

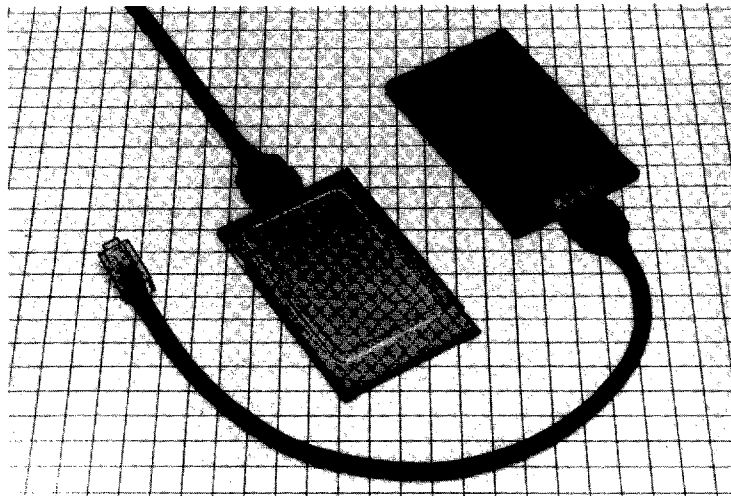
# HRS NX SERIES

## NX Series of I/O Card Interface Connectors

### ■ GENERAL

Connectors of the NX Series were developed for use with I/O card interfaces, have a spacing of 0.8 mm between contacts, and are equipped with an inner lock. These connectors can be used with type I and type II cards compliant with the JEIDA (Japanese Electronic Industry Development Association) standard Ver. 4.2. They can also be used as interface connectors for portable terminals and in other applications.

The connectors are available with 9, 15, 25, and 32 pins.



### ■ FEATURES

1. The receptacle connectors are designed with a super-low profile featuring a mounting height of 2.9 mm. The connectors can be mounted to type I and type II I/O cards.
2. Equipment interface connectors have a board mounting height of 3.2 mm, are durable, and can be mounted to the board with screws.
3. Use of a metal shell contributes to shielding. The connectors are designed so that the metal shell makes contact before the contacts do.
4. Use of a molded cover contributes greatly to ESD prevention.
5. The inner lock provides secure locking.
6. The wiring of the plug side is accomplished with (discrete type) pressure welding of AWG #28 wire which offers labour saving for the wiring work.
7. The receptacle side is of an 0.8 mm spacing SMT type and has a sequential structure. (Connectors for I/O cards)
8. Frame kits (type II) are available for easy manufacturing of I/O cards.
9. The anchoring of connectors for use with I/O cards is accomplished by means of spring pins for secure anchoring to a frame kit.

### ■ APPLICATIONS

These connectors can be used with I/O cards, portable personal computers, electronic notebooks, and the external connections of various small-sized portable terminals.

## ■ MATERIALS AND FINISH

| Main Materials Used   |                       |                 |                                |
|-----------------------|-----------------------|-----------------|--------------------------------|
| Receptacle connectors | Insulator             | Synthetic resin | ※Black                         |
|                       | Pins                  | Copper alloy    | Partial gold plating           |
|                       | Shell                 | Steel (Note)    | Solder plating                 |
|                       | Lock fitting          | Stainless steel | —                              |
| Plug unit             | Insulator             | Synthetic resin | ※Black                         |
|                       | Pins                  | Copper alloy    | Partial gold plating           |
| Plug cover            | Cover case            | Synthetic resin | ※Black                         |
|                       | Shell                 | Stainless steel | —                              |
| Frame kit             | Frame                 | Synthetic resin | ※Black                         |
|                       | Frame ground terminal | Phosphor bronze | Gold plating                   |
|                       | Spring pin            | Stainless steel | —                              |
|                       | Coil spring           | Stainless steel | —                              |
|                       | Panel                 | Stainless steel | Thermal adhesive tape included |

NOTE: The 0.3 mm eccentric type and those used for equipment interfaces are made of stainless steel.

※UL94V-0

## ■ ELECTRICAL PERFORMANCE

| Item                  | Condition                     | Rating            |
|-----------------------|-------------------------------|-------------------|
| Current capacity      | Per pin                       | 500 mA            |
| Rated voltage         |                               | 125 V AC          |
| Insulation resistance | At 100 V DC                   | 250 MΩ or greater |
| Withstand voltage     | One minute at the rated value | 300 V AC          |

### ◆ Suitable Cable

| I/O cable                      |                    |         |
|--------------------------------|--------------------|---------|
| Conductor size                 | AWG #28 (7/0.127)  |         |
| Outside diameter of insulation | 0.58 mm            | 0.62 mm |
|                                | Cable style        |         |
|                                | UL20276 and UL2789 | UL2990  |

## ■ STRUCTURE OF THE PRODUCT NUMBER

### ● Receptacle Connectors

NX 60 T A — 15 S AA 9 — SP

(1) (2) (3) (11) (5) (6) (7) (8) (9)

### ● Plug Units

NX 30 T A — 15 P AA

(1) (2) (3) (4) (5) (6) (7)

### ● Plug Covers

NX — 15 T A — CV

(1) (5) (3) (11) (10)

### ● Frame Kits

NX — 15 T — KT 9 (05)

(1) (5) (3) (10) (8) (12)

### ● Panel

(With 9, 15, or 25 contacts)

NX T — P (05)

(1) (3) (10) (12)

(With 32 contacts)

NX — 32 T — P (05)

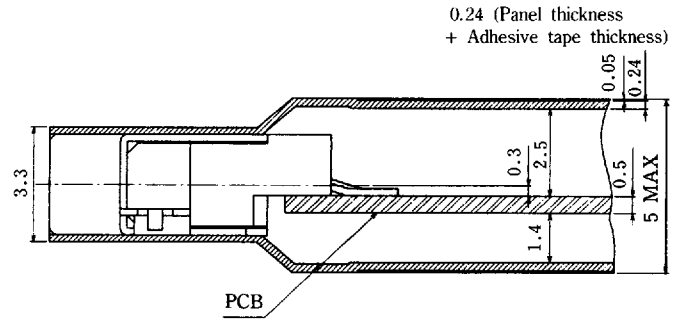
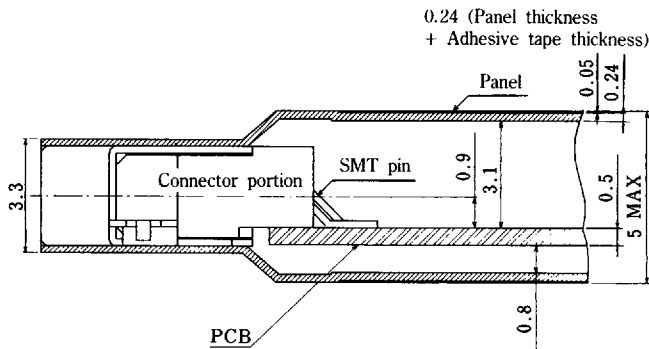
(1) (5) (3) (10) (12)

- (1) Series number: NX Series
- (2) Termination style  
30 : Loose wire pressure welding (for fine wire)  
60 : SMT type
- (3) Lock style  
T : Inner lock
- (4) Suitable wire size  
A : AWG #28
- (5) Number of pins: 9, 15, 25, and 32
- (6) Type of opening  
P : Plug                      S : Receptacle
- (7) Type of key  
AA : AA type (Types BB through FF being planned)
- (8) Eccentricity  
9 : 0.9 mm                      3 : 0.3 mm  
(Dimension from connector center line to the surface of the PCB)
- (9) Variations  
SP : φ1 hole for Spring Pin available (for use with cards)    SH : Through hole
- (10) Types of accessories  
CV : Vertical opening cover case  
CV1 : Vertical opening cover case (Thin model: 5 mm type)  
KT : Frame kit  
F : Frame  
P : Panel (Type II)  
PA : Panel (Type I)  
BS : Bushing  
CSA : Coil spring  
CSB : Coil spring
- (11) Form type serial number
- (12) Panel finish  
No symbol: Silver matt finish  
(05): Dull processing material

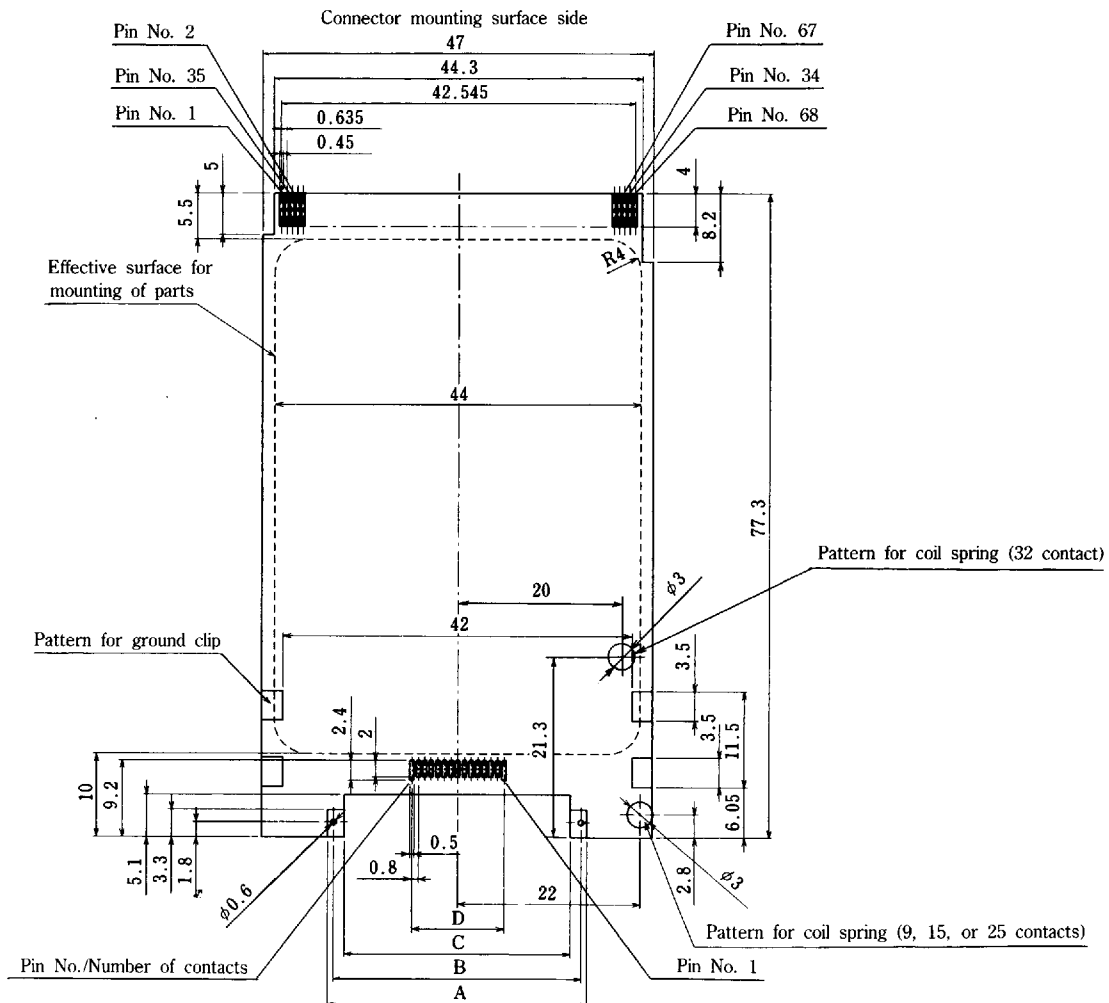
## ◆ Connector Mounting Diagram

● 0.9 mm eccentric type

● 0.3 mm eccentric type



## ◆ Recommended Board Dimensions Diagram (Suitable Board Thickness: 0.5 mm Maximum)

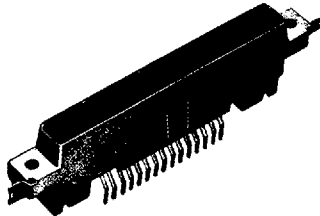


Unit: mm

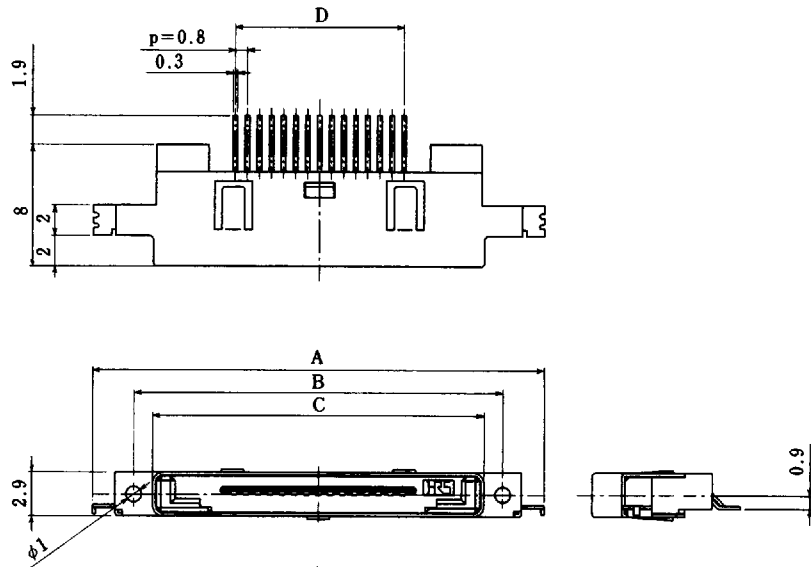
| HRS No.      | Number of pins | Product No. | A    | B    | C    | D    | Eccentricity |
|--------------|----------------|-------------|------|------|------|------|--------------|
| CL234-0010-8 | 9              | NX-9T-KT9   | 26.4 | 25   | 22.4 | 6.4  | 0.9          |
| CL234-0011-0 | 15             | NX-15T-KT9  | 31.2 | 29.8 | 27.2 | 11.2 | 0.9          |
| CL234-0012-3 | 25             | NX-25T-KT9  | 39.2 | 37.8 | 35.2 | 19.2 | 0.9          |
| CL234-0026-8 | 32             | NX-32T-KT9  | 44.8 | 43.4 | 40.8 | 24.8 | 0.9          |
| CL234-0034-6 | 9              | NX-9T-KT3   | 26.4 | 25   | 22.4 | 6.4  | 0.3          |
| CL234-0035-9 | 15             | NX-15T-KT3  | 31.2 | 29.8 | 27.2 | 11.2 | 0.3          |
| CL234-0036-1 | 25             | NX-25T-KT3  | 39.2 | 37.8 | 35.2 | 19.2 | 0.3          |
| CL234-0054-1 | 32             | NX-32T-KT3  | 44.8 | 43.8 | 40.8 | 24.8 | 0.3          |

# RECEPTACLE CONNECTORS

## ● 0.9 mm eccentric type



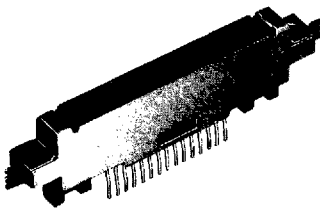
CL234-0004-5  
NX60T-15SAA9-SP



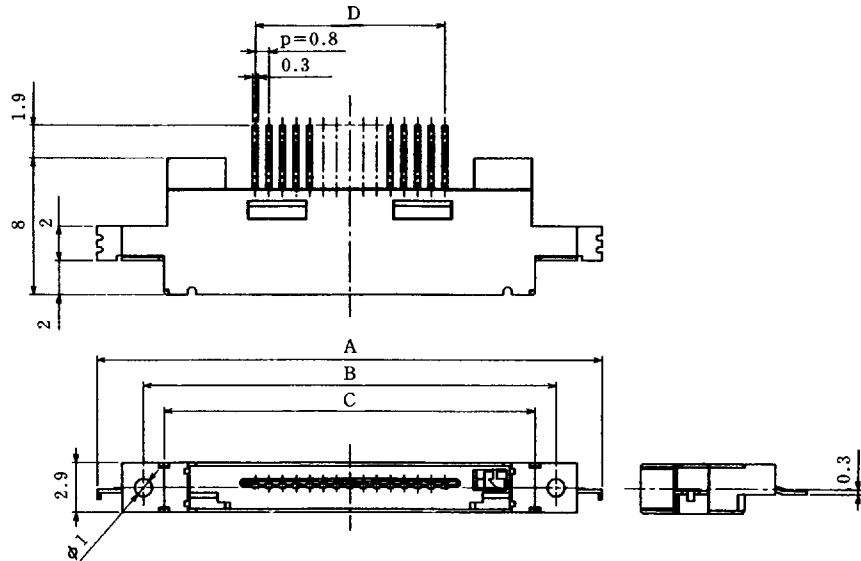
Unit: mm

| HRS No.      | Number of pins | Product No.     | A    | B    | C    | D    |
|--------------|----------------|-----------------|------|------|------|------|
| CL234-0001-7 | 9              | NX60T-9SAA9-SP  | 25.2 | 19.7 | 17.2 | 6.4  |
| CL234-0004-5 | 15             | NX60T-15SAA9-SP | 30   | 24.5 | 22   | 11.2 |
| CL234-0007-3 | 25             | NX60T-25SAA9-SP | 38   | 32.5 | 30   | 19.2 |
| CL234-0023-0 | 32             | NX60T-32SAA9-SP | 43.6 | 38.1 | 35.6 | 24.8 |

## ● 0.3 mm eccentric type



CL234-0032-0  
NX60TA-15SAA3-SP



Unit: mm

| HRS No.      | Number of pins | Product No.      | A    | B    | C    | D    |
|--------------|----------------|------------------|------|------|------|------|
| CL234-0031-8 | 9              | NX60TA-9SAA3-SP  | 25.2 | 19.7 | 17.2 | 6.4  |
| CL234-0032-0 | 15             | NX60TA-15SAA3-SP | 30   | 24.5 | 22   | 11.2 |
| CL234-0033-3 | 25             | NX60TA-25SAA3-SP | 38   | 32.5 | 30   | 19.2 |
| CL234-0053-0 | 32             | NX60TA-32SAA3-SP | 43.6 | 38.1 | 35.6 | 24.8 |