

FCN-704*/705*/744/745**-AU/*, -AU/MS, -707/747****-AU/***

**FCN-700/740 Series Board Plug/Socket
and IDC Plug/Socket Connectors**

FEATURES

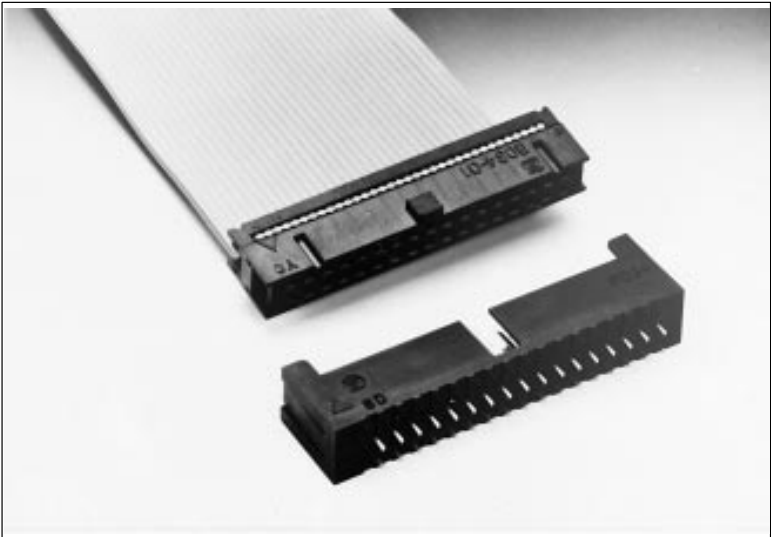
This mini-header and socket were developed to provide a compact set of connectors — their combined height is less than half that of the Model 700 connector. Unique plastic retention clips prevent disconnection due to vibration. There are up to 34 contact header and socket combinations, and the socket can be mated with all contact numbers of the FCN-700 header with S hooks and locked. The mini-header has an integral polarization to ensure correct insertion.

SPECIFICATIONS

Temperature Range	–55 to +105°C
Current Rating	1 A DC
Voltage Rating	250 VAC
Contact Resistance	20 mΩ max (6 VDC, 0.3A)
Insulation Resistance	1000 MΩ min (500 VDC)
Dielectric Withstand Voltage	500 VAC for 1 min.
Maximum Insertion Force	3.5 kg (10 contacts), 10.5 kg (30 contacts)
Maximum Withdrawal Force	0.30 kg (10 contacts), 1.25 kg (60 contacts)
Applicable Wire	Flat cable: 1.27 mm (0.05 in.) pitch, AWG #28 (stranded wire), AWG #30 (solid wire)
Applicable PC Board (standard)	1.6 mm (0.063 in.)

MATERIALS

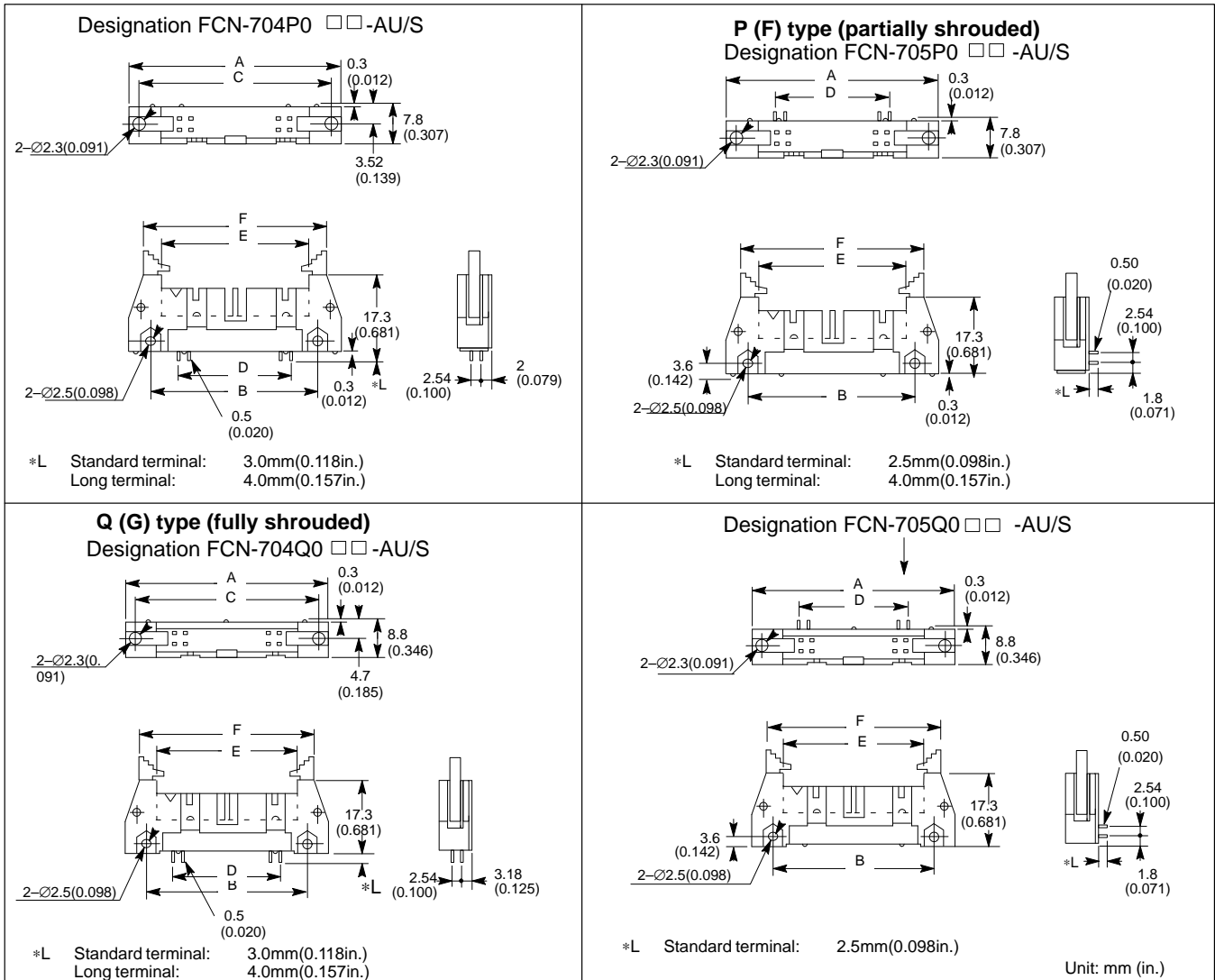
Contact		Copper alloy
Insulator		Polyester, UL94V-0
Plating	Contacts	Gold over palladium over nickel (PAGOS)
	Terminals	Palladium



FCN-704*/705****-AU/* *-HOOK HEADER

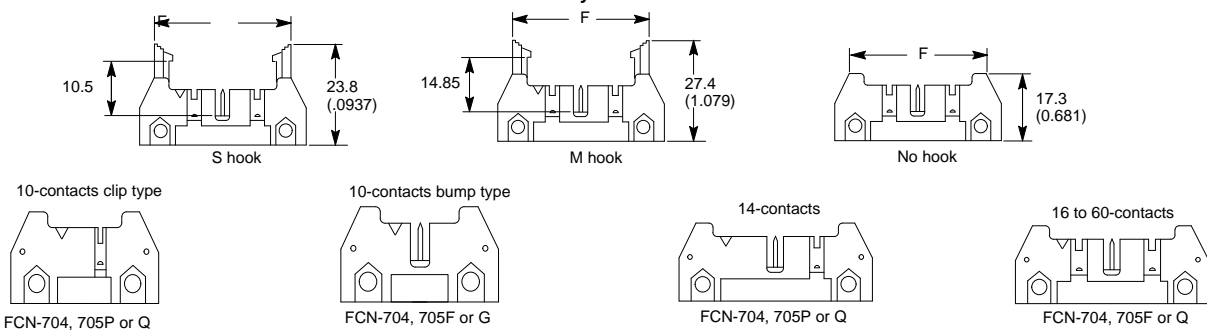
DIMENSIONS

(Main body is the same as FCN-700 header except for hooks.)



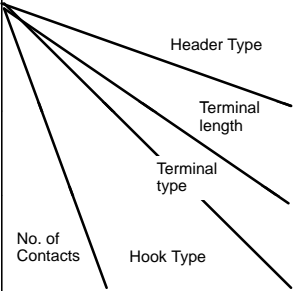
DIMENSIONS

Main body form



Unit: mm (in.)

PART NUMBERS

		Designate the following in the □ : P for P type header (one side shrouded); Q for Q type header (both sides shrouded); F for one side shrouded 10-contacts bump type header; or G for both sides shrouded 10-contacts bump type header.			
		Standard terminal Straight solder dip: 3.0mm (0.118 in.) Right-angle solder dip: 2.5mm (0.098 in.)		Long terminal Straight/Right-angle solder dip 4mm (0.157 in.)	
		Straight solder dip type	Right-angle solder dip type	Straight solder dip type	Right-angle solder dip type (P type only)
10	No hook	FCN-702□010-AU/0	FCN-705□010AU/0	FCN-704□010-AU/A	FCN-705P010AU/A
	M hook	FCN-704□010-AU/M	FCN-705□010AU/M	FCN-704□010-AU/C	FCN-705P010AU/C
	S hook	FCN-704□010-AU/S	FCN-705□010AU/S	FCN-704□010-AU/E	FCN-705P010AU/E
14	No hook	FCN-704□014-AU/0	FCN-705□014AU/0	FCN-704□014-AU/A	FCN-705P014AU/A
	M hook	FCN-704□014-AU/M	FCN-705□014AU/M	FCN-704□014-AU/C	FCN-705P014AU/C
	S hook	FCN-704□014-AU/S	FCN-705□014AU/S	FCN-704□014-AU/E	FCN-705P014AU/E
16	No hook	FCN-704□016-AU/0	FCN-705□016AU/0	FCN-704□016-AU/A	FCN-705P016AU/A
	M hook	FCN-704□016-AU/M	FCN-705□016AU/M	FCN-704□016-AU/C	FCN-705P016AU/C
	S hook	FCN-704□016-AU/S	FCN-705□016AU/S	FCN-704□016-AU/E	FCN-705P016AU/E
20	No hook	FCN-704□020-AU/0	FCN-705□020AU/0	FCN-704□020-AU/A	FCN-705P020AU/A
	M hook	FCN-704□020-AU/M	FCN-705□020AU/M	FCN-704□020-AU/C	FCN-705P020AU/C
	S hook	FCN-704□020-AU/S	FCN-705□020AU/S	FCN-704□020-AU/E	FCN-705P020AU/E
26	No hook	FCN-704□026-AU/0	FCN-705□026AU/0	FCN-704□026-AU/A	FCN-705P026AU/A
	M hook	FCN-704□026-AU/M	FCN-705□026AU/M	FCN-704□026-AU/C	FCN-705P026AU/C
	S hook	FCN-704□026-AU/S	FCN-705□026AU/S	FCN-704□026-AU/E	FCN-705P026AU/E
30	No hook	FCN-704□030-AU/0	FCN-705□030AU/0	FCN-704□030-AU/A	FCN-705P030AU/A
	M hook	FCN-704□030-AU/M	FCN-705□030AU/M	FCN-704□030-AU/C	FCN-705P030AU/C
	S hook	FCN-704□030-AU/S	FCN-705□030AU/S	FCN-704□030-AU/E	FCN-705P030AU/E
34	No hook	FCN-704□034-AU/0	FCN-705□034AU/0	FCN-704□034-AU/A	FCN-705P034AU/A
	M hook	FCN-704□034-AU/M	FCN-705□034AU/M	FCN-704□034-AU/C	FCN-705P034AU/C
	S hook	FCN-704□034-AU/S	FCN-705□034AU/S	FCN-704□034-AU/E	FCN-705P034AU/E
40	No hook	FCN-704□040-AU/0	FCN-705□040AU/0	FCN-704□040-AU/A	FCN-705P040AU/A
	M hook	FCN-704□040-AU/M	FCN-705□040AU/M	FCN-704□040-AU/C	FCN-705P040AU/C
	S hook	FCN-704□040-AU/S	FCN-705□040AU/S	FCN-704□040-AU/E	FCN-705P040AU/E
50	No hook	FCN-704□050-AU/0	FCN-705□050AU/0	FCN-704□050-AU/A	FCN-705P050AU/A
	M hook	FCN-704□050-AU/M	FCN-705□050AU/M	FCN-704□050-AU/C	FCN-705P050AU/C
	S hook	FCN-704□050-AU/S	FCN-705□050AU/S	FCN-704□050-AU/E	FCN-705P050AU/E
60	No hook	FCN-704□060-AU/0	FCN-705□060AU/0	FCN-704□060-AU/A	FCN-705P060AU/A
	M hook	FCN-704□060-AU/M	FCN-705□060AU/M	FCN-704□060-AU/C	FCN-705P060AU/C
	S hook	FCN-704□060-AU/S	FCN-705□060AU/S	FCN-704□060-AU/E	FCN-705P060AU/E

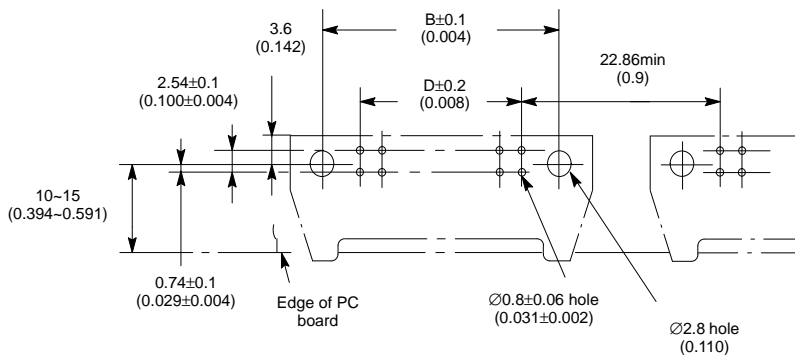
Note: These part numbers indicate standard 30 microinch precious metal plating in contact area.
 Suffix –HN designates 15 microinch precious metal plating.

DIMENSION TABLE FOR BOARD PLUG AND IDC SOCKET

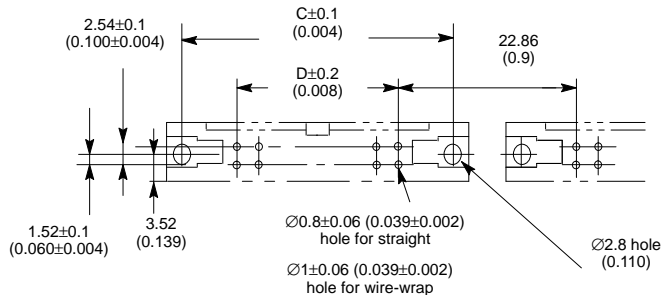
No. of Cotacts	A	B	C	D	E	F
10	32.0(1.260)	21.8(0.858)	27.9(1.098)	10.16(0.400)	18.3(0.720)	26.3(1.035)
12	37.1(1.461)	26.9(1.059)	33.0(1.299)	15.24(0.600)	23.4(0.921)	31.4(1.236)
16	39.6(1.559)	29.4(1.157)	35.5(1.398)	17.78(0.700)	25.9(1.020)	33.9(1.335)
20	44.7(1.760)	34.5(1.358)	40.6(1.598)	22.86(0.900)	31.0(1.220)	39.0(1.535)
26	52.3(2.059)	42.2(1.661)	48.3(1.902)	30.48(1.200)	38.6(1.520)	46.6(1.835)
30	57.4(2.260)	47.2(1.858)	53.3(2.098)	35.56(1.400)	43.7(1.720)	51.7(2.035)
34	62.5(2.461)	52.3(2.059)	58.4(2.299)	40.64(1.600)	48.8(1.921)	56.8(2.236)
40	70.1(2.760)	59.9(2.358)	66.0(2.598)	48.26(1.900)	56.4(2.220)	64.4(2.535)
50	82.8(3.260)	72.6(2.858)	78.7(3.098)	60.96(2.400)	69.0(2.717)	77.0(3.031)
60	95.5(3.760)	85.3(3.358)	91.4(3.598)	73.66(2.900)	81.8(3.220)	89.8(3.535)

MOUNTING HOLE LAYOUT

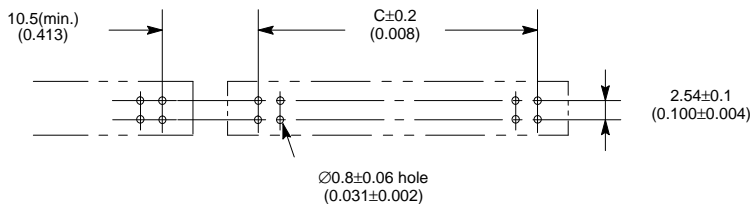
Header (right-angle P and Q types)



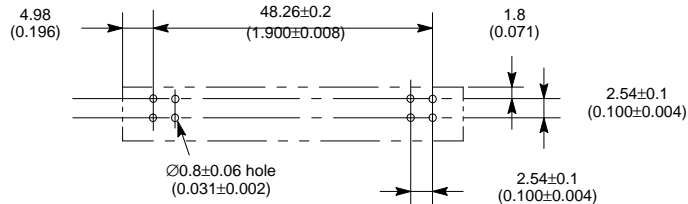
Hook header (straight)



Mini-header (straight)



Mini-header (right angle)



Note 1: IDC tools are given as a group later.

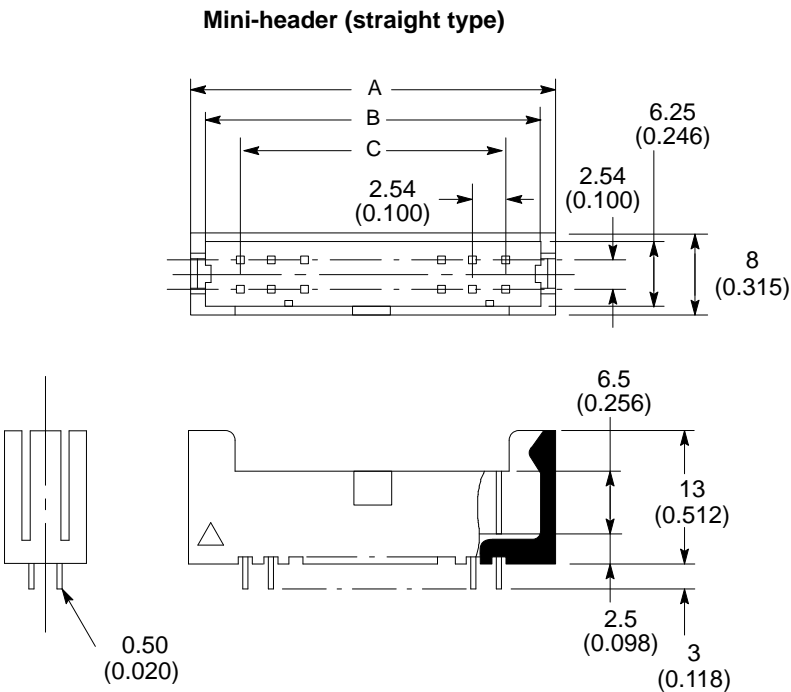
Note 2: Connectors with cables are given as a group later.

Note 3: The 0 at the end of the designation is the number zero.

Unit: mm (in.)

FCN-744P^{***}-AU/R STRAIGHT BOX PLUG WITH SIMPLE LOCK

DIMENSIONS



Unit: mm (in.)

4

PART NUMBERS

Mini-header				
Part Number	No. of Contacts	A	B	C
FCN-744P010-AU/R	10	20.12(0.292)	17.72(0.698)	10.16(0.400)
FCN-744P014-AU/R	14	25.20(0.992)	22.80(0.898)	15.24(0.600)
FCN-744P016-AU/R	16	27.74(1.092)	25.34(0.988)	17.78(0.700)
FCN-744P020-AU/R	20	32.82(1.292)	30.42(1.198)	22.86(0.900)
FCN-744P026-AU/R	26	40.44(1.592)	38.04(1.498)	30.48(1.200)
FCN-744P030-AU/R	30	45.52(1.792)	43.12(1.698)	35.56(1.400)
FCN-744P034-AU/R	34	50.60(1.992)	48.20(1.898)	40.64(1.600)

Note: These part numbers indicate standard 30 microinch precious metal plating in contact area. Suffix -HN designates 15 micro inch precious metal plating.

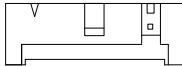
FCN-744*/-745^{****}-AU/O BOX PLUG WITHOUT LOCK

Main body form depends on the number of contacts

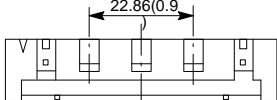
10-contacts G type 10-contacts Q type



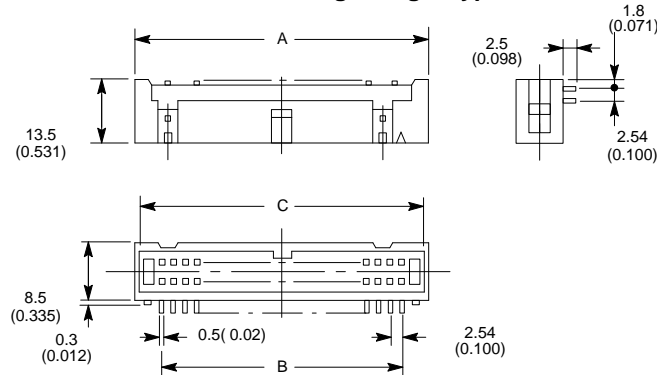
14-contacts



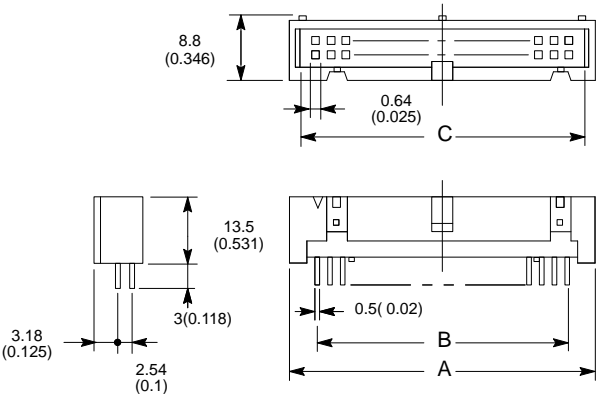
50-,60-contacts



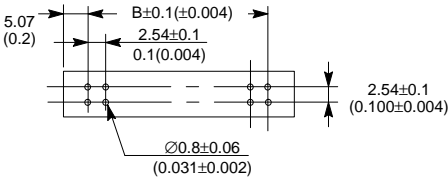
Right-angle Type



Straight Type



MOUNTING HOLE LAYOUT (straight/right-angle)



Unit: mm (in.)

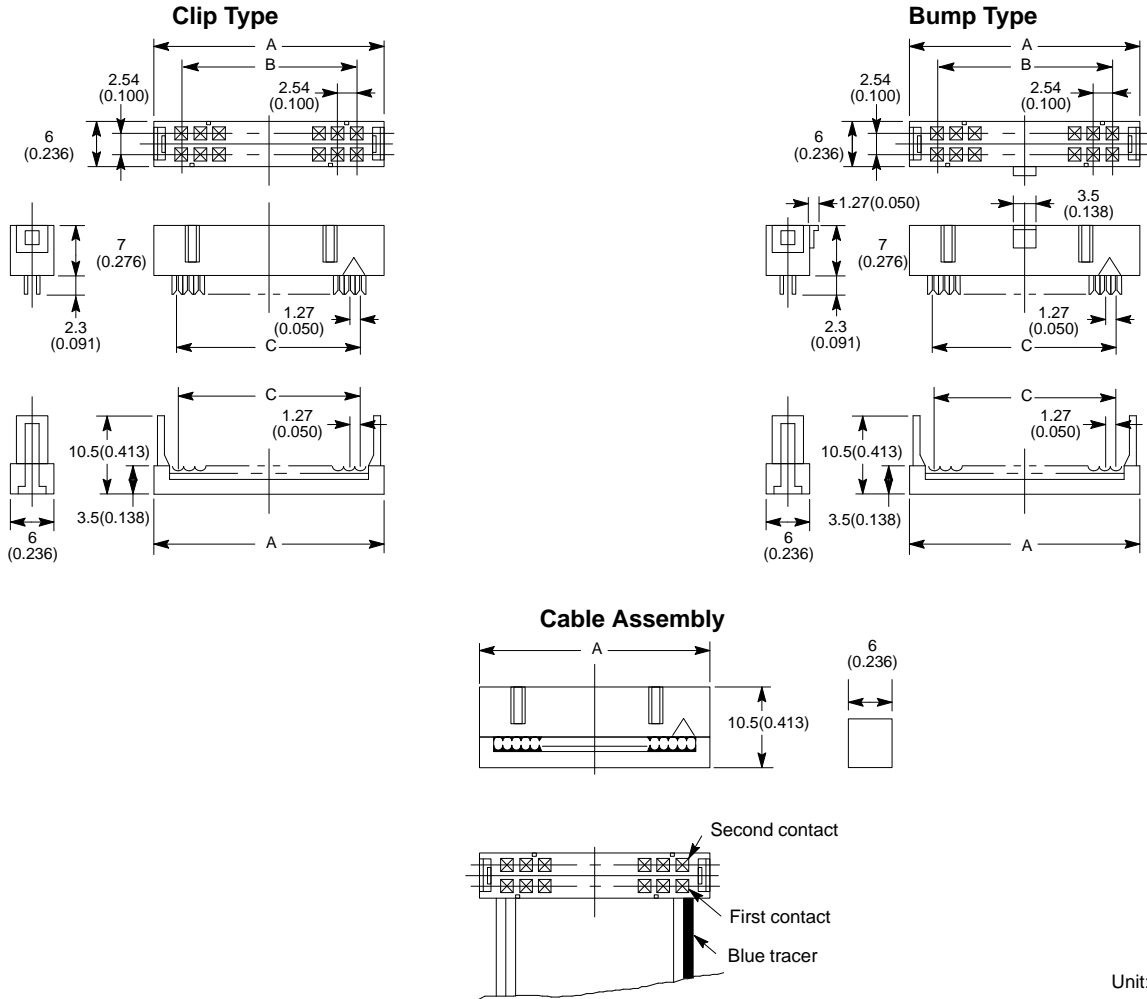
DIMENSION TABLE FOR BOARD PLUG AND IDC SOCKET

No. of Contacts	Part Number	Part Number	Dimensions		
			A	B	C
10	FCN-744Q010-AU/0	FCN-745Q010-AU/0	20.3(0.799)	10.16(0.400)	17.72(0.698)
14	FCN-744Q014-AU/0	FCN-745Q014-AU/0	25.3(1.000)	15.24(1.600)	22.80(0.898)
16	FCN-744Q016-AU/0	FCN-745Q016-AU/0	27.9(1.098)	17.78(0.700)	25.34(0.998)
20	FCN-744Q020-AU/0	FCN-745Q020-AU/0	33.0(1.299)	22.86(0.900)	30.42(1.198)
26	FCN-744Q026-AU/0	FCN-745Q026-AU/0	40.6(1.598)	30.48(1.200)	38.04(1.498)
30	FCN-744Q030-AU/0	FCN-745Q030-AU/0	45.7(1.799)	35.56(1.400)	43.12(1.698)
34	FCN-744Q034-AU/0	FCN-745Q034-AU/0	50.8(2.000)	40.64(1.600)	48.20(1.898)
40	FCN-744Q040-AU/0	FCN-745Q040-AU/0	58.4(2.299)	48.26(1.900)	55.82(2.198)
50	FCN-744Q050-AU/0	FCN-745Q050-AU/0	71.1(2.799)	60.96(2.900)	68.52(2.698)
60	FCN-744Q060-AU/0	FCN-745Q060-AU/0	83.8(3.299)	73.66(2.900)	81.22(3.198)

Note: These part numbers indicate standard 30 microinch precious metal plating in contact area. Suffix -HN designates 15 microinch precious metal plating.

FCN-747B/-747J^{***}-AU/* MINI IDC SOCKET

DIMENSIONS



Unit: mm (in.)

PART NUMBERS

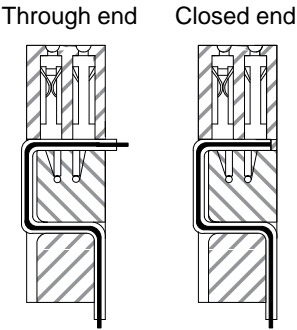
Designate 0 (zero) for through end or B for closed end in the □		Dimensions			
Clip Tupe	Bump Type	No. of Contacts	A	B	C
FCN-747J010-AU/□	FCN-747B010-AU/□	10	17.27(0.680)	10.16(0.400)	11.43(0.450)
FCN-747J014-AU/□	FCN-747B014-AU/□	14	22.35(0.880)	15.24(0.600)	16.51(0.650)
FCN-747J016-AU/□	FCN-747B016-AU/□	16	24.89(0.980)	17.78(0.700)	19.05(0.750)
FCN-747J020-AU/□	FCN-747B020-AU/□	20	29.97(1.180)	22.86(0.900)	24.13(0.950)
FCN-747J026-AU/□	FCN-747B026-AU/□	26	37.59(1.480)	30.48(1.200)	31.75(1.250)
FCN-747J030-AU/□	FCN-747B030-AU/□	30	42.67(1.680)	35.56(1.400)	36.83(1.450)
FCN-747J034-AU/□	FCN-747B034-AU/□	34	47.75(1.880)	40.64(1.600)	41.91(1.650)
FCN-747J040-AU/□	FCN-747B040-AU/□	40	55.37(2.180)	48.26(1.900)	49.54(1.950)
FCN-747J050-AU/□	FCN-747B050-AU/□	50	68.07(2.680)	60.96(2.400)	62.23(2.450)
FCN-747J060-AU/□	FCN-747B060-AU/□	60	80.77(3.180)	73.66(2.900)	74.93(2.950)

Note: These part numbers indicate standard 30 microinch precious metal plating in contact area. Suffix -HN designates 15 microinch precious metal plating.

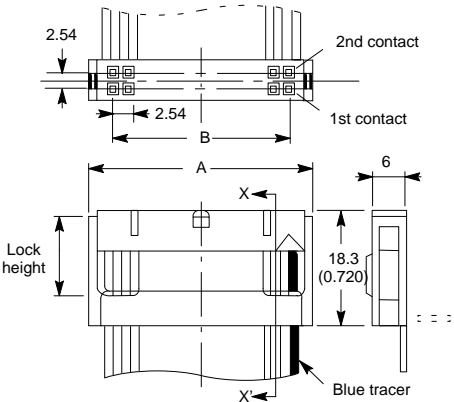
FCN-707B/707J***-AU/* IDC SOCKET/with Strain Relief

DIMENSIONS

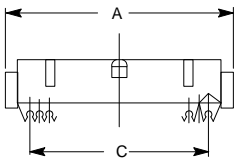
X-X' cross-section



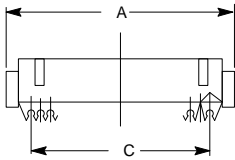
With Cable



Bump type



Clip type



Unit: mm (in.)

WITH STRAIN RELIEF

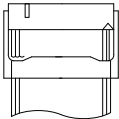
No. of Contacts	Clip Type		Bump Type		Dimensions		
	Through End	Closed End	Through End	Closed End	A	B	C
10	FCN-707J010-AU/0	FCN-707J010-AU/B	FCN-707B010-AU/0	FCN-707B010-AU/B	17.27	10.16	11.43
14	FCN-707J014-AU/0	FCN-707J014-AU/B	FCN-707B014-AU/0	FCN-707B014-AU/B	22.35	15.24	16.51
16	FCN-707J016-AU/0	FCN-707J016-AU/B	FCN-707B016-AU/0	FCN-707B016-AU/B	24.89	17.78	19.05
20	FCN-707J020-AU/0	FCN-707J020-AU/B	FCN-707B020-AU/0	FCN-707B020-AU/B	29.97	22.86	24.13
26	FCN-707J026-AU/0	FCN-707J026-AU/B	FCN-707B026-AU/0	FCN-707B026-AU/B	37.59	30.48	31.75
30	FCN-707J030-AU/0	FCN-707J030-AU/B	FCN-707B030-AU/0	FCN-707B030-AU/B	42.67	35.56	36.83
34	FCN-707J034-AU/0	FCN-707J034-AU/B	FCN-707B034-AU/0	FCN-707B034-AU/B	47.75	40.64	41.91
40	FCN-707J040-AU/0	FCN-707J040-AU/B	FCN-707B040-AU/0	FCN-707B040-AU/B	55.37	48.26	49.54
50	FCN-707J050-AU/0	FCN-707J050-AU/B	FCN-707B050-AU/0	FCN-707B050-AU/B	68.07	60.96	62.23
60	FCN-707J060-AU/0	FCN-707J060-AU/B	FCN-707B060-AU/0	FCN-707B060-AU/B	80.77	73.66	74.93

Note: These part numbers indicate standard 30 microinch precious metal plating in contact area. Suffix -HN designates 15 microinch precious metal plating.
For Assembly tooling - see page 2-112.

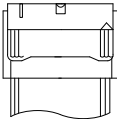
DIMENSIONS (CONTINUED)

Main body forms

10- to 14-contacts
clip type

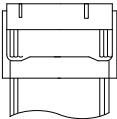


10- to 14-contacts
bump type

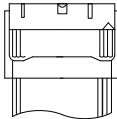


No clip groove on
10-contacts type

16- to 60-contacts
clip type



16- to 60-contacts
bump type



Unit: mm (in.)