

# CERTIFICATE OF COMPLIANCE

**Certificate Number** UL-US-L52653-12-52309102-11  
**Report Reference** E52653-20190325  
**Date** 29-Aug-2023

**Issued to:** HIROSE ELECTRIC CO., LTD.  
2-6-3 NAKAGAWA CHUOH  
TSUZUKI-KU  
YOKOHAMA-SHI, Kanagawa 224-8540  
Japan

**This is to certify that  
representative samples of**

ECBT2 - Connectors for Use in Data, Signal, Control and  
Power Applications - Component  
See Addendum Page for Product Designation(s).

Have been evaluated by UL in accordance with the  
component requirements in the Standard(s) indicated on  
this Certificate. UL Recognized components are incomplete  
in certain constructional features or restricted in  
performance capabilities and are intended for installation in  
complete equipment submitted for investigation to UL LLC.


**Standard(s) for Safety:** UL 1977, Edition 4, Issue Date 2022-12-07

**Additional Information:** See the UL Online Certifications Directory at  
<https://iq.ulprospector.com> for additional information

This Certificate of Compliance indicates that representative samples of the product described in the certification report have met the requirements for UL certification. It does not provide authorization to apply the UL Recognized Component Mark. Only the Authorization Page that references the Follow-Up Services Procedure for ongoing surveillance provides authorization to apply the UL Mark.

Only those products bearing the UL Recognized Component Mark should be considered as being UL Certified and covered under UL's Follow-Up Services.

Look for the UL Recognized Component Mark on the product.

  
Deborah Jennings-Conner, VP Regulatory Services

UL LLC



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This is to certify that representative samples of the product as specified on this certificate were tested according to the current UL requirements

Model	Category Description
<b>IX</b> , IX32G, , may be followed by -HR, -SM or -RW, followed by -A, -B or -C, followed by -8S, followed by -CV, -CVL1 or -CVL2, followed by (7.0), may be followed by (01) thru (99).	Plugs
<b>IX</b> , IX34G, , may be followed by -SM, followed by -B-10S-CV, followed by (7.0) or (4.2), may be followed by (01) thru (99).	Plugs
<b>IX</b> , IX40G, , may be followed by -HR, -SM or -RW, followed by -A or -B, followed by -10P-JC(7.0), may be followed by (01) thru (99).	In-Line Jack
<b>IX</b> , IX40G, IX30G or IX31G, , may be followed by -HR, -SM or -RW, followed by -A, -B or -C, followed by -10S, followed by -CV, -CVL1 or -CVL2, followed by (7.0), may be followed by (01) thru (99).	Plugs
<b>IX</b> , IX61G, IX60G, IX80G, IX80G2, , followed by -A or -B, followed by -10P, may be followed by (01) thru (99).	Receptacles
<b>IX</b> , IX61G2, , followed by -A, -B or -C, followed by -10P, may be followed by (01) thru (99).	Receptacles

*Deborah Jennings-Conner*

Deborah Jennings-Conner, VP Regulatory Services

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# CERTIFICATE OF COMPLIANCE

**Certificate Number** UL-CA-2000690-11  
**Report Reference** E52653-20190325  
**Date** 29-Aug-2023

**Issued to:** HIROSE ELECTRIC CO., LTD.  
2-6-3 NAKAGAWA CHUOH  
TSUZUKI-KU  
YOKOHAMA-SHI, Kanagawa 224-8540  
Japan

**This is to certify that  
representative samples of**

ECBT8 - Connectors for Use in Data, Signal, Control and  
Power Applications Certified for Canada - Component  
See Addendum Page for Product Designation(s).

Have been evaluated by UL in accordance with the  
component requirements in the Standard(s) indicated on  
this Certificate. UL Recognized components are incomplete  
in certain constructional features or restricted in  
performance capabilities and are intended for installation in  
complete equipment submitted for investigation to UL LLC.

**Standard(s) for Safety:** CSA C22.2 No. 182.3, 2nd Ed., Issue Date: 2016-07,  
Revision Date: 2021-5

**Additional Information:** See the UL Online Certifications Directory at  
<https://iq.ulprospector.com> for additional information

This Certificate of Compliance indicates that representative samples of the product described in the certification report have met the requirements for UL certification. It does not provide authorization to apply the UL Recognized Component Mark. Only the Authorization Page that references the Follow-Up Services Procedure for ongoing surveillance provides authorization to apply the UL Mark.

Only those products bearing the UL Recognized Component Mark should be considered as being UL Certified and covered under UL's Follow-Up Services.

Look for the UL Recognized Component Mark on the product.

  
Deborah Jennings-Conner, VP Regulatory Services  
UL LLC



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# CERTIFICATE OF COMPLIANCE

**Certificate Number** UL-CA-2000690-11  
**Report Reference** E52653-20190325  
**Date** 29-Aug-2023

This is to certify that representative samples of the product as specified on this certificate were tested according to the current UL requirements

Model	Category Description
<b>IX</b> , IX32G, , may be followed by -HR, -SM or -RW, followed by -A, -B or -C, followed by -8S, followed by -CV, -CVL1 or -CVL2, followed by (7.0), may be followed by (01) thru (99).	Plugs
<b>IX</b> , IX34G, , may be followed by -SM, followed by -B-10S-CV, followed by (7.0) or (4.2), may be followed by (01) thru (99).	Plugs
<b>IX</b> , IX40G, , may be followed by -HR, -SM or -RW, followed by -A or -B, followed by -10P-JC(7.0), may be followed by (01) thru (99).	In-Line Jack
<b>IX</b> , IX40G, IX30G or IX31G, , may be followed by -HR, -SM or -RW, followed by -A, -B or -C, followed by -10S, followed by -CV, -CVL1 or -CVL2, followed by (7.0), may be followed by (01) thru (99).	Plugs
<b>IX</b> , IX61G, IX60G, IX80G, IX80G2, , followed by -A or -B, followed by -10P, may be followed by (01) thru (99).	Receptacles
<b>IX</b> , IX61G2, , followed by -A, -B or -C, followed by -10P, may be followed by (01) thru (99).	Receptacles

  
Deborah Jennings-Conner, VP Regulatory Services

UL LLC



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Project 4788654396  
March 25, 2019

REPORT

on

COMPONENT - CONNECTORS FOR USE IN DATA, SIGNAL, CONTROL  
AND POWER APPLICATIONS

Hirose Electric Co Ltd  
Kanagawa Japan

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## DESCRIPTION

## PRODUCT COVERED:

USR, CNR Component Connector, Series IX:

\*

Receptacles, Cat. Nos. **IX61G, IX60G, IX80G or IX80G2**, followed by **-A or -B**, followed by **-10P**, may be followed by (01) thru (99).

**Receptacles, Cat. Nos. IX61G2, followed by -A, -B or -C, followed by -10P, may be followed by (01) thru (99).**

\*Plugs, Cat. Nos. **IX40G, IX30G or IX31G**, may be followed by **-HR, -SM or -RW**, followed by **-A, -B or -C**, followed by **-10S**, followed by **-CV, -CVL1 or -CVL2**, followed by (7.0), may be followed by (01) thru (99).

**In-Line Jack, Cat. Nos. IX40G, may be followed by -HR, -SM or -RW, followed by -A or -B, followed by -10P-JC(7.0), may be followed by (01) thru (99).**

Plugs, Cat. Nos. IX34G, may be followed by **-SM**, followed by **-B-10S-CV**, followed by (7.0) or (4.2), may be followed by (01) thru (99).

Plugs, Cat. Nos. IX32G, may be followed by **-HR, -SM or -RW**, followed by **-A, -B or -C**, followed by **-8S**, followed by **-CV, -CVL1 or -CVL2**, followed by (7.0), may be followed by (01) thru (99).

## GENERAL:

These devices are multi-pole connectors intended for factory assembly on copper wire sizes or printed wiring board, only as indicated in Ratings table below, where the acceptability of combinations is determined by UL LLC. The devices are identified as follows:

USR - Products designated USR have been investigated using US requirements as noted in the Test Record.

CNR - Products designated CNR have been investigated using Canadian requirements as noted in the Test Record.

## RATINGS:

Cat. Nos.	Voltage (Vac/Vdc)	Ampere (A)	Conductor Sizes, AWG (Str)
IX61G-A-10P(**), IX61G-B-10P(**) IX60G-A-10P(**), IX60G-B-10P(**) IX80G-A-10P(**), IX80G-B-10P(**) <b>IX80G2-A-10P(**), IX80G2-B-10P(**)</b> IX61G2-A-10P(**), IX61G2-B-10P(**), IX61G2-C-10P(**)	29	1.5	(+)
IX40G-A-10S-CV(7.0)(**), IX40G-B-10S-CV(7.0)(**) IX40G-C-10S-CV(7.0)(**), IX40G-A-10S-CVL1(7.0)(**), IX40G-A-10S-CVL2(7.0)(**), IX40G-B-10S-CVL1(7.0)(**), IX40G-B-10S-CVL2(7.0)(**), <b>IX40G-A-10P-JC(7.0)(**), IX40G-B-10P-JC(7.0)(**)</b>	29	1.0	22 - 28
IX30G-A-10S-CV(7.0)(**), IX30G-B-10S-CV(7.0)(**), IX30G-C-10S-CV(7.0)(**), IX30G-A-10S-CVL1(7.0)(**), IX30G-A-10S-CVL2(7.0)(**), IX30G-B-10S-CVL1(7.0)(**), IX30G-B-10S-CVL2(7.0)(**),	29	1.0	26 - 28
IX31G-A-10S-CV(7.0)(**), IX31G-B-10S-CV(7.0)(**), IX31G-C-10S-CV(7.0)(**), IX31G-A-10S-CVL1(7.0)(**), IX31G-A-10S-CVL2(7.0)(**), IX31G-B-10S-CVL1(7.0)(**), IX31G-B-10S-CVL2(7.0)(**),	29	1.5	24 - 25
IX32G-A-8S-CV(7.0)(**), IX32G-B-8S-CV(7.0)(**), IX32G-C-8S-CV(7.0)(**), IX32G-A-8S-CVL1(7.0)(**), IX32G-A-8S-CVL2(7.0)(**), IX32G-B-8S-CVL1(7.0)(**), IX32G-B-8S-CVL2(7.0)(**),	29	1.5	22
IX34G-SMB-10S-CV(7.0)(**), IX34G-SMB-10S-CV(4.2)(**)	29	1.5	24
(+) Mounted on printed wiring boards.			

## NOMENCLATURE:

The Series IX, Receptacle are designated as follows:

Example:

IX	61	G	-A	-10	P	(**)
I	II	III	IV	V	VI	VII

I: - Series Name: IX

II: - Mounting Angle Style

61: Vertical right angle

60: Horizontal right angle

80: Vertical

III: - G: Correspond to Gigabit Ethernet

G2: Correspond to Gigabit Ethernet and PoE

IV: - Mating Key Style

-A: A key

-B: B key

-C: C key

V: - Number of Poles

-10: 10 poles

VI: - Contact Style

P: Male contact

VII: - Customer Specifications

(01) to (99) or blank: Indicating packing differences or plating variations **(Contact area: Au plating or Au & Pd plating)**.



## NOMENCLATURE: (CONT'D)

The Series IX, Plug are designated as follows:

<u>IX</u>	<u>40</u>	<u>G</u>	<u>-HR</u>	<u>A</u>	<u>-10</u>	<u>S</u>	<u>-CV</u>	<u>(7.0)</u>	<u>(**)</u>
I	II	III	IV	V	VI	VII	VIII	IX	X

I: - Series Name: IX

II: - Terminal Style

- 40: Soldering
- 30: IDC type, guide parts attached for 26 to 28 AWG
- 31: IDC type, guide parts attached for 24 AWG to 25 AWG
- 32: IDC type, guide parts attached for 22 AWG
- 34: IDC type, guide parts built-in for 24 AWG

III: - G: Correspond to Gigabit Ethernet

IV: - Cover Case Logo Style

- Blank: HRS logo
- HR: HATING logo
- SM: SEIMENS logo
- RW: Rockwell logo

IV: - Mating Key Style

- A: A key
- B: B key
- C: C key

VI: - Number of Poles

- 8: 8 poles
- 10: 10 poles

VII: - Contact Style

- S: Female contact
- P: Male contact**

VIII: - Cable Outlet Direction

- CV: Straight.
- CVL1: Right angle downward cabling
- CVL2: Right angle upward cabling
- JC: In-line jack**

IX: - Applicable Cable Diameter

- (7.0): Sheath outside diameter 7.0 mm.
- (4.2): Sheath outside diameter 4.2 mm.

X: - Customer Specifications

- (01) to (99) or blank: Indicating packing differences or plating variations (Contact area: Au plating or Au & Pd plating).