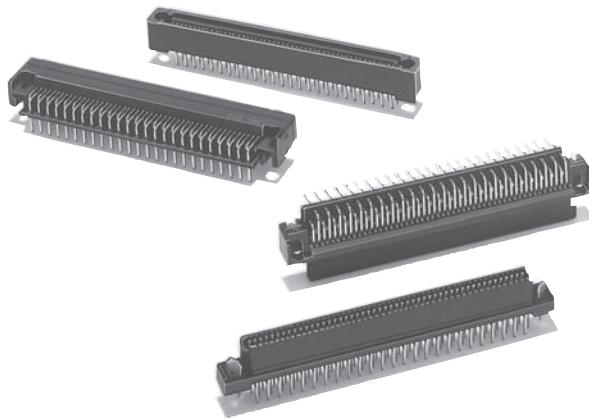


## Half-pitch Board-to-Board Connectors

XH2

**Allows High-density Mounting for Electronic Devices. A Half-Pitch Connector with a 1.27-mm Pitch for Compactness.**

- A pitch of 1.27 mm for high-density mounting of double-row arrangements.
- A quadruple-row staggered arrangement (1.27 mm x 1.905 mm) for board connection.
- Leaf contact construction enables smooth mating and resistance to bending.
- Space saving mating length of 3.1 mm.
- Press fitting assures long-term contact quality. The gold/palladium plating has been improved for better contact reliability.
- A special finish improves flux resistance (Straight Terminals only). Also it has fastening pins to standardize all the contacts.
- Can be mounted to boards with screws.
- Not mated with XH3 and XH4 Half-pitch Connectors.
- See the "Standards certification / conformity list" for information on conformity to certification standards.

**RoHS Compliant****■ Ratings and Characteristics**

Rated current	0.5 A
Rated voltage	125 VAC
Contact resistance (See note.)	30 mΩ max. (20 mV max., 100 mA max.)
Insulation resistance	1,000 MΩ min. (at 500 VDC)
Dielectric strength	650 VAC for 1 min (leakage current: 1 mA max.)
Total insertion force	0.78 N max. per contact
Total removal force	0.10 N min. per contact
Insertion durability	400 times
Ambient operating temperature	–55 to 105°C (with no condensation or icing)

**Note:** The contact resistance is for the XH2A-□□42 combined with the XH2B-□□41.

**■ Materials and Finish**

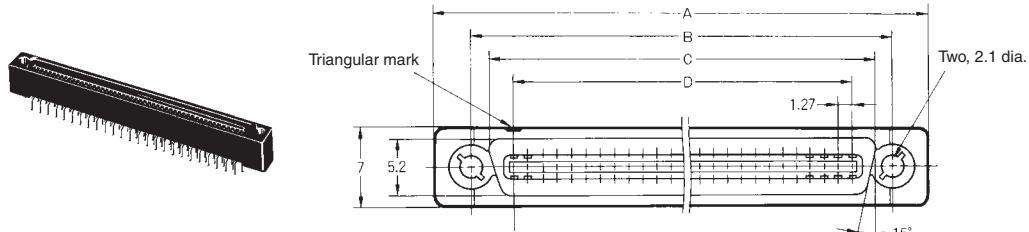
Type	Item	Plug	Socket
Housing	PBT (UL94 V-0)/black		
Locator	PBT (UL94 V-0)/black		
Contact	Mating end	Phosphor bronze/nickel base, gold/palladium plating	Phosphor bronze/nickel base, gold/palladium plating
	Terminal	Phosphor bronze/nickel base, tin plating	Phosphor bronze/nickel base, tin plating
Fastening pins		Copper alloy/tin plating	

# XH2A Plug, Straight DIP Terminals

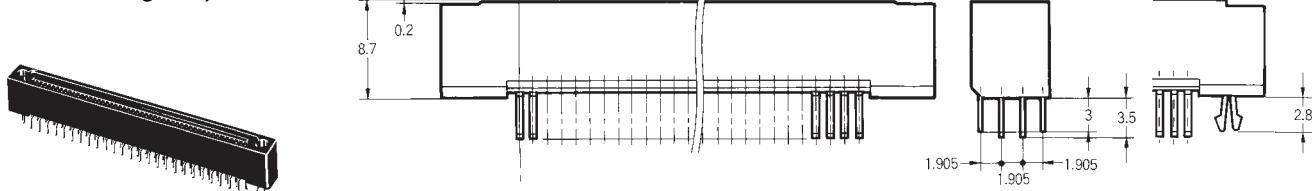
## ■ Dimensions

(unit: mm)

XH2A-□□41 (Straight DIP Terminals)

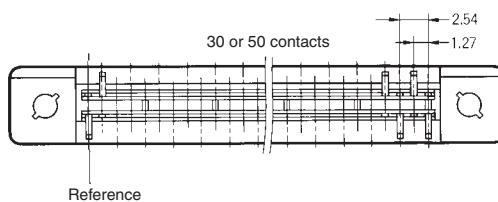


XH2A-□□41-A (Straight DIP Terminals with Fastening Pins)



### Dimensions

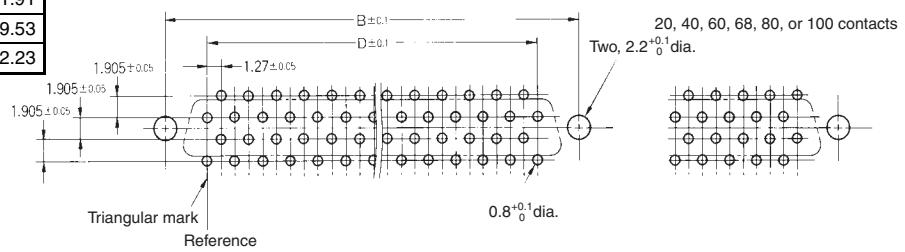
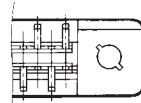
Dimensions (mm)	A	B	C	D
No. of contacts				
20	25.4	19.05	15.8	11.43
30	31.8	25.40	22.2	17.78
40	38.1	31.75	28.5	24.13
50	44.5	38.10	34.9	30.48
60	50.8	44.45	41.2	36.83
68	55.9	49.53	46.3	41.91
80	63.5	57.15	53.9	49.53
100	76.2	69.85	66.6	62.23



Mounting holes (bottom view)

30 or 50 contacts

20, 40, 60, 68, 80, or 100 contacts



## ■ Ordering Information

Model	Plug/Straight DIP Terminals	Plug/Straight DIP Terminals with fastening pins (See note.)
No. of contacts		
20	XH2A-2041	XH2A-2041-A
30	XH2A-3041	XH2A-3041-A
40	XH2A-4041	XH2A-4041-A
50	XH2A-5041	XH2A-5041-A
60	XH2A-6041	XH2A-6041-A
68	XH2A-6841	XH2A-6841-A
80	XH2A-8041	XH2A-8041-A
100	XH2A-0141	XH2A-0141-A

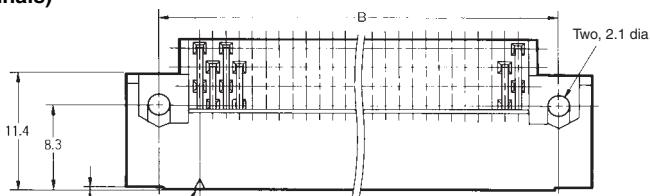
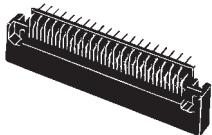
Note: Applicable board thickness is 1.6 mm.

# XH2A Plug, Right-angle DIP Terminals

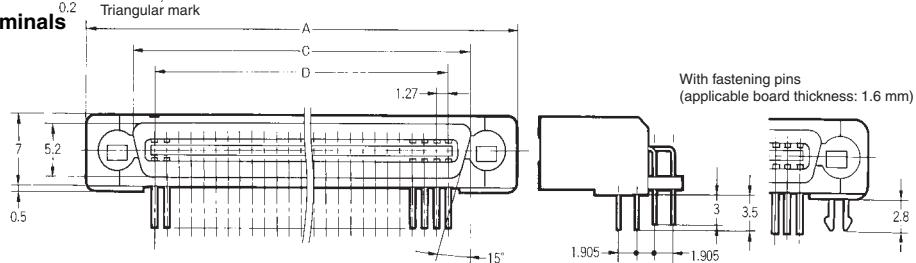
## ■ Dimensions

(unit: mm)

XH2A-□□42 (Right-angle DIP Terminals)

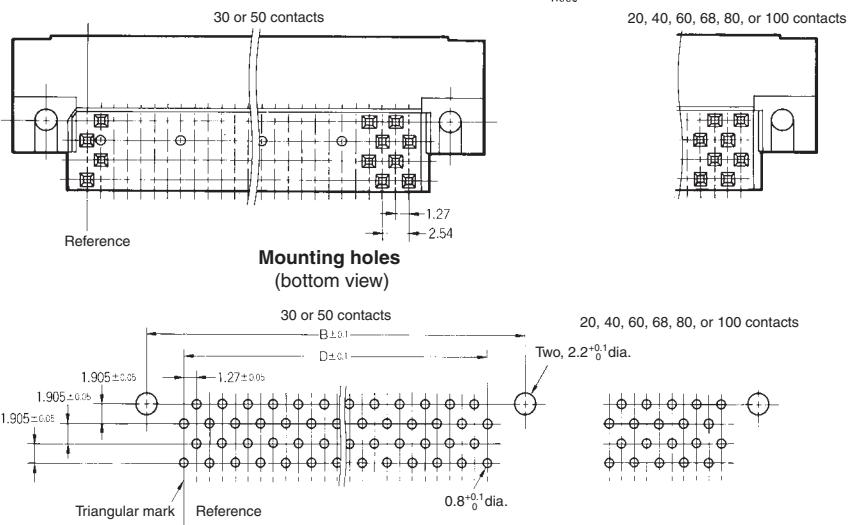


XH2A-□□42-A (Right-angle DIP Terminals with Fastening Pins)



## Dimensions

Dimensions (mm)	A	B	C	D
No. of contacts				
20	25.4	19.05	15.8	11.43
30	31.8	25.40	22.2	17.78
40	38.1	31.75	28.5	24.13
50	44.5	38.10	34.9	30.48
60	50.8	44.45	41.2	36.83
68	55.9	49.53	46.3	41.91
80	63.5	57.15	53.9	49.53
100	76.2	69.85	66.6	62.23



## ■ Ordering Information

Model	Plug/Right-angle DIP Terminals	Plug/Right-angle DIP Terminals with fastening pins (See note.)
No. of contacts		
20	XH2A-2042	XH2A-2042-A
30	XH2A-3042	XH2A-3042-A
40	XH2A-4042	XH2A-4042-A
50	XH2A-5042	XH2A-5042-A
60	XH2A-6042	XH2A-6042-A
68	XH2A-6842	XH2A-6842-A
80	XH2A-8042	XH2A-8042-A
100	XH2A-0142	XH2A-0142-A

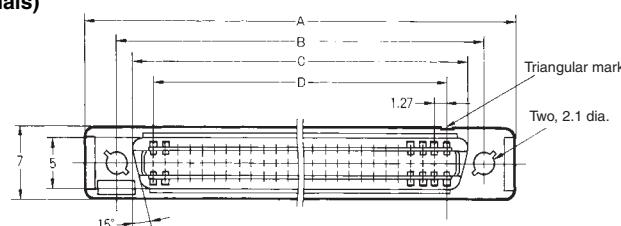
**Note:** Applicable board thickness is 1.6 mm.

# XH2B Socket, Straight DIP Terminals

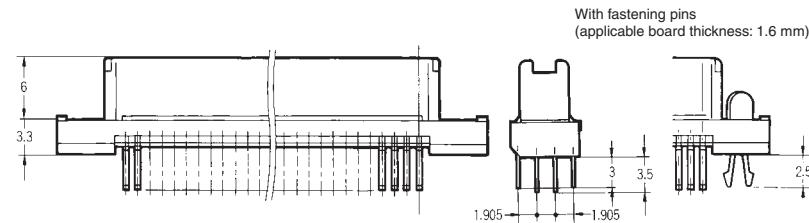
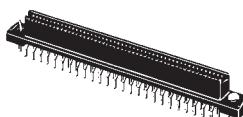
## ■ Dimensions

(unit: mm)

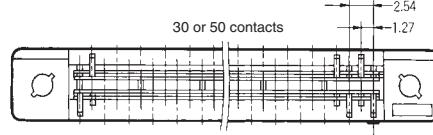
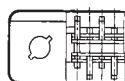
XH2B-□□41 (Straight DIP Terminals)



XH2B-□□41-A (Straight DIP Terminals with Fastening Pins)

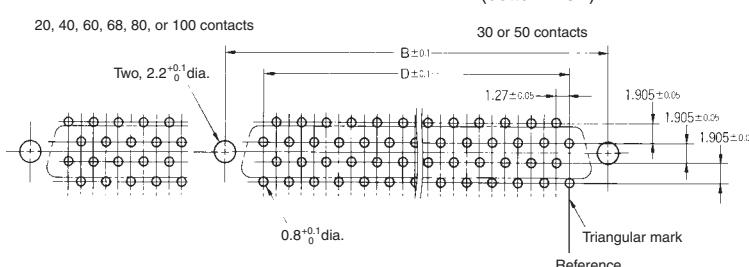


20, 40, 60, 68, 80, or 100 contacts



Reference

Mounting holes (bottom view)



## Dimensions

Dimensions (mm)	A	B	C	D
No. of contacts				
20	25.4	19.05	15.7	11.43
30	31.8	25.40	22.1	17.78
40	38.1	31.75	28.4	24.13
50	44.5	38.10	34.8	30.48
60	50.8	44.45	41.1	36.83
68	55.9	49.53	46.2	41.91
80	63.5	57.15	53.8	49.53
100	76.2	69.85	66.5	62.23

## ■ Ordering Information

Model	Socket/Straight DIP Terminals	Socket/Straight DIP Terminals with fastening pins (See note.)
No. of contacts		
20	XH2B-2041	XH2B-2041-A
30	XH2B-3041	XH2B-3041-A
40	XH2B-4041	XH2B-4041-A
50	XH2B-5041	XH2B-5041-A
60	XH2B-6041	XH2B-6041-A
68	XH2B-6841	XH2B-6841-A
80	XH2B-8041	XH2B-8041-A
100	XH2B-0141	XH2B-0141-A

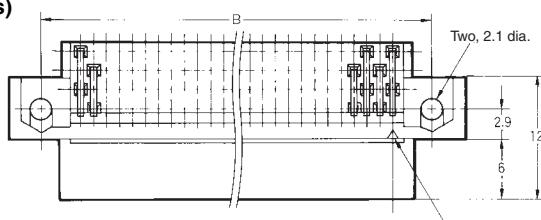
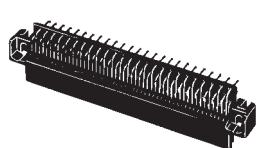
Note: Applicable board thickness is 1.6 mm.

# XH2B Socket, Right-angle DIP Terminals

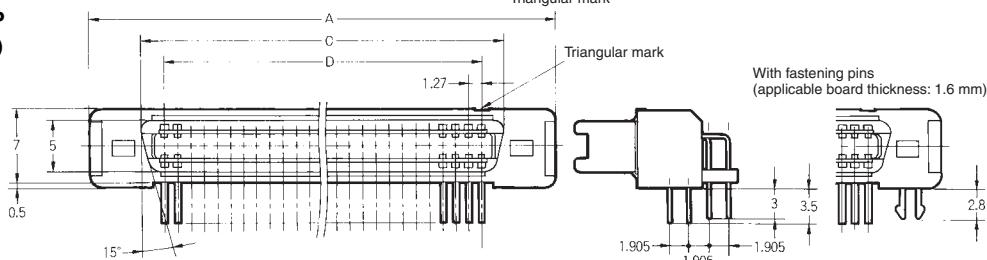
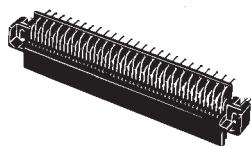
## ■ Dimensions

(unit: mm)

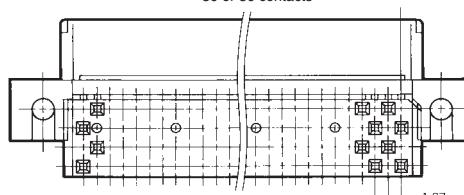
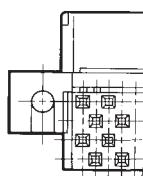
XH2B-□□42 (Right-angle DIP Terminals)



XH2B-□□42-A (Right-angle DIP Terminals with Fastening Pins)

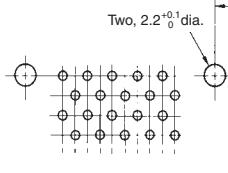


20, 40, 60, 68, 80, or 100 contacts

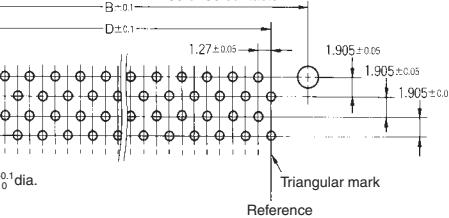
Mounting holes  
(bottom view)

Reference

20, 40, 60, 68, 80, or 100 contacts

Two, 2.2<sup>+0.1</sup> dia.

30 or 50 contacts

Mounting holes  
(bottom view)

Reference

## Dimensions

Dimensions (mm)	A	B	C	D
No. of contacts				
20	25.4	19.05	15.7	11.43
30	31.8	25.40	22.1	17.78
40	38.1	31.75	28.4	24.13
50	44.5	38.10	34.8	30.48
60	50.8	44.45	41.1	36.83
68	55.9	49.53	46.2	41.91
80	63.5	57.15	53.8	49.53
100	76.2	69.85	66.5	62.23

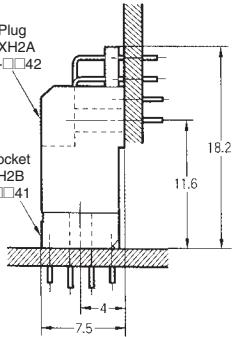
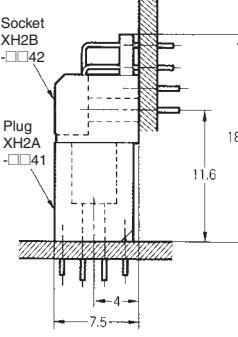
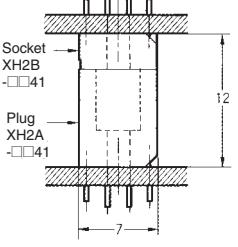
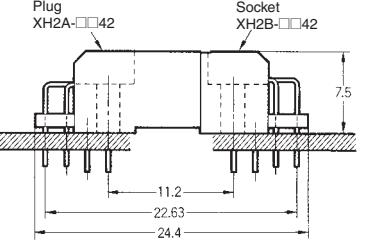
## ■ Ordering Information

Model	Socket/Right-angle DIP Terminals	Socket/Right-angle DIP Terminals with fastening pins (See note.)
No. of contacts		
20	XH2B-2042	XH2B-2042-A
30	XH2B-3042	XH2B-3042-A
40	XH2B-4042	XH2B-4042-A
50	XH2B-5042	XH2B-5042-A
60	XH2B-6042	XH2B-6042-A
68	XH2B-6842	XH2B-6842-A
80	XH2B-8042	XH2B-8042-A
100	XH2B-0142	XH2B-0142-A

Note: Applicable board thickness is 1.6 mm.

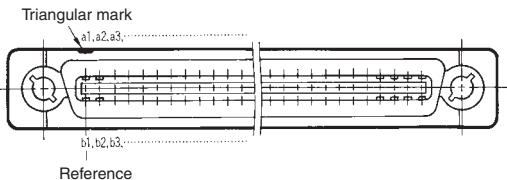
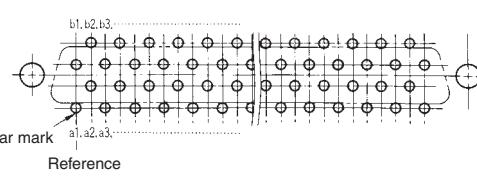
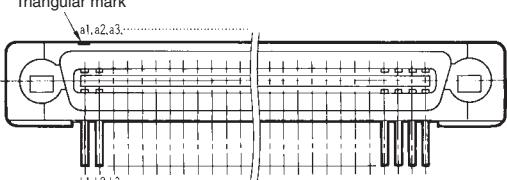
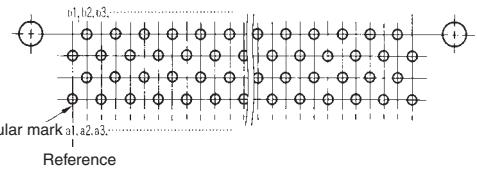
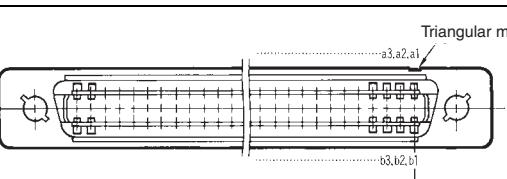
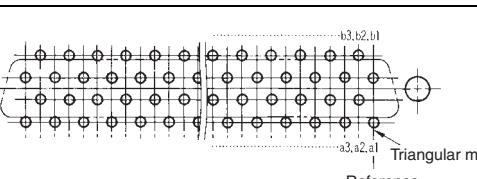
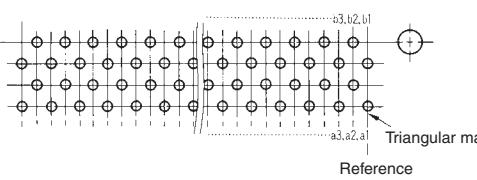
## ■ Mating Diagram (Vertical/Horizontal/Stacking)

(unit: mm)

Vertical (standard) (See note.)	Vertical (reverse) (See note.)	Stacking	Horizontal
			

**Note:** The function of the standard and reverse models is the same as that of the standard XC5 DIN Connector.

## ■ Contact Numbers

Item	Mated diagram	Mounting holes (bottom view)
Model	Contact numbers	
Plug, Straight Terminals		
Plug, Right-angle Terminals		
Socket, Straight Terminals		
Socket, Right-angle Terminals		

- Contact numbers are not printed on the connectors. Use the triangular mark (▼) as a guide when designing and mounting to boards.

- On the mating side, the row of terminals on the triangular mark side are called row a, and the row on the other side is called row b. The numbers are in the order shown.

- The triangular marks on the plug and socket must be aligned when mated. The contact numbers on both sides must match.

## ■ Precautions

### Correct Use

#### Mating Compatibility

XH2 Half-pitch Connectors do not mate with XH3 or XH4 Half-pitch Connectors.

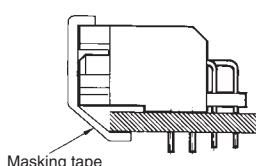
#### Special Finish for Preventing Flux Rise

XH2 Connectors (i.e., Straight Terminals) have a special finish that prevents flux rise. (The Connectors are designed for automated soldering. Brush coating flux from the back of the board applies too much flux and may nullify the special finish. Never use this method to apply flux.)

#### Soldering

##### Automated soldering

Use tape to mask the Right-angle Terminal Connector prior to automated soldering.



#### Automated Soldering Conditions (Jet Flow)

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

Please check each region's Terms & Conditions by region website.

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