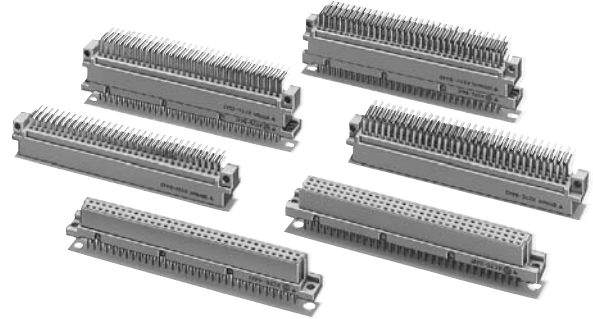


### An improved DIN-standard Sequence Connector

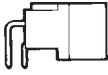
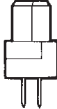
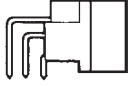
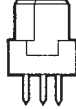
- Allows power line to daughter board connection first and removal last.
- Used the same way as regular DIN connectors. Dimensions are those of DIN B-type and C-type connectors. Mated length is 4 mm. All contacts are sequential contacts, an improvement on standard connectors.
- Sockets are equipped with 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.



**RoHS Compliant**

### Connectors

Model	XC7A	XC7B	XC7C	XC7D
Appearance	Plug with right-angle terminals 	Socket with straight terminals 	Plug with right-angle terminals 	Socket with straight terminals 
Page	2	3	4	5

### 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 <sup>6</sup> MΩ 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	Phosphor-bronze/nickel base, gold/palladium plating
	Terminal	Phosphor-bronze/nickel base, gold flash plating

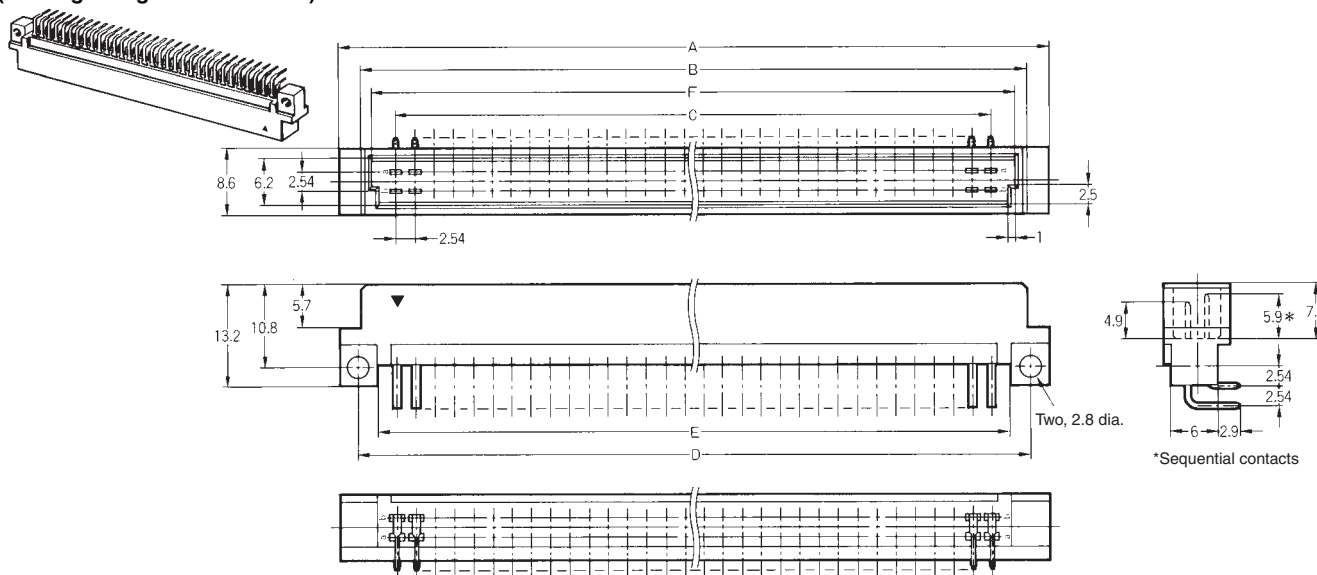
# XC7A Double-row Plugs

## ■ Dimensions

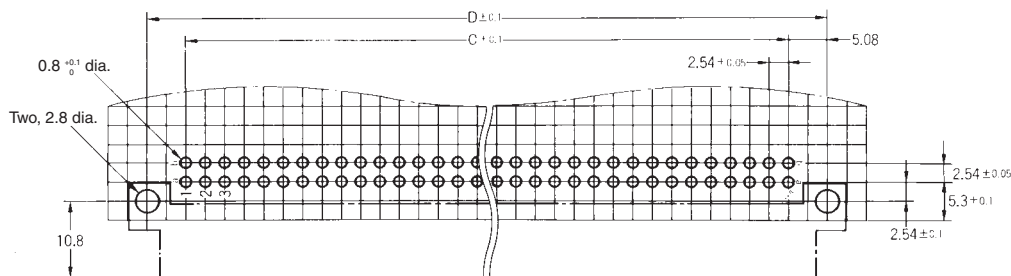
(unit: mm)

XC7A-□□42-□□□□

(With right-angle DIP terminals)



Mounting holes (bottom view)



### Dimensions

No. of contacts	Dimensions (mm)					
	A	B	C	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

## ■ Ordering Information

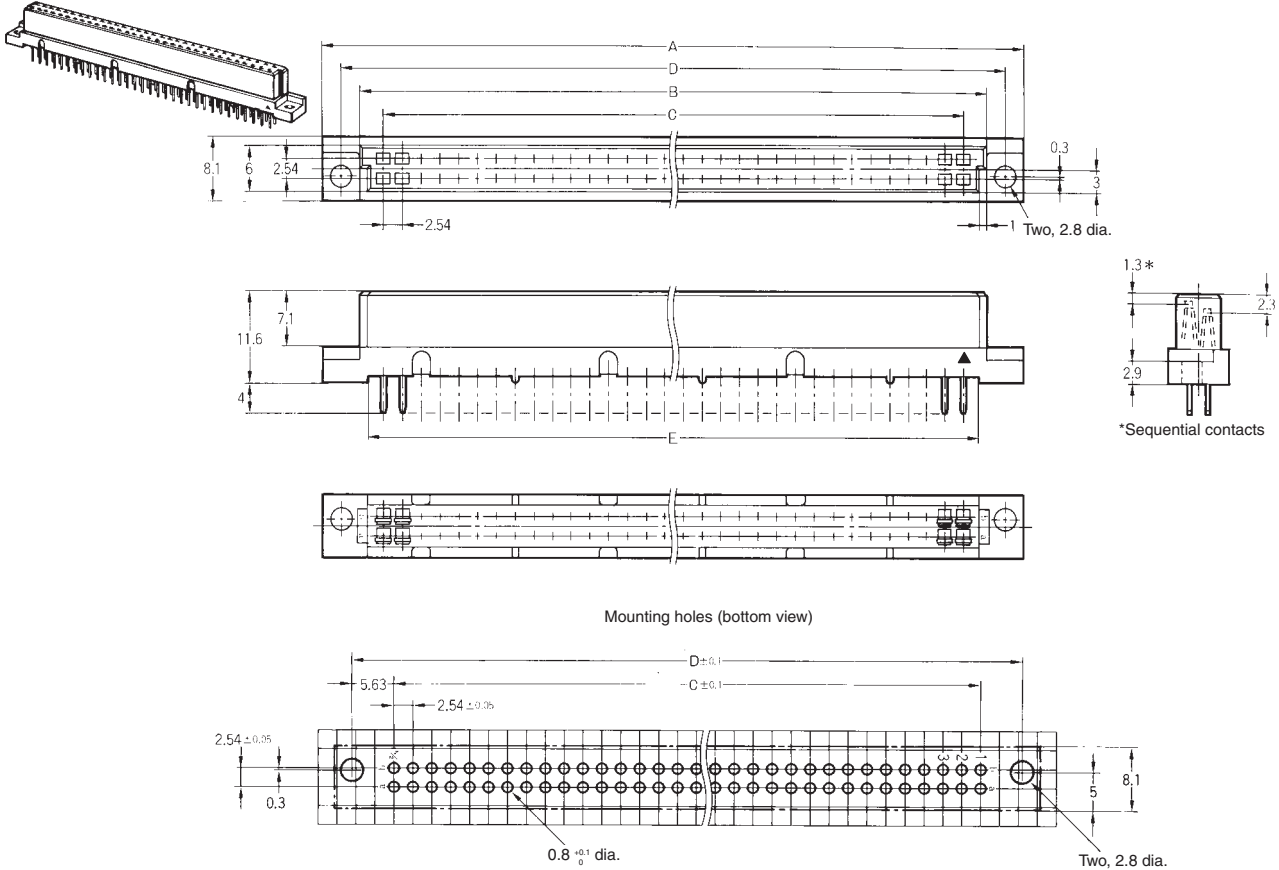
Appearance			
No. of contacts	Terminal type	Sequential contact position	Model
64	Right-angle DIP terminals	None	XC7A-6442
		All	XC7A-6442-N001
90		None	XC7A-9042
		All	XC7A-9042-N001
100		None	XC7A-0142
		All	XC7A-0142-N001

# XC7B Double-row Sockets

## ■ Dimensions

(unit: mm)

XC7B-□□41-□□□□  
(With straight DIP terminals)



**Dimensions**

No. of contacts	Dimensions (mm)				
	A	B	C	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

## ■ Ordering Information

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

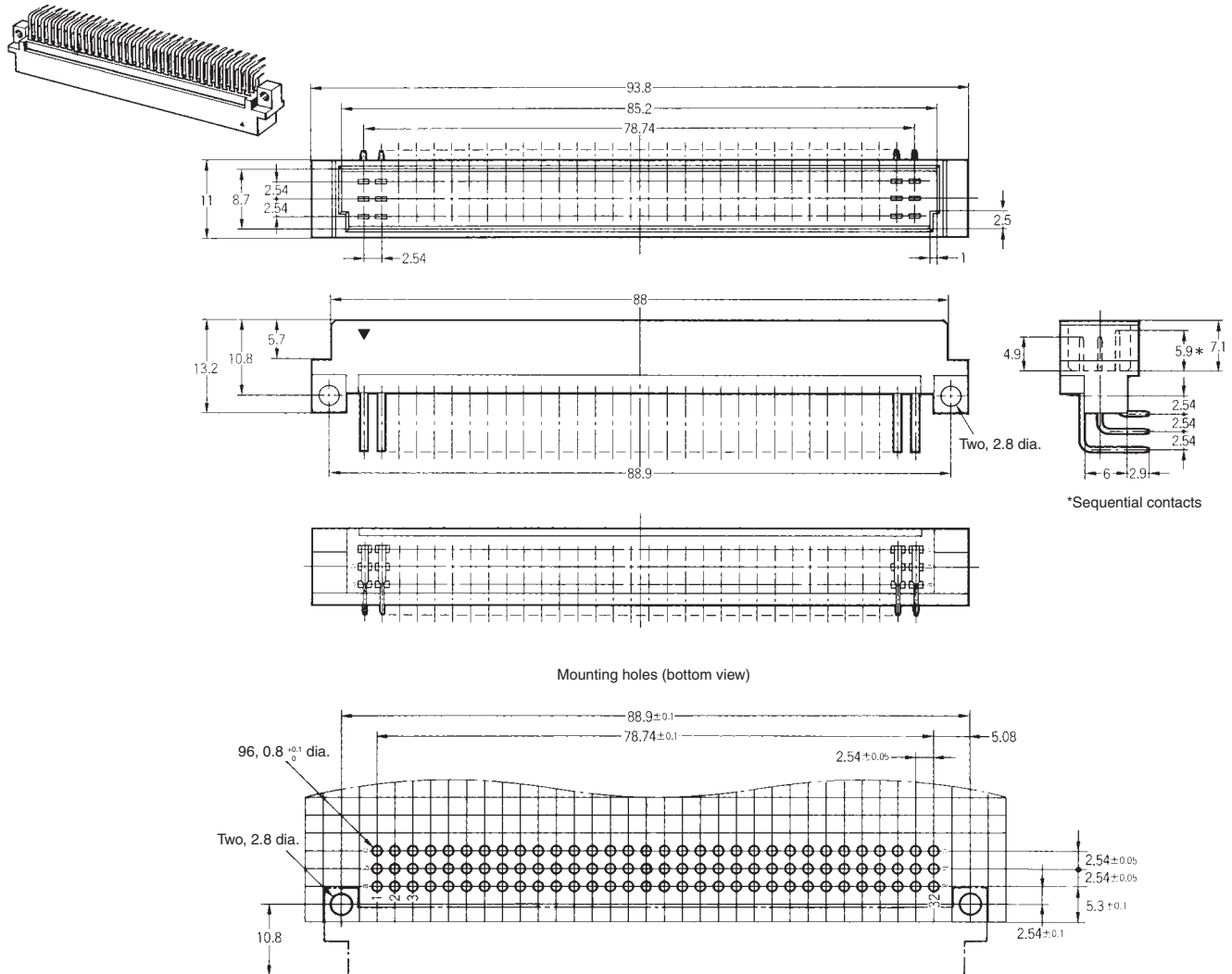
# XC7C Triple-row Plugs

## ■ Dimensions

(unit: mm)

XC7C-9642-□□□□

(With right-angle DIP terminals)



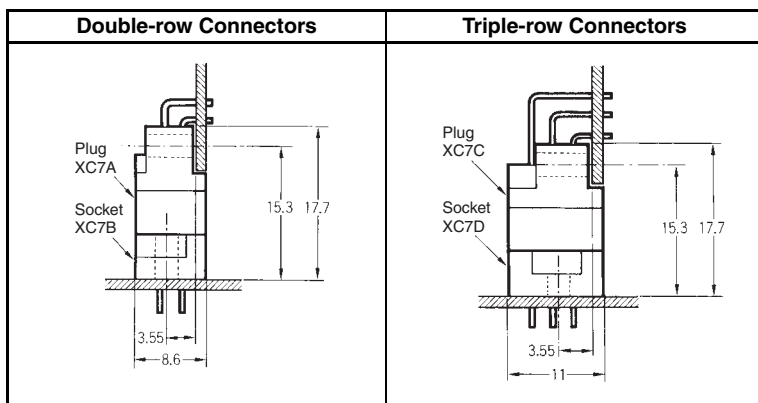
Mounting holes (bottom view)

## ■ Ordering Information

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



## ■ Mating Diagrams (unit: mm)



## ■ Mates with Standard DIN Connectors

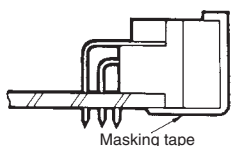
- Dimensions are the same as those of standard DIN connectors XC5.
- The sequential contacts on the Socket and Plug are 1 mm long, so they cannot be interchanged with DIN Connectors. Use as a Socket/Plug pair.

## ■ Precautions

### Correct Use

#### Automated soldering

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



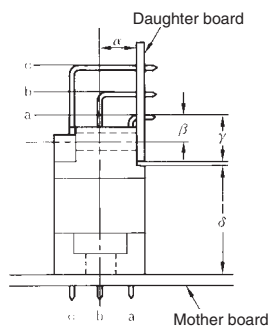
(Recommended tape: 3M Sumitomo #214)

#### Automated Soldering Conditions (Jet Flow)

1. Soldering temperature:  $250 \pm 5^\circ\text{C}$
2. Continuous soldering time: Within  $5 \pm 1$  s

#### Dimensions after Mounting

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



$\alpha$ : 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.)

$\beta$ : 2.54 mm

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

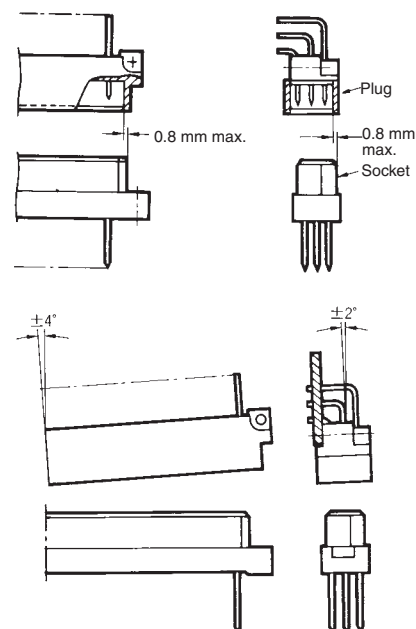
$\gamma$ : 5.3 mm

The distance between the edge of the daughter board and row a.

$\delta$ : 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.



- Application examples provided in this document are for reference only. In actual applications, confirm equipment functions and safety before using the product.
- Consult your OMRON representative before using the product under conditions which are not described in the manual or applying the product to nuclear control systems, railroad systems, aviation systems, vehicles, combustion systems, medical equipment, amusement machines, safety equipment, and other systems or equipment that may have a serious influence on lives and property if used improperly. Make sure that the ratings and performance characteristics of the product provide a margin of safety for the system or equipment, and be sure to provide the system or equipment with double safety mechanisms.

**Note: Do not use this document to operate the Unit.**