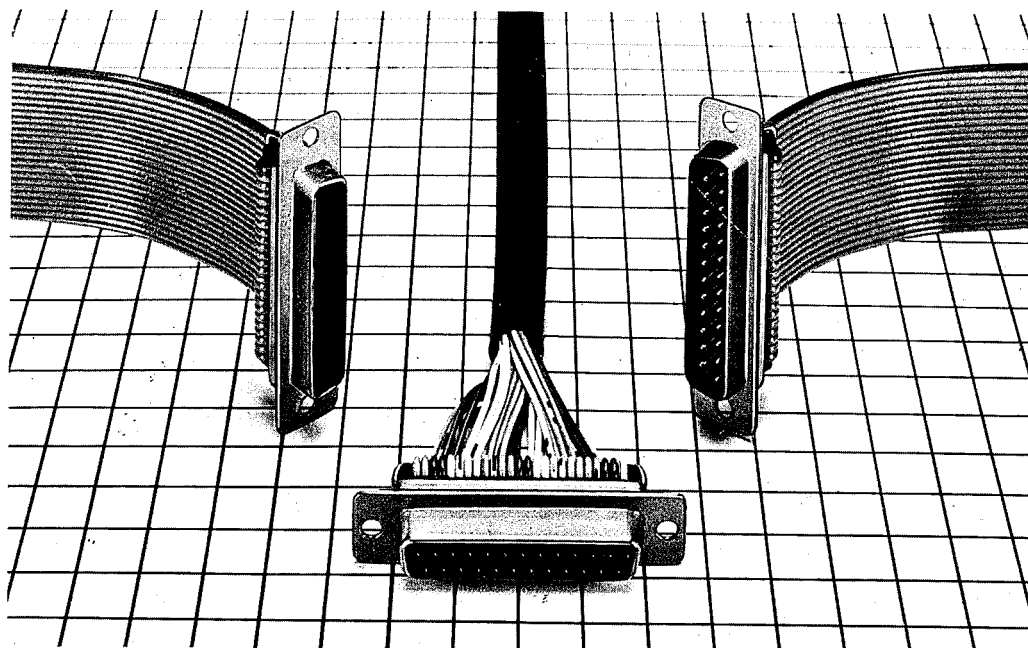


# RIBBON-CABLE LOW-PROFILE FD CONNECTORS

## General

The low-profile FD series are rectangular multi-contact connectors for ribbon-cable IDC termination. The FD Series are most useful for labor-saving in connection work and enhancing wiring reliability.

The profile has been minimized to meet the customer needs for smaller devices. 9, 15, 25 and 37-contact models are available.



## Features

- (1) Compact and sturdy due to metal shell.
- (2) Can be mounted on the front or back of a panel or chassis as necessary.
- (3) Much lower Profile to permit miniaturization.
- (4) Fixes the cable securely by fitting the ribbon cable clamp with a metal plate in the connector.
- (5) Cables, including standard pitch (1.27mm) ribbon cables, as well as those with 1.38mm pitch (equal to the D sub), can be connected by replacing the jig (a jig is required for slit cables).
- (6) Discrete cables can be connected by using a multi-core cable IDC terminator.

## Applications

Computers, peripherals and terminals, radio equipment, and control equipment.

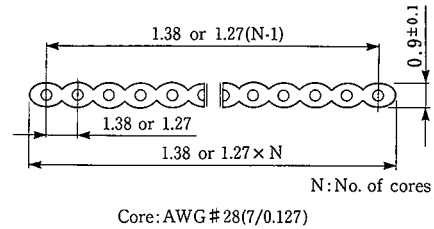
# Electrical and Environmental

Electrical and Environmental Characteristics	
Current rating	1A
Voltage rating	AC200V
Insulation resistance	1000M $\Omega$ or higher at DC 500V
Contact resistance	25m $\Omega$ or less at DC100mA
Withstand voltage	AC650Vr.m.s. for a minute

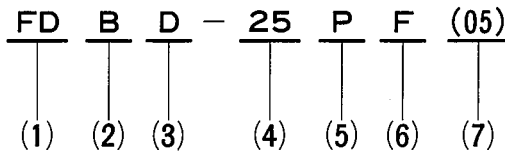
Material and Finish		
Shell	Steel	Bichromium Acid Treatment over Zinc plating
Insulator	PBT resin *	Black
Contacts	Beryllium Copper	

※UL94V-0

Cable specifications

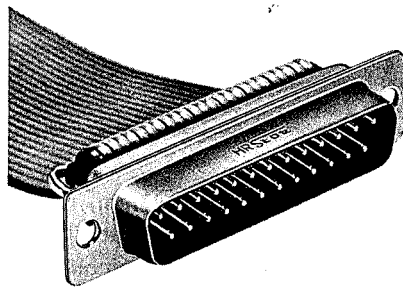


## Ordering Information

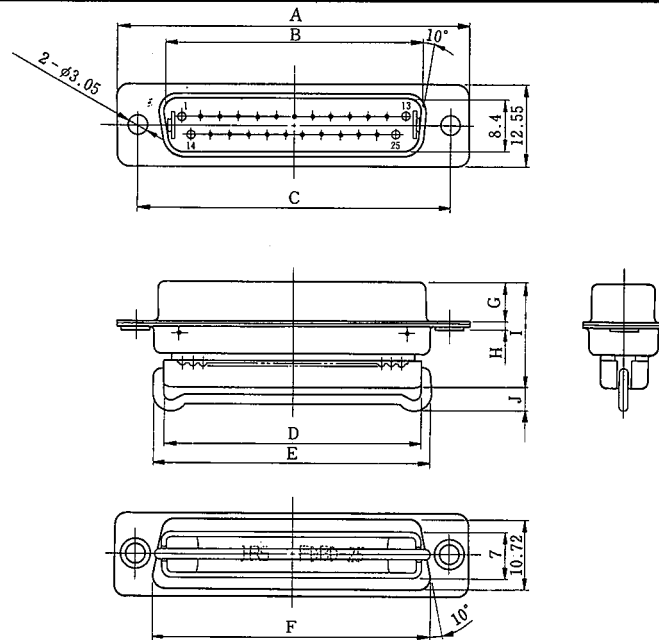


- |   |  |
|---|--|
| <p>(1) Series Name FD: Insulation displacement termination</p> <p>(2) Shell size E, A, B, C</p> <p>(3) Serial sign for series</p> | <p>(4) No. of pin 9, 15, 25, 37</p> <p>(5) Type of contacts<br/>P: Male contact<br/>S: Female contact</p> <p>(6) F: Shell dimpled (male connector only)</p> <p>(7) (05) Nickel-plated shell<br/>No sign: Treated with dichromate over zinc-plating<br/>(only FD*D-*PF shell are solder-plated)</p> |
|---|--|

## Pin Connector



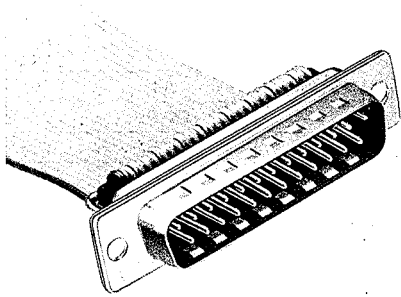
CL211-0448-5  
FDBD-25P



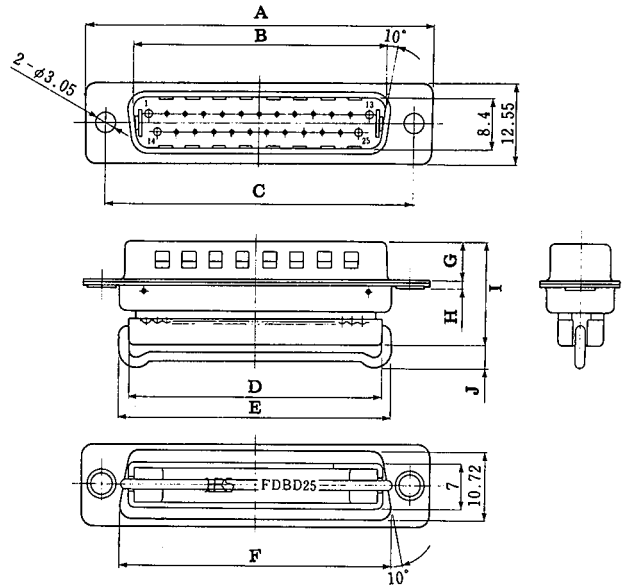
Unit: mm

HRS No.	No. of Pin	Part No.	A	B	C	D	E	F	G	H	I	J
*	9	FDED-9P	30.81	16.9	24.99	16.9	19	19.28	5.99	1.2	15.67	2.7
*	15	FDAD-15P	39.14	25.24	33.32	25.27	27.2	27.55	5.99	1.2	15.67	2.7
*	25	FDBD-25P	53.04	39.01	47.04	39	41.4	41.28	5.87	1.3	15.67	3.2
*	37	FDCD-37P	69.32	55.47	63.5	55.4	57.9	57.71	5.87	1.4	15.67	3.2

\*: Standard. Nickel-plated shells have (05) added to the part numbers.



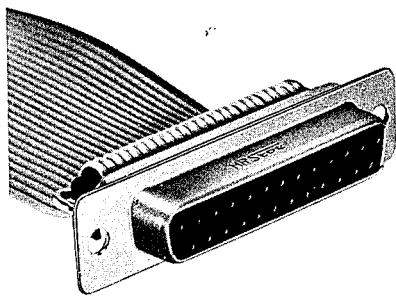
CL211-0606-4-05  
FDBD 25PF(05)



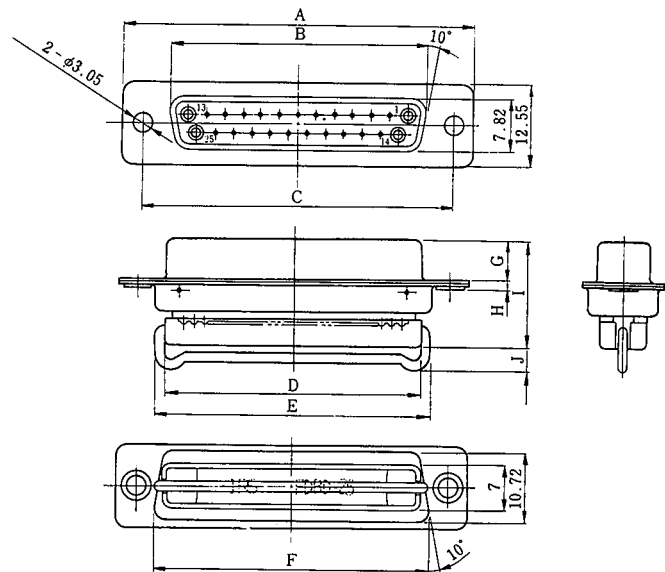
Unit: mm

HRS No.	No. of Pin	Part No.	A	B	C	D	E	F	G	H	I	J
CL211-0604-9-05	9	FDDED-9PF(05)	30.81	16.9	24.99	16.9	19.0	19.28				
CL211-0605-1-05	15	FDAD-15PF(05)	39.14	25.24	33.32	25.27	27.2	27.55	5.99	1.2	15.67	2.7
CL211-0606-4-05	25	FDBD-25PF(05)	53.04	39.01	47.04	39.0	41.4	41.28		1.3		
CL211-0607-7-05	37	FDCCD-37PF(05)	69.32	55.47	63.5	55.4	57.9	57.71	5.87	1.4		3.2

## Female Connector



CL211-0449-8  
FDBD-25S



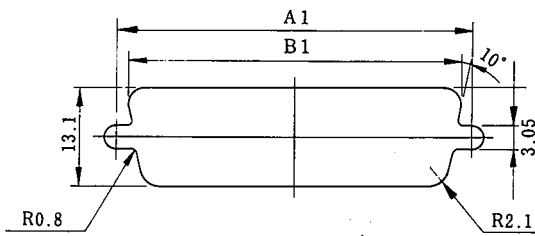
Unit: mm

HRS No.	No. of Pin	Part No.	A	B	C	D	E	F	G	H	I	J
* CL211-0445-7	9	FDDED-9S	30.81	16.4	24.99	16.9	19	19.28	6.17	1.2	15.67	2.7
* CL211-0447-2	15	FDAD-15S	39.14	24.59	33.32	25.27	27.2	27.55	6.17	1.2	15.67	2.7
* CL211-0449-8	25	FDBD-25S	53.04	38.3	47.04	39	41.4	41.28	6.17	1.2	15.67	3.2
* CL211-0451-0	37	FDCCD-37S	69.32	54.76	63.5	55.4	57.9	57.71	6.17	1.2	15.67	3.2

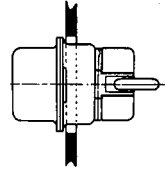
\*: Standard      Nickel-Plated version have (05) added to their standard-part numbers

# Connector Mounting Method and Mounting Dimensions

## Connector mounted on the face of the panel (front mounting)



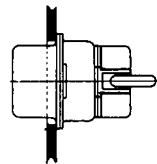
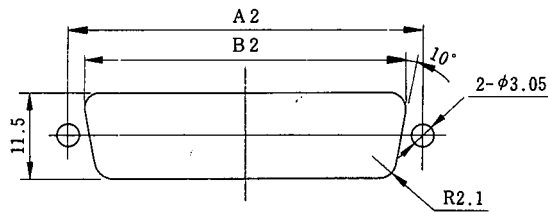
Note: A slight gap will appear between connector and panel since the connector must be plugged to the back of the panel.



Unit: mm

Shell size	A1	B1
E	24.99	22
A	33.32	30.3
B	47.04	44
C	63.5	60.5

## Connector mounted on the back of the panel (rear mounting)



Unit: mm

Shell size	A2	B2
E	24.99	20.2
A	33.32	28.6
B	47.04	42.5
C	63.5	59.2

# Cabling Variations

FDBD-25P

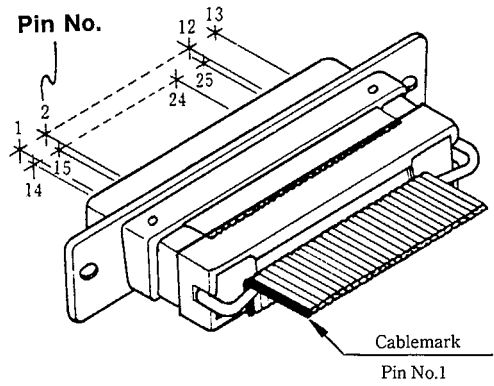
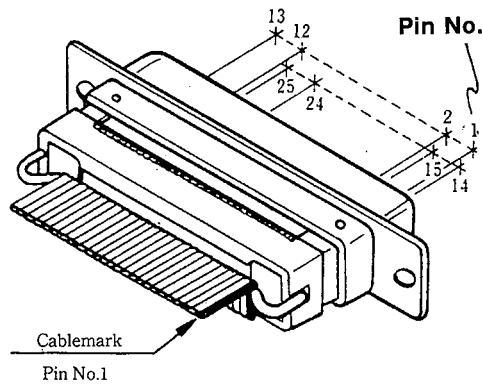
FDBD-25S

Connecting Type

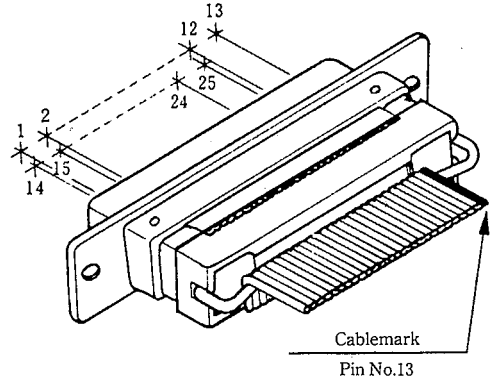
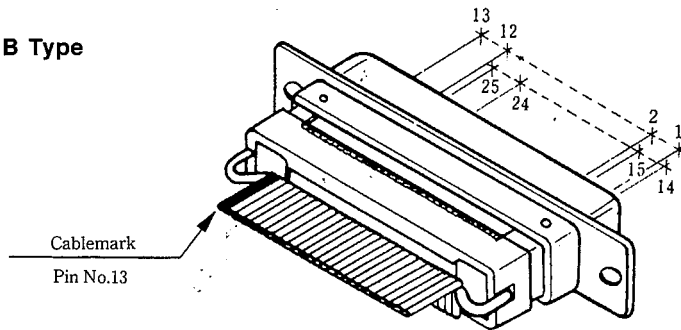
Male Connector

Female Connector

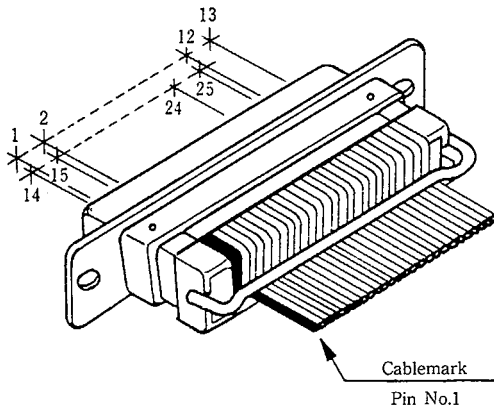
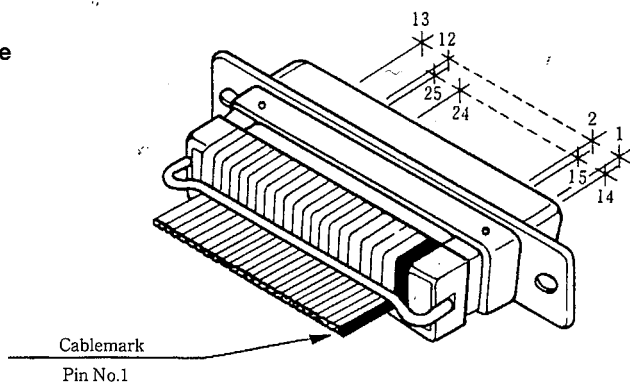
A Type



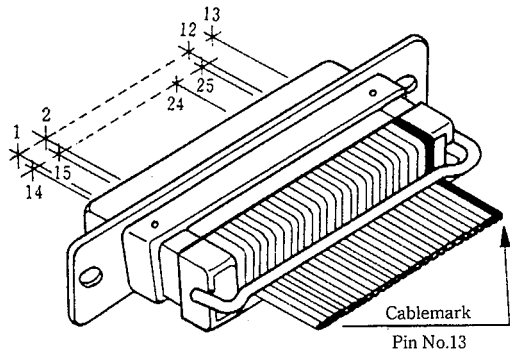
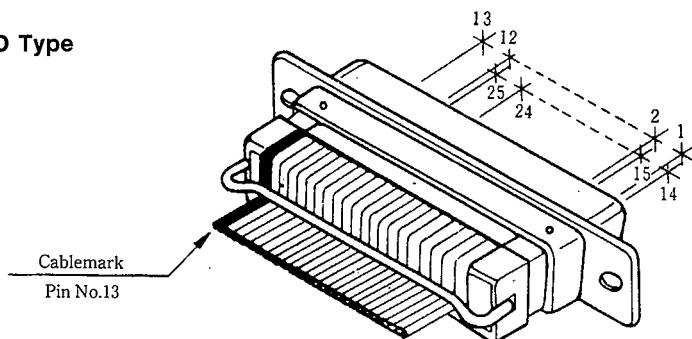
B Type



C Type



D Type



## Termination tools list for FD※D series

1) For terminating the FD※D series, select tools from the list below according to the cable used.

Cable	Process before connection (Slitting the Flat Ribbon Cable)		Insulation Displacement Connection			Process after connection
	Press	Jig	Press	Guide Plate	Pressure Block	
1.38mm pitch I/O Cable (Flat arrangement at each end side) Flat Ribbon Cable	-	-	HIF Connecting Press (universal type) CL550-0082-2	FDXD-1.38GP (Universal type) CL902-0021-3	Pressure Block (Please refer to below table)	-
1.27mm pitch Slit Flat Ribbon Cable Discrete Wires	-	-		*1 (see note) FDXD-1.27GP (Universal type) (For Discrete Wire or Slit Flat Ribbon Cable) CL902-0025-8		FDXD-C (Universal type) (Cable Shear for trimming Cable ends.) CL902-0029-9
1.27mm pitch Flat Ribbon Cable	HIF Connecting Press CL550-0082-2	FDXD-ST Slitting Jig (Universal type) CL902-0028-6		*2 (see note) FDXD-1.27GPF (Universal type) (For Flat Ribbon Cable) CL902-0026-0		

### 2) Pressure Block

Application connector	Part No.	HRS No.
FDED-9P	FDE-P	CL902-0006-3
FDED-9S	FDE-S	CL902-0007-6
FDED-15P	FDA-P	CL902-0009-1
FDED-15S	FDA-P	CL902-0010-0
FDED-25P	FDB-P	CL902-0003-5
FDED-25S	FDB-S	CL902-0004-8
FDED-37P	FDC-P	CL902-0012-6
FDED-37S	FDC-S	CL902-0013-9

Note) By changing Wire-Guide-Plate, this Guide Plate can be used for both \*1 and \*2.

Cable	Part No.	HRS No.
Discrete Wire	FDXD-1.27 Discrete Wire Guide Plate	CL902-0041-4
Flat Cable	FDXD-1.27 Flat Cable Guide Plate	CL902-0042-7