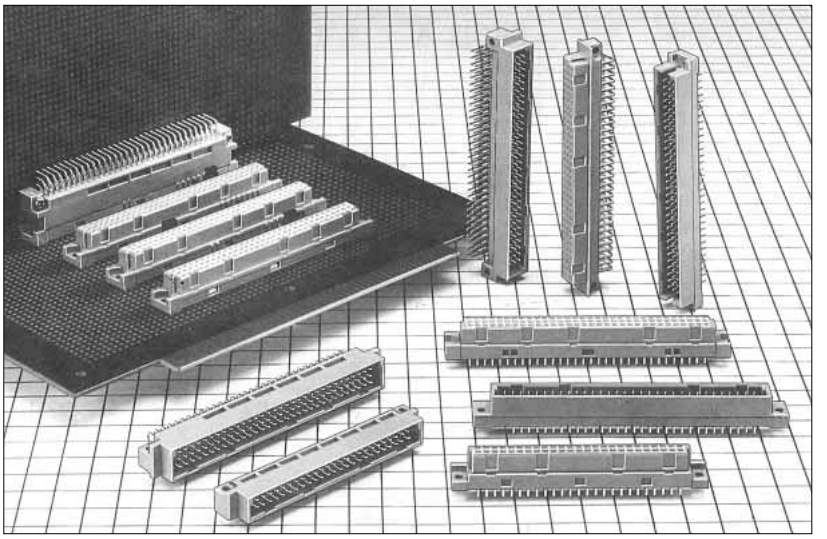
PCN10, 12, 13 Series (Product Compliant to DIN Standard: through hole,Wrapping Type)



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

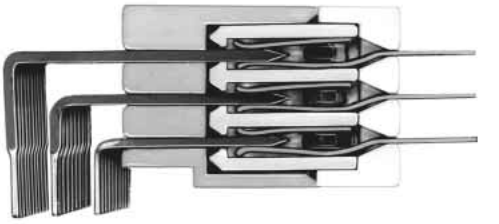
ID connector for ribbon cable is available.

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

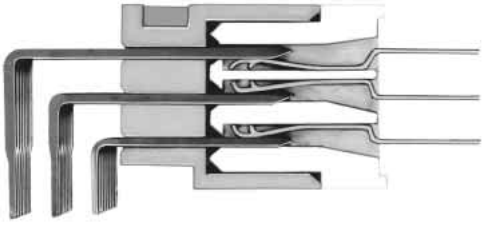
■Application

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

Item	Specification	Condition
1.Insulation Resistance	10^6M 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 : 10^6M 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.→ 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

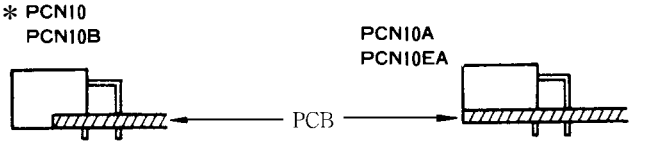
Parts		Material	Finish	Remarks
Insulator		PBT	Gray	UL94V-0
Contact	Pin header	Brass	Contact area: Gold plated	———
	Receptacle	Copper alloy	Remainer: Tin plated	———

■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 3-row : 48, 96, 144 4-row : 128
❷ Blank, A, B } mold type (as listed below) C : Flux prevention type (DSA only) D : Rack installation type EA : With Board prefixed lock pin H : Stacking height 35mm type HA : Stacking height 30mm type HB : Stacking height 25mm type HC : Stacking height 45mm type HD : Stacking height 40mm type MC : Circuit Protection function type	❹ Connector type : P : Pin header : S : Receptacle ❺ Contact pitch : 2.54mm ❻ Contact type DS : Right angle through hole type DSA : Straight through hole type WA : Wrapping type (0.5tx0.7W) WB : Wrapping type (0.5tx0.5W) R : Insulation displacement type 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 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 3-row: 96		

●PCN 13E-✻S-2.54 DSA (Socket)

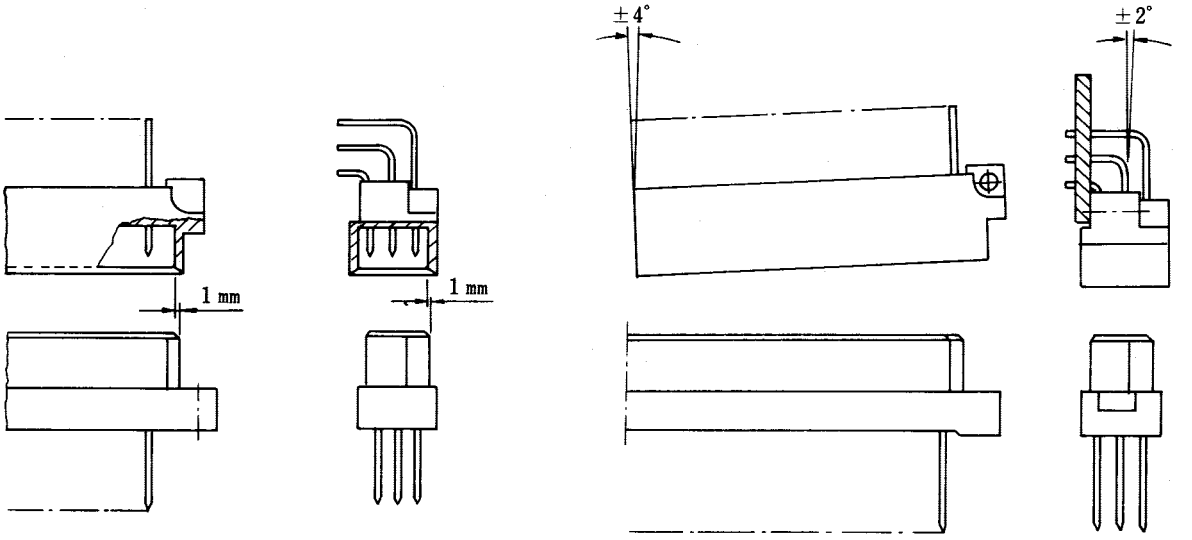
PCN13 E - ✻ S - 2.54 DSA
❶ ❷ ❸ ❹ ❺ ❻

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 : DSA: Straight through hole type
❸ Number of contacts	: 2-row: 10, 16, 20, 30, 32, 44, 50, 64, 90, 100 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.



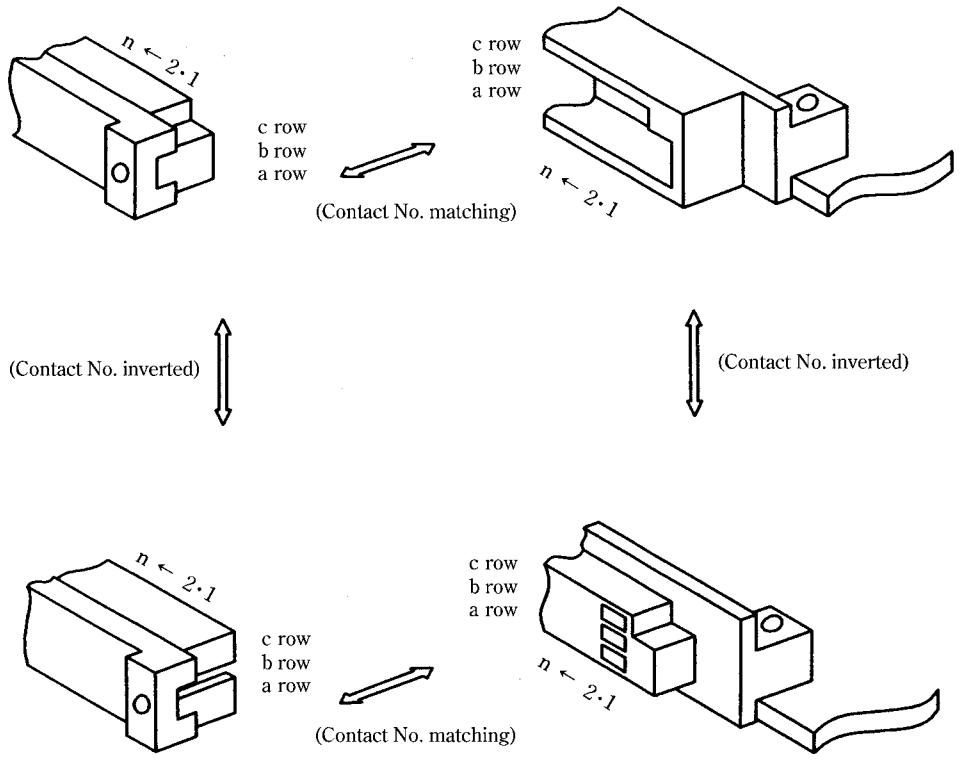
Contact numbers

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)

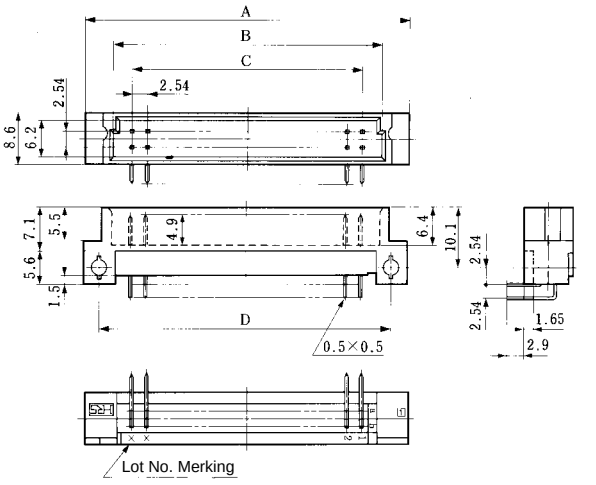
④Receptacle right angle type
Type R (Type Q)

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).

PCN12 Series

■Plug: 2-row Right Angle Type

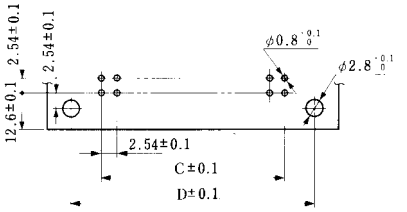
PCN10-∗P-2.54DS(71)



Unit:mm

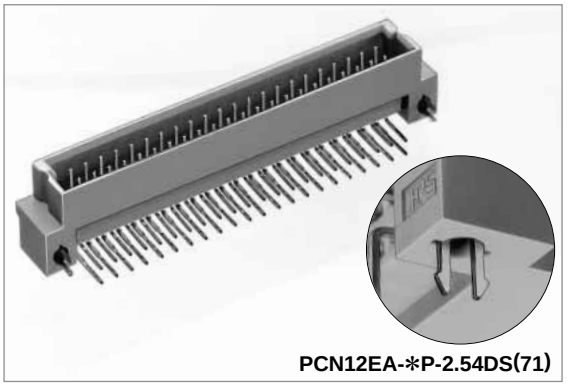
Part Number	CL No.	Number of Contacts	A	B	C	D	RoHS
PCN12A- 10P-2.54DS(71)	CL583-2010-3-71	10	25.42	16.77	10.16	20.32	YES
PCN12A- 20P-2.54DS(71)	CL583-2012-9-71	20	38.12	29.47	22.86	33.02	
PCN12A- 28P-2.54DS(71)	CL583-2085-2-71	28	48.26	39.63	33.02	43.18	
PCN12A- 32P-2.54DS(71)	CL583-2013-1-71	32	53.36	44.71	38.1	48.26	
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	

◆PCB mounting pattern

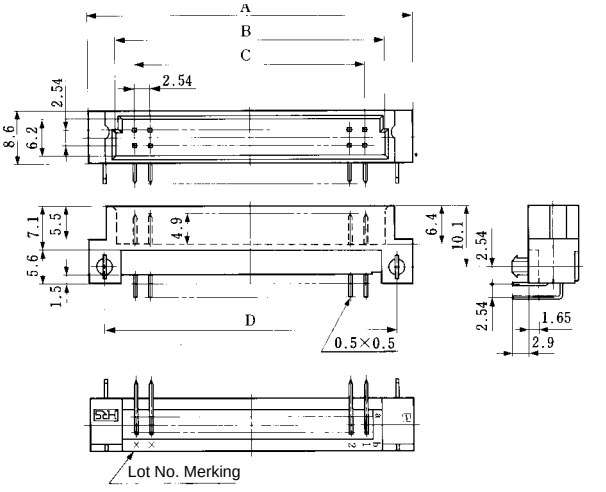


■Plug: 2-row Right Angle Type

●With board prefixed lock pin attached



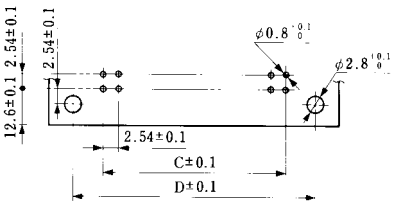
PCN12EA-∗P-2.54DS(71)



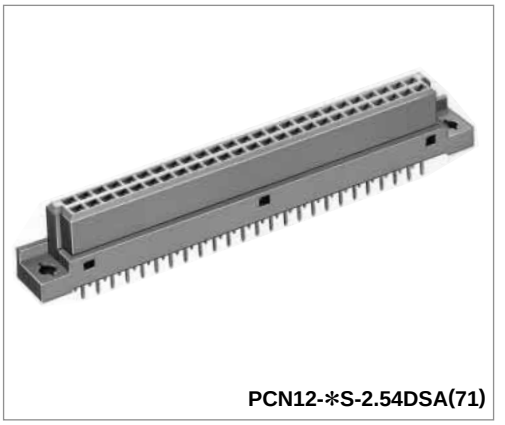
Unit:mm

Part Number	CL No.	Number of Contacts	A	B	C	D	RoHS
PCN12EA- 10P-2.54DS(71)	CL583-2028-9-71	10	25.42	16.77	10.16	20.32	YES
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	
PCN12EA- 44P-2.54DS(71)	CL583-2032-6-71	44	68.6	59.95	53.34	63.5	
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	

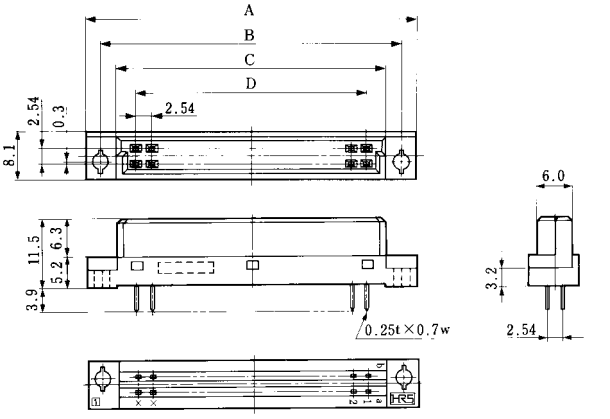
◆PCB mounting pattern



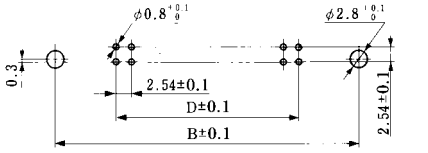
■Socket: Straight Type



PCN12-*S-2.54DSA(71)



◆PCB mounting pattern

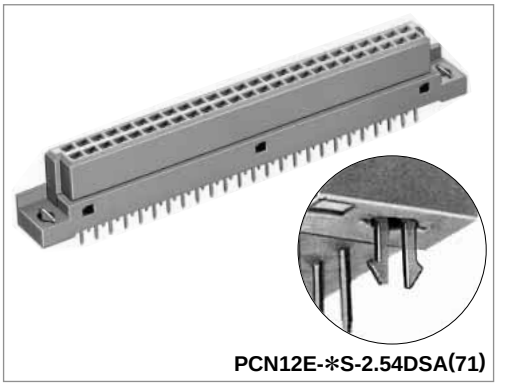


Unit:mm

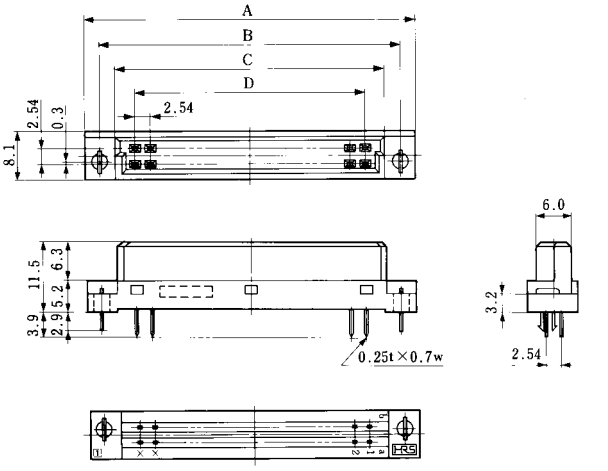
Part Number	CL No.	Number of Contacts	A	B	C	D	RoHS
PCN12- 10S-2.54DSA(71)	CL583-2055-1-71	10	26.42	21.42	16.42	10.16	YES
PCN12- 16S-2.54DSA(71)	CL583-2056-4-71	16	34.04	29.04	24.04	17.78	
PCN12- 20S-2.54DSA(71)	CL583-2057-7-71	20	39.12	34.12	29.12	22.86	
PCN12- 24S-2.54DSA(71)	CL583-2106-0-71	24	44.2	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	
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

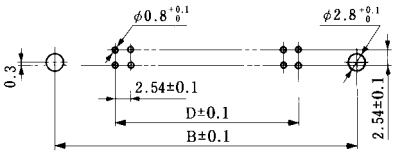
●With Board prefixed lock pin attached



PCN12E-*S-2.54DSA(71)



◆PCB mounting pattern

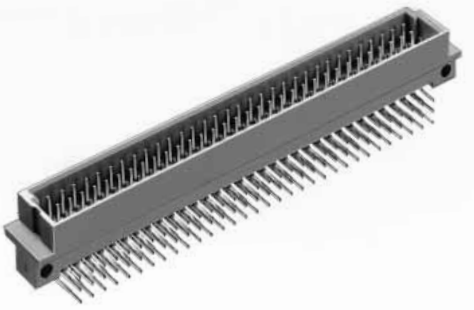


Unit:mm

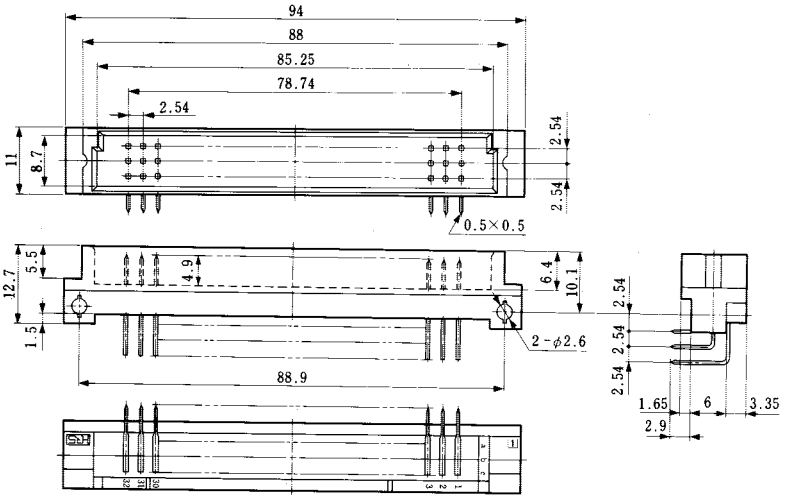
Part Number	CL No.	Number of Contacts	A	B	C	D	RoHS
PCN12E- 10S-2.54DSA(71)	CL583-2064-2-71	10	26.42	21.42	16.42	10.16	YES
PCN12E- 20S-2.54DSA(71)	CL583-2066-8-71	20	39.12	34.12	29.12	22.86	
PCN12E- 32S-2.54DSA(71)	CL583-2067-0-71	32	54.36	49.36	44.36	38.1	
PCN12E- 44S-2.54DSA(71)	CL583-2068-3-71	44	69.6	64.6	59.6	53.34	
PCN12E- 50S-2.54DSA(71)	CL583-2069-6-71	50	77.22	72.22	67.22	60.96	
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)

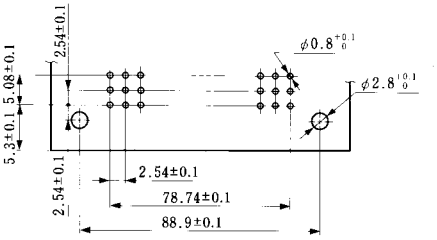
PCN12-96P-2.54DS(71)
CL583-2090-2-71



RoHS Compliant

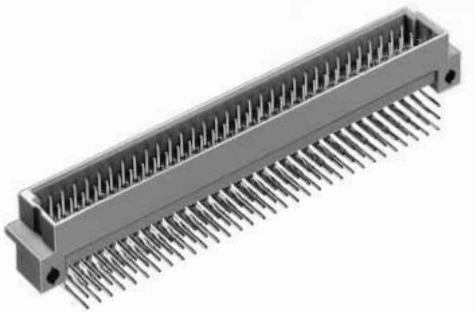


◆PCB mounting pattern

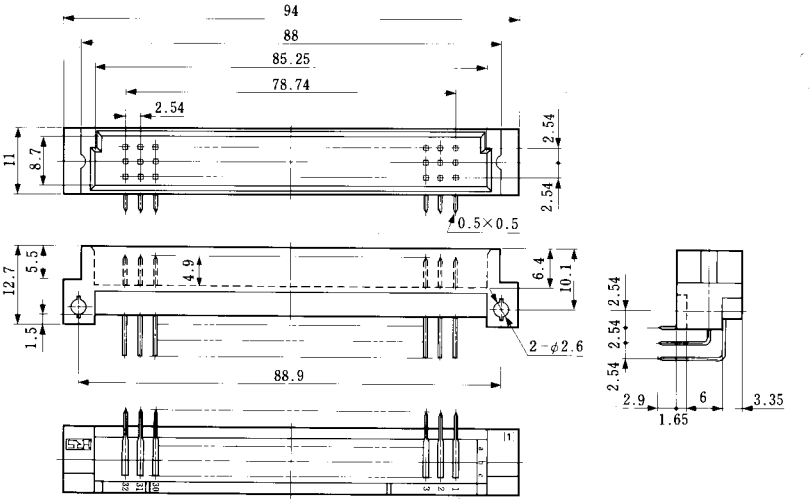


■Plug: 3-row Right Angle Type

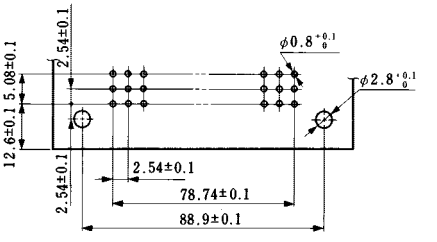
PCN12A-96P-2.54DS(71)
CL583-2091-5-71



RoHS Compliant



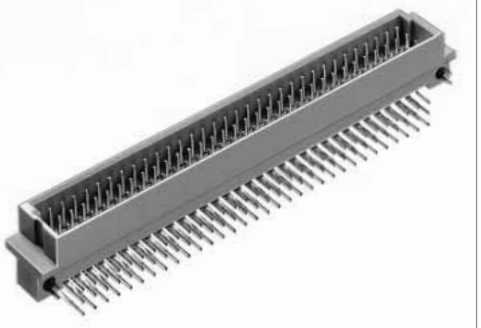
◆PCB mounting pattern



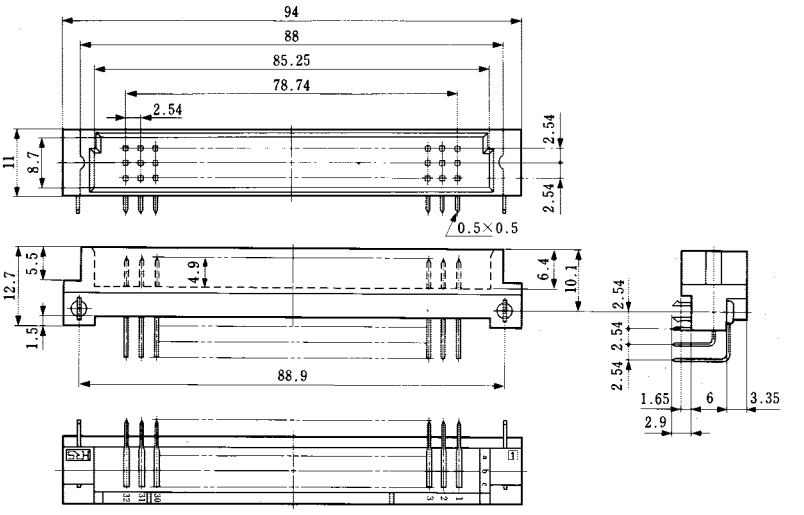
■Plug: 3-row Right Angle Type (Type C)

●With Board prefixed lock pin

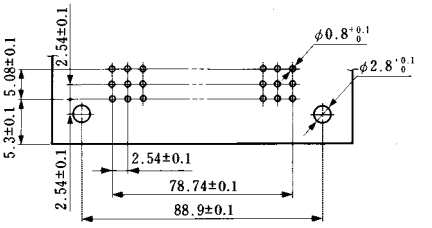
PCN12E-96P-2.54DS(71)
CL583-2092-8-71



RoHS Compliant



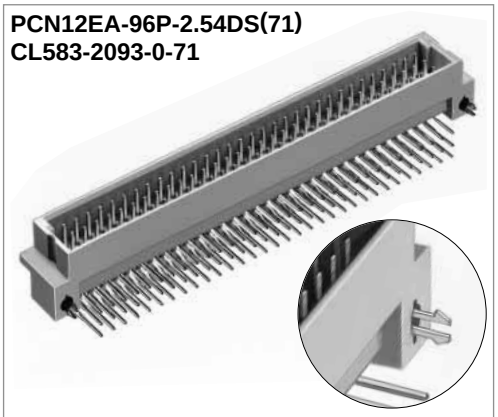
◆PCB mounting pattern



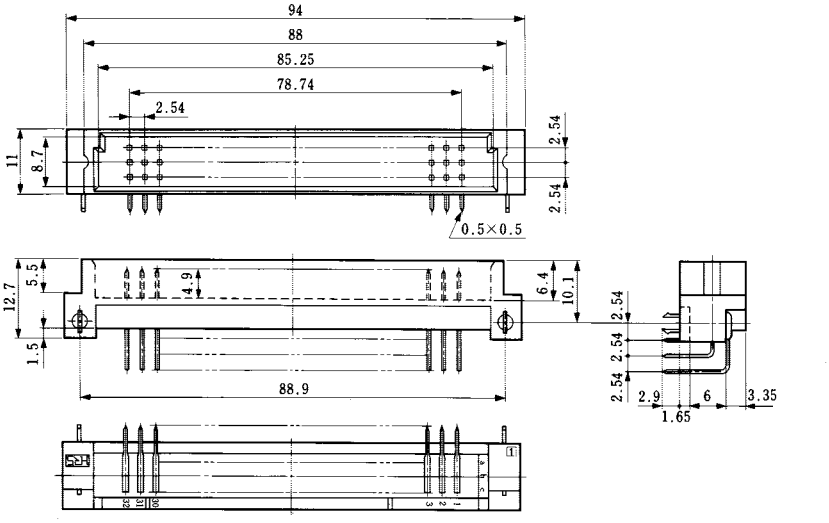
■Plug: 3-row Right Angle Type

●With Board prefixed lock pin

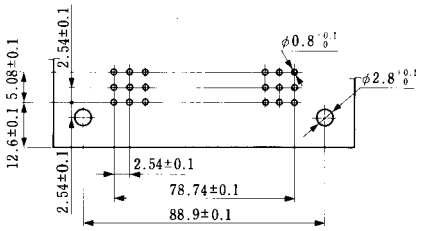
PCN12EA-96P-2.54DS(71)
CL583-2093-0-71



RoHS Compliant



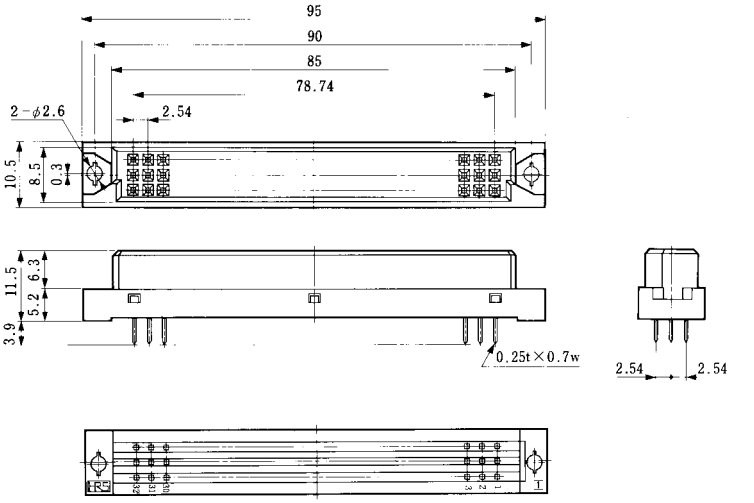
◆PCB mounting pattern



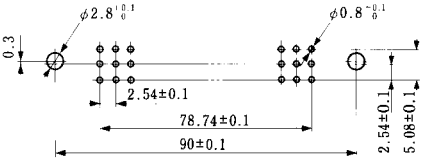
■Socket: 3-row Straight Type

PCN12-96S-2.54DSA(71)
CL583-2096-9-71

RoHS Compliant

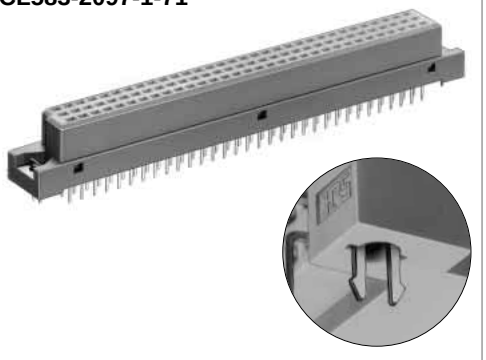


◆PCB mounting pattern

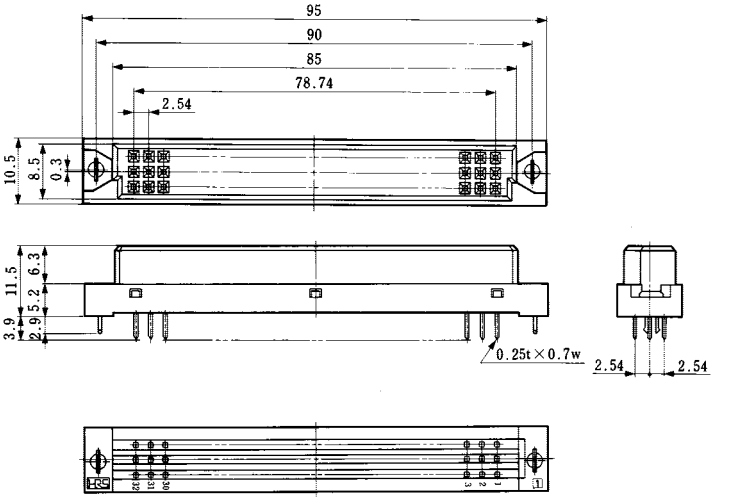


■Socket: 3-row Straight Type

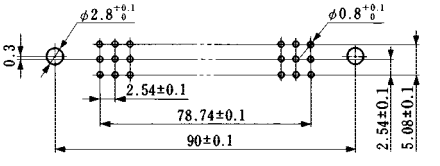
PCN12E-96S-2.54DSA(71)
CL583-2097-1-71



RoHS Compliant



◆PCB mounting pattern



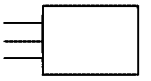
Product Compliant to DIN41612/IEC603-2 Standard

PCN Series

Pin Header Side

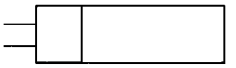
●Straight through hole type

PCN10 - ✻ ✻P-2.54DSA



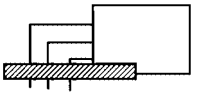
●Stacking through hole type

PCN10H✻ - ✻ ✻P-2.54DSA



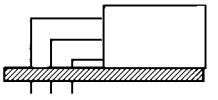
●Right angle through hole type (mounted on the board edge)

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

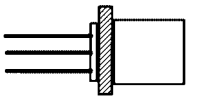


●Right angle through hole type (mounted on the board)

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



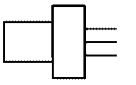
●Press fit type



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

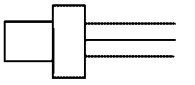
Receptacle Side

●Straight through hole



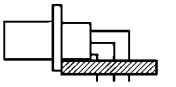
PCN10 -✻ ✻S-2.54DSA
PCN10C -✻ ✻S-2.54DSA
PCN10EA-✻ ✻S-2.54DSA
PCN10D -✻ ✻S-2.54DSA
PCN12 -✻ ✻S-2.54DSA
PCN12E -✻ ✻S-2.54DSA
PCN13 -✻ ✻S-2.54DSA

●Wrapping type



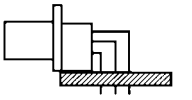
PCN10 -✻ ✻S-2.54W✻

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



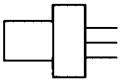
PCN10B -✻ ✻S-2.54DS

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



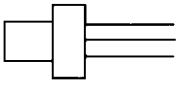
PCN10A -✻ ✻S-2.54DS
PCN10C -✻ ✻S-2.54DS
PCN13 -✻ ✻S-2.54DS

●Press fit short pin type



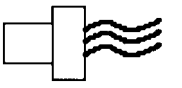
PCN11-✻ ✻S-2.54PFB-2

●Press fit long pin type



PCN11-✻ ✻S-2.54WB-2

●Cable type



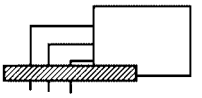
PCN10-✻ ✻S-2.54C+PCN10-✻ ✻ ✻ ✻SC✻
PCN10-✻ ✻S-2.54R

■Coaxial Connector and High Current Contact Composite Type

Pin Header Side

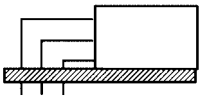
●Right angle through hole type (mounted on the board edge)

PCN10F-∗ ∗P-2.54DS



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

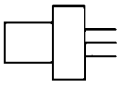
PCN10FA-∗ ∗P-2.54DS



Receptacle Side

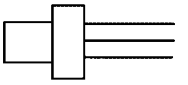
●Straight through hole type

PCN10F -∗ ∗S-2.54DSA



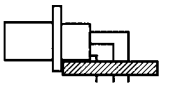
●Wrapping type

PCN10F -∗ ∗S-2.54W∗



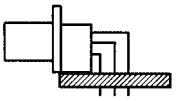
●Right angle through hole type (mounted on the board edge)

PCN10FB-∗ ∗S-2.54DS



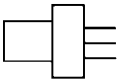
●Right angle through hole type (mounted on the board)

PCN10FA-∗ ∗S-2.54DS



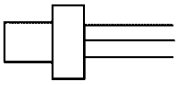
●Press fit short pin type

PCN11F-∗ ∗S-2.54PFB-2



●Press fit long pin type

PCN11F-∗ ∗S-2.54WB-2

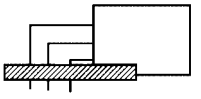


Circuit Protection Function Type

Pin Header Side

●Right angle through hole type

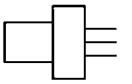
PCN10MC∗-∗ ∗P-2.54DS



Receptacle Side

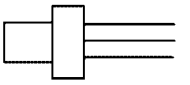
●Straight through hole type

PCN10MC∗-∗ ∗S-2.54DSA



●Wrapping type

PCN10MC∗-∗ ∗S-2.54W∗

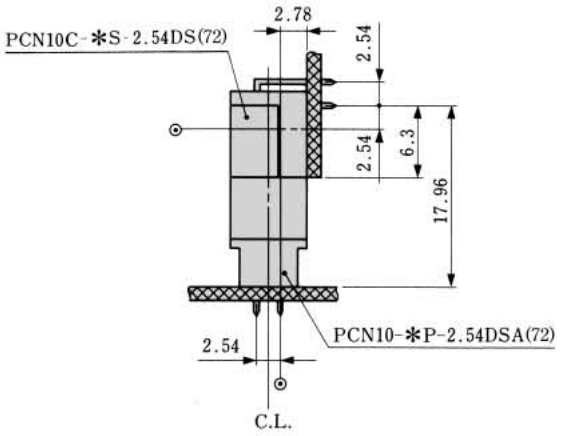


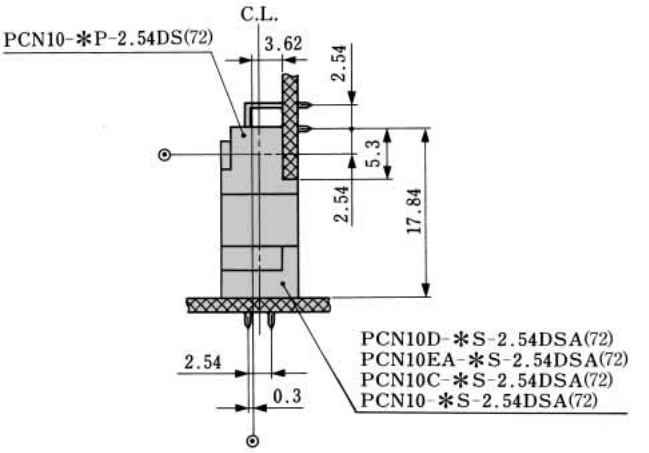
◆Application Pattern

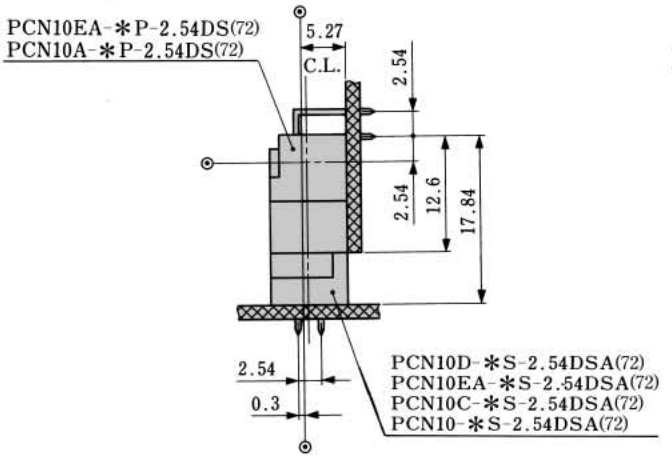
●Vertical Connection

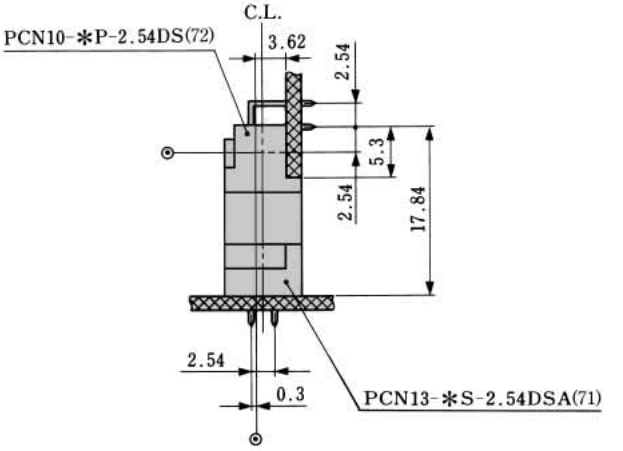
◉ : Mounting hole center
C.L. : Center line

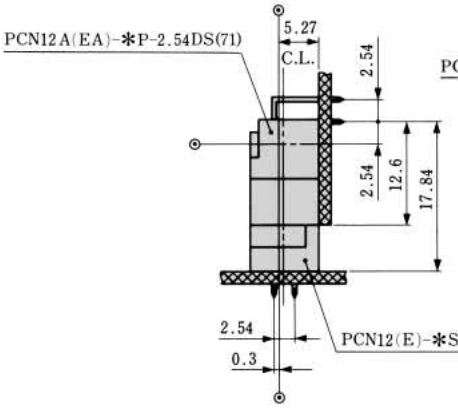
●2-row type

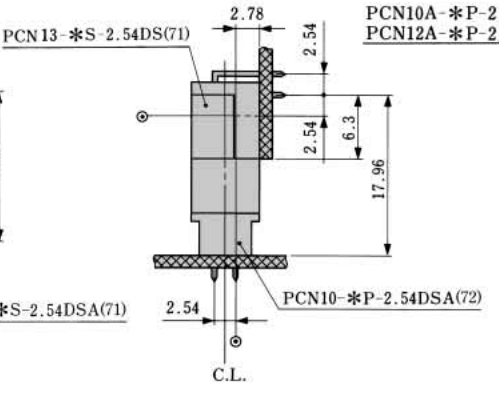


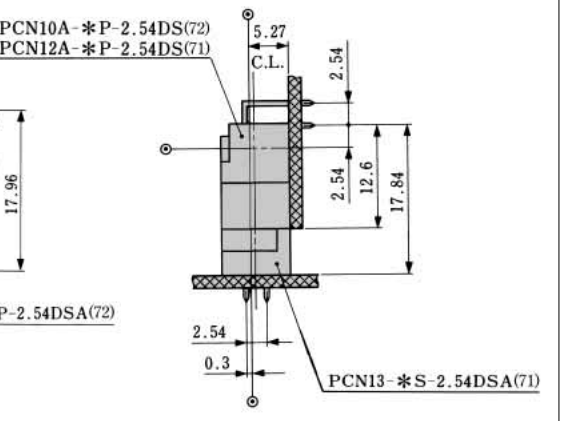






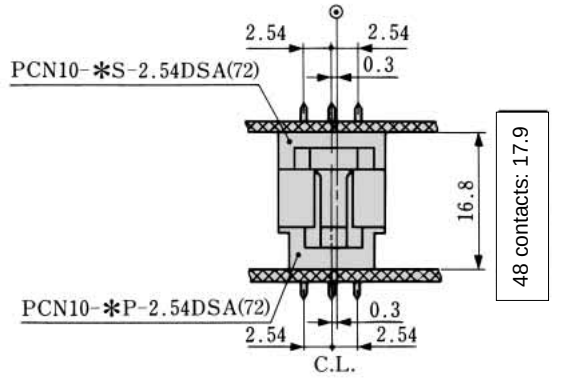


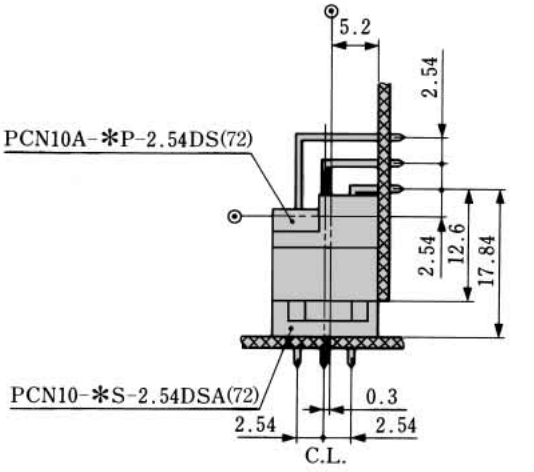


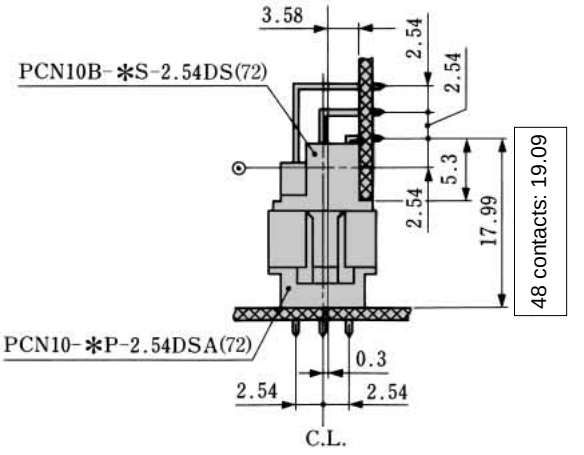


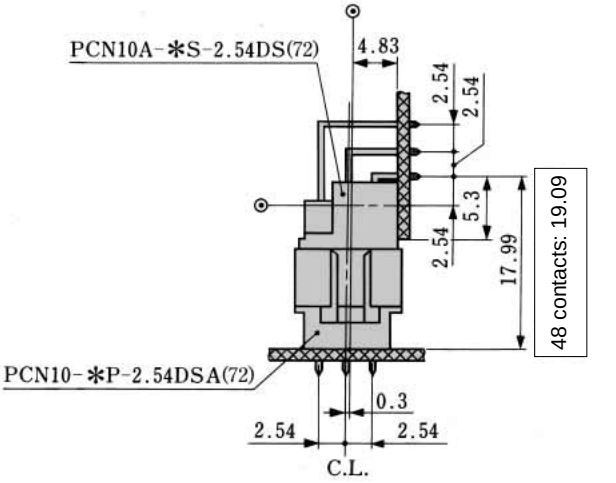
◉ : Mounting hole center
C.L. : Center line

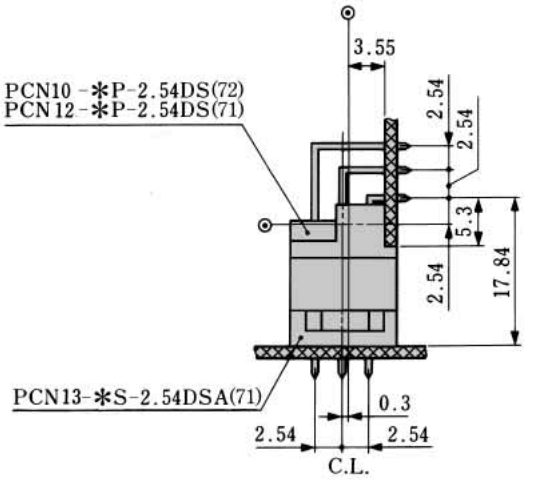
●3-row type

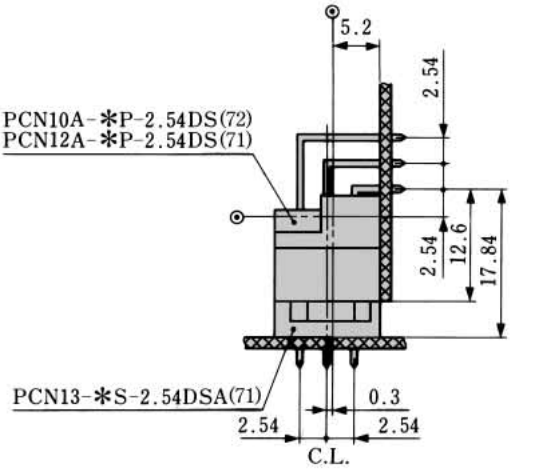




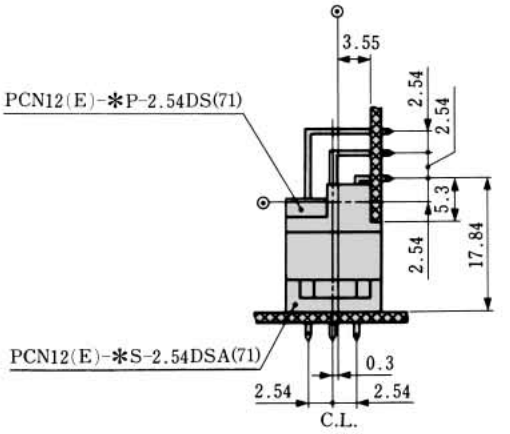


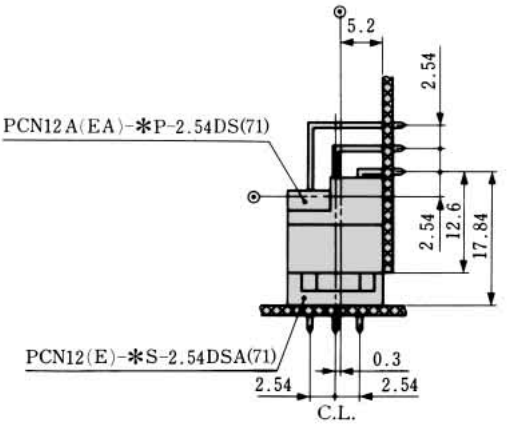


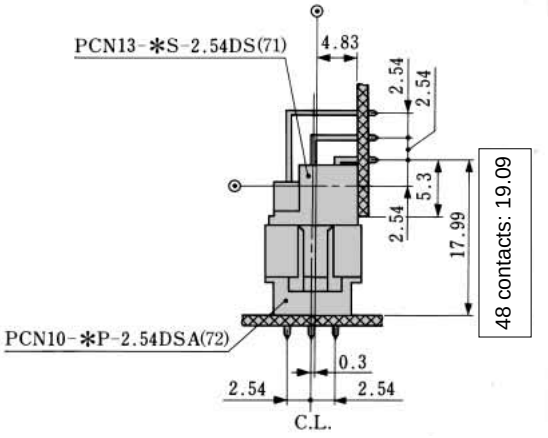




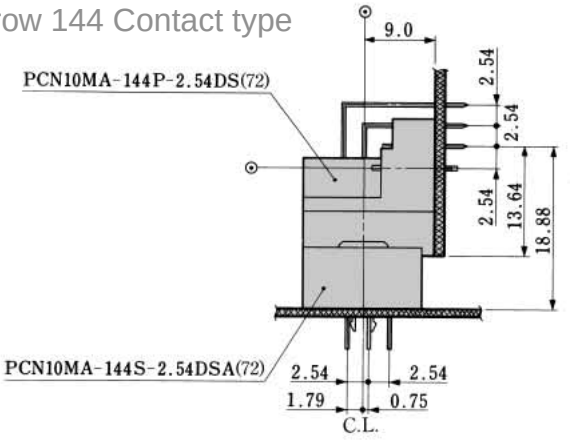
◉ : Mounting hole center
C.L. : Center line



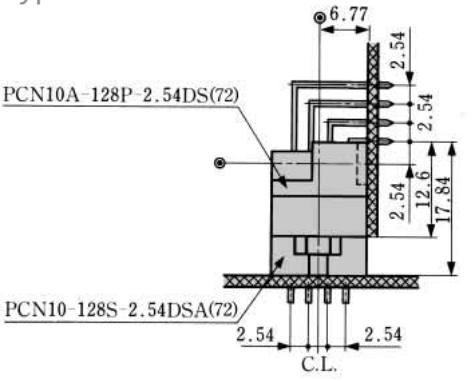


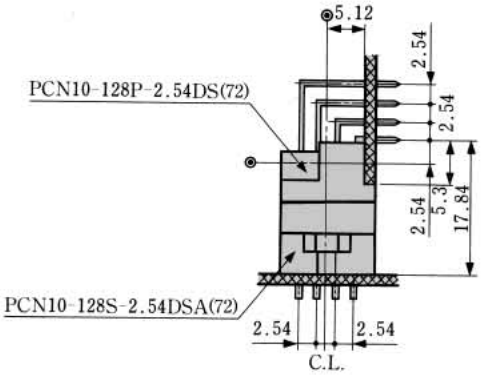


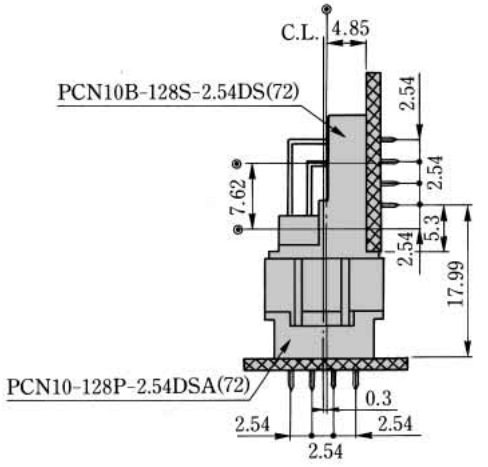
●3-row 144 Contact type



●4-row type





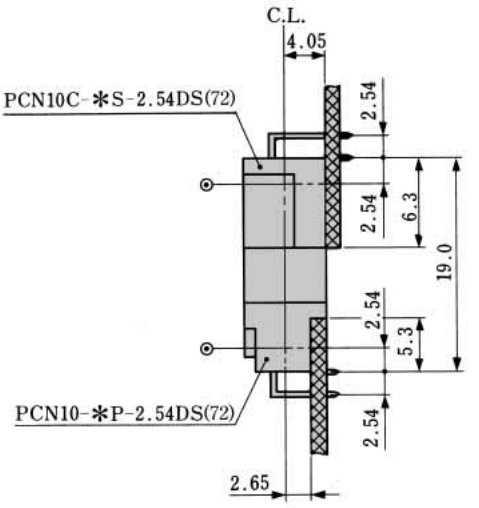


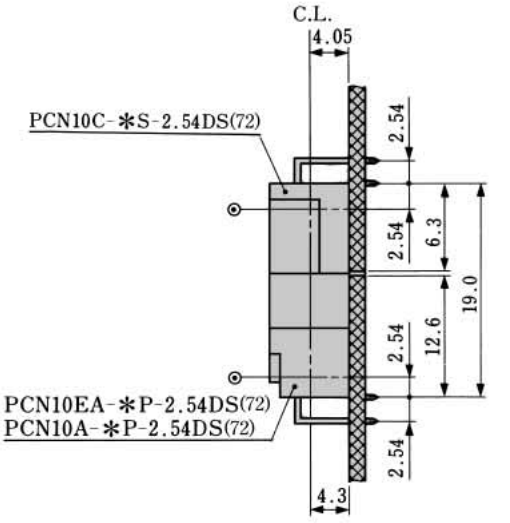
Application Pattern

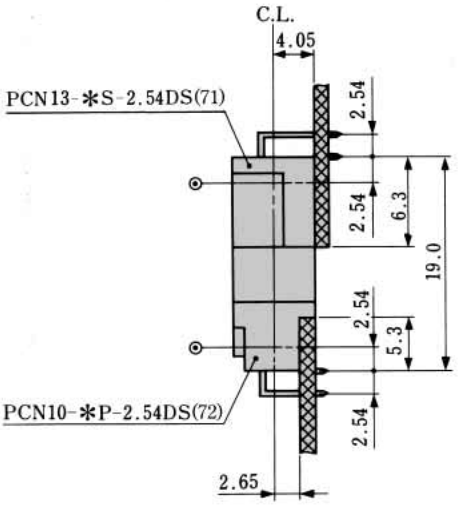
●Horizontal Connection

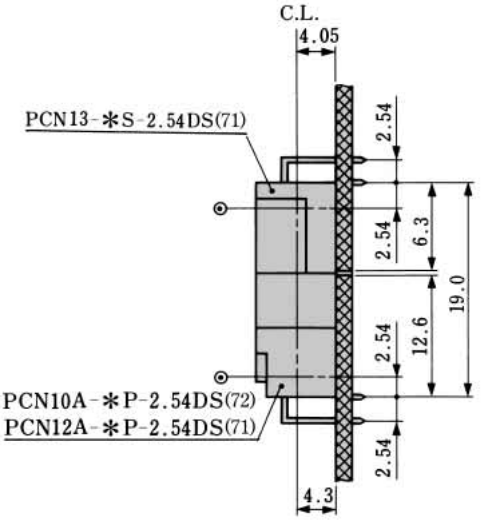
◉ : Mounting hole center
C.L. : Center line

●2-row type

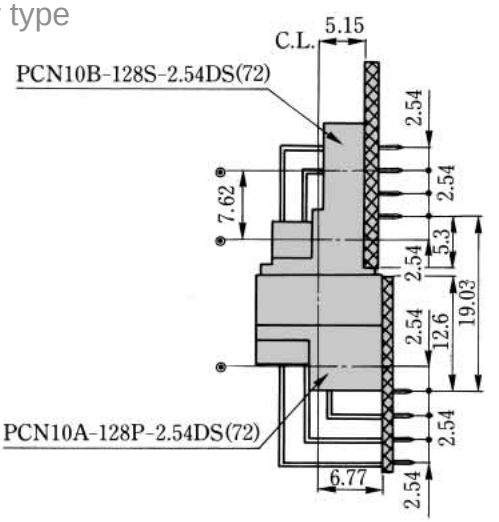


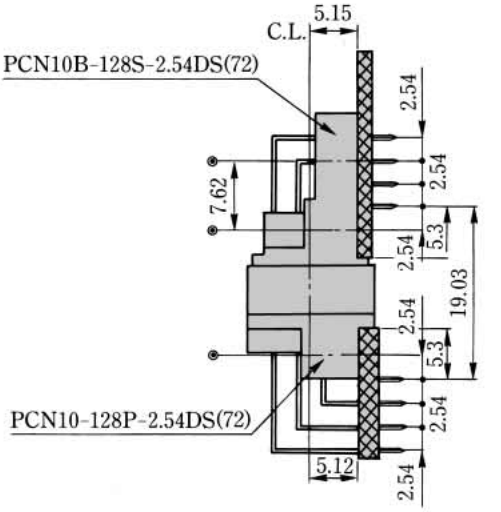






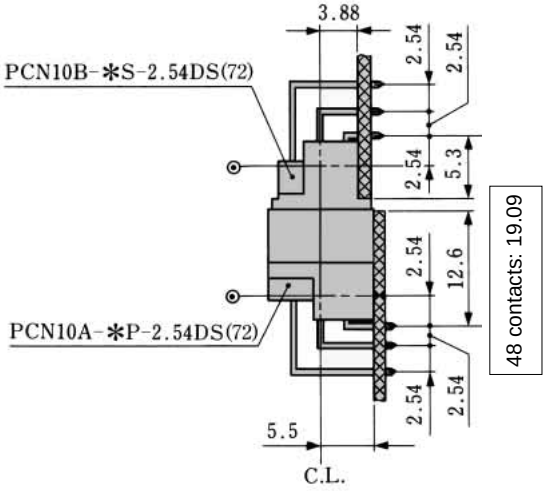
●4-row type

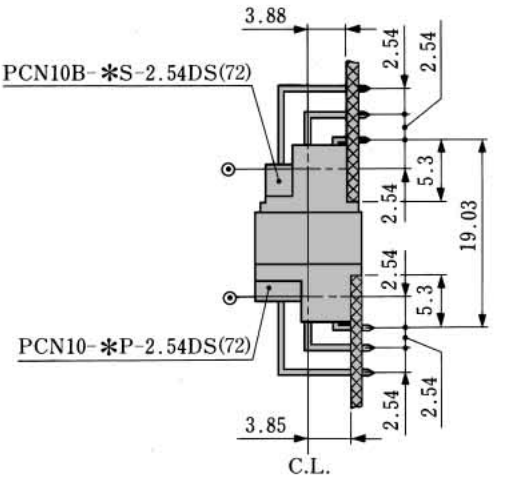


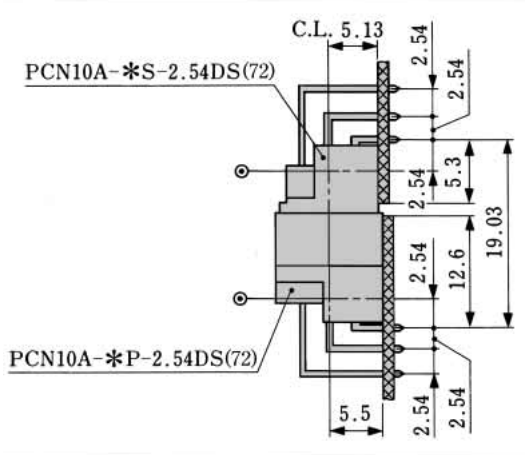


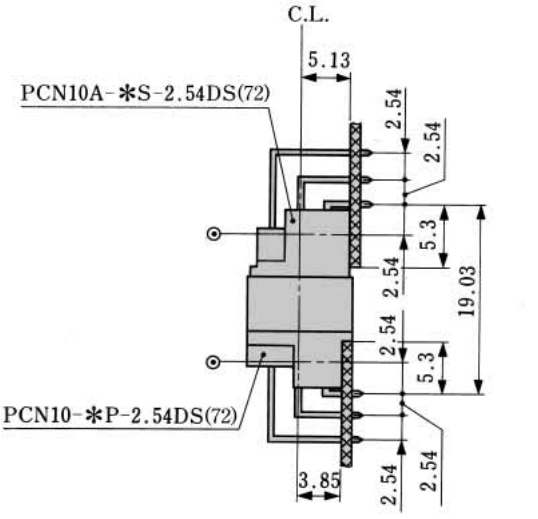
◉ : Mounting hole center
C.L. : Center line

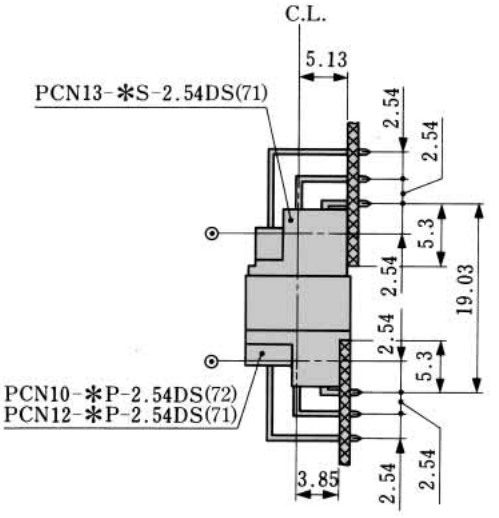
●3-row type

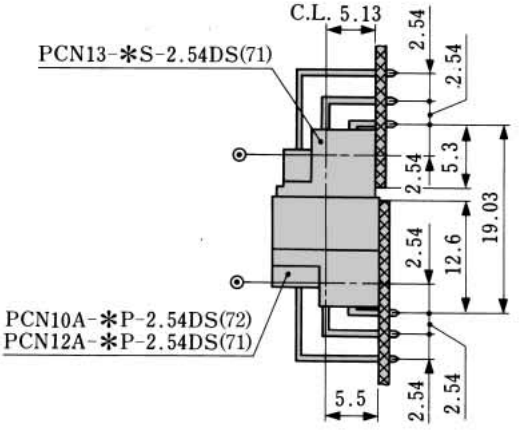










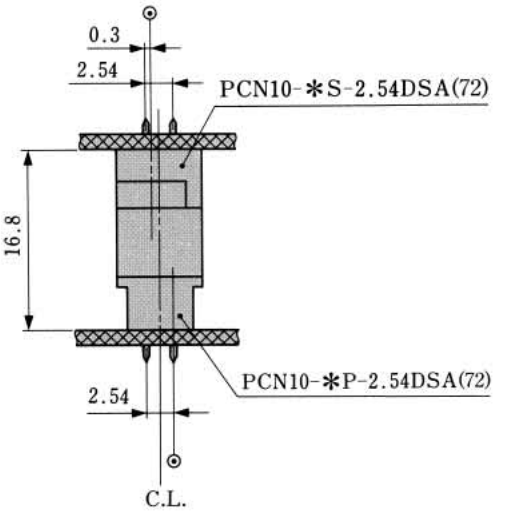


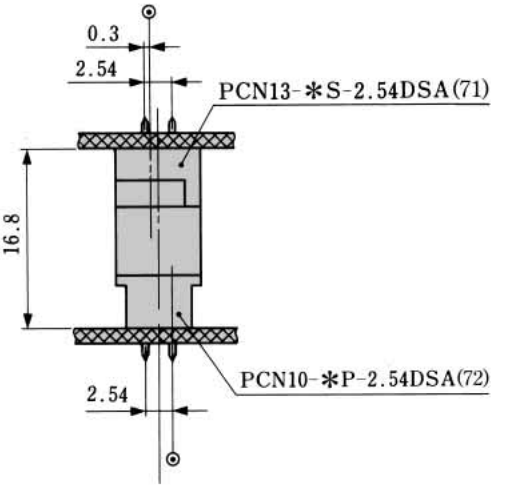
Application Pattern

Horizontal Connection

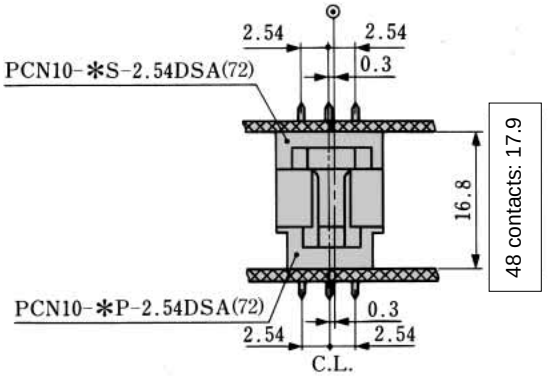
◉ : Mounting hole center
C.L. : Center line

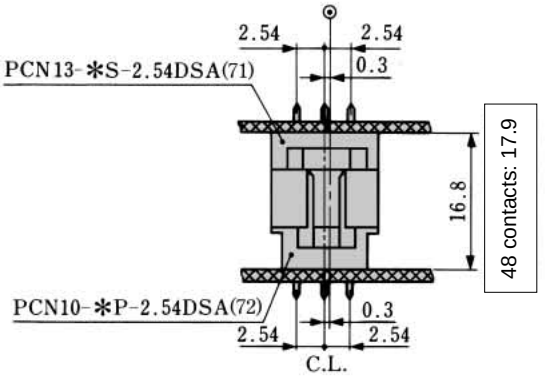
2-row type



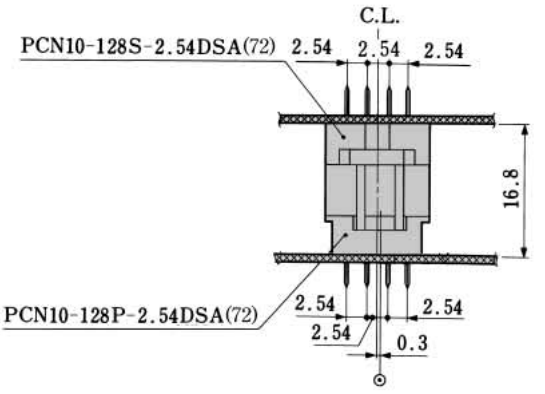


3-row type





4-row type

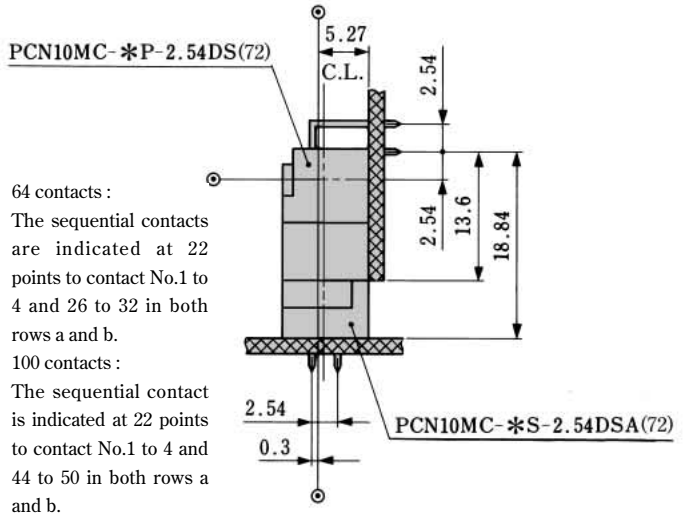


◆Application Pattern

■Circuit Protection Function Type

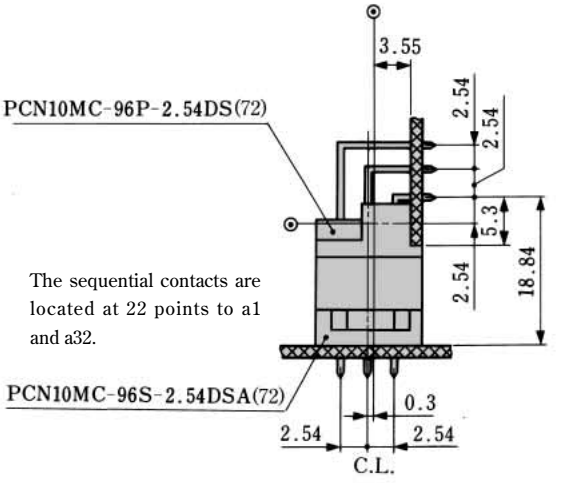
◉ : Mounting hole center
C.L. : Center line

●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.

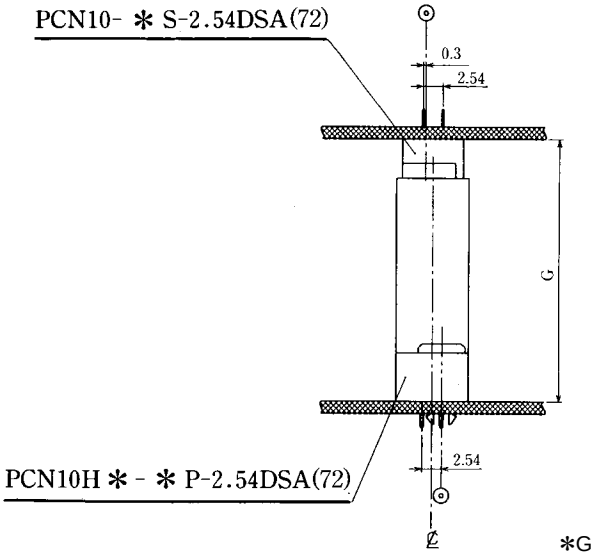
●3-row type



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