

CERTIFICATE OF COMPLIANCE

Certificate Number 20190302-E52653
Report Reference E52653-20050825
Issue Date 2019-MARCH-02

Issued to: HIROSE ELECTRIC CO., LTD
5-23 OSAKI 5-CHOME
SHINAGAWA-KU
TOKYO 141-8587 JAPAN

This certificate confirms that representative samples of COMPONENT - CONNECTORS FOR USE IN DATA, SIGNAL, CONTROL AND POWER APPLICATIONS
See Addendum for Models

Have been investigated 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 Component Connector for Use in Data, Signal, Control and Power Applications

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

This *Certificate of Compliance* does not provide authorization to apply the UL Recognized Component Mark. Only the UL Follow-Up Services Procedure 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.



Bruce Mahrenholz, Director North American Certification Program
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.

Models/Product:

USR - Component Connector, Cat. Nos. LF07BP-3P(zz), LF07BP-3S(zz), LF07BR-3P(zz), LF07BR-3S(zz), LF07BJ-3P(zz), LF07BJ-3S(zz), LF10BP-4P(zz), LF10BP-4S(zz), LF10BR-4P(zz), LF10BR-4S(zz), LF10BJ-4P(zz), LF10BJ-4S(zz), LF07WBP-3P(zz), LF07WBP-3S(zz), LF07WBR-3P(zz), LF07WBR-3S(zz), LF07WBJ-3P(zz), LF07WBJ-3S(zz), LF10WBP-4P(zz), LF10WBP-4S(zz), LF10WBPD-4P(zz), LF10WBPD 4S(zz), LF10WBR-4P(zz), LF10WBR-4S(zz), LF10WBJ-4P(zz), LF10WBJ 4S(zz), LF10WBRB-4P(zz), LF10WBRB-4S(zz), where zz can be any number 01 to 99.



Bruce Mahrenholz, Director North American Certification Program

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Project 05SC04422

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REPORT

on

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

Hirose Electric Co., Ltd.
Tokyo, Japan

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DESCRIPTION

PRODUCT COVERED:

USR - Component Connector, Cat. Nos. LF07BP-3P(zz), LF07BP-3S(zz), LF07BR-3P(zz), LF07BR-3S(zz), LF07BJ-3P(zz), LF07BJ-3S(zz), LF10BP-4P(zz), LF10BP-4S(zz), LF10BR-4P(zz), LF10BR-4S(zz), LF10BJ-4P(zz), LF10BJ-4S(zz), LF07WBP-3P(zz), LF07WBP-3S(zz), LF07WBR-3P(zz), LF07WBR-3S(zz), LF07WBJ-3P(zz), LF07WBJ-3S(zz), LF10WBP-4P(zz), LF10WBP-4S(zz), LF10WBR-4P(zz), LF10WBR-4S(zz), LF10WBJ-4P(zz), LF10WBJ-4S(zz), LF10WBRB-4P(zz), **LF10WBRB-4S(zz)**, where zz can be any number 01 to 99.

GENERAL:

These devices are multi-pole connectors intended for factory assembly on stranded copper conductors where the acceptability of combinations is determined by Underwriters Laboratories Inc. The devices are identified as follows:

USR indicates investigation to United States Standards, UL 1977, First Edition.

Ratings: LF07 series - 175 V ac/dc, 5 A
* LF10 series - **250** V ac/dc, 10 A

Nomenclature - The Series LF07 and LF10 are designated as follows:

Example: $\frac{LF}{1} \frac{XX}{2} \frac{X}{3} \frac{B}{4} \frac{X}{5} - \frac{X}{6} \frac{X}{7} \frac{(XX)}{8}$

- 1: Series Name - LF
- 2: Shell Size - XX = 07 or 10
- 3: Type - W or omitted.
- 4: Locking Type - B = bayonet lock
- 5: Connector Configuration - P = plug; R = receptacle; J = jack
- 6: Number of Contacts - 3 for LF07 and 4 for LF10
- 7: Contact Type - P = male contact, solder; S = female contact, solder
- 8: Customer Specifications - (01)-(99) or none, denoting packaging and color

Alternate Nomenclature:

Example: $\frac{LF}{1}$ $\frac{XX}{2}$ $\frac{X}{3}$ $\frac{B}{4}$ $\frac{X}{5}$ X 6 - $\frac{X}{7}$ $\frac{X}{8}$ $\frac{(XX)}{9}$

- 1: Series Name - LF
- 2: Shell Size - XX = 07 or 10
- 3: Type - W or omitted.
- 4: Locking Type - B = bayonet lock
- 5: Connector Configuration - P = plug; R = receptacle; J = jack
- 6: Modification of shell shape
- 7: Number of Contacts - 3 for LF07 and 4 for LF10
- 8: Contact Type - P = male contact, solder; S = female contact, solder
- 9: Customer Specifications - (01)-(99) or none, denoting packaging and color

ENGINEERING CONSIDERATIONS (NOT FOR UL REPRESENTATIVE USE):

Use - For use only in or with complete equipment where the acceptability of the combination is determined by Underwriters Laboratories Inc.

Conditions of Acceptability - In order to be judged acceptable as a component of electrical equipment, the following conditions should be met.

1. These devices have not been tested for interrupting the flow of current by connecting or disconnecting the mating connector. These devices should be used only where they will not interrupt the flow of current.

2. These devices have been subjected to the Temperature test with the rated currents and maximum temperature rise values tabulated below. The conductors terminated by the device and other associated components are to be reviewed in the end-use to determine whether the temperature rise from the connector exceeds their maximum operating temperature ratings.

Series	Current, A	Maximum Temperature Rise, °C
LF07	5	14
LF10	10	22

3. These devices may be used at potentials not exceeding 250 V based on the minimum 3/64 in. (1.2 mm) spacings required by UL 1977.
4. Dielectric-Voltage-Withstand testing has been conducted between adjacent poles at a potential of 1350 V.
5. The insulating materials used in these devices comply with the requirements of UL 1977.
6. Mold Stress Relief testing was conducted at a temperature of 140°C.
7. These devices employ terminals which are not suitable for field wiring.
8. The factory assembled contacts have been investigated for the following wire sizes.

Series	Wire Range, AWG
LF07	20
LF10	16

9. The placement of these devices within the equipment enclosure should be such that spacings between the live parts and the equipment are suitable for the particular application.
10. The water resistant properties of LF07 and LF10 series connectors have not been evaluated and should be considered in the end-use.
11. These devices have not been evaluated for Strain on the cable.