

Attn.: _____

HIROSE ELECTRIC CO., LTD.
2-6-3 Nakagawa Chuoh, Tsuzuki-ku, Yokohama, JAPAN

Product Change Notification

We are writing today to inform you that we will make some changes as shown in the subject for the reason described below.
We will announce them in advance.

1	Products affected	JR-W series *Please refer to the attachment 1 for detailed product names.															
2	Replacement product	JR-W series *Please refer to the attachment 1 for detailed product names.															
3	Classification of change	Product specification change (Material & configuration).															
4	Changes	The main changes will be as follows. <table border="1"> <thead> <tr> <th></th><th>Before</th><th>After</th></tr> </thead> <tbody> <tr> <td>1. Insulation resin</td><td>Phenol resin</td><td>PPS</td></tr> </tbody> </table> In addition, the following changes will also be made. <table border="1"> <thead> <tr> <th></th><th>Before</th><th>After</th></tr> </thead> <tbody> <tr> <td>2. Rubber Material</td><td>NBR or SIR</td><td>SIR</td></tr> <tr> <td>3. Terminal shape</td><td>Without plating holes</td><td>With plating holes</td></tr> </tbody> </table> Please refer to attachment 2 for details. No change of product standards due to this change.		Before	After	1. Insulation resin	Phenol resin	PPS		Before	After	2. Rubber Material	NBR or SIR	SIR	3. Terminal shape	Without plating holes	With plating holes
	Before	After															
1. Insulation resin	Phenol resin	PPS															
	Before	After															
2. Rubber Material	NBR or SIR	SIR															
3. Terminal shape	Without plating holes	With plating holes															
5	Reason for change	1. Resin change of insulation For stable product supply. Phenol resin material supplier informed us to discontinuation. 2. Change of rubber material For material uniformity. 3. Change of terminal shape To improve plating performance.															
6	Date of final reception of orders for the current product	January 31, 2025															
7	Date of the first reception of orders for the replacement product	November 20, 2024															
8	Date of final shipment of the current product	July 31, 2025															
9	Regarding test data	This is performed on a representative product in TR0114E-20753.															
10	Date of your acknowledgement	By July 31, 2024															
11	Pricing of replacement products	We have made efforts to maintain the current pricing, however, due to the following reasons, it has become difficult to sustain. Therefore, we regret to inform you that there will be a price increase. • Increase in individual product prices and mold costs due to material changes • Increase in metal shell costs • Increase in plating costs • Increase in assembly costs For more information, please contact your sales representative.															

We kindly request that you inform Hirose business representative of your acknowledgement by the aforesaid date.

In the absence of a response by this date, please be advised that replacement product that described above will be delivered.

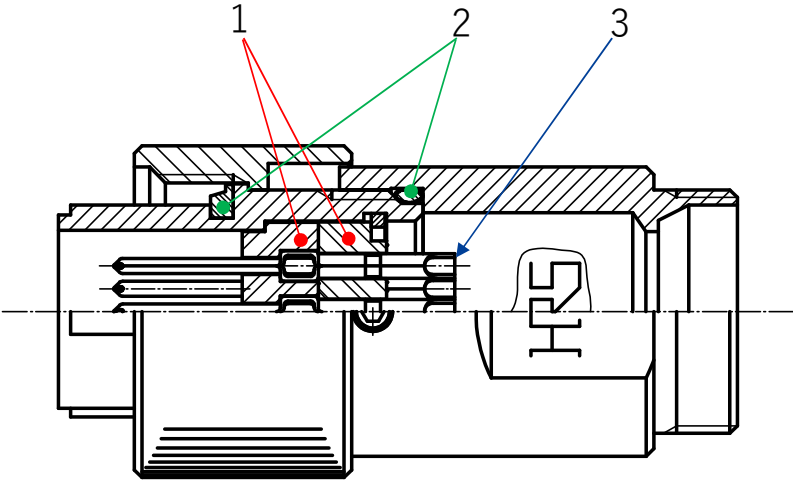
If you should have any questions, please feel free to contact a Hirose business representative. Your understanding and cooperation are highly appreciated.

■Product List PCN2023-19_JR-W Series Product Specification Change

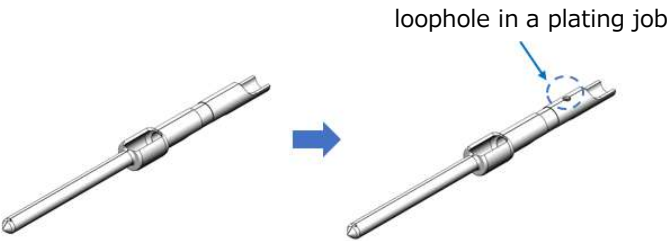
No.	Current product		Replacement product		Changes						
					Current product			Replacement product			
	Product Code	Product Name	Product Code	Product Name	Resin Material	Rubber Material	Terminal Configuration	Resin Material	Rubber Material	Terminal Configuration	
1	CL0114-2002-8-31	JR13WP-5P(31)	CL0114-0062-0-00	JR13WPH-5P	Phenolic resin	NBR	without holes	PPS	SIR	With Hole	
2	CL0114-2013-4-31	JR13WP-5S(31)	CL0114-0063-0-00	JR13WPH-5S		NBR					
3	CL0114-2024-0-31	JR13WR-5P(31)	CL0114-0066-0-00	JR13WRH-5P		NBR					
4	CL0114-2024-0-72	JR13WR-5P(72)				SIR					
5	CL0114-2035-7-31	JR13WR-5S(31)	CL0114-0067-0-00	JR13WRH-5S		NBR					
6	CL0114-2195-3-00	JR13WRF-5P	CL0114-0068-0-00	JR13WRFH-5P		SIR					
7	CL0114-2003-0-31	JR16WP-7P(31)	CL0114-0072-0-00	JR16WPH-7P		NBR					
8	CL0114-2014-7-31	JR16WP-7S(31)	CL0114-0073-0-00	JR16WPH-7S		NBR					
9	CL0114-2025-3-31	JR16WR-7P(31)	CL0114-0074-0-00	JR16WRH-7P		NBR					
10	CL0114-2036-0-31	JR16WR-7S(31)	CL0114-0075-0-00	JR16WRH-7S		NBR					
11	CL0114-2011-9-31	JR25WP-24P(31)	CL0114-0077-0-00	JR25WPH-24P		NBR					
12	CL0114-2011-9-32	JR25WP-24P(32)	CL0114-0077-0-01	JR25WPH-24P(01)		NBR					
13	CL0114-2022-5-31	JR25WP-24S(31)	CL0114-0078-0-00	JR25WPH-24S		NBR					
14	CL0114-2033-1-31	JR25WR-24P(31)	CL0114-0079-0-00	JR25WRH-24P		NBR					
15	CL0114-2033-1-72	JR25WR-24P(72)				SIR					
16	CL0114-2044-8-31	JR25WR-24S(31)	CL0114-0080-0-00	JR25WRH-24S		NBR					
17	CL0114-2044-8-32	JR25WR-24S(32)	CL0114-0080-0-01	JR25WRH-24S(01)		NBR					
18	CL0114-1055-9-31	JRC16WPQ-7S(31)	CL0114-0082-0-00	JRC16WPQH-7S		NBR					
19	CL0114-2143-0-31	JR16WRA-7P(31)	We have no plan to sell a replacement product. We're sorry to cause any inconvenience to you.		—			—			

Changes

We have been notified that the material manufacturer has stopped supplying the material, and to ensure a stable supply of the material, the phenol resin will be replaced with PPS. (1)
In addition, change the material of rubber (2) and the shape of terminals (3).



3. Terminal Shape Change Details



Changes	Before	After	Remarks
1. Resin Material	Phenolic resin	PPS	Terminal numbers and HRS marks have been changed from convex to concave to prevent crushing during assembly.
2. Rubber Material	NBR or SIR	SIR	
3. Terminal shape	No plating holes	With a hole in the plating	—

TR114E-20753

QUALITY EVALUATION TEST REPORT FOR MATERIAL
CHANGE(PPS REGIN) OF JR13W-5-CONTACTS

APPROVED	TP.KOMATSU
CHECKED	EJ.KUNII
CHARGED	SY.KONDO

[1] Objective:

To evaluate the performance and quality of JR13 series by material change.

[2] Specimens:

Change product

- | | | | |
|---------------|-----|------------|--------------------------------|
| 1. JR13WPH-5P | ... | Plug | (After Resin material changed) |
| 2. JR13WRH-5S | ... | Receptacle | (After Resin material changed) |

Current product

- | | | | |
|------------------|-----|------------|---------------------------------|
| 3. JR13WP-5P(31) | ... | Plug | (Before Resin material changed) |
| 4. JR13WR-5S(31) | ... | Receptacle | (Before Resin material changed) |

Material after change ... Polyphenylene sulfide

Material before change ... Phenol-formaldehyde

[3] Test period:

From: 2023-11-20

To: 2023-11-29

[4] Test temperature:

15 °C to 35 °C

[5] Test humidity:

85 % or less.

[6] Test conductor:

2-6-3 Nakagawa Chuoh, Tsuzuki-ku, Yokohama, Kanagawa-ken

Hirose Electric CO.,LTD. Circular Connector Engineering Section

Change product

[7] Test item, Number of specimens, Page No.

Test item No.	Test item/ (Applicable standard)	Group		Number of Specimens	Page No.
		A	B		
1	Appearance, Construction (IEC 60512-1-1 Test 1a)	○	○	8 sets	7
2	Contact resistance (IEC 60512-2-2 Test 2b)	○		4 sets	9
3	Insulation resistance (IEC 60512-3-1 Test 3a)	○		4 sets	10
4	Voltage proof	○		4 sets	11
5	Airtightness		○	4 sets	12
6	Rapid change of temperature	○	○	8 sets	13

Note 1) For [After test] in Test item No.6, Test item No. 2 to 5 are conducted.

Table for each test measurement item

Test item No.	Test item	(1)	(2)	(3)	(4)	(5)
6	Rapid change of temperature(Group A)	○	○	○	○	
	Rapid change of temperature(Group B)	○				○

Remarks: (1) Appearance, Construction
(2) Contact resistance
(3) Insulation resistance
(4) Voltage proof
(5) Airtightness

[8] Test results

See the page which describes each test item.

	Test item No.	Test item	Requirements	Test method	Test results
Initial measurement item	1	Appearance, Construction	No breakage, crack or looseness on the component.	Check visually with a magnifying glass for existence of breakage, crack or looseness on the component.	No breakage, crack or looseness on the component was found.
	2	Contact resistance	5 mΩ or less.	1 A d.c.	See the annex for variation graph and result data.
	3	Insulation resistance	1000 MΩ or more.	500 V d.c. Mated. ■ Between adjacent contacts ■ Between contact and shell ☐ Between row contacts	See the annex for result data.
	4	Voltage proof	No dielectric breakdown.	1000 V a.c. Breaking current: 2mA ■ Between adjacent contacts ■ Between contact and shell ☐ Between row contacts	No dielectric breakdown was found.
	5	Airtightness	No air bubbles emitted from the inside of the connector.	18 kPa of air pressure applied to the inside of the mated connector for 30s.	No air bubbles was found.
After test	6	Rapid change of temperature	Temperature -40 → R/T → +100 → R/T °C Time 30 → 2 to 3 → 30 → 2 to 3 min for 5 cycles.		
		Contact resistance	5 mΩ or less.	1 A d.c.	See the annex.
		Insulation resistance	1000 MΩ or more.	500 V d.c.	See the annex.
		Voltage proof	No breakdown.	1000 V a.c.	No dielectric breakdown was found.
		Airtightness	No air bubbles emitted from the inside of the connector.	18 kPa of air pressure applied to the inside of the mated connector for 30s.	No air bubbles was found.

Current product

[7] Test item, Number of specimens, Page No.

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5	Airtightness		○	4 sets	12
6	Rapid change of temperature	○	○	8 sets	13

Note 1) For [After test] in Test item No.6, Test item No. 1 to 4 are conducted.

Table for each test measurement item

Test item No.	Test item	(1)	(2)	(3)	(4)	(5)
6	Rapid change of temperature(Group A)	○	○	○	○	
	Rapid change of temperature(Group B)	○				○

Remarks: (1) Appearance, Construction
(2) Contact resistance
(3) Insulation resistance
(4) Voltage proof
(5) Airtightness

[8] Test results

See the page which describes each test item.

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	3	Insulation resistance	1000 MΩ or more.	500 V d.c. Mated. ■ Between adjacent contacts ■ Between contact and shell □ Between row contacts	See the annex for result data.
	4	Voltage proof	No dielectric breakdown.	1000 V a.c. Breaking current: 2mA ■ Between adjacent contacts ■ Between contact and shell □ Between row contacts	No dielectric breakdown was found.
	5	Airtightness	No air bubbles emitted from the inside of the connector.	18 kPa of air pressure applied to the inside of the mated connector for 30s.	No air bubbles was found.
After test	6	Rapid change of temperature	Temperature -40 → R/T → +100 → R/T °C Time 30 → 2 to 3 → 30 → 2 to 3 min for 5 cycles.		
		Contact resistance	5 mΩ or less.	1 A d.c.	See the annex.
		Insulation resistance	1000 MΩ or more.	500 V d.c.	See the annex.
		Voltage proof	No breakdown.	1000 V a.c.	No dielectric breakdown was found.
		Airtightness	No air bubbles emitted from the inside of the connector.	18 kPa of air pressure applied to the inside of the mated connector for 30s.	No air bubbles was found.

1. Appearance, Construction

- 1.1

Requirements

Appearance, Construction:

No breakage, crack or looseness on the component.
- 1.2

Test method

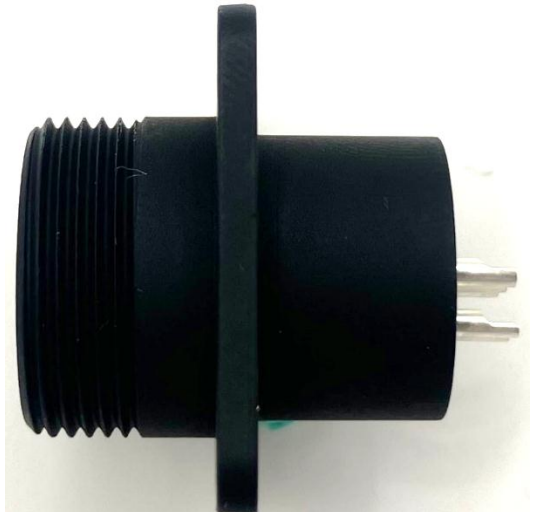
Appearance, Construction:

Check visually with a magnifying glass for existence of breakage, crack or looseness on the component.
- 1.3

Test results

No abnormalities.

【Current product】 plug・Top view	【Change product】 plug・Top view
【Current product】 plug・Side view	【Change product】 plug・Side view
【Current product】 plug・Bottom view	【Change product】 plug・Bottom view

【Current product】 Receptacle・Top view 	【Change product】 Receptacle・Top view 
【Current product】 Receptacle・Side view 	【Change product】 Receptacle・Side view 
【Current product】 Receptacle・Bottom view 	【Change product】 Receptacle・Bottom view 

2. Contact resistance

2.1 Requirements

5 mΩ or less.

2.2 Test method

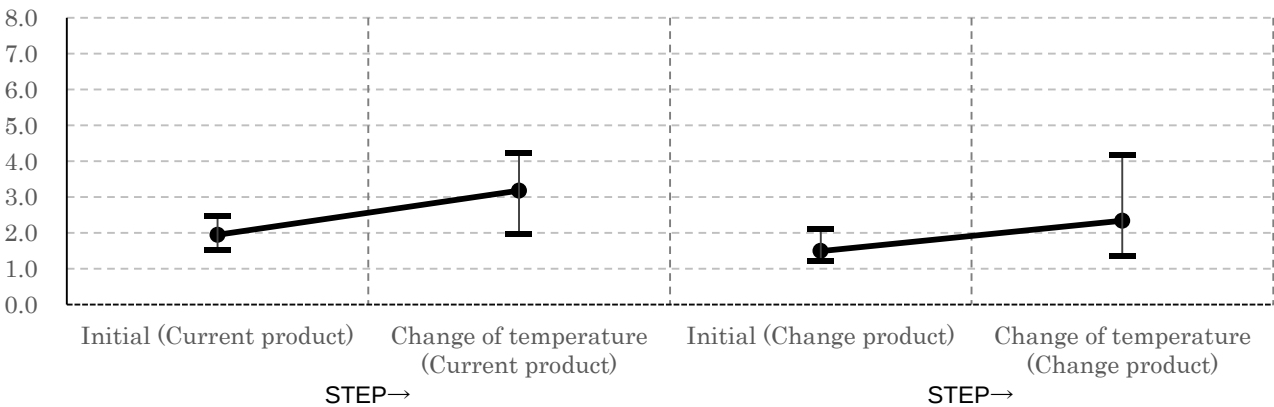
The measurement is conducted according to the conditions specified in the table below:

Open circuit voltage	6 V d.c. or less
Test current	1 A d.c.

2.3 Test equipment

Test equipment	Model	Manufacturer
Multimeter	7562	Yokogawa Test & Measurement Corporation

2.4 Test results



【Current product】

Unit: mΩ

	Initial	Change of temperature
MAX	2.48	4.23
MIN	1.54	1.98
AVE	1.95	3.18
σ_{n-1}	0.20	0.65

【Change product】

Unit: mΩ

	Initial	Change of temperature
MAX	2.11	4.18
MIN	1.22	1.35
AVE	1.50	2.34
σ_{n-1}	0.19	0.93

3. Insulation resistance

3.1 Requirements

1000 MΩ or more.

3.2 Test method

The measurement is conducted according to the conditions specified in the table below:

Test voltage	500 V d.c.
Duration	For 1 min ± 5 s. However, if the results are verified as the required value or more during the testing, the measurement can be terminated.

Measuring point: Between contacts, Between contact and shell.

Mated/Unmated: Mated.

3.3 Test equipment

Test equipment	Model	Manufacturer
Super Insulation meter	SM-10E	TOA Electronics

3.4 Test results

【Current product】

Between contacts

Unit: [$\times 10^4$ MΩ]

	Initial	Change of temperature
Max	20	20
Min	20	20

Between contact and shell

Unit: [$\times 10^4$ MΩ]

	Initial	Change of temperature
Max	20	20
Min	20	20

【Change product】

Between contacts

Unit: [$\times 10^4$ MΩ]

	Initial	Change of temperature
Max	20	20
Min	20	20

Between contact and shell

Unit: [$\times 10^4$ MΩ]

	Initial	Change of temperature
Max	20	20
Min	20	20

4. Voltage proof

4.1 Requirements

No dielectric breakdown.

4.2 Test method

Voltage proof is checked according to the conditions specified in the table below:

Test voltage	1000 V a.c.
Duration	For 1 min $\pm$ 5 s

Imposing method: Test voltage is raised in a rate of 500 V/s or less until it reaches to the value listed above.

Leak current: Judged flashover or dielectric breakdown at 2 mA.

Measuring point: Between contacts, Between contact and shell.

Mated/Unmated: Mated.

4.3 Test equipment

Test equipment	Model	Manufacturer
Voltage proof tester	TOS5101	Kikusui Electronics

4.4 Test results

【Current product】

Between contacts	No flashover or dielectric breakdown was found.
Between contact and shell	No flashover or dielectric breakdown was found.

【Change product】

Between contacts	No flashover or dielectric breakdown was found.
Between contact and shell	No flashover or dielectric breakdown was found.

5. Airtightness

5.1 Requirements

No air bubbles emitted from the inside of the connector.

5.2 Test method

18 kPa of air pressure applied to the inside of the mated connector for 30s.

5.3 Test results

No air bubbles was found in either the current product or the change product.

6. Rapid change of temperature

6.1 Requirements

Appearance, Construction:	No breakage, crack or looseness on the component.
Contact resistance:	5 mΩ or less.
Insulation resistance:	1000 MΩ or more.
Voltage proof:	No dielectric breakdown.
Airtightness:	No air bubbles emitted from the inside of the connector.

6.2 Test method

The test is conducted according to the conditions specified in the table below:

Step	1	2
Temperature (°C)	-40 ± 3	105 ± 2
Duration (min)	30	30

Note) Chamber transfer time is 2 min to 3 min.

Number of cycles:	5 cycles are conducted with the above condition as 1 cycle.
Mated/Unmated:	Mated.
Recovery:	After completion of the test, let the specimens rest in ambient temperature for 1 h to 2 h.

6.3 Test equipment

Test equipment	Model	Manufacturer
Compact Ultra Low Temperature Chamber	MC-712	Espec
High Temperature Chamber	PH-201	Espec

6.4 Test results

Appearance, Construction:

No breakage, crack or looseness on the component was found in either the current product or the change product.

Contact resistance:

Results are based on Test item No. 2.

Insulation resistance:

Results are based on Test item No. 3.

Voltage proof:

Results are based on Test item No. 4.

Airtightness:

Results are based on Test item No. 5.

Acknowledgement

(Customer → Hirose Electric business representative)

Product Change Notification
Request for Your Acknowledgement

We acknowledge the changes and schedule of this notification.

Customer's name: _____

Acknowledgement stamp (or signature): _____

HIROSE ELECTRIC CO., LTD.

(Cut on this line)

Document Receipt

(Customer → Hirose Electric business representative)

Product Change Notification
Request for Your Acknowledgement

We received the document concerning the above.

Customer's name: _____

Acknowledgment stamp (or signature): _____

HIROSE ELECTRIC CO., LTD.