

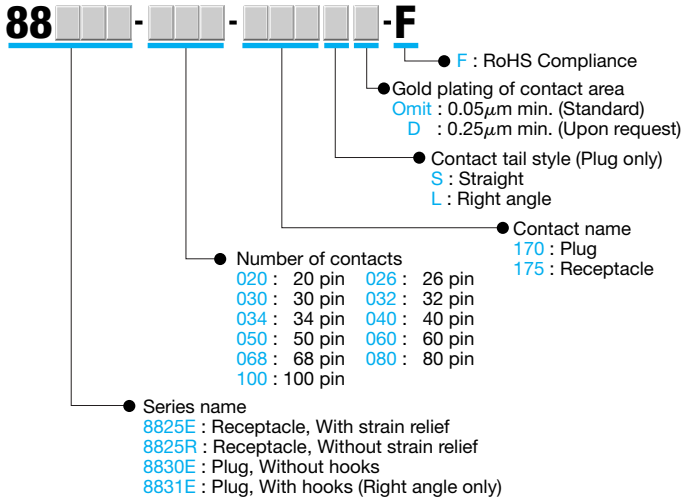
## FEATURES

- IDC for 0.635mm flat ribbon cable (#30 AWG, Stranded)
- Highly reliable 2 point connection
- Low insertion and withdrawal force
- One-Touch locking ejector system
- Patented ribbon cable contact design protects against conductors being damaged during the assembly process
- Ability to make Daisy chain assemblies
- Specified for use by VITA for use in FPDP (Front Panel Data Port) applications (8825E/8831E Series)
- RoHS compliance

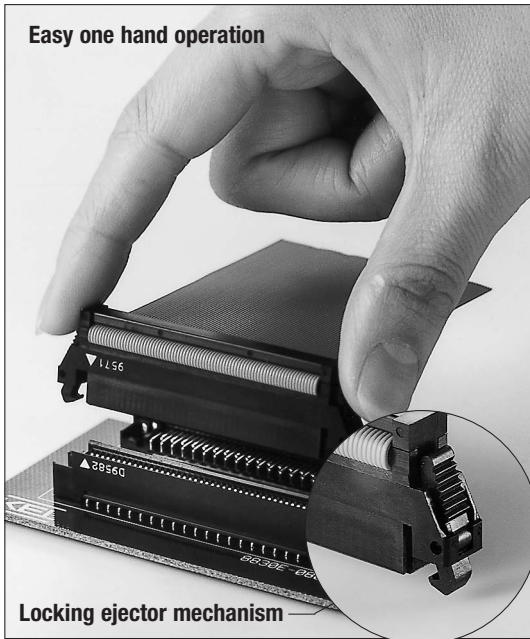
## SPECIFICATIONS

- Insulator : Glass-filled Nylon 66 (UL 94V-0), Black
- Contact : Phosphor Bronze
- Plating : Contact area ; Gold over Nickel
  - (1) Standard : 0.05 $\mu$ m min. Gold
  - (2) Upon request : 0.25 $\mu$ m min. Gold
- I.D.C.area : 0.05 $\mu$ m min. Gold over Nickel (8825E/8825R)
- Terminal area ; 2 $\mu$ m min. Tin copper over Nickel (8830E/8831E)
- Current rating : 0.5A per contact
- Contact resistance : 30m $\Omega$  max.
- Dielectric withstanding voltage : 300V AC for 1 minute
- Insulation resistance : 1,000M $\Omega$  min. at 250V DC
- Operating temperature : -55°C to +85°C
- Recommended cable : #30 AWG (7/0.102), 0.635mm pitch, PVC, Flat ribbon cable
- Please see the Technical report for details of this product's features and specifications.
- Please refer to the Assembly and Application notes for recommended cable and termination equipment.

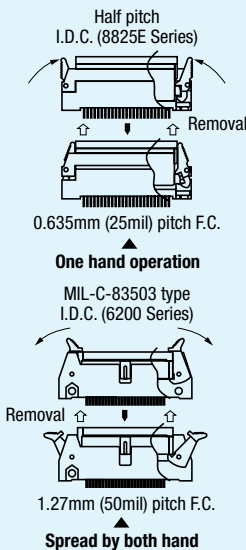
## ORDER CODE



### Easy one hand operation



### Comparison of Locking Ejector System



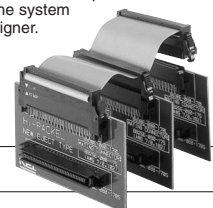
### Easy to use Locking Ejector System

The 8825E Series Locking Ejector System is a reversal of the MIL-STD design (KEL 6200 Series), the locking ejectors are integral to the cable connector. The ejectors are automatically locked by insertion into Plug connector 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 with 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 interfere with mating. This design offers advantages for uses in today's high density electronic equipment.

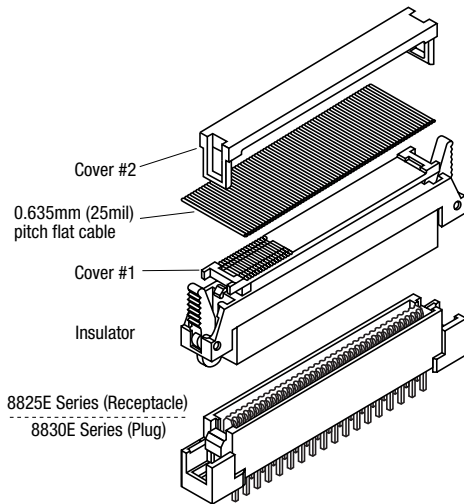
### Daisy Chain Assemblies

The 8825E Series terminates to a single 0.635mm (25mil) pitch flat ribbon cable. The ability to daisy chain the connectors increases the options available to the system designer.



## Product Concept and Features

### ( Exploded View )



### ■ Highly reliable and original termination form

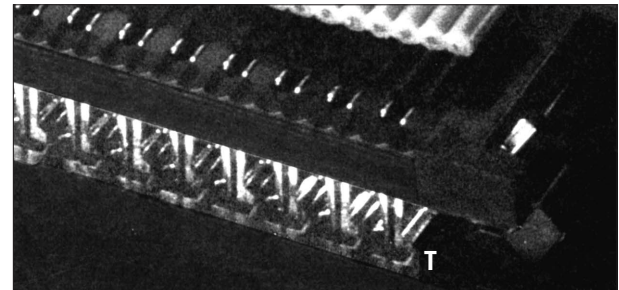
The terminating process of 8825E series starts with the flat cable of 0.635mm pitch placed between Covers #1 and #2 which aligns and prevents any deviation between the cable and connector.

The contacts are held in position by the insulator body.

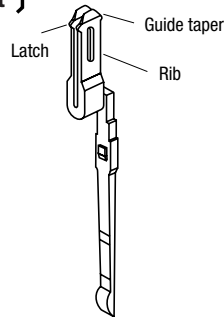
The tips of the contact forks with guide taper and latch are sharp and break through the cable sheath to provide a gas tight termination.

The contact rib which is purposely rounded creates high pressure to insure a reliable termination without damage during the termination process.

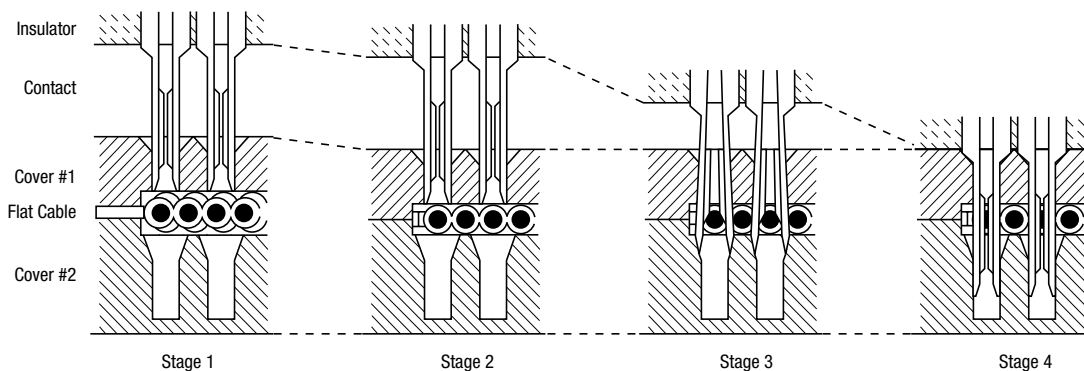
The connector can be terminated with a minimum of special tooling in a standard press as well as a press for MIL-STD type connectors.



### ( 8825E Series contact )



### ( Insulation Displacement Process )



The contact is held in position by the insulator body and the contact forks are guided by Cover #1.

As pressure is applied the cable is aligned in the grooves of Cover #1 and #2.

Cover #1 and #2 hold the cable and stabilize the contact/conductor interface. The contact slides through Cover #1 which supports and aligns the cable through out the termination process.

The contacts terminate the conductor and slide into Cover #2. The contact forks are compressed by Cover #2 and form a gas tight termination.

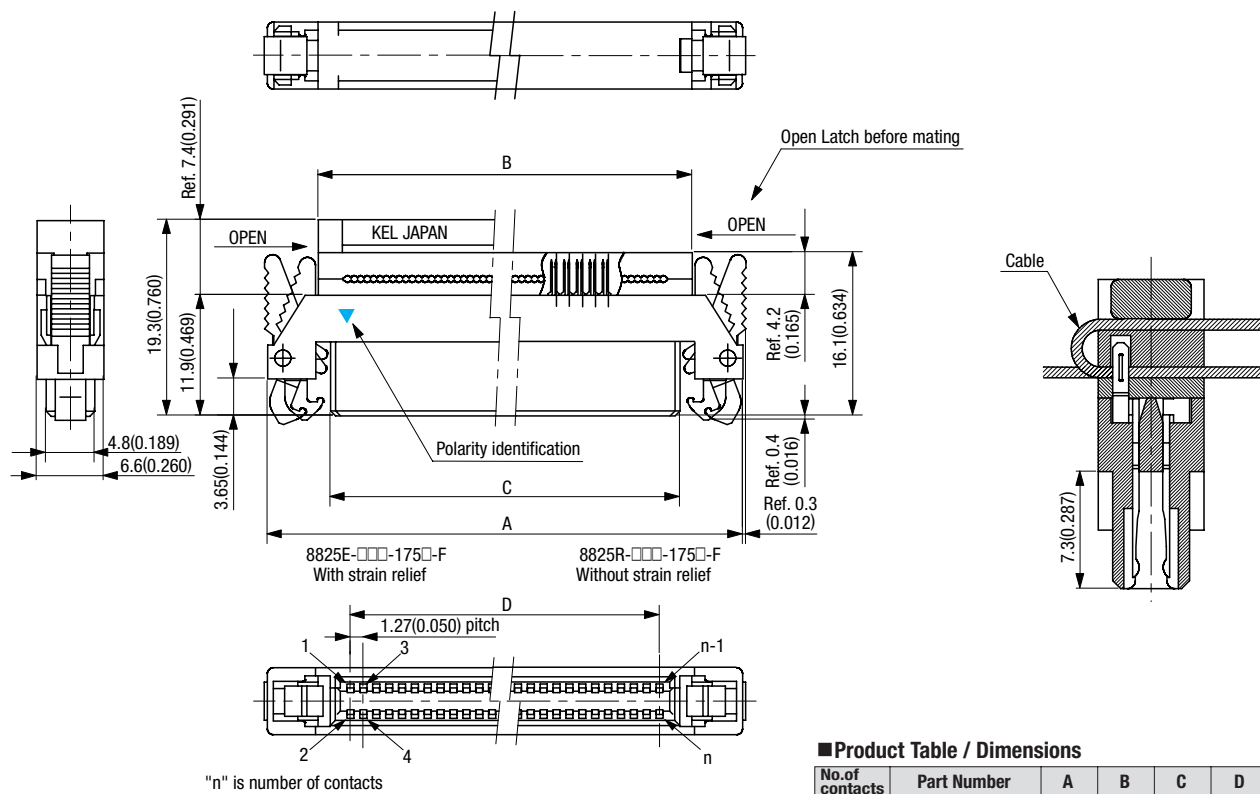
The reliability of the termination process depends on maintaining proper alignment of the cable to the connector, the contact to the conductor, and the stability of contact in the connector. The design of the 8825E satisfies the requirements as explained above.

**8825E/8825R-□□□-175□-F (Receptacle, With locking ejector)**

Receptacle (IDC Type)



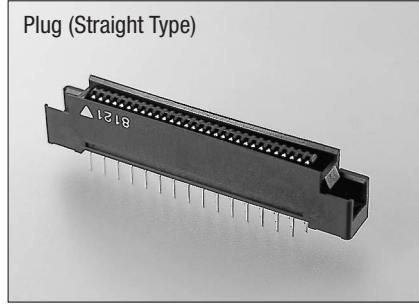
Unit:mm(inch)


**Product Table / Dimensions**

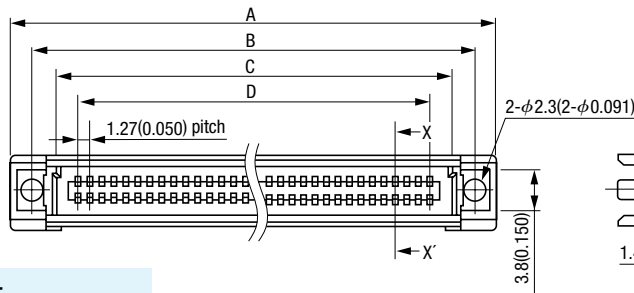
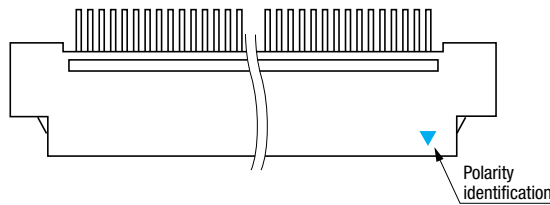
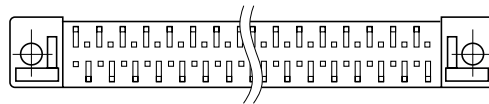
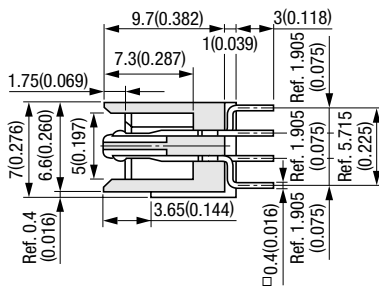
No. of contacts	Part Number	A	B	C	D
20	8825E-020-175□-F	27.83	17.83	15.43	11.43
	8825R-020-175□-F	(1.096)	(0.702)	(0.607)	(0.450)
26	8825E-026-175□-F	31.64	21.64	19.24	15.24
	8825R-026-175□-F	(1.246)	(0.852)	(0.757)	(0.600)
30	8825E-030-175□-F	34.18	24.18	21.78	17.78
	8825R-030-175□-F	(1.346)	(0.952)	(0.857)	(0.700)
32	8825E-032-175□-F	35.45	25.45	23.05	19.05
	8825R-032-175□-F	(1.396)	(1.002)	(0.907)	(0.750)
34	8825E-034-175□-F	36.72	26.72	24.32	20.32
	8825R-034-175□-F	(1.446)	(1.052)	(0.957)	(0.800)
40	8825E-040-175□-F	40.53	30.53	28.13	24.13
	8825R-040-175□-F	(1.596)	(1.202)	(1.107)	(0.950)
50	8825E-050-175□-F	46.88	36.88	34.48	30.48
	8825R-050-175□-F	(1.846)	(1.452)	(1.357)	(1.200)
60	8825E-060-175□-F	53.23	43.23	40.83	36.83
	8825R-060-175□-F	(2.096)	(1.702)	(1.607)	(1.450)
68	8825E-068-175□-F	58.31	48.31	45.91	41.91
	8825R-068-175□-F	(2.296)	(1.902)	(1.807)	(1.650)
80	8825E-080-175□-F	65.93	55.93	53.53	49.53
	8825R-080-175□-F	(2.596)	(2.202)	(2.107)	(1.950)
100	8825E-100-175□-F	78.63	68.63	66.23	62.23
	8825R-100-175□-F	(3.096)	(2.702)	(2.607)	(2.450)

8830E-□□□-170S□-F (Plug, With locking system)

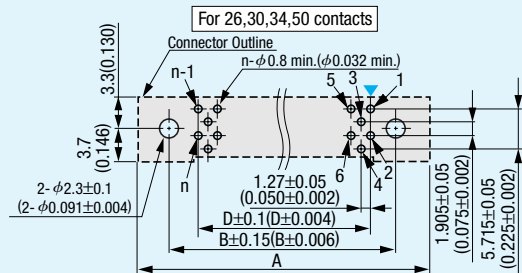
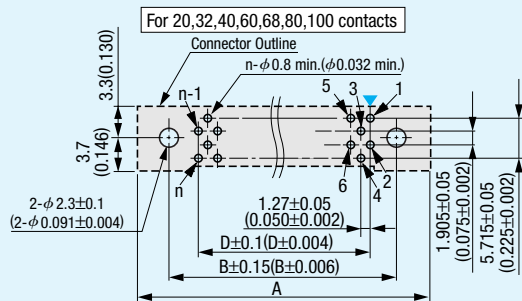
Unit:mm(inch)



X-X' Cross Section



Printed Circuit Board Layout (Component Side View)



▼=Polarity identification  
 Recommended PCB Thickness t=1.6±0.19(0.063±0.007)  
 "n" is number of contacts.

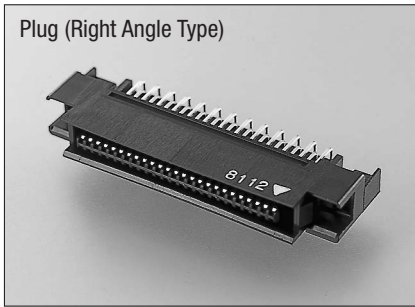
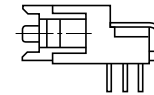
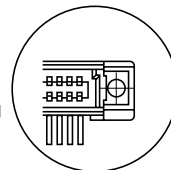
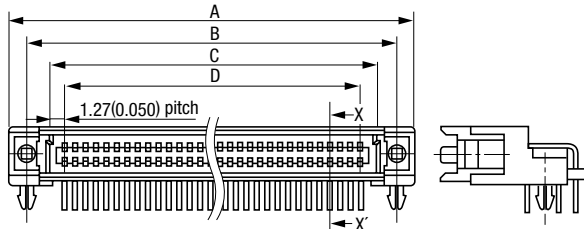
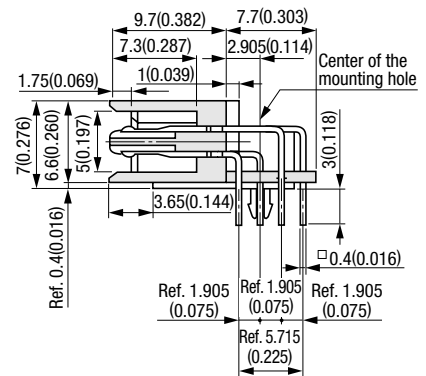
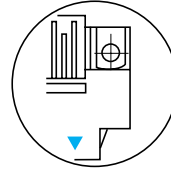
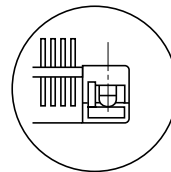
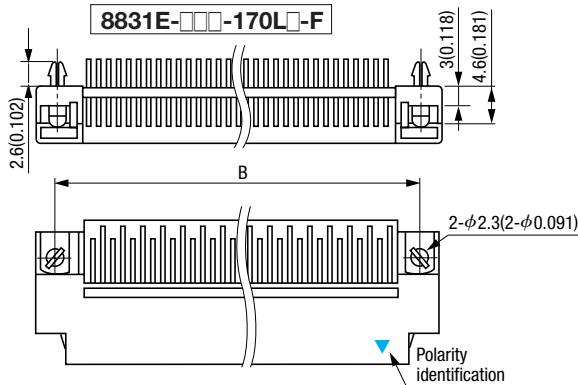
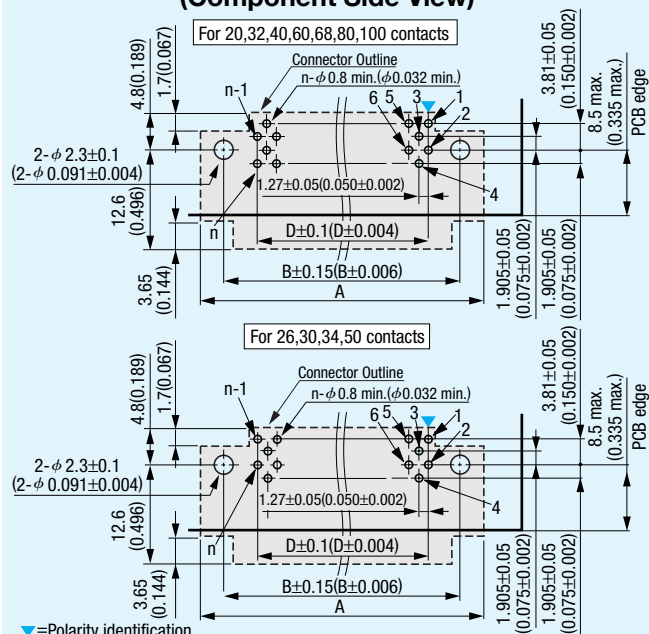
Product Table / Dimensions

No. of contacts	Part Number	A	B	C	D
20	8830E-020-170S□-F	27.83 (1.096)	22.86 (0.900)	15.83 (0.623)	11.43 (0.450)
26	8830E-026-170S□-F	31.64 (1.246)	26.67 (1.050)	19.64 (0.773)	15.24 (0.600)
30	8830E-030-170S□-F	34.18 (1.346)	29.21 (1.150)	22.18 (0.873)	17.78 (0.700)
32	8830E-032-170S□-F	35.45 (1.396)	30.48 (1.200)	23.45 (0.923)	19.05 (0.750)
34	8830E-034-170S□-F	36.72 (1.446)	31.75 (1.250)	24.72 (0.973)	20.32 (0.800)
40	8830E-040-170S□-F	40.53 (1.596)	35.56 (1.400)	28.53 (1.123)	24.13 (0.950)
50	8830E-050-170S□-F	46.88 (1.846)	41.91 (1.650)	34.88 (1.373)	30.48 (1.200)
60	8830E-060-170S□-F	53.23 (2.096)	48.26 (1.900)	41.23 (1.623)	36.83 (1.450)
68	8830E-068-170S□-F	58.31 (2.296)	53.34 (2.100)	46.31 (1.823)	41.91 (1.650)
80	8830E-080-170S□-F	65.93 (2.596)	60.96 (2.400)	53.93 (2.123)	49.53 (1.950)
100	8830E-100-170S□-F	78.63 (3.096)	73.66 (2.900)	66.63 (2.623)	62.23 (2.450)

**8830E/8831E-□□□□-170L□-F (Plug, With locking system)**

Unit:mm(inch)

Plug (Right Angle Type)

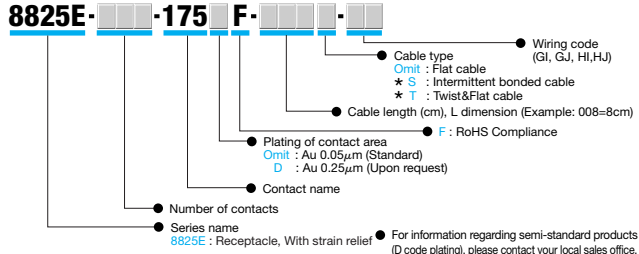

**8830E-□□□□-170L□-F**
**X-X' Cross Section**

**Printed Circuit Board Layout (Component Side View)**


▼=Polarity identification  
 Recommended PCB Thickness  $t=1.6\pm0.19(0.063\pm0.007)$   
 "n" is number of contacts.

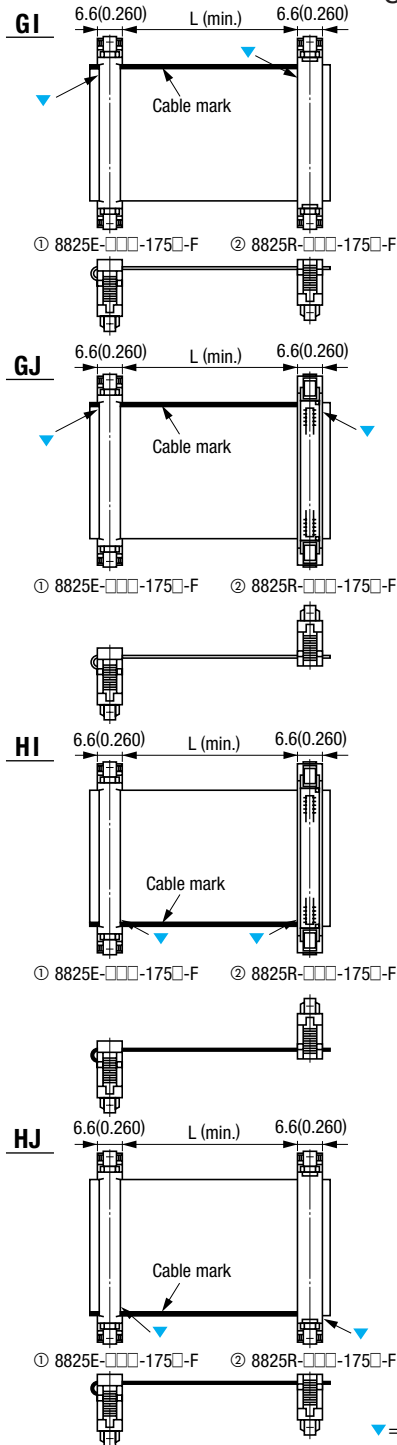
**Product Table / Dimensions**

No. of contacts	Part Number	A	B	C	D
20	8830E-020-170L□-F	27.83	22.86	15.83	11.43
	8831E-020-170L□-F	(1.096)	(0.900)	(0.623)	(0.450)
26	8830E-026-170L□-F	31.64	26.67	19.64	15.24
	8831E-026-170L□-F	(1.246)	(1.050)	(0.773)	(0.600)
30	8830E-030-170L□-F	34.18	29.21	22.18	17.78
	8831E-030-170L□-F	(1.346)	(1.150)	(0.873)	(0.700)
32	8830E-032-170L□-F	35.45	30.48	23.45	19.05
	8831E-032-170L□-F	(1.396)	(1.200)	(0.923)	(0.750)
34	8830E-034-170L□-F	36.72	31.75	24.72	20.32
	8831E-034-170L□-F	(1.446)	(1.250)	(0.973)	(0.800)
40	8830E-040-170L□-F	40.53	35.56	28.53	24.13
	8831E-040-170L□-F	(1.596)	(1.400)	(1.123)	(0.950)
50	8830E-050-170L□-F	46.88	41.91	34.88	30.48
	8831E-050-170L□-F	(1.846)	(1.650)	(1.373)	(1.200)
60	8830E-060-170L□-F	53.23	48.26	41.23	36.83
	8831E-060-170L□-F	(2.096)	(1.900)	(1.623)	(1.450)
68	8830E-068-170L□-F	58.31	53.34	46.31	41.91
	8831E-068-170L□-F	(2.296)	(2.100)	(1.823)	(1.650)
80	8830E-080-170L□-F	65.93	60.96	53.93	49.53
	8831E-080-170L□-F	(2.596)	(2.400)	(2.123)	(1.950)
100	8830E-100-170L□-F	78.63	73.66	66.63	62.23
	8831E-100-170L□-F	(3.096)	(2.900)	(2.623)	(2.450)

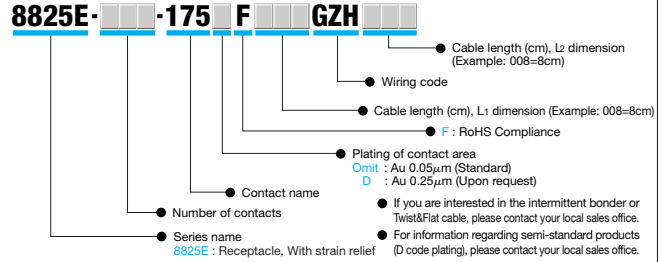


**ORDER CODE**

**8825E-8825R Cable assemblies**

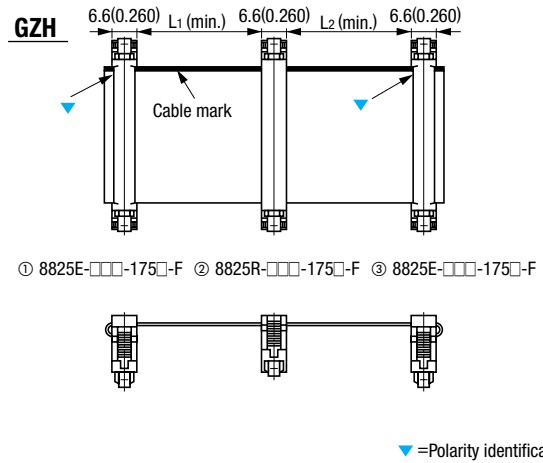
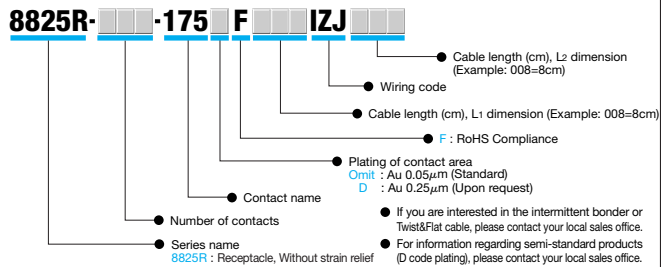
Unit:mm(inch)



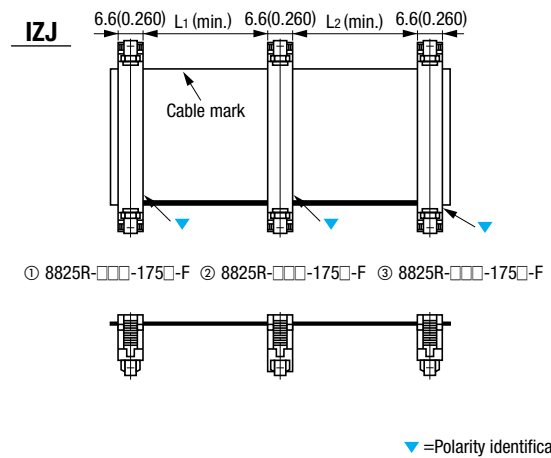
Cable will protrude about 1mm from 8825R connectors.

**ORDER CODE**

**Daisy chain assembly**

Unit:mm(inch)


**ORDER CODE**

**Daisy chain assembly**

Unit:mm(inch)

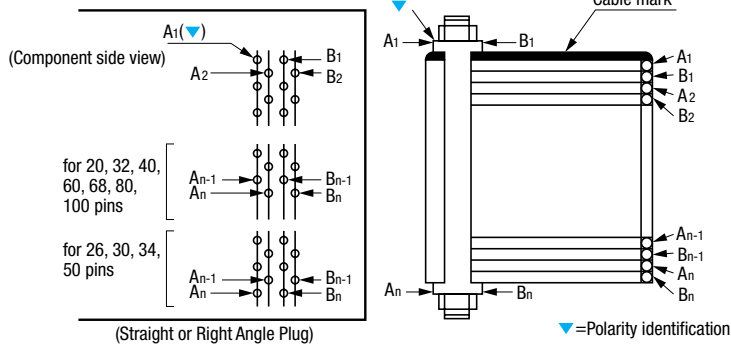


Cable will protrude about 1mm from 8825R connectors.

\* Intermittent bonder and Twist&Flat cable have a restriction on cable length (L dimension) because they are terminated at the fused part.  
 \* Harness end has an extra cable of approximate 1mm beyond the connector edge.

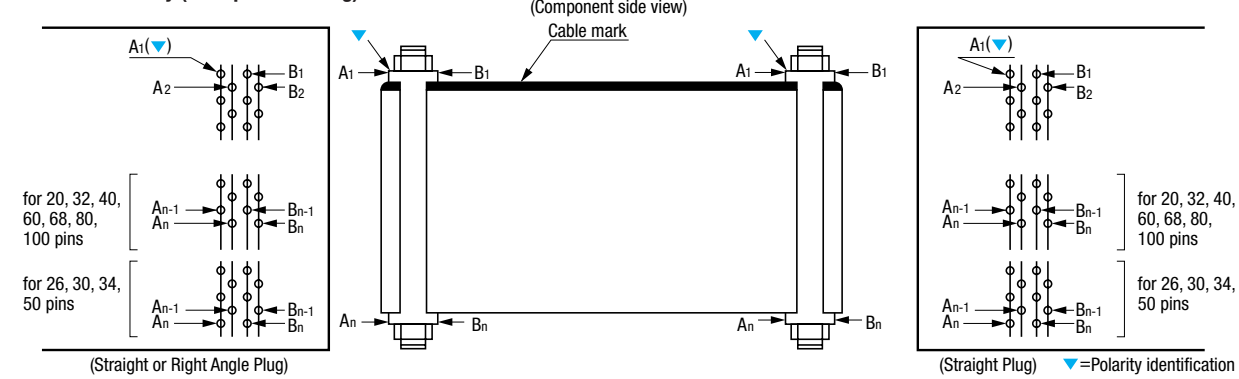
## Pin Assignment

### Single end assembly (Example: G0 wiring)

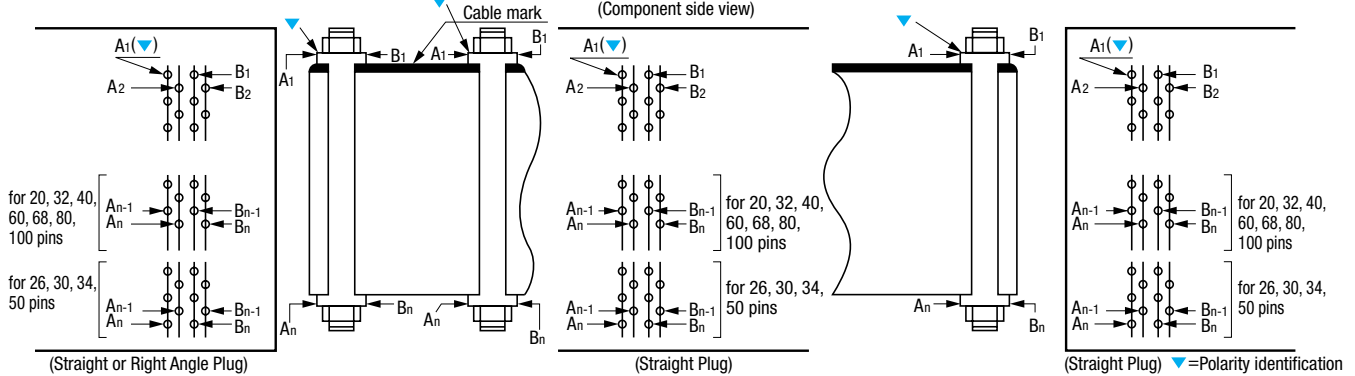


Note:  
Please be careful when trimming the cable after terminating the 8825E/8825R Series, to protect against the flat ribbon cable that extends beyond the edge of the cable connector body touching the PCB and creating a short.  
(When used with Right angle Plug connector)

### Double end assembly (Example: GH wiring)



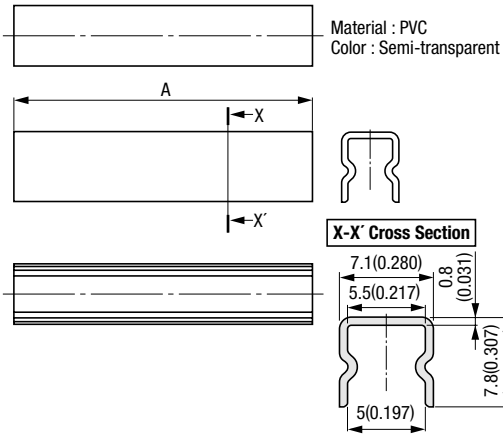
### Daisy chain assembly (Example: GZH wiring)



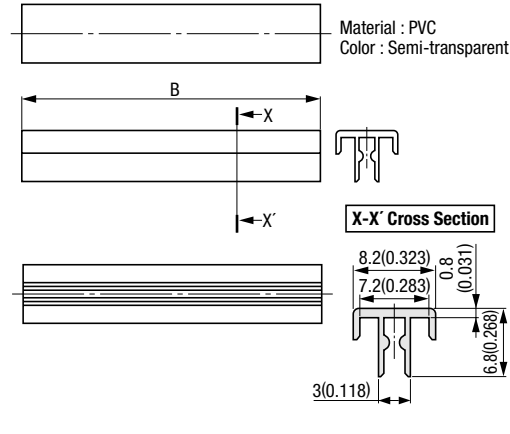


### 8800 Series Dust Cover

**8800-□□□DSC-R1 (For Receptacle)**



**8810-□□□DSC-H1 (For Plug)**



Unit:mm(inch)

■ Dimensions

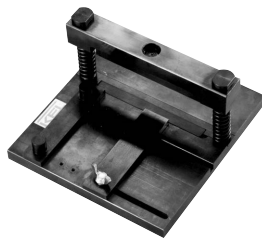
No. of contacts	A	B
20	17.4(0.685)	14.03(0.552)
26	21.2(0.835)	17.84(0.702)
30	23.8(0.937)	20.38(0.802)
32	25.0(0.984)	21.65(0.852)
34	26.3(1.035)	22.92(0.902)
40	30.1(1.185)	26.73(1.052)
50	36.5(1.437)	33.08(1.302)
52	37.7(1.484)	34.35(1.352)
60	42.8(1.685)	39.43(1.552)
68	47.9(1.886)	44.51(1.752)
80	55.5(2.185)	52.13(2.052)
100	68.2(2.685)	64.83(2.552)

### Termination Equipment

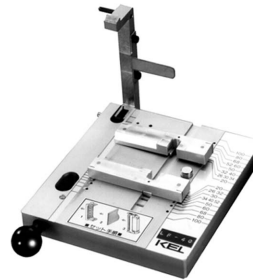
■ Hand Press(HP-12)



■ Cable Trimmer(CT-15)



■ Locating Fixture(LF-22)



■ Seating Platen



\*LF-22 accessory

Specifications and dimensions are subject to change without notice.



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