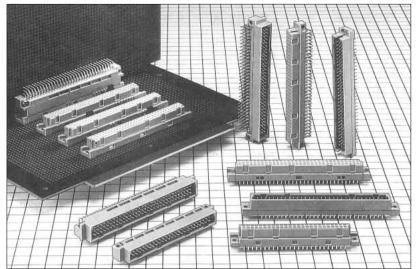
## PCN10, 12, 13 Series (Product Compliant to DIN Standard: through hole, Wrapping Type)



**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





# **■**Product Specifications

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

Item	Specification	Condition
1.Insulation Resistance	10 <sup>6</sup> 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 10 $\mu$ s 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 : 106M ohms min.	96 hours at temperature of 40°C and humidity of 90% to 95%
6.Temperature Cycle	No damage, cracks, or parts looseness.	(-65°C : 30 minutes→15 to 35°C: 5 minutes max.→ 125°C : 30 minutes→15 to 35°C: 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°C for 3 seconds

Note 1: Includes temperature rise caused by current flow.

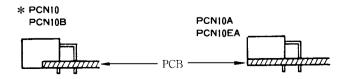
#### ■Material

Parts		Material	Material Finish	
Insulator PBT		Gray	UL94V-0	
Contact			Contact area: Gold plated	
Contact	Contact Receptacle Copper alloy		Remainer: Tin plated	

# **■**Ordering Information

PCN 10 Series  $\frac{PCN10}{0} \frac{A}{0} - \frac{*}{6} \frac{P}{0} - \frac{2.54}{6} \frac{DS}{6}$ 

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



 $<sup>\</sup>bigstar$  The receptacle double-row right angle type indicates the type of PCN10A type.

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.

●PCN 12 Series (Plug)

Series name	: PCN12	Number of contact	s: 2-row: 10, 16, 20, 24, 28, 32, 44,
No symbol	: DIN standard type C (96 Contacts)		50, 64, 90, 100
A	: Original type		3-row: 96
E-EA	: With board prefixed lock pin type	<b>4</b> P	: Plug
		6 Contact pitch	: 2.54mm
		6 Contact type	: DS: Right angle through hole type

●PCN 12E-\*S-2.54 DSA(Socket)

$$\frac{\mathsf{PCN12}}{\bullet} \quad \frac{\mathsf{E}}{\bullet} - \frac{*}{\bullet} \quad \frac{\mathsf{S}}{\bullet} - \frac{2.54}{\bullet} \quad \frac{\mathsf{DSA}}{\bullet}$$

Series name	: PCN12	4 S	: Socket
2 No symbol	: Standard type	6 Contact pitch	: 2.54mm
E	: With board prefixed lock pin type	Contact type	: DSA: Straight through hole type
3 Number of contact	ts: 2-row: 10, 16, 20, 28, 32, 44, 50,		
64, 90, 100			
	3-row: 96		

●PCN 13E-\*S-2.54 DSA (Socket)

$$\frac{PCN13}{0} \quad \frac{E}{2} - \frac{*}{6} \quad \frac{S}{4} - \frac{2.54}{6} \quad \frac{DSA}{6}$$

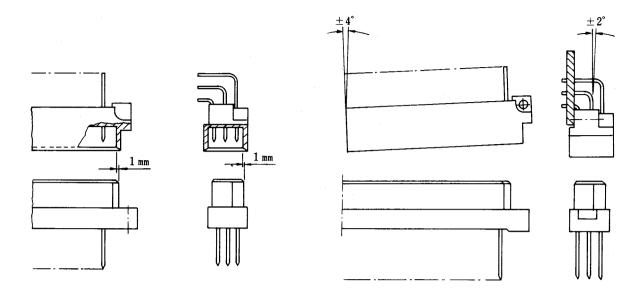
Series name	Series name : PCN13		: Socket
2 No symbol	: Standard type	6 Contact pitch	: 2.54mm
E	: With board prefixed easy pin type	Contact style	: DS: Right angle through hole type
3 Number of con	tacts: 2-row: 10, 16, 20, 30, 32, 44, 50,		: DSA: Straight through hole type
	64, 90, 100		
	3-row: 48, 96		

<sup>\*</sup>PCN13 series are only socket type.

PCN10 and 12 series are mating connectors.

# **● DIN Connector Mating Condition**

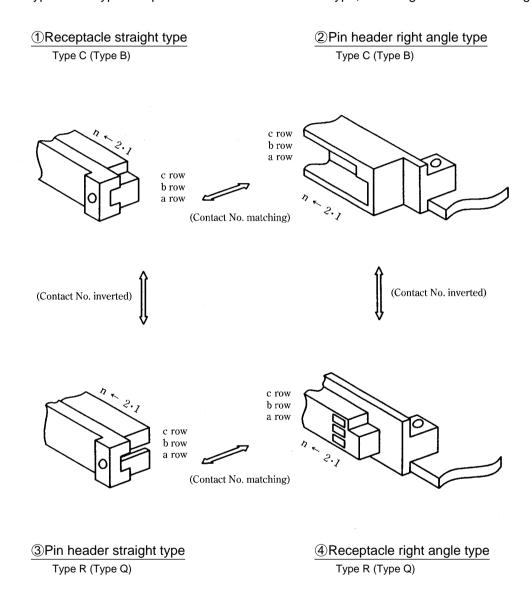
DIN connectors of Hirose should be used under conditions as illustrated below.



#### **◆**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.



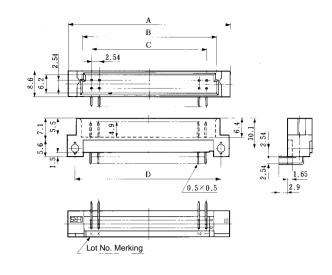
Note: The DIN connector is basically standardized in combination with straight and right angle types. As shown above in illustrationss;

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).

## **PCN12 Series**

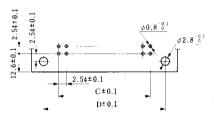
## **■**Plug: 2-row Right Angle Type





#### Unit:mm

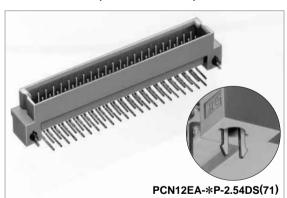
<b>◆</b> PCB	mounting	pattern
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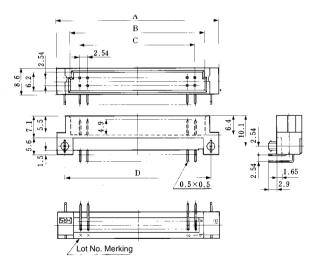


Part Number	CL No.	Number of Contacts	Α	В	С	D	RoHS
PCN12A- 10P-2.54DS(71)	CL583-2010-3-71	10	25.42	16.77	10.16	20.32	
PCN12A- 20P-2.54DS(71)	CL583-2012-9-71	20	38.12	29.47	22.86	33.02	
PCN12A- 28P-2.54DS(71)	CL583-2085-2-71	28	48.26	39.63	33.02	43.18	
PCN12A- 32P-2.54DS(71)	CL583-2013-1-71	32	53.36	44.71	38.1	48.26	YES
PCN12A- 44P-2.54DS(71)	CL583-2014-4-71	44	68.6	59.95	53.34	63.5	
PCN12A- 50P-2.54DS(71)	CL583-2015-7-71	50	76.22	67.57	60.96	71.12	
PCN12A- 64P-2.54DS(71)	CL583-2016-0-71	64	94	85.35	78.74	88.9	

# **■**Plug: 2-row Right Angle Type

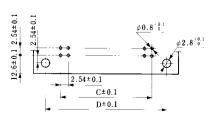
#### With board prefixed lock pin attached





#### Unit:mm

# **●**PCB mounting pattern

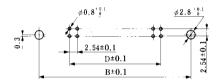


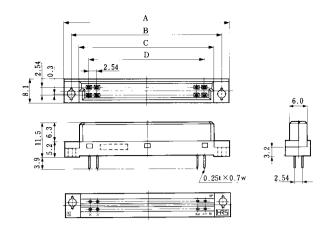
Part Number	CL No.	Number of Contacts	Α	В	С	D	RoHS
PCN12EA- 10P-2.54DS(71)	CL583-2028-9-71	10	25.42	16.77	10.16	20.32	
PCN12EA- 16P-2.54DS(71)	CL583-2029-1-71	16	33.04	24.39	17.78	27.94	
PCN12EA- 20P-2.54DS(71)	CL583-2030-0-71	20	38.12	29.47	22.86	33.02	
PCN12EA- 32P-2.54DS(71)	CL583-2031-3-71	32	53.36	44.71	38.1	48.26	YES
PCN12EA- 44P-2.54DS(71)	CL583-2032-6-71	44	68.6	59.95	53.34	63.5	ILO
PCN12EA- 50P-2.54DS(71)	CL583-2033-9-71	50	76.22	67.57	60.96	71.12	
PCN12EA- 64P-2.54DS(71)	CL583-2034-1-71	64	94	85.35	78.74	88.9	
PCN12EA- 90P-2.54DS(71)	CL583-2035-4-71	90	127.02	118.37	111.76	121.92	

# **■**Socket: Straight Type



# **●**PCB mounting pattern



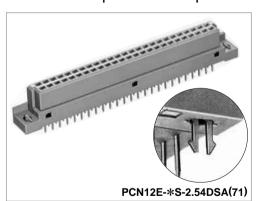


#### Unit:mm

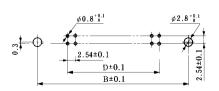
Part Number	CL No.	Number of Contacts	Α	В	С	D	RoHS
PCN12- 10S-2.54DSA(71)	CL583-2055-1-71	10	26.42	21.42	16.42	10.16	
PCN12- 16S-2.54DSA(71)	CL583-2056-4-71	16	34.04	29.04	24.04	17.78	
PCN12- 20S-2.54DSA(71)	CL583-2057-7-71	20	39.12	34.12	29.12	22.86	
PCN12- 24S-2.54DSA(71)	CL583-2106-0-71	24	44.2	39.2	34.2	27.94	
PCN12- 28S-2.54DSA(71)	CL583-2088-0-71	28	49.28	44.28	39.28	33.02	
PCN12- 32S-2.54DSA(71)	CL583-2058-0-71	32	54.36	49.36	44.36	38.1	YES
PCN12- 44S-2.54DSA(71)	CL583-2059-2-71	44	69.6	64.6	59.6	53.34	
PCN12- 50S-2.54DSA(71)	CL583-2060-1-71	50	77.22	72.22	67.22	60.96	
PCN12- 64S-2.54DSA(71)	CL583-2061-4-71	64	95	90	85	78.74	
PCN12- 90S-2.54DSA(71)	CL583-2062-7-71	90	128.02	123.02	118.02	111.76	
PCN12-100S-2.54DSA(71)	CL583-2063-0-71	100	140.72	135.72	130.72	124.46	

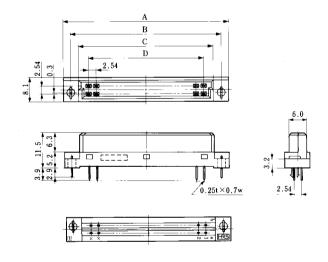
# **■**Socket: Straight Type

#### With Board prefixed lock pin attached



# **●**PCB mounting pattern



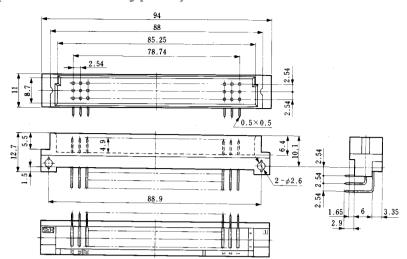


Unit:mm

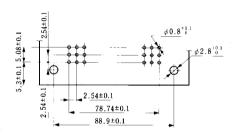
Part Number	CL No.	Number of Contacts	Α	В	С	D	RoHS
PCN12E- 10S-2.54DSA(71)	CL583-2064-2-71	10	26.42	21.42	16.42	10.16	
PCN12E- 20S-2.54DSA(71)	CL583-2066-8-71	20	39.12	34.12	29.12	22.86	
PCN12E- 32S-2.54DSA(71)	CL583-2067-0-71	32	54.36	49.36	44.36	38.1	
PCN12E- 44S-2.54DSA(71)	CL583-2068-3-71	44	69.6	64.6	59.6	53.34	YES
PCN12E- 50S-2.54DSA(71)	CL583-2069-6-71	50	77.22	72.22	67.22	60.96	TES
PCN12E- 64S-2.54DSA(71)	CL583-2070-5-71	64	95	90	85	78.74	
PCN12E- 90S-2.54DSA(71)	CL583-2071-8-71	90	128.02	123.02	118.02	111.76	
PCN12E-100S-2.54DSA(71)	CL583-2072-0-71	100	140.72	135.72	130.72	124.46	

# **■**Plug: 3-row Right Angle Type (DIN standard type C)



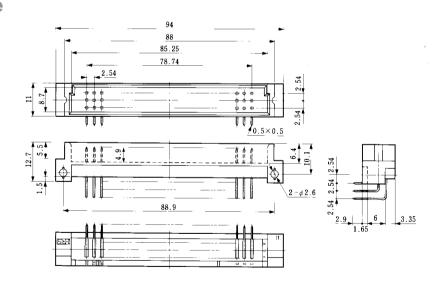


**▶**PCB mounting pattern

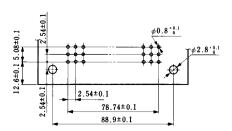


## **■**Plug: 3-row Right Angle Type





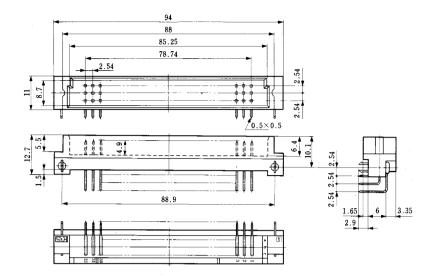
**▶**PCB mounting pattern



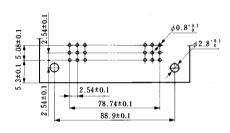
## **■**Plug: 3-row Right Angle Type (Type C)

#### With Board prefixed lock pin





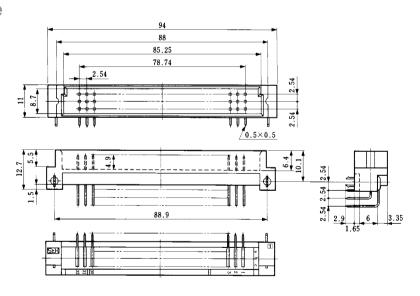
## **●** PCB mounting pattern



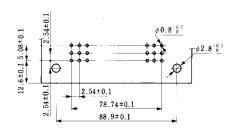
#### **■Plug: 3-row Right Angle Type**

#### With Board prefixed lock pin



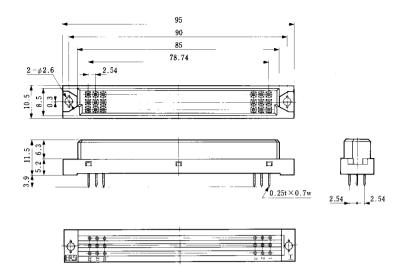


**●**PCB mounting pattern

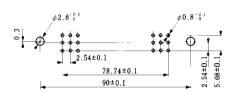


# **■**Socket: 3-row Straight Type



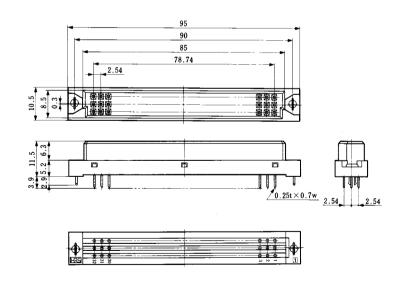


**▶**PCB mounting pattern

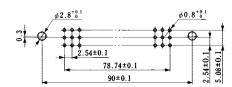


## **■**Socket: 3-row Straight Type



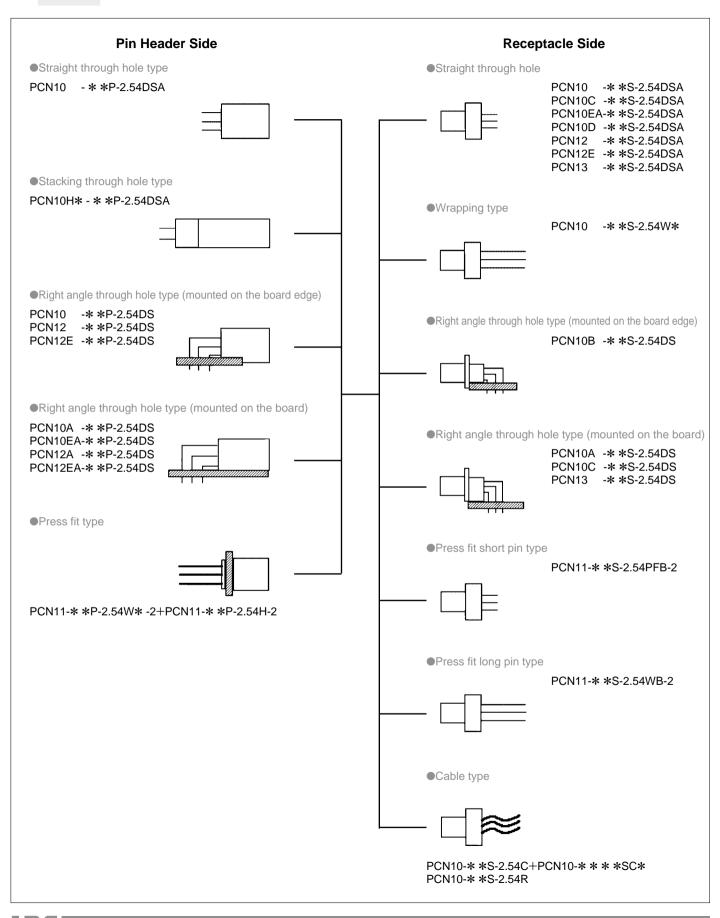


**●**PCB mounting pattern

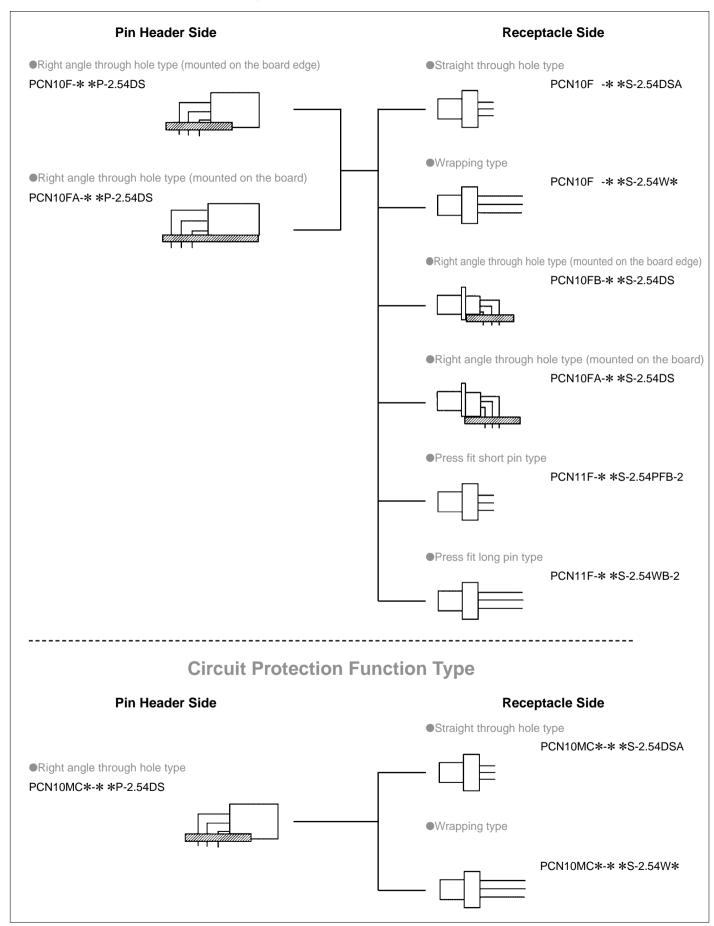


# Product Compliant to DIN41612/IEC603-2 Standard

#### **PCN Series**

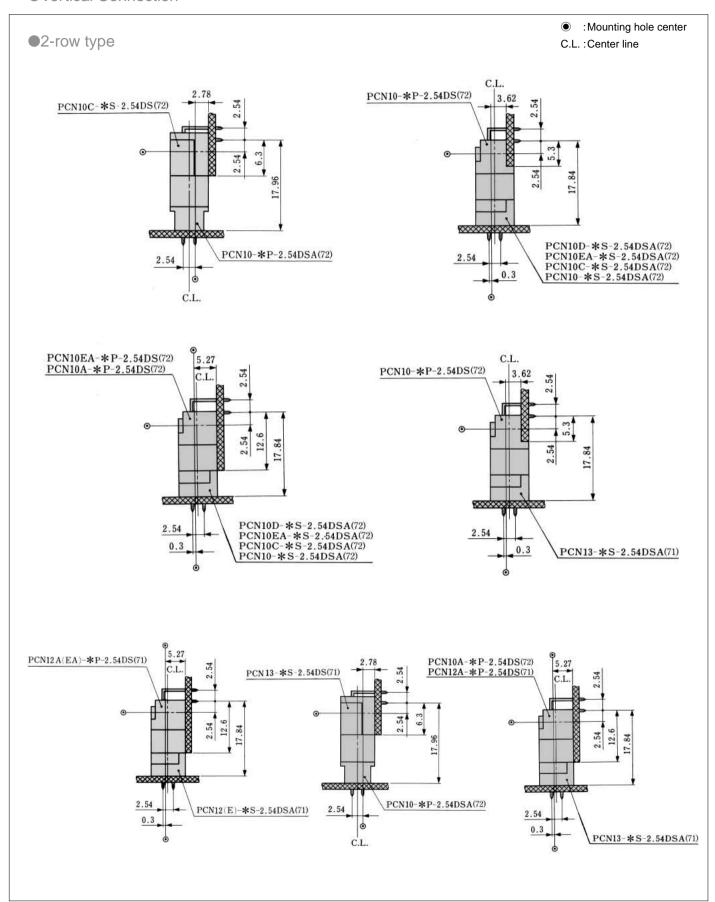


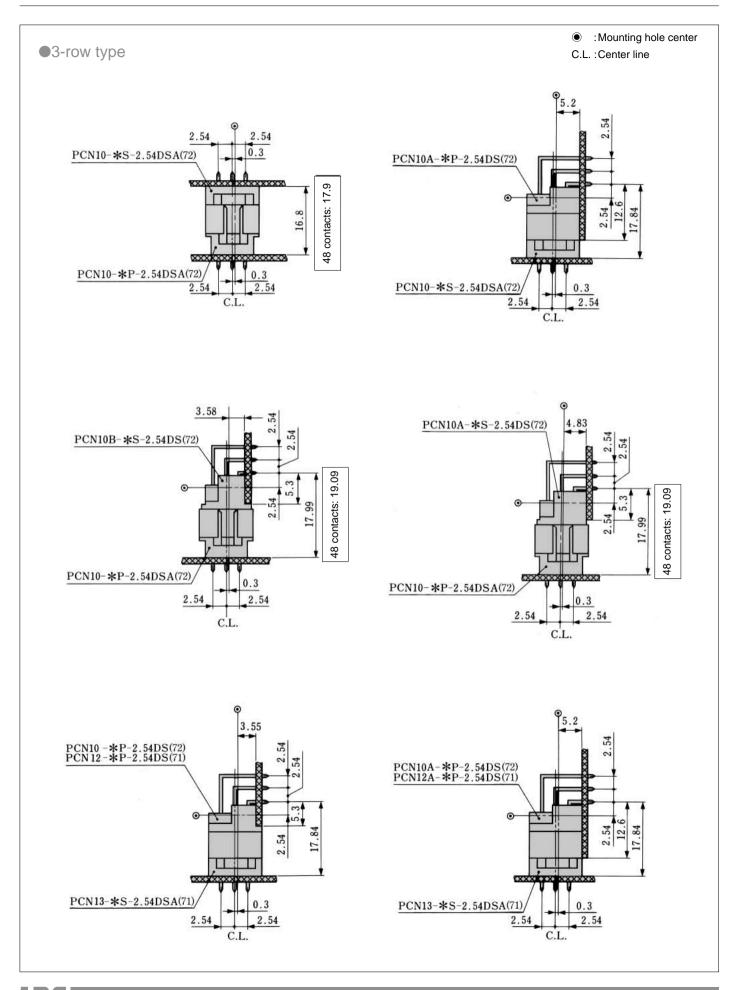
# **■**Coaxial Connector and High Current Contact Composite Type

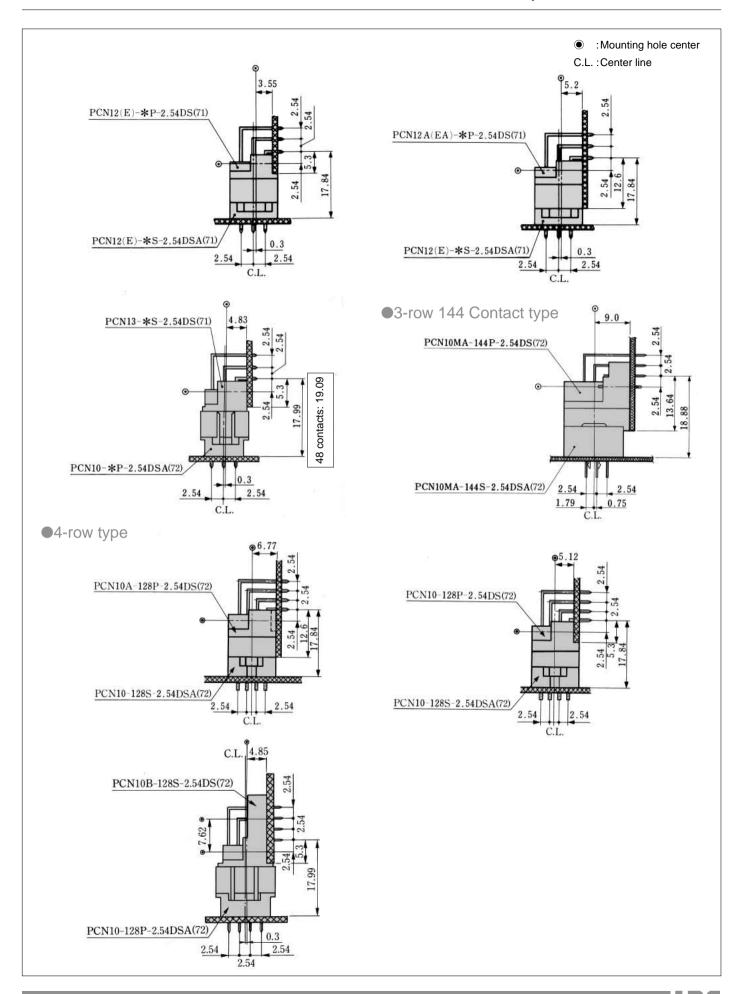


# **◆**Application Pattern

#### Vertical Connection

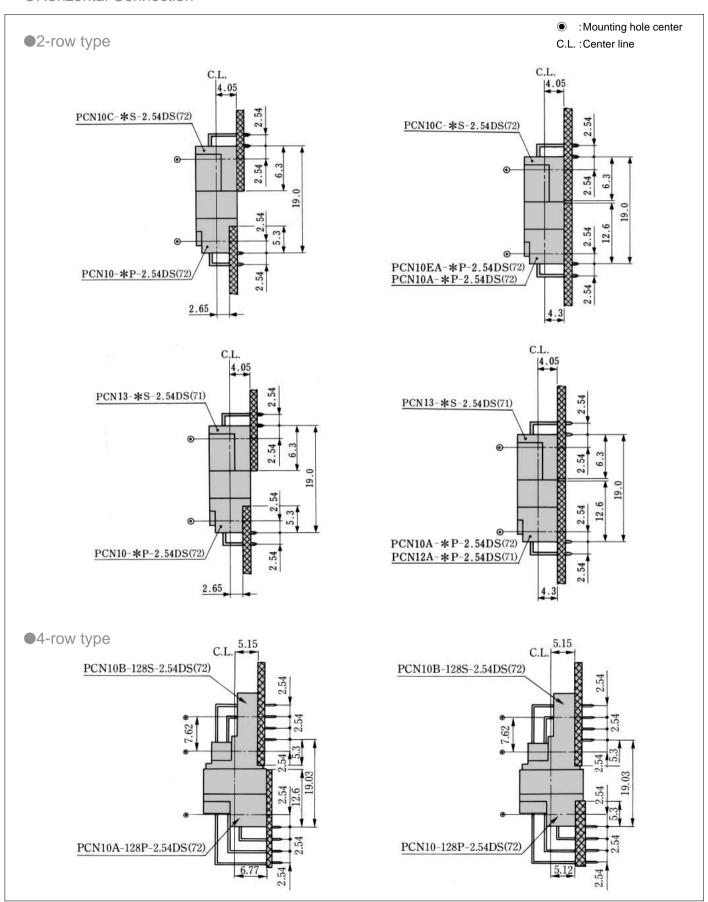


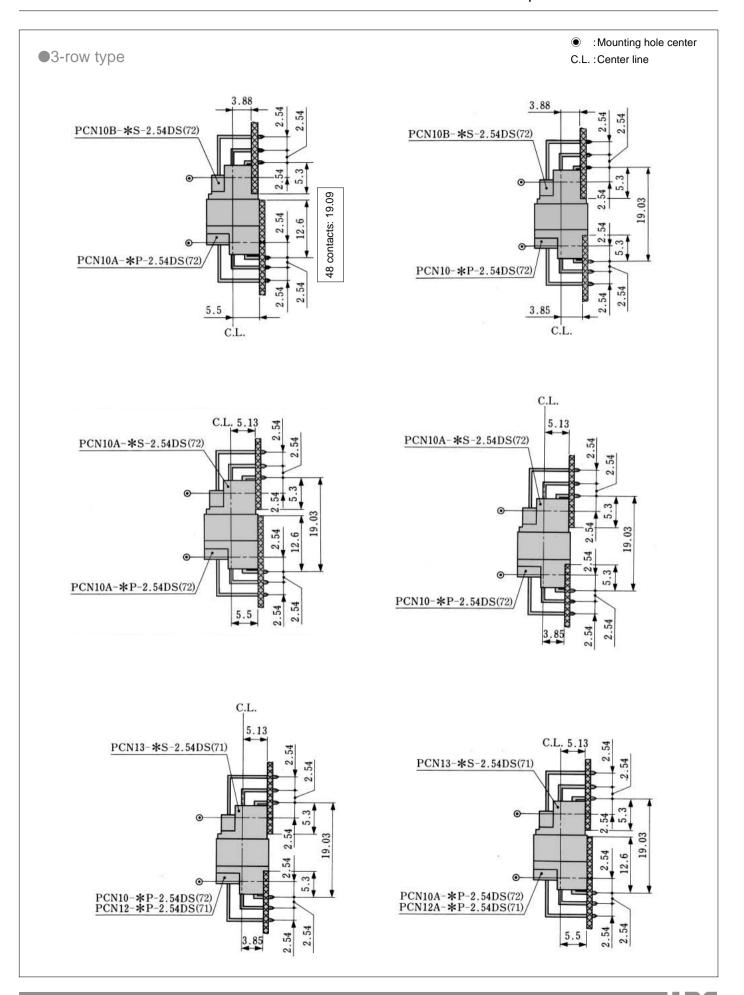




# **◆** Application Pattern

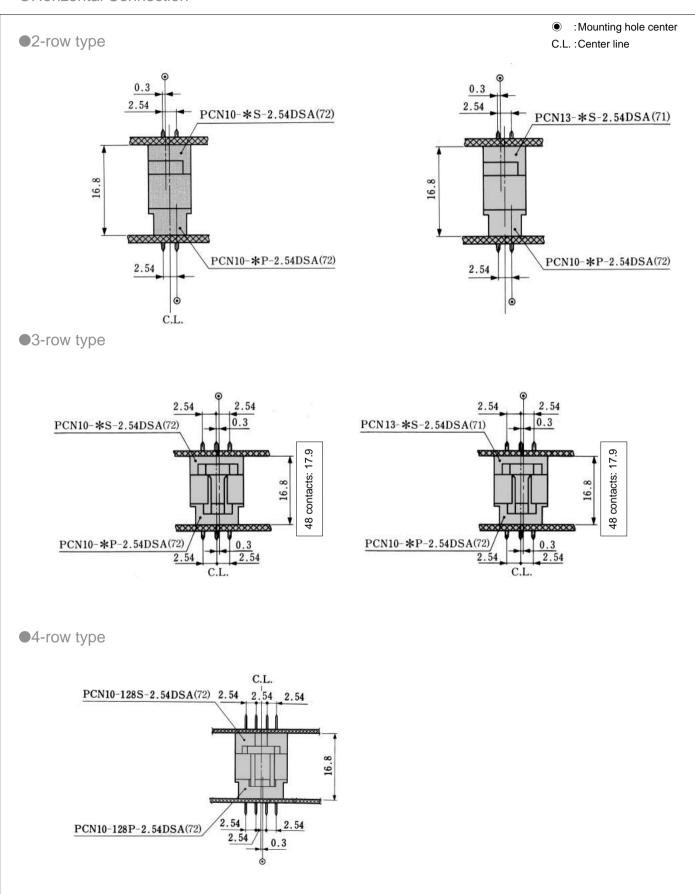
#### Horizontal Connection



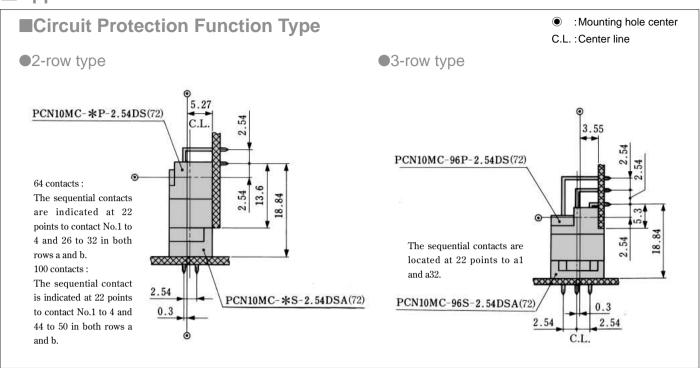


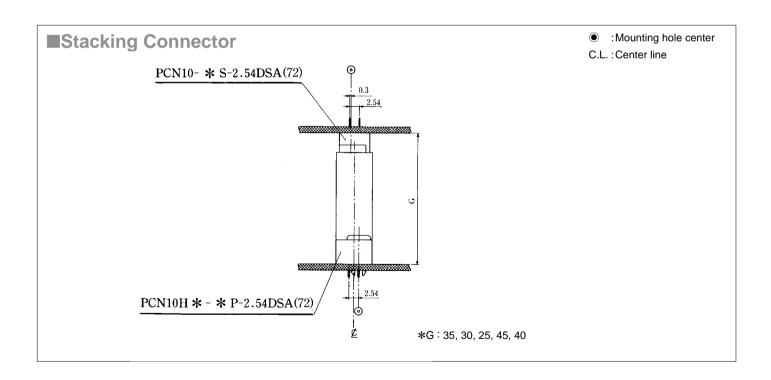
## Application Pattern

Horizontal Connection



## **◆**Application Pattern





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## **Authorized Distribution Brand:**

























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