

8825E SERIES

1.27mm PITCH CONNECTOR FOR 0.635mm PITCH FLAT CABLE

RoHS
Compliant



FEATURES

- ▶ With a completely-independent two-point contact system, a stable contact pressure is maintained at all times.
- ▶ Low insertion and withdrawal force.
- ▶ Equipped with the Eject-Lock mechanism, it allows one-handed insertion and release.
- ▶ The double blade-spring, sandwich mechanism prevents disconnection of cables.
- ▶ Possible to make Daisy chain assemblies.

ORDER CODE

8825 - - **175** - **F**

①

②

③

④

⑤

*Please order in multiples of the quantity per package.

- ① **[Type]** Receptacle(Cable side connector) **8825E** : With strain relief **8825R** : Without strain relief
- ② **[Number of contacts]** **020** : 20pin **026** : 26pin **030** : 30pin **032** : 32pin **034** : 34pin **040** : 40pin **050** : 50pin
060 : 60pin **068** : 68pin **080** : 80pin **100** : 100pin
- ③ **[Contact name]** **175**
- ④ **[Gold plating of contact area]** **Omit** : 0.05 μ m min.(Standard) **D** : 0.25 μ m min.(Upon request)
- ⑤ **[RoHS]** **F** : RoHS Compliant

If you would like semi-customized products, please contact your local KEL sales office.

ORDER CODE

883 **E** - - **170** - **F**

①

②

③

④

⑤

⑥

*Please order in multiples of the quantity per package.

- ① **[Type]** Plug(PCB side connector) **8830E** : Without hooks **8831E** : With hooks(Right angle only)
- ② **[Number of contacts]** **020** : 20pin **026** : 26pin **030** : 30pin **032** : 32pin **034** : 34pin **040** : 40pin **050** : 50pin
060 : 60pin **068** : 68pin **080** : 80pin **100** : 100pin
- ③ **[Contact name]** **170**
- ④ **[Contact tail style]** **S** : Straight **L** : Right angle
- ⑤ **[Gold plating of contact area]** **Omit** : 0.05 μ m min.(Standard) **D** : 0.25 μ m min.(Upon request)
- ⑥ **[RoHS]** **F** : RoHS Compliant

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SPECIFICATIONS

Material and plating		Electrical Characteristics	
Insulator material	Glass-filled Nylon 66 (UL 94V-0), Black	Current rating	0.5A per contact
Contact material	Copper alloy	Contact resistance	30m Ω max.
Contact plating	(Contact area) Gold over Nickel (Terminal area) Tin copper over Nickel	Dielectric withstanding voltage	[8825]300V AC for 1 minute [883 E]650V AC for 1minute
Retention clip material	Copper alloy	Insulation resistance	[8825]1,000M Ω min. at 250V DC [883 E]1,000M Ω min. at 500V DC
Retention clip plating	Tin copper over Nickel	Operating temperature	-55°C to +85°C
		Recommended cable	#30 AWG (7/0.102), 0.635mm (25mil) pitch, Flat ribbon cable

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 (25 mil) pitch flat ribbon cable. The ability to daisy chain the connectors increases the options available to the system designer.



Product Concept and Features

Highly reliable and original termination form

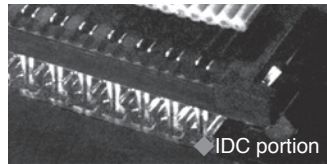
The terminating process of 8825□ series starts with the flat cable of 0.635mm pitch placed between Covers #1 and #2 which aligns and prevents any deviation between the cable and connector.

The contacts are held in position by the insulator body.

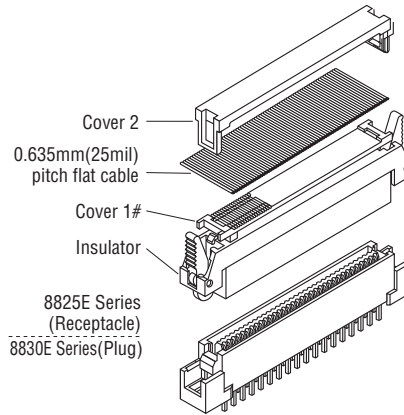
The tips of the contact forks with guide taper and latch are sharp and break through the cable sheath to provide a gas tight termination.

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

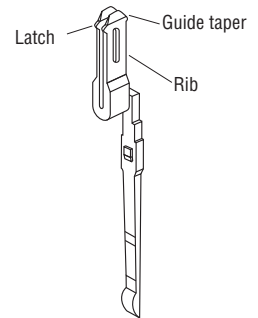
The connector can be terminated with a minimum of special tooling in a standard press as well as a press for MIL-STD type connectors.



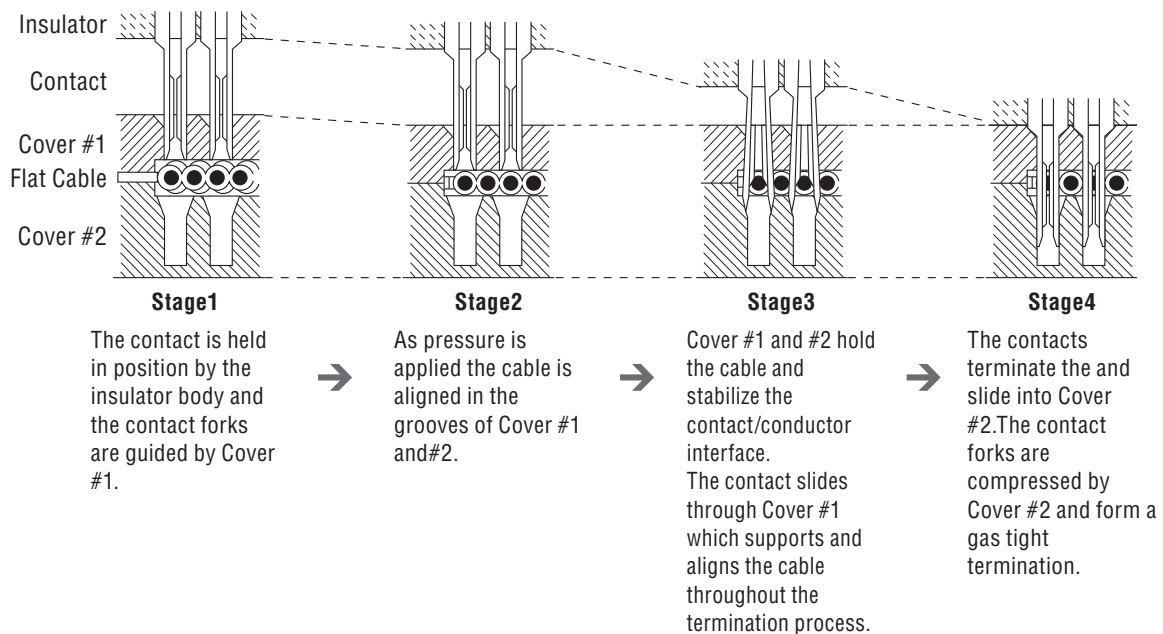
Exploded View



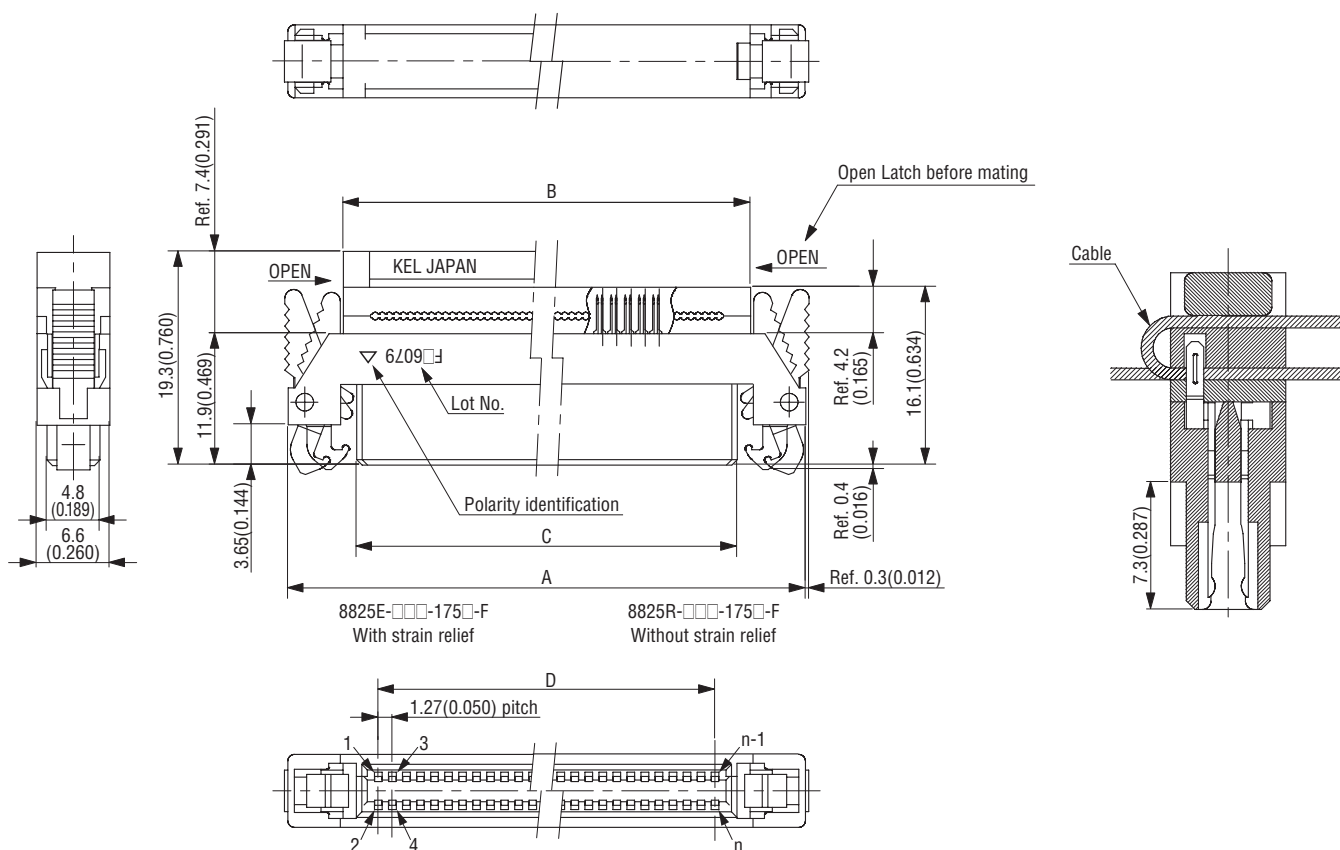
8825(E) Series contact



Insulation Displacement Process



→ 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 8825□ satisfies the requirements as explained above.



"n" is number of contacts.

Packaging style

Other

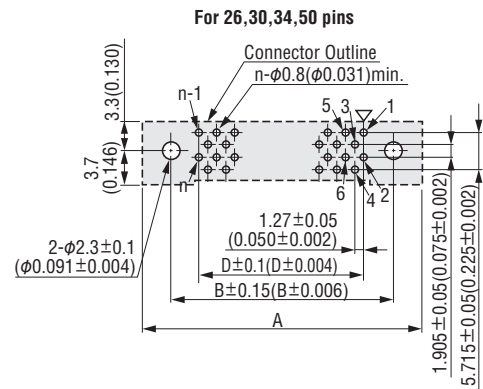
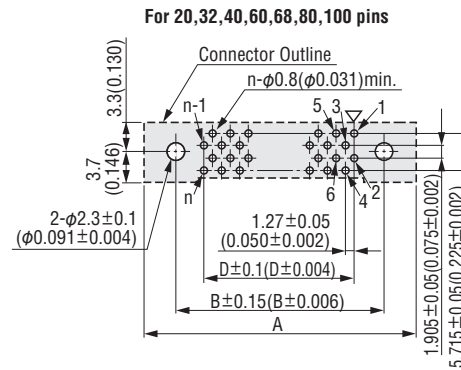
Product Table / Dimensions

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

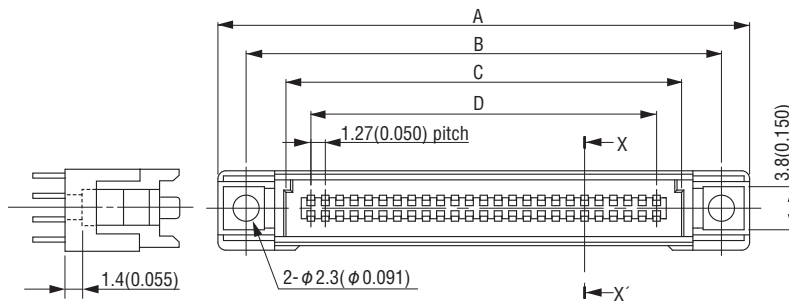
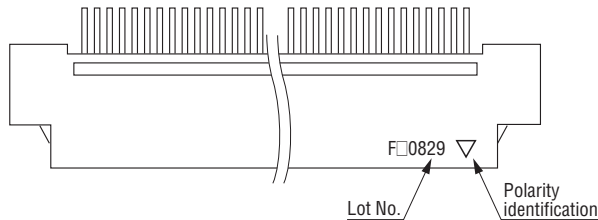
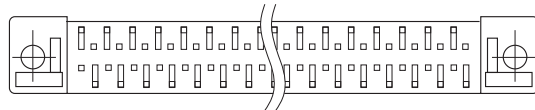
8830E-□□□-170S□-F (Plug, PCB side connector, Straight)

Unit : mm(inch)

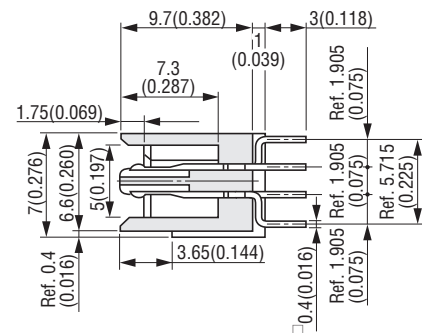
Printed Circuit Board Layout (Component Side View)



Recommended PCB Thickness $t=1.6 \pm 0.2$ (0.063 ± 0.008)
 ▽=Polarity identification "n" is number of contacts.



X-X' Cross Section



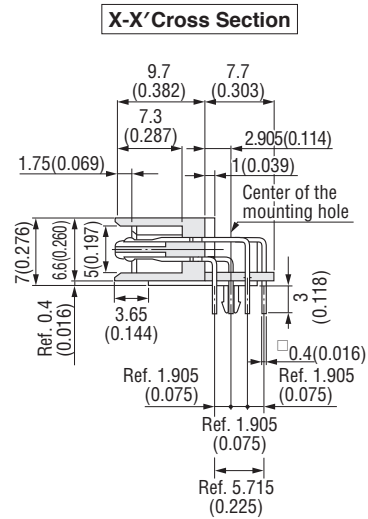
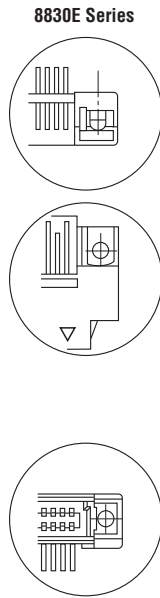
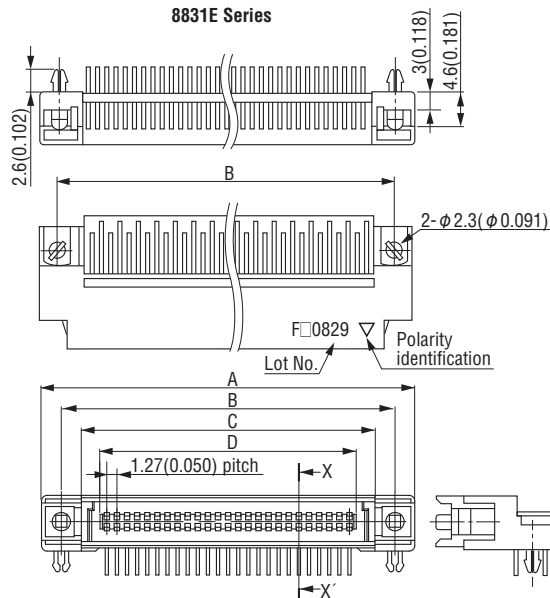
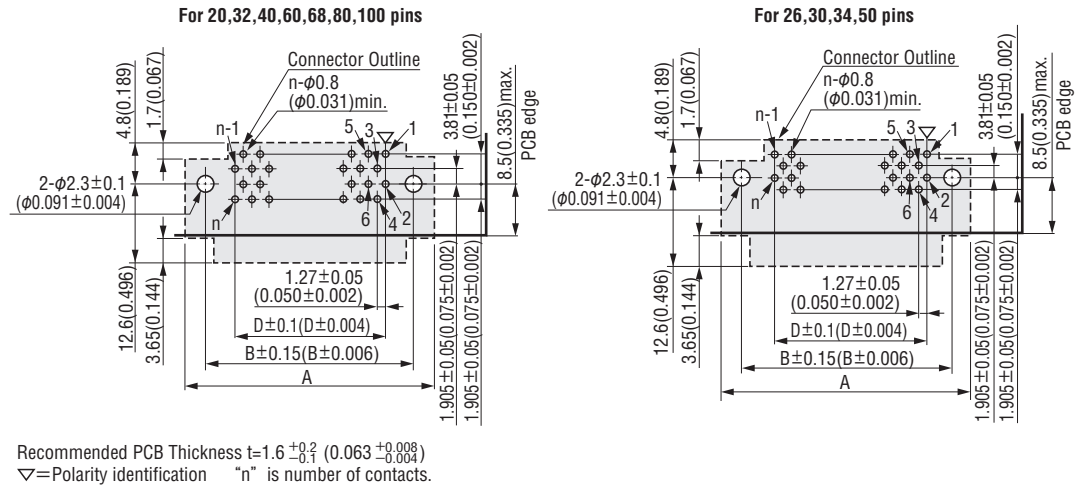
Packaging style

Pipe

Product Table / Dimensions

No. of contacts	Part Number	A	B	C	D	Number of packaging
20	8830E-020-170S□-F	27.83 (1.096)	22.86 (0.900)	15.83 (0.623)	11.43 (0.450)	18
26	8830E-026-170S□-F	31.64 (1.246)	26.67 (1.050)	19.64 (0.773)	15.24 (0.600)	16
30	8830E-030-170S□-F	34.18 (1.346)	29.21 (1.150)	22.18 (0.873)	17.78 (0.700)	14
32	8830E-032-170S□-F	35.45 (1.396)	30.48 (1.200)	23.45 (0.923)	19.05 (0.750)	14
34	8830E-034-170S□-F	36.72 (1.446)	31.75 (1.250)	24.72 (0.973)	20.32 (0.800)	13
40	8830E-040-170S□-F	40.53 (1.596)	35.56 (1.400)	28.53 (1.123)	24.13 (0.950)	12
50	8830E-050-170S□-F	46.88 (1.846)	41.91 (1.650)	34.88 (1.373)	30.48 (1.200)	10
60	8830E-060-170S□-F	53.23 (2.096)	48.26 (1.900)	41.23 (1.623)	36.83 (1.450)	9
68	8830E-068-170S□-F	58.31 (2.296)	53.34 (2.100)	46.31 (1.823)	41.91 (1.650)	8
80	8830E-080-170S□-F	65.93 (2.596)	60.96 (2.400)	53.93 (2.123)	49.53 (1.950)	7
100	8830E-100-170S□-F	78.63 (3.096)	73.66 (2.900)	66.63 (2.623)	62.23 (2.450)	6

Printed Circuit Board Layout (Component Side View)



Packaging style

Pipe

Product Table / Dimensions

No. of contacts	Part Number	A	B	C	D	Number of packaging
20	8830E-020-170L□-F 8831E-020-170L□-F	27.83 (1.096)	22.86 (0.900)	15.83 (0.623)	11.43 (0.450)	18
26	8830E-026-170L□-F 8831E-026-170L□-F	31.64 (1.246)	26.67 (1.050)	19.64 (0.773)	15.24 (0.600)	16
30	8830E-030-170L□-F 8831E-030-170L□-F	34.18 (1.346)	29.21 (1.150)	22.18 (0.873)	17.78 (0.700)	14
32	8830E-032-170L□-F 8831E-032-170L□-F	35.45 (1.396)	30.48 (1.200)	23.45 (0.923)	19.05 (0.750)	14
34	8830E-034-170L□-F 8831E-034-170L□-F	36.72 (1.446)	31.75 (1.250)	24.72 (0.973)	20.32 (0.800)	13
40	8830E-040-170L□-F 8831E-040-170L□-F	40.53 (1.596)	35.56 (1.400)	28.53 (1.123)	24.13 (0.950)	12
50	8830E-050-170L□-F 8831E-050-170L□-F	46.88 (1.846)	41.91 (1.650)	34.88 (1.373)	30.48 (1.200)	10
60	8830E-060-170L□-F 8831E-060-170L□-F	53.23 (2.096)	48.26 (1.900)	41.23 (1.623)	36.83 (1.450)	9
68	8830E-068-170L□-F 8831E-068-170L□-F	58.31 (2.296)	53.34 (2.100)	46.31 (1.823)	41.91 (1.650)	8
80	8830E-080-170L□-F 8831E-080-170L□-F	65.93 (2.596)	60.96 (2.400)	53.93 (2.123)	49.53 (1.950)	7
100	8830E-100-170L□-F 8831E-100-170L□-F	78.63 (3.096)	73.66 (2.900)	66.63 (2.623)	62.23 (2.450)	6

CABLE ASSEMBLY

ORDER CODE

8825E- **-175** **F-**

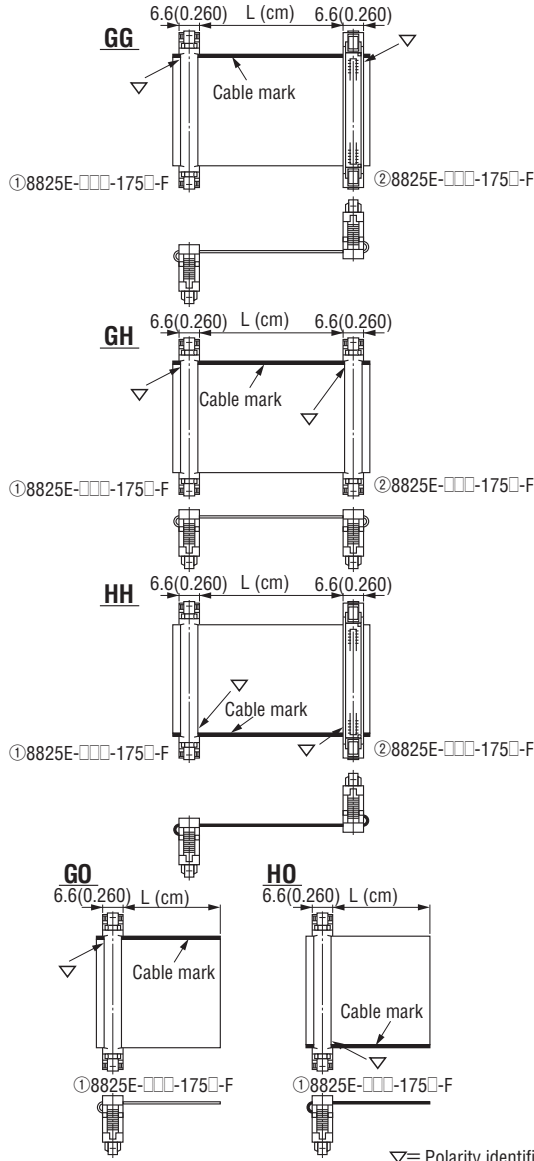
① ② ③ ④ ⑤ ⑥ ⑦ ⑧

- ① **[Type]** **8825E**: Receptacle (Cable side connector), With strain relief
- ② **[No. of contacts]** **020**: 20pin **026**: 26pin **030**: 30pin
032: 32pin **034**: 34pin **040**: 40pin **050**: 50pin
060: 60pin **068**: 68pin **080**: 80pin **100**: 100pin
- ③ **[Contact name]** **175**
- ④ **[Plating of contact area]**
Omit: Au 0.05 μ m (Standard) **D**: Au 0.25 μ m (Upon request)
- ⑤ **[RoHS]** **F**: RoHS Compliant
- ⑥ **[Cable length (cm)]** **L**: Dimension (Example: 013=13cm)
- ⑦ **[Cable type]** **Omit**: Flat cable **S**: Intermittent bonded cable **T**: Twist&Flat cable
- ⑧ **[Wiring code]** **GG**、**GH**、**HH**、**GO**、**HO**

*If you are interested in the intermittent bonded or Twist&Flat cable, please contact your local KEL sales office.
*If you would like semi-customized products, please contact your local KEL sales office.

▶ 8825E-8825E Cable assemblies

Unit: mm(inch)



ORDER CODE

8825R- **-175** **F-**

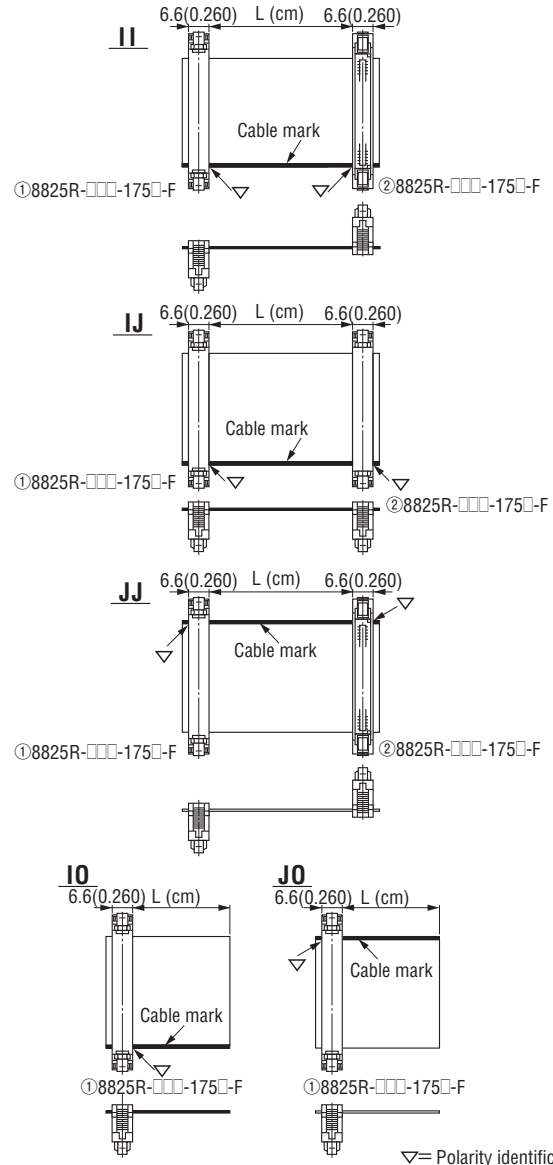
① ② ③ ④ ⑤ ⑥ ⑦ ⑧

- ① **[Type]** **8825R**: Receptacle (Cable side connector), Without strain relief
- ② **[No. of contacts]** **020**: 20pin **026**: 26pin **030**: 30pin
032: 32pin **034**: 34pin **040**: 40pin **050**: 50pin
060: 60pin **068**: 68pin **080**: 80pin **100**: 100pin
- ③ **[Contact name]** **175**
- ④ **[Plating of contact area]**
Omit: Au 0.05 μ m (Standard) **D**: Au 0.25 μ m (Upon request)
- ⑤ **[RoHS]** **F**: RoHS Compliant
- ⑥ **[Cable length (cm)]** **L**: Dimension (Example: 013=13cm)
- ⑦ **[Cable type]** **Omit**: Flat cable **S**: Intermittent bonded cable **T**: Twist&Flat cable
- ⑧ **[Wiring code]** **II**、**IJ**、**JJ**、**IO**、**JO**

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*If you would like semi-customized products, please contact your local KEL sales office.

▶ 8825R-8825R Cable assemblies

Unit: mm(inch)



* Intermittent bonded and Twist&Flat cable have a restriction on cable length (L dimension) because they are terminated at the fused part.
* For GO, HO, IO and JO codes, orders are accepted in even quantities. * Harness end has an extra cable of approximate 1mm beyond the connector edge.

ORDER CODE

8825E- -175 F- -

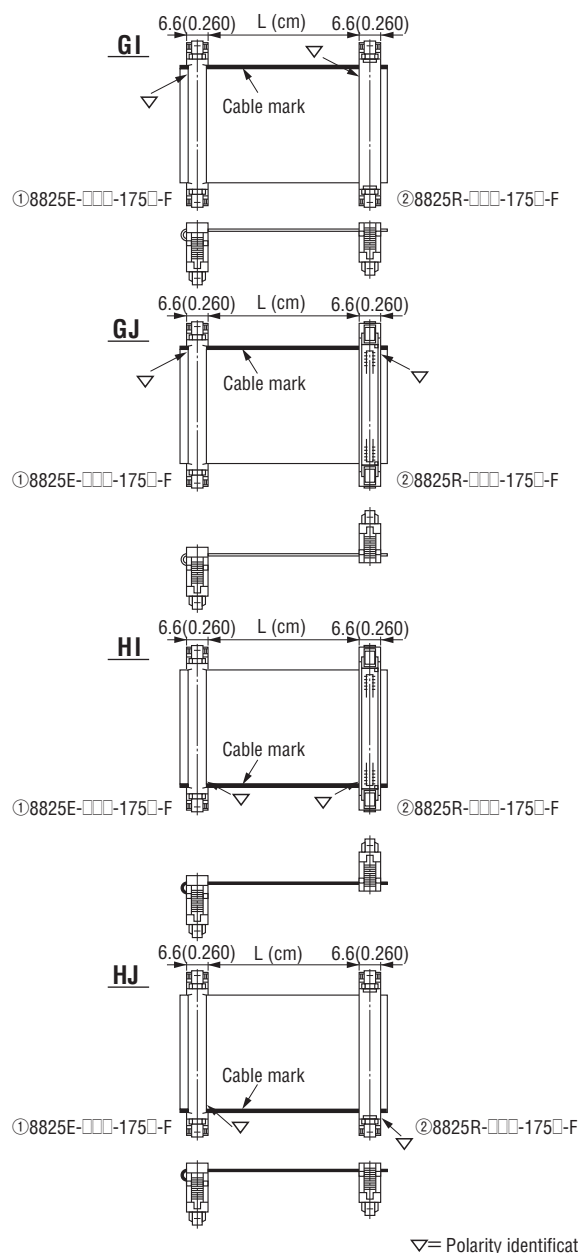
① ② ③ ④ ⑤ ⑥ ⑦ ⑧

- ① **[Type]** 8825E: Receptacle (Cable side connector), With strain relief
- ② **[No. of contacts]** 020: 20pin 026: 26pin 030: 30pin
032: 32pin 034: 34pin 040: 40pin 050: 50pin
060: 60pin 068: 68pin 080: 80pin 100: 100pin
- ③ **[Contact name]** 175
- ④ **[Plating of contact area]**
Omit: Au 0.05 μ m (Standard) D: Au 0.25 μ m (Upon request)
- ⑤ **[RoHS]** F: RoHS Compliant
- ⑥ **[Cable length (cm)]** L: Dimension (Example: 013=13cm)
- ⑦ **[Cable type]** Omit: Flat cable S: Intermittent bonded cable T: Twist&Flat cable
- ⑧ **[Wiring code]** GI, GJ, HI, HJ

*If you are interested in the intermittent bonded or Twist&Flat cable, please contact your local KEL sales office.
*If you would like semi-customized products, please contact your local KEL sales office.

► 8825E-8825R Cable assemblies

Unit: mm(inch)



ORDER CODE

8825E- -175 F GZH

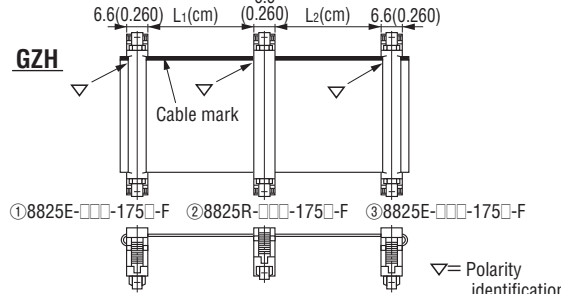
① ② ③ ④ ⑤ ⑥ ⑦ ⑧

- ① **[Type]** 8825E: Receptacle (Cable side connector), With strain relief
- ② **[No. of contacts]** 020: 20pin 026: 26pin 030: 30pin
032: 32pin 034: 34pin 040: 40pin 050: 50pin
060: 60pin 068: 68pin 080: 80pin 100: 100pin
- ③ **[Plating of contact area]**
Omit: Au 0.05 μ m (Standard) D: Au 0.25 μ m (Upon request)
- ④ **[Contact name]** 175
- ⑤ **[RoHS]** F: RoHS Compliant
- ⑥ **[Cable length (cm)]** L₁: Dimension (Example: 013=13cm)
- ⑦ **[Wiring code]** GZH
- ⑧ **[Cable length(cm)]** L₂: Dimension (Example: 008=8cm)

*If you would like semi-customized products, please contact your local KEL sales office.

► Daisy chain assembly

Unit: mm(inch)



ORDER CODE

8825R- -175 F IZJ

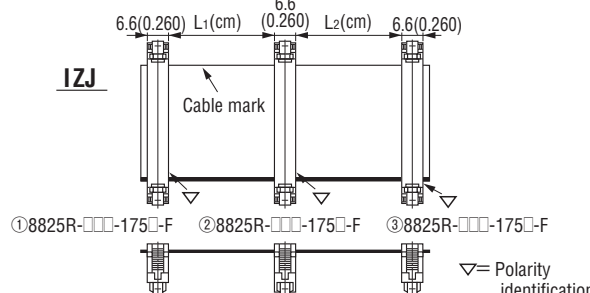
① ② ③ ④ ⑤ ⑥ ⑦ ⑧

- ① **[Type]** 8825R: Receptacle (Cable side connector), Without strain relief
- ② **[No. of contacts]** 020: 20pin 026: 26pin 030: 30pin
032: 32pin 034: 34pin 040: 40pin 050: 50pin
060: 60pin 068: 68pin 080: 80pin 100: 100pin
- ③ **[Contact name]** 175
- ④ **[Plating of contact area]**
Omit: Au 0.05 μ m (Standard) D: Au 0.25 μ m (Upon request)
- ⑤ **[RoHS]** F: RoHS Compliant
- ⑥ **[Cable length (cm)]** L₁: Dimension (Example: 013=13cm)
- ⑦ **[Wiring code]** IZJ
- ⑧ **[Cable length(cm)]** L₂: Dimension (Example: 013=13cm)

*If you are interested in the intermittent bonded or Twist&Flat cable, please contact your local KEL sales office.

► Daisy chain assembly

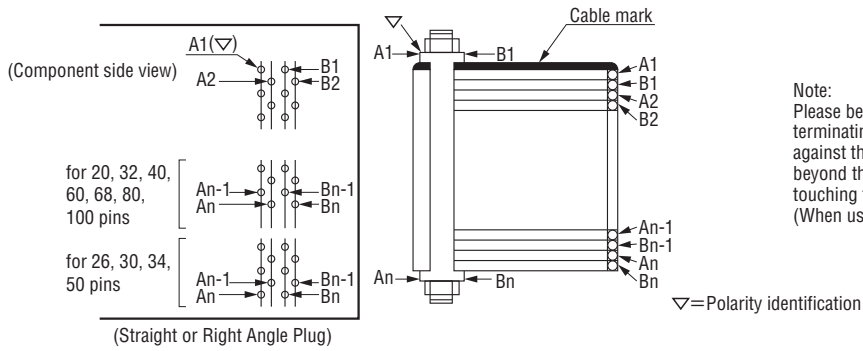
Unit: mm(inch)



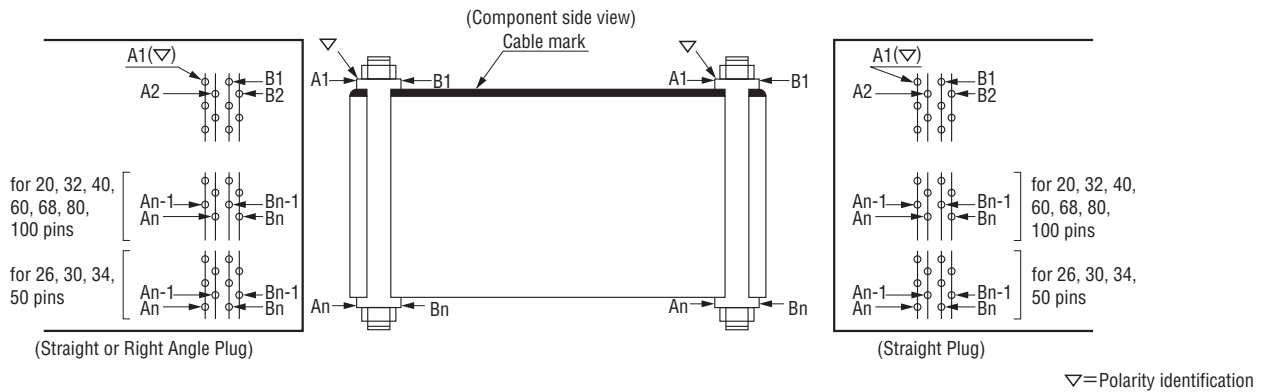
* Intermittent bonded and Twist&Flat cable have a restriction on cable length (L dimension) because they are terminated at the fused part.
* Harness end has an extra cable of approximate 1mm beyond the connector edge.

PIN ASSIGNMENT

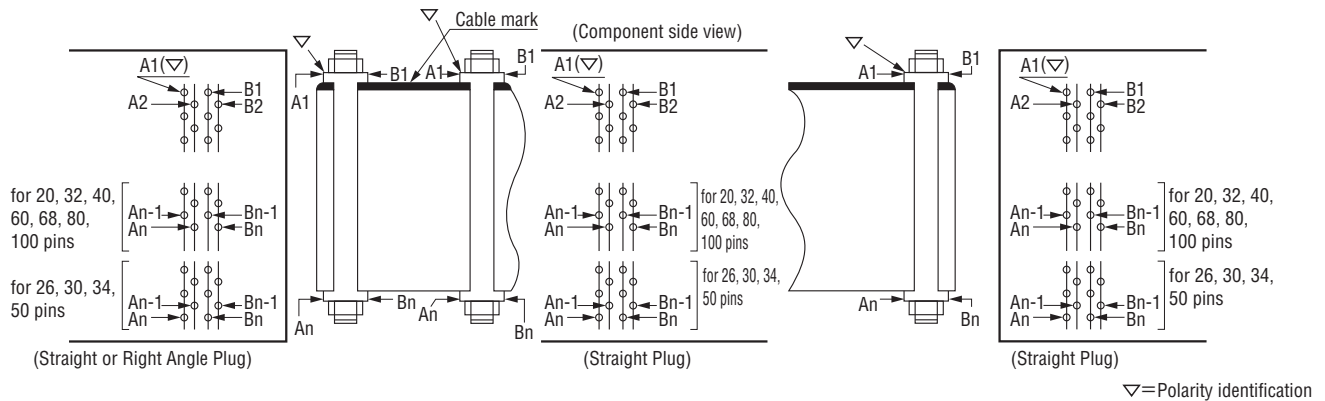
► Single end assembly (Example: GO wiring)



► Double end assembly (Example: GH wiring)



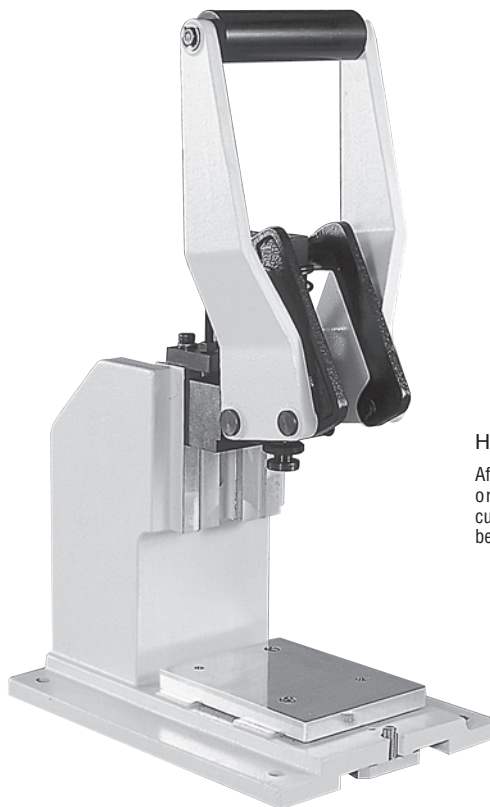
► Daisy chain assembly (Example: GZH wiring)



A smooth procedure from cutting of a flat cable to terminal connection to a connector can be achieved.

A hand press (HP-12), cable terminator, and termination equipment, which are designed to be user-friendly and to achieve advanced workability, can be utilized for more speedy and reliable insulation displacement connection between a flat cable and receptacle-side connector (8825□ Series).

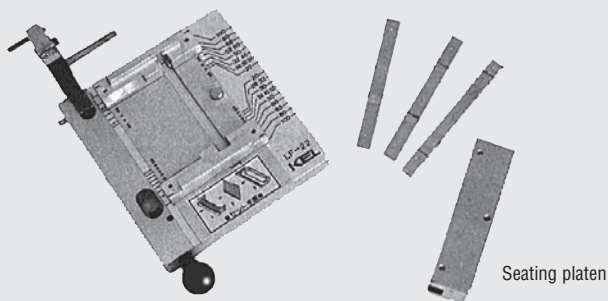
The cable terminator and termination equipment can be easily replaced on a plate of the hand press. By attaching a relevant accessory, a series of tasks, such as those "from cutting of a cable to terminal connection to a connector" can be efficiently completed.



Hand press (HP-12)

After mounting the cable terminator or termination equipment, both cutting and terminal connection can be operated by the handle.

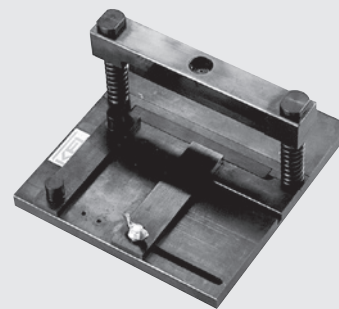
◆ Locating fixture for HP-12



Termination equipment(LF-22)

It is to be mounted on the plate of a hand press to facilitate the insulation displacement connection between a cable and connector (for 8825□ Series).

* The termination equipment (LF-22) is supplied in combination with a seating platen.



Cable terminator(CT-15)

It is to be mounted on the plate of a hand press to cut a flat cable.

* Configuration of the termination equipment and cable terminator illustrated above may be changed due to their modifications.