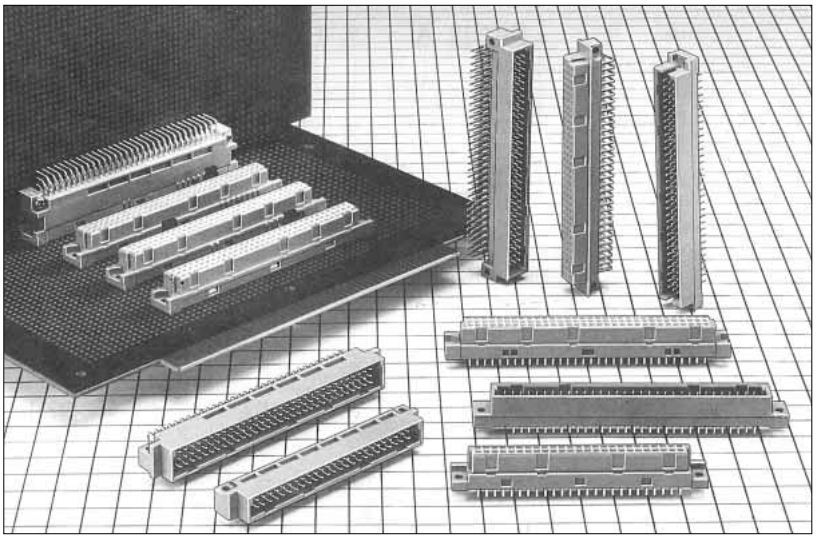
# PCN10, 12, 13 Series (Product Compliant to DIN Standard: through hole,Wrapping Type)



PCN Series

## ■Features

### 1. Compliant with DIN Standard

Comply with IEC603-2/DIN41612 standard.

### 2. Variation in number of contacts

10, 16, 20, 24, 28, 30, 32, 44, 48, 50, 64, 90, 96, 100, 128, and 144 contacts are available.

### 3. Two point contact construction

PCN10 and 12 series are constructed with high reliable double-sided two point contacts.

PCN13 series pursues after cost performance, and constructed with single sided two point contacts.

### 4. Broad applications

DIN standard types of B, C, R, and Q are available. The flux tight product is available. The easy lock pin type to prefix the board is available.

### 5. Stacking height variation

PCN10H series contains 25, 30, 35, 40 and 45mm stacking height.

### 6. Circuit protection function available

PCN10MC series utilizes a sequence structure for circuit protection function.

### 7. Cable connector

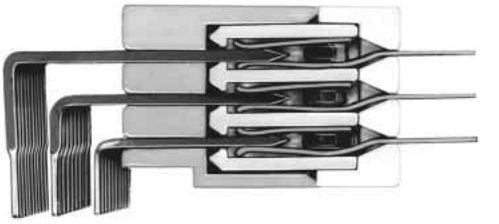
ID connector for ribbon cable is available.

The connector is prepared for crimping connection for AWC#26 to 30 cables.

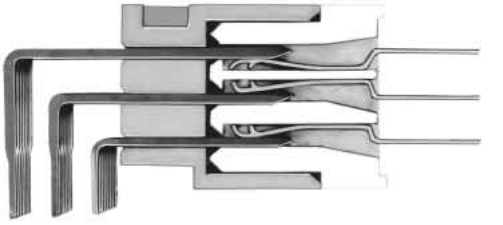
## ■Application

Control equipment, exchange, measuring instruments etc.

Double-sided two point Contact System



Single-sided two point Contact System



Stacking Connector

## ■Product Specifications

| | | | |
|---|---|---|---|
| Rating | Current rating: 2A<br>Voltage rating: 300V AC | Operating Temperature Range: -55 to +85℃ (Note 1)<br>Operating Humidity Range: 85% max | Storage Temperature Range: -10 to +60℃ (Note 2)<br>Storage Humidity Range: 40 to 70% (Note 2) |

| Item | Specification | Condition |
|---|---|---|
| 1.Insulation Resistance | $10^6$M ohms | 100V DC |
| 2.Withstanding Voltage | No flashover or insulation breakdown. | 1000V AC (insulation displacement, crimping type: 650V AC) /1 minute. |
| 3.Contact Resistance | 20m ohms max. | 0.1A |
| 4.Vibration | No electrical discontinuity of 10μs 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) | Insulation resistance : $10^6$M ohms min. | 96 hours at temperature of 40℃ and humidity of 90% to 95% |
| 6.Temperature Cycle | No damage, cracks, or parts looseness. | (-65℃ : 30 minutes→15 to 35℃: 5 minutes max.→<br>125℃ : 30 minutes→15 to 35℃: 5 minutes max.) 5 cycles |
| 7.Durability (Mating/un-mating) | Contact resistance : 20m ohms max. | 500 cycles |
| 8.Resistance to Soldering heat | No deformation of components affecting performance. | Manual soldering: 300℃ for 3 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.
Note 3. Information contained in this catalog represents general requirements for this Series. Contact us for the drawings and specifications for a specific part number shown.

## ■Material

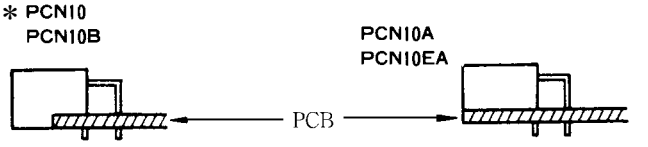
| Parts | | Material | Finish | Remarks |
|---|---|---|---|---|
| Insulator | | PBT | Gray | UL94V-0 |
| Contact | Pin header | Brass | Contact area: Gold plated | ——— |
| | Receptacle | Copper alloy | Remainer: Tin plated | ——— |

## ■Ordering Information

●PCN 10 Series

**PCN10 A – ✻ P – 2.54 DS**
❶ ❷ ❸ ❹ ❺ ❻

| | |
|---|---|
| ❶ Series Name : PCN10 | ❸ Number of contacts: 2-row : 16, 20, 24, 32, 44, 50, 64, 90, 100<br>3-row : 48, 96, 144<br>4-row : 128 |
| ❷ Blank, A, B } mold type (as listed below)<br>C : Flux prevention type (DSA only)<br>D : Rack installation type<br>EA : With Board prefixed lock pin<br>H : Stacking height 35mm type<br>HA : Stacking height 30mm type<br>HB : Stacking height 25mm type<br>HC : Stacking height 45mm type<br>HD : Stacking height 40mm type<br>MC : Circuit Protection function type | ❹ Connector type : P : Pin header<br>: S : Receptacle<br>❺ Contact pitch : 2.54mm<br>❻ Contact type<br>DS : Right angle through hole type<br>DSA : Straight through hole type<br>WA : Wrapping type (0.5tx0.7W)<br>WB : Wrapping type (0.5tx0.5W)<br>R : Insulation displacement type<br>C : Crimping type |




✻ The receptacle double-row right angle type indicates the type of PCN10A type.

## ●PCN 12 Series (Plug)

**PCN12 A - ✻ P - 2.54 DS**
❶ ❷ ❸ ❹ ❺ ❻

| | | | |
|---|---|---|---|
| ❶ Series name | : PCN12 | ❸ Number of contacts | : 2-row: 10, 16, 20, 24, 28, 32, 44, 50, 64, 90, 100<br>3-row: 96 |
| ❷ No symbol | : DIN standard type C (96 Contacts) | ❹ P | : Plug |
| A | : Original type | ❺ Contact pitch | : 2.54mm |
| E-EA | : With board prefixed lock pin type | ❻ Contact type | : DS: Right angle through hole type |

## ●PCN 12E-✻S-2.54 DSA(Socket)

**PCN12 E - ✻ S - 2.54 DSA**
❶ ❷ ❸ ❹ ❺ ❻

| | | | |
|---|---|---|---|
| ❶ Series name | : PCN12 | ❹ S | : Socket |
| ❷ No symbol | : Standard type | ❺ Contact pitch | : 2.54mm |
| E | : With board prefixed lock pin type | ❻ Contact type | : DSA: Straight through hole type |
| ❸ Number of contacts | : 2-row: 10, 16, 20, 28, 32, 44, 50, 64, 90, 100<br>3-row: 96 | | |

## ●PCN 13E-✻S-2.54 DSA (Socket)

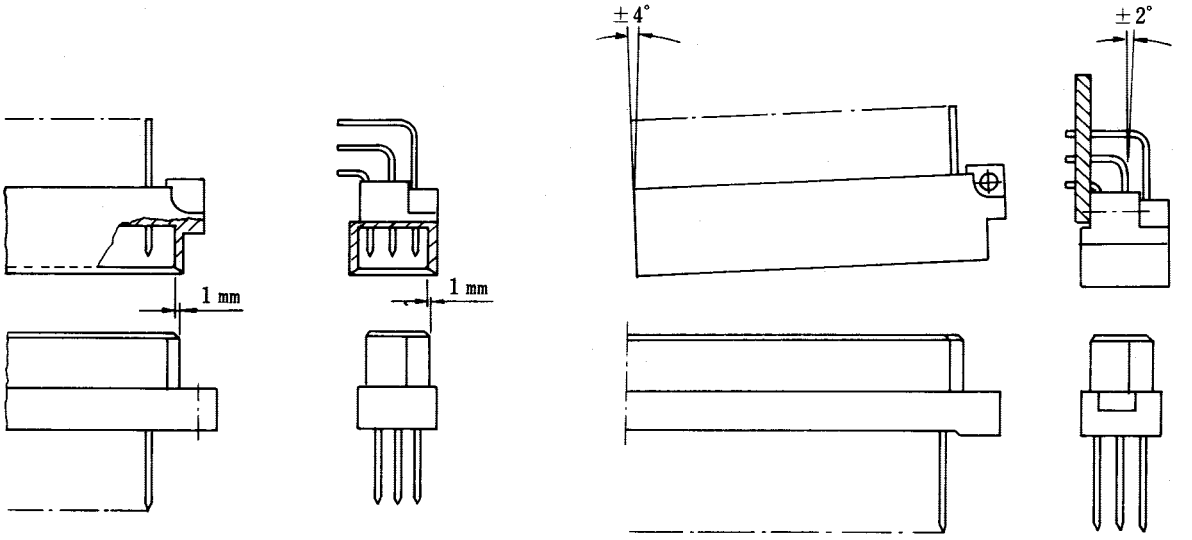
**PCN13 E - ✻ S - 2.54 DSA**
❶ ❷ ❸ ❹ ❺ ❻

| | | | |
|---|---|---|---|
| ❶ Series name | : PCN13 | ❹ S | : Socket |
| ❷ No symbol | : Standard type | ❺ Contact pitch | : 2.54mm |
| E | : With board prefixed easy pin type | ❻ Contact style | : DS: Right angle through hole type<br>: DSA: Straight through hole type |
| ❸ Number of contacts | : 2-row: 10, 16, 20, 30, 32, 44, 50, 64, 90, 100<br>3-row: 48, 96 | | |

✻PCN13 series are only socket type.
PCN10 and 12 series are mating connectors.

## DIN Connector Mating Condition

DIN connectors of Hirose should be used under conditions as illustrated below.



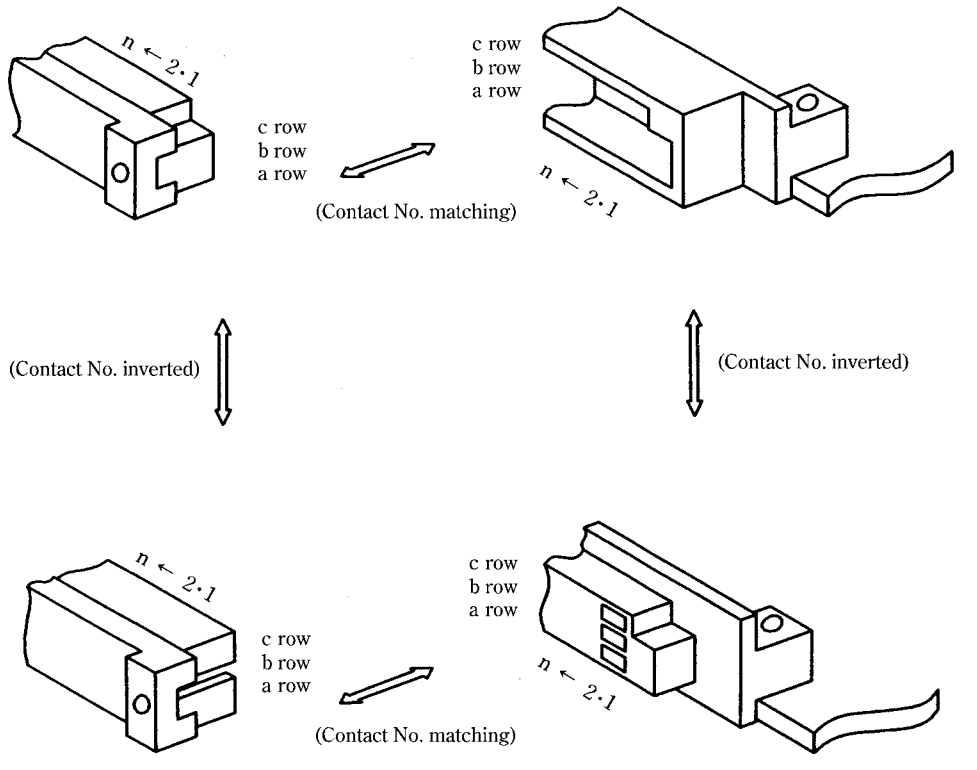
## Contact numbers

According to the inter-combination with DIN standard type C (type B) and type R (type Q), the contact numbers and row numbers represent contact No. (No.1 to 32) and row No. (a, b, c).

●DIN standard type C and type R represent the 3-row 96 contacts type, including 32 contacts in single-row.
●DIN standard type B and type Q represent the 2-row 64 contacts type, including 32 contacts in single-row.

①Receptacle straight type
Type C (Type B)

②Pin header right angle type
Type C (Type B)




③Pin header straight type
Type R (Type Q)

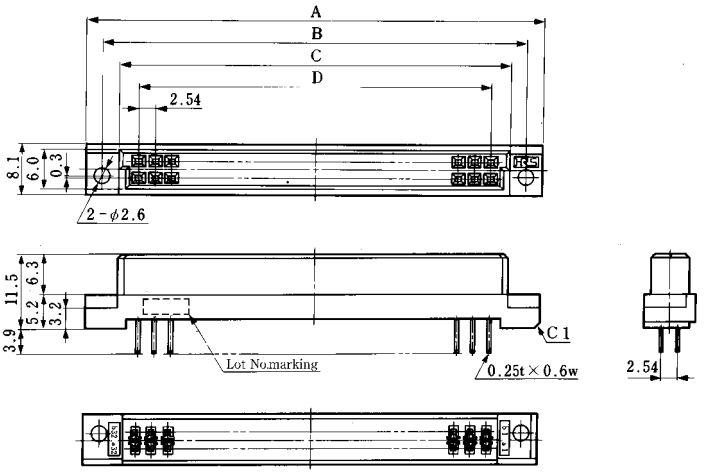
④Receptacle right angle type
Type R (Type Q)

Note: The DIN connector is basically standardized in combination with straight and right angle types. As shown above in illustrationss;
The contact numbers is matched in combination with (1)-(2) and (3)-(4), while the contact numbers are inverted in combination with (1)-(2) and (3)-(4).

# PCN13 Series

## ■Socket: 2-row Straight Type

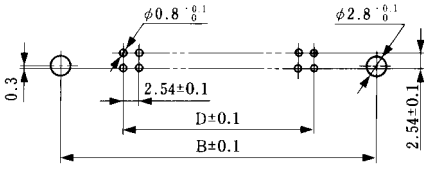
PCN13-✻S-2.54DSA(71)



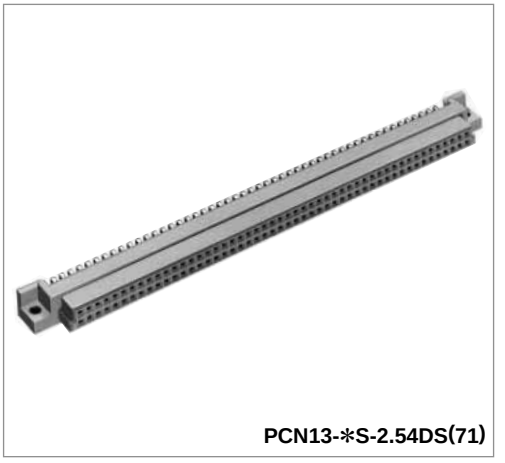

Unit:mm

| Part Number | CL No. | Number of Contacts | A | B | C | D | RoHS |
|---|---|---|---|---|---|---|---|
| PCN13- 16S-2.54DSA(71) | CL583-3001-8-71 | 16 | 34.04 | 29.04 | 24.04 | 17.78 | YES |
| PCN13- 20S-2.54DSA(71) | CL583-3002-0-71 | 20 | 39.12 | 34.12 | 29.12 | 22.86 | |
| PCN13- 32S-2.54DSA(71) | CL583-3004-6-71 | 32 | 54.36 | 49.36 | 44.36 | 38.1 | |
| PCN13- 44S-2.54DSA(71) | CL583-3005-9-71 | 44 | 69.6 | 64.6 | 59.6 | 53.34 | |
| PCN13- 50S-2.54DSA(71) | CL583-3006-1-71 | 50 | 77.22 | 72.22 | 67.22 | 60.96 | |
| PCN13- 64S-2.54DSA(71) | CL583-3007-4-71 | 64 | 95 | 90 | 85 | 78.74 | |
| PCN13- 90S-2.54DSA(71) | CL583-3008-7-71 | 90 | 128.02 | 123.02 | 118.02 | 111.76 | |
| PCN13-100S-2.54DSA(71) | CL583-3009-0-71 | 100 | 140.72 | 135.72 | 130.72 | 124.46 | |

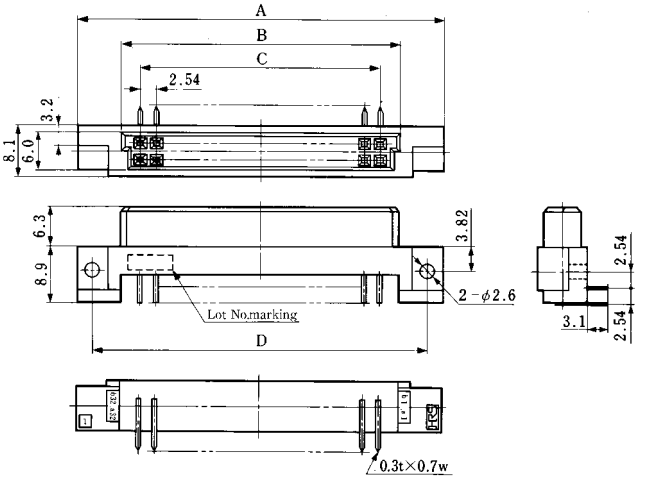
## ◆PCB mounting pattern




## ■Socket: 2-row Right Angle Type



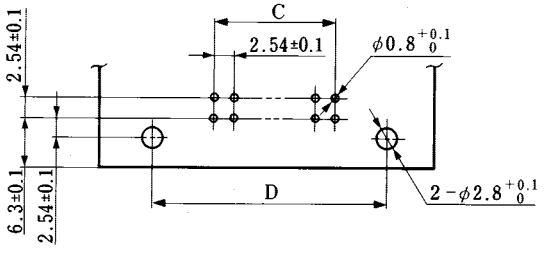
PCN13-✻S-2.54DS(71)



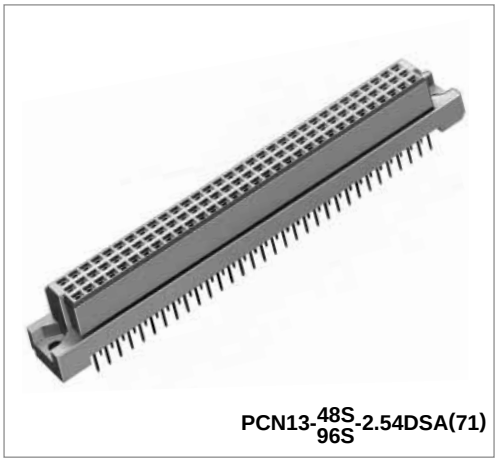

Unit:mm

| Part Number | CL No. | Number of Contacts | A | B | C | D | RoHS |
|---|---|---|---|---|---|---|---|
| PCN13- 16S-2.54DS(71) | CL583-3031-9-71 | 16 | 38.02 | 24.04 | 17.78 | 33.02 | YES |
| PCN13- 20S-2.54DS(71) | CL583-3032-1-71 | 20 | 43.1 | 29.12 | 22.86 | 38.1 | |
| PCN13- 30S-2.54DS(71) | CL583-3033-4-71 | 30 | 55.8 | 41.82 | 35.56 | 50.8 | |
| PCN13- 32S-2.54DS(71) | CL583-3034-7-71 | 32 | 58.34 | 44.36 | 38.1 | 53.34 | |
| PCN13- 44S-2.54DS(71) | CL583-3035-0-71 | 44 | 73.58 | 59.6 | 53.34 | 68.58 | |
| PCN13- 50S-2.54DS(71) | CL583-3036-2-71 | 50 | 81.2 | 67.22 | 60.96 | 76.2 | |
| PCN13- 64S-2.54DS(71) | CL583-3037-5-71 | 64 | 98.98 | 85 | 78.74 | 93.98 | |
| PCN13-100S-2.54DS(71) | CL583-3039-0-71 | 100 | 144.7 | 130.72 | 124.46 | 139.7 | |

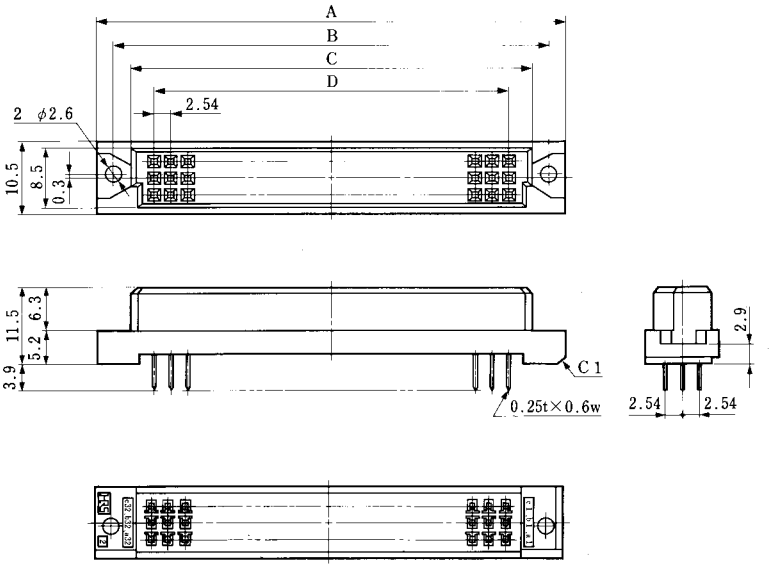
## ◆PCB mounting pattern



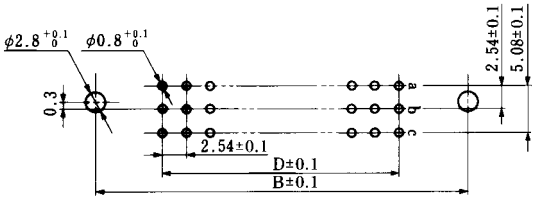
## ■Socket: 3-row Straight Type



PCN13-48S/96S-2.54DSA(71)




### ◆PCB mounting pattern

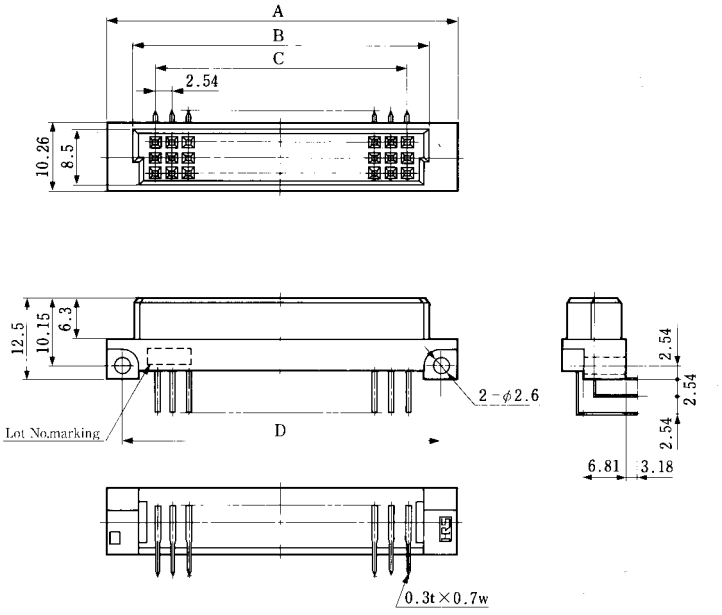



Unit:mm

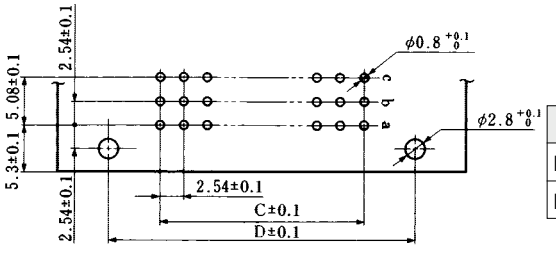
| Part Number | CL No. | Number of Contacts | A | B | C | D | RoHS |
|---|---|---|---|---|---|---|---|
| PCN13-48S-2.54DSA(71) | CL583-3010-9-71 | 48 | 54.36 | 50 | 44.36 | 38.1 | YES |
| PCN13-96S-2.54DSA(71) | CL583-3011-1-71 | 96 | 95 | 90 | 85 | 78.74 | |

## ■Socket: 3-row Right Angle Type

PCN13-48S/96S-2.54DS(71)




### ◆PCB mounting pattern




Unit:mm

| Part Number | CL No. | Number of Contacts | A | B | C | D | RoHS |
|---|---|---|---|---|---|---|---|
| PCN13-48S-2.54DS(71) | CL583-3040-0-71 | 48 | 53.36 | 44.36 | 38.1 | 48.26 | YES |
| PCN13-96S-2.54DS(71) | CL583-3041-2-71 | 96 | 94 | 85 | 78.74 | 88.9 | |

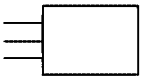
# Product Compliant to DIN41612/IEC603-2 Standard

## PCN Series

### Pin Header Side

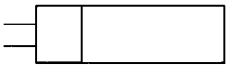
●Straight through hole type

PCN10 - ✻ ✻P-2.54DSA



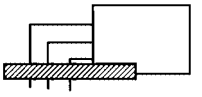
●Stacking through hole type

PCN10H✻ - ✻ ✻P-2.54DSA



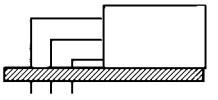
●Right angle through hole type (mounted on the board edge)

PCN10 -✻ ✻P-2.54DS
PCN12 -✻ ✻P-2.54DS
PCN12E -✻ ✻P-2.54DS

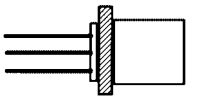


●Right angle through hole type (mounted on the board)

PCN10A -✻ ✻P-2.54DS
PCN10EA-✻ ✻P-2.54DS
PCN12A -✻ ✻P-2.54DS
PCN12EA-✻ ✻P-2.54DS



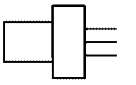
●Press fit type



PCN11-✻ ✻P-2.54W✻ -2+PCN11-✻ ✻P-2.54H-2

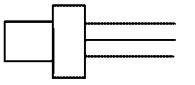
### Receptacle Side

●Straight through hole



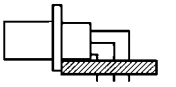
PCN10 -✻ ✻S-2.54DSA
PCN10C -✻ ✻S-2.54DSA
PCN10EA-✻ ✻S-2.54DSA
PCN10D -✻ ✻S-2.54DSA
PCN12 -✻ ✻S-2.54DSA
PCN12E -✻ ✻S-2.54DSA
PCN13 -✻ ✻S-2.54DSA

●Wrapping type



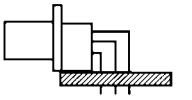
PCN10 -✻ ✻S-2.54W✻

●Right angle through hole type (mounted on the board edge)



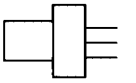
PCN10B -✻ ✻S-2.54DS

●Right angle through hole type (mounted on the board)



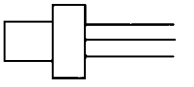
PCN10A -✻ ✻S-2.54DS
PCN10C -✻ ✻S-2.54DS
PCN13 -✻ ✻S-2.54DS

●Press fit short pin type



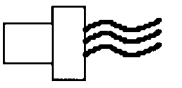
PCN11-✻ ✻S-2.54PFB-2

●Press fit long pin type



PCN11-✻ ✻S-2.54WB-2

●Cable type



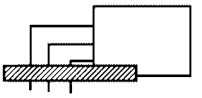
PCN10-✻ ✻S-2.54C+PCN10-✻ ✻ ✻ ✻SC✻
PCN10-✻ ✻S-2.54R

## ■Coaxial Connector and High Current Contact Composite Type

**Pin Header Side**

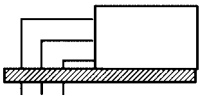
●Right angle through hole type (mounted on the board edge)

PCN10F-∗ ∗P-2.54DS



●Right angle through hole type (mounted on the board)

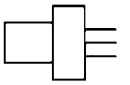
PCN10FA-∗ ∗P-2.54DS



**Receptacle Side**

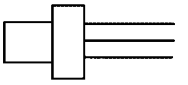
●Straight through hole type

PCN10F -∗ ∗S-2.54DSA



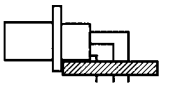
●Wrapping type

PCN10F -∗ ∗S-2.54W∗



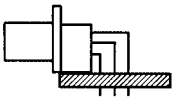
●Right angle through hole type (mounted on the board edge)

PCN10FB-∗ ∗S-2.54DS



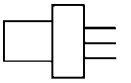
●Right angle through hole type (mounted on the board)

PCN10FA-∗ ∗S-2.54DS



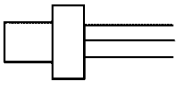
●Press fit short pin type

PCN11F-∗ ∗S-2.54PFB-2



●Press fit long pin type

PCN11F-∗ ∗S-2.54WB-2



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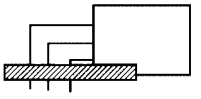
## Circuit Protection Function Type

**Pin Header Side**

●Right angle through hole type

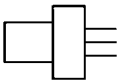
PCN10MC∗-∗ ∗P-2.54DS



**Receptacle Side**

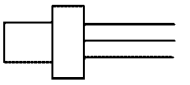
●Straight through hole type

PCN10MC∗-∗ ∗S-2.54DSA



●Wrapping type

PCN10MC∗-∗ ∗S-2.54W∗

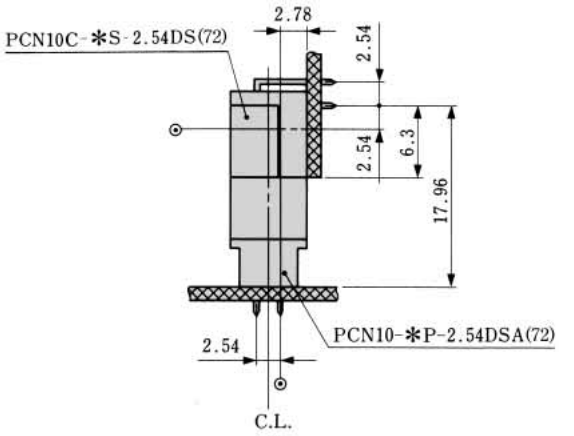


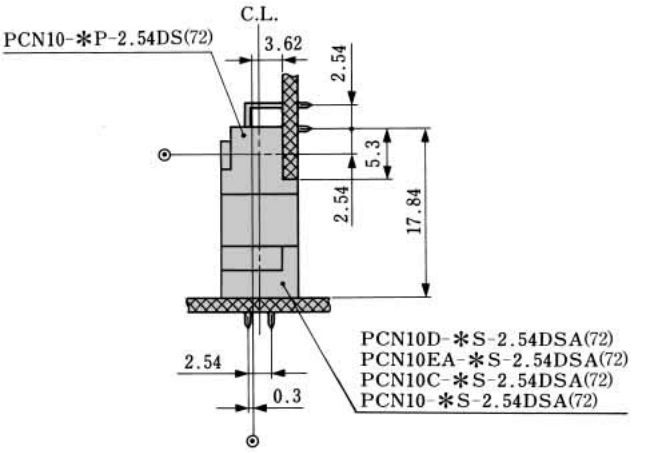
# ◆Application Pattern

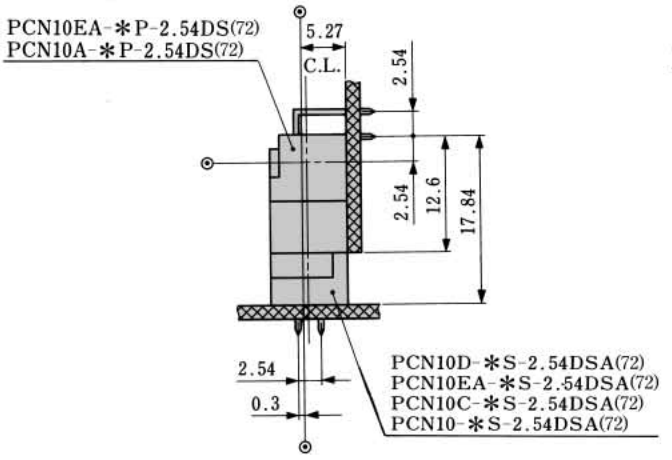
## ●Vertical Connection

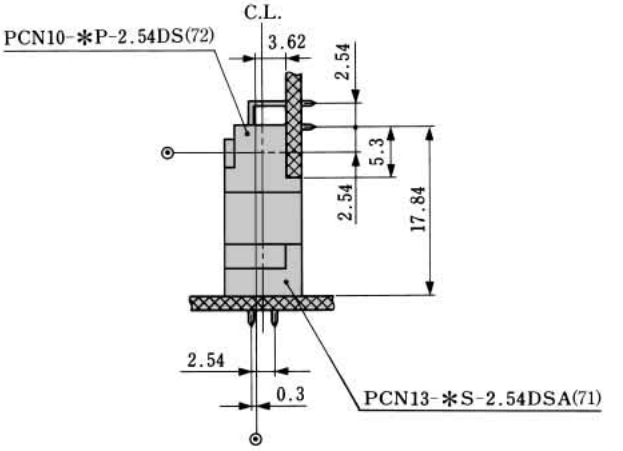
◉ : Mounting hole center
C.L. : Center line

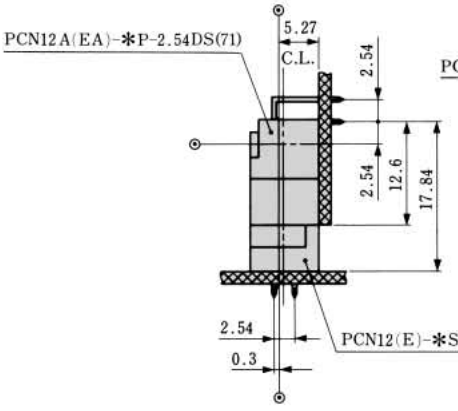
### ●2-row type

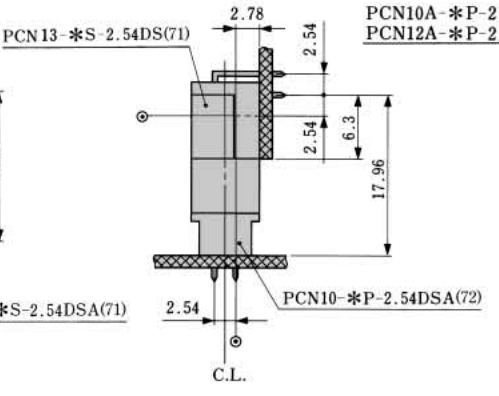


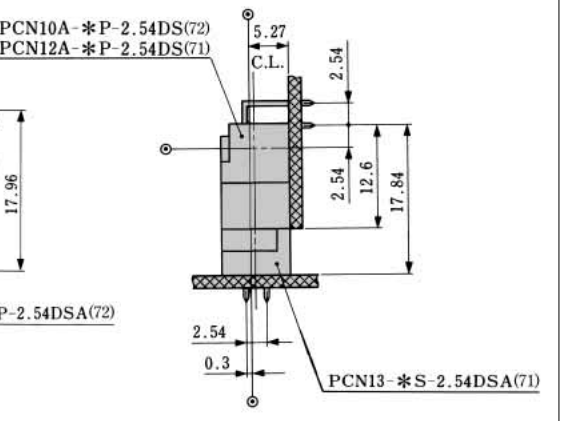



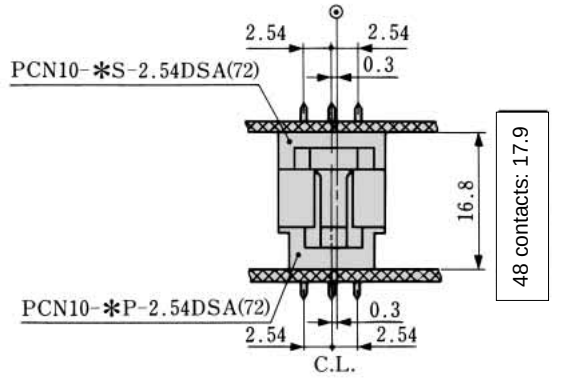



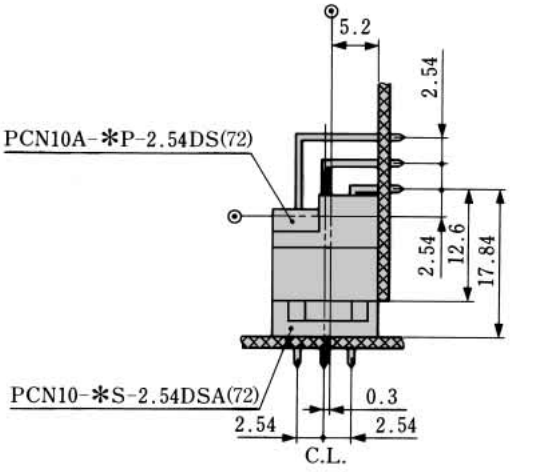



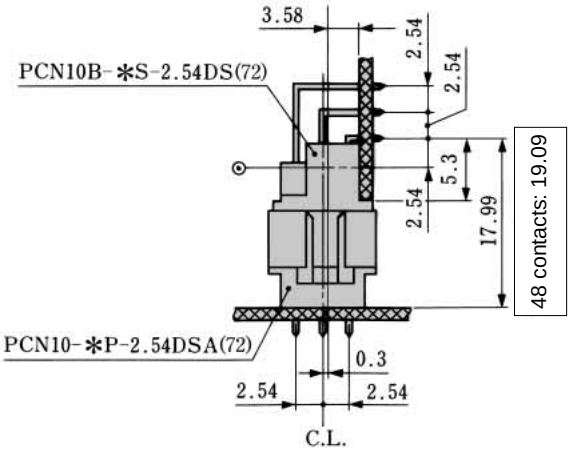



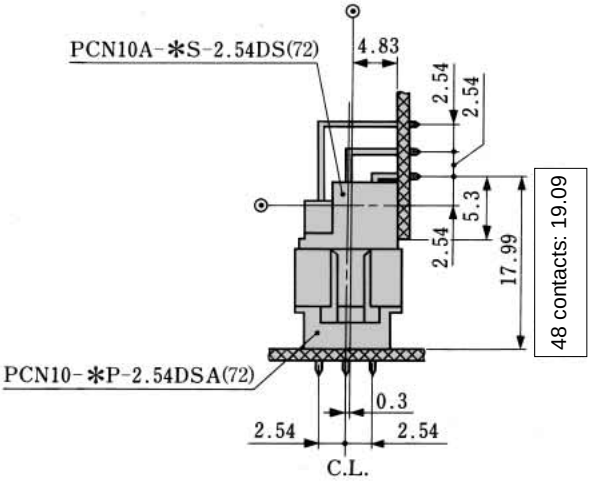
◉ : Mounting hole center
C.L. : Center line

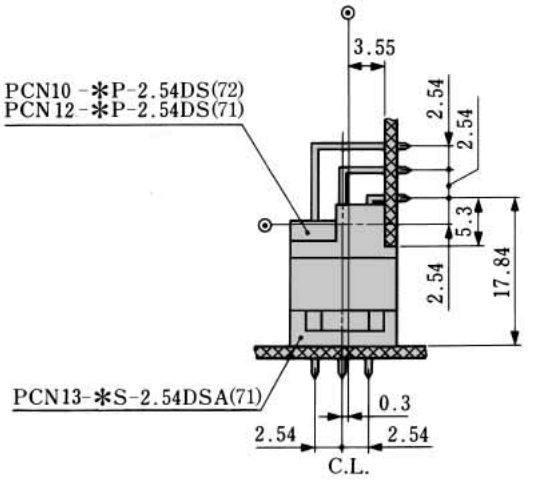
## ●3-row type

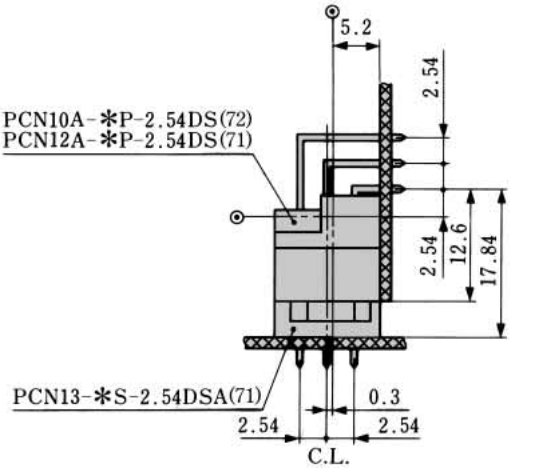


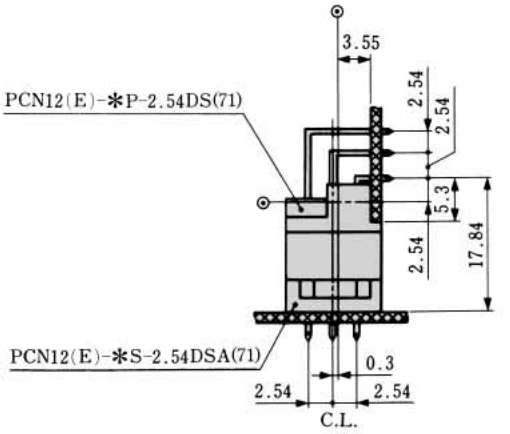



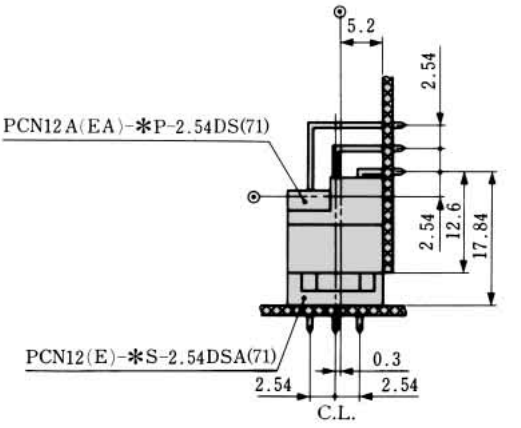



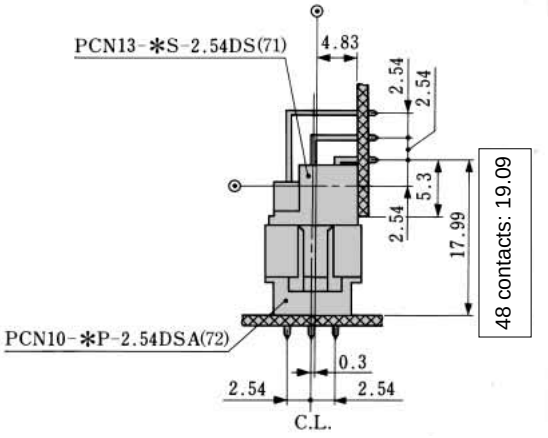



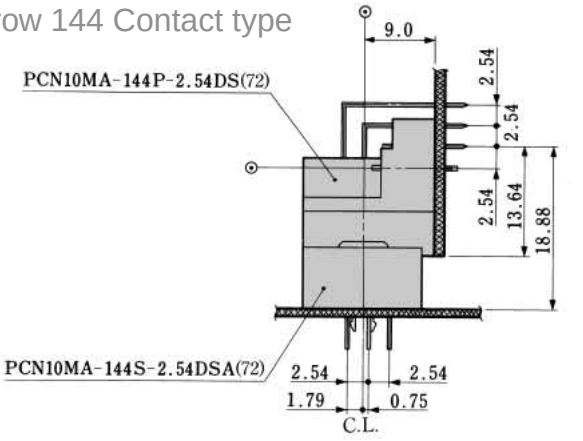
◉ : Mounting hole center
C.L. : Center line



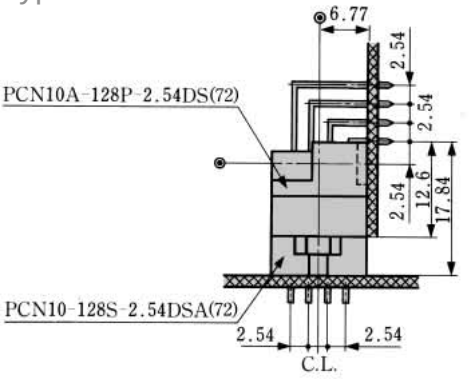



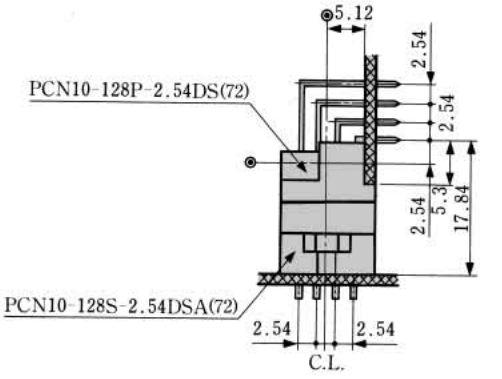



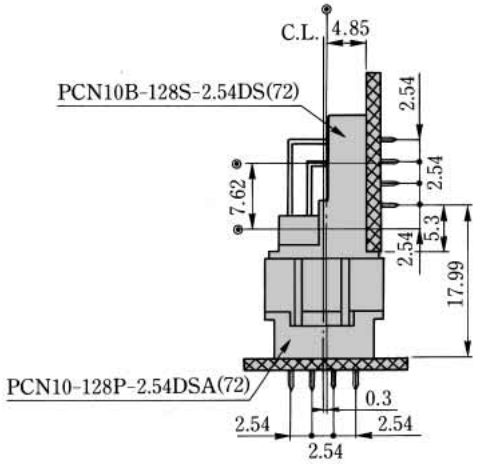

## ●3-row 144 Contact type




## ●4-row type



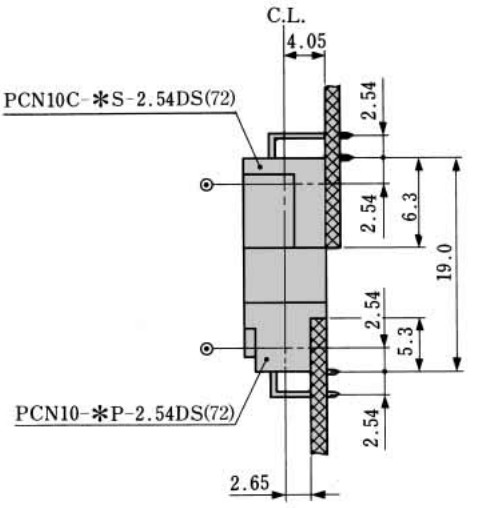



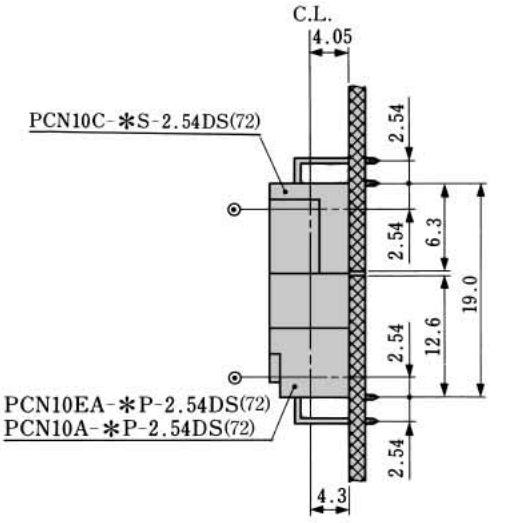
## Application Pattern

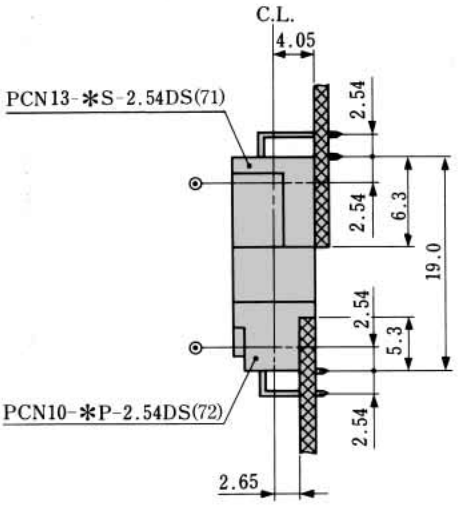
### ●Horizontal Connection

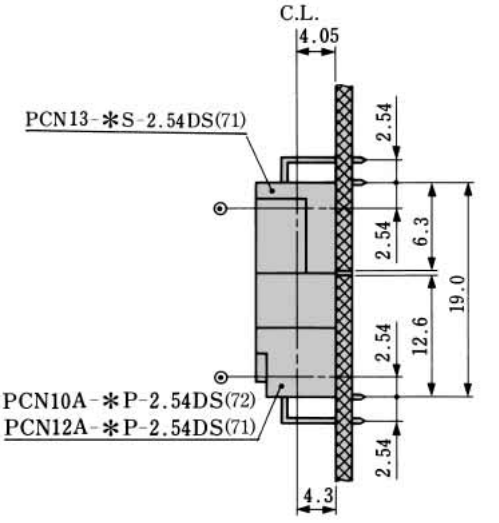
◉ : Mounting hole center
C.L. : Center line

#### ●2-row type

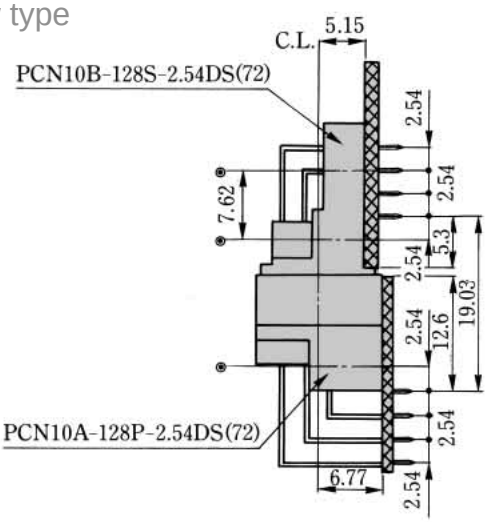


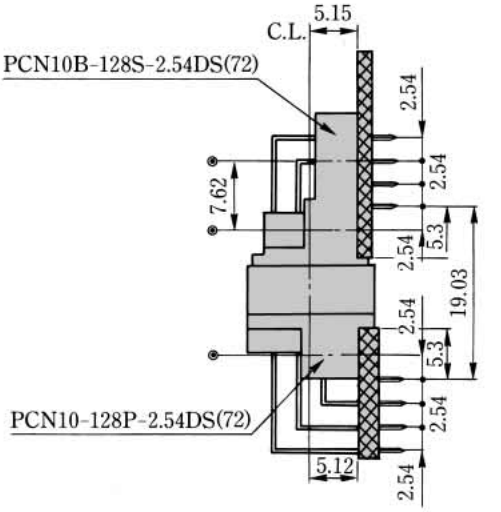



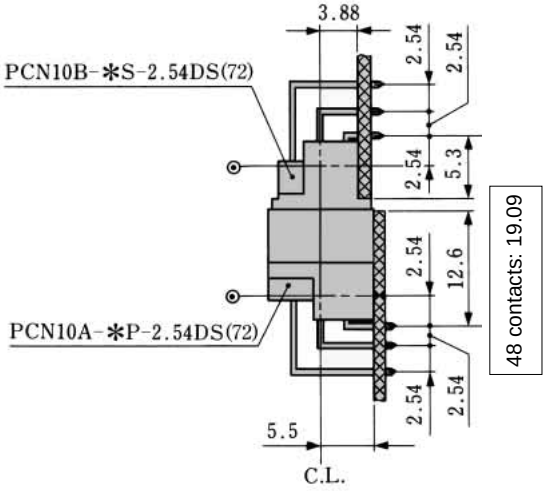

#### ●4-row type

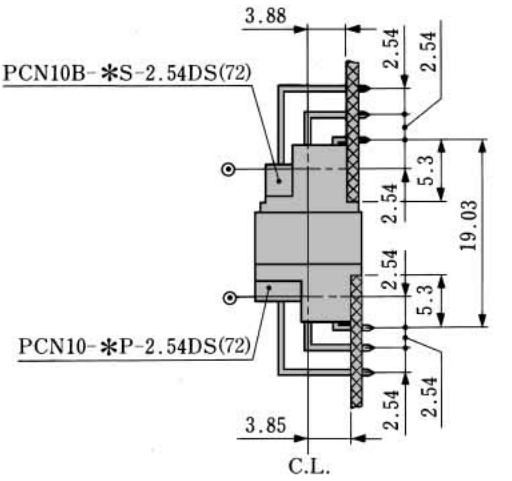


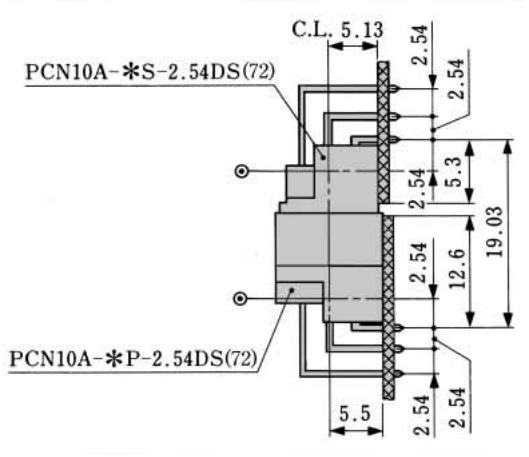



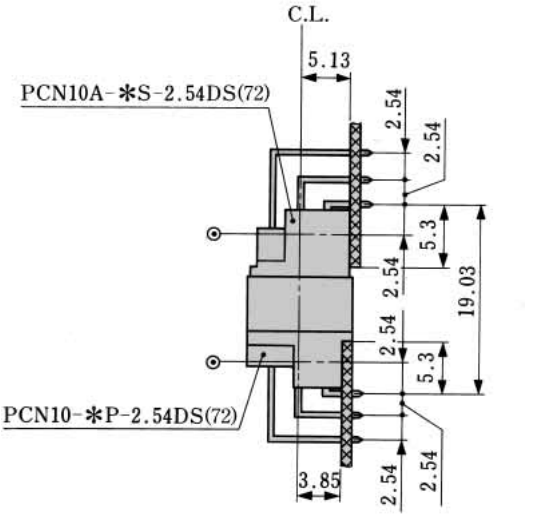
◉ : Mounting hole center
C.L. : Center line

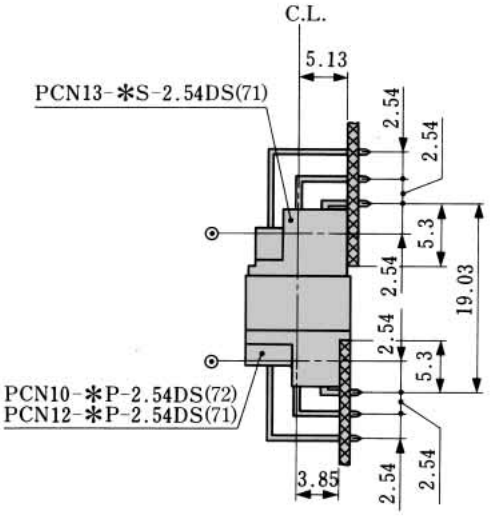
## ●3-row type

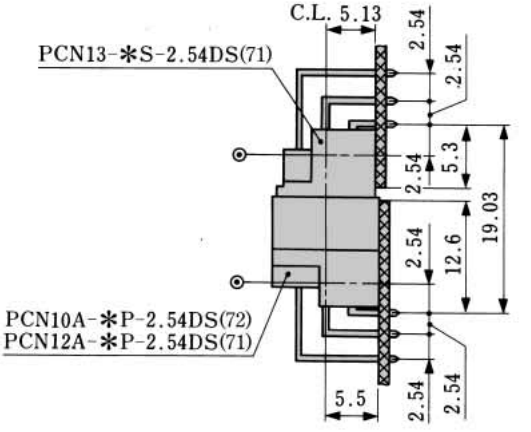


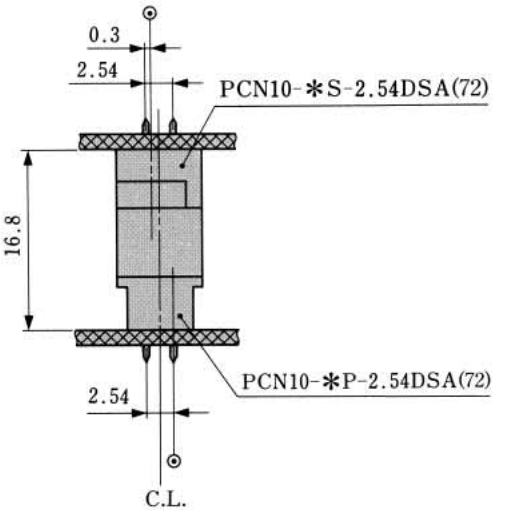



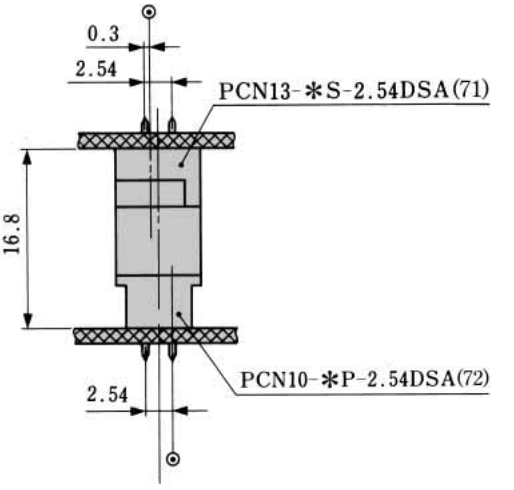
## Application Pattern

### Horizontal Connection

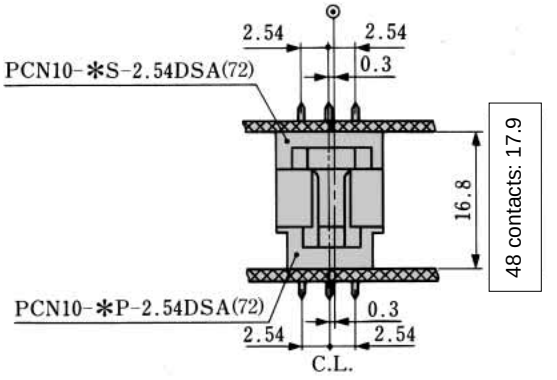
◉ : Mounting hole center
C.L. : Center line

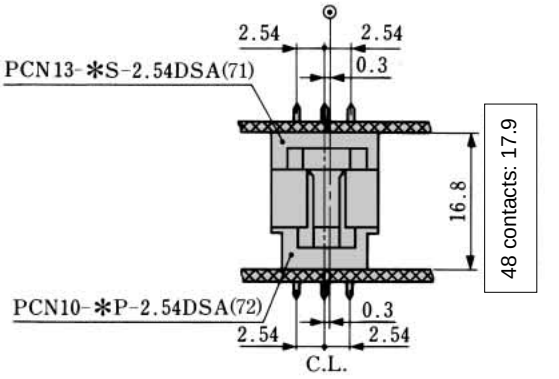
#### 2-row type



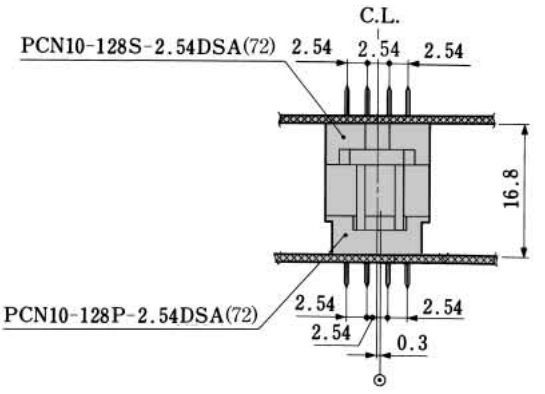




#### 3-row type




#### 4-row type

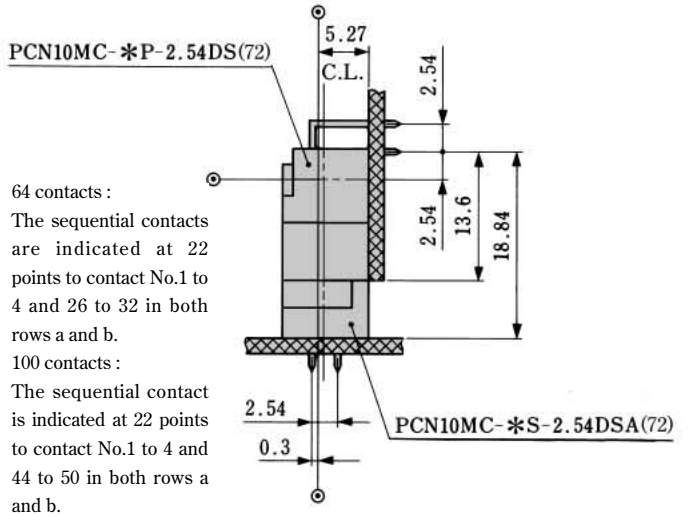


# ◆Application Pattern

## ■Circuit Protection Function Type

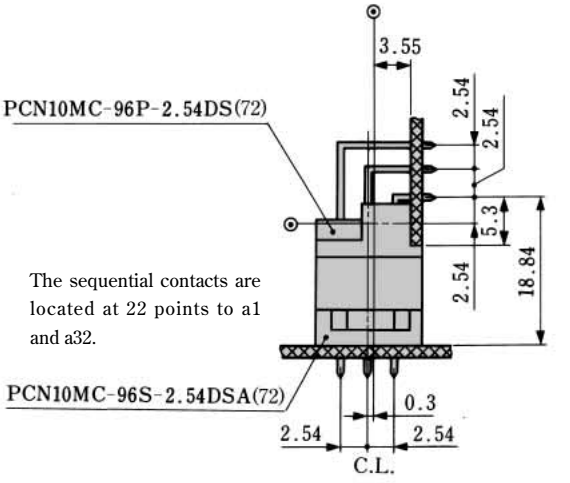
◉ : Mounting hole center
C.L. : Center line

### ●2-row type




64 contacts :
The sequential contacts are indicated at 22 points to contact No.1 to 4 and 26 to 32 in both rows a and b.
100 contacts :
The sequential contact is indicated at 22 points to contact No.1 to 4 and 44 to 50 in both rows a and b.

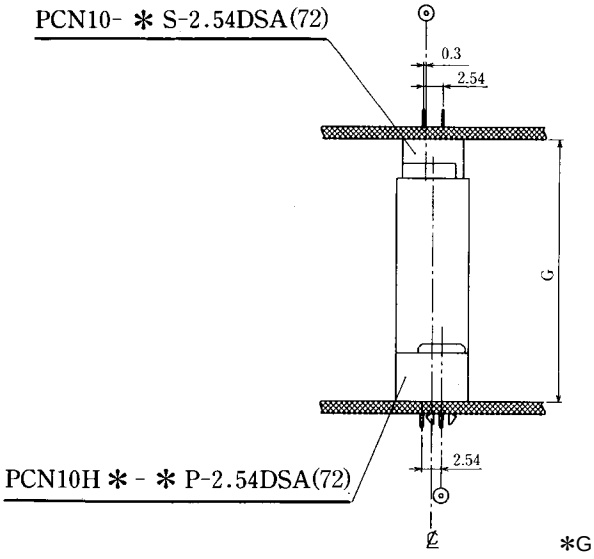
### ●3-row type




The sequential contacts are located at 22 points to a1 and a32.

## ■Stacking Connector

◉ : Mounting hole center
C.L. : Center line




*G : 35, 30, 25, 45, 40

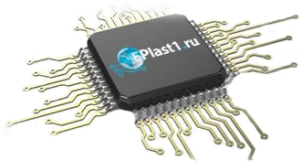
Компания «ЭлектроПласт» предлагает заключение долгосрочных отношений при поставках импортных электронных компонентов на взаимовыгодных условиях!

Наши преимущества:

- Оперативные поставки широкого спектра электронных компонентов отечественного и импортного производства напрямую от производителей и с крупнейших мировых складов;
- Поставка более 17-ти миллионов наименований электронных компонентов;
- Поставка сложных, дефицитных, либо снятых с производства позиций;
- Оперативные сроки поставки под заказ (от 5 рабочих дней);
- Экспресс доставка в любую точку России;
- Техническая поддержка проекта, помощь в подборе аналогов, поставка прототипов;
- Система менеджмента качества сертифицирована по Международному стандарту ISO 9001;
- Лицензия ФСБ на осуществление работ с использованием сведений, составляющих государственную тайну;
- Поставка специализированных компонентов (Xilinx, Altera, Analog Devices, Intersil, Interpoint, Microsemi, Aeroflex, Peregrine, Syfer, Eurofarad, Texas Instrument, Miteq, Cobham, E2V, MA-COM, Hittite, Mini-Circuits,General Dynamics и др.);

Помимо этого, одним из направлений компании «ЭлектроПласт» является направление «Источники питания». Мы предлагаем Вам помощь Конструкторского отдела:

- Подбор оптимального решения, техническое обоснование при выборе компонента;
- Подбор аналогов;
- Консультации по применению компонента;
- Поставка образцов и прототипов;
- Техническая поддержка проекта;
- Защита от снятия компонента с производства.




**Как с нами связаться**

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**Факс:** 8 (812) 320-02-42
**Электронная почта:** org@eplast1.ru
**Адрес:** 198099, г. Санкт-Петербург, ул. Калинина, дом 2, корпус 4, литера А.