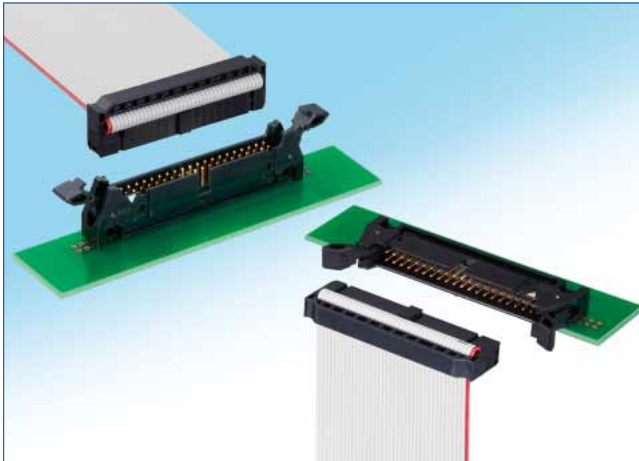


MIL Compliant Product

HIF3M*W Series

MIL-C-83503



■ Features

1. MIL Compliant product

- MIL Compliant product (MIL-C-83503)
- Suited for wide range of applications (both internal and external connections)
- Mating compatible with HIF3 series

2. UL Certified

- UL certified connector

3. Mis-Insertion Prevention Mechanism

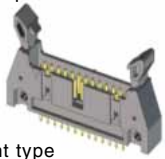
- Dual guide systems prevent mis-insertion
 1. MIL-compliant guide key (polarizing key) system
The guide system matches the convex shape on the pin header (polarizing key attached) with the concave shape on the socket (polarizing key cavity).
 2. Polarizing guide/slot system
The guide system matches the polarizing slot on the pin header with polarizing guide (mis-insertion prevention guide) on the socket.

4. Superior Usability


- A wide lock on the pin header and the long depth of the socket clamp makes push/pull action easier.
- The body and the protector of the socket can be detached, which makes cable assembly operation easier.

■ HIF3M*W Series Products

● Pin header

HIF3M*W
MIL type pin header

Straight type Right angle type

● Socket

HIF3M*W
MIL type pin cable socket


■ Product specification

Ratings	Rated current 1A	Rated voltage AC200V
	Operating temperature : -55°C to 85°C (Note 1)	Operating humidity range : Relative humidity 85% or less (No condensation)
	Storage temperature : -10°C to 60°C (Note 2)	Storage humidity range : 5% to 85% (Note 2)

Items	Specifications	Conditions
1. Insulation resistance	1,000MΩ or more	Measured at DC500V
2. Withstand voltage	No flashover, breakdown	650V AC/1 minute
3. Contact resistance	15mΩ or less	Measured at 0.1A
4. Vibration resistance	No electrical shut-off of 1μs or more	Frequency 10-55Hz, half amplitude 0.75mm, 2 hours in 3-axial directions
5. Moisture resistance	Insulation resistance : 1,000MΩ or more	Temperature 40±2°C, humidity left for 96 hours in 90 to 95%
6. Temperature cycle	No damage, cracks, or parts looseness.	Temperature -55 → 5 to 35 → 125 → 5 to 35°C Time tested for 30 → 5 → 30 → 5 minutes, 5 cycles
7. Push-pull life	Contact resistance : 15mΩ or less	500 times of push-pull actions
8. Soldering heat resistance	No deformation of components affecting performance.	Solder bath : 260°C for 10 seconds Hand soldering : Temperature of soldering iron 360°C,

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.

■ Materials / Finish

● Pin header

Parts	Material	Color / Finish	Remarks
Lock	PBT	Black	UL94V-0
Insulator			
Contact	Brass	Contact part : gold plated 0.15μm MIN.	—
		Dip part : pure tin plated 2μm MIN.	—

● Socket

Parts	Material	Color processing	Remarks
Insulator	PBT	Black	UL94V-0
Contact terminal	Copper alloy	Contact part : gold plated 0.15μm MIN.	—
		IDC part : nickel plated 2.5μm MIN.	—

Product Number Structure

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.

● Pin header (Right angle)

HIF 3 M*W - * PA - 2.54 DS
 ① ② ③ ④ ⑤ ⑥ ⑦

● Pin header (Straight)

HIF 3 M*W - * PA - 2.54 DSA
 ① ② ③ ④ ⑤ ⑥ ⑦

● Socket

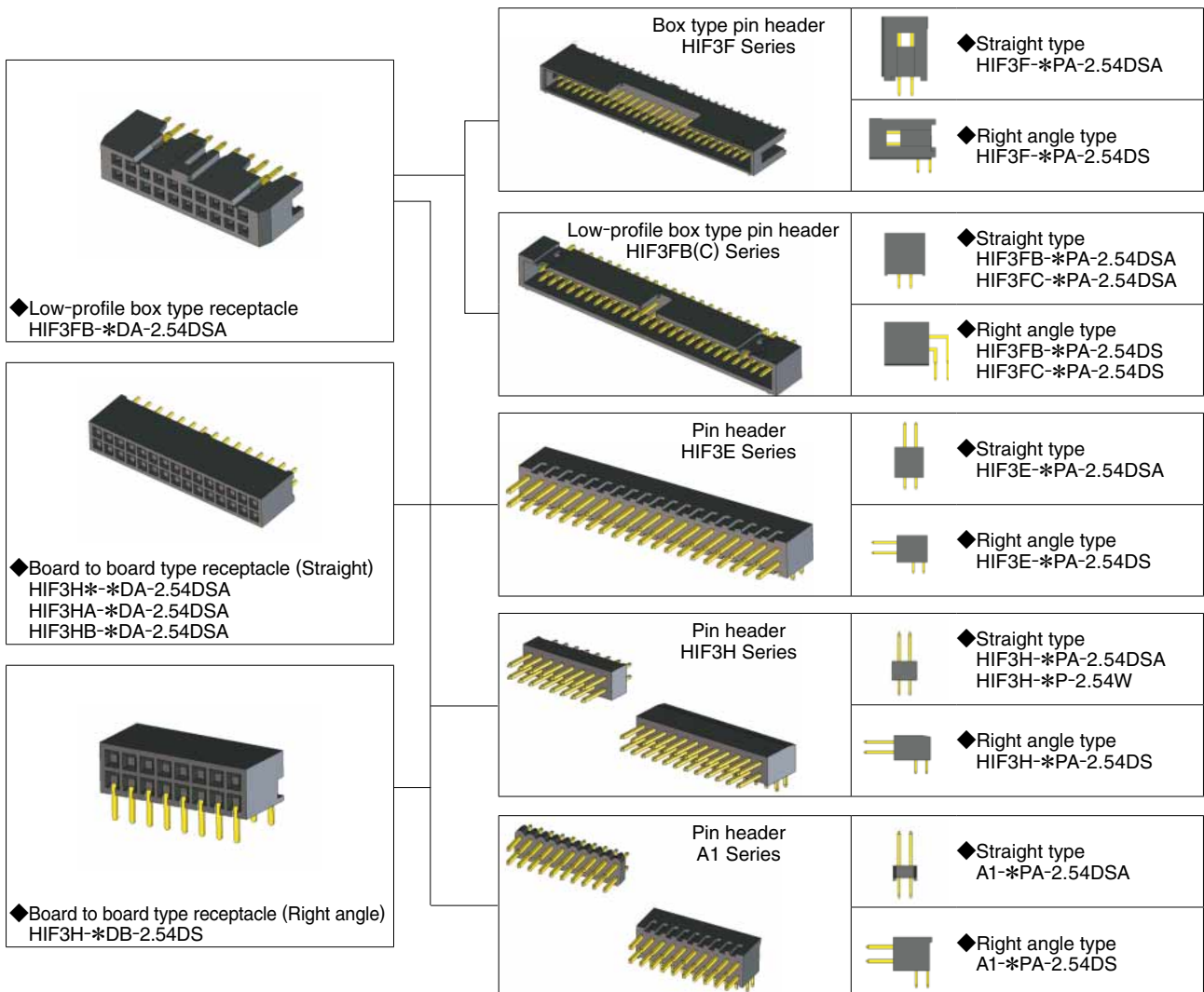
HIF 3 M*W - * D - 2.54 R
 ① ② ③ ④ ⑤ ⑥ ⑦

① Series name	HIF	⑤ Contact style	P : Pin header A : Selective gold plated
② Series No.	3	⑥ Contact pitch	D : Double 2.54mm pitch
③ Contact alignment	Pin header MAW : Total positions, MBW : 50,60,64 positions only, MDW : 10 positions only	⑦ Product type	DS : Right angle type DSA : Straight type
	Socket MAW : Total positions, MBW : 50,60,64 positions only. Equipped with mis-insertion prevention guide		R : IDC
④ Number of contacts	10,14,16,20,26,30,34,40,50,60,64		

◆ HIF3 Series Mating compatibility Board-to-Board type

Receptacle socket side

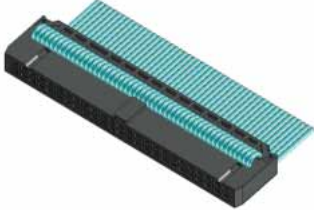
Header side



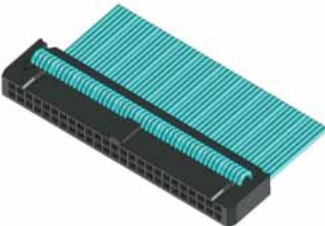
◆ HIF3 Series Mating Compatibility Wire-to-Board type

Receptacle socket side

Header side




◆ IDC connector
HIF3MAW-*D-2.54R
HIF3MBW-*D-2.54R




◆ IDC connector
HIF3A-*D-2.54R
HIF3B-*D-2.54R
HIF3BA-*D-2.54R

⚠ HIF3A-60D-2.54R and MIL type pin header can be mated only with HIF3BAE-60PA-2.54DS(A) Allows mating with other different number of positions and box type pin headers of HIF3A Series.




◆ Crimp connector
HIF3BA-*D-2.54C

MIL type pin header
HIF3M*W Series




◆ Straight type with lock
HIF3MAW-*PA-2.54DSA
HIF3MBW-*PA-2.54DSA
HIF3MDW-*PA-2.54DSA




◆ Right angle type with lock
HIF3MAW-*PA-2.54DS
HIF3MBW-*PA-2.54DS
HIF3MDW-*PA-2.54DS

MIL type pin header
HIF3B Series

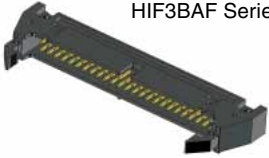


◆ Straight type with lock
HIF3BA-*PA-2.54DSA
HIF3BB-*PA-2.54DSA
HIF3BD-*PA-2.54DSA




◆ Right angle type with lock
HIF3BA-*PA-2.54DS
HIF3BB-*PA-2.54DS
HIF3BD-*PA-2.54DS

MIL type F Pin header with lock
HIF3BAF Series

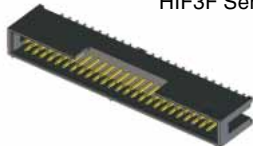


◆ Straight type
HIF3BAF-*PA-2.54DSA




◆ Right angle type
HIF3BAF-*PA-2.54DS

Box type pin header
HIF3F Series

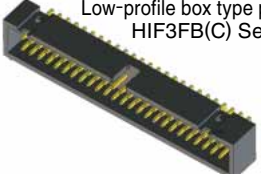


◆ Straight type
HIF3F-*PA-2.54DSA




◆ Right angle type
HIF3F-*PA-2.54DS

Low-profile box type pin header
HIF3FB(C) Series




◆ Straight type
HIF3FB-*PA-2.54DSA
HIF3FC-*PA-2.54DSA




◆ Right angle type
HIF3FB-*PA-2.54DS
HIF3FC-*PA-2.54DS

Pin header
HIF3E Series

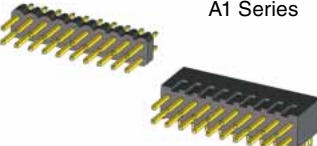


◆ Straight type
HIF3E-*PA-2.54DSA




◆ Right angle type
HIF3E-*PA-2.54DSA

Pin header
A1 Series




◆ Straight type
A1-*PA-2.54DSA



◆ Right angle type
A1-*PA-2.54DS

Ribbon cable plug
HIF3B In-line type

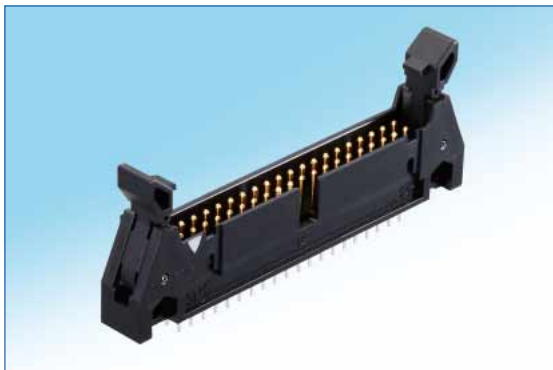


◆ In-line type
HIF3BA-*PD-2.54R-MC

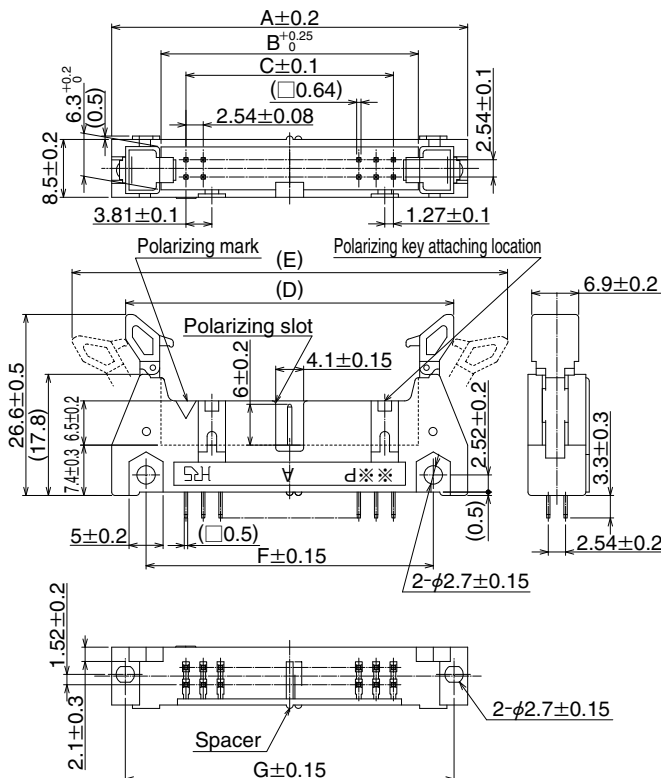
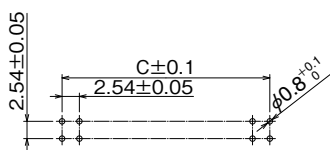
Aug.1.2018 Copyright 2018 HIROSE ELECTRIC CO., LTD. All Rights Reserved.

4-wall straight through hole

·HIF3M*W-**PA-2.54DSA



Recommended PCB Layout



*As the number of polarizing slots and polarizing keys differs for each part, please refer to the table below and the list of polarization properties in HIF3M*W Series on page 7.
 *The spacer moves to the right according to the number of positions.

Unit : mm

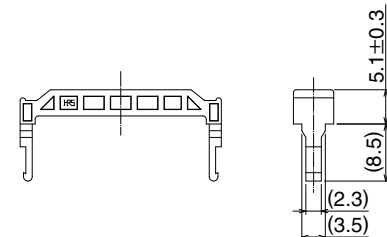
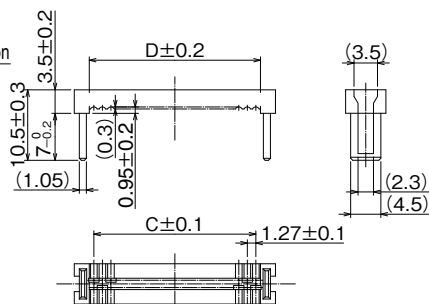
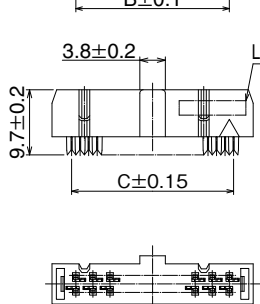
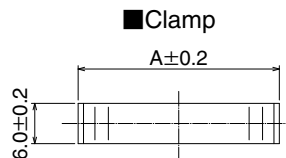
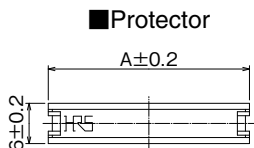
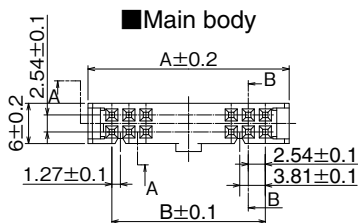
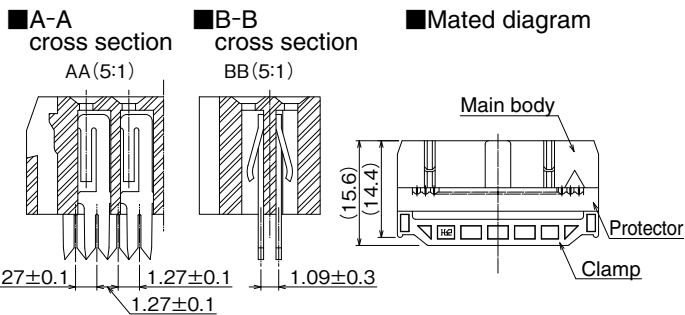
Part No.	HRS No.	No. of Contacts	A	B	C	D	E	F	G	Polarizing slot	Polarizing key	RoHS
★ HIF3MAW-10PA-2.54DSA	610-3600-0 00	10	32	17.5	10.16	28.14	51.1	21.8	27.9	0	1	○
HIF3MDW-10PA-2.54DSA	610-3601-3 00										0	
★ HIF3MAW-14PA-2.54DSA	610-3602-6 00	14	37.1	22.6	15.24	33.24	56.2	26.9	33	1	○	
★ HIF3MAW-16PA-2.54DSA	610-3603-9 00	16	39.6	25.1	17.78	35.74	58.7	29.5	35.5	1		
★ HIF3MAW-20PA-2.54DSA	610-3604-1 00	20	44.7	30.2	22.86	40.84	63.8	34.5	40.6			
★ HIF3MAW-26PA-2.54DSA	610-3505-4 00	26	52.3	37.8	30.48	48.44	71.4	42.2	48.3			
★ HIF3MAW-30PA-2.54DSA	610-3606-7 00	30	57.4	42.9	35.56	53.54	76.5	47.2	53.3			
★ HIF3MAW-34PA-2.54DSA	610-3607-0 00	34	62.5	48	40.64	58.64	81.6	52.3	58.4			
★ HIF3MAW-40PA-2.54DSA	610-3608-2 00	40	70.1	55.6	48.26	66.24	89.2	59.9	66			
★ HIF3MAW-50PA-2.54DSA	610-3609-5 00	50	82.8	68.3	60.96	78.94	101.9	72.6	78.7	2 ※		
★ HIF3MBW-50PA-2.54DSA	610-3610-4 00									1		
★ HIF3MAW-60PA-2.54DSA	610-3611-7 00	60	95.5	81	73.66	91.64	114.6	85.3	91.4	2 ※		1
★ HIF3MBW-60PA-2.54DSA	610-3612-0 00									1		
★ HIF3MAW-64PA-2.54DSA	610-3613-2 00	64	100.6	86.1	78.74	96.74	119.7	90.4	96.5	2 ※	1	
★ HIF3MBW-64PA-2.54DSA	610-3614-5 00									1		

*Pitch of polarizing guide is 22.86mm.

★ indicates MIL compliant product.

Socket type (IDC, equipped with mis-insertion prevention guide)

• HIF3M*W-**D-2.54R



*As the number of polarizing guides and polarizing keyways differs for each part, please refer to the table below and the list of polarization properties in HIF3M*W Series on page 7.

Unit : mm

Part No.	HRS No.	No. of Contacts	A	B	C	D	Polarizing guide	Polarizing keyway	RoHS	
★ HIF3MAW-10D-2.54R	610-3002-9	10	17.27	10.16	11.43	12.8	1	1	○	
★ HIF3MAW-14D-2.54R	610-3003-1	14	22.35	15.24	16.51	17.88				
★ HIF3MAW-16D-2.54R	610-3004-4	16	24.89	17.78	19.05	20.42				
★ HIF3MAW-20D-2.54R	610-2097-0	20	29.97	22.86	24.13	25.5				
★ HIF3MAW-26D-2.54R	610-3005-7	26	37.59	30.48	31.75	33.12				
★ HIF3MAW-30D-2.54R	610-2098-2	30	42.67	35.56	36.83	38.2				
★ HIF3MAW-34D-2.54R	610-2099-5	34	47.75	40.64	41.91	43.28				
★ HIF3MAW-40D-2.54R	610-2100-2	40	55.37	48.26	49.53	50.9				
★ HIF3MAW-50D-2.54R	610-2101-5	50	68.07	60.96	62.23	63.6				2 ※
★ HIF3MBW-50D-2.54R	610-2114-7									1
★ HIF3MAW-60D-2.54R	610-2102-8	60	80.77	73.66	74.93	76.3	2 ※			
★ HIF3MBW-60D-2.54R	610-2115-0						1			
★ HIF3MAW-64D-2.54R	610-3006-0	64	85.85	78.74	80.01	81.38	2 ※			
★ HIF3MBW-64D-2.54R	610-0013-0						1			

*Pitch of polarizing guide is 22.86mm.

★ indicates MIL compliant product.

● Applicable cable

Conductor size (number of cores)	Jacket
28 AWG Flat Cable (7pcs./0.127mm) <UL2651>	0.9±0.1mm

◆ Applicable IDC tool

Type	Part No.	HRS No.
IDC Connection	HIFLEX Connection HHP502	550-0082-2
Guide plate	HIF3-GPA2	550-0156-7
Pressure block	HIF1 Pressure Block A-01	550-0133-1

*Common to all No. of Contacts.

*Please refer to p.10 for the description on connection.

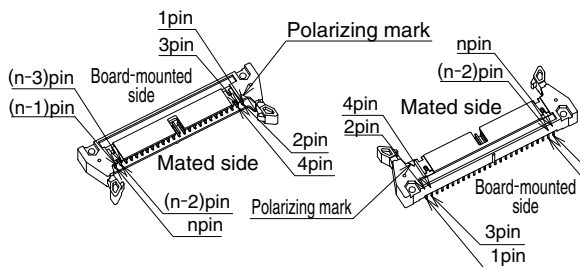
HIF3M*W Series List of polarization

Socket type				Header type				
Socket side part number	Polarizing guide	Polarizing key	Socket appearance	No. of Contacts	Pin header appearance	Polarizing slot	Polarizing key	Pin header part number
				10		0	1	·HIF3MAW-10PA-2.54DS(A)
·HIF3MAW-10D-2.54R	1	1				1	0	·HIF3MDW-10PA-2.54DS(A)
·HIF3MAW-14D-2.54R	1	1		14		1	1	·HIF3MAW-14PA-2.54DS(A)
·HIF3MAW-16D-2.54R ·HIF3MAW-20D-2.54R ·HIF3MAW-26D-2.54R ·HIF3MAW-30D-2.54R ·HIF3MAW-34D-2.54R ·HIF3MAW-40D-2.54R	1	2		16 to 40		1	2	·HIF3MAW-16PA-2.54DS(A) ·HIF3MAW-20PA-2.54DS(A) ·HIF3MAW-26PA-2.54DS(A) ·HIF3MAW-30PA-2.54DS(A) ·HIF3MAW-34PA-2.54DS(A) ·HIF3MAW-40PA-2.54DS(A)
·HIF3MBW-50D-2.54R ·HIF3MBW-60D-2.54R ·HIF3MBW-64D-2.54R	1	2		50 to 64		1	2	·HIF3MBW-50PA-2.54DS(A) ·HIF3MBW-60PA-2.54DS(A) ·HIF3MBW-64PA-2.54DS(A)
·HIF3MAW-50D-2.54R ·HIF3MAW-60D-2.54R ·HIF3MAW-64D-2.54R	2	2				2	2	·HIF3MAW-50PA-2.54DS(A) ·HIF3MAW-60PA-2.54DS(A) ·HIF3MAW-64PA-2.54DS(A)

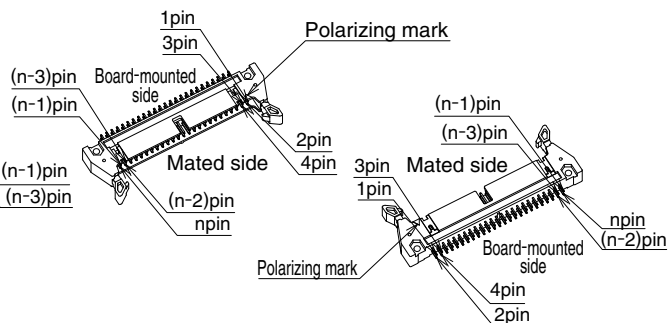
Pin configuration correlation diagram

When terminal Nos. are arranged as 1,2,3,4.....n beginning from the side of the polarizing mark, contact positions are as shown in the diagram below.

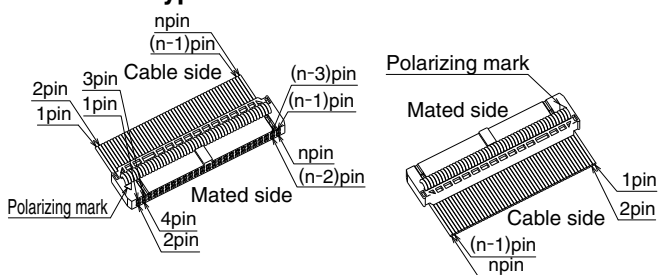
● Right angle dip solder



● Straight dip solder



● Socket type



Polarizing guide/slot : Mating combination

Compatible Mating Combinations

10 pos.

- ◆Socket
 - HIF3MAW-10D-2.54R



- ◆Pin header
 - HIF3MDW-10PA-2.54DS(A)
 - Number of polarizing guides 1 = Number of polarizing slots 1

50 to 64 pos.

- ◆Socket
 - HIF3MAW-**D-2.54R



- ◆Pin header
 - HIF3MAW-**PA-2.54DS(A)
 - Number of polarizing guides 2 = Number of polarizing slots 2

50 to 64 pos.

- ◆Socket
 - HIF3MBW-**D-2.54R



- ◆Pin header
 - HIF3MBW-**PA-2.54DS(A)
 - Number of polarizing guides 1 = Number of polarizing slots 1

Incompatible Mating Combinations

10 pos.

- ◆Socket
 - HIF3MAW-10D-2.54R



- ◆Pin header
 - HIF3MAW-10PA-2.54DS(A)
 - Number of polarizing guides 1 ≠ Number of polarizing slots 0

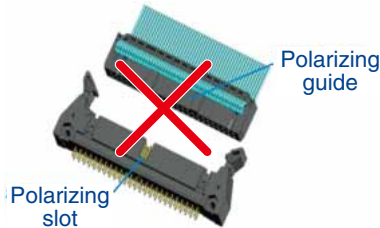


50 to 64 pos.

- ◆Socket
 - HIF3MAW-*D-2.54R



- ◆Pin header
 - HIF3MBW-*PA-2.54DS(A)
 - Number of polarizing guides 2 ≠ Number of polarizing slots 1

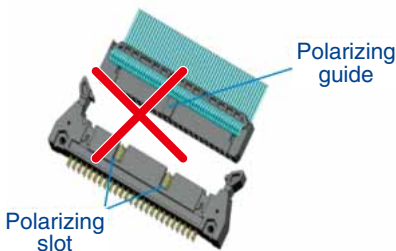


50 to 64 pos.

- ◆Socket
 - HIF3MBW-*D-2.54R



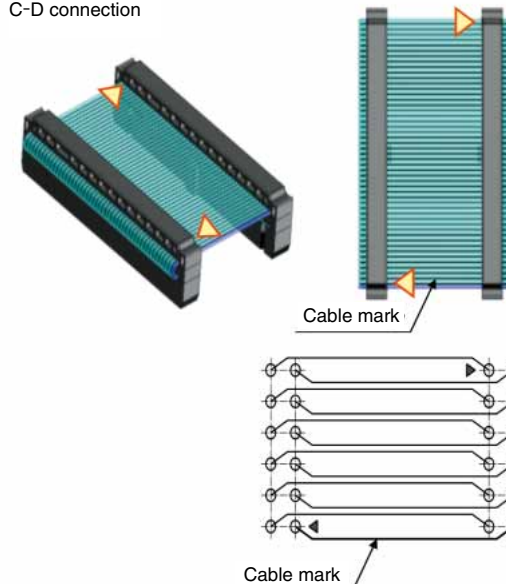
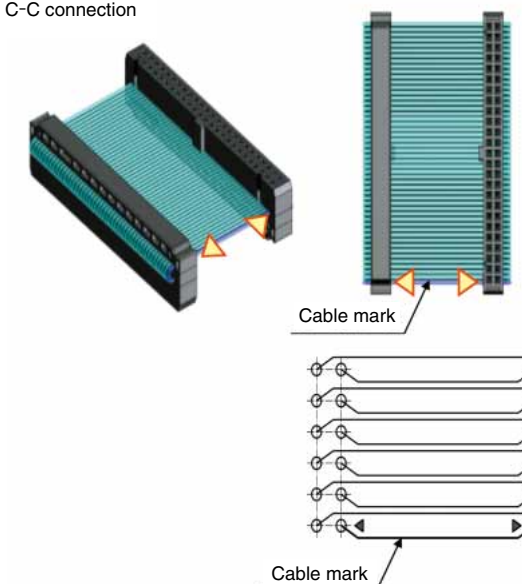
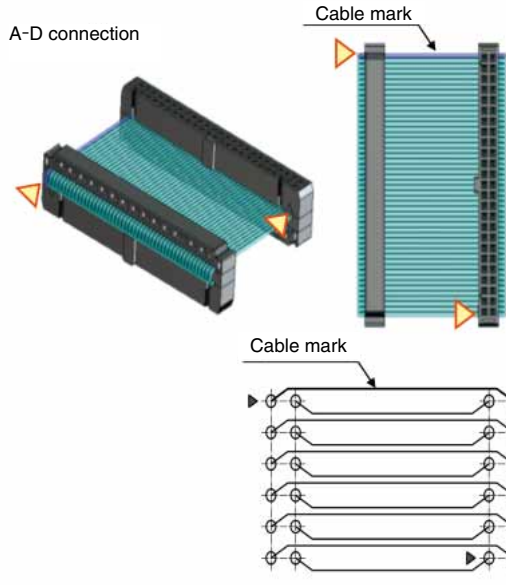
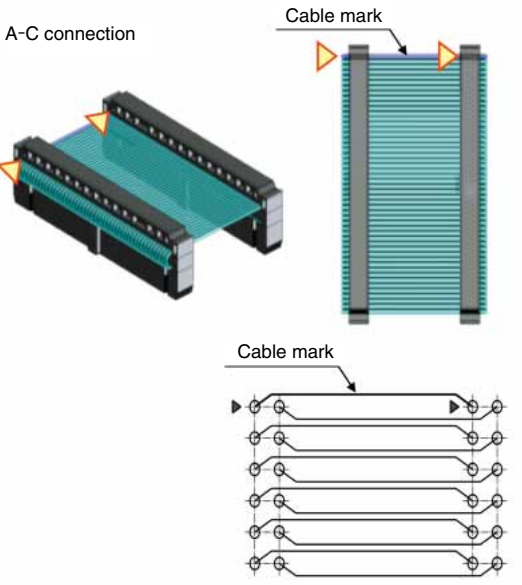
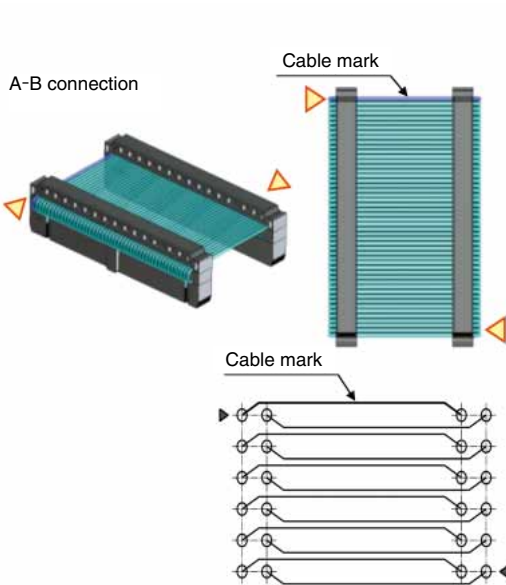
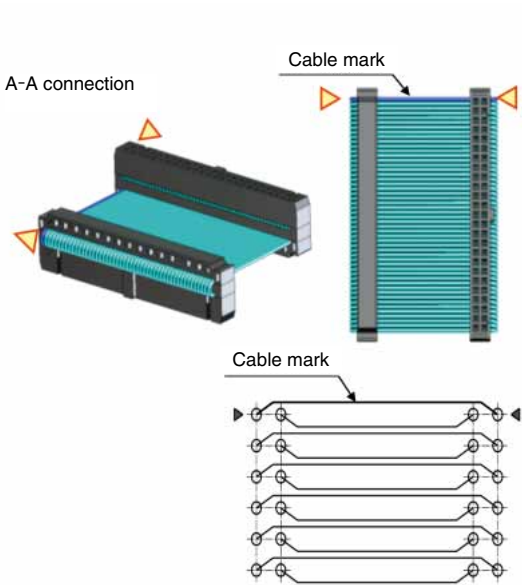
- ◆Pin header
 - HIF3MAW-*PA-2.54DS(A)
 - Number of polarizing guides 1 ≠ Number of polarizing slots 2



◆ HIF3M*W-**D-2.54R Connection circuit diagram

The following is the connection circuit diagram of cable-connected HIF3M*W-**D-2.54R.

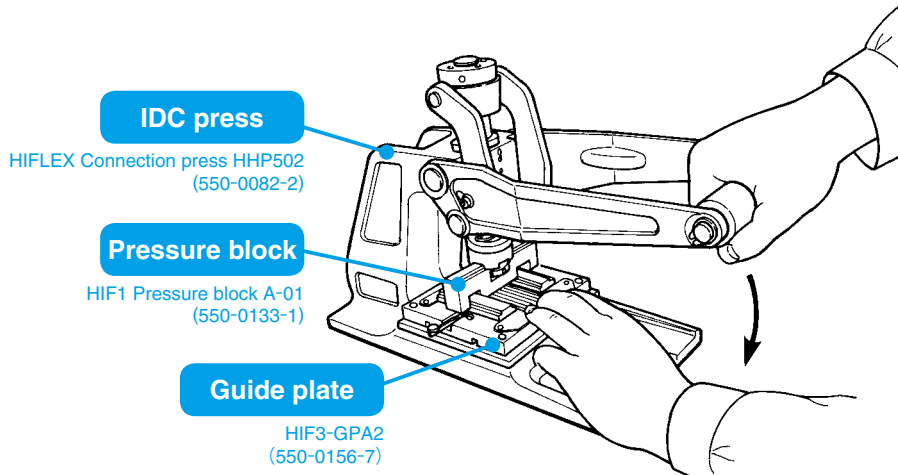
▷ ...Polarizing mark position



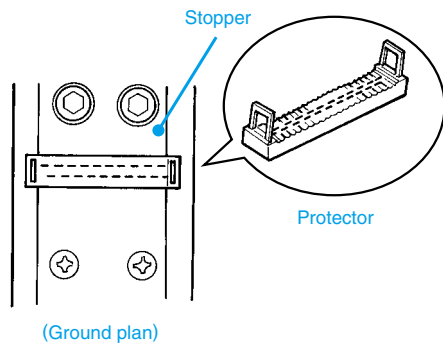
Aug.1.2018 Copyright 2018 HIROSE ELECTRIC CO., LTD. All Rights Reserved.

◆ How to assemble the socket side (IDC)

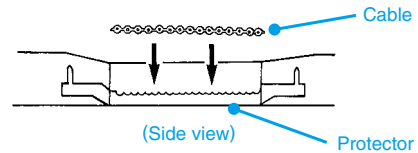
IDC press method : Dedicated tools as shown below are required for connection press of cables.



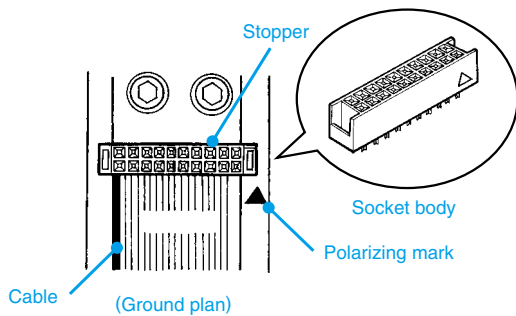
1. Place the protector on the guide plate.



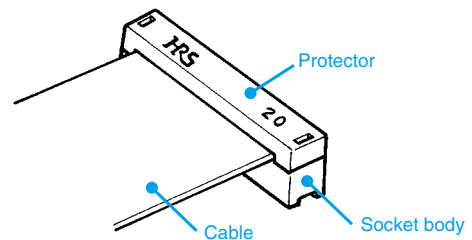
2. Place the cable on the top of the protector.



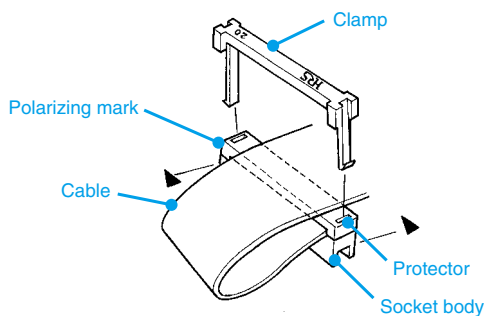
3. Place the socket body on the top of the cable.



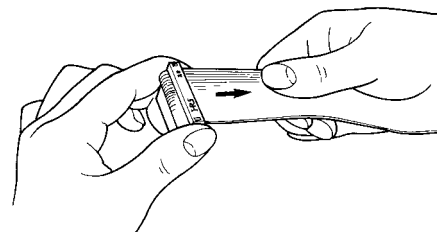
4. Depress the handle to terminate the socket body and the cable.



5. In order to enhance the connection reliability, fold back the cable and press down the clamp.



6. Pull the cable and eliminate deflection.



*For details on cable connection and applicable termination tools, see "HIF Series Ribbon Cable Connection Instruction Manual".
*HIF3M*W Series can be assembled by using the same tools with HIF Series.

USA:

HIROSE ELECTRIC (U.S.A.), INC. HEADQUARTERS CHICAGO OFFICE
2300 Warrenville Road, Suite 150,
Downers Grove, IL 60515
Phone : +1-630-282-6700
<http://www.hirose.com/us/>

USA:

HIROSE ELECTRIC (U.S.A.), INC. SAN JOSE OFFICE
2841 Junction Ave, Suite 200
San Jose, CA. 95134
Phone : +1-408-253-9640
Fax : +1-408-253-9641
<http://www.hirose.com/us/>

USA:

HIROSE ELECTRIC (U.S.A.), INC. DETROIT OFFICE (AUTOMOTIVE)
17197 N. Laurel Park Drive, Suite 253,
Livonia, MI 48152
Phone : +1-734-542-9963
Fax : +1-734-542-9964
<http://www.hirose.com/us/>

THE NETHERLANDS:

HIROSE ELECTRIC EUROPE B.V.
Hogehillweg #8 1101 CC Amsterdam Z-O
Phone : +31-20-6557460
Fax : +31-20-6557469
<http://www.hirose.com/eu/>

GERMANY:

HIROSE ELECTRIC EUROPE B.V. GERMAN BRANCH
Herzog-Carl-Strasse 4 D-73760 Ostfildern
(Scharnhauser Park)
Phone : +49-711-4560-02-1
Fax : +49-711-4560-02-299
<http://www.hirose.com/eu/>

GERMANY:

HIROSE ELECTRIC EUROPE B.V. NUREMBERG OFFICE
Neumeyerstrasse 22-26, 90411 Nurnberg
Phone : +49-911 32 68 89 63
Fax : +49-911 32 68 89 69
<http://www.hirose.com/eu/>

GERMANY:

HIROSE ELECTRIC EUROPE B.V. HANOVER OFFICE
Bayernstr. 3, Haus C 30855 Langenhagen, Germany
Phone : +49-511 97 82 61 30
Fax : +49-511 97 82 61 35
<http://www.hirose.com/eu/>

FRANCE:

HIROSE ELECTRIC EUROPE B.V. PARIS OFFICE
Regus La Garenne Colombes, Place de La Belgique,
71 Boulevard National La Garenne Colombes, 92250, France
Phone : +33 (0) 1 7082 3170
Fax : +33 (1) 7082 3101
<http://www.hirose.com/eu/>

UNITED KINGDOM:

HIROSE ELECTRIC EUROPE BV (UK BRANCH)
4 Newton Court, Kelvin Drive, Knowlhill,
Milton Keynes, MK5 8NH
Phone : +44-1908 202050
Fax : +44-1908 202058
<http://www.hirose.com/eu/>

CHINA:

HIROSE ELECTRIC (SHANGHAI) CO., LTD.
1601, Henderson Metropolitan, NO.300, East Nanjing
Road, Huangpu District, Shanghai, China 200001
Phone : +86-21-6391-3355
Fax : +86-21-6391-3335
<http://www.hirose.com/cn/>

CHINA:

HIROSE ELECTRIC (SHANGHAI) CO.,LTD. BEIJING BRANCH
A1001, Ocean International Center, Building 56# East 4th
Ring Middle Road, ChaoYang District, Beijing, 100025
Phone : +86-10-5165-9332
Fax : +86-10-5908-1381
<http://www.hirose.com/cn/>

CHINA:

HIROSE ELECTRIC TECHNOLOGIES (SHENZHEN) CO., LTD.
Room 09-13, 19/F, Office Tower Shun Hing Square, Di Wang Commercial Centre,
5002 Shen Nan Dong Road, Shenzhen City, Guangdong Province, 518008
Phone : +86-755-8207-0851
Fax : +86-755-8207-0873
<http://www.hirose.com/cn/>

HONG KONG:

HIROSE ELECTRIC HONGKONG TRADING CO., LTD.
Room 1001, West Wing, Tsim Sha Tsui Centre, 66
Mody Road, Tsim Sha Tsui East, Kowloon, Hong Kong
Phone : +852-2803-5338
Fax : +852-2591-6560
<http://www.hirose.com/hk/>

TAIWAN:

HIROSE ELECTRIC TAIWAN CO., LTD.
103 8F, No.87, Zhengzhou Rd., Taipei
Phone : +886-2-2555-7377
Fax : +886-2-2555-7350
<http://www.hirose.com/tw/>

KOREA:

HIROSE KOREA CO., LTD.
250, Huimanggongwon-ro, Siheung-si,
Gyeonggi-do, Korea, 429-849
Phone : +82-31-496-7000,7124
Fax : +82-31-496-7100
<http://www.hirose.co.kr/>

SINGAPORE:

HIROSE ELECTRIC SINGAPORE PTE. LTD.
10 Anson Road #26-16, International Plaza
079903, Singapore
Phone : +65-6324-6113
Fax : +65-6324-6123
<http://www.hirose.com/sg/>

INDIA:

HIROSE ELECTRIC SINGAPORE PTE. LTD. DELHI LIAISON OFFICE
Office NO.552, Regus-Green Boulevard, Level5, Tower C,
Sec62, Plot B-9A, Block B, Noida, 201301, Uttar Pradesh, India
Phone : +91-12-660-8018
Fax : +91-120-4804949
<http://www.hirose.com/sg/>

INDIA:

HIROSE ELECTRIC SINGAPORE PTE. LTD. BANGALORE LIAISON OFFICE
Unit No-403, 4th Floor, No-84, Barton Centre, Mahatma
Gandhi (MG) Road, Bangalore 560 001, Karnataka, India
Phone : +91-80-4120 1907
Fax : +91-80-4120 9908
<http://www.hirose.com/sg/>

MALAYSIA:

PENANG REPRESENTATIVE OFFICE
1-21-01, Suntech @ Penang Cybercity (1164), Lintang
Mayang Pasir 3,11950, Bayan Baru, Penang, Malaysia.
Phone : +604-619-2564
Fax : +604-619-2574
<http://www.hirose.com/sg/>

THAILAND:

BANGKOK OFFICE (REPRESENTATIVE OFFICE)
Unit 4703, 47th FL., 1 Empire Tower, South Sathorn
Road, Yannawa, Sathorn, Bangkok 10120 Thailand
Phone : +66-2-686-1255
Fax : +66-2-686-3433
<http://www.hirose.com/sg/>



HIROSE ELECTRIC CO.,LTD.

2-6-3,Nakagawa Chuoh,Tsuzuki-Ku,Yokohama-Shi 224-8540,JAPAN
TEL: +81-45-620-3526 Fax: +81-45-591-3726
<http://www.hirose.com>
<http://www.hirose-connectors.com>