

# PCN10 Series

## IEC603-2 / DIN41612 Standard Compliant Products



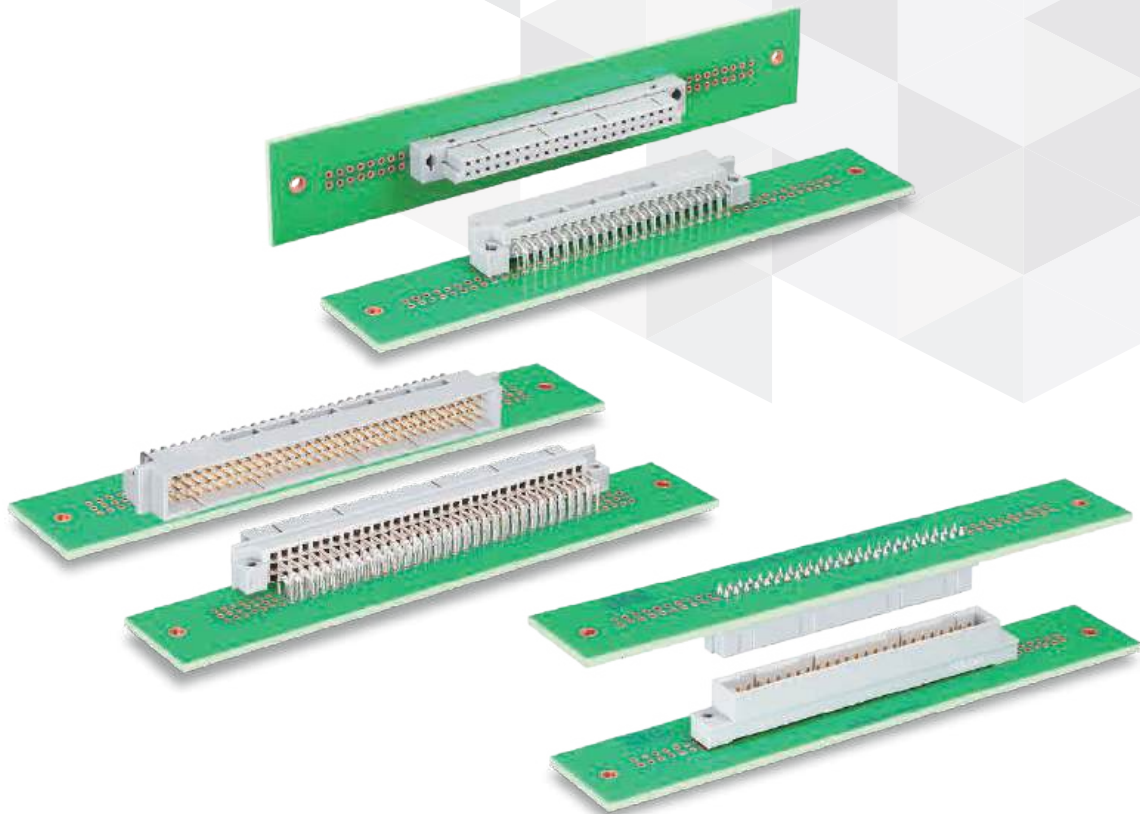
DIN Standard



P=2.54 mm



Wide Variation



Nov. 1.2024 Copyright 2024 HIROSE ELECTRIC CO., LTD. All Rights Reserved.



# Features

---

## 1. Complies with DIN Standard

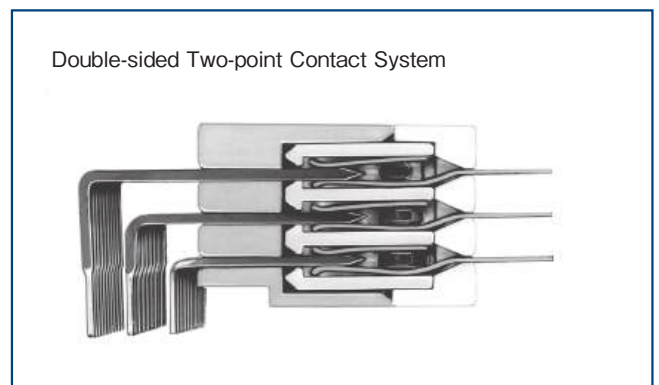
Complies with IEC603-2/DIN41612 standard.

## 2. Number of Positions

10 pin variations available :  
20, 32, 44, 48, 50, 64, 90, 96, 100, and 128

## 3. Two-point Contact Design

Highly reliable double-sided two point contacts.



Two-point Contact Design

## 4. Wide Applications

DIN standard types of B,C,R, and Q are available.  
Some of the easy lock pin type for temporary board installation is available.

## 5. Stacking Height Variation

The PCN10H Series includes 3 stacking height variations : 25, 30, and 35mm



Stacking Connector

## Applications

Computers, Control Equipment, Switches, Measuring Devices, etc.

## Product Specifications

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

Item	Specification	Condition
Insulation Resistance	10 <sup>6</sup> MΩ Min.	Measured at 100V DC
Withstanding Voltage	No flashover or insulation breakdown.	1000V AC for 1 min. (IDC, Crimp Type : 650V AC)
Contact Resistance	20mΩ Max.	Measured at 0.1A
Vibration Resistance	No electrical discontinuity of 10 μs Min.	Frequency : 10 to 55 Hz, single amplitude of 0.75 mm, 2 hours in each of the 3 directions.
Humidity (Steady State)	Insulation resistance : 10 <sup>6</sup> MΩ Min.	96 hours at temperature of 40 ± 2°C and humidity of 90% to 95%
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 times
Mating Durability	Contact resistance : 20mΩ Max.	500 times
Soldering Heat Resistance	No deformation of components affecting performance.	Manual soldering : 350°C for 3 seconds

Note 1 : Includes the temperature rise due to current flow.

Note 2 : The term "storage" refers to products stored for long period of time prior to mounting and use. The operating temperature and humidity range applies to the non-energized state after board mounting and temporary storage during transportation.

## Material / Finish

Component		Material	Color/Finish	Remarks
Insulator		PBT	Gray	UL94V-0
Contact	Pin Header	Brass	Contact Area: Nickel Underplated+Gold Plated Remaining Areas: Nickel Underplated+Tin Plated	-
	Receptacle	Copper Alloy		

## Product Number Structure

### ■ PCN10 Series

Refer to the chart below when determining the product specifications from the product number.  
Please select from the product numbers listed in this catalog when placing orders.

## PCN10 A - # P - 2.54 DS

①      ②      ③ ④      ⑤      ⑥

① Series Name	PCN10	③ No. of Pos.	2-row : 20,32,44,50,64,90,100 3-row : 48,96 4-row : 128
② Configuration	Blank : Mold Type (as listed below) A : Mold Type (as listed below) B : Mold Type (as listed below) C : 2-row Type EA : 2-row Type (With Lock Pin for Temporary Board Installation) H : 35mm Stacking Height HA : 30mm Stacking Height HB : 25mm Stacking Height	④ Connector Type	P : Pin Header S : Receptacle
		⑤ Contact Pitch	2.54mm
		⑥ Contact Type	DS : Right Angle Through Hole Type DSA : Straight Through Hole Type

PCN10 (Note)  
PCN10B

PCN10A  
PCN10EA

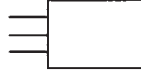


Note : However the right angle 2-row receptacle type is PCN10A.

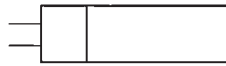
# Combination

## Pin Header

● Straight Through Hole Type  
PCN10-##P-2.54DSA

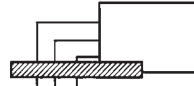


● Stacking Through Hole Type  
PCN10H#-##P-2.54DSA

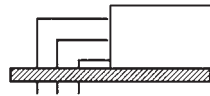


\*Does not mate with PCN10EA-##S-2.54DSA.

● Right Angle Through Hole Type  
(Mounted on Board Edge)  
PCN10-##P-2.54DS

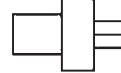


● Right Angle Through Hole Type  
(Board Mounted)  
PCN10A-##P-2.54DS  
PCN10EA-##P-2.54DS



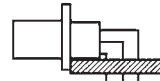
## Receptacle

● Straight Through Hole Type



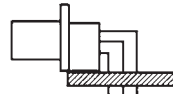
PCN10-##S-2.54DSA  
PCN10C-##S-2.54DSA  
PCN10EA-##S-2.54DSA

● Right Angle Through Hole Type  
(Mounted On The Board Edge)



PCN10B-##S-2.54DS

● Right Angle Through Hole Type  
(Mounted On The Board)



PCN10C-##S-2.54DS



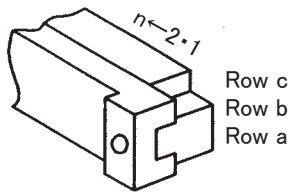
## Contact Numbers

For the mating of DIN Standard type C (Type B) and Type R (Type Q), the contact numbers are No.1-32 and the rows are a, b, and 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.

### 1. Receptacle Straight Type

Type C (Type B)



Contact No. Matching

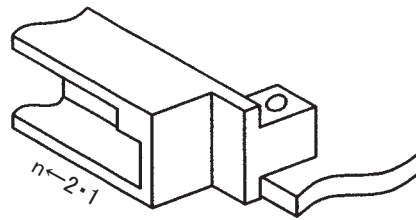
Contact No. Inverted



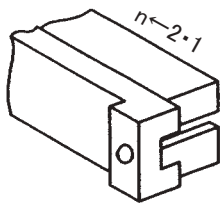
### 2. Pin Header Right Angle Type

Type C (Type B)

Row c  
Row b  
Row a

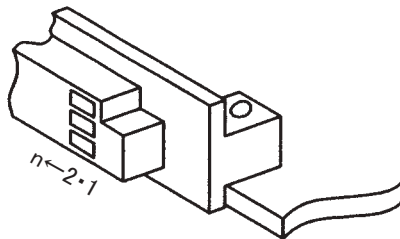


Contact No. Inverted



Contact No. Matching

Row c  
Row b  
Row a



### 3. Pin Header Straight Type

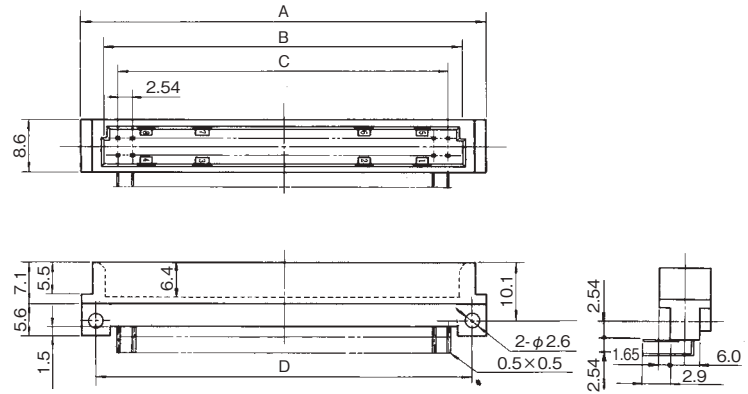
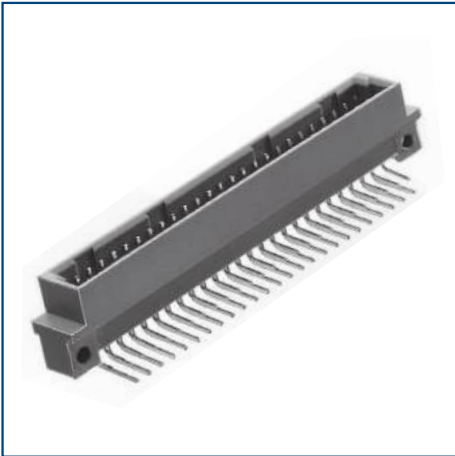
Type R (Type Q)

### 4. Receptacle Right Angle Type

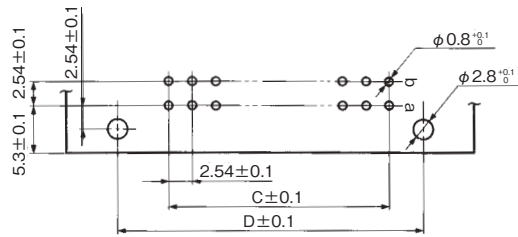
Type R (Type Q)

Note : DIN connectors are standardized based on a combination of straight and right angle types. In the above figure, the contact no. of combination 1-2, 3-4 match, but the contact no. of combination 1-3, 2-4 are inverted.

## Pin Header : 2-row Right Angle Type (DIN Standard Type B)



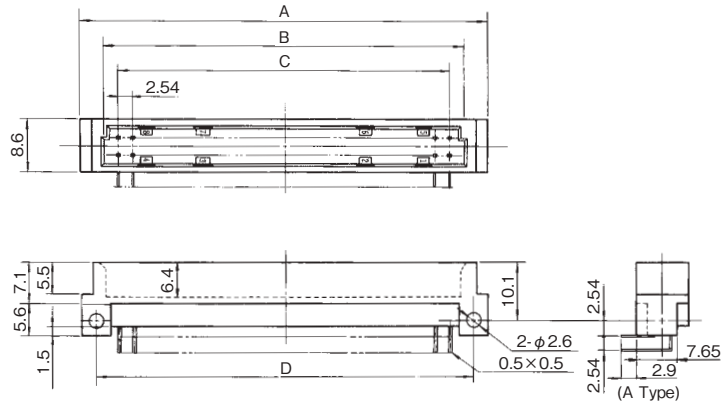
### PCB Mounting Pattern



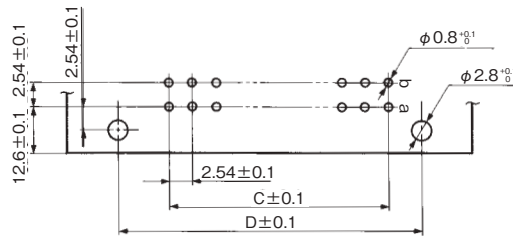
Unit : mm

Part No.	HRS No.	No. of Pos.	A	B	C	D	RoHS	Purchase Unit
PCN10-20P-2.54DS(72)	CL0583-0077-3-72	20	38.12	29.47	22.86	33.02	Yes	40pcs per tray
PCN10-32P-2.54DS(72)	CL0583-0015-6-72	32	53.36	44.71	38.10	48.26		20pcs per tray
PCN10-44P-2.54DS(72)	CL0583-0038-1-72	44	68.60	59.95	53.34	63.50		
PCN10-50P-2.54DS(72)	CL0583-0016-9-72	50	76.22	67.57	60.96	71.12		10pcs per tray
PCN10-64P-2.54DS(72)	CL0583-0017-1-72	64	94.00	85.35	78.74	88.90		
PCN10-90P-2.54DS(72)	CL0583-0018-4-72	90	127.02	118.37	111.76	121.92		
PCN10-100P-2.54DS(72)	CL0583-0113-5-72	100	139.72	131.07	124.46	134.62		

## Pin Header : 2-row Right Angle Type



### PCB Mounting Pattern



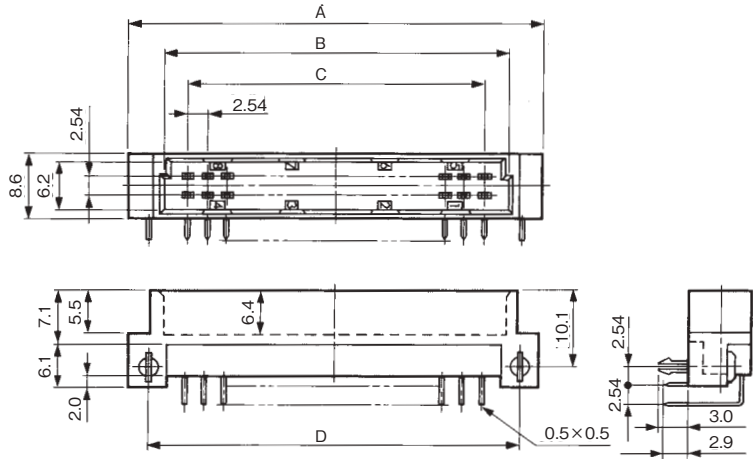
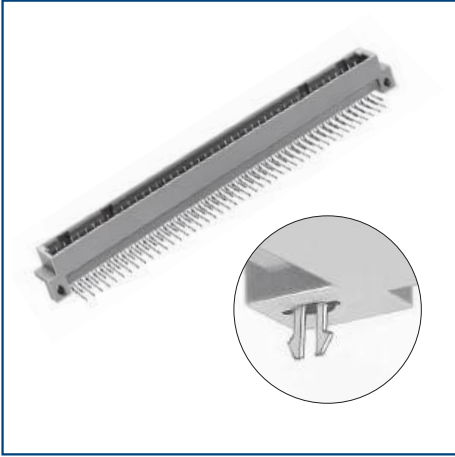
Unit : mm

Part No.	HRS No.	No. of Pos.	A	B	C	D	RoHS	Purchase Unit
PCN10A-20P-2.54DS(72)	CL0583-0078-6-72	20	38.12	29.47	22.86	33.02	Yes	40pcs per tray
PCN10A-32P-2.54DS(72)	CL0583-0011-5-72	32	53.36	44.71	38.10	48.26		
PCN10A-44P-2.54DS(72)	CL0583-0039-4-72	44	68.60	59.95	53.34	63.50		
PCN10A-50P-2.54DS(72)	CL0583-0012-8-72	50	76.22	67.57	60.96	71.12		
PCN10A-64P-2.54DS(72)	CL0583-0013-0-72	64	94.00	85.35	78.74	88.90		
PCN10A-90P-2.54DS(72)	CL0583-0014-3-72	90	127.02	118.37	111.76	121.92		
PCN10A-100P-2.54DS(72)	CL0583-0114-8-72	100	139.72	131.07	124.46	134.62		10pcs per tray



## Pin Header : 2-row Right Angle Type

- With Lock Pin for Temporary Board Installation

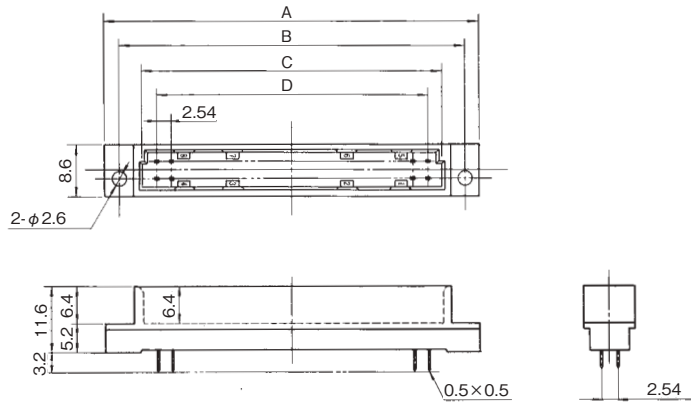
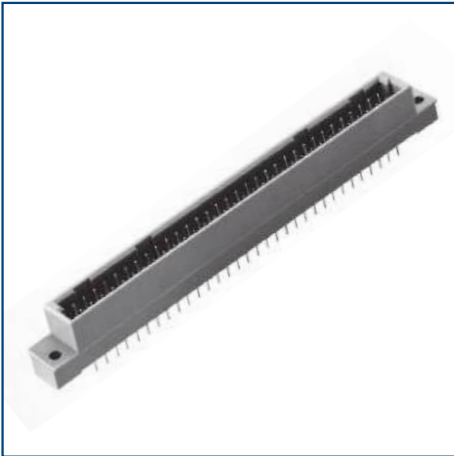


- The PCB mounting pattern is equivalent to PCN10A-#P-2.54DS(72).

Unit : mm

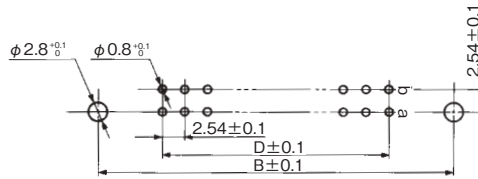
Part No.	HRS No.	No. of Pos.	A	B	C	D	RoHS	Purchase Unit
PCN10EA-20P-2.54DS(72)	CL0583-0181-5-72	20	38.12	29.47	22.86	33.02	Yes	40pcs per tray
PCN10EA-32P-2.54DS(72)	CL0583-0182-8-72	32	53.36	44.71	38.10	48.26		20pcs per tray
PCN10EA-44P-2.54DS(72)	CL0583-0183-0-72	44	68.60	59.95	53.34	63.50		
PCN10EA-50P-2.54DS(72)	CL0583-0184-3-72	50	76.22	67.57	60.96	71.12		
PCN10EA-64P-2.54DS(72)	CL0583-0185-6-72	64	94.00	85.35	78.74	88.90		

## Pin Header : 2-row Straight Type



\*Type Q differs in the outer dimensions and PCB mounting pattern.

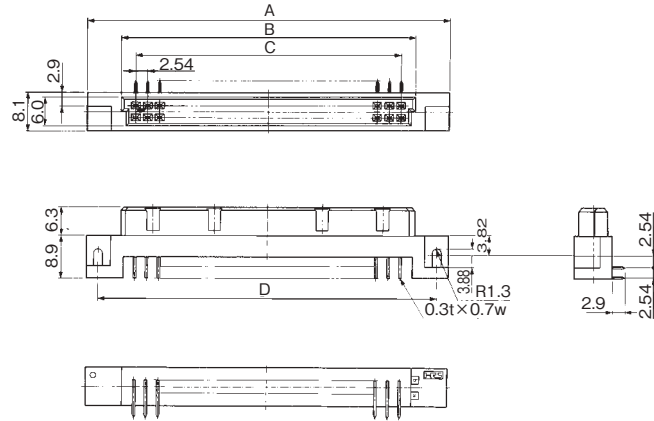
### PCB Mounting Pattern



Unit : mm

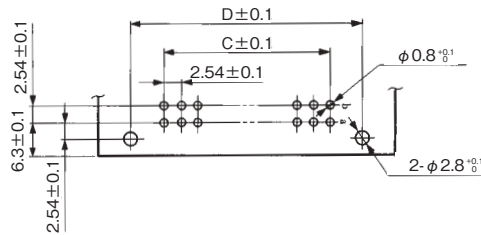
Part No.	HRS No.	No. of Pos.	A	B	C	D	RoHS	Purchase Unit
PCN10-20P-2.54DSA(72)	CL0583-0139-9-72	20	43.30	38.10	29.47	22.86	Yes	45pcs per tray
PCN10-32P-2.54DSA(72)	CL0583-0007-8-72	32	58.54	53.34	44.71	38.10		30pcs per tray
PCN10-44P-2.54DSA(72)	CL0583-0488-8-72	44	73.78	68.58	59.95	53.54		15pcs per tray
PCN10-50P-2.54DSA(72)	CL0583-0008-0-72	50	81.40	76.20	67.57	60.96		
PCN10-64P-2.54DSA(72)	CL0583-0009-3-72	64	99.18	93.98	85.35	78.74		
PCN10-90P-2.54DSA(72)	CL0583-0010-2-72	90	132.20	127.00	118.37	111.76		
PCN10-100P-2.54DSA(72)	CL0583-0251-9-72	100	144.90	139.70	131.07	124.46		

## Receptacle : 2-row Right Angle Type



\*Type Q differs in the external size and PCB mounting pattern.

### PCB Mounting Pattern

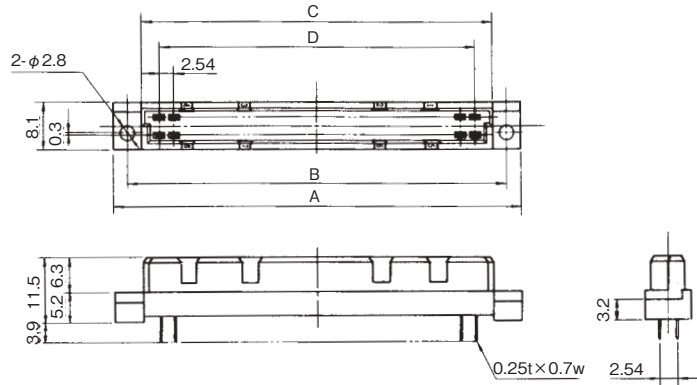
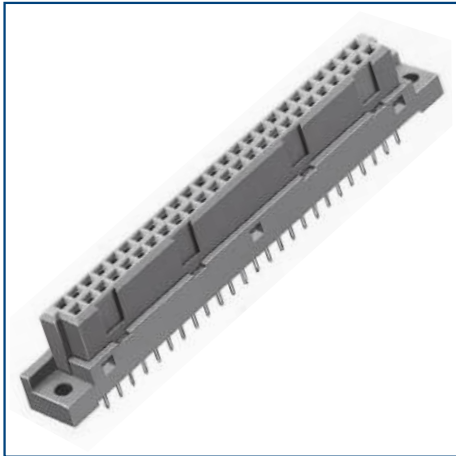


Unit : mm

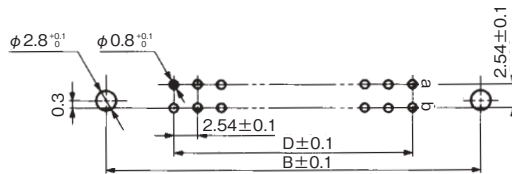
Part No.	HRS No.	No. of Pos.	A	B	C	D	RoHS	Purchase Unit
PCN10C-20S-2.54DS(72)	CL0583-0201-0-72	20	43.10	29.12	22.86	38.10	Yes	33pcs per tray
PCN10C-32S-2.54DS(72)	CL0583-0202-3-72	32	58.34	44.36	38.10	53.34		22pcs per tray
PCN10C-44S-2.54DS(72)	CL0583-0052-2-72	44	73.58	59.60	53.34	68.58		11pcs per tray
PCN10C-50S-2.54DS(72)	CL0583-0168-7-72	50	81.20	67.22	60.96	76.20		
PCN10C-64S-2.54DS(72)	CL0583-0203-6-72	64	98.98	85.00	78.74	93.98		
PCN10C-90S-2.54DS(72)	CL0583-0204-9-72	90	132.00	118.02	111.76	127.00		
PCN10C-100S-2.54DS(72)	CL0583-0178-0-72	100	144.70	130.72	124.46	139.70		

Note : DIN standard type Q (Reverse type of type B) is PCN10B-64S-2.54DS(72).

## Receptacle : 2-row Straight Type (DIN Standard Type B)



### PCB Mounting Pattern

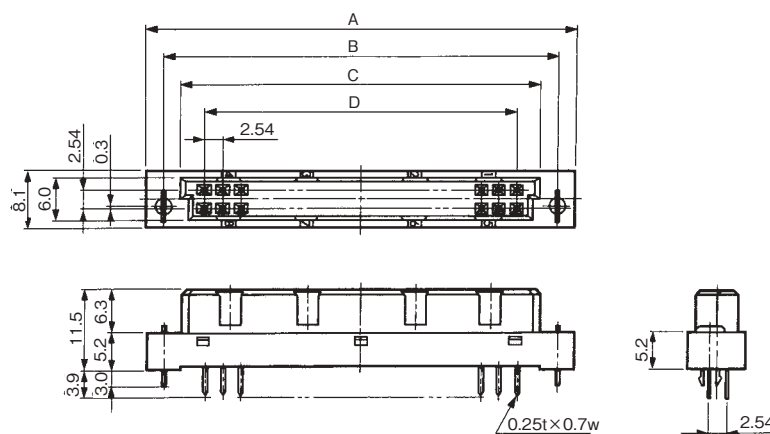


Unit : mm

Part No.	HRS No.	No. of Pos.	A	B	C	D	RoHS	Purchase Unit
PCN10C-20S-2.54DSA(52)	CL0583-0079-9-52	20	39.12	34.12	29.12	22.86	Yes	70pcs per tray
PCN10C-32S-2.54DSA(52)	CL0583-0033-8-52	32	54.36	49.36	44.36	38.10		50pcs per tray
PCN10C-44S-2.54DSA(52)	CL0583-0034-0-52	44	69.60	64.60	59.60	53.34		40pcs per tray
PCN10C-50S-2.54DSA(52)	CL0583-0035-3-52	50	77.22	72.22	67.22	60.96		30pcs per tray
PCN10C-64S-2.54DSA(52)	CL0583-0036-6-52	64	95.00	90.00	85.00	78.74		20pcs per tray
PCN10C-90S-2.54DSA(52)	CL0583-0037-9-52	90	128.02	123.02	118.02	111.76		
PCN10C-100S-2.54DSA(52)	CL0583-0112-2-52	100	140.72	135.72	130.72	124.46		

## Receptacle : 2-row Straight Type (DIN Standard Type B)

- With Lock Pin for Temporary Board Installation

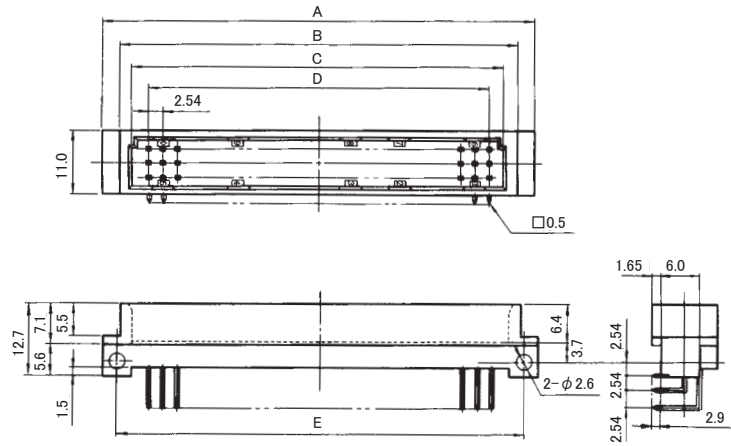


- The PCB mounting pattern is equivalent to PCN10C-#S-2.54DSA(52).

Unit : mm

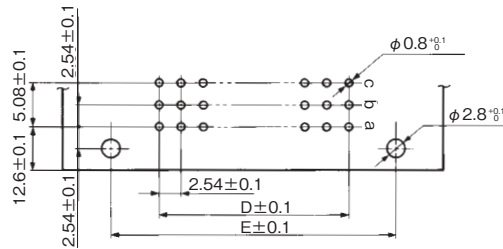
Part No.	HRS No.	No. of Pos.	A	B	C	D	RoHS	Purchase Unit
PCN10EA-20S-2.54DSA(52)	CL0583-0188-4-52	20	39.12	34.12	29.12	22.86	Yes	70pcs per tray
PCN10EA-32S-2.54DSA(52)	CL0583-0189-7-52	32	54.36	49.36	44.36	38.10		50pcs per tray
PCN10EA-44S-2.54DSA(52)	CL0583-0190-6-52	44	69.60	64.60	59.60	53.34		40pcs per tray
PCN10EA-50S-2.54DSA(52)	CL0583-0191-9-52	50	77.22	72.22	67.22	60.96		30pcs per tray
PCN10EA-64S-2.54DSA(52)	CL0583-0192-1-52	64	95.00	90.00	85.00	78.74		20pcs per tray
PCN10EA-90S-2.54DSA(52)	CL0583-0193-4-52	90	128.02	123.02	118.02	111.76		
PCN10EA-100S-2.54DSA(52)	CL0583-0194-7-52	100	140.72	135.72	130.72	124.46		

## Pin Header : 3-row Right Angle Type (DIN Standard Type C)



The 48pos. variation has guide key grooves in 8 locations.

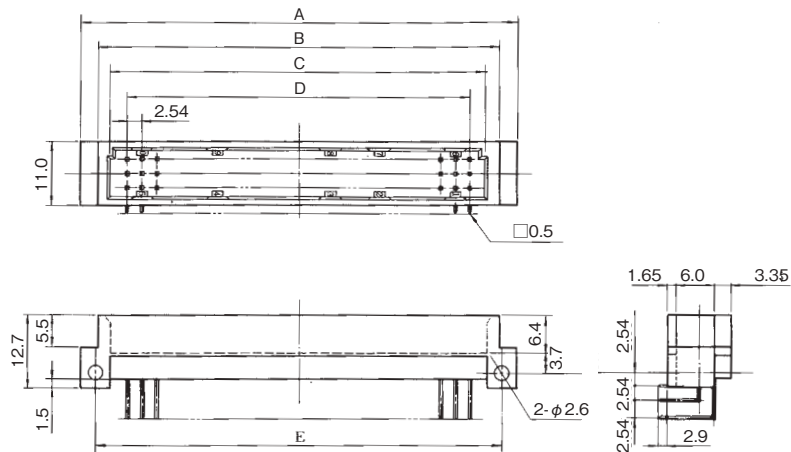
### PCB Mounting Pattern



Unit : mm

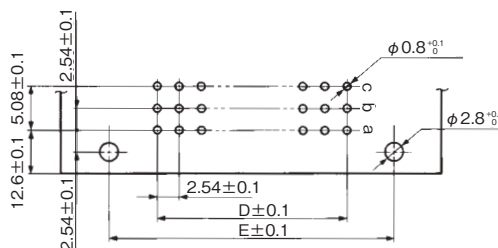
Part No.	HRS No.	No. of Pos.	A	B	C	D	E	RoHS	Purchase Unit
PCN10-48P-2.54DS (72)	CL0583-0063-9-72	48	53.36	47.36	44.61	38.10	48.26	Yes	48pcs per tray
PCN10-96P-2.54DS (72)	CL0583-0001-1-72	96	94.00	88.00	85.25	78.74	88.90		24pcs per tray

## Pin Header : 3-row Right Angle Type



The 48pos. variation has guide key grooves in 8 locations.

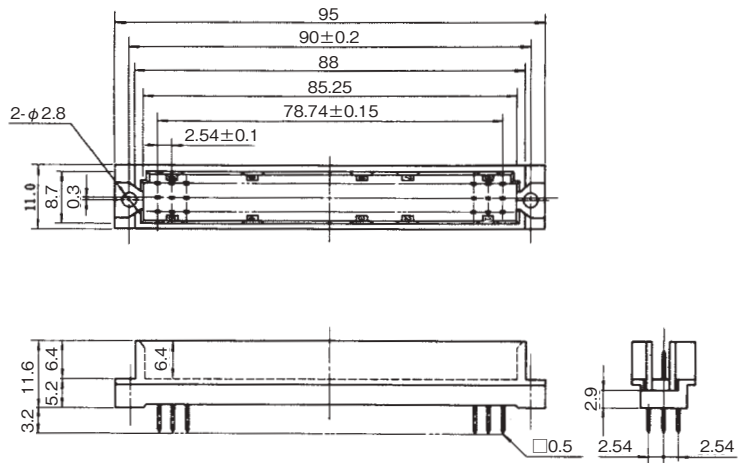
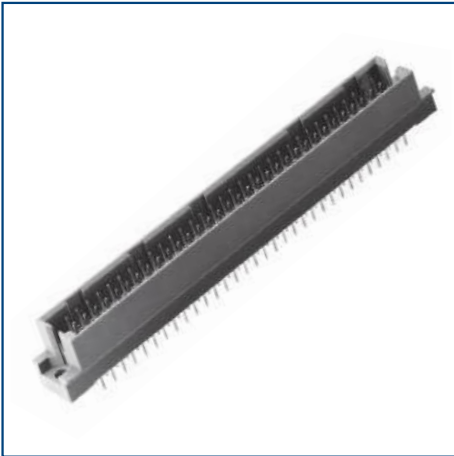
### PCB Mounting Pattern



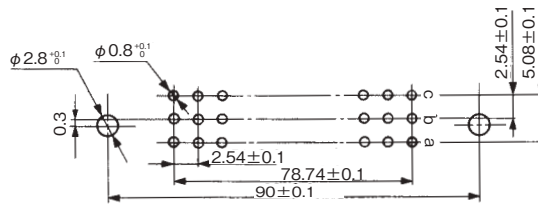
Unit : mm

Part No.	HRS No.	No. of Pos.	A	B	C	D	E	RoHS	Purchase Unit
PCN10A-48P-2.54DS(72)	CL0583-0064-1-72	48	53.36	47.36	44.61	38.10	48.26	Yes	48pcs per tray
PCN10A-96P-2.54DS(72)	CL0583-0006-5-72	96	94.00	88.00	85.25	78.74	88.90		24pcs per tray

Pin Header : 3-row Straight Type (DIN Standard Type R)



PCB Mounting Pattern



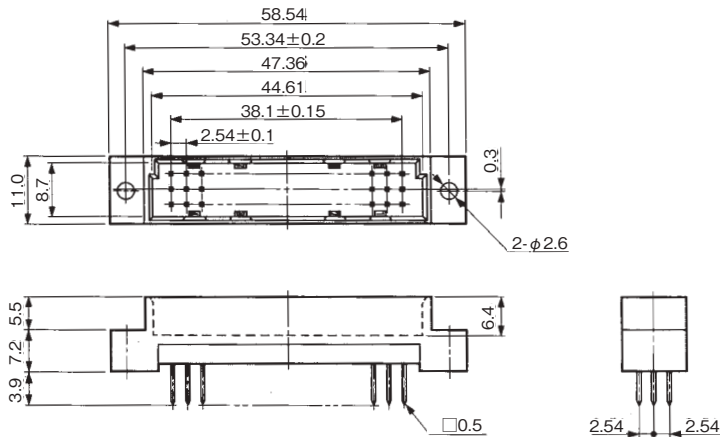
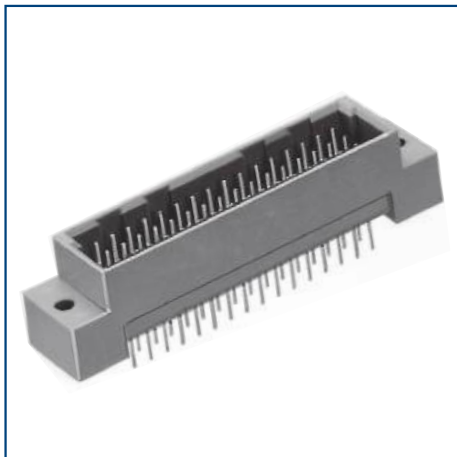
Unit : mm

Part No.	HRS No.	No. of Pos.	RoHS	Purchase Unit
PCN10-96P-2.54DSA(72)	CL0583-0002-4-72	96	Yes	24pcs per tray

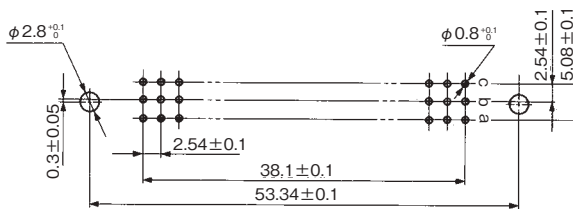
Nov. 1.2024 Copyright 2024 HIROSE ELECTRIC CO., LTD. All Rights Reserved.



## Pin Header : 3-row Straight Type



### PCB Mounting Pattern

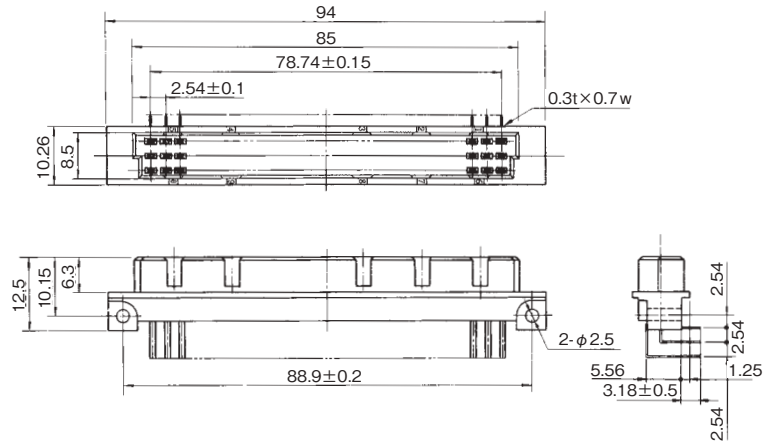
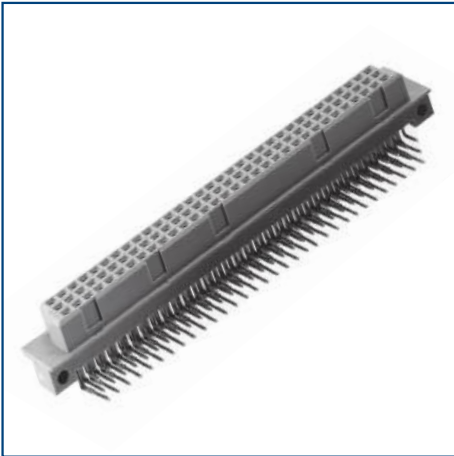


Unit : mm

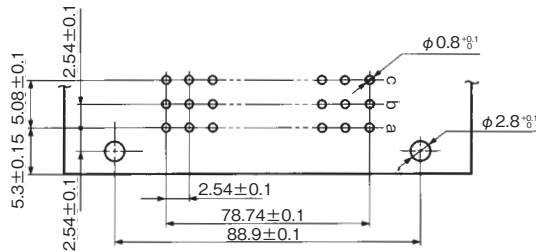
Part No.	HRS No.	No. of Pos.	RoHS	Purchase Unit
PCN10-48P-2.54DSA(72)	CL0583-0104-4-72	48	Yes	40pcs per tray

Nov. 1. 2024 Copyright 2024 HIROSE ELECTRIC CO., LTD. All Rights Reserved.

## Receptacle : 3-row Right Angle Type (DIN Standard Type R)



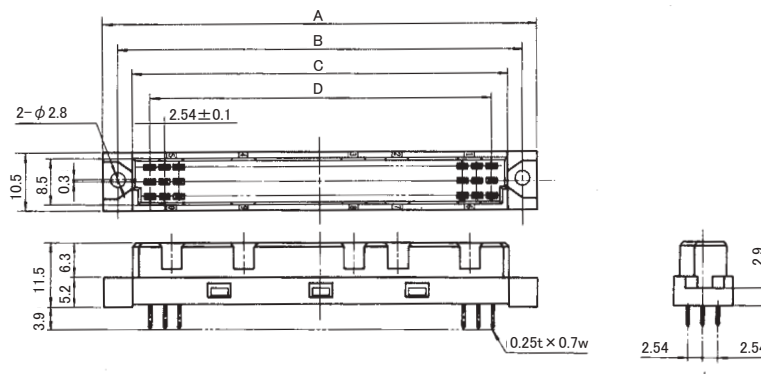
### PCB Mounting Pattern



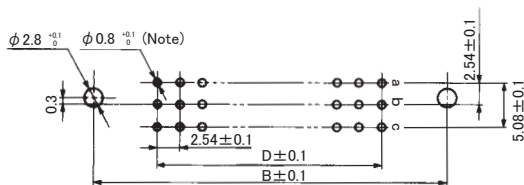
Unit : mm

Part No.	HRS No.	No. of Pos.	RoHS	Purchase Unit
PCN10B-96S-2.54DS(72)	CL0583-0004-0-72	96	Yes	24pcs per tray

## Receptacle : 3-row Straight Type (DIN Standard Type C)



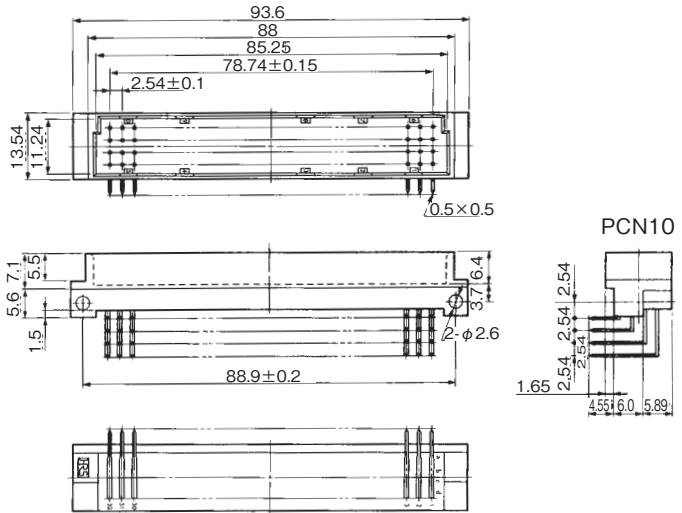
### PCB Mounting Pattern



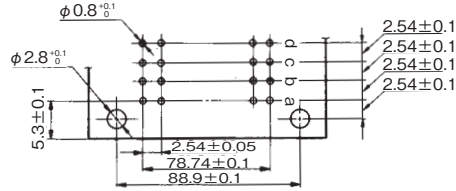
Unit : mm

Part No.	HRS No.	No. of Pos.	A	B	C	D	RoHS	Purchase Unit
PCN10-48S-2.54DSA(72)	CL0583-0065-4-72	48	54.36	50.00	44.36	38.10	Yes	20pcs per tray
PCN10-96S-2.54DSA(72)	CL0583-0003-7-72	96	95.00	90.00	85.00	78.74		15pcs per tray

## Pin Header : 4-row Right Angle Type



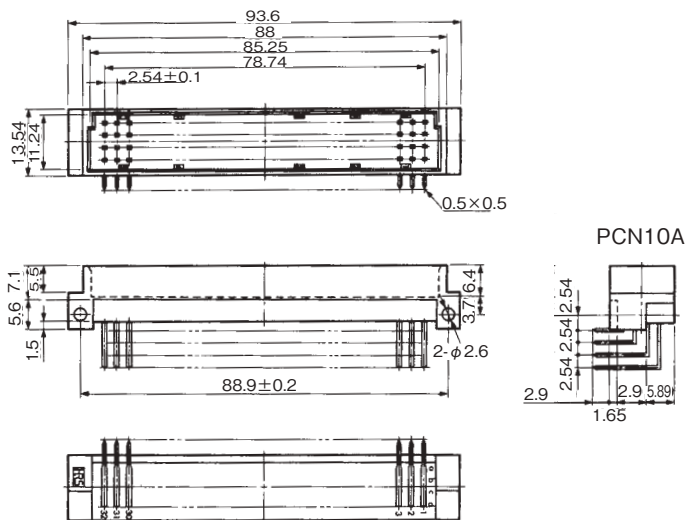
### PCB Mounting Pattern



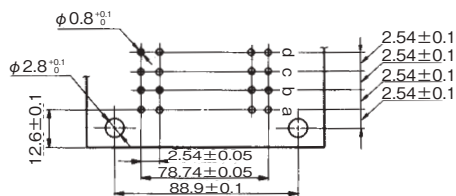
Unit : mm

Part No.	HRS No.	No. of Pos.	RoHS	Purchase Unit
PCN10-128P-2.54DS(72)	CL0583-0087-7-72	128	Yes	12pcs per tray

## Pin Header : 4-row Right Angle Type



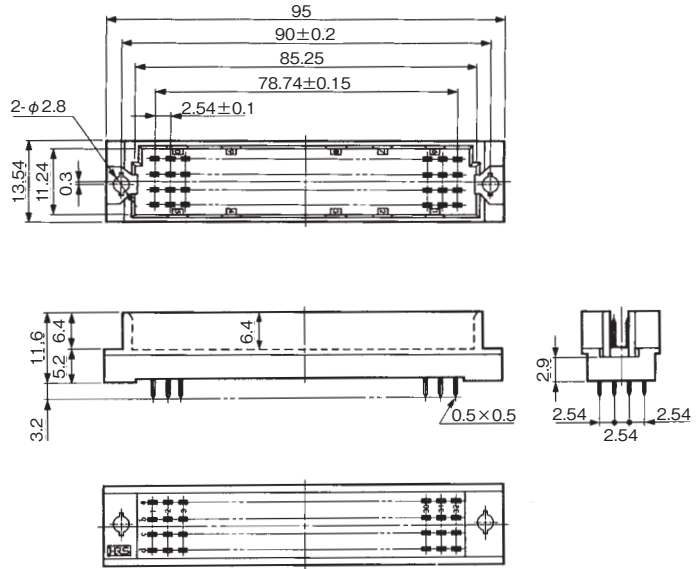
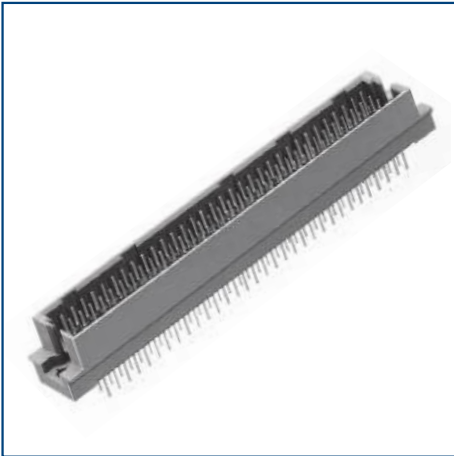
### PCB Mounting Pattern



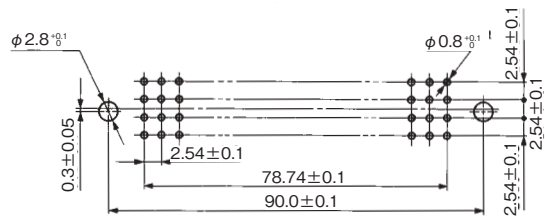
Unit : mm

Part No.	HRS No.	No. of Pos.	RoHS	Purchase Unit
PCN10A-128P-2.54DS(72)	CL0583-0088-0-72	128	Yes	12pcs per tray

## Pin Header : 4-row Straight Type



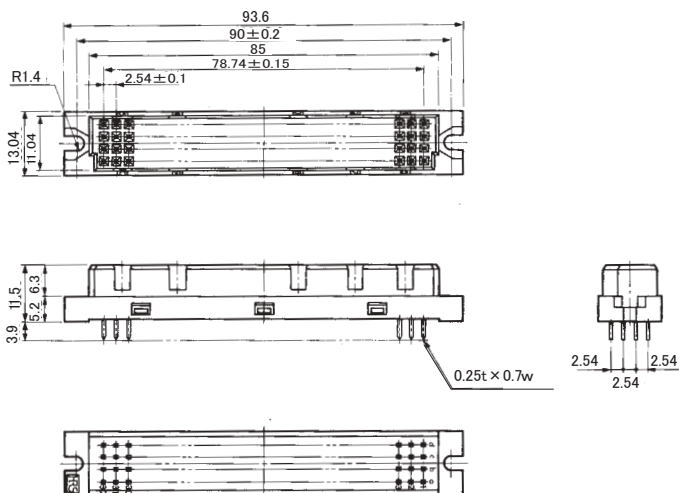
### PCB Mounting Pattern



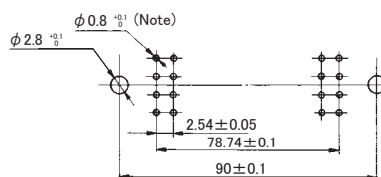
Unit : mm

Part No.	HRS No.	No. of Pos.	RoHS	Purchase Unit
PCN10-128P-2.54DSA(72)	CL0583-0215-5-72	128	Yes	15pcs per tray

## Receptacle : 4-row Straight Type



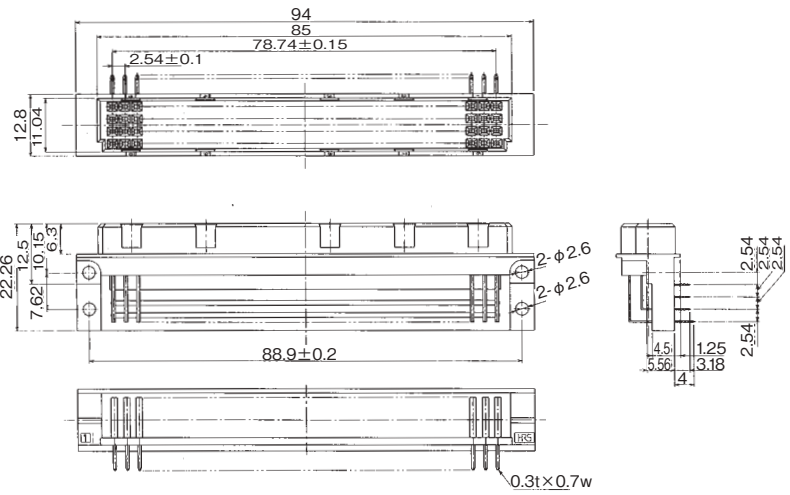
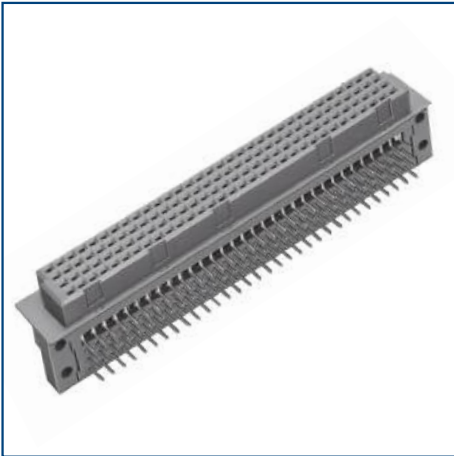
### PCB Mounting Pattern



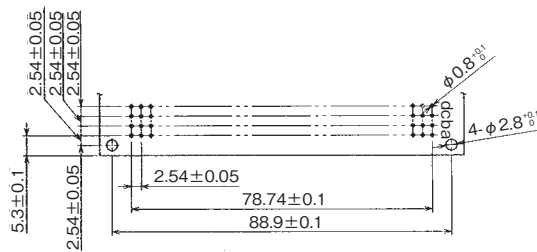
Unit : mm

Part No.	HRS No.	No. of Pos.	RoHS	Purchase Unit
PCN10-128S-2.54DSA(72)	CL0583-0089-2-72	128	Yes	12pcs per tray

## Receptacle : 4-row Right Angle Type



### PCB Mounting Pattern



Unit : mm

Part No.	HRS No.	No. of Pos.	RoHS	Purchase Unit
PCN10B-128S-2.54DS(72)	CL0583-0333-1-72	128	Yes	12pcs per tray



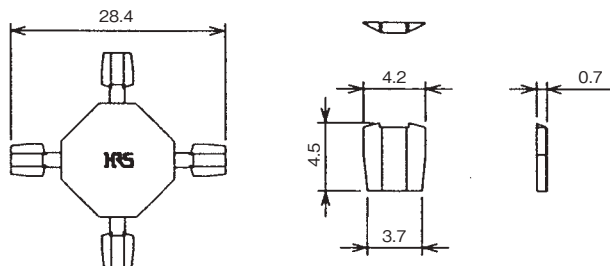
## Polarity Key

Use of the polarity key prevents connector misinsertion.

Insert the polarity key into both the receptacle side and pin header side.

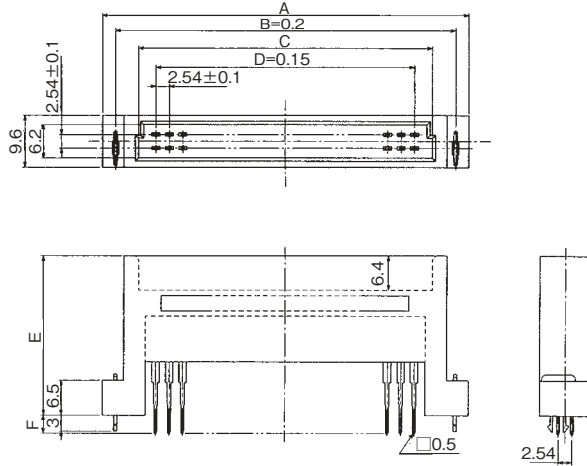
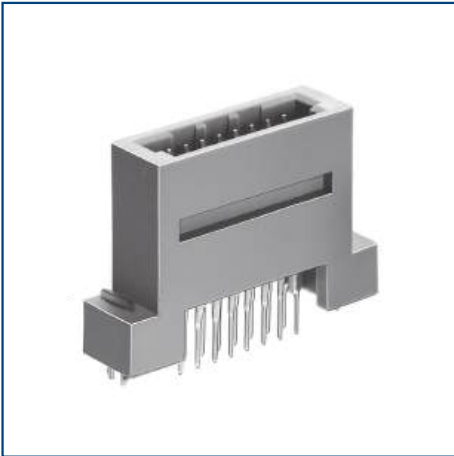
Insert the polarity key far enough so that it makes contact with the bottom of the mold.

PCN10-GK(A)

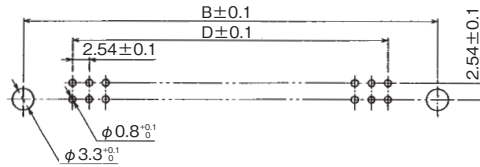


Part No.	HRS No.	Material	Color	RoHS	Purchase Unit
PCN10-GK(A)	CL0583-0269-4-00	PBT	Black	Yes	100pcs per bag (The above diagram include 4 polarity keys.)

## Stacking Pin Header



### PCB Mounting Pattern



Unit : mm

Part No.	HRS No.	No. of Pos.	A	B	C	D	E	F	G	RoHS	Purchase Unit
PCN10H-20P-2.54DSA(72)	CL0583-0157-0-72	20	43.00	38.10	29.47	22.86	29.80	3.44	35.00	Yes	20pcs per tray
PCN10H-32P-2.54DSA(72)	CL0583-0161-8-72	32	58.24	53.34	44.71	38.10					
PCN10H-44P-2.54DSA(72)	CL0583-0164-6-72	44	73.48	68.58	59.95	53.34					
PCN10H-50P-2.54DSA(72)	CL0583-0401-0-72	50	81.10	76.20	67.57	60.96	24.80	3.36	30.00		
PCN10HA-20P-2.54DSA(72)	CL0583-0158-3-72	20	43.00	38.10	29.47	22.86					
PCN10HA-32P-2.54DSA(72)	CL0583-0162-0-72	32	58.24	53.34	44.71	38.10					
PCN10HA-44P-2.54DSA(72)	CL0583-0165-9-72	44	73.48	68.58	59.95	53.34	19.80	3.28	25.00		
PCN10HA-50P-2.54DSA(72)	CL0583-0402-2-72	50	81.10	76.20	67.57	60.96					
PCN10HB-20P-2.54DSA(72)	CL0583-0159-6-72	20	43.00	38.10	29.47	22.86					
PCN10HB-32P-2.54DSA(72)	CL0583-0163-3-72	32	58.24	53.34	44.71	38.10	19.80	3.28	25.00		
PCN10HB-44P-2.54DSA(72)	CL0583-0166-1-72	44	73.48	68.58	59.95	53.34					
PCN10HB-50P-2.54DSA(72)	CL0583-0403-5-72	50	81.10	76.20	67.57	60.96					

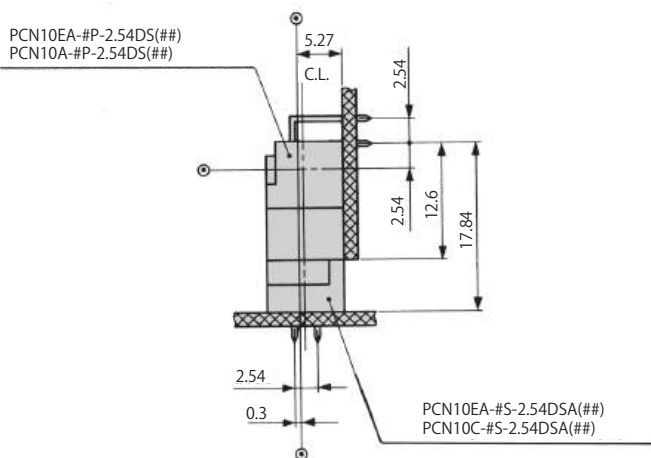
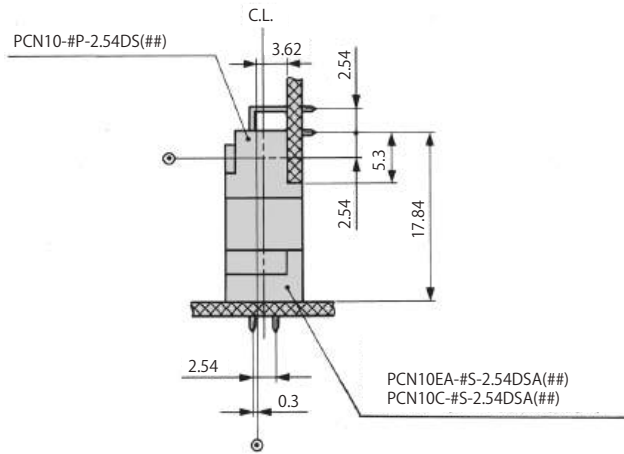
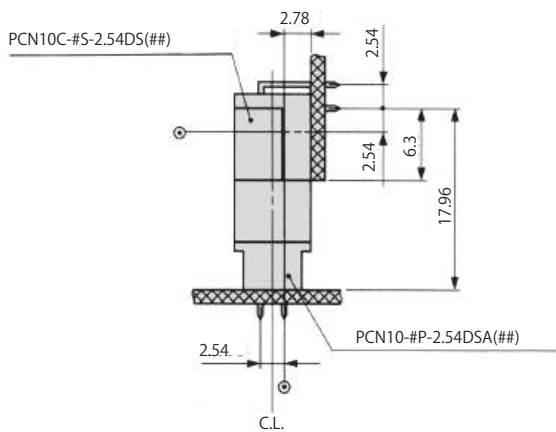
Note: Please note that the above series cannot mate with PCN10EA Series

# Application Pattern

## ● Right Angle Connection

### ● 2-row Type

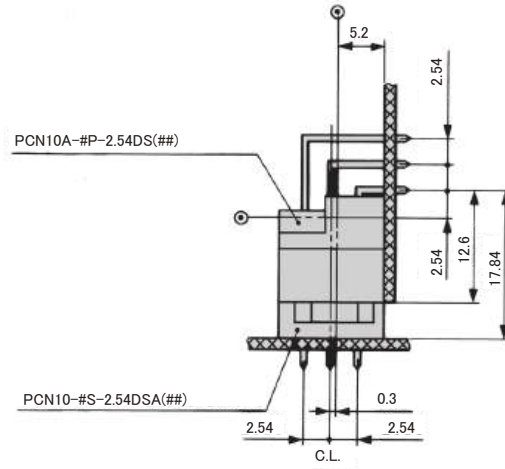
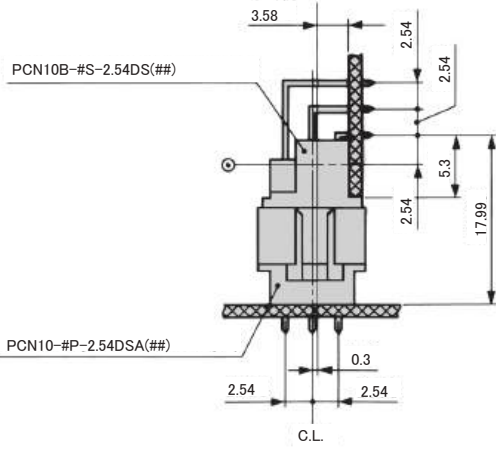
⊙ Mounting Hole Center  
C.L. Center Line



Nov. 1. 2024 Copyright 2024 HIROSE ELECTRIC CO., LTD. All Rights Reserved.

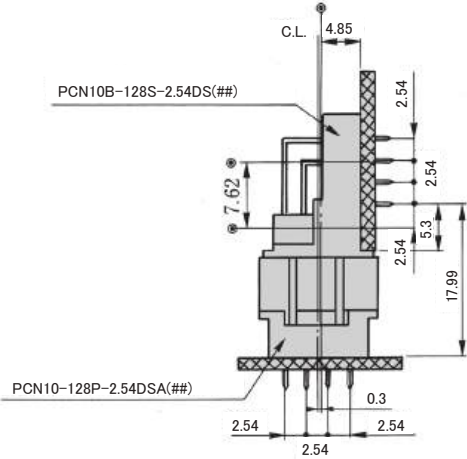
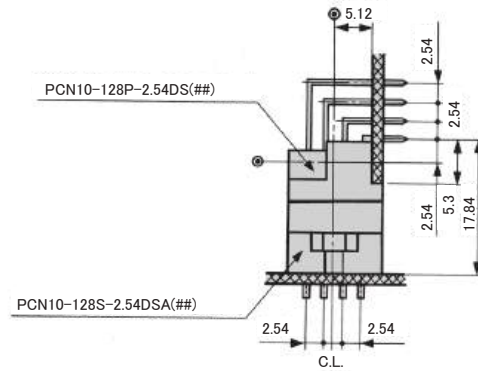
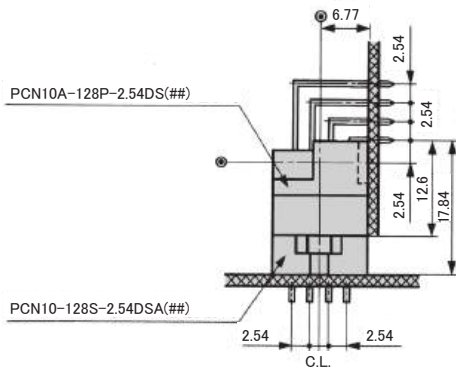
● 3-row Type

⊙ Mounting Hole Center  
C.L. Center Line



● 4-row Type

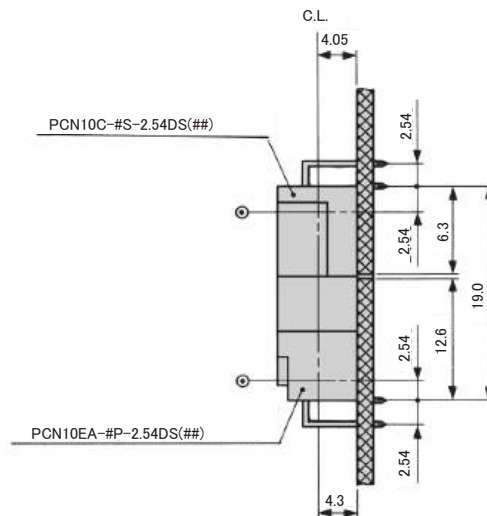
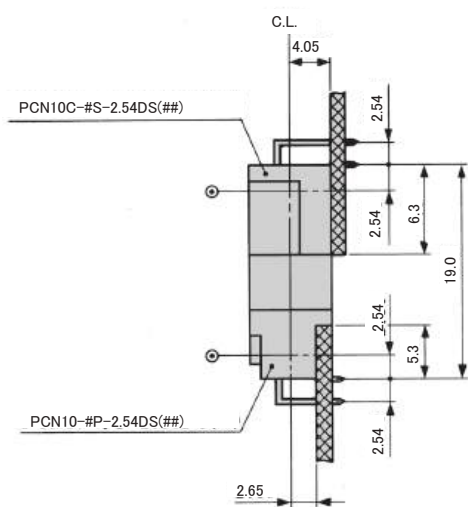
⊙ Mounting Hole Center  
C.L. Center Line



## ● Coplanar Connection

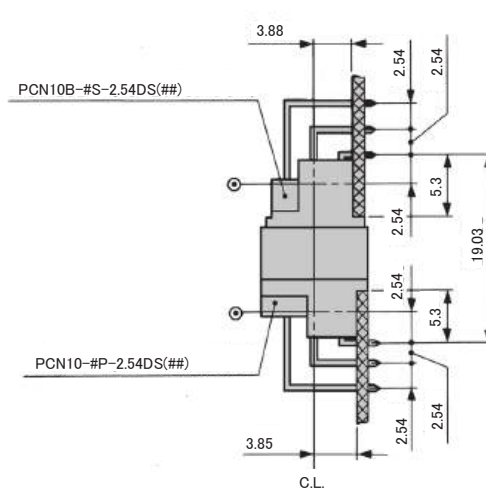
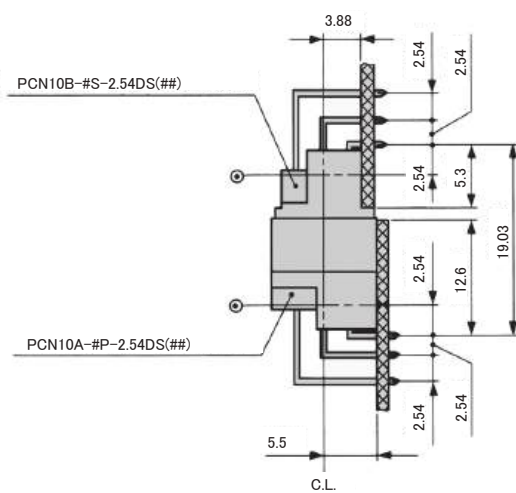
### ● 2-row Type

⊙ Mounting Hole Center  
C.L. Center Line



### ● 3-row Type

⊙ Mounting Hole Center  
C.L. Center Line

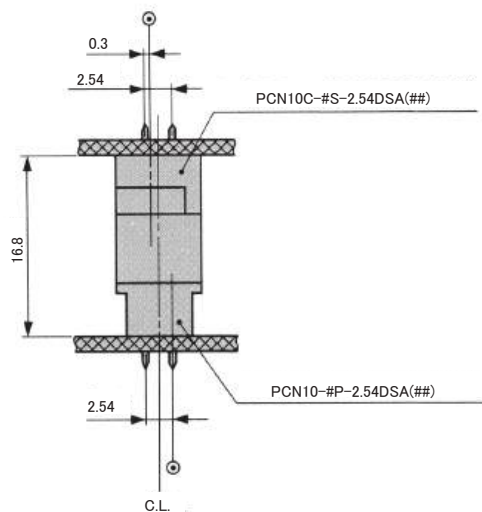




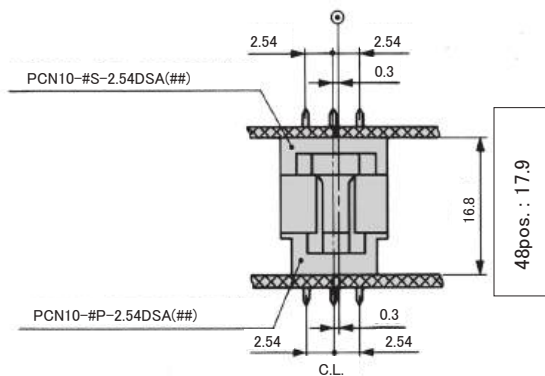
## ● Parallel Connection

### ● 2-row Type

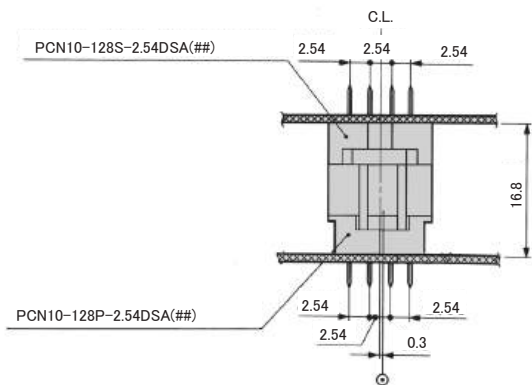
⊙ Mounting Hole Center  
C.L. Center Line



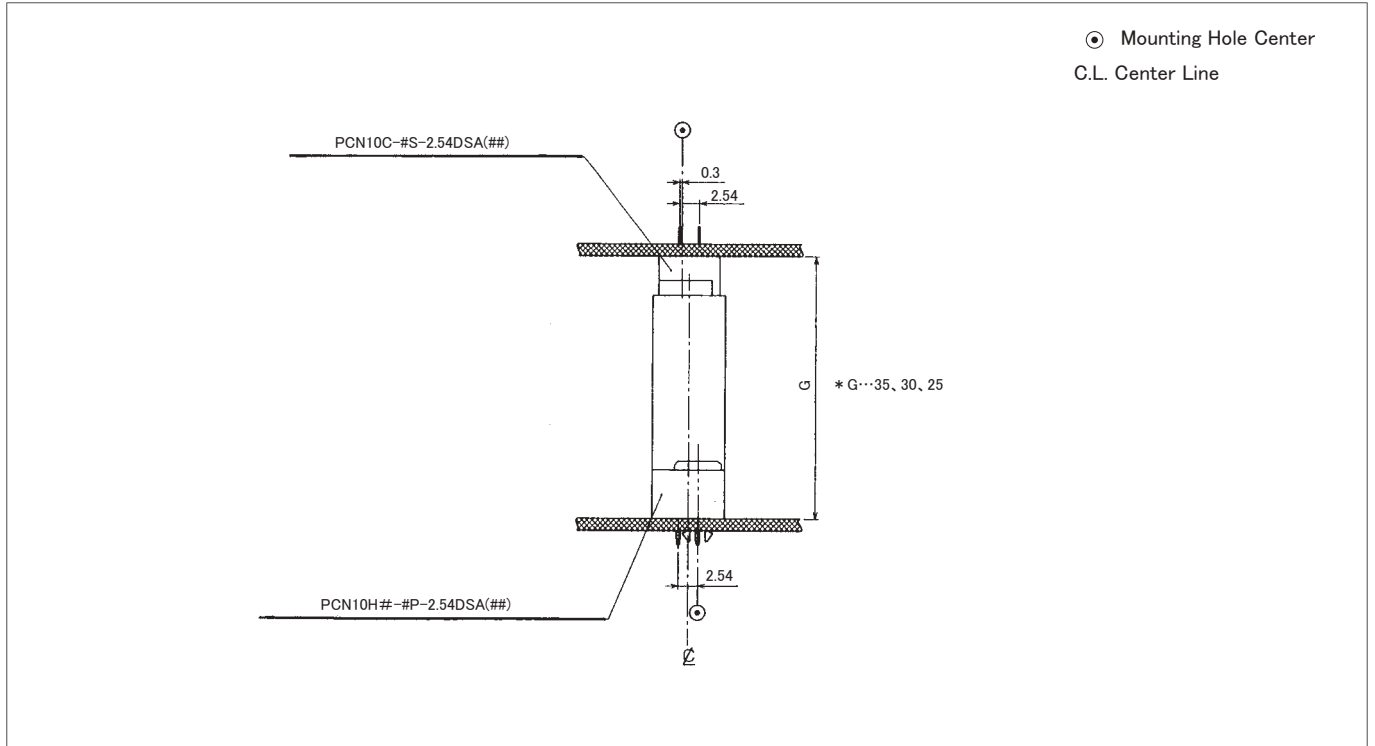
### ● 3-row Type



### ● 4-row Type



## ● Stacking Connector



Note : Please refer to "Item G" in the "Stacking Pin Header" Item Part Number Chart.

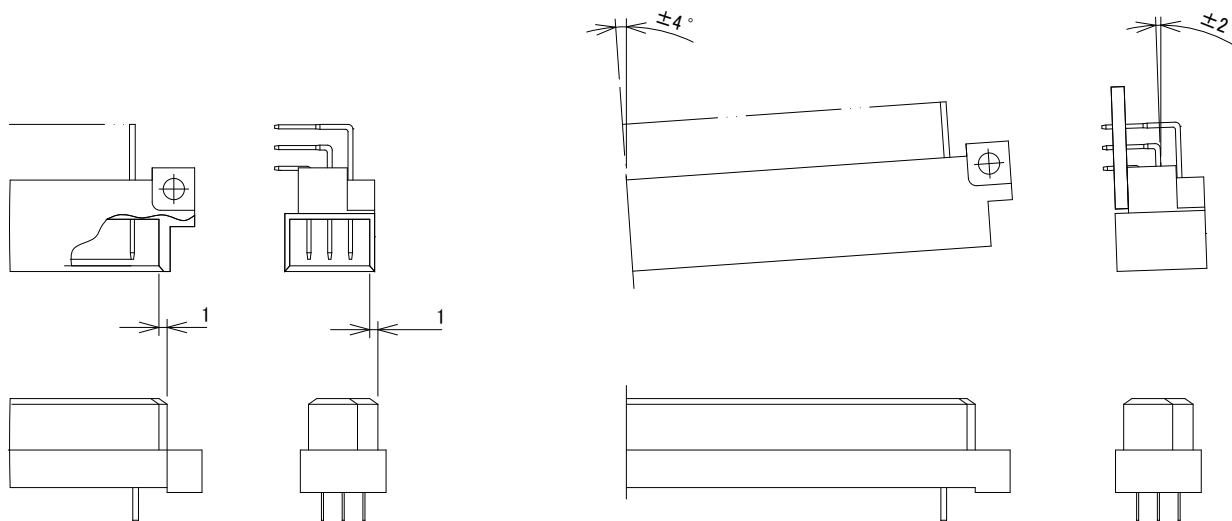


## Precautions

### ● DIN Connector Mating Conditions

Use Hirose DIN connectors within the following range.

The contacts of the PCN10 Series receptacle rattle slightly in order to stabilize the contact installation but this does not represent a performance issue.



## While Taking into Consideration

Specifications mentioned in this catalog are reference values.

When considering to order or use this product, please review the Drawing and Product Specifications sheets.

Use an appropriate cable when using the connector in combination with cables.

If considering usage of a non-specified cable, please contact your sales representative.

If assembly process is done by jigs & tools which are not identified by Hirose, the warranty of the product may be affected.

If considering usage for below mentioned applications, please contact your sales representative.

In cases where the application will demand a high level of reliability, such as automotive, medical instruments, public infrastructure, aerospace/defense etc. Hirose must review before assurance of reliability can be given.