

Plug-in Connectors for DISK Unit

FX2M3 Series



■ Features

1. Plug-in Connector Equipped with Power contact

The total number of contacts contains 128 contacts, of which 120 contacts belong to the half pitch signal contacts, and the remained 8 contacts are used for the power contact. The power contact corresponds to the high current (7.5A).

2. Three-stage Sequential Structure

Considering the plug and play, 3 stages sequential structure is employed.

3. Flux Tight

The signal contact area of the straight through hole type has completely prevented flux swell due to solder dipping.

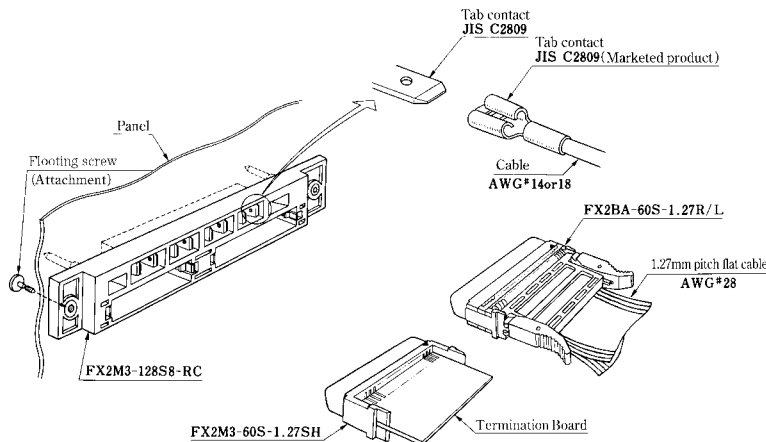
4. Bus Line Connection

The socket side connector allow to connect the bus line.

5. Floating Mechanism

The socket type employs the floating (=1mm) mechanism for the panel installation.

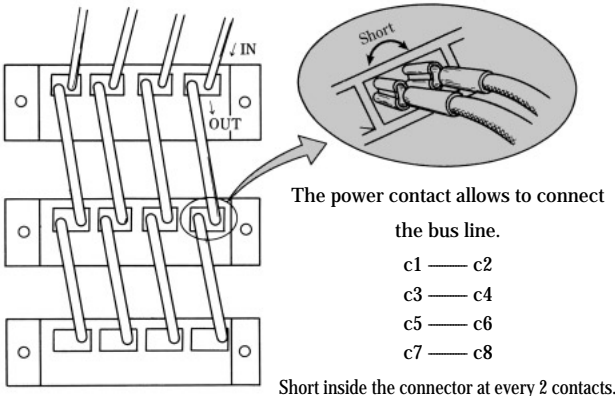
Floating Mechanism



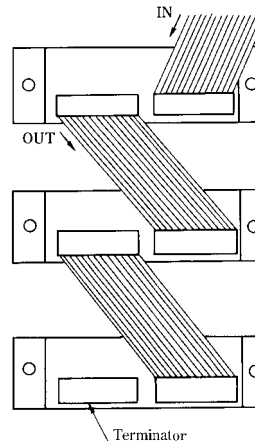
Bus Line Connection (Power Supply Side)

FX2M3-128S8-RC

Use Example



Bus Line Connection (For Signal)



Since the signal contact can be engaged or disengaged, connection can be performed in combination with the cable type and the terminator as illustrated on the left.

■Applications

Office computers and other information processing machines

■Product Specifications

Rating	Current rating Signal contact: 0.5A Power contact: 7.5A	Voltage rating 125V AC	Operating Temperature Range: -55°C to +85°C Note 1. Operating Humidity Range : 40% to 80%	Storage Temperature Range: -10°C to +60°C Note 2. Storage Humidity Range: 40% to 70%
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Item	Specifications	Condition
1. Insulation Resistance	Signal contact 100M ohms min. Power contact 1000M ohms min.	250V DC
2. Withstanding voltage	No flashover or insulation breakdown.	Signal contact 300V AC for 1 minute Power contact 1000V AC for 1 minute
3. Contact Resistance	Signal contact 45m ohms max. Power contact 30m ohms max.	100mA
4. Vibration	No electrical discontinuity of 1 μ s or more	Frequency: 10 to 55 Hz, single amplitude of 0.75 mm, 2 hours in each of the 3 directions.
5. Humidity (Steady state)	Signal Contact Resistance: 55m ohms max. Insulation Resistance: 100M ohms min. Contact Contact Resistance: 30m ohms max. Insulation resistance: 1000M ohms min.	96 hours at temperature of 40°C and humidity of 90% to 95%
6. Temperature Cycle	Signal Contact Resistance: 55m ohms max. Insulation resistance: 100m ohms min. Contact Contact resistance: 30m ohms max. Insulation resistance: 1000m ohms min.	(-55°C: 30 minutes 15 to 35°C: 2 to 3 minutes 85°C: 30 minutes 15 to 35°C: 2 to 3minutes) 5 cycles
7. Durability (Mating/un-mating)	Signal contact Contact resistance: 55m ohms max. Power contact Contact resistance: 30m ohms max.	30 cycles
8. Resistance to Soldering heat	No deformation of components affecting performance.	Reflow: At the recommended temperature profile Manual soldering: 300°C for 10 seconds

Note 1: Includes temperature rise caused by current flow.

Note 2: The term "storage" refers to products stored for long period of time prior to mounting and use. Operating Temperature Range and Humidity range covers non conducting condition of installed connectors in storage, shipment or during transportation.

■Material

Parts	Material	Finish	Remarks	
Insulator	Header	PBT/Polyamide	Black	UL94V-0
	Termination connector	PPS	Light brown	UL94V-0
Signal contact	Header	Brass	Selective gold plated	_____
	Receptacle, Termination connector	Phosphor bronze	Slective gold plated	
	Cable connector	Beryllium copper	Selective gold plated	
Power contact	Header	Brass	Tin plated	_____
	Receptacle	Phosphor bronze	Tin plated	
	Socket	Copper alloy	Tin plated	

■ Ordering Information

FX **2M3** - **128** **S** **8** - **DSA** **L**
①
②
③
④
⑤
⑥

① Series name : FX2M3	⑤ Contact type
② 128 : (Total Contact number)	DSA : Straight through hole
③ Connector types : S : Receptacle or Socket P : Header	DS : Right angle through hole
④ 8: Power contact number	RC : Socket (Note 1)
	⑥ L: Board prefixed pin attached

● 60 Contacts Engage/Disengage Connector

FX **2BA** - **60** **S** - **1.27** **R/L**
①
②
③
④
⑤
⑥

① Series name : FX	④ Connector type : S. Socket (Cable connector) Receptacle (Termination connector)
② Series No. : 2BA..Cable connector 2M3..Termination connector	⑤ Contact pitch..1.27mm
③ Number of contacts : 60	⑥ R/L : ID connection type SH : Pinching SMT type

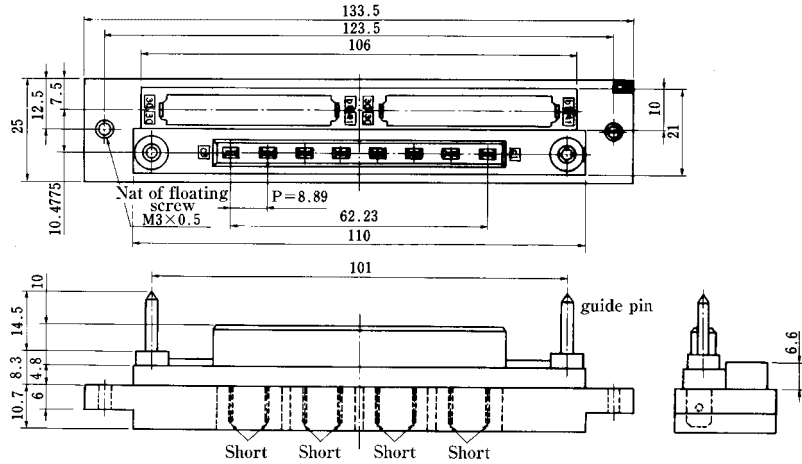
Part Number	CL No.	Number of Contacts		Remarks
		Signal	Power	
FX2M3-128S8-RC	572-1007-0	— (NOTE1)	8	Socket side
FX2M3-128P8-DSL	572-1008-2	60×2	8	Header side, Right angle through hole
FX2M3-128S8-DSAL	572-1009-5	60×2	8	Receptacle side, Straight through hole
FX2M3-128P8-DSAL	572-1010-4	60×2	8	Header side, Straight through hole
FX2BA-60S-1.27R/L	572-1026-4	60 (NOTE2)	—	Cable connector
FX2M3-60S-1.27SH	572-1020-8	60 (NOTE2)	—	Termination connector

NOTE 1 : The signal connector is uninstalled. (Use FX2BA-60S-1.27R/L or FX2M3-60S-1.27SH.)

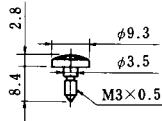
NOTE 2 : Installation to FX2M3-128S8-RC possible.

■ Socket

FX2M3-128S8-RC
CL572-1007-0

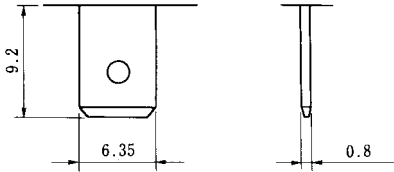


Floating screw
(Attachment)



NOTE: The signal connector is uninstalled in this product.
Use FX2BA-60S-1.27R/L or FX2M3-60S-1.27SH.

◆ Power contact Detailed View

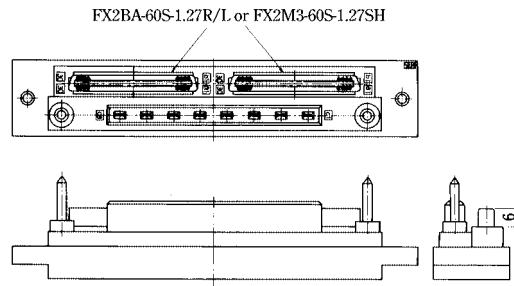


Please use the marketed tub Contact (product compliant to JIS standard: JIS2809) to connect the cable in the power contact area.

(However, use phosphor bronze as material.)

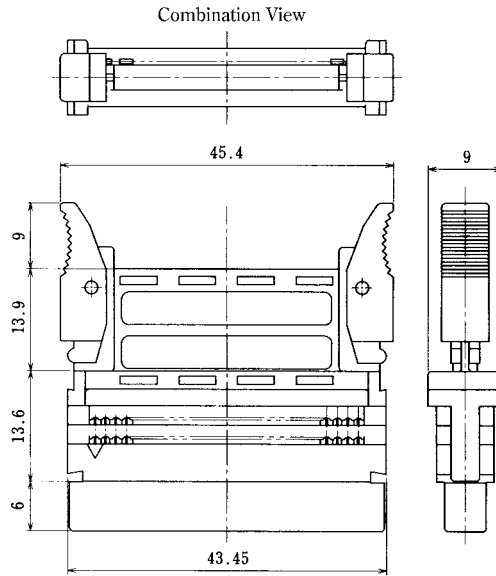
◆ Combination View

(FX2BA-60S-1.27R/L or FX2M3-60S-1.27SH is installed in this product.)



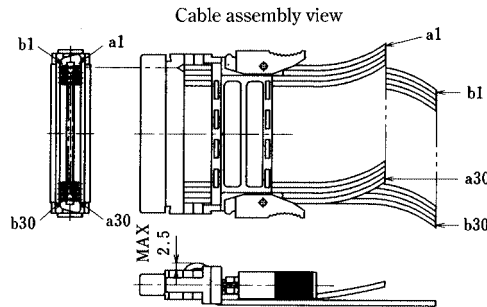
■ Cable Connector

FX2BA-60S-1.27R/L
CL572-1026-4



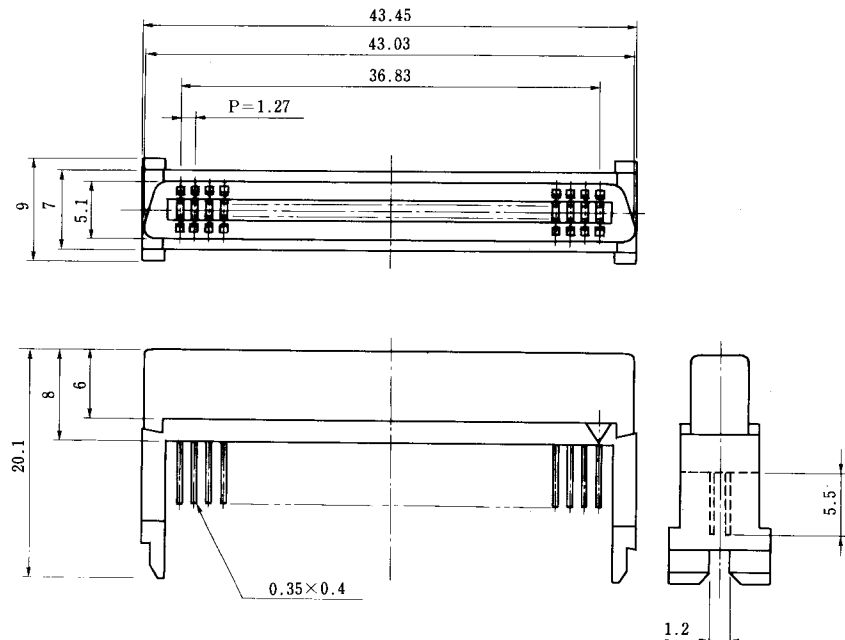
NOTE: This product can be installed in FX2M3-128S8-RC.
Applicable cable: 1.27 pitch flat cable
AWG28 (7/0.127) insulation covering diameter 0.9mm<UL2651>

◆ Cable Assembly View



■ Termination Connector

FX2M3-60S-1.27SH
CL572-1020-8

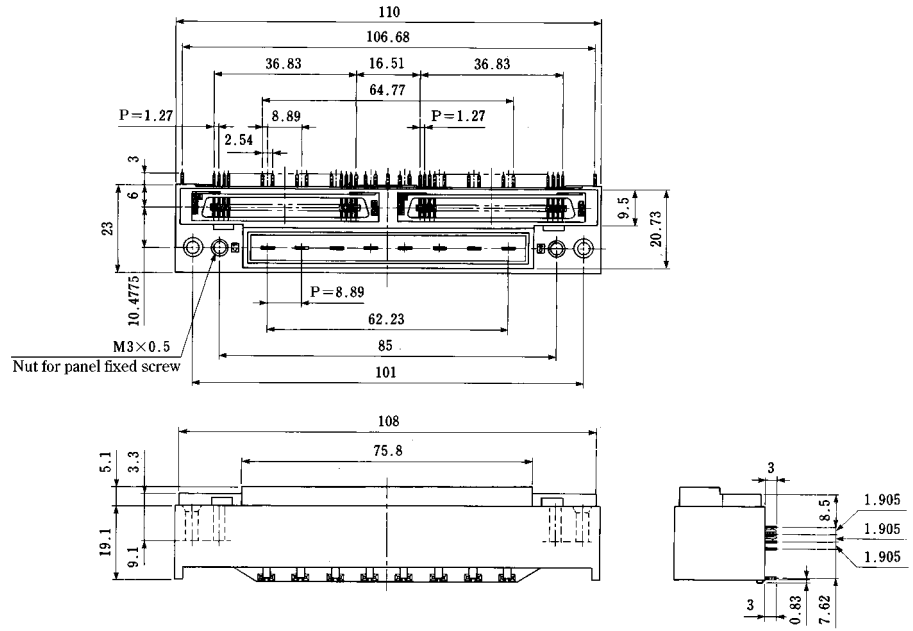


NOTE: The locking type is prepared for the termination connector.
Contact the HRS PCC Technical Department for details.

Header

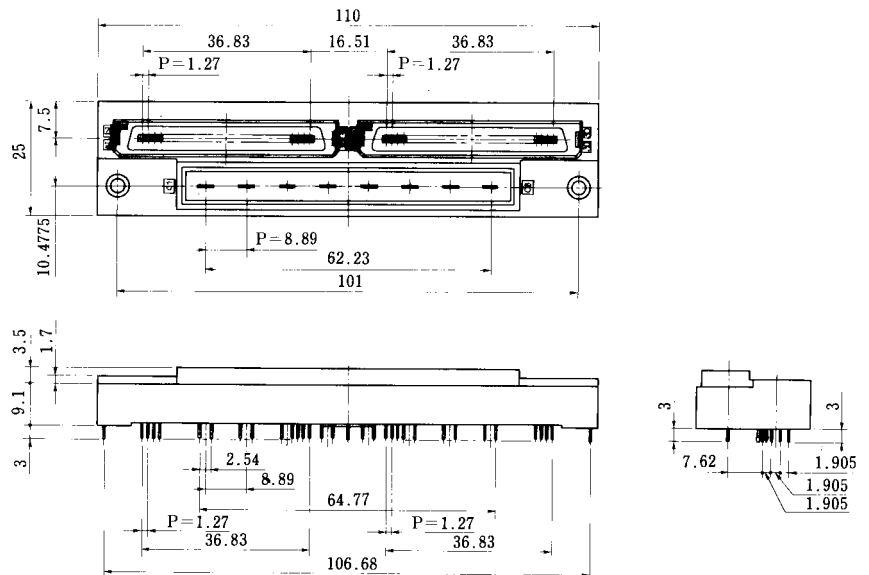
●Right Angle Type

FX2M3-128P8-DSL
CL572-1008-2



●Straight Type

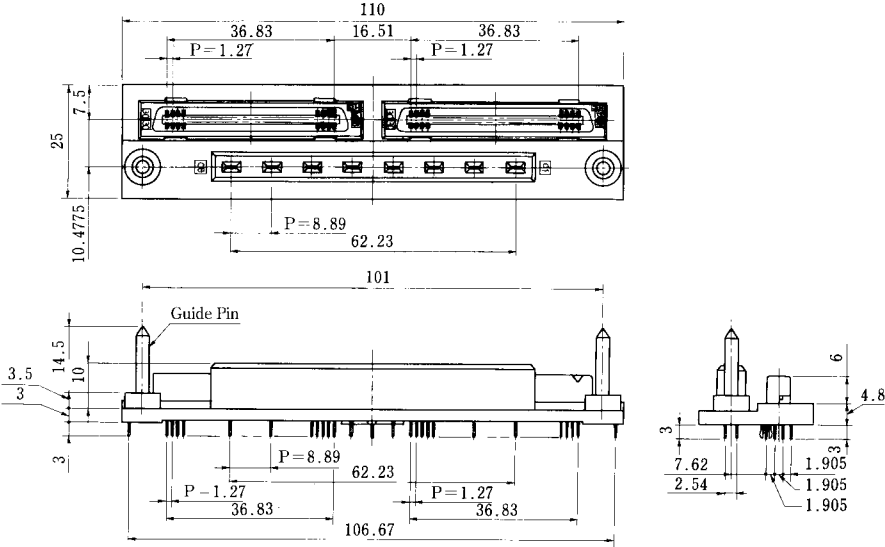
FX2M3-128P8-DSAL
CL572-1010-4



■ Receptacle

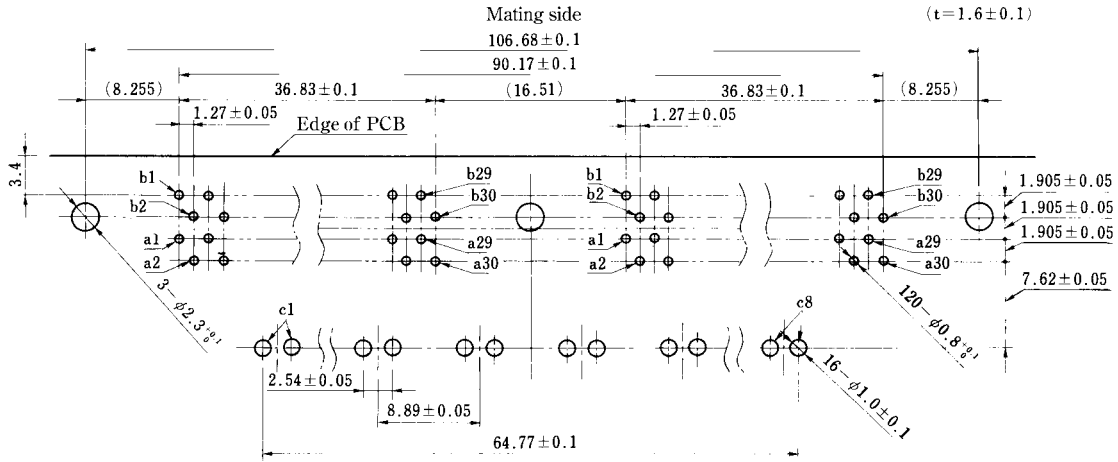
● Straight Type

FX2M3-128S8-DSAL
CL572-1009-5

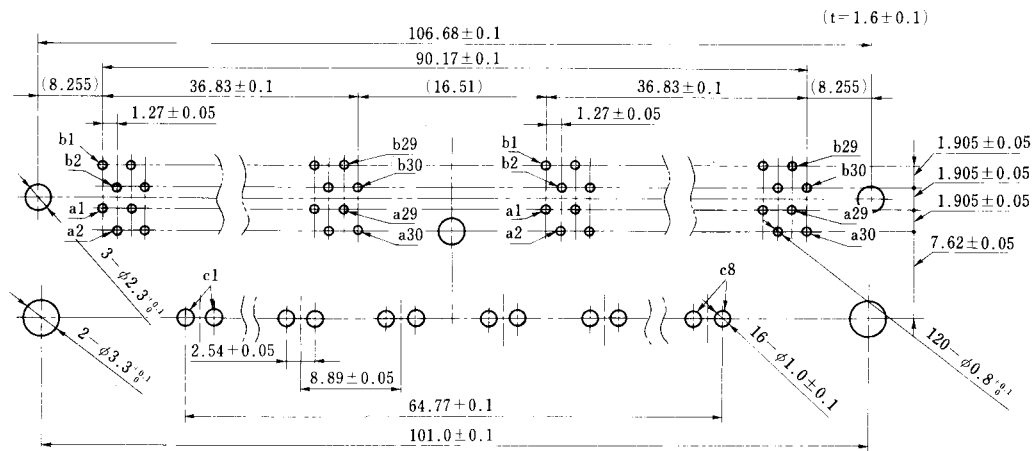


◆PCB mounting pattern

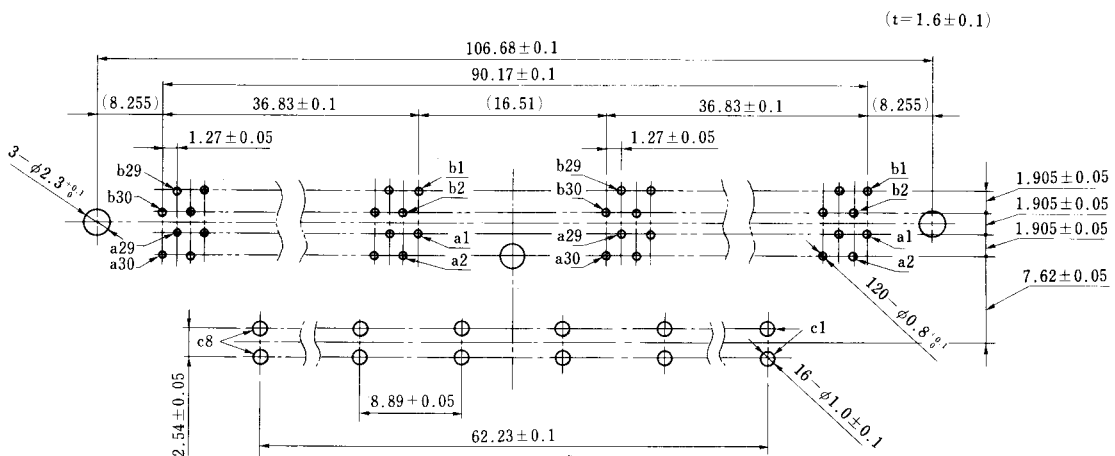
●FX2M3-128P8-DSL



●FX2M3-128P8-DSAL

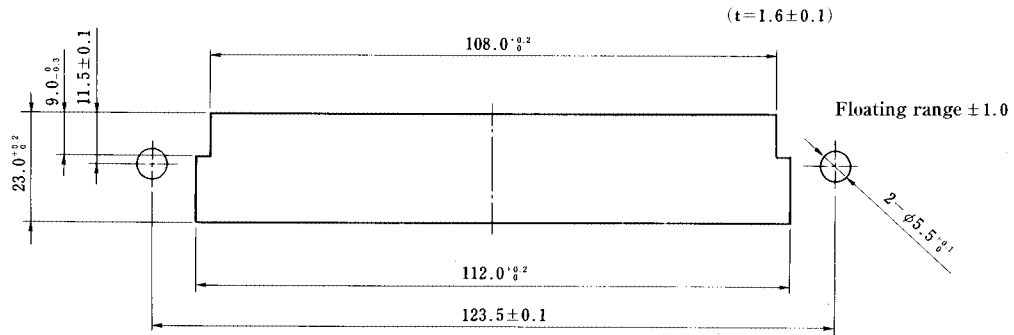


●FX2M3-128S8-DSAL

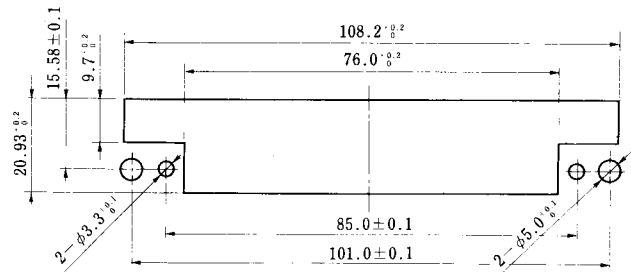


◆ Panel Cutouts (Mounted on Rear Side)

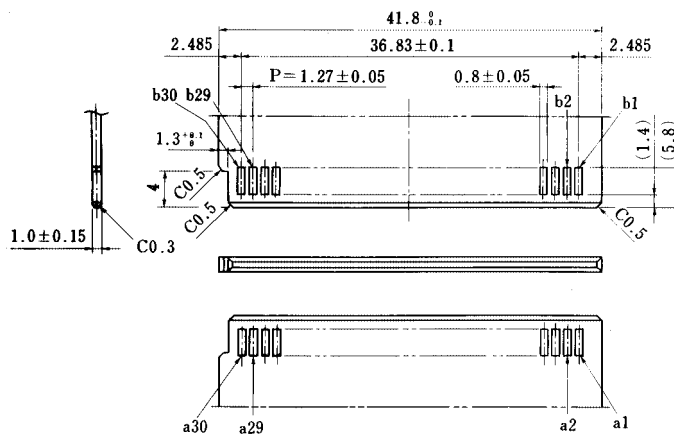
● FX2M3-128S8-RC



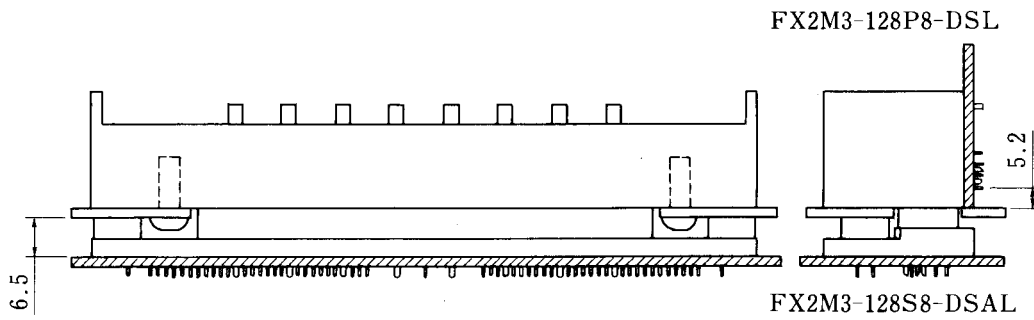
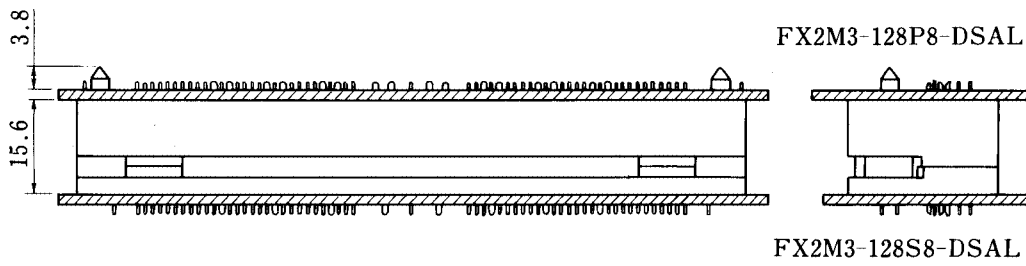
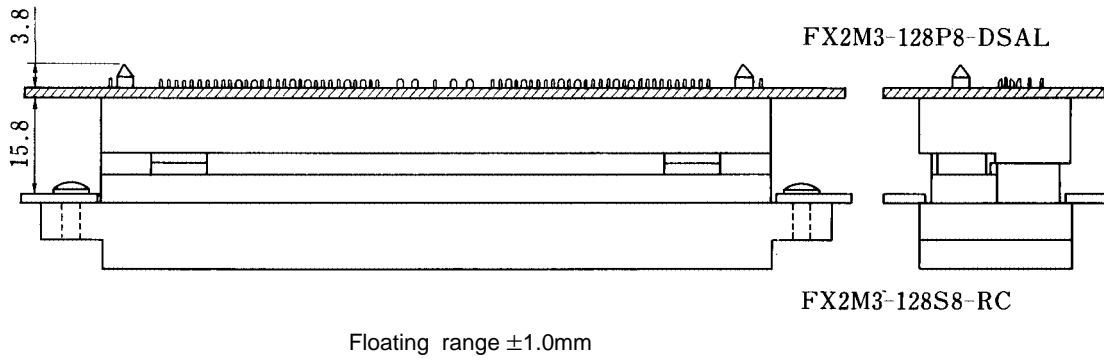
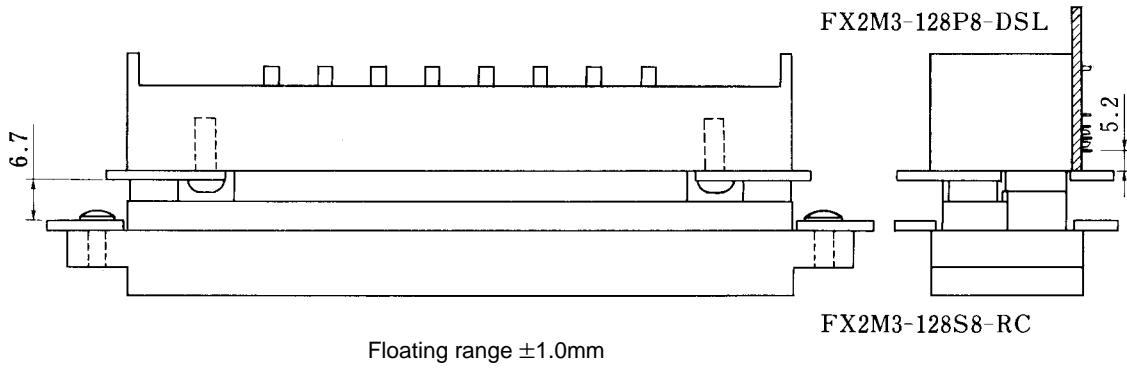
● FX2M3-128P8-DSL



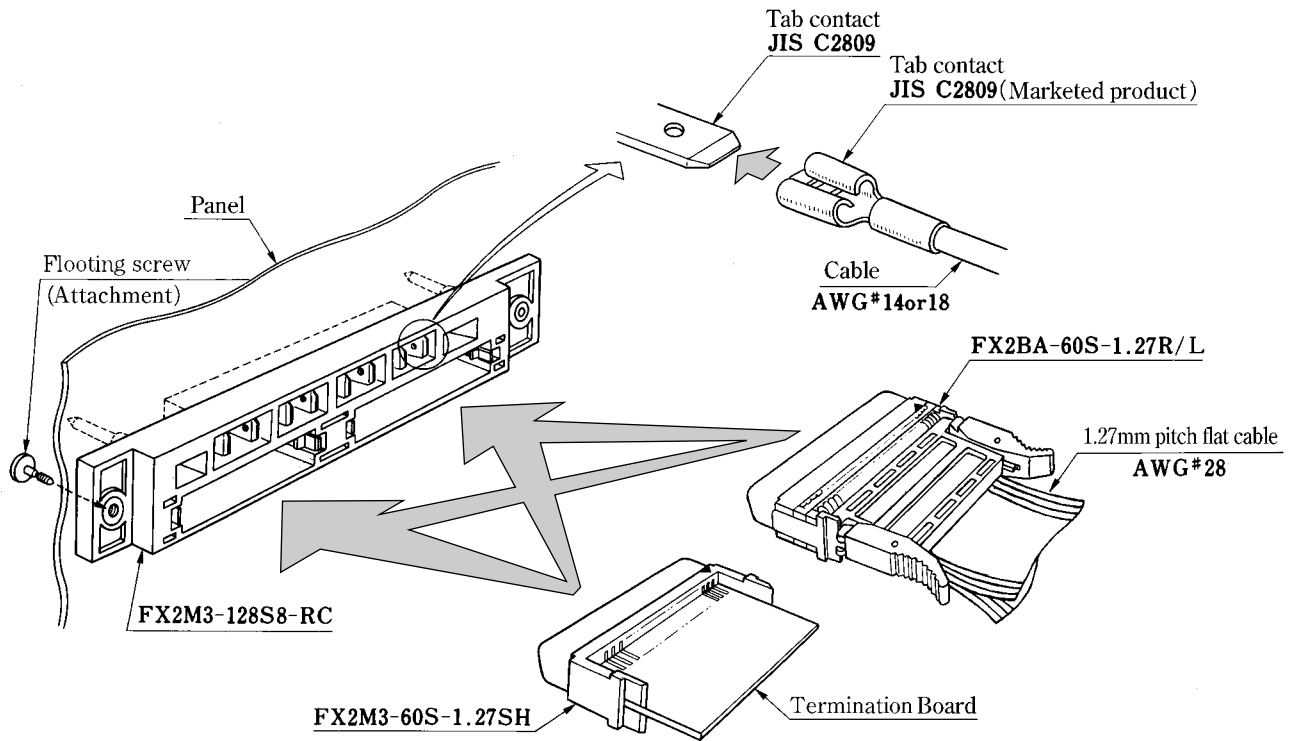
◆ FX2M3-60S-1.27SH PCB mounting pattern



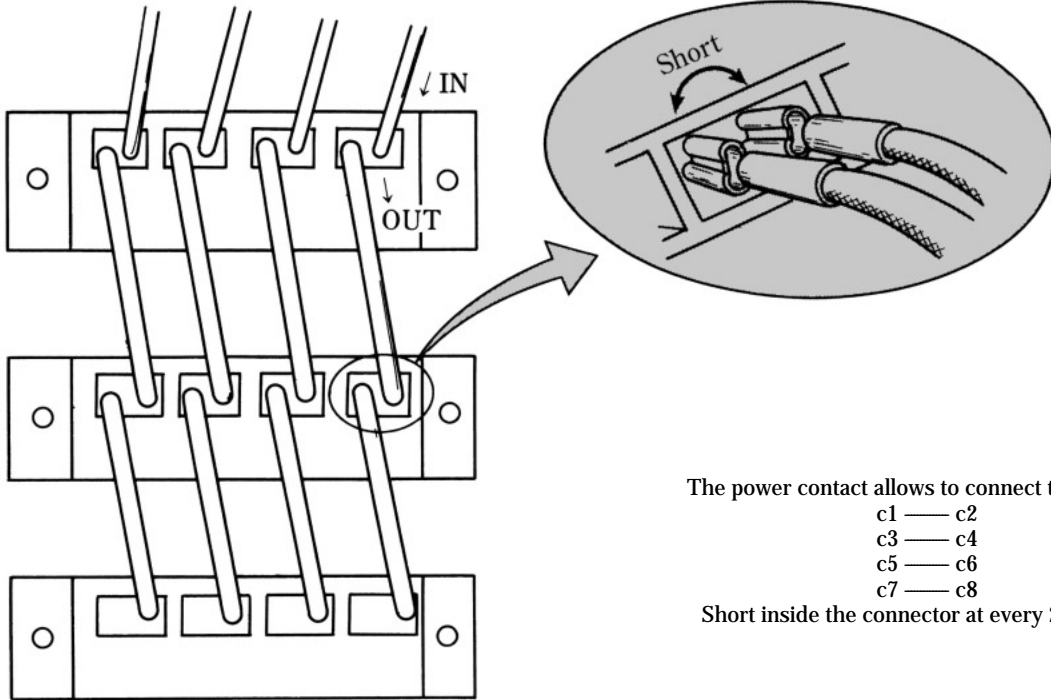
◆ Application Pattern



◆FX2M3-128S8-RC Operating Instructions



Power Side

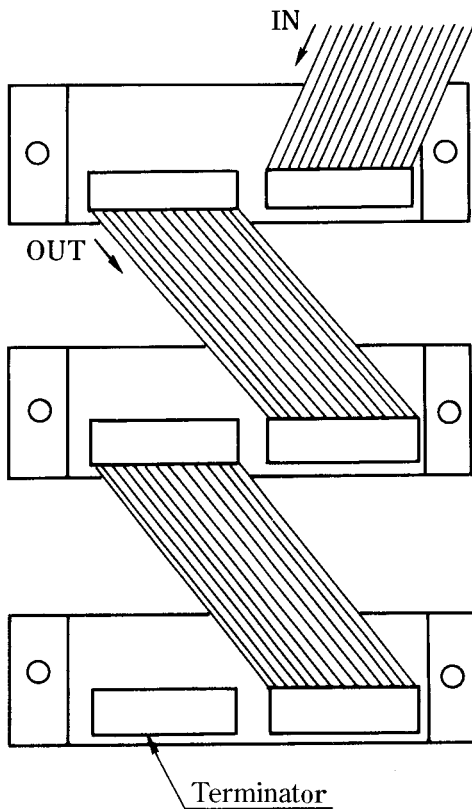


The power contact allows to connect the bus line.

- c1 — c2
- c3 — c4
- c5 — c6
- c7 — c8

Short inside the connector at every 2 contacts.

Signal Side



Since the signal contact can be engaged or disengaged, the contact can be used in combination with the cable type and the terminator as illustrated on the left.