

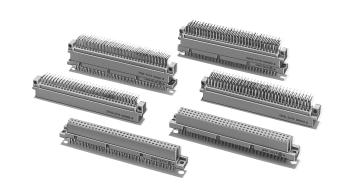
DIN Sequence Connectors

XC7

An improved DIN-standard Sequence Connector

- Allows power line to daughter board connection first and removal last.
- Used the same way as regular DIN connectors. Dimensions are those of DIN B-type and C-type connectors. Mated length is 4 mm. All contacts are sequential contacts, an improvement on standard connectors.
- Sockets are equipped with 1-mm long sequential contacts. Sockets can be stacked up to 2 levels, and Plugs can be stacked up to 3 levels.
- Uses a double-sided contact design. Gold/palladium plating has an insertion durability of 5,000 cycles.

Note: Cannot be mated with XC5 and XC6 Series.



■ Connectors

Model	XC7A	XC7B	XC7C	XC7D
Appear-	Plug with	Socket with	Plug with	Socket with
ance	right-angle terminals	straight terminals	right-angle terminals	straight terminals
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■ Ratings and Characteristics

Rated current	2 A
Rated voltage	300 VAC
Contact resistance	20 mΩ max. (at 20 mV, 100 mA max.)
Insulation resistance	10^6 M Ω min. (at 100 VDC)
Dielectric strength	1,000 VAC for 1 min (leakage current: 1 mA max.)
Total insertion force	1 N max. per contact
Removal force	0.2 N min. (with test gauge, t = 0.56 mm)
Insertion durability	5,000 times
Ambient operating temperature	-55 to 125°C (with no icing at low temperature)

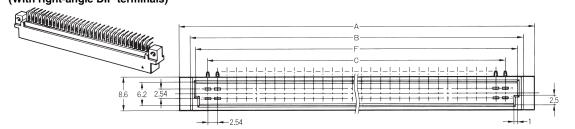
■ Materials and Finish

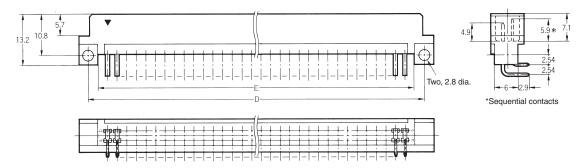
Item		Plugs	Sockets
Housings		Fiber-glass reinforced PBT resin (UL94 V-0)/gray	
Contacts	Mating end	Brass/nickel base, gold/palladium plat- ing	Phosphor-bronze/ nickel base, gold/ palladium plating
	Terminal	Brass/nickel base, gold flash plating	Phosphor-bronze/ nickel base, gold flash plating

XC7A Double-row Plugs

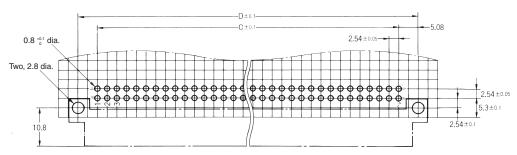


XC7A-□□42-□□□□ (With right-angle DIP terminals)





Mounting holes (bottom view)



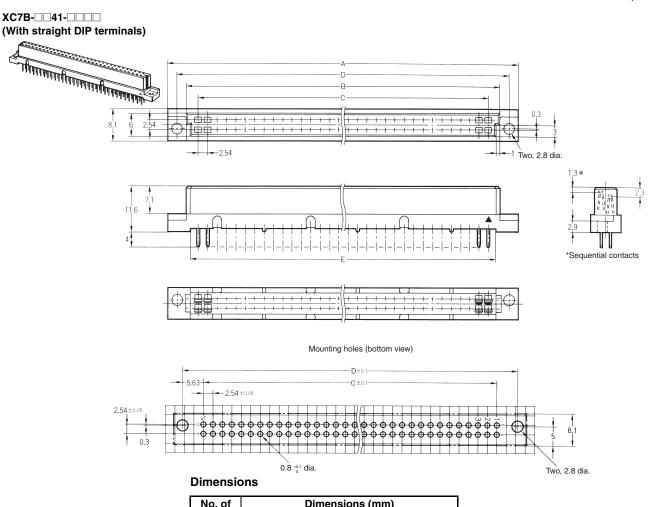
Dimensions

No. of	Dimensions (mm)					
contacts	Α	В	С	D	E	F
64	93.8	88.0	78.74	88.9	83.9	85.2
90	126.8	121.0	111.76	121.9	117.0	118.2
100	139.5	133.7	124.46	134.6	129.7	130.9

Appearance			
No. of contacts	Terminal type	Sequential contact position	Model
64		None	XC7A-6442
		All	XC7A-6442-N001
90	Right-angle DIP	None	XC7A-9042
	terminals	All	XC7A-9042-N001
100		None	XC7A-0142
		All	XC7A-0142-N001

XC7B Double-row Sockets





No. of	Dimensions (mm)					
contacts	Α	В	С	D	E	
64	94.8	85.0	78.74	90.0	83.0	
90	127.8	118.0	111.76	123.0	116.0	
100	140.5	130.7	124.46	135.7	128.7	

Appearance			
No. of contacts	Terminal type	Sequential contact position	Model
64		a, b: 1 to 4 a, b: 26 to 32	XC7B-6441-N003
		All	XC7B-6441-N001
90	Straight DIP terminals	a, b: 1 to 4 a, b: 39 to 45	XC7B-9041-N003
		All	XC7B-9041-N001
100		a, b: 1 to 4 a, b: 44 to 50	XC7B-0141-N003
		All	XC7B-0141-N001

XC7C Triple-row Plugs

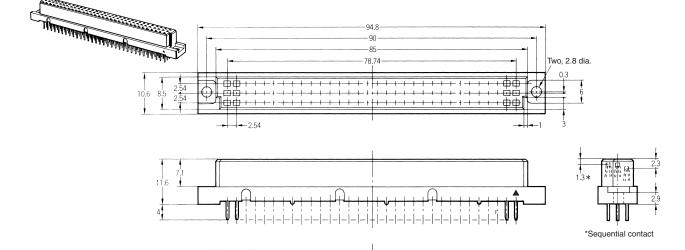
■ Dimensions (unit: mm) XC7C-9642-(With right-angle DIP terminals) -85.2 Two, 2.8 dia *Sequential contacts Mounting holes (bottom view) 88.9±0.1 96, 0.8 +0.1 dia. Two, 2.8 dia. 2.54±0.05 5.3±0.1 10.8

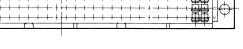
Appearance			
No. of contacts	Terminal type	Sequential contact position	Model
96	Right-angle DIP ter-	All	XC7C-9642-N001
	minals	None	XC7C-9642

XC7D Triple-row Sockets

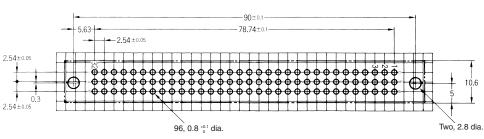
■ Dimensions (unit: mm)

XC7D-9641-□□□□ (With straight DIP terminals)



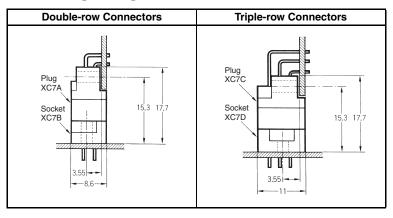


Mounting holes (bottom view)



Appearance		The state of the s	
No. of contacts	Terminal type	Sequential contact position	Model
96	Straight DIP	All	XC7D-9641-N001
	terminals	a1, a32	XC7D-9641-N002

■ Mating Diagrams (unit: mm)



■ Mates with Standard DIN **Connectors**

- · Dimensions are the same as those of standard DIN connectors XC5.
- The sequential contacts on the Socket and Plug are 1 mm long, so they cannot be interchanged with DIN Connectors. Use as a Socket/Plug pair.

■ Precautions

Correct Use

Automated soldering

Use masking tape to mask the Right-angle Connectors before automated soldering.



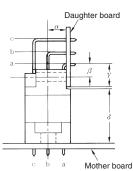
(Recommended tape: 3M Sumitomo #214)

Automated Soldering Conditions (Jet Flow)

- 1. Soldering temperature: 250±5°C
- 2. Continuous soldering time: Within 5±1 s

Dimensions after Mounting

· Mounting dimensions for all Connectors should be as shown in the following diagram.



 α : 3.55 mm

The distance between the center line of the mounting holes on the mother board and the daughter board. (This center line is shifted 0.3 mm toward row a from row b.)

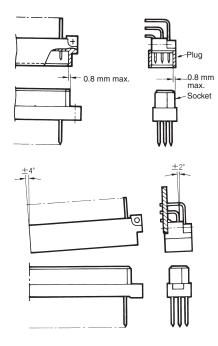
The distance between the mounting holes on the daughter board and row a.

 $\gamma\!.$ 5.3 mm The distance between the edge of the daughter board and row a.

δ : 12.4 to 14.2 mm

To insure reliability, be sure to keep the Connectors within these dimensions when mounting.

• The allowable margins for mating the Connectors are shown below.



■ Approval Standard

The approval rating values for overseas standards are different from the performance values determined individually. Confirm the values before use.

Model	Standard	File No.	Rating
XC7A-□□42	Non Approved Models		
XC7A-□□42-N001	Non Approved Models		
XC7B-□□41-N00□	Non Approved Models		
XC7C-9642	Non Approved Models		
XC7C-9642-N001	Non Approved Models		
XC7D-9641-N001	Non Approved Models		
XC7D-9641-N002	Non Approved Models		

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