

# Ribbon Cable Connector

## HIF4 Series



### ■ Features

#### 1. Current Capacity

The HIF4 series connector is capable of 3 A current capacity used for wider applications, while the HIF3 series uses 1 A capacity.

#### 2. Full Lock Mechanism

This connector is equipped with a Hirose original locking mechanism, and guarantees excellent reliability for vibration and shock.

#### 3. One-touch Insertion and Extraction Mechanism

This connector is equipped with levers for automatic insertion and extraction, as soon as lock is reset. Insertion and extraction tools are not required.

#### 4. Applicable Cable

The applicable cable is UL2651 AWG#24 flat cable (7 cores./0.203mm, jacket dia :1.0 to 1.2mm).

### ■ Applications

Computers, terminal equipment, various kinds of electronic equipment, and office automation machines

### ■ Product Specifications

Rating	Current rating : 3A	Operating Temperature Range : -55 to +85°C (Note 1)	Storage Temperature Range : -10 to +60°C (Note 2)
	Voltage rating : 300V AC	Operating Moisture Range : 40 to 80%	Storage Humidity Range : 40 to 70% (Note 2)

Item	Specification	Condition
1. Insulation Resistance	1000M ohms min	500V DC
2. Withstanding voltage	No flashover or insulation breakdown.	1000V AC/1 minute
3. Contact Resistance	15m ohms max	0.1A
4. Vibration	No electrical discontinuity of 1 $\mu$ 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: 1000M 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. Operating Life	Contact resistance: 15m ohms max.	500 cycles
8. Resistance to Soldering heat	No deformation of components affecting performance.	Solder bath: 260°C for 10 seconds
		Manual soldering: 360°C for 5 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.

Note 4: Please note that there is a risk of deforming the lock when an excessive load is applied to the inside.

### ■ Material

Part	Material	Finish	Remarks
Insulator	PBT	Black	UL94V-0
Contact	Socket	Beryllium copper	Gold plated over nickel underplating
	Pin header	Phosphor bronze	Gold plated over nickel underplating

In cases where the application will demand a high level of reliability, such as automotive, please contact a company representative for further information.

## ■ Ordering Information

### ● Pin Header

**HIF4 - \* P - 3.18 DS**

①      ②      ③      ④      ⑤

① Series Name	: HIF4
② Number of Contacts	: 16, 20, 26, 34, 40
③ Contact alignment	: P : Pin header
④ Contact Pitch	: 3.18mm
⑤ Contact Type	DS : Right angle type SA : Straight dip type W : Wrapping type

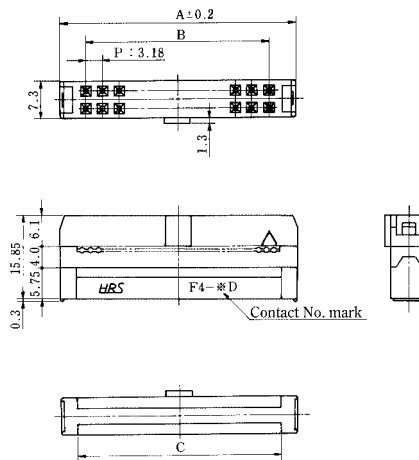
### ● Socket

**HIF4 - \* D - 3.18 R**

①      ②      ③      ④      ⑤

① Series Name	: HIF4
② Number of Contacts	: 16, 20, 26, 34, 40
③ Contact alignment	: D : Double
④ Contact Pitch	: 3.18mm
⑤ Connection type	: Ribbon cable

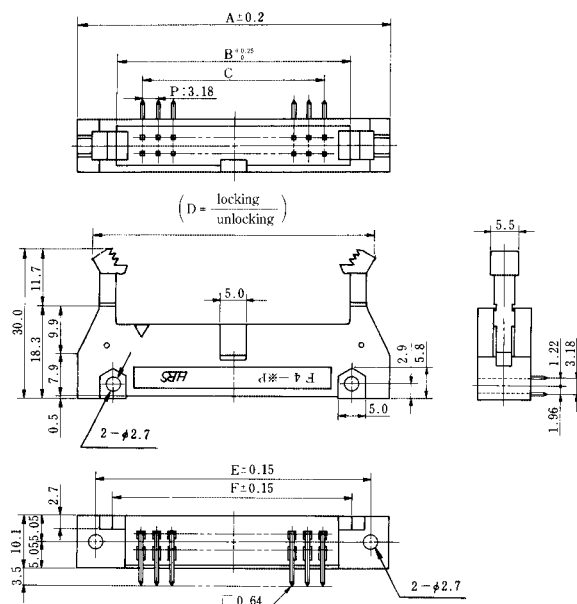
## Socket



Unit:mm

Part Number	CL No.	Number of Contacts	A	B	C	RoHS
HIF4-16D-3.18R	563-0025-5	16	31.98	22.26	26.28	YES
HIF4-20D-3.18R	563-0010-8	20	38.34	28.62	32.64	
HIF4-26D-3.18R	563-0011-0	26	47.88	38.16	42.18	
HIF4-34D-3.18R	563-0012-3	34	60.6	50.88	54.9	
HIF4-40D-3.18R	563-0029-6	40	70.14	60.42	64.44	

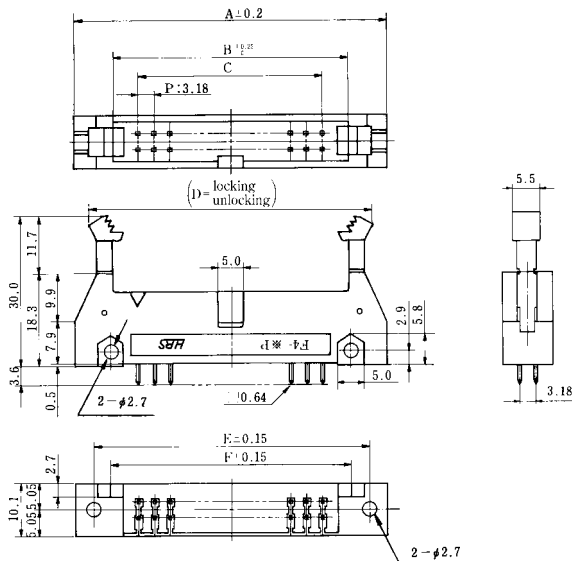
## Pin Header Right Angle Type



Unit:mm

Part Number	CL No.	Number of Contacts	A	B	C	D	E	F	RoHS
HIF4-16P-3.18DS	563-0026-8	16	46.68	32.18	22.26	42.82 63.28	39.98	33.58	YES
HIF4-20P-3.18DS	563-0001-7	20	53.04	38.54	28.62	49.18 69.64	46.34	39.94	
HIF4-26P-3.18DS	563-0002-0	26	62.58	48.08	38.16	58.72 79.18	55.88	49.48	
HIF4-34P-3.18DS	563-0003-2	34	75.3	60.8	50.88	71.44 91.90	68.6	62.2	
HIF4-40P-3.18DS	563-0030-5	40	84.84	70.34	60.42	80.89 101.44	78.14	71.74	

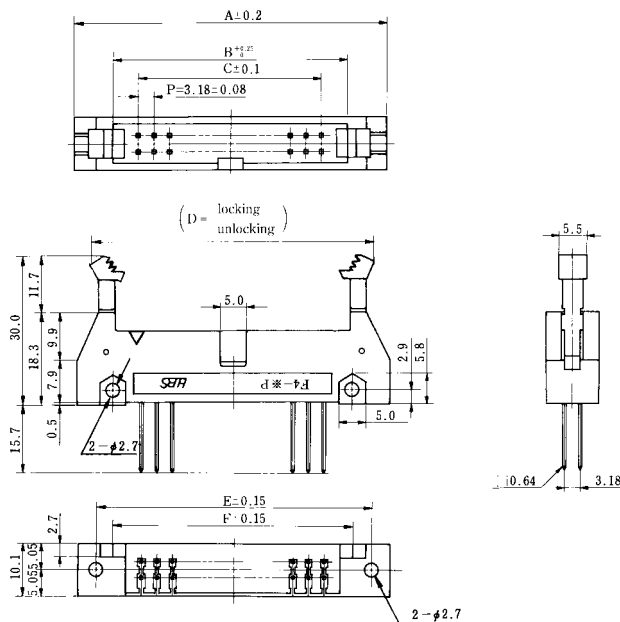
### Pin Header Straight Through hole Type



Unit:mm

Part Number	CL No.	Number of Contacts	A	B	C	D	E	F	RoHS
HIF4-16P-3.18DSA	563-0027-0	16	46.68	32.18	22.26	<u>42.82</u> 63.28	39.98	33.58	YES
HIF4-20P-3.18DSA	563-0004-5	20	53.04	38.54	28.62	<u>49.18</u> 69.64	46.34	39.94	
HIF4-26P-3.18DSA	563-0005-8	26	62.58	48.08	38.16	<u>58.72</u> 79.18	55.88	49.48	
HIF4-34P-3.18DSA	563-0006-0	34	75.3	60.8	50.88	<u>71.44</u> 91.90	68.6	62.2	
HIF4-40P-3.18DSA	563-0031-8	40	84.84	70.34	60.42	<u>80.98</u> 101.44	78.14	71.74	

### Pin Header Wrapping Type

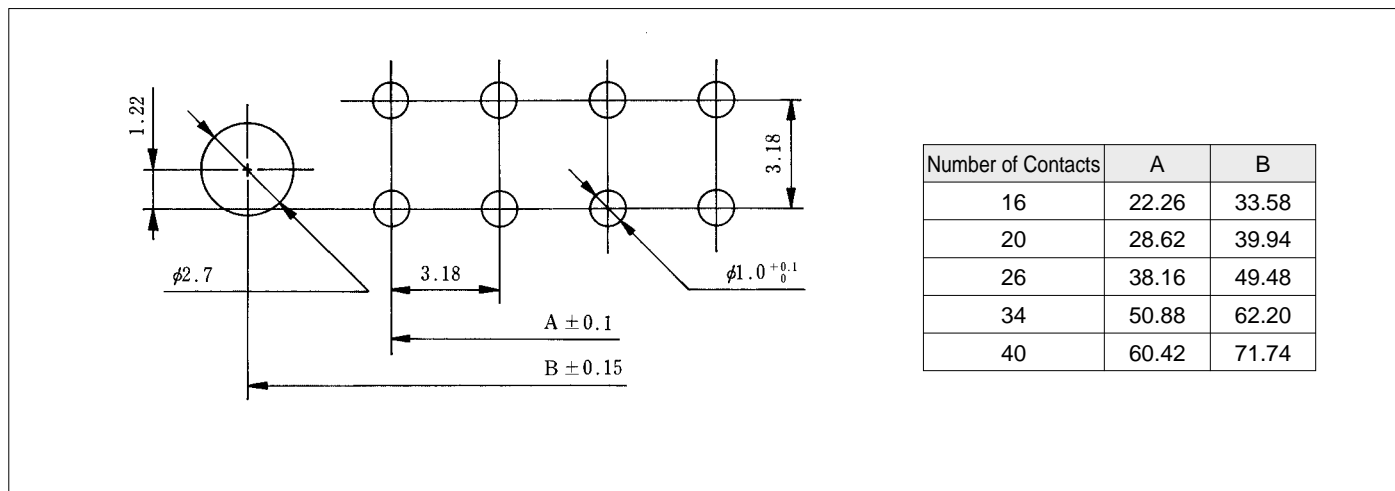


Unit:mm

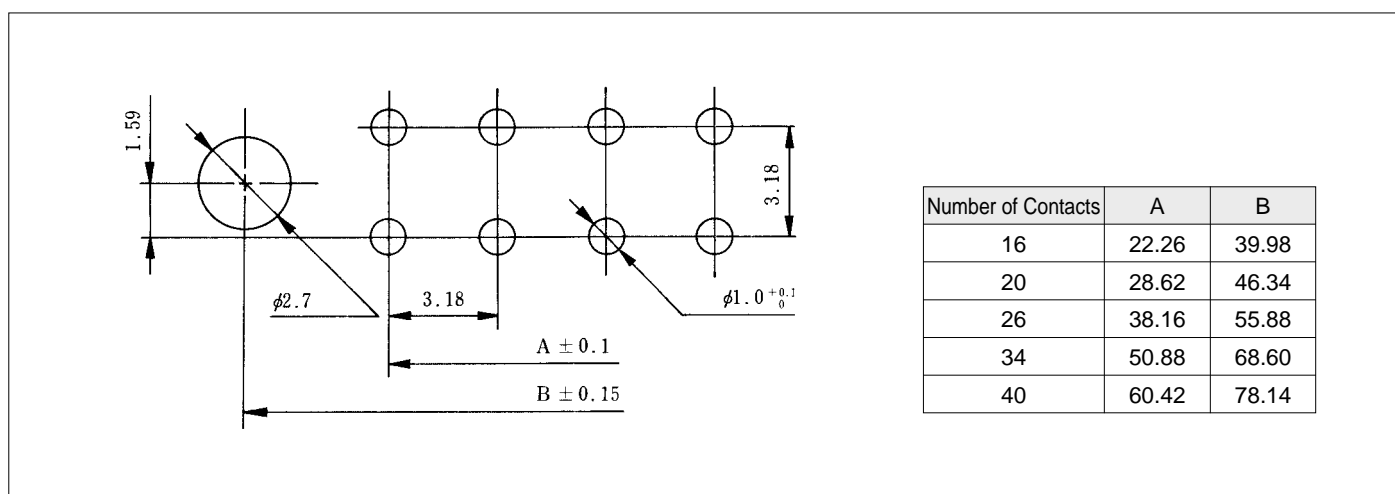
Part Number	CL No.	Number of Contacts	A	B	C	D	E	F	RoHS
HIF4-16P-3.18W	563-0028-3	16	46.68	32.18	22.26	<u>42.82</u> 63.28	39.98	33.58	YES
HIF4-20P-3.18W	563-0007-3	20	53.04	38.54	28.62	<u>49.18</u> 69.64	46.34	39.94	
HIF4-26P-3.18W	563-0008-6	26	62.58	48.04	38.16	<u>58.72</u> 79.18	55.88	49.48	
HIF4-34P-3.18W	563-0009-9	34	75.3	60.8	50.88	<u>71.44</u> 91.90	68.6	62.2	
HIF4-40P-3.18W	563-0032-0	40	84.84	70.34	60.42	<u>80.98</u> 101.44	78.14	71.74	

## ◆ PCB mounting pattern

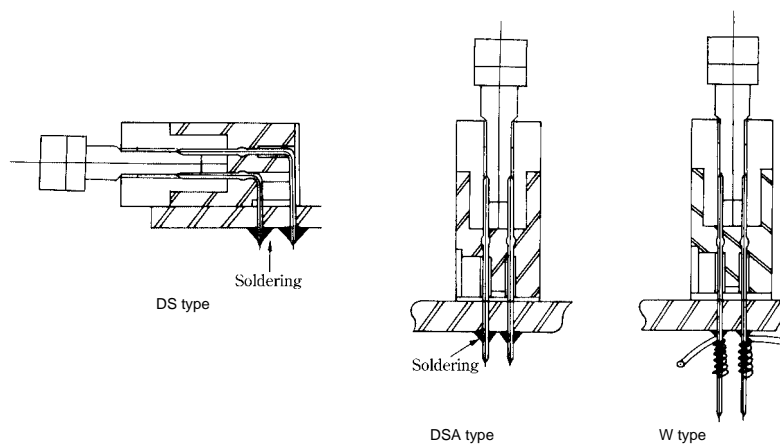
### ● Pin Header Right Angle Type



### ● Pin Header Straight Through hole Type or Pin Header Wrapping Type



### ● Type Shape

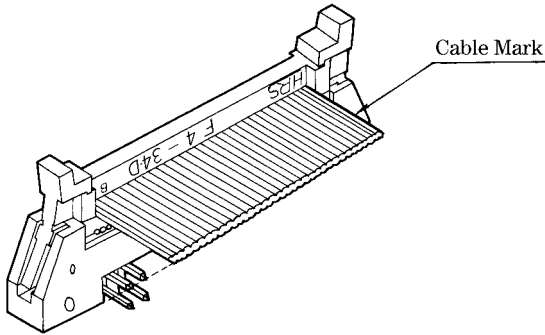


# ◆HIF4 Basic Connection Method

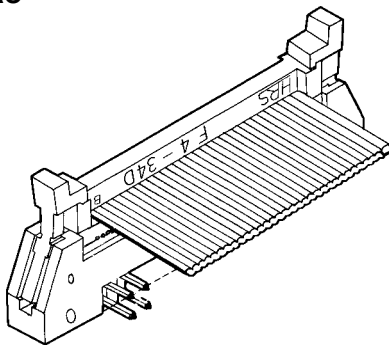
Fig.1

As shown below in Figure 1, contact positions are indicated by marks (○●◆◇).

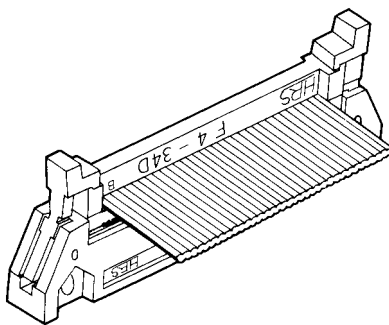
The connected contact is indicated with a symbol next to the individual type name. However, the contact symbol connected to the cable mark is indicated at the mark \*.



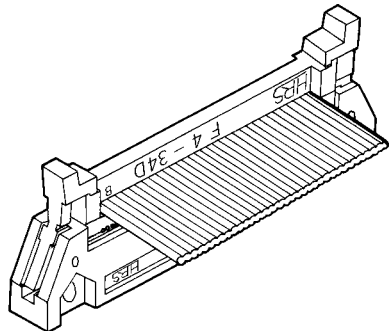
Type AO



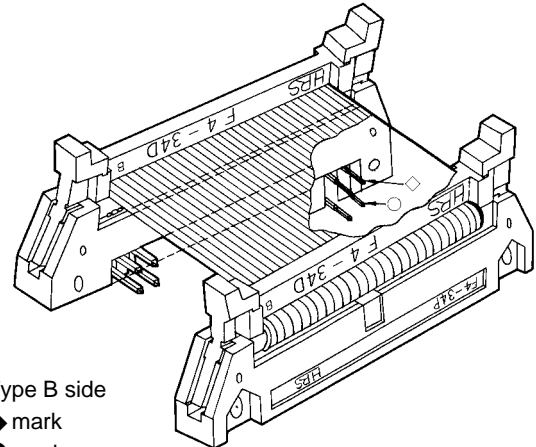
Type BO



Type CO

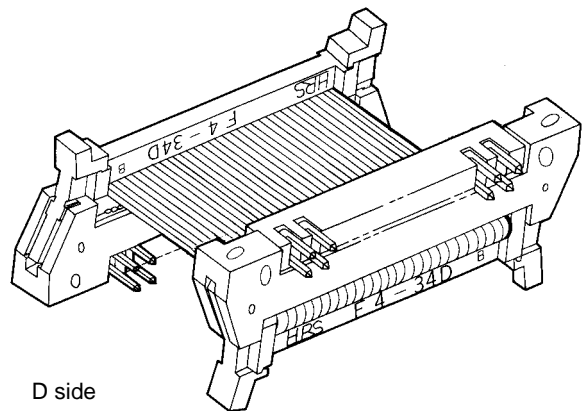


Type DO



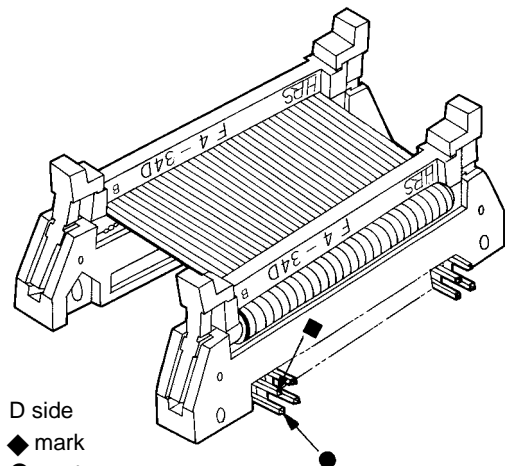
Type AB

- Type A side    Type B side
- \* ○ mark and    ◆ mark
- ◇ mark and    ● mark



Type AD

- A side    D side
- \* ○ mark and    ◆ mark
- ◇ mark and    ● mark

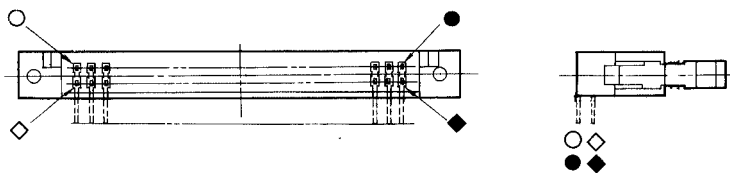


Type CD

- C side    D side
- \* ○ mark and    ◆ mark
- ◇ mark and    ● mark

Jan.1.2020 Copyright 2020 HIROSE ELECTRIC CO., LTD. All Rights Reserved.

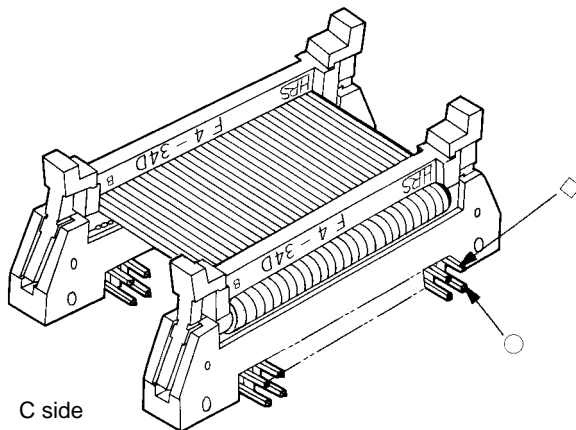
Contact positions are designated with marks as shown below.



According to the illustration on the left, the illustration 1 indicates these positions on the right.

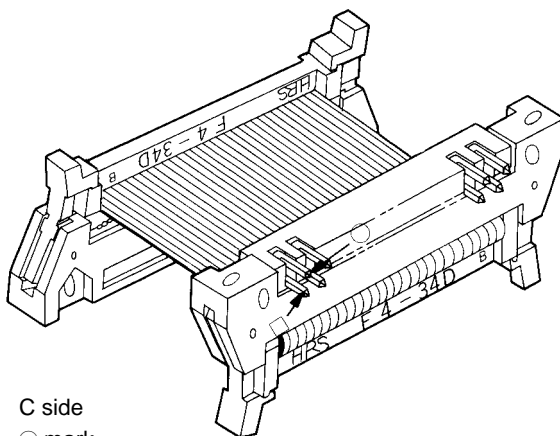
Note 1: Cable length tolerance  
 500 +10, 0 max. (mm)  
 500 +3%, 0% min.

Note 2. When a twist cable or a slit (like a roller screen) cable is used, the cable pitch will change according to cable manufacturers. If connection failure has occurred, consult HRS Sales Department.



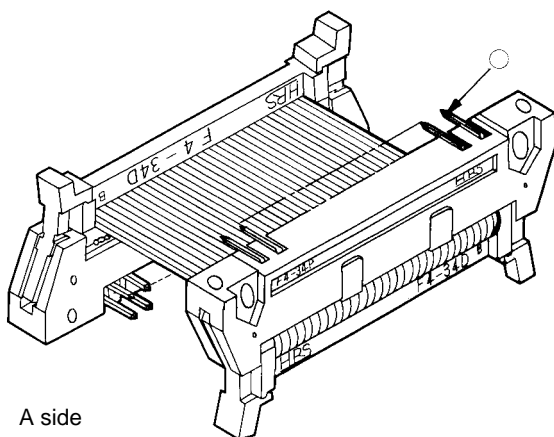
**Type AC**

- |              |        |
|--------------|--------|
| A side       | C side |
| * ○ mark and | ○ mark |
| ◇ mark and   | ◇ mark |



**Type CC**

- |              |        |
|--------------|--------|
| C side       | C side |
| * ○ mark and | ○ mark |
| ◇ mark and   | ◇ mark |



**Type AA**

- |              |        |
|--------------|--------|
| A side       | A side |
| * ○ mark and | ○ mark |
| ◇ mark and   | ◇ mark |