

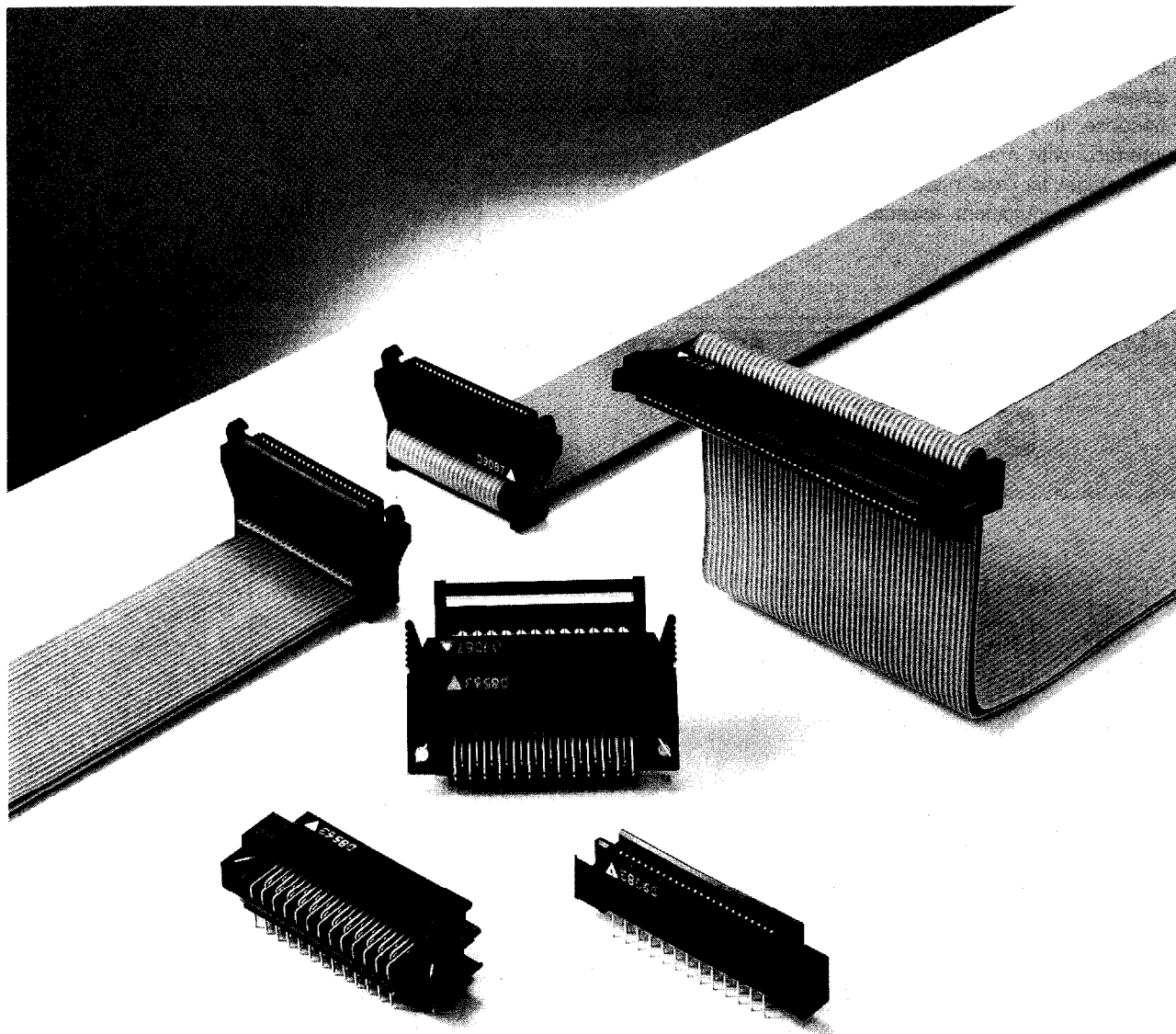
# KEL

IDC for 50mil (1.27mm) Flat Cable with  
One-touch Locking Ejector System

**50mil(1.27mm)PITCH 2PIECE CONNECTOR**

## 8822E SERIES

- High density 50 mil pitch connector
- Highly reliable straight beam contact
- Low insertion and withdrawal force
- IDC for 50 mil(1.27mm) flat cable(AWG28)
- Easy to operate One-Touch locking ejector system
- 13 sizes from 20 to 100 positions



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# 8822E/8830E Series IDC Type Connectors

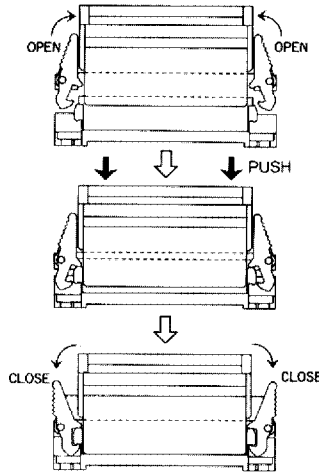
## Product Outline

■ The 8822E Series locking ejector system is a reversal of the MIL-STD design (KEL 6200 Series) and the locking ejectors are integral to the cable connector. The ejectors are automatically locked by insertion in the mating header like the MIL-STD design.

The latches remain within the connector outline to reduce the requirements for board space, are unlocked by applying inward pressure and can be operated by only one hand unlike the older design. Also, the 8830E series can be used with the 8800 Series for board to board interconnects because it does not have latches to interface with mating. This design offers advantages for uses in today's high density electronic equipment especially portable computers.

### Way to insert

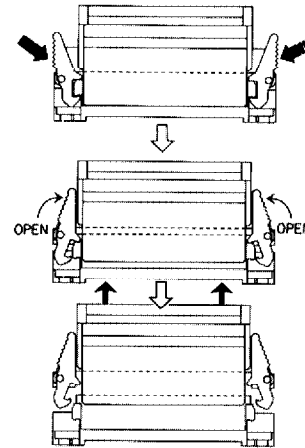
Open the ejector of 8822E Series and insert in 8830E/8831E until mated conditions



(Locked position)

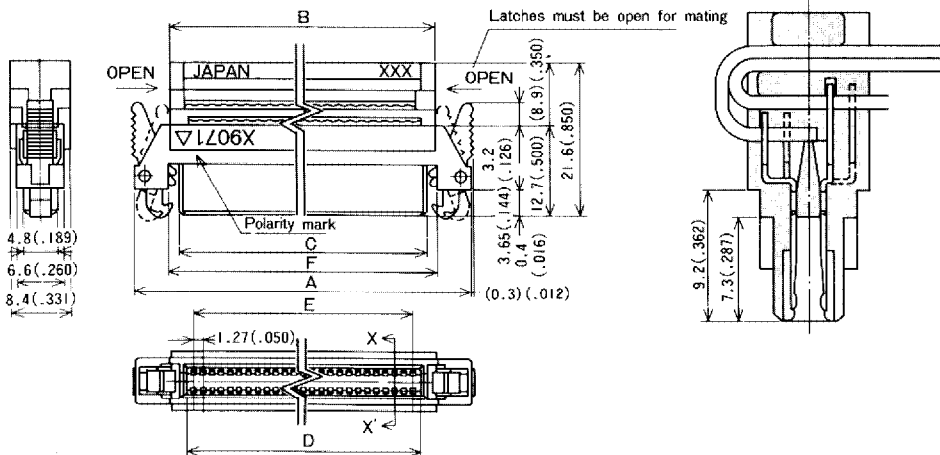
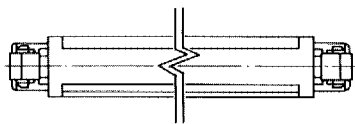
### Way to withdrawal.

Press on both sides of the 8822E Series ejector to release the receptacle from the plug



(Ejected position)

## 8822E-XXX-171(Receptacle)



### Dimensions mm(inch)

| Pin | A                | B                | C                | D                |
|-----|------------------|------------------|------------------|------------------|
| 20  | 27.83<br>(1.096) | 17.83<br>(.702)  | 15.43<br>(.607)  | 11.43<br>(.450)  |
| 26  | 31.64<br>(1.246) | 21.64<br>(.852)  | 19.24<br>(.757)  | 15.24<br>(.600)  |
| 30  | 34.18<br>(1.346) | 24.18<br>(.952)  | 21.78<br>(.857)  | 17.78<br>(.700)  |
| 32  | 35.45<br>(1.396) | 25.45<br>(1.002) | 23.05<br>(.907)  | 19.05<br>(.750)  |
| 34  | 36.72<br>(1.446) | 26.72<br>(1.052) | 24.32<br>(.957)  | 20.32<br>(.800)  |
| 36  | 37.99<br>(1.499) | 27.99<br>(1.102) | 25.59<br>(1.007) | 21.59<br>(.850)  |
| 40  | 40.53<br>(1.596) | 30.53<br>(1.202) | 28.13<br>(1.107) | 24.13<br>(.950)  |
| 50  | 46.88<br>(1.846) | 36.88<br>(1.452) | 34.48<br>(1.357) | 30.48<br>(1.200) |
| 52  | 48.15<br>(1.896) | 38.15<br>(1.502) | 35.75<br>(1.407) | 31.75<br>(1.250) |
| 60  | 53.23<br>(2.096) | 43.23<br>(1.702) | 40.83<br>(1.607) | 36.83<br>(1.450) |
| 68  | 58.31<br>(2.296) | 48.31<br>(1.902) | 45.91<br>(1.807) | 41.91<br>(1.650) |
| 80  | 65.93<br>(2.596) | 55.93<br>(2.202) | 53.53<br>(2.107) | 49.53<br>(1.950) |
| 100 | 78.63<br>(3.096) | 68.63<br>(2.702) | 66.23<br>(2.607) | 62.23<br>(2.450) |

## Specifications

- Insulator : Glass filled 66 Nylon  
UL94V-0, Black
- Contact : Copper alloy  
Mating area : Gold over Nickel  
Terminal area : Tin over Nickel
- Current rating : 0.5A/pin
- Contact resistance : 30mΩ, Max.
- Withstanding voltage : 650V AC, (1 minute)
- Insulation resistance : 1,000MΩ, 500V DC, Min.
- Recommended cable : AWG28(7/0.127) Flat ribbon cable.

## Order Code

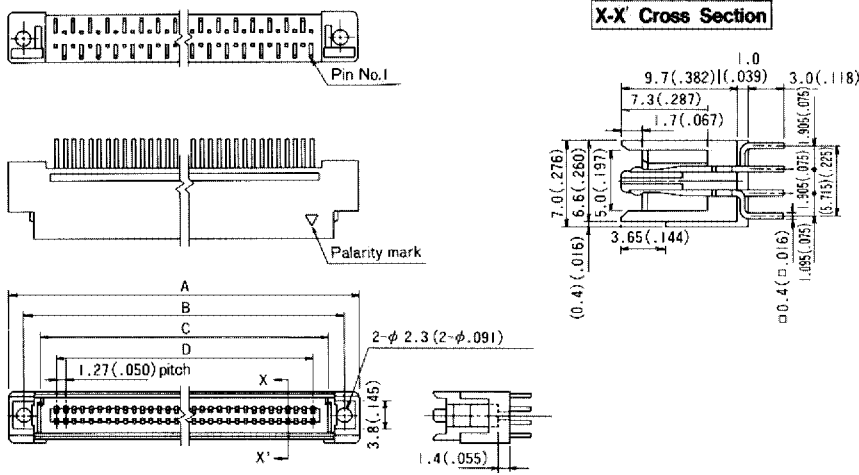
**88XXE - XXX - XXX X X**

- |                         |                   |                  |                          |
|-------------------------|-------------------|------------------|--------------------------|
| ● Series                | ● No. of contacts | ● Contact style  | ● Gold plating           |
| 8822E : Receptacle      | 020, 026          | 171 : Receptacle | None : Flash             |
| 8830E : Plug            | 030, 032          | 170 : Plug       | *D : 0.25 μm or more*    |
| (Without hooks)         | 034, 036          |                  | *H : 0.76 μm or more*    |
| 8831E : Plug            | 040, 050          |                  |                          |
| (With hooks)            | 052, 060          |                  | ● Terminal configuration |
| (Right angle type only) | 068, 080          |                  | S : Straight             |
|                         | 100               |                  | L : Right angle          |

\* Available upon request

# 8822E/8830E Series IDC Type Connectors

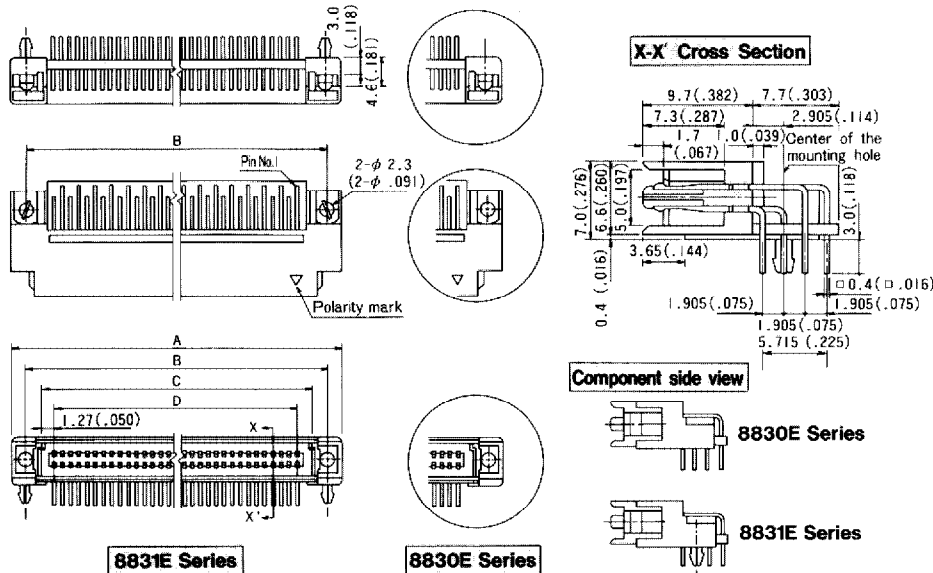
## 8830E-XXX-170S(Plug/Straight Type)



■ Dimensions mm(inch)

| Pin | A                | B                | C                | D                |
|-----|------------------|------------------|------------------|------------------|
| 20  | 27.83<br>(1.096) | 22.86<br>(.900)  | 15.83<br>(.623)  | 11.43<br>(.450)  |
| 26  | 31.64<br>(1.246) | 26.67<br>(1.050) | 19.64<br>(.773)  | 15.24<br>(.600)  |
| 30  | 34.18<br>(1.346) | 29.21<br>(1.150) | 22.18<br>(.873)  | 17.78<br>(.700)  |
| 32  | 35.45<br>(1.396) | 30.48<br>(1.200) | 23.45<br>(.923)  | 19.05<br>(.750)  |
| 34  | 36.72<br>(1.446) | 31.75<br>(1.250) | 24.72<br>(.973)  | 20.32<br>(.800)  |
| 36  | 37.99<br>(1.496) | 33.02<br>(1.300) | 25.99<br>(1.023) | 21.59<br>(.850)  |
| 40  | 40.53<br>(1.596) | 35.56<br>(1.400) | 28.53<br>(1.123) | 24.13<br>(.950)  |
| 50  | 46.88<br>(1.846) | 41.91<br>(1.650) | 34.88<br>(1.373) | 30.48<br>(1.200) |
| 52  | 48.15<br>(1.896) | 43.18<br>(1.700) | 36.15<br>(1.423) | 31.75<br>(1.250) |
| 60  | 53.23<br>(2.096) | 48.26<br>(1.900) | 41.23<br>(1.623) | 36.83<br>(1.450) |
| 68  | 58.31<br>(2.296) | 53.34<br>(2.100) | 46.31<br>(1.823) | 41.91<br>(1.650) |
| 80  | 65.93<br>(2.596) | 60.96<br>(2.400) | 53.93<br>(2.123) | 49.53<br>(1.950) |
| 100 | 78.63<br>(3.096) | 73.66<br>(2.900) | 66.63<br>(2.623) | 62.23<br>(2.450) |

## 8830E/8831E-XXX-170L(Plug/Right Angle Type)

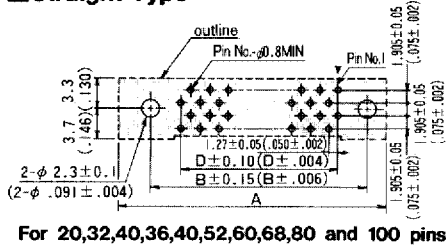


■ Dimensions mm(inch)

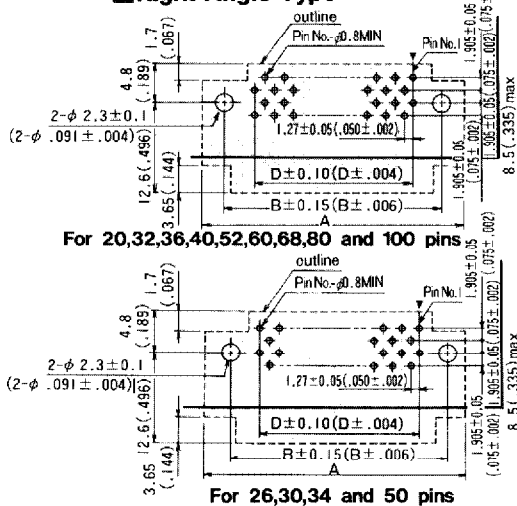
| Pin | A                | B                | C                | D                |
|-----|------------------|------------------|------------------|------------------|
| 20  | 27.83<br>(1.096) | 22.86<br>(.900)  | 15.83<br>(.623)  | 11.43<br>(.450)  |
| 26  | 31.64<br>(1.246) | 26.67<br>(1.050) | 19.64<br>(.773)  | 15.24<br>(.600)  |
| 30  | 34.18<br>(1.346) | 29.21<br>(1.150) | 22.18<br>(.873)  | 17.78<br>(.700)  |
| 32  | 35.45<br>(1.396) | 30.48<br>(1.200) | 23.45<br>(.923)  | 19.05<br>(.750)  |
| 34  | 36.72<br>(1.446) | 31.75<br>(1.250) | 24.72<br>(.973)  | 20.32<br>(.800)  |
| 36  | 37.99<br>(1.496) | 33.02<br>(1.300) | 25.99<br>(1.023) | 21.59<br>(.850)  |
| 40  | 40.53<br>(1.596) | 35.56<br>(1.400) | 28.53<br>(1.123) | 24.13<br>(.950)  |
| 50  | 46.88<br>(1.846) | 41.91<br>(1.650) | 34.88<br>(1.373) | 30.48<br>(1.200) |
| 52  | 48.15<br>(1.896) | 43.18<br>(1.700) | 36.15<br>(1.423) | 31.75<br>(1.250) |
| 60  | 53.23<br>(2.096) | 48.26<br>(1.900) | 41.23<br>(1.623) | 36.83<br>(1.450) |
| 68  | 58.31<br>(2.296) | 53.34<br>(2.100) | 46.31<br>(1.823) | 41.91<br>(1.650) |
| 80  | 65.93<br>(2.596) | 60.96<br>(2.400) | 53.93<br>(2.123) | 49.53<br>(1.950) |
| 100 | 78.63<br>(3.096) | 73.66<br>(2.900) | 66.63<br>(2.623) | 62.23<br>(2.450) |

## Printed Circuit Board Layout(Component Side View)

### ■ Straight Type



### ■ Right Angle Type



■ Dimensions mm(inch)

| Pin | A                | B                | D                |
|-----|------------------|------------------|------------------|
| 20  | 27.83<br>(1.096) | 22.86<br>(.900)  | 11.43<br>(.450)  |
| 26  | 31.64<br>(1.246) | 26.67<br>(1.050) | 15.24<br>(.600)  |
| 30  | 34.18<br>(1.346) | 29.21<br>(1.150) | 17.78<br>(.700)  |
| 32  | 35.45<br>(1.396) | 30.48<br>(1.200) | 19.05<br>(.750)  |
| 34  | 36.72<br>(1.446) | 31.75<br>(1.250) | 20.32<br>(.800)  |
| 36  | 37.99<br>(1.496) | 33.02<br>(1.300) | 21.59<br>(.850)  |
| 40  | 40.53<br>(1.596) | 35.56<br>(1.400) | 24.13<br>(.950)  |
| 50  | 46.88<br>(1.846) | 41.91<br>(1.650) | 30.48<br>(1.200) |
| 52  | 48.15<br>(1.896) | 43.18<br>(1.700) | 31.75<br>(1.250) |
| 60  | 53.23<br>(2.096) | 48.26<br>(1.900) | 36.83<br>(1.450) |
| 68  | 58.31<br>(2.296) | 53.34<br>(2.100) | 41.91<br>(1.650) |
| 80  | 65.93<br>(2.596) | 60.96<br>(2.400) | 49.53<br>(1.950) |
| 100 | 78.63<br>(3.096) | 73.66<br>(2.900) | 62.23<br>(2.450) |

For 26,30,34 and 50 pins

For 26,30,34 and 50 pins

# 8822E/8830E Series Pin Assignment

### Order Code

**8822E-XXX-171X-XXX X-XX**

- Cable assembly code  
AA, AC, AO, CO
- Cable type  
None : Flat ribbon cable  
\* S : Intermittent bonded cable  
\* T : Twisted flat cable
- Cable length  
(L=unit : cm, min 3cm)
- Gold plating  
None : Flash  
D : 0.25 μm  
H : 0.76 μm
- Contact  
171
- No. of contacts  
20, 26, 30, 32, 34,  
40, 50, 52, 60, 68, 80, 100
- Series  
8822E : One touch locking ejector system

### 8822E-XXX-171X-XXX X-AO

△ Mark (Polarity)

Cable mark

No. 1

No. N

Cable 1

Cable 2

A<sub>1</sub> — Cable1/No.1    B<sub>1</sub> — Cable2/No.1  
A<sub>2</sub> — Cable1/No.2    B<sub>2</sub> — Cable2/No.2  
A<sub>N</sub> — Cable1/No.N    B<sub>N</sub> — Cable2/No.N

### 8822E-XXX-171X-XXX X-CO

△ Mark (Polarity)

Cable mark

No. N

No. 1

Cable 1

Cable 2

A<sub>1</sub> — Cable1/No.N    B<sub>1</sub> — Cable2/No.N  
A<sub>2</sub> — Cable1/No.N-1    B<sub>2</sub> — Cable2/No.N-1  
A<sub>N</sub> — Cable1/No.1    B<sub>N</sub> — Cable2/No.1

### 8822E-XXX-171X-XXX X-AA

△ Mark (Polarity)

△ Mark (Polarity)

Cable mark

A<sub>1</sub> B<sub>1</sub> b<sub>1</sub> a<sub>1</sub>

A<sub>N</sub> B<sub>N</sub> b<sub>N</sub> a<sub>N</sub>

Cable 1

Cable 2

A<sub>1</sub> — Cable1/No.1    b<sub>1</sub>  
A<sub>2</sub> — Cable1/No.2    b<sub>2</sub>  
A<sub>N</sub> — Cable1/No.N    b<sub>N</sub>

B<sub>1</sub> — Cable2/No.1    a<sub>1</sub>  
B<sub>2</sub> — Cable2/No.2    a<sub>2</sub>  
B<sub>N</sub> — Cable2/No.N    a<sub>N</sub>

△ Mark (Polarity)

△ Mark (Polarity)

Cable mark

A<sub>1</sub> B<sub>1</sub> a<sub>1</sub> b<sub>1</sub>

A<sub>N</sub> B<sub>N</sub> a<sub>N</sub> b<sub>N</sub>

Cable 1

Cable 2

A<sub>1</sub> (△Polarity mark)    a<sub>1</sub> (△Polarity mark)

A<sub>2</sub>    B<sub>2</sub>    a<sub>2</sub>    b<sub>2</sub>

A<sub>N-1</sub>    B<sub>N-1</sub>    a<sub>N-1</sub>    b<sub>N-1</sub>

A<sub>N</sub>    B<sub>N</sub>    a<sub>N</sub>    b<sub>N</sub>

for 20, 32, 40, 52, 60, 68, 80 and 100 pins

for 26, 30, 34, and 50 pins

F.C.

A<sub>1</sub> — b<sub>1</sub>    B<sub>1</sub> — a<sub>1</sub>  
A<sub>2</sub> — b<sub>2</sub>    B<sub>2</sub> — a<sub>2</sub>  
A<sub>N</sub> — b<sub>N</sub>    B<sub>N</sub> — a<sub>N</sub>

### 8822E-XXX-171X-XXX X-AC

△ Mark (Polarity)

Cable mark

A<sub>1</sub> B<sub>1</sub> b<sub>N</sub> a<sub>N</sub>

A<sub>N</sub> B<sub>N</sub> b<sub>1</sub> a<sub>1</sub>

△ Mark (Polarity)

Cable 1

Cable 2

A<sub>1</sub> — Cable1/No.1    a<sub>N</sub>  
A<sub>2</sub> — Cable1/No.2    a<sub>N-1</sub>  
A<sub>N</sub> — Cable1/No.N    a<sub>1</sub>

B<sub>1</sub> — Cable2/No.1    b<sub>N</sub>  
B<sub>2</sub> — Cable2/No.2    b<sub>N-1</sub>  
B<sub>N</sub> — Cable2/No.N    b<sub>1</sub>

△ Mark (Polarity)

Cable mark

A<sub>1</sub> B<sub>1</sub> b<sub>N</sub> a<sub>N</sub>

A<sub>N</sub> B<sub>N</sub> b<sub>1</sub> a<sub>1</sub>

△ Mark (Polarity)

Cable 1

Cable 2

A<sub>1</sub> (△Polarity mark)

A<sub>2</sub>    B<sub>2</sub>

A<sub>N-1</sub>    B<sub>N-1</sub>

A<sub>N</sub>    B<sub>N</sub>

for 26, 30, 34 and 50 pins

b<sub>N</sub>    a<sub>N-1</sub>  
b<sub>N-1</sub>    a<sub>N-2</sub>  
b<sub>1</sub>    a<sub>1</sub>

F.C.

for 20, 32, 40, 52, 60, 68, 80 and 100 pins

for 26, 30, 34 and 50 pins

A<sub>1</sub> — a<sub>N</sub>    B<sub>1</sub> — b<sub>N</sub>  
A<sub>2</sub> — a<sub>N-1</sub>    B<sub>2</sub> — b<sub>N-1</sub>  
A<sub>N</sub> — a<sub>1</sub>    B<sub>N</sub> — b<sub>1</sub>

\*Connectors are terminated in laminated area of intermittent bonded or twisted flat cable so the cable length must be in 6cm increment.

- ### TERMINATION EQUIPMENT
- Hand Press(HP-11)
  - Cable Trimmer(CT-12)
  - Locating Fixture(LF-21)

Specifications and dimensions are subject to change without notice.