 16 oz (4.45 N) Maximum per Contact Pair when Tested with a .070 (1.78) Thick Gauge
- ◆ Withdrawal Force: 1 oz (0.28 N) Minimum per Contact Pair when Tested with a .054 (1.37) Thick Gauge

317 SERIES ORDERING CODE

Example Part Number **317 - 072 - 542 - 8 08**



Series 317

Total Number of Contacts ¹	Description
006, 007,...043	Single Row
012, 014,...086	Dual Row

Contact Code	Description & Tail Size	Tail Length "G"
<i>Single Row Contact - Read One Side of Daughter Board</i>		
542	Wire Wrap .045 Square (1.14 Square)	.750 (19.05)
<i>Single Row Contacts - Read Both Sides of Daughter Board</i>		
541	Wire Wrap .045 Square (1.14 Square)	.750 (19.05)
<i>Dual Row Contacts</i>		
540	Wire Wrap .045 Square (1.14 Square)	.750 (19.05)
542	Wire Wrap .045 Square (1.14 Square)	.750 (19.05)
543	Wire Wrap .045 Square (1.14 Square)	.900 (22.86)

Contact Rows	Description
6	Single Row
8	Dual Row

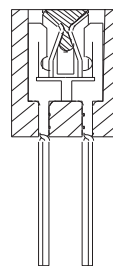
Mounting Options ²	Description
01	No Mounting Lugs
02	.144 (3.66) Dia. Mounting Holes
03	.116 (2.95) I.D. Floating Eyelets
04	.156 (3.96) Dia. Mounting Holes
07	M3-0.5 Metric Threaded Inserts
08	#4-40 Unified Threaded Inserts
78	In-Line Card Guides

Ordering Code Notes

- 1) All connector sizes up to 43 contacts single row / 86 contacts dual row are available upon request.
- 2) For details of the mounting options, refer to page 68.

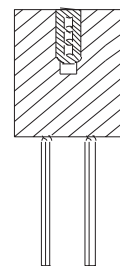
IN-CONTACT
POLARIZING KEY

P/N 321-240-328



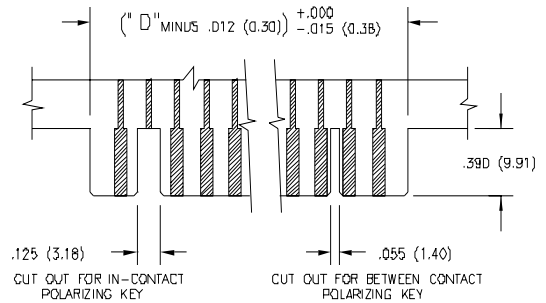
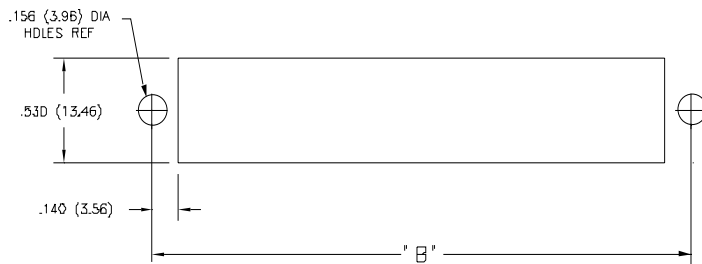
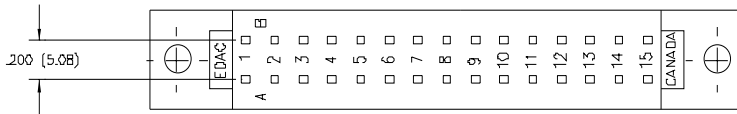
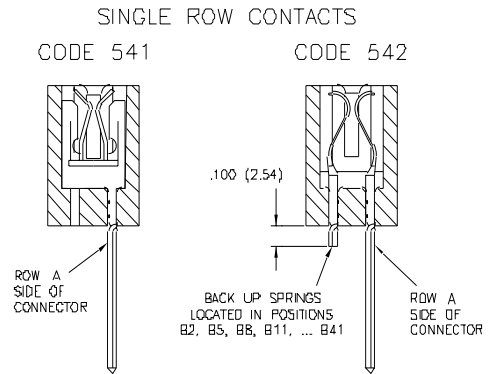
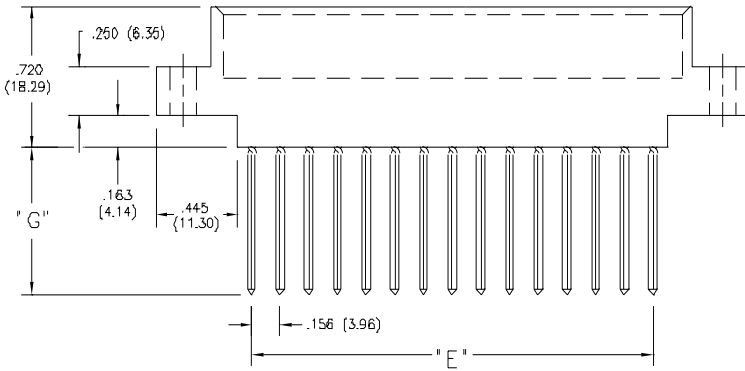
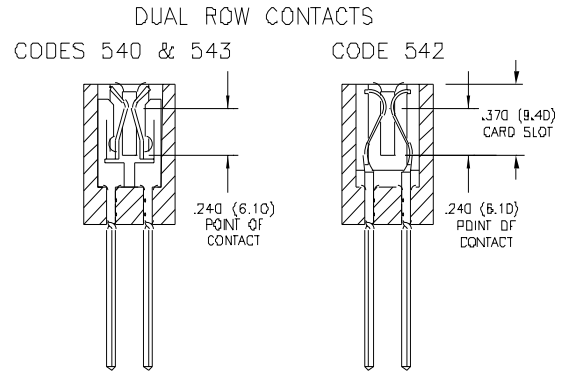
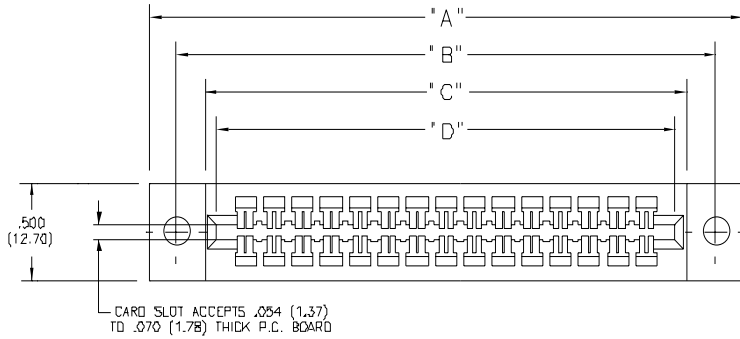
BETWEEN CONTACT
POLARIZING KEY

P/N 306-240-318



CARD EDGE CONNECTOR SERIES 317

Contact Spacing .156" (3.96mm)



CONNECTOR MOUNTING PATTERN
PANEL MOUNT CUT OUT

RECOMMENDED DAUGHTER BOARD

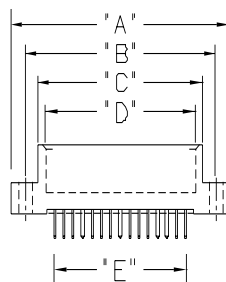
NUMBER OF CONTACTS		"A"		"B"		"C"		"D"		"E"	
Single	Dual	Inch	(mm)	Inch	(mm)	Inch	(mm)	Inch	(mm)	Inch	(mm)
6	12	1.830	(46.48)	1.539	(39.09)	1.220	(30.99)	1.100	(27.94)	.780	(19.81)
10	20	2.454	(62.33)	2.163	(54.94)	1.844	(46.84)	1.724	(43.79)	1.404	(35.66)
15	30	3.234	(82.14)	2.943	(74.75)	2.624	(66.65)	2.504	(63.60)	2.184	(55.47)
18	36	3.702	(94.03)	3.411	(86.64)	3.092	(78.54)	2.972	(75.49)	2.652	(67.36)
22	44	4.326	(109.88)	4.035	(102.49)	3.716	(94.39)	3.596	(91.34)	3.276	(83.21)
25	50	4.794	(121.77)	4.503	(114.38)	4.184	(106.27)	4.064	(103.23)	3.744	(95.10)
28	56	5.262	(133.65)	4.971	(126.26)	4.652	(118.16)	4.532	(115.11)	4.212	(106.98)
30	60	5.574	(141.58)	5.283	(134.19)	4.964	(126.09)	4.844	(123.04)	4.524	(114.91)
36	72	6.510	(165.35)	6.219	(157.96)	5.900	(149.86)	5.780	(146.81)	5.460	(138.68)
43	86	7.602	(193.09)	7.311	(185.70)	6.992	(177.60)	6.872	(174.55)	6.552	(166.42)

Dimensions of Other Connector Sizes are Listed on Page 74

.156" (3.96mm) CONTACT SPACING CONNECTOR DIMENSIONS

303, 305, 306, 307, 315, 316, 317, 333, 336, 337, 355, 356, 357, 387, 737 Series Card Edge Connectors

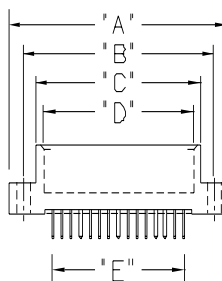
DIMENSION		"A"				"B"									
SERIES		317		333		336		REST OF SERIES		317		333, 336		REST OF SERIES	
Number of Contacts Single Dual		Inch	(mm)	Inch	(mm)	Inch	(mm)	Inch	(mm)	Inch	(mm)	Inch	(mm)	Inch	(mm)
	6	12	1.830	(46.48)	1.784	(45.31)	1.857	(47.17)	1.842	(46.79)	1.539	(39.09)	1.534	(38.96)	1.532
7	14	1.986	(50.44)	1.940	(49.28)	2.013	(51.13)	1.998	(50.75)	1.695	(43.05)	1.690	(42.93)	1.688	(42.88)
8	16	2.142	(54.41)	2.096	(53.24)	2.169	(55.09)	2.154	(54.71)	1.851	(47.02)	1.846	(46.89)	1.844	(46.84)
9	18	2.298	(58.37)	2.252	(57.20)	2.325	(59.06)	2.310	(58.67)	2.007	(50.98)	2.002	(50.85)	2.000	(50.80)
10	20	2.454	(62.33)	2.408	(61.16)	2.481	(63.02)	2.466	(62.64)	2.163	(54.94)	2.158	(54.81)	2.156	(54.76)
11	22	2.610	(66.29)	2.564	(65.13)	2.637	(66.98)	2.622	(66.60)	2.319	(58.90)	2.314	(58.78)	2.312	(58.72)
12	24	2.766	(70.26)	2.720	(69.09)	2.793	(70.94)	2.778	(70.56)	2.475	(62.87)	2.470	(62.74)	2.468	(62.69)
13	26	2.922	(74.22)	2.876	(73.05)	2.949	(74.90)	2.934	(74.52)	2.631	(66.83)	2.626	(66.70)	2.624	(66.65)
14	28	3.078	(78.18)	3.032	(77.01)	3.105	(78.87)	3.090	(78.49)	2.787	(70.79)	2.782	(70.66)	2.780	(70.61)
15	30	3.234	(82.14)	3.188	(80.98)	3.261	(82.83)	3.246	(82.45)	2.943	(74.75)	2.938	(74.63)	2.936	(74.57)
16	32	3.390	(86.11)	3.344	(84.94)	3.417	(86.79)	3.402	(86.41)	3.099	(78.71)	3.094	(78.59)	3.092	(78.54)
17	34	3.546	(90.07)	3.500	(88.90)	3.573	(90.75)	3.558	(90.37)	3.255	(82.68)	3.250	(82.55)	3.248	(82.50)
18	36	3.702	(94.03)	3.656	(92.86)	3.729	(94.72)	3.714	(94.34)	3.411	(86.64)	3.406	(86.51)	3.404	(86.46)
19	38	3.858	(97.99)	3.812	(96.82)	3.885	(98.68)	3.870	(98.30)	3.567	(90.60)	3.562	(90.47)	3.560	(90.42)
20	40	4.014	(101.96)	3.968	(100.79)	4.041	(102.64)	4.026	(102.26)	3.723	(94.56)	3.718	(94.44)	3.716	(94.39)
21	42	4.170	(105.92)	4.124	(104.75)	4.197	(106.60)	4.182	(106.22)	3.879	(98.53)	3.874	(98.40)	3.872	(98.35)
22	44	4.326	(109.88)	4.280	(108.71)	4.353	(110.57)	4.338	(110.19)	4.035	(102.49)	4.030	(102.36)	4.028	(102.31)
23	46	4.482	(113.84)	4.436	(112.67)	4.509	(114.53)	4.494	(114.15)	4.191	(106.45)	4.186	(106.32)	4.184	(106.27)
24	48	4.638	(117.81)	4.592	(116.64)	4.665	(118.49)	4.650	(118.11)	4.347	(110.41)	4.342	(110.29)	4.340	(110.24)
25	50	4.794	(121.77)	4.748	(120.60)	4.821	(122.45)	4.806	(122.07)	4.503	(114.38)	4.498	(114.25)	4.496	(114.20)
26	52	4.950	(125.73)	4.904	(124.56)	4.977	(126.42)	4.962	(126.03)	4.659	(118.34)	4.654	(118.21)	4.652	(118.16)
27	54	5.106	(129.69)	5.060	(128.52)	5.133	(130.38)	5.118	(130.00)	4.815	(122.30)	4.810	(122.17)	4.808	(122.12)
28	56	5.262	(133.65)	5.216	(132.49)	5.289	(134.34)	5.274	(133.96)	4.971	(126.26)	4.966	(126.14)	4.964	(126.09)
29	58	5.418	(137.62)	5.372	(136.45)	5.445	(138.30)	5.430	(137.92)	5.127	(130.23)	5.122	(130.10)	5.120	(130.05)
30	60	5.574	(141.58)	5.528	(140.41)	5.601	(142.27)	5.586	(141.88)	5.283	(134.19)	5.278	(134.06)	5.276	(134.01)
31	62	5.730	(145.54)	5.684	(144.37)	5.757	(146.23)	5.742	(145.85)	5.439	(138.15)	5.434	(138.02)	5.432	(137.97)
32	64	5.886	(149.50)	5.840	(148.34)	5.913	(150.19)	5.898	(149.81)	5.595	(142.11)	5.590	(141.99)	5.588	(141.94)
33	66	6.042	(153.47)	5.996	(152.30)	6.069	(154.15)	6.054	(153.77)	5.751	(146.08)	5.746	(145.95)	5.744	(145.90)
34	68	6.198	(157.43)	6.152	(156.26)	6.225	(158.12)	6.210	(157.73)	5.907	(150.04)	5.902	(149.91)	5.900	(149.86)
35	70	6.354	(161.39)	6.308	(160.22)	6.381	(162.08)	6.366	(161.70)	6.063	(154.00)	6.058	(153.87)	6.056	(153.82)
36	72	6.510	(165.35)	6.464	(164.19)	6.537	(166.04)	6.522	(165.66)	6.219	(157.96)	6.214	(157.84)	6.212	(157.78)
37	74	6.666	(169.32)	6.620	(168.15)	6.693	(170.00)	6.678	(169.62)	6.375	(161.93)	6.370	(161.80)	6.368	(161.75)
38	76	6.822	(173.28)	6.776	(172.11)	6.849	(173.96)	6.834	(173.58)	6.531	(165.89)	6.526	(165.76)	6.524	(165.71)
39	78	6.978	(177.24)	6.932	(176.07)	7.005	(177.93)	6.990	(177.55)	6.687	(169.85)	6.682	(169.72)	6.680	(169.67)
40	80	7.134	(181.20)	7.088	(180.04)	7.161	(181.89)	7.146	(181.51)	6.843	(173.81)	6.838	(173.69)	6.836	(173.63)
41	82	7.290	(185.17)	7.244	(184.00)	7.317	(185.85)	7.302	(185.47)	6.999	(177.77)	6.994	(177.65)	6.992	(177.60)
42	84	7.446	(189.13)	7.400	(187.96)	7.473	(189.81)	7.458	(189.43)	7.155	(181.74)	7.150	(181.61)	7.148	(181.56)
43	86	7.602	(193.09)	7.556	(191.92)	7.629	(193.78)	7.614	(193.40)	7.311	(185.70)	7.306	(185.57)	7.304	(185.52)
44	88							7.770	(197.36)					7.460	(189.48)



CONNECTOR DIMENSIONS CONTACT SPACING .156" (3.96mm)

Card Edge Connector Series 303, 305, 306, 307, 315, 316, 317, 333, 336, 337, 355, 356, 357, 387, 737

DIMENSION		"C"				"D"				"E"	
SERIES	303, 317	333	336	REST OF SERIES	315, 316	REST OF SERIES	ALL SERIES				
Number of Contacts Single Dual	Inch (mm)	Inch (mm)	Inch (mm)	Inch (mm)	Inch (mm)	Inch (mm)	Inch (mm)	Inch (mm)	Inch (mm)	Inch (mm)	Inch (mm)
6 12	1.220 (30.99)	1.261 (32.03)	1.216 (30.89)	1.246 (31.65)	1.080 (27.43)	1.100 (27.94)	.780 (19.81)				
7 14	1.376 (34.95)	1.417 (35.99)	1.372 (34.85)	1.402 (35.61)	1.236 (31.39)	1.256 (31.90)	.936 (23.77)				
8 16	1.532 (38.91)	1.573 (39.95)	1.528 (38.81)	1.558 (39.57)	1.392 (35.36)	1.412 (35.86)	1.092 (27.74)				
9 18	1.688 (42.88)	1.729 (43.92)	1.684 (42.77)	1.714 (43.54)	1.548 (39.32)	1.568 (39.83)	1.248 (31.70)				
10 20	1.844 (46.84)	1.885 (47.88)	1.840 (46.74)	1.870 (47.50)	1.704 (43.28)	1.724 (43.79)	1.404 (35.66)				
11 22	2.000 (50.80)	2.041 (51.84)	1.996 (50.70)	2.026 (51.46)	1.860 (47.24)	1.880 (47.75)	1.560 (39.62)				
12 24	2.156 (54.76)	2.197 (55.80)	2.152 (54.66)	2.182 (55.42)	2.016 (51.21)	2.036 (51.71)	1.716 (43.59)				
13 26	2.312 (58.72)	2.353 (59.77)	2.308 (58.62)	2.338 (59.39)	2.172 (55.17)	2.192 (55.68)	1.872 (47.55)				
14 28	2.468 (62.69)	2.509 (63.73)	2.464 (62.59)	2.494 (63.35)	2.328 (59.13)	2.348 (59.64)	2.028 (51.51)				
15 30	2.624 (66.65)	2.665 (67.69)	2.620 (66.55)	2.650 (67.31)	2.484 (63.09)	2.504 (63.60)	2.184 (55.47)				
16 32	2.780 (70.61)	2.821 (71.65)	2.776 (70.51)	2.806 (71.27)	2.640 (67.06)	2.660 (67.56)	2.340 (59.44)				
17 34	2.936 (74.57)	2.977 (75.62)	2.932 (74.47)	2.962 (75.23)	2.796 (71.02)	2.816 (71.53)	2.496 (63.40)				
18 36	3.092 (78.54)	3.133 (79.58)	3.088 (78.44)	3.118 (79.20)	2.952 (74.98)	2.972 (75.49)	2.652 (67.36)				
19 38	3.248 (82.50)	3.289 (83.54)	3.244 (82.40)	3.274 (83.16)	3.108 (78.94)	3.128 (79.45)	2.808 (71.32)				
20 40	3.404 (86.46)	3.445 (87.50)	3.400 (86.36)	3.430 (87.12)	3.264 (82.91)	3.284 (83.41)	2.964 (75.29)				
21 42	3.560 (90.42)	3.601 (91.47)	3.556 (90.32)	3.586 (91.08)	3.420 (86.87)	3.440 (87.38)	3.120 (79.25)				
22 44	3.716 (94.39)	3.757 (95.43)	3.712 (94.28)	3.742 (95.05)	3.576 (90.83)	3.596 (91.34)	3.276 (83.21)				
23 46	3.872 (98.35)	3.913 (99.39)	3.868 (98.25)	3.898 (99.01)	3.732 (94.79)	3.752 (95.30)	3.432 (87.17)				
24 48	4.028 (102.31)	4.069 (103.35)	4.024 (102.21)	4.054 (102.97)	3.888 (98.76)	3.908 (99.26)	3.588 (91.14)				
25 50	4.184 (106.27)	4.225 (107.32)	4.180 (106.17)	4.210 (106.93)	4.044 (102.72)	4.064 (103.23)	3.744 (95.10)				
26 52	4.340 (110.24)	4.381 (111.28)	4.336 (110.13)	4.366 (110.90)	4.200 (106.68)	4.220 (107.19)	3.900 (99.06)				
27 54	4.496 (114.20)	4.537 (115.24)	4.492 (114.10)	4.522 (114.86)	4.356 (110.64)	4.376 (111.15)	4.056 (103.02)				
28 56	4.652 (118.16)	4.693 (119.20)	4.648 (118.06)	4.678 (118.82)	4.512 (114.60)	4.532 (115.11)	4.212 (106.98)				
29 58	4.808 (122.12)	4.849 (123.16)	4.804 (122.02)	4.834 (122.78)	4.668 (118.57)	4.688 (119.08)	4.368 (110.95)				
30 60	4.964 (126.09)	5.005 (127.13)	4.960 (125.98)	4.990 (126.75)	4.824 (122.53)	4.844 (123.04)	4.524 (114.91)				
31 62	5.120 (130.05)	5.161 (131.09)	5.116 (129.95)	5.146 (130.71)	4.980 (126.49)	5.000 (127.00)	4.680 (118.87)				
32 64	5.276 (134.01)	5.317 (135.05)	5.272 (133.91)	5.302 (134.67)	5.136 (130.45)	5.156 (130.96)	4.836 (122.83)				
33 66	5.432 (137.97)	5.473 (139.01)	5.428 (137.87)	5.458 (138.63)	5.292 (134.42)	5.312 (134.92)	4.992 (126.80)				
34 68	5.588 (141.94)	5.629 (142.98)	5.584 (141.83)	5.614 (142.60)	5.448 (138.38)	5.468 (138.89)	5.148 (130.76)				
35 70	5.744 (145.90)	5.785 (146.94)	5.740 (145.80)	5.770 (146.56)	5.604 (142.34)	5.624 (142.85)	5.304 (134.72)				
36 72	5.900 (149.86)	5.941 (150.90)	5.896 (149.76)	5.926 (150.52)	5.760 (146.30)	5.780 (146.81)	5.460 (138.68)				
37 74	6.056 (153.82)	6.097 (154.86)	6.052 (153.72)	6.082 (154.48)	5.916 (150.27)	5.936 (150.77)	5.616 (142.65)				
38 76	6.212 (157.78)	6.253 (158.83)	6.208 (157.68)	6.238 (158.45)	6.072 (154.23)	6.092 (154.74)	5.772 (146.61)				
39 78	6.368 (161.75)	6.409 (162.79)	6.364 (161.65)	6.394 (162.41)	6.228 (158.19)	6.248 (158.70)	5.928 (150.57)				
40 80	6.524 (165.71)	6.565 (166.75)	6.520 (165.61)	6.550 (166.37)	6.384 (162.15)	6.404 (162.66)	6.084 (154.53)				
41 82	6.680 (169.67)	6.721 (170.71)	6.676 (169.57)	6.706 (170.33)	6.540 (166.12)	6.560 (166.62)	6.240 (158.50)				
42 84	6.836 (173.63)	6.877 (174.68)	6.832 (173.53)	6.862 (174.29)	6.696 (170.08)	6.716 (170.59)	6.396 (162.46)				
43 86	6.992 (177.60)	7.033 (178.64)	6.988 (177.50)	7.018 (178.26)	6.852 (174.04)	6.872 (174.55)	6.552 (166.42)				
44 88				7.174 (182.22)		7.028 (178.51)	6.708 (170.38)				



MOUNTING OPTIONS - CARD EDGE CONNECTORS

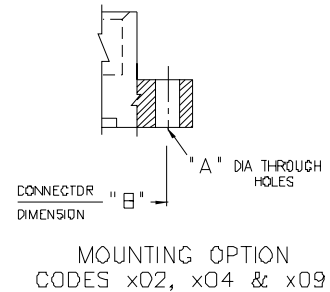
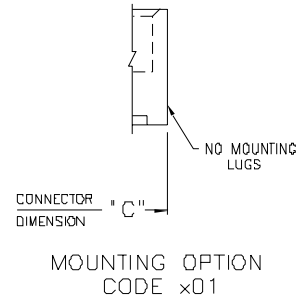
Standard Mounting Details

CODE x01 - NO MOUNTING LUGS

- Applicable for 303, 305, 306, 307, 310, 315, 316, 317, 321, 325, 327, 333, 336, 337, 338, 340, 341, 342, 345, 346, 355, 356, 357, 379, 384, 387, 391, 392, 395 and 396 Series

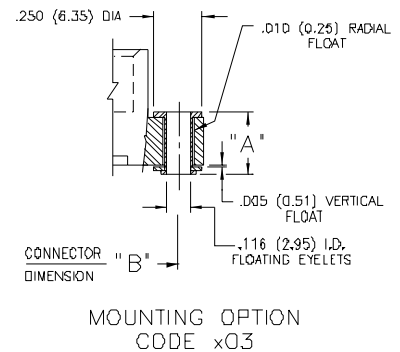
CODE x02, x04 & x09 - THROUGH MOUNTING HOLES

Applicable Series	Code x02 "A" Dia.	Code x04 "A" Dia.	Code x09 "A" Dia.
303, 305, 306, 307, 310, 315, 316, 321, 333, 337, 338, 340, 341, 345, 346, 355, 356, 357, 379, 384, 387, 391, 395, 396	.128 (3.25)	.156 (3.96)	—
317, 323	.144 (3.66)	.156 (3.96)	—
325	—	—	.160 (4.06)
327	—	—	.163 (4.14)
336	.128 (3.25)	.156 (3.96)	.178 (4.52)
342, 392	.128(3.25) x .146 (3.71) Slot	.156 (3.96)	—



CODE x03 - FLOATING EYELETS

Applicable Series	"A"
303, 305, 306, 307, 310, 315, 316, 317, 321, 323, 333, 336, 337, 338, 341, 345, 346, 355, 356, 357, 379, 384, 387, 391, 395, 396	.328 (8.33)
342, 392	.348 (8.84)

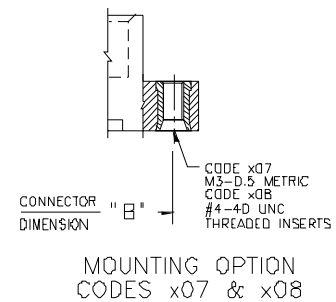


CODE x07 & x08 - THREADED INSERTS

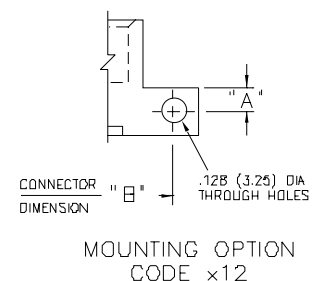
- Applicable for 303, 305, 306, 307, 310, 315, 316, 317, 321, 323, 325, 333, 336, 337, 338, 341, 342, 345, 346, 356, 357, 379, 384, 387, 391, 392, 395 and 396 Series
- See Code x12 for Side Mounting Threaded Inserts

CODE x12 - SIDE MOUNTING HOLES

Applicable Series	"A"
307, 333, 337, 345, 346, 357, 387, 395, 396	.125 (3.18)
342, 392	.135 (3.43)



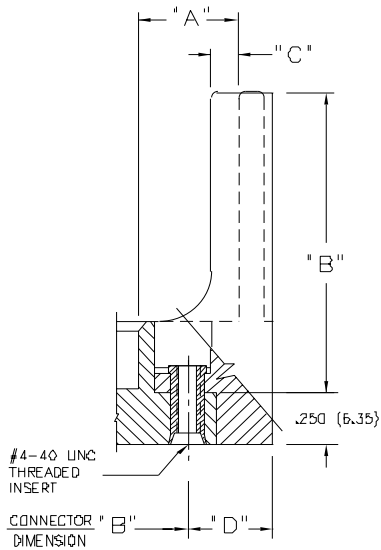
- Series Listed Above based on Availability of 90 Degree Bend Contact Tails. Side Mounting Holes may also be Used for Other Card Edge Connectors with a Lug Height of .250 (6.35) or Greater.
- For Side Mounting with Threaded Inserts, Specify Code x17 for M3-0.5 Metric Threads or Code x18 for #4-40 Unified Threads.



CARD EDGE CONNECTORS - MOUNTING OPTIONS

Standard Mounting Details

CODE x58 & x68 - OFFSET CARD GUIDES

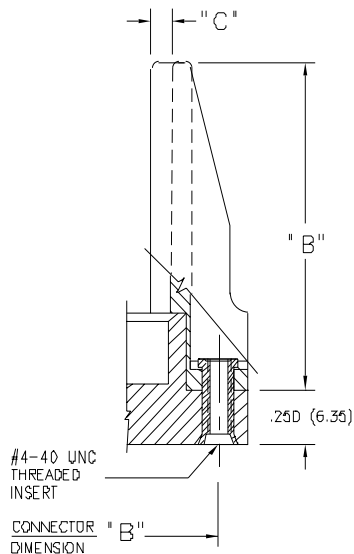


MOUNTING OPTION
CODES x58 & x68

Applicable Series for Code x58 Guides	"A"	"B"	"C"	"D"
305, 306, 307, 315, 316, 337, 338, 355, 356, 357, 387	.468(11.89)	2.755(69.98)	.125(3.18)	.423(10.74)
345, 395	.468(11.89)	2.755(69.98)	.120(3.05)	.402(10.21)
346, 396	.468(11.89)	2.755(69.98)	.120(3.05)	.398(10.11)
Applicable Series for Code x68 Guides	"A"	"B"	"C"	"D"
305, 306, 307, 315, 316, 337, 338, 355, 356, 357, 387	.344(8.74)	2.505(63.63)	.060(1.52)	.242(6.15)

- For Card Guides with .128 (3.25) Dia. Through Hole Inserts, Specify Code x52 or x62.
- For Card Guides with M3-0.5 Metric Threaded Inserts, Specify Code x57 or x67.
- For Field Assembly of Card Guides, Refer to Page 71.

CODE x78 & x88 - IN-LINE CARD GUIDES



MOUNTING OPTION
CODES x78 & x88

Applicable Series for Code x78 Guides	"B"	"C"
305, 306, 307, 315, 316, 337, 338, 355, 356, 357, 387	1.550(39.37)	.090(2.29)
317	1.712(43.48)	.110(2.79)
345, 395	2.750(69.85)	.083(2.11)
346, 396	2.750(69.85)	.091(2.31)
Applicable Series for Code x88 Guides	"B"	"C"
345, 395	1.250(31.75)	.083(2.11)

- In-Line Card Guides are Not Suitable for the Flush Mounting Lug Versions of 337, 387, 346 or 396 Series
- For Card Guides with .128 (3.25) Dia. Through Hole Inserts, Specify Code x72 or x82.
- For Card Guides with M3-0.5 Metric Threaded Inserts, Specify Code x77 or x87
- For Field Assembly of Card Guides, Refer to Page 71.